

Traffic Impact Analysis Report

**TMT Shopping Center Development
Southeast Corner of Visalia Parkway &
Mooney Boulevard**

Visalia, California

September 30, 2021



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EXECUTIVE SUMMARY

This report summarizes the results of the Traffic Impact Analysis (TIA) conducted for the proposed shopping center located at the southeast corner of Mooney Boulevard and Visalia Parkway in the City of Visalia, California. The study area is located near the southern City limits of Visalia along the Mooney Boulevard corridor.

The project proposes to develop approximately 215,000 square feet into a shopping center that will consist of fast food restaurants with or without drive-throughs, supermarkets, other retail, and a gas station with convenience market. The project will also construct various driveways with median breaks along Mooney Boulevard, Visalia Parkway, Midvalley Avenue, and the newly constructed Hall Street, which will be located east of the project site and provide an additional connection between Visalia Parkway and Midvalley Avenue. Construction would proceed in two phases, with the portion of the project site fronting Mooney Boulevard constructed first.

The purpose of the Traffic Impact Analysis is to evaluate the impacts on the transportation infrastructure due to the addition of the traffic from the proposed project. The report also includes evaluations and recommendations concerning project site access and on-site circulation for vehicles, bicycles, and pedestrians, and queuing analysis at the study intersections.

To evaluate the impacts on the transportation infrastructure due to the addition of traffic from the proposed project, 36 study intersection were evaluated during the weekday morning (a.m.) peak hour and evening (p.m.) peak hour under four study scenarios. The study intersections were evaluated under *No Project* and *Plus Project* scenarios for Existing, Five-Year Cumulative, 10-Year-Cumulative, and 20-Year Cumulative conditions. The Five-Year Cumulative plus Project scenario considers the impact of Phase I of construction, with all other Plus Project scenarios considering both Phase I and Phase II. For the purpose of this analysis, potential traffic operational effects from the proposed project are identified based on established operational thresholds for the City of Visalia and guidance published by the California Office of Planning and Research (OPR).

Project Trip Generation

For the purpose of this analysis, the project was divided into two construction phases:

- Phase I: development of the western quadrants of the project site, fronting Mooney Boulevard, consisting of the following uses:
 - 71,700 sq. ft. general retail
 - 15,100 sq. ft. fast food
 - 21,000 sq. ft. grocery store
 - 4,250 sq. ft. gas station with convenience market
- Phase II: development of the remainder of the project site, consisting of the following uses:
 - 95,400 sq. ft. general retail
 - 5,000 sq. ft. fast food

The project evaluated in this study represents a modification of an earlier version of the project originally submitted to the City. The project modifications essentially are responses to city comments on the original plan. TJKM concurred with the City comments and evaluated the modified project.

For Phase I, the proposed project is expected to generate approximately 10,850 trips, including 640 a.m. peak hour trips (343 in, 297 out) and 902 p.m. peak hour trips (452 inbound, 450 outbound). At full buildout, the project is expected to generate 14,343 daily trips, including 767 a.m. peak hour (410 inbound, 357 outbound) and 1,216 p.m. peak hour (606 inbound, 610 outbound).

Level of Service (LOS) Standards

The City standard of acceptable level of service for signalized and unsignalized intersections in the City of Visalia is LOS D.

Existing Conditions

Under this scenario, all of the study intersections operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour except for the following three intersections:

- Caldwell Avenue & Dans Street (intersection #5) is operating at LOS E in both the a.m. and p.m. peak hour
- Cameron Avenue & West Street (intersection #14) is operating at LOS F in the p.m. peak hour
- Avenue 272 & Mooney Boulevard (intersection #23) is operating at LOS F in the a.m. and p.m. peak hour

Existing plus Project Conditions

Under this scenario, all but six of the study intersections would continue to operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour. The following three intersections already operate at unacceptable level of service without the addition of project traffic.

- Caldwell Avenue & Dans Street (intersection #5) would continue to operate at LOS E during both peak hours, with a *significant increase* in average delay of 8.0 seconds in the a.m. and p.m. peak hours.
- Cameron Avenue & West Street (intersection #14) would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 45.6 seconds.
- Avenue 272 & Mooney Boulevard (intersection #23) would continue to operate at LOS F in the a.m. and p.m. peak hour, with *significant increases* in average delay of 49.0 seconds in the a.m. peak hour and 1,295.1 seconds in the p.m. peak hour.

The following three intersections would degrade from acceptable to unacceptable level of service with the addition of project traffic:

- Visalia Parkway & Dans Street (intersection #17) would degrade from LOS D to LOS F in the a.m. peak hour, a *significant degradation*.
- Visalia Parkway & County Center Drive (intersection #18) would degrade from LOS D to LOS F in the p.m. peak hour, a *significant degradation*.

- Visalia Parkway & Mooney Boulevard (intersection #20) would degrade from LOS D to LOS E in the p.m. peak hour, a *significant degradation*.

At the six intersections listed above, added project traffic would either degrade the level of service from an acceptable to unacceptable, or increase average delay by more than 5.0 seconds, constituting significant inconsistencies with the City of Visalia General Plan. Five of these intersections are currently stop-controlled, and the identified inconsistencies can be mitigated with signalization. At Visalia Parkway & Mooney Boulevard, mitigation would involve widening the eastbound, westbound, and northbound approaches. Based on the City of Visalia impact criteria, with mitigation the project is expected to be **consistent** with general plan requirements at all study intersections. Mitigation measures are described in detail in **Appendix M**.

Five-Year Cumulative Conditions

Under this scenario, all of the study intersections operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour, except for the following six intersections:

- Caldwell Avenue & Dans Street (intersection #5) would operate at LOS E in the a.m. peak hour and LOS F in the p.m. peak hour
- Cameron Avenue & West Street (intersection #14) would operate at LOS F in the p.m. peak hour
- Visalia Parkway & County Center Drive (intersection #18) would operate at LOS F in the p.m. peak hour.
- Visalia Parkway & Target Access. (intersection #19) would operate at LOS F in the a.m. and p.m. peak hours.
- Visalia Parkway & Mooney Boulevard (intersection #20) would operate at LOS F in the p.m. peak hour.
- Avenue 272 & Mooney Boulevard (intersection #23) is operating at LOS F in the a.m. and p.m. peak hours.

Five-Year Cumulative Plus Project Conditions

Under this scenario, all but eight of the study intersections would continue to operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour. The following six intersections already operate at unacceptable level of service in one or both peak hours, without the addition of project traffic.

- Caldwell Avenue & Dans Street (intersection #5) would degrade from LOS E to LOS F in the a.m. peak hour, with a *significant increase* in average delay of 8.0 seconds, and it would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 9.8 seconds in the p.m. peak hours.
- Cameron Avenue & West Street (intersection #14) would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 87.6 seconds.
- Visalia Parkway & County Center Drive (intersection #18) would degrade from LOS D to LOS E in the a.m. peak hour, a *significant degradation*, and it would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 148.1 seconds

- Visalia Parkway & Target Access. (intersection #19) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 82.0 seconds in the a.m. peak hour and 1,302.3 seconds in the p.m. peak hour.
- Visalia Parkway & Mooney Boulevard (intersection #20) would continue to operate at LOS F in the p.m. peak hour, with a *less-than-significant increase* in average delay of 2.8 seconds.
- Avenue 272 & Mooney Boulevard (intersection #23) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 149.8 seconds in the a.m. peak hour and 4,322.7 seconds in the p.m. peak hour.

The following two intersections would degrade from acceptable to unacceptable level of service with the addition of project traffic:

- Cameron Avenue & Stonebrook Street (intersection #13) would degrade from LOS D to LOS E in the a.m. and p.m. peak hours, a *significant degradation*.
- Visalia Parkway & Dans Street (intersection #17) would degrade from LOS D to LOS F the a.m. and p.m. peak hours, a *significant degradation*.

At seven of the eight intersections listed above, added project traffic would either degrade the level of service from an acceptable to unacceptable, or increase average delay by more than 5.0 seconds, constituting significant inconsistencies with the City of Visalia General Plan. The seven intersections with significant inconsistencies are currently stop-controlled, and the identified inconsistencies can be mitigated with signalization. Based on the City of Visalia impact criteria, with mitigation the project is expected to be **consistent** with general plan requirements at all study intersections. Mitigation measures are described in detail in **Appendix M**.

10-Year Cumulative Conditions

Under this scenario, all of the study intersections operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour, except for the following nine intersections:

- Sunnyside Avenue & Mooney Avenue (intersection #3) would operate at LOS E in the p.m. peak hour.
- Orchard Avenue & Mooney Avenue (intersection #4) would operate at LOS E in the p.m. peak hour.
- Caldwell Avenue & Dans Street (intersection #5) would operate at LOS F in the a.m. and p.m. peak hours.
- Caldwell Avenue & Mooney Boulevard (intersection #7) would operate at LOS F in the p.m. peak hour.
- Cameron Avenue & Mooney Boulevard (intersection #12) would operate at LOS E in the p.m. peak hour.
- Cameron Avenue & West Street (intersection #14) would operate at LOS F in the p.m. peak hour
- Visalia Parkway & County Center Drive (intersection #18) would operate at LOS E in the p.m. peak hour.
- Visalia Parkway & Target Access. (intersection #19) would operate at LOS F in the a.m. and p.m. peak hours.

- Avenue 272 & Mooney Boulevard (intersection #23) is operating at LOS F in the a.m. and p.m. peak hours.

10-Year Cumulative Plus Project Conditions

Under this scenario, all but 11 of the study intersections would continue to operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour. The following nine intersections already operate at unacceptable level of service in one or both peak hours, without the addition of project traffic.

- Sunnyside Avenue & Mooney Avenue (intersection #3) would degrade from LOS E to LOS F in the p.m. peak hour with a *significant increase* in average delay of 18.4 seconds.
- Orchard Avenue & Mooney Avenue (intersection #4) would continue to operate at LOS E in the p.m. peak hour, with a *significant increase* in average delay of 14.8 seconds.
- Caldwell Avenue & Dans Street (intersection #5) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 48.5 in the a.m. peak hour and 44.2 seconds in the p.m. peak hour.
- Caldwell Avenue & Mooney Boulevard (intersection #7) would continue to operate at LOS E in the p.m. peak hour, with a *decrease* in average delay of 0.4 seconds.
- Cameron Avenue & Mooney Boulevard (intersection #12) would continue to operate at LOS E in the p.m. peak hour, with a *decrease* in average delay of 3.6 seconds.
- Cameron Avenue & West Street (intersection #14) would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 58.8 seconds.
- Visalia Parkway & County Center Drive (intersection #18) would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 73.7 seconds
- Visalia Parkway & Target Access. (intersection #19) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 82.8 seconds in the a.m. peak hour and 1,659.2 seconds in the p.m. peak hour.
- Avenue 272 & Mooney Boulevard (intersection #23) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 111.2 seconds in the a.m. peak hour and 2,513.9 seconds in the p.m. peak hour.

The following two intersections would degrade from acceptable to unacceptable level of service with the addition of project traffic:

- Cameron Avenue & Stonebrook Street (intersection #13) would degrade from LOS D to LOS E in the a.m. peak hour and from LOS D to LOS F in the p.m. peak hour, both *significant degradations*.
- Visalia Parkway & Mooney Boulevard (intersection #20) would degrade from LOS D to LOS F in the p.m. peak hour, a *significant degradation*.

At nine of the 11 intersections listed above, added project traffic would either degrade the level of service from an acceptable to unacceptable level, or increase average delay by more than 5.0 seconds, constituting significant inconsistencies with the City of Visalia General Plan. Six of the intersections with significant inconsistencies are currently stop-controlled, and the identified inconsistencies can be mitigated with signalization. At the intersections of Sunnyside Avenue & Mooney Avenue (intersection #3) and Orchard Avenue & Mooney Avenue (intersection #4), optimizing the signal timing would provide adequate mitigation. At Visalia Parkway & Mooney Boulevard the same widening plan identified as a

mitigation measure for Existing plus Project Conditions would provide adequate mitigation for this scenario. Based on the City of Visalia impact criteria, with mitigation the project is expected to be **consistent** with general plan requirements at all study intersections. Mitigation measures are described in detail in **Appendix M**.

20-Year Cumulative Conditions

Under this scenario, all of the study intersections operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour, except for the following eight intersections:

- Orchard Avenue & Mooney Avenue (intersection #4) would operate at LOS E in the p.m. peak hour.
- Caldwell Avenue & Dans Street (intersection #5) would operate at LOS F in the a.m. and p.m. peak hours.
- Caldwell Avenue & Mooney Boulevard (intersection #7) would operate at LOS E in the p.m. peak hour.
- Cameron Avenue & Stonebrook Street (intersection #13) would operate at LOS F in the a.m. and p.m. peak hours.
- Cameron Avenue & West Street (intersection #14) would operate at LOS F in the p.m. peak hour
- Visalia Parkway & County Center Drive (intersection #18) would operate at LOS E in the p.m. peak hour.
- Visalia Parkway & Target Access. (intersection #19) would operate at LOS E in the a.m. peak hour and LOS F in the p.m. peak hour.
- Avenue 272 & Mooney Boulevard (intersection #23) is operating at LOS F in the a.m. and p.m. peak hours.

20-Year Cumulative Plus Project Conditions

Under this scenario, all but 12 of the study intersections would continue to operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour. The following eight intersections already operate at unacceptable level of service in one or both peak hours, without the addition of project traffic.

- Orchard Avenue & Mooney Avenue (intersection #4) would degrade from LOS E to LOS F in the p.m. peak hour, with a *significant increase* in average delay of 12.0 seconds.
- Caldwell Avenue & Dans Street (intersection #5) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 156.0 in the a.m. peak hour and 546.7 seconds in the p.m. peak hour.
- Caldwell Avenue & Mooney Boulevard (intersection #7) would continue to operate at LOS E in the p.m. peak hour, with a *decrease* in average delay of 0.6 seconds.
- Cameron Avenue & Stonebrook Street (intersection #13) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 117.1 in the a.m. peak hour and 702.5 seconds in the p.m. peak hour.
- Cameron Avenue & West Street (intersection #14) would degrade from LOS D to LOS F in the a.m. peak hour, and it would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 81.8 seconds.

- Visalia Parkway & County Center Drive (intersection #18) would degrade from LOS D to LOS E in the a.m. peak hour, and it would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 73.7 seconds
- Visalia Parkway & Target Access. (intersection #19) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 33.7 seconds in the a.m. peak hour and 578.7 seconds in the p.m. peak hour.
- Avenue 272 & Mooney Boulevard (intersection #23) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 111.2 seconds in the a.m. peak hour and an undefined number of seconds in the p.m. peak hour.

The following four intersections would degrade from acceptable to unacceptable level of service with the addition of project traffic:

- Sunnyside Avenue & Mooney Avenue (intersection #3) would degrade from LOS D to LOS E in the p.m. peak hour, a *significant degradation*.
- Visalia Parkway & Mooney Boulevard (intersection #20) would degrade from LOS D to LOS F in the p.m. peak hour, a *significant degradation*.
- Visalia Pkwy. & Stonebrook St. (intersection #21) would degrade from LOS D to LOS F, a *significant degradation*.
- Visalia Parkway & Costco Driveway (intersection #29) would degrade from LOS D to LOS E, a *significant degradation*.

At 11 of the 12 intersections listed above, added project traffic would either degrade the level of service from an acceptable to unacceptable level, or increase average delay by more than 5.0 seconds, constituting significant inconsistencies with the City of Visalia General Plan. Seven of the intersections with significant inconsistencies are currently stop-controlled, and at six of them the identified inconsistencies can be mitigated with signalization. At the intersections of Sunnyside Avenue & Mooney Avenue (intersection #3) and Orchard Avenue & Mooney Avenue (intersection #4), optimizing the signal timing would provide adequate mitigation. At Visalia Parkway & Mooney Boulevard (intersection #20), the same widening plan identified as a mitigation measure for Existing plus Project Conditions would provide adequate mitigation for this scenario. At the Costco Driveway on Visalia Parkway (intersection #29), it should be noted that the excessive delay in the p.m. peak hour occurs on the very low-volume southbound left turn movement, with right turning vehicles experiencing only 12.1 seconds of average delay (LOS B) at that time. This delay can be mitigated by providing a refuge lane in the median to permit two-stage left turns for exiting vehicles. Based on the City of Visalia impact criteria, with mitigation the project is expected to be **consistent** with general plan requirements at all study intersections. Mitigation measures are described in detail in **Appendix M**.

Queueing Analysis

The proposed project increases the queues at the turning pockets at some of the study intersections, resulting in deficient storage. The following intersections would experience new queue overflows under one or more Plus Project scenarios:

- Caldwell Avenue & Mooney Boulevard (intersection #7): 10-Year Cumulative plus Project, 20-Year Cumulative plus Project
- Cameron Avenue & County Center Drive (intersection #11): 20-Year Cumulative plus Project
- Cameron Avenue & Stonebrook Street (intersection #13): 20-Year Cumulative plus Project
- Visalia Parkway & County Center Drive (intersection #18): 5-Year Cumulative plus Project
- Visalia Parkway & Mooney Boulevard (intersection #20): Existing plus Project, 5-Year Cumulative plus Project, 10-Year Cumulative plus Project

All identified queue overflows can be mitigated with signalization, signal retiming, and/or increasing storage length at the overflowing turn lanes. With mitigation, the project is expected to have a **less-than-significant impact** on intersection queuing operations. Mitigation measures are described in detail in **Appendix M**.

VMT Impacts

The proposed project was evaluated based on guidance from the Governor’s Office of Planning and Research (OPR) and implementation guidelines and thresholds adopted by the City of Visalia in March 2021.

The proposed project would include one anchor store of 20,473 sq. ft. and multiple others up to 15,500 sq. ft., with the total development providing approximately 215,000 sq. ft. of primarily retail and restaurant space. The project does not meet any screening criteria in the City’s VMT guidelines.

TJKM used the TCAG travel demand model to determine total VMT within Tulare County in 2020 and 2042 without the project (no build), and 2042 with full build-out of the project. For the purposes of the travel demand model analysis, a project size of 212,450 sq. ft. was analyzed. In 2042, the project is expected to result in an additional 11,224 net VMT, compared to 2042 no-build conditions. Due to the expected project phasing, with full build-out assumed to be at least five years in the future, the project-related net change in total VMT was evaluated for 2042 conditions. In 2042, the project is expected to result in an additional 11,224 net VMT, compared to 2042 no-build conditions. From 2020 no-build and 2042 build-out conditions, the project would contribute less than one percent to the total cumulative growth. Based on the significance threshold recommended by OPR and specified in the City of Visalia VMT guidelines, the project would have a *potentially significant impact* on regional VMT.

In order to mitigate the VMT impact associated with the project, TJKM considers a fair share contribution to a regional VMT reduction program to be the most appropriate mitigation measure for this project. As no regional VMT-specific mitigation programs exist, TJKM recommends that a multi-pronged approach be used to fully mitigate project-related VMT impacts, focusing on:

- Pay an impact fee with the building permit issuance of each parcel to the City, to be placed into a VMT mitigation bank to be created at a later date. If a VMT mitigation fee program is implemented by the City prior to building permits being issued and fees being paid, the project would pay those fees instead. Otherwise, the fees would be calculated as below, based on the market rate price for GHG equivalents and a time period to be negotiated by the City and project applicant in light of other mitigating factors.

- Take into account the mitigation fees paid to the San Joaquin Valley Air Pollution Control District, which are based in part on VMT generated by the project.
- Implement all feasible project-level mitigation measures that take advantage of the project's location along a high quality transit corridor to encourage use of transit and other non-automobile modes by both employees and customers. A variety of such improvements is detailed below. The project should incorporate as many of these improvements as possible.

The recommended one-time impact fee is based on the daily VMT impact, average GHG generation per mile, market rate of GHG equivalents, and a period of 10 years. For the proposed project, this results in a recommended fee of \$1,277/ksf. The time period of 10 years used in this calculation is identical to that used by the San Joaquin Valley Air Pollution Control District to assess impact fees for particulate emissions (PM10) generated by projects.

TJKM recommends that the applicant work with City of Visalia Staff to finalize the preferred non-automobile physical improvements and specific TDM elements that would be most appropriate for the proposed project and its location on a high quality transit corridor. . Although a specific target reduction is not required to mitigate the VMT impacts covered by the recommended fee discussed above, implementing any level of TDM program would further lower the amount of VMT generated by employees.

With these combined mitigation measures, the project would have **a less-than-significant impact** on regional VMT.

Site Access

The project would be accessed by a total of eight driveways. The proposed shopping center would include two main drive aisles connecting to the four streets that will border the project site. The main driveway on Visalia Parkway would be aligned with the existing driveway for the Packwood Creek shopping center on the north side of the street (intersection #27), and the main driveway on Mooney Boulevard would be aligned with the future Visalia Commons driveway (intersection #31). In addition to these primary access points, the project would include one secondary driveway on Visalia Parkway east of Mooney Boulevard (intersection #26) and two secondary driveways on Midvalley Avenue (intersections #32 and #34). As shown on the site plan, the four driveways on Visalia Parkway and Mooney Boulevard would prohibit outbound left turns, and inbound left turns would only be permitted at the two primary driveways (intersections #27 and #31). The remaining four driveways, located on Midvalley Avenue and Hall Street, would all permit full access. A prior version of the project, as analyzed in this report, also included a secondary driveway on Mooney Boulevard south of Visalia Parkway (intersection #30). That driveway has since been eliminated.

As shown on the project site plan, all proposed driveways would satisfy City of Visalia design requirements. The trees and buildings shown on the site plan are all located far enough away from driveway openings to not obstruct site lines. The proposed driveway locations, design, and sight distance are all **adequate**.

Deceleration Lanes

Since the speed limit along Mooney Boulevard is 45 mph, a deceleration lane would be warranted under City of Visalia requirements. Based on the site plan received, the project will be constructing a deceleration lane along Mooney Boulevard. However, the site plan does not indicate deceleration lanes along Visalia Parkway. Since the speed limit along Visalia Parkway is 40 mph, the project should construct deceleration lanes for the site access. According to *A Policy on Geometric Design of Highways and Streets, 7th Edition*, the desirable lane change and deceleration distance based on a 40 mph roadway is 265 feet.

On-Site Circulation

The project site plan includes two primary drive aisles, 40 feet wide, connected by a central roundabout. These drive aisles also connect to individual parking areas in the four quadrants of the project site. The positioning of buildings and vertical landscaping such as trees provide clear sight lines at all internal intersections. Visibility would also be adequate at drive through entrances and exits, dumpster locations, and pedestrian crosswalks.

Drive aisles in the parking areas are typically 30 feet wide, with two-way travel and perpendicular parking on both sides. Parking areas include adequate space to turn around in dead-end aisles and can accommodate trucks and emergency vehicles throughout. Trash enclosures are conveniently located for truck access. The site plan shows sidewalks provided on all project frontages and on both sides of the primary drive aisles, with marked crosswalks and pedestrian walkways on some, but not all, parcels. Although there are continuous, accessible pedestrian paths from all accessible parking spaces to the nearest buildings, there is inconsistent pedestrian connectivity to the project frontages, primary drive aisles, and between nearby buildings. No bike racks or long-term bike storage are shown on the site plan. In addition, the existing bus stop located on Mooney Boulevard north of Midvalley Avenue is not shown. Although the internal circulation on the project site would be **adequate**, TJKM recommends that it be revised to include consistent internal pedestrian connectivity, as well as the locations of bike racks and bus stops.

Pedestrian Impacts

Pedestrian access to the project site will be facilitated by new sidewalks on all frontages of the project site. The new sidewalks would connect to existing and proposed pedestrian facilities at the intersections of Visalia Parkway & Mooney Boulevard (intersection #20) and Mooney Boulevard & Midvalley Avenue (intersection #22). The proposed project does not conflict with existing and planned pedestrian facilities; therefore, the impact to pedestrian facilities is **less than significant**.

Bicycle Impacts

The proposed site plan shows bike lanes on both sides of Visalia Parkway or Mooney Boulevard. The project is does not conflict with existing and planned bicycle facilities; therefore, the impact to bicycle facilities is **less than significant**.

Transit Impacts

The project site is within a quarter mile of two Visalia Transit bus stops, located on the northeast corners of Visalia Parkway & Mooney Boulevard (intersection #20) and Mooney Boulevard & Midvalley Avenue

(intersection #22), which can connect users to local and regional locations. Impacts to transit service are expected to be ***less than significant***

On-Site Facility Improvement Opportunities for Alternate Modes

Shifting transportation modes away from automobiles and toward alternate modes is expected to reduce the project-related VMT increase . TJKM has identified improvements on the project site and frontages that would make the project more accessible and functional for alternate modes:

- Wherever feasible, provide pedestrian connections between sidewalks and buildings that provide a shorter path of travel than walking to the nearest driveway.
- Provide marked pedestrian crosswalks connecting buildings that are separated by parking areas.
- Provide adequate lighting for sidewalks and internal walkways, particularly at major conflict points with vehicles.
- Provide benches and trash cans throughout the project site.
- Provide bike racks near building entrances.
- Provide bike lockers or other long-term bike storage facilities for shopping center employees.
- At the existing bus stop on Mooney Boulevard north of Midvalley Avenue, reconstruct the stop to provide a bus shelter, trash can, and adequate lighting.

Phasing of Frontage Improvements

In conjunction with phased site development, the project would also construct improvements along the project frontages. These consist the following, to be included as part of Phase 1:

- Visalia Parkway: full and ultimate improvements from the median break to the west. A transition taper will extend to the existing roadway to the east.
- Mooney Boulevard: full and ultimate improvements.
- Midvalley Avenue: half-street improvements from Mooney Boulevard to the main north-south driveway, with no taper to the east.

TJKM considers this proposed phasing to be adequate

Funding of Mitigation Measures

Table ES-1 describes the mitigation measures that are needed in each project phase and scenario described in this report. Most of the mitigation measures consist of installing new traffic signals. Nearly all of the needed new signals become warranted as a result of traffic generated by various development projects around the City. The City of Visalia has adopted a traffic impact fee mitigation program to construct various highway and intersection improvements whose need has been triggered by traffic from new growth. Most of the planned improvements are street widening projects. In addition, the fee program includes new traffic signals at 50 unspecified locations. The need for traffic signals arise over time and it is not possible to predict in a 20-year program exactly where signals will be needed. This project shares in justifying new signals at several locations, just as contemplated in the fee program. Accordingly, it is appropriate to consider that payment of traffic fees for this project serves as a fair share contribution to the costs for installation of needed new signals.

Another impacts identified in this study are widening and signal modifications at the intersection of Mooney Boulevard and Visalia Parkway at the northwest corner of this project. The City of Visalia and the project sponsor are planning an improvement for that intersection. That project will effectively mitigate at this intersection.

As discussed above, VMT impacts would be mitigated through an impact fee to be assessed at the time building permits are issued, based on the square footage of the building permit being issued.

Table ES-1: Summary of Mitigation Measures

| Scenario | Category | Description ¹ |
|-----------------------------------|-------------------------------|---|
| Existing plus Project | Level of Service ² | Intersection signalization: ³ <ul style="list-style-type: none"> • #5: Caldwell Avenue/Dans Street • #14: Cameron Ave/West Street • #17: Visalia Parkway/Dans Street • #18: Visalia Parkway/County Center Drive⁴ • #23: Mooney Boulevard/Avenue 272⁵ Intersection widening: <ul style="list-style-type: none"> • #20: Visalia Parkway/Mooney Boulevard⁵ |
| | Intersection Queuing | Intersection widening: <ul style="list-style-type: none"> • #20: Visalia Parkway/Mooney Boulevard⁴ |
| Five-Year Cumulative plus Phase 1 | Level of Service ² | Intersection signalization: ³ <ul style="list-style-type: none"> • #5: Caldwell Avenue/Dans Street • #13: Cameron Avenue/Stonebrook Street • #14: Cameron Ave/West Street • #17: Visalia Parkway/Dans Street • #18: Visalia Parkway/County Center Drive • #19: Visalia Parkway/Main Site Access-Target Driveway • #23: Mooney Boulevard/Avenue 272⁵ Intersection widening: <ul style="list-style-type: none"> • #20: Visalia Parkway/Mooney Boulevard⁵ |
| | Intersection Queuing | Intersection signalization: ³ <ul style="list-style-type: none"> • #18: Visalia Parkway/County Center Drive Intersection widening: <ul style="list-style-type: none"> • #20: Visalia Parkway/Mooney Boulevard⁵ |
| 10-Year Cumulative plus Project | Level of Service ² | Intersection signalization: ⁶ <ul style="list-style-type: none"> • #3: Mooney Boulevard/Sunnyside Avenue⁵ • #4: Mooney Boulevard/Orchard Avenue⁵ • #5: Caldwell Avenue/Dans Street • #13: Cameron Avenue/Stonebrook Street • #14: Cameron Ave/West Street • #18: Visalia Parkway/County Center Drive • #19: Visalia Parkway/Main Site Access-Target Driveway • #23: Mooney Boulevard/Avenue 272⁵ Intersection widening: <ul style="list-style-type: none"> • #20: Visalia Parkway/Mooney Boulevard⁵ |
| | Intersection Queuing | Intersection retiming: <ul style="list-style-type: none"> • #7: Mooney Boulevard/Caldwell Avenue⁵ |

| Scenario | Category | Description ¹ |
|---------------------------------|-------------------------------|---|
| | | Intersection widening: <ul style="list-style-type: none"> #20: Visalia Parkway/Mooney Boulevard⁵ |
| 20-Year Cumulative plus Project | Level of Service ² | Intersection signalization: ⁶ <ul style="list-style-type: none"> #3: Mooney Boulevard/Sunnyside Avenue⁵ #4: Mooney Boulevard/Orchard Avenue⁵ #5: Caldwell Avenue/Dans Street #13: Cameron Avenue/Stonebrook Street (also lengthen turn lane) #14: Cameron Ave/West Street #18: Visalia Parkway/County Center Drive #19: Visalia Parkway/Main Site Access-Target Driveway #21: Visalia Parkway/Stonebrook Street #23: Mooney Boulevard/Avenue 272⁵ Intersection widening: <ul style="list-style-type: none"> #20: Visalia Parkway/Mooney Boulevard Median modification: <ul style="list-style-type: none"> #29: Visalia Parkway/Costco Driveway |
| | Intersection Queuing | Intersection retiming: <ul style="list-style-type: none"> #7: Mooney Boulevard/Caldwell Avenue⁵ #11: Cameron Avenue/County Center Drive Lengthen turn lane: <ul style="list-style-type: none"> #13: Cameron Avenue/Stonebrook Street (also signalize) Intersection widening: <ul style="list-style-type: none"> #20: Visalia Parkway/Mooney Boulevard⁵ |
| General | VMT | <ul style="list-style-type: none"> Pay an impact fee to the City, to be placed into a VMT mitigation bank to be created at a later date. If a VMT mitigation fee program is implemented by the City prior to building permits being issued and fees being paid, the project would pay those fees instead. Site and frontage improvements to improve access, circulation, and convenience of transit users, pedestrians, and bicycles. The project should incorporate as many of these improvements as possible. Implement a travel demand management (TDM) program for employees at the proposed shopping center. Specific programs may be evaluated at the time of site plan review for each phase of development. |

Note:

¹ Detailed mitigation measures are included in Appendix M.

² Level of service deficiencies constitute general plan inconsistencies and are not considered environmental impacts under CEQA.

³ Unless otherwise noted, peak hour signal warrant met during one or both peak hours under this analysis scenario, or 8-hour warrant met under Existing Conditions. A full signal warrant study should be conducted prior to installation of a traffic signal. If warrants are met, signal is eligible for funding via the Traffic Impact Fee (TIF) Program.

⁴ Intersection does not meet peak hour signal warrant under this analysis scenario, and does not meet 8-hour warrant under Existing Conditions.

⁵ Intersection modifications require Caltrans approval and coordination

⁶ A full signal warrant study should be conducted prior to installation of a traffic signal. If warrants are met, signal is eligible for funding via the Traffic Impact Fee (TIF) Program.

1.0 INTRODUCTION

This report summarizes the results of the Traffic Impact Analysis (TIA) for the proposed shopping center located at the southeast corner of Mooney Boulevard and Visalia Parkway in the City of Visalia, California.

1.1 PROJECT DESCRIPTION

The project proposes to develop approximately 215,000 square feet into a shopping center that will consist of fast food restaurants with or without drive-throughs, supermarkets, other retail, and a gas station with convenience market. The project will also construct various driveways with median breaks along Mooney Boulevard, Visalia Parkway, Midvalley Avenue, and the newly constructed Hall Street, which will be located east of the project site and provide an additional connection between Visalia Parkway and Midvalley Avenue.

The new development will be located across from the recently approved Visalia Commons shopping center, located on the southwest corner of Mooney Boulevard and Visalia Parkway.

The following section discusses the TIA Purpose, study intersections, and analysis scenarios.

1.2 PROJECT PURPOSE

The purpose of the Traffic Impact Analysis is to evaluate the impacts on the transportation infrastructure due to the addition of the traffic from the proposed project. The report also includes evaluations and recommendations concerning project site access and on-site circulation for vehicles, bicycles, and pedestrians, queuing analysis at the study intersections, and parking supply.

1.3 STUDY AREA

The study area is located near the southern City limits of Visalia along the Mooney Boulevard corridor. The impacts of the proposed project were evaluated for the intersections discussed below.

1.3.1 STUDY INTERSECTIONS

TJKM evaluated traffic conditions at 36 study intersections during the a.m. and p.m. peak hours for a typical weekday. The study intersections were selected in consultation with the City of Visalia staff. The peak periods were between 7-9 a.m. and 2-6 p.m. The study intersections and associated traffic controls are as follows:

1. Whitendale Ave. & Mooney Blvd. (Signal)*
2. Whitendale Ave. & Giddings St. (Signal)
3. Sunnyside Ave. & Mooney Ave. (Signal)*
4. Orchard Ave. & Mooney Ave.(Signal)*
5. Caldwell Ave. & Dans St. (Two-Way Stop)
6. Caldwell Ave. & Shady St. (Signal)
7. Caldwell Ave. & Mooney Blvd. (Signal)*
8. Caldwell Ave. & Fairway St. (Signal)
9. Caldwell Ave. & Stonebrook St. (Signal)
10. Caldwell Ave. & West St. (Signal)

11. Cameron Ave. & County Center Dr. (One-Way Stop)
12. Cameron Ave. & Mooney Blvd. (Signal)*
13. Cameron Ave. & Stonebrook St. (One-Way Stop)
14. Cameron Ave. & West St. (Two-Way Stop)
15. Cameron Ave. & Court St. (All-Way Stop)
16. Visalia Pkwy. & Demaree St. (Signal)
17. Visalia Pkwy. & Dans St. (Two-Way Stop)
18. Visalia Pkwy. & County Center Dr. (One-Way Stop)
19. Visalia Pkwy. & Target Access. (One-Way Stop)
20. Visalia Pkwy. & Mooney Blvd. (Signal)*
21. Visalia Pkwy. & Stonebrook St. (Uncontrolled)
22. Midvalley Ave. & Mooney Blvd. (Signal)*
23. Ave. 272 & Mooney Blvd. (Two-Way Stop)*
24. Ave. 271 & Rd. 122 (Uncontrolled)
25. Ave. 268 & Mooney Blvd (Signal)*
26. Visalia Pkwy. & North Access Dwy 1 (One-Way Stop)
27. Visalia Pkwy & Tuesday Morning Dwy. (One-Way Stop)
28. Visalia Pkwy. & Hall St. (One-Way Stop)
29. Visalia Pkwy. & Costco Dwy. (One-Way Stop)
30. Mooney Blvd. & Visalia Commons Dwy. 1 (One-Way Stop, when project is constructed)
31. Mooney Blvd. & Visalia Commons Dwy. 2 (One-Way Stop, when project is constructed)
32. Midvalley Ave. & South Access Dwy. 1 (One-Way Stop)
33. Midvalley Ave. & South Access Dwy. 2 (One-Way Stop)
34. Midvalley Ave. & South Access Dwy. 3 (One-Way Stop)
35. Midvalley Ave. & Hall St. (One-Way Stop)
36. Hall St. & East Access Dwy. 1 (One-Way Stop)

Note: *Intersection is owned and operated by Caltrans.

Figure 1 illustrates the study intersections and the vicinity map of the proposed project. **Figure 2** shows the proposed project site plan.

1.4 ANALYSIS SCENARIOS

For the purpose of this analysis, the project was divided into two construction phases:

- Phase I: development of the western quadrants of the project site, fronting Mooney Boulevard, consisting of the following uses:
 - 71,700 sq. ft. general retail
 - 15,100 sq. ft. fast food
 - 21,000 sq. ft. grocery store
 - 4,250 sq. ft. gas station with convenience market
- Phase II: development of the remainder of the project site, consisting of the following uses:
 - 95,400 sq. ft. general retail
 - 5,000 sq. ft. fast food

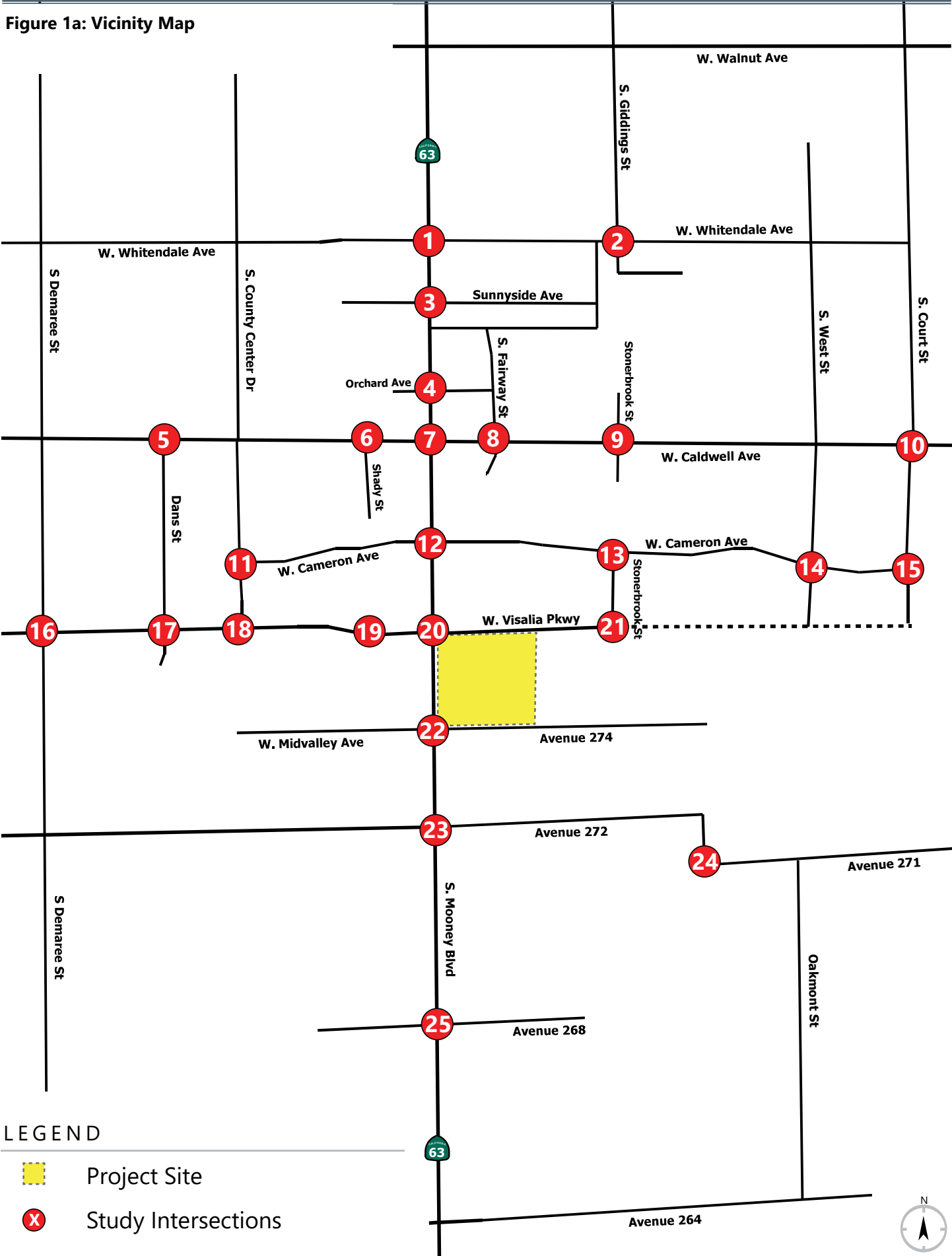
This study addresses the following eight traffic scenarios:

- Existing Conditions;

- Existing plus Project Phase I & Phase II Conditions;
- Five-Year Cumulative No-Project Conditions;
- Five-Year Cumulative plus Project Phase I Conditions;
- 10-Year Cumulative No-Project Conditions;
- 10-Year Cumulative plus Project Phase I & II Conditions;
- 20-Year Cumulative No-Project Conditions;
- 20-Year Cumulative plus Project Phase I & II Conditions.

Although the proposed project was analyzed with two driveways on Mooney Boulevard (intersections #30 and #31), the site plan has since been revised to close the driveway closer to Visalia Parkway (intersection #30). As delay at stop-controlled intersections is strongly influenced by the volume of cross traffic, the main driveway (intersection #31) was reanalyzed under the future scenario with the greatest traffic volumes. All project trips assigned to intersection #30 were reassigned to intersection #31, and level of service was recalculated for 20-Year Cumulative plus Project Phase I and II Conditions.

Figure 1a: Vicinity Map



LEGEND



-  Project Site
-  Study Intersections



Figure 1b: Vicinity Map (Project Driveways)

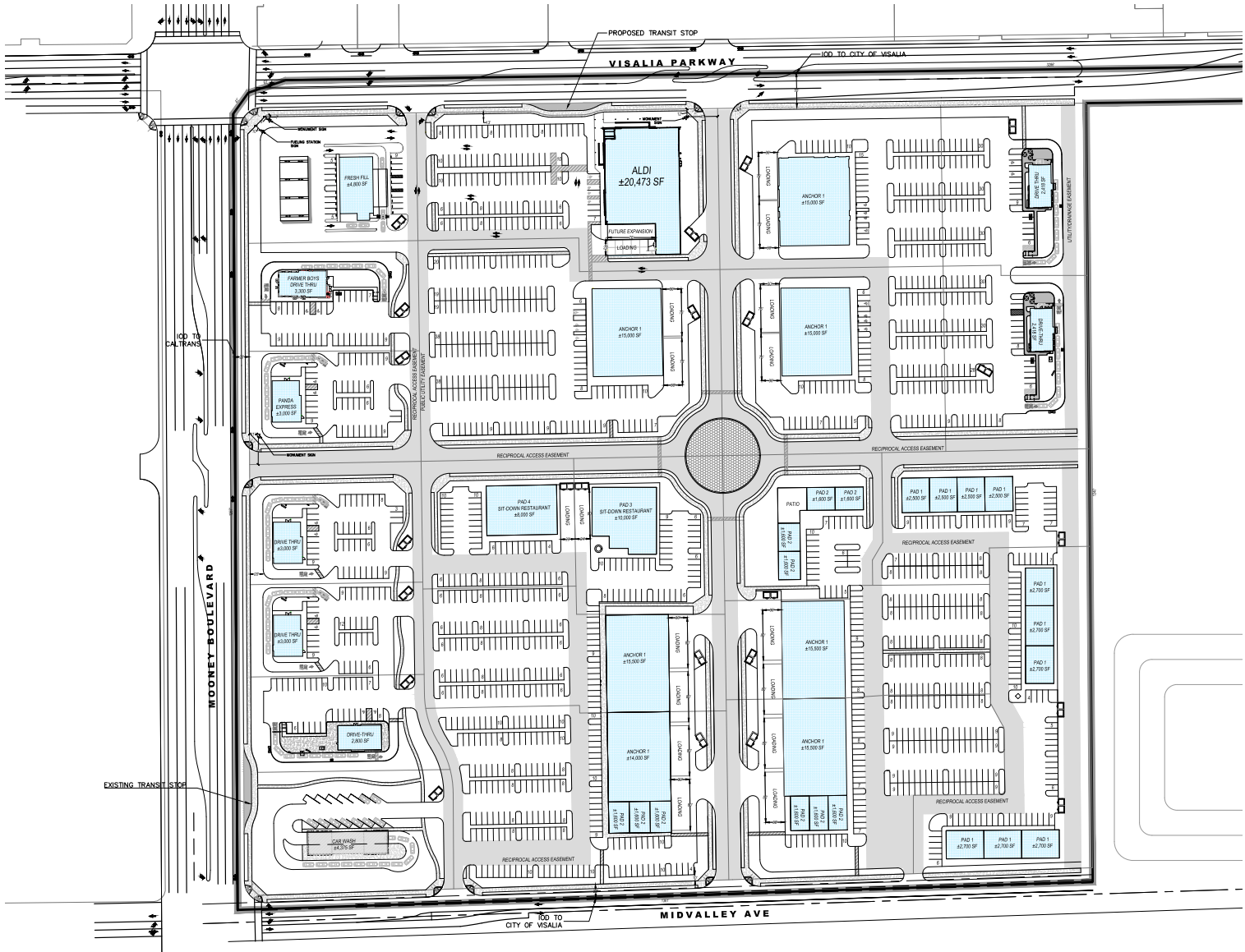


LEGEND

- Project Site Phase 1
- Project Site Phase 2
- Study Intersections



Figure 2: Site Plan



2.0 STUDY METHODOLOGY

Traffic impacts related to the proposed project were evaluated for both compliance with applicable regulatory documents and environmental significance as defined in the California Environmental Quality Act (CEQA). In accordance with the *Technical Advisory* published by the Governor's Office of Planning and Research (OPR), a qualitative and quantitative VMT analysis forms the basis of the CEQA analysis for the proposed project. As of July 1, 2020, intersection level of service (LOS) can no longer be used to determine significant impacts for the purpose CEQA.

2.1 VEHICLE MILES TRAVELED

This study includes a qualitative and quantitative analysis of VMT generated by the proposed uses. The qualitative analysis discusses the general characteristics of daily VMT generated by each applicable land use and how VMT characteristics of the project site would be changed with the proposed project. Because SB 743 is intended to encourage the development of communities that reduce vehicular GHG with land use patterns that site residences near the employment and commercial sites residents visit frequently, and because the VMTs of freight/delivery trips are not relevant to this purpose, those trips were not included in this VMT analysis.

For retail projects, the OPR *Technical Advisory* recommends that lead agencies analyze the change in total VMT within the study area, because retail projects typically re-route travel from other retail destinations. A project may increase or decrease total VMT, depending on previously existing retail travel patterns. When available, a travel demand model such as the Tulare County Association of Governments (TCAG) model is preferable for evaluating changes in VMT due to land use developments. As of March 2021, the City of Visalia has adopted *VMT Thresholds and Implementation Guidelines*, which are generally consistent with OPR guidance. For the purposes of this study, the screening guidelines and significance thresholds are contained in the City's guidelines are utilized and compared to OPR recommendations. If a project does not meet any screening criteria, the City guidelines specify use of the TCAG model to identify the appropriate project VMT metric. For retail projects, this is total VMT within Tulare County.

City of Visalia Screening Criteria

The adopted guidelines include the following screening criteria for identifying projects that can be presumed to have a less-than-significant impact:

- The project is within 0.5 mile of a Transit Priority Area or a High-Quality Transit Area unless the project is inconsistent with the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), has a floor area ratio (FAR) less than 0.75, provides an excessive amount of parking, or reduces the number of affordable residential units. The VMT guidelines provide a figure depicting the area within this 0.5 mile buffer, included in **Appendix A**.
- Locally serving retail projects up to 50,000 sq. ft.
- Low trip generator (fewer than 1,000 average daily trips if consistent with General Plan, 500 if inconsistent with General Plan)
- 100 percent affordable housing units
- Institutional/government and public service uses

- Projects located in low VMT zones (residential, office, and mixed use)

Significance Standards

The state of California provides lead agencies latitude in adopting standards of significance for evaluating VMT impacts associated with land use projects. As the City of Visalia adopted VMT standards recently, this study considers both the recommendations provided in the OPR Technical Advisory and the adopted thresholds contained in the City of Visalia guidelines. For retail projects not considered local-serving, the OPR recommendations and City of Visalia guidelines both provide the following threshold:

- A net increase in total VMT may indicate a significant transportation impact.

It should be noted that although the City of Visalia guidelines apply the above threshold to retail *projects* larger than 50,000 sq. ft., however, the OPR recommendations identify retail projects including *stores* larger than 50,000 sq. ft. as typically non-local/regional. In general, larger stores are more likely to attract customers more distant in the region. By considering the total project size rather than store size when identifying the travel characteristics of potential customers, this disparity results in far fewer retail projects being screened out of detailed VMT analysis. By contrast, the City's screening criteria substantially increase the threshold for considering a project a low trip generator, compared to the OPR recommendation of 110 average daily trips. This increase is based on the incremental impact of increased trips on greenhouse gas (GHG) emissions and its relationship to GHG significance factors and consistency with the regional transportation plan/sustainable community strategy (RTP/SCS). In general, the City's VMT guidelines establish that the primary purpose in limiting VMT is in limiting GHG emissions.

Mitigation Requirements

The City's guidelines discuss VMT mitigation strategies in general, and they quote section 15370 of the 2020 State CEQA Guidelines:

"Mitigation" includes:

- Avoiding the impact altogether by not taking a certain action or parts of an action.*
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.*
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.*
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.*
- Compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of such resources in the form of conservation easements.*

The guidelines also note the following:

Furthermore, it may be that identified VMT impacts cannot be mitigated at the project-specific level. Most VMT impacts are in the context of the region of analysis. The incremental change in VMT associated with a project in the particular setting in which it may be located would suggest a greater VMT deficit than individual strategies can offset. Only a regional solution (e.g., completion of a transit system, purchase of more transit buses, or gap closure of an entire bicycle master plan system) may offer the incremental change necessary to reduce the VMT impact to a level of insignificance. Also, VMT, as a proxy for GHG emissions, may not require locational specificity. A project does not necessarily need to diminish the VMT at the project site to gain benefit in VMT and

GHG reduction in the State. Offsets in an area where the benefit would be greater will have a more effective reduction in VMT and GHG and contribute to the State's ultimate climate goals. This is the basis for the cap-and-trade strategies.

2.2 LEVEL OF SERVICE ANALYSIS METHODOLOGY

Level of Service (LOS) is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers. The LOS generally describes these conditions in terms of such factors as speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience and safety. The operational LOS are given letter designations from A to F, with A representing the free-flow operating conditions and F representing the severely congested flow with high delays. Typically, LOS C is considered as an ideal condition as it represents stable flow and efficient use of the transportation facility. Intersections generally are the capacity-controlling locations with respect to traffic operations on arterial and collector streets. The following sections provide detailed study methodology based on the type of intersections.

Signalized Intersections

The study intersections under traffic signal control were analyzed using the 2010 HCM Operations Methodology for signalized intersections described in Chapter 18 (HCM 2010). This methodology determines LOS based on average control delay per vehicle for the overall intersection during peak hour intersection operating conditions. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. **Table 1** summarizes the relationship between the control delay and LOS for signalized intersections. The LOS assessment under all scenarios is based on current traffic controls and optimized signal timing unless otherwise noted. The LOS methodology for Signalized intersections is described in detail in **Appendix A**.

Table 1: Level of Service Definitions for Signalized Intersections

| Level of Service | Description |
|------------------|---|
| A | Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values. |
| B | Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay. |
| C | Control delay greater than 20 and up to 35 seconds per vehicle. Higher delays are caused by fair progression or longer cycle lengths or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping. |
| D | Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable. |

| | |
|---|--|
| E | Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent. |
| F | Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay. |

Source: Highway Capacity Manual 2010

Stop-Controlled Intersections

The study intersections under two-way stop control were analyzed using the 2010 HCM Operations Methodology for all-way stop controlled intersections described in Chapter 19 (HCM 2010). LOS ratings for stop-sign controlled intersections are based on the average control delay expressed in seconds per vehicle. At one- or two-way stop controlled intersections, the control delay is calculated for each movement, not for the intersection as a whole. For approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. **Table 2** summarizes the relationship between delay and LOS for stop-controlled intersections. The delay ranges for unsignalized intersections are lower than for signalized intersections, as drivers expect less delay at stop-controlled intersections.

Each of the study intersections was analyzed using Synchro Version 10 software and HCM 2010 methodology. The LOS assessment under all scenarios is based on current traffic controls unless otherwise noted. The LOS methodology for stop-controlled intersections is described in detail in **Appendix A**.

Table 2: Level of Service Definitions for Stop Controlled Intersections

| Level of Service | Description |
|------------------|---|
| A | Very low control delay less than 10 seconds per vehicle for each movement subject to delay. |
| B | Low control delay greater than 10 and up to 15 seconds per vehicle for each movement subject to delay. |
| C | Acceptable control delay greater than 15 and up to 25 seconds per vehicle for each movement subject to delay. |
| D | Tolerable control delay greater than 25 and up to 35 seconds per vehicle for each movement subject to delay. |
| E | Limit of tolerable control delay greater than 35 and up to 50 seconds per vehicle for each movement subject to delay. |
| F | Unacceptable control delay in excess of 50 seconds per vehicle for each movement subject to delay. |

Source: Highway Capacity Manual 2010

2.2 LEVEL OF SERVICE STANDARDS

Although level of service is no longer used for identifying impacts under CEQA, level of service analysis is still used for determining consistency with adopted agency plans and standards. Where standards refer to

significant environmental impacts, this analysis instead identifies these as significant inconsistencies with adopted plans.

Signalized and Stop Controlled Intersections

The City of Visalia General Plan states the minimum acceptable LOS standard on City Roadways is LOS D. Intersections that are expected to operate below LOS D are considered as impacted and should be considered for mitigation.

In accordance with the City of Visalia plans and policies, and agency and professional standards, a project impact would be considered significant if:

- The project traffic added to existing conditions would result in the level of service deteriorating below the City standard. The City's current level of service standard is LOS D.
- For intersections that already operate at unacceptable levels of service (E or F), the City considers project impacts to be significant if the project trips result in an increase in delay by 5.0 seconds or more.

Caltrans Intersections

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on all State highway facilities. However, Caltrans has not established specific criteria for defining significant impacts for signalized or unsignalized intersections. Caltrans guidelines state that if an existing State highway facility is operating at less than the appropriate target LOS, the existing LOS should be maintained. For this study, the LOS standard for Caltrans intersections shall be LOS D, and the same significant impact criteria will be used as City of Visalia intersections.

2.3 SIGNAL WARRANT ANALYSIS

Traffic signal warrants are a series of standards that provide guidelines for determining if a traffic signal is appropriate. Signal warrant analyses are typically conducted at intersections of uncontrolled major streets and stop sign-controlled minor streets. If one or more signal warrants are met, signalization of the intersection may be appropriate. However, a signal should not be installed if none of the warrants are met, since the installation of signals would increase delays on the previously uncontrolled major street, and may increase the occurrence of particular types of accidents.

As stated in the 2014 edition of the Manual on Uniform Traffic Control Devices (MUTCD), *"An engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location. The investigation of the need for a traffic control signal shall include an analysis of the applicable factors contained in the following traffic signal warrants and other factors related to existing operation and safety at the study location."*

This Existing Condition analysis did not evaluate all nine warrants provided in the MUTCD for traffic signals, but instead focused on the eight-hour and peak hour warrants. The MUTCD states that, *"This (peak hour) signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time."* The peak hour warrant is merely being used in this impact analysis study as an

"indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. The City of Visalia utilizes the eight-hour warrant as the primary indicator of the need for signalization, whereas the peak hour warrant is applicable to impact studies that focus on projected peak hour conditions only. Intersections that exceed the peak hour warrant are considered (for the purposes of this impact analysis) to be likely to meet one or more of the other signal warrants (such as the four-hour or eight-hour warrants). This peak hour analysis is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction.

Even if the Peak Hour Volume Warrant is met, a more detailed signal warrant study is recommended before a signal is installed. The more detailed study should consider volumes during the daily peak hours of roadway traffic, pedestrian traffic, and accident histories.

3.0 EXISTING CONDITIONS

This section describes existing conditions in the immediate project site vicinity, including roadway facilities, bicycle and pedestrian facilities, and available transit service. In addition, existing traffic volumes and operations are presented for the study intersections, including the results of LOS calculations.

3.1 EXISTING SETTING AND ROADWAY SYSTEM

Access to the proposed project is provided via Mooney Boulevard, Visalia Parkway, Whitendale Avenue, Caldwell Avenue, Cameron Avenue, and Midvalley Avenue/Avenue 274.

Mooney Boulevard is a six-lane, north-south divided arterial from Visalia Parkway to Whitendale Avenue. Mooney Boulevard is State Route 63, under the jurisdiction of Caltrans. From Visalia Parkway to the City Limits and unincorporated Tulare County, the roadway transitions into a divided four-lane roadway. Mooney Boulevard is predominantly surrounded by commercial and retail land uses. The speed limit north of Visalia Parkway is 40 mile per hour (mph) and south of Visalia Parkway, the speed limit increases to 55 mph.

Visalia Parkway is currently a two-lane east-west undivided roadway from Stonebrook Street to Demaree Street. The City's General Plan has indicated that with future buildouts of the surrounding area, Visalia Parkway will become an arterial in the next 11-25 years. The north side of the roadway has been developed, while the south side of the roadway primarily consists of open space. The speed limit along Visalia Parkway is 40 mph.

Whitendale Avenue is a two to four-lane, east-west divided collector street from Mooney Boulevard to Giddings Street. The majority of land uses around Whitendale Avenue consists of single-family homes, except near Mooney Boulevard, where land uses consists of commercial and retail. The posted speed limit on Whitendale Avenue is 40 mph.

Caldwell Avenue is a four to six-lane, east-west divided arterial from Dans Street to Court Street in the study area. Land uses around Caldwell Avenue consists of single-family homes, commercial and retail. Speed limits within the project vicinity varies between 40 to 50 mph.

Cameron Avenue is primarily a two-lane, east-west collector street from County Center Drive to Vintage Street. From Vintage Street to Court Street, Cameron Avenue is identified as an arterial. Land uses surrounding Cameron Avenue consist of single-family homes, open space, commercial, and retail uses. The speed limit varies from 40 to 45 mph.

Midvalley Avenue/Avenue 274 is a two-lane, east-west collector street on the southern border of the proposed project site. West of Mooney Boulevard, there are two neighborhoods of pre-fabricated homes and open space. East of Mooney Boulevard, land uses are primarily open space.

3.2 EXISTING PEDESTRIAN FACILITIES

Walkability is defined as the ability to travel easily and safely between various origins and destinations without having to rely on automobiles or other motorized travel. The ideal “walkable” community includes wide sidewalks, a mix of land uses such as residential, employment, and shopping opportunities, a limited number of conflict points with vehicle traffic, easy access to transit facilities and services and a network of pedestrian facilities.

Pedestrian facilities are comprised of crosswalks, sidewalks, pedestrian signals, and off-street paths, which provide safe and convenient routes for pedestrians to access the destinations such as institutions, businesses, public transportation, and recreation facilities.

Near the proposed project site, the approximate width of the sidewalk is 10 feet. This sidewalk width applies to the northern side of Visalia Parkway and along Mooney Boulevard. The proposed project will install 10-foot wide sidewalks along the project frontage and ADA-compliant curb ramps. The Visalia Commons project across from the proposed project site will also develop sidewalks and ADA-compliant curb ramps. Most of the study intersections have striped crosswalks. Signalized intersections are equipped with pedestrian signal heads.

The existing pedestrian facilities in the study area are shown in **Figure 3**. Existing peak-hour pedestrian counts are provided in **Appendix B**.

3.3 EXISTING BICYCLE FACILITIES

The 2017 City of Visalia Active Transportation Plan (ATP) outlines policies and objectives to improve the current active transportation system that includes walking and biking. The various bicycle facilities throughout the city are described below. Existing bicycle facilities are illustrated in **Figure 4**.

- **Class I Bikeways (Bike Paths or Shared-Use Path):** Class I Bikeways provides a completely separated right of way for bicycles and pedestrians with minimal crossflow by motorized vehicles. According to the ATP, bike paths should be used to serve corridors not served by streets and highways or where wide right-of-way exists, permitting such facilities to be constructed away from the influence of parallel streets. Most bike paths in Visalia are eight to twelve feet wide and are located along stream corridors and irrigation canals. Bike paths provide a recreational opportunity or can serve as commute routes. In the project area, Class I facilities include the Packwood Creek Bike Path, Stonebrook Park, and Mooney Grove Park.
- **Class II Bike Lanes:** Class II bike lanes are striped bike lanes immediately adjacent to a traffic lane. Bike lanes provide a separate pavement area from vehicular traffic and improve conditions for bicycles on roadways. Bike lanes in the City are generally four to six feet wide. In the project vicinity, Class II Bike Lanes are provided on Whitendale Avenue, County Center Drive, Court Street, and Cameron Avenue.
- **Class III Bike Routes:** Class III Bike Routes provide shared use of the roadway, designated by signs or permanent markings and shared with other vehicular traffic. Class III bike routes are provided all along Caldwell Avenue

- Class IV Separated Bikeways or Cycle Tracks:** Cycle tracks are separated bikeways for the exclusive use of bicycles. Cycle tracks are usually located along the roadway, but require separation from the vehicular travel lane in the form of grade separation, planters, flexible posts, or on-street parking. There are no Class IV bikeways in the City of Visalia.

3.5 EXISTING TRANSIT FACILITIES

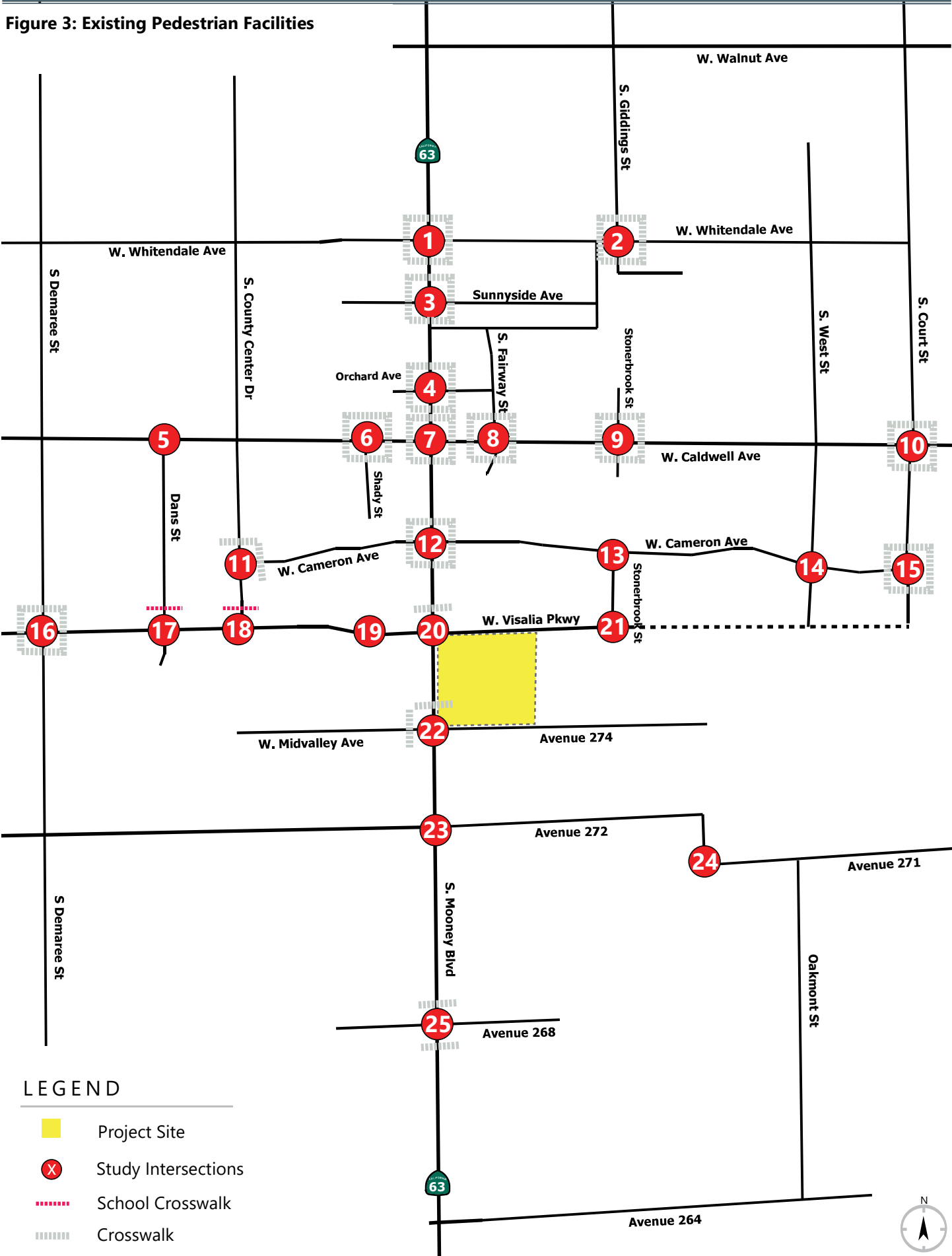
Visalia Transit provides transit service throughout the City. There are several bus routes that travel through the study area. **Table 3** summarizes the existing Visalia Transit service and **Figure 5** illustrates the existing transit facilities in the study area.

Table 3: Existing Visalia Transit Service

| Route | From | To | Weekdays | | Weekends | |
|-------|-------------------------|-------------------------|-----------------------|-------------------|------------------------|-------------------|
| | | | Operating Hours | Headway (minutes) | Operating Hours | Headway (minutes) |
| 1 | Downtown | TCAT Transfer | 6:00 a.m. – 9:48 p.m. | 15 | 8:00 a.m. – 6:58 p.m. | 20 |
| 2 | Downtown | Visalia Medical Clinic | 6:00 a.m. – 9:46 p.m. | 30 | 8:00 a.m. – 6:46 p.m. | 30 |
| 12A | Mooney/ Orchard | Farmersville Roy's Park | 6:00 a.m. – 9:13 p.m. | 60 | 7:57 a.m. – 6:13 p.m. | 60 |
| 12B | Farmersville Roy's Park | Mooney/ Orchard | 6:15 a.m. – 9:37 p.m. | 60 | 8:15 a.m. – 6:37 p.m. | 60 |
| 16A | Mooney/ Orchard | North Target | 6:00 a.m. – 9:20 p.m. | 30 | 12:00 p.m. – 9:20 p.m. | 30 |
| 16B | North Target | Mooney/ Orchard | 6:20 a.m. – 9:51 p.m. | 30 | 12:20 p.m. – 9:51 p.m. | 30 |

Source: Visalia Transit Website

Figure 3: Existing Pedestrian Facilities

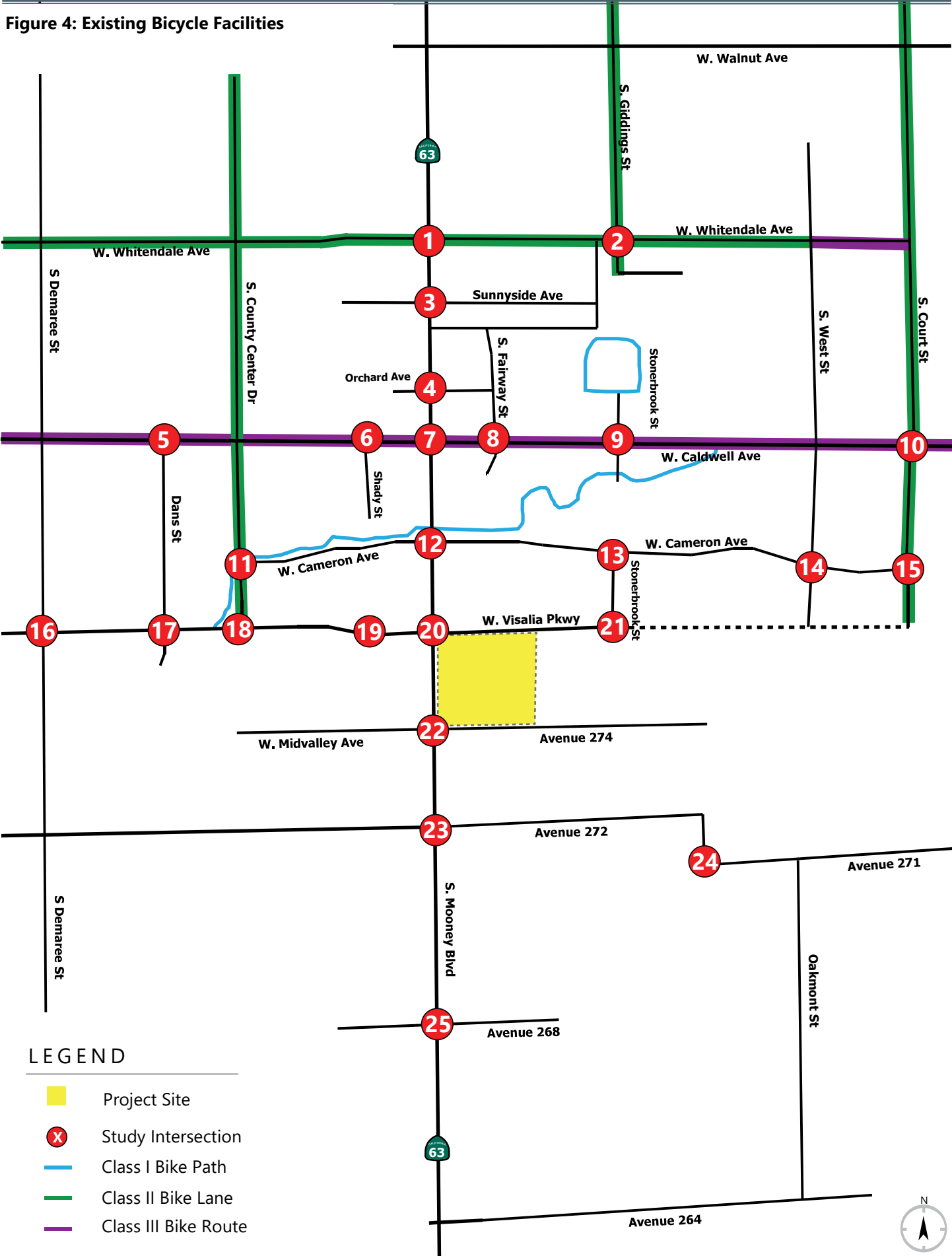


LEGEND

- Project Site
- X Study Intersections
- School Crosswalk
- Crosswalk



Figure 4: Existing Bicycle Facilities

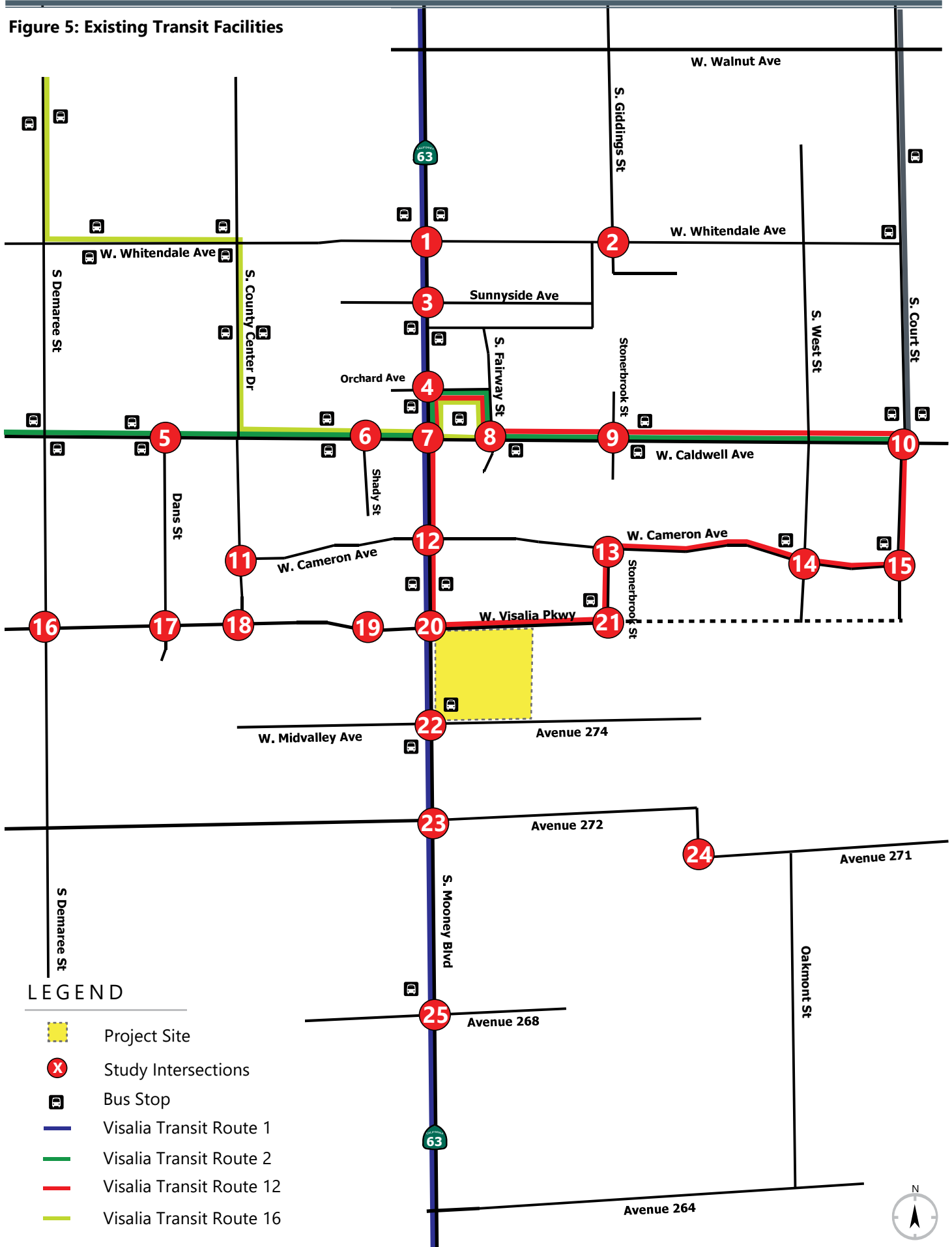


LEGEND








- Project Site
- X Study Intersection
- Class I Bike Path
- Class II Bike Lane
- Class III Bike Route



Figure 5: Existing Transit Facilities



LEGEND

-  Project Site
-  Study Intersections
-  Bus Stop
-  Visalia Transit Route 1
-  Visalia Transit Route 2
-  Visalia Transit Route 12
-  Visalia Transit Route 16



3.6 EXISTING PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS

The existing operations of the study intersections were evaluated for the highest one-hour volumes during weekday morning and evening peak periods. Due to COVID-19 conditions, the ability to collect accurate new traffic counts is limited. Where available, turning movement counts conducted in May 2019 were used. At the nine locations where recent counts were unavailable, and at one proxy intersection that had been previously counted, new counts were conducted. Turning movement volumes at the new intersections were then adjusted based on the change in traffic between 2019 and 2020 at the proxy intersection of Visalia Parkway & Mooney Boulevard (intersection #20). New turning movement counts for vehicles, bicycles, and pedestrians were conducted during the weekday a.m. peak period (7:00-9:00 a.m.) and p.m. peak period (2:00-6:00 p.m.) at these study intersections in August 2020. **Appendix B** includes all data sheets for the collected vehicle, bicycle, and pedestrian counts. **Figures 6** illustrates the existing lane geometry, and traffic controls at the study intersections. **Figure 7** illustrates the existing a.m. and p.m. peak hour pedestrian and bicycle volumes at the study intersections. **Figure 8** illustrates the existing a.m. and p.m. peak hour vehicle turning movement volumes at the study intersections.

3.7 COLLISION HISTORY

Collision history on a roadway can be evaluated to identify and quantify unsafe conditions, and to determine appropriate measures to improve safety. On roadways with a large number of broadside and head-on collisions, for example, a raised median may be appropriate. Collision rates are a significant factor in determining the appropriate speed limits. The relative safety of a roadway can be quantified by comparing the rate of accidents on a segment or at an intersection to statewide accident rates on similar roads, published annually by Caltrans. Intersection accident rates are calculated based on the number of accidents and average daily traffic volume, and expressed in collisions per million vehicles entering the intersection.

TJKM evaluated the collision history within the project vicinity, using data obtained from the Statewide Integrated Traffic Records System (SWITRS) database for a period of three years from January 2017 to December 2019. All collisions that were located within 250 feet of a study intersection were evaluated. At that proximity, a collision can be considered to be within the influence of the nearest intersection. Collisions were tabulated based on the nearest study intersection and whether they involved other vehicles, bicycles, or pedestrians. Peak hour traffic volumes, as described above, were used to estimate average daily traffic volumes through each intersection and calculate collision rates. Collision rates at study intersections were then compared to statewide average rates for comparable intersection types.

As shown in **Table 4**, there were 33 total reported collisions near the study intersections in the three years evaluated. Of these, one involved a pedestrian, and two involved bicycles. The intersection of Mooney Boulevard & Avenue 272 (Intersection #23) was the only location where the collision rate was higher than the statewide average. At most of the study intersections, the calculated collision rates were substantially lower than statewide averages.

Table 4: Three-Year Collision History, January 2017 – December 2019

| # | Study Intersections | Vehicle Involved With ¹ | | | | ADT ² | Intersection Collision Rate | Statewide Average |
|----|-----------------------------------|------------------------------------|------|------|-------|------------------|-----------------------------|-------------------|
| | | Veh. | Ped. | Bike | Total | | | |
| 1 | Whitendale Ave. & Mooney Blvd. | 4 | 0 | 0 | 4 | 19,345 | 0.19 | 0.24 |
| 2 | Whitendale Ave. & Giddings St. | 1 | 0 | 0 | 1 | 7,885 | 0.12 | 0.43 |
| 3 | Sunnyside Ave. & Mooney Ave. | 3 | 1 | 0 | 4 | 21,840 | 0.17 | 0.24 |
| 4 | Orchard Ave. & Mooney Ave. | 0 | 0 | 0 | 0 | 19,690 | 0.00 | 0.24 |
| 5 | Caldwell Ave. & Dans St. | 0 | 0 | 0 | 0 | 16,580 | 0.00 | 0.14 |
| 6 | Caldwell Ave. & Shady St. | 1 | 0 | 0 | 1 | 13,125 | 0.07 | 0.24 |
| 7 | Caldwell Ave. & Mooney Blvd. | 5 | 0 | 0 | 5 | 31,075 | 0.15 | 0.24 |
| 8 | Caldwell Ave. & Fairway St. | 0 | 0 | 0 | 0 | 15,850 | 0.00 | 0.24 |
| 9 | Caldwell Ave. & Stonebrook St. | 1 | 0 | 0 | 1 | 13,580 | 0.07 | 0.43 |
| 10 | Caldwell Ave. & West St. | 2 | 0 | 0 | 2 | 16,455 | 0.11 | 0.43 |
| 11 | Cameron Ave. & County Center Dr. | 0 | 0 | 0 | 0 | 7,705 | 0.00 | 0.14 |
| 12 | Cameron Ave. & Mooney Blvd. | 1 | 0 | 2 | 3 | 24,095 | 0.11 | 0.24 |
| 13 | Cameron Ave. & Stonebrook St. | 0 | 0 | 0 | 0 | 12,910 | 0.00 | 0.08 |
| 14 | Cameron Ave. & West St. | 0 | 0 | 0 | 0 | 10,840 | 0.00 | 0.23 |
| 15 | Cameron Ave. & Court St. | 0 | 0 | 0 | 0 | 9,200 | 0.00 | 0.27 |
| 16 | Visalia Pkwy. & Demaree S.t | 2 | 0 | 0 | 2 | 19,545 | 0.09 | 0.58 |
| 17 | Visalia Pkwy. & Dans St. | 1 | 0 | 0 | 1 | 9,480 | 0.10 | 0.23 |
| 18 | Visalia Pkwy. & County Center Dr. | 0 | 0 | 0 | 0 | 9,530 | 0.00 | 0.14 |
| 19 | Visalia Pkwy. & Target Access. | 0 | 0 | 0 | 0 | 7,850 | 0.00 | 0.08 |
| 20 | Visalia Pkwy. & Mooney Blvd. | 2 | 0 | 0 | 2 | 22,180 | 0.08 | 0.24 |
| 21 | Visalia Pkwy. & Stonebrook St. | 0 | 0 | 0 | 0 | 4,255 | 0.00 | 0.05 |
| 22 | Midvalley Ave. & Mooney Blvd. | 1 | 0 | 0 | 1 | 17,825 | 0.05 | 0.58 |
| 23 | Ave. 272 & Mooney Blvd. | 5 | 0 | 0 | 5 | 19,870 | 0.23 | 0.22 |
| 24 | Ave. 271 & Rd. 122 | 0 | 0 | 0 | 0 | 775 | 0.00 | 0.11 |
| 25 | Ave. 268 & Mooney Blvd | 1 | 0 | 0 | 1 | 19,830 | 0.05 | 0.58 |
| 26 | Visalia Pkwy. & | 0 | 0 | 0 | 0 | 7,255 | 0.00 | n/a |

| # | Study Intersections | Vehicle Involved With ¹ | | | | ADT ² | Intersection Collision Rate | Statewide Average |
|----|---------------------------------------|------------------------------------|----------|----------|-----------|------------------|-----------------------------|-------------------|
| | | Veh. | Ped. | Bike | Total | | | |
| | North Access Dwy 1. | | | | | | | |
| 27 | Visalia Pkwy & Tuesday Morning Dwy. | 0 | 0 | 0 | 0 | 7,060 | 0.00 | 0.08 |
| 28 | Visalia Pkwy. & Hall St. | 0 | 0 | 0 | 0 | 6,485 | 0.00 | n/a |
| 29 | Visalia Pkwy. & Costco Dwy. | 0 | 0 | 0 | 0 | 6,425 | 0.00 | 0.08 |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 | 0 | 0 | 0 | 0 | 17,610 | 0.00 | n/a |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 | 0 | 0 | 0 | 0 | 17,610 | 0.00 | n/a |
| 32 | Midvalley Ave. & South Access Dwy. 1 | 0 | 0 | 0 | 0 | 325 | 0.00 | n/a |
| 33 | Midvalley Ave. & South Access Dwy. 2 | 0 | 0 | 0 | 0 | 325 | 0.00 | n/a |
| 34 | Midvalley Ave. & South Access Dwy. 3 | 0 | 0 | 0 | 0 | 325 | 0.00 | n/a |
| 35 | Midvalley Ave. & Hall St. | 0 | 0 | 0 | 0 | 325 | 0.00 | n/a |
| 36 | Hall St. & East Access Dwy. 1 | 0 | 0 | 0 | 0 | 0 | - | n/a |
| | Total | 30 | 1 | 2 | 33 | | | |

Notes:

1. Source: SWITRS collision data

2 Average Daily Traffic

Figure 6a: Lane Geometry and Traffic Controls (Existing Conditions)

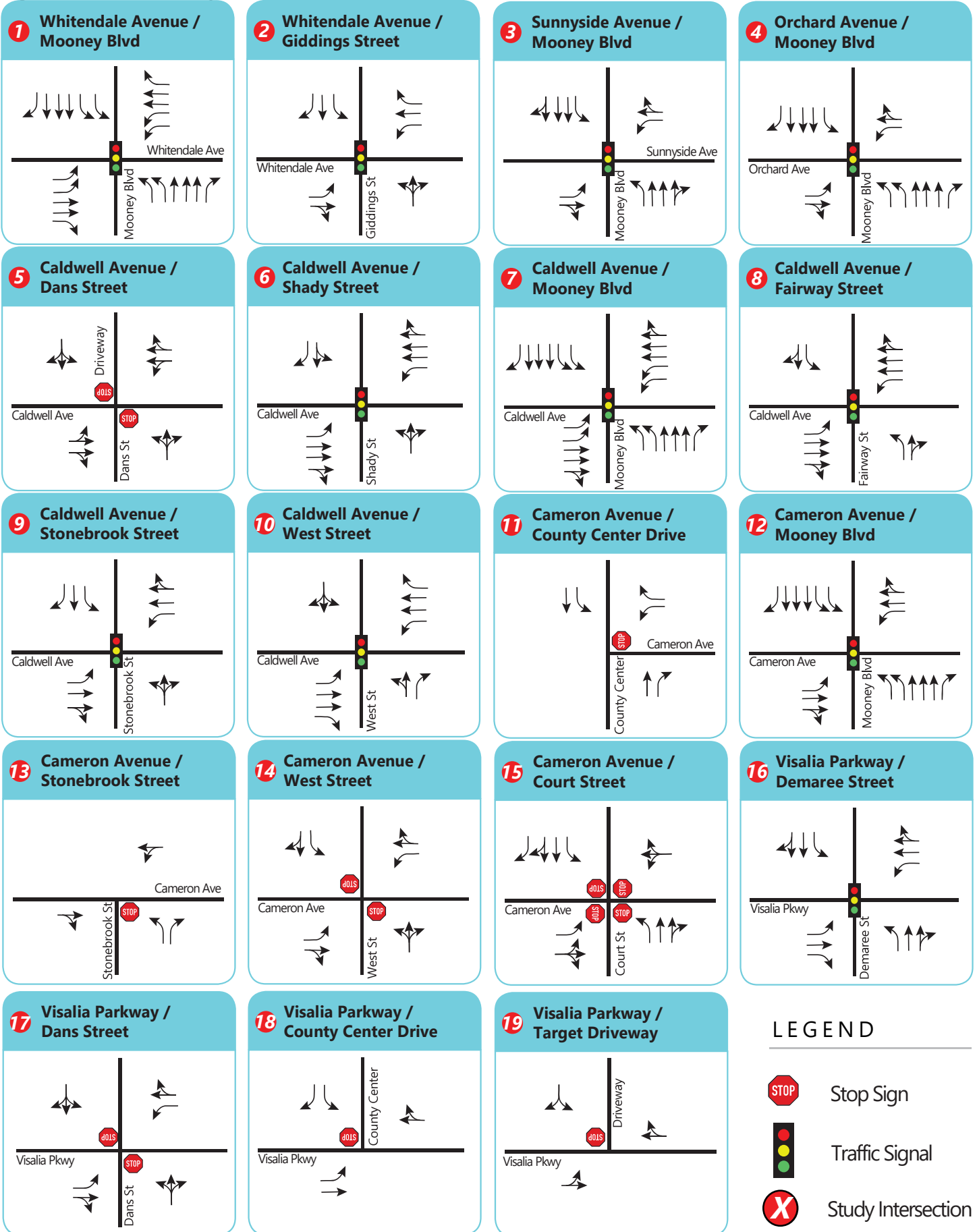


Figure 6b: Lane Geometry and Traffic Controls (Existing Conditions)

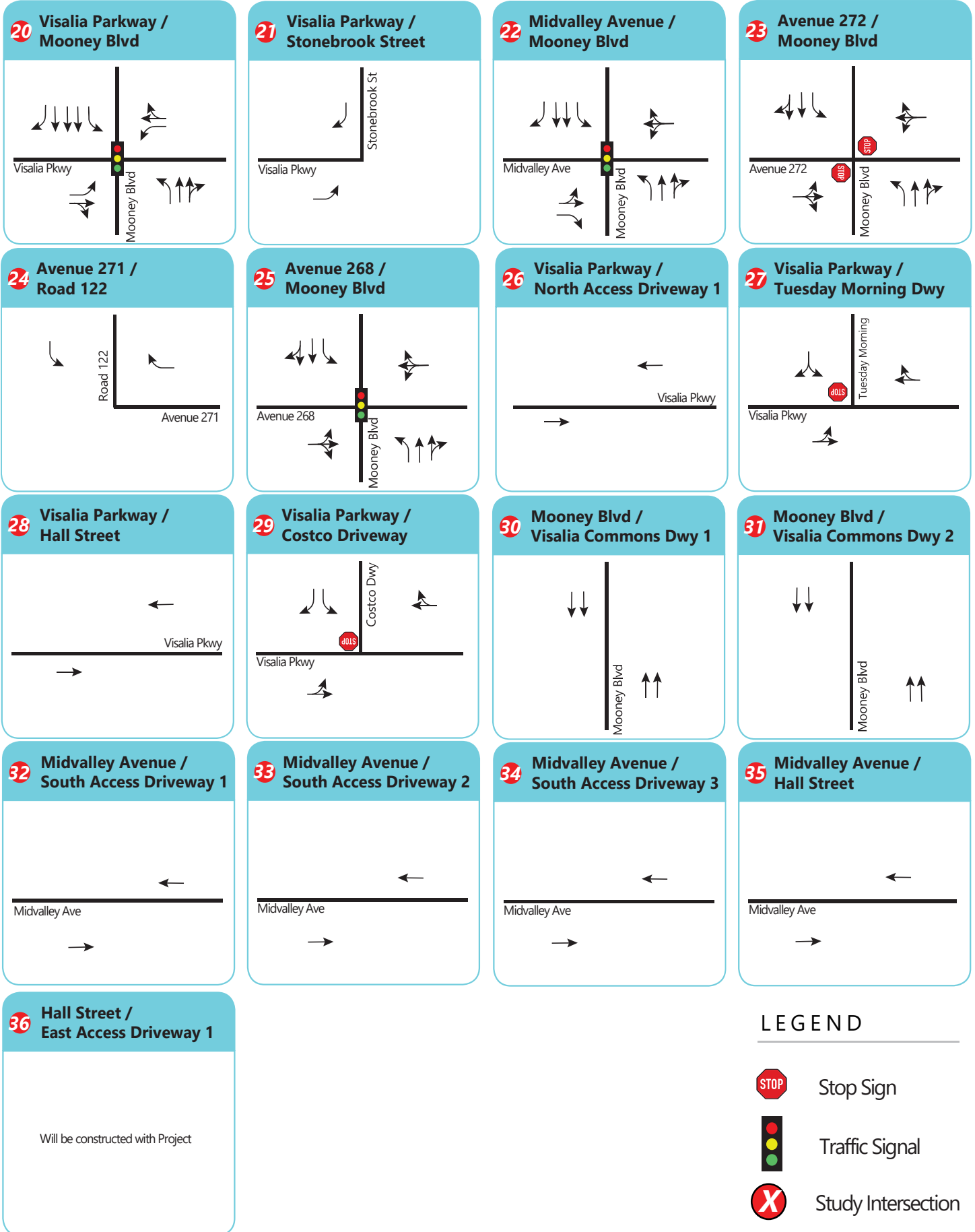


Figure 7a: Existing Conditions Peak Hour Traffic Volumes

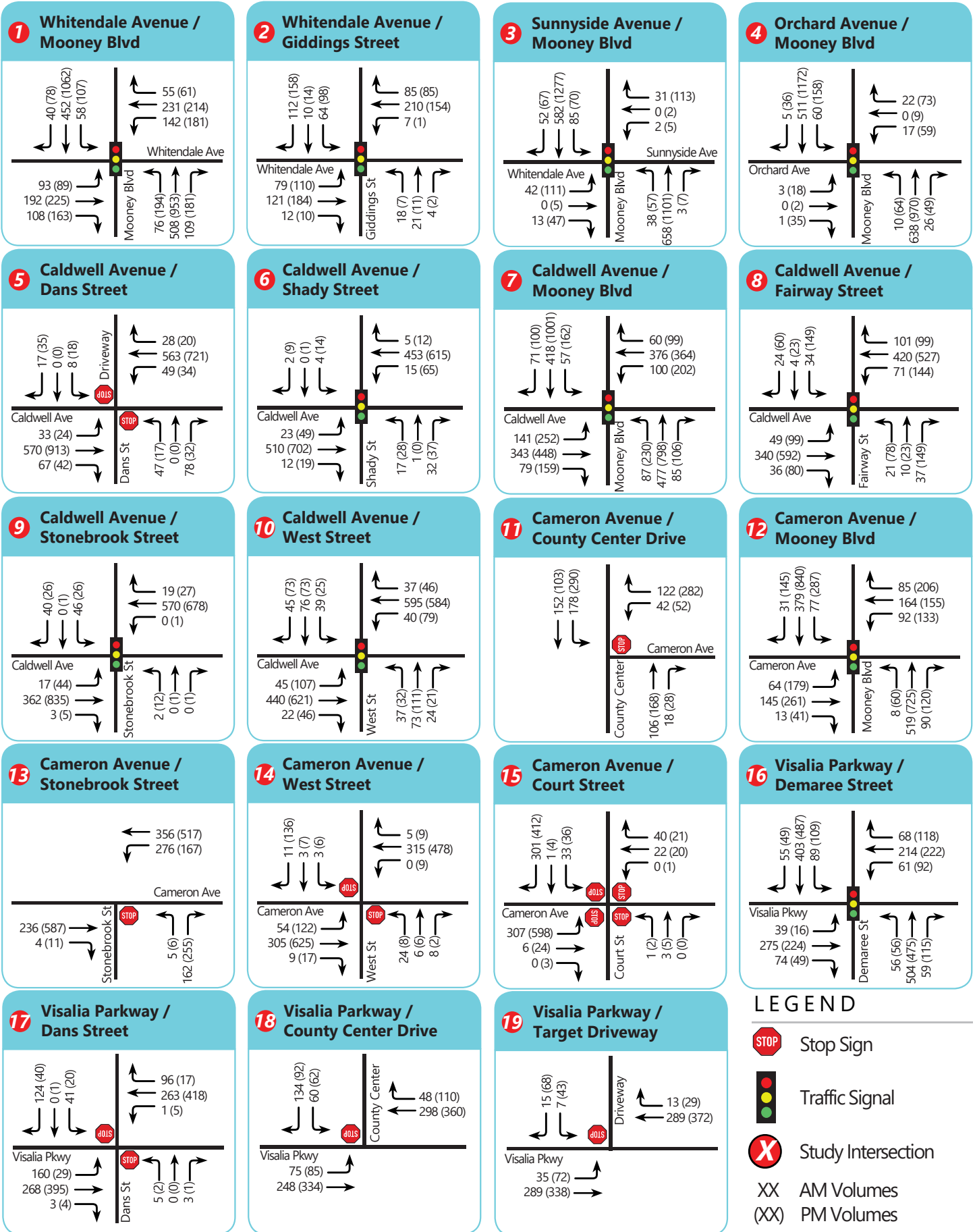
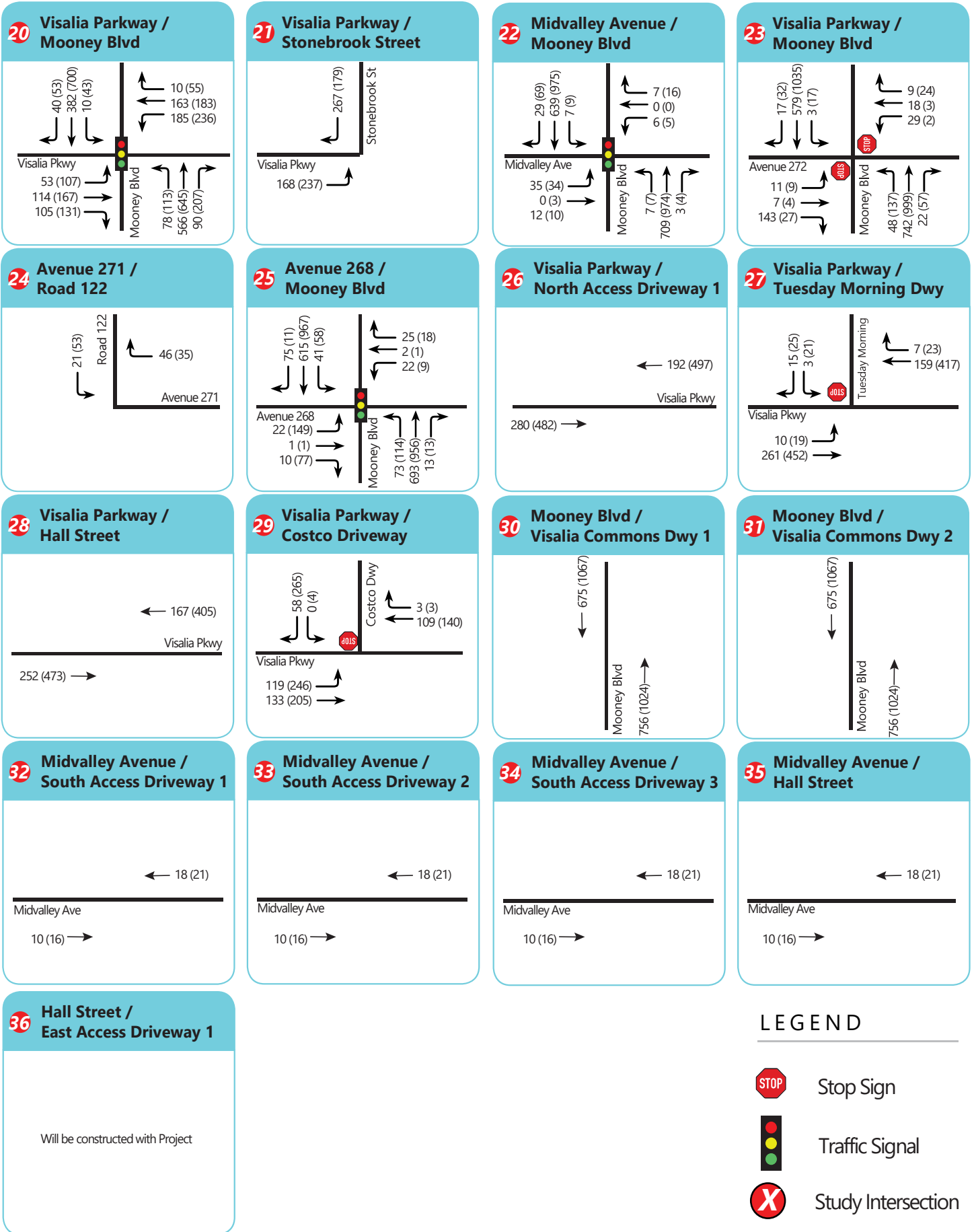


Figure 7b: Existing Conditions Peak Hour Traffic Volumes



3.8 INTERSECTION LEVEL OF SERVICE ANALYSIS – EXISTING CONDITIONS

Existing intersection lane configurations and turning movement volumes are used to calculate the level of service for the study intersections during each peak hour. Existing signal timings at the signalized study intersections were used. The results of the level of service analysis using the Synchro software program for Existing Conditions are summarized in **Table 5**. LOS worksheets are provided in **Appendix C**.

Under this scenario, all of the study intersections operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour except for the following three intersections:

- Caldwell Avenue & Dans Street (intersection #5) is operating at LOS E in both the a.m. and p.m. peak hour
- Cameron Avenue & West Street (intersection #14) is operating at LOS F in the p.m. peak hour
- Avenue 272 & Mooney Boulevard (intersection #23) is operating at LOS F in the a.m. and p.m. peak hour

Table 5: Intersection Level of Service Analysis – Existing Conditions

| # | Study Intersections | Control | Peak Hour ¹ | Existing Conditions | |
|----|----------------------------------|--------------|------------------------|---------------------|------------------|
| | | | | Delay ² | LOS ³ |
| 1 | Whitendale Ave. & Mooney Blvd. | Signal | A.M. | 39.4 | D |
| | | | P.M. | 32.9 | C |
| 2 | Whitendale Ave. & Giddings St. | Signal | A.M. | 11.9 | B |
| | | | P.M. | 11.6 | B |
| 3 | Sunnyside Ave. & Mooney Ave. | Signal | A.M. | 15.4 | B |
| | | | P.M. | 17.0 | B |
| 4 | Orchard Ave. & Mooney Ave. | Signal | A.M. | 20.3 | C |
| | | | P.M. | 19.7 | B |
| 5 | Caldwell Ave. & Dans St. | Two-Way Stop | A.M. | 36.7 | E |
| | | | P.M. | 35.5 | E |
| 6 | Caldwell Ave. & Shady St. | Signal | A.M. | 10.1 | B |
| | | | P.M. | 12.3 | B |
| 7 | Caldwell Ave. & Mooney Blvd. | Signal | A.M. | 33.9 | C |
| | | | P.M. | 35.7 | D |
| 8 | Caldwell Ave. & Fairway St. | Signal | A.M. | 12.6 | B |
| | | | P.M. | 19.2 | B |
| 9 | Caldwell Ave. & Stonebrook St. | Signal | A.M. | 8.3 | A |
| | | | P.M. | 9.2 | A |
| 10 | Caldwell Ave. & West St. | Signal | A.M. | 12.1 | B |
| | | | P.M. | 13.7 | B |
| 11 | Cameron Ave. & County Center Dr. | One-Way Stop | A.M. | 15.1 | C |
| | | | P.M. | 19.0 | C |
| 12 | Cameron Ave. & Mooney Blvd. | Signal | A.M. | 38.1 | D |
| | | | P.M. | 36.8 | D |
| 13 | Cameron Ave. & Stonebrook St. | One-Way Stop | A.M. | 25.8 | D |
| | | | P.M. | 21.9 | C |
| 14 | Cameron Ave. & West St. | Two-Way Stop | A.M. | 20.4 | C |
| | | | P.M. | 53.1 | F |
| 15 | Cameron Ave. & Court St. | All-Way Stop | A.M. | 10.8 | B |
| | | | P.M. | 17.1 | C |

| # | Study Intersections | Control | Peak Hour ¹ | Existing Conditions | |
|----|---------------------------------------|-----------------|------------------------|-----------------------------|----------------------|
| | | | | Delay ² | LOS ³ |
| 16 | Visalia Pkwy. & Demaree S.t | Signal | A.M. P.M. | 24.4 21.7 | C C |
| 17 | Visalia Pkwy. & Dans St. | Two-Way Stop | A.M. P.M. | 30.7 19.7 | D C |
| 18 | Visalia Pkwy. & County Center Dr. | One-Way Stop | A.M. P.M. | 21.9 26.8 | C D |
| 19 | Visalia Pkwy. & Target Access. | One-Way Stop | A.M. P.M. | 11.7 17.4 | B C |
| 20 | Visalia Pkwy. & Mooney Blvd. | Signal | A.M. P.M. | 29.7 50.5 | C D |
| 21 | Visalia Pkwy. & Stonebrook St. | Uncontrolled | A.M. P.M. | - - | - - |
| 22 | Midvalley Ave. & Mooney Blvd. | Signal | A.M. P.M. | 11.5 12.1 | B B |
| 23 | Ave. 272 & Mooney Blvd. | Two-Way Stop | A.M. P.M. | 73.5 127.4 | F F |
| 24 | Ave. 271 & Rd. 122 | Uncontrolled | A.M. P.M. | - - | - - |
| 25 | Ave. 268 & Mooney Blvd | Signal | A.M. P.M. | 14.3 24.4 | B C |
| 26 | Visalia Pkwy. & North Access Dwy 1. | One-Way Stop | A.M. P.M. | - - | - - |
| 27 | Visalia Pkwy & Tuesday Morning Dwy. | One-Way Stop | A.M. P.M. | 10.3 15.3 | B C |
| 28 | Visalia Pkwy. & Hall St. | One-Way Stop | A.M. P.M. | - - | - - |
| 29 | Visalia Pkwy. & Costco Dwy. | One-Way Stop | A.M. P.M. | 9.4 20.1 | A C |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 | Two-Way Stop | A.M. P.M. | - - | - - |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 | Two-Way Stop | A.M. P.M. | - - | - - |
| 32 | Midvalley Ave. & South Access Dwy. 1 | One-Way Stop | A.M. P.M. | - - | - - |
| 33 | Midvalley Ave. & South Access Dwy. 2 | One-Way Stop | A.M. P.M. | - - | - - |
| 34 | Midvalley Ave. & South Access Dwy. 3 | One-Way Stop | A.M. P.M. | - - | - - |
| 35 | Midvalley Ave. & Hall St. | One-Way Stop | A.M. P.M. | - - | - - |
| 36 | Hall St. & East Access Dwy. 1 | One-Way Stop | A.M. P.M. | - - | - - |

Notes:

1. AM – morning peak hour, PM – evening peak hour
2. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop – controlled intersections.
3. LOS – Level of Service. **Bold** indicates unacceptable LOS and Delay.

3.8 SIGNAL WARRANT ANALYSIS RESULTS – EXISTING CONDITIONS

The results of the peak hour and eight-hour warrants under existing conditions are summarized in **Table 6**. The results show that Caldwell Avenue/Dans Street, Cameron Avenue/West Street, and Mooney Boulevard/Avenue 272 meet the MUTCD peak hour signal warrant in one peak hour. Cameron Avenue/Stonebrook Street, Cameron Avenue/West Street, and Mooney Boulevard/Avenue 272 all meet the eight-hour signal warrant, which is used by the City of Visalia as the primary indicator of whether signals may be appropriate. Signal warrant worksheets for existing conditions are provided in **Appendix C**.

As noted in section 2.3, signalization of an intersection may be appropriate if it meets one or more of the nine signal warrants detailed in the MUTCD. Peak hour and eight-hour signal warrants are used here to indicate whether signalization may be appropriate. Even if the Peak Hour Volume Warrant is met, a more detailed signal warrant study is recommended before a signal is installed. The more detailed study should consider volumes during the daily peak hours of roadway traffic, pedestrian traffic, and accident histories.

Table 6: Peak Hour Signal Warrant Results – Existing Conditions

| # | Intersection | Control | Meets AM Peak Hour? | Existing Meets PM Peak Hour? | Meets 8 Hour Warrant? |
|----|--|--------------|---------------------|------------------------------|---------------------------|
| 5 | Caldwell Avenue/Dans Street | Two-Way Stop | Yes | No | No |
| 11 | Cameron Avenue/County Center Drive | One-Way Stop | No | No | No |
| 13 | Cameron Avenue/Stonebrook Street | One-Way Stop | No | No | Yes ¹ |
| 14 | Cameron Avenue/West Street | Two-Way Stop | No | Yes | Yes ¹ |
| 17 | Visalia Parkway/Dans Street | Two-Way Stop | No | No | No |
| 18 | Visalia Parkway/County Center Drive | One-Way Stop | No | No | No |
| 23 | Mooney Boulevard/Avenue 272 | Two-Way Stop | Yes | No | Yes ¹ |
| 27 | Visalia Parkway/Tuesday Morning Driveway | One-Way Stop | No | No | 8 Hour Data not available |
| 29 | Visalia Parkway/Costco Driveway | One-Way Stop | No | No | 8 Hour Data not available |

Note

¹ Majority of traffic is right turns. If right turns are excluded, then warrants may not be satisfied

3.9 QUEUEING ANALYSIS – EXISTING CONDITIONS

TJKM conducted a vehicle queueing and storage analysis for exclusive left and right turn pockets at the study intersections. The 95th percentile queues were analyzed using Synchro software. Detailed calculations are included in **Appendix C. Table 7** summarizes the 95th percentile queue lengths at study intersections under Existing Conditions. . It should be noted that at five study intersections, one or more queue lengths exceed capacity, creating a deficient condition.

Table 7: 95th Percentile Queues at Study Intersections – Existing Conditions

| # | Study Intersections | Lane Group | Storage Length | Existing | |
|---|---------------------------------------|------------|----------------|----------|-------------|
| | | | | AM | PM |
| 1 | Whitendale Ave. & Mooney Blvd. | EBL | 155 | 79 | 73 |
| | | EBR | 260 | 21 | 60 |
| | | WBL | 250 | 112 | 129 |
| | | WBR | 235 | 0 | 0 |
| | | NBL | 290 | 65 | 145 |
| | | NBR | 130 | 39 | 92 |
| | | SBL | 445 | 56 | 84 |
| | | SBR | 190 | 0 | 12 |
| 2 | Whitendale Ave. & Giddings St. | EBL | 105 | 74 | 77 |
| | | WBL | 105 | 15 | 4 |
| | | WBR | 35 | 35 | 29 |
| | | SBL | 150 | 49 | 65 |
| | | SBR | 50 | 29 | 38 |
| 3 | Sunnyside Ave. & Mooney Ave. | EBL | 170 | 66 | 173 |
| | | WBL | 100 | 10 | 17 |
| | | NBL | 400 | 62 | 77 |
| | | SBL | 270 | 110 | 116 |
| 4 | Orchard Ave. & Mooney Ave. | WBL | 105 | 42 | 108 |
| | | NBL | 125 | 14 | m43 |
| | | NBR | 100 | 0 | m9 |
| | | SBL | 250 | 101 | #294 |
| | | SBR | 100 | 0 | m6 |
| 5 | Caldwell Ave. & Dans St. ¹ | NBLTR | - | 78 | 30 |
| | | SBLTR | - | 10 | 28 |
| 6 | Caldwell Ave. & Shady St. | EBL | 240 | 29 | 72 |
| | | WBL | 250 | 22 | 88 |
| | | SBR | - | 0 | 0 |
| 7 | Caldwell Ave. & Mooney Blvd. | EBL | 345 | 100 | #178 |
| | | WBL | 340 | 75 | 145 |
| | | NBL | 265 | 68 | m107 |
| | | NBR | 165 | 20 | m21 |
| | | SBL | 270 | 50 | 90 |

| # | Study Intersections | Lane Group | Storage Length | Existing | |
|----|--|------------|----------------|----------|-------------|
| | | | | AM | PM |
| | | SBR | 270 | 5 | 1 |
| 8 | Caldwell Ave. & Fairway St. | EBL | 200 | 69 | 125 |
| | | WBL | 285 | 90 | #176 |
| | | NBL | 120 | 20 | 59 |
| | | SBL | 55 | 28 | 104 |
| 9 | Caldwell Ave. & Stonebrook St | EBL | 235 | 24 | 50 |
| | | WBL | 300 | 0 | 5 |
| | | SBL | - | 42 | 34 |
| | | SBR | 200 | 0 | 1 |
| 10 | Caldwell Ave. & West St. | EBL | 300 | 55 | 105 |
| | | EBR | 110 | 0 | 11 |
| | | WBL | 290 | 50 | 84 |
| | | WBR | 100 | 7 | 11 |
| | | NBR | 50 | 0 | 0 |
| 11 | Cameron Ave. & County Center Dr. ¹ | WBR | 100 | 15 | 40 |
| | | NBR | 160 | - | - |
| | | SBL | 145 | 13 | 23 |
| 12 | Cameron Ave. & Mooney Blvd. | EBL | 155 | 106 | #342 |
| | | WBL | 300 | 137 | #230 |
| | | NBL | 210 | 12 | m46 |
| | | NBR | 150 | 16 | m83 |
| | | SBL | 185 | 58 | 199 |
| | | SBR | 150 | 0 | 1 |
| 13 | Cameron Ave. & Stonebrook St. ¹ | NBL | 145 | 3 | 3 |
| 14 | Cameron Ave. & West St. ¹ | EBL | 100 | 5 | 10 |
| | | WBL | 90 | 0 | 0 |
| | | SBL | 110 | 0 | 5 |
| 15 | Cameron Ave. & Court St. ¹ | EBL | 260 | 13 | 48 |
| | | NBL | 225 | 0 | 0 |
| | | SBL | 195 | 3 | 3 |
| | | SBR | 200 | 8 | 15 |
| 16 | Visalia Pkwy. & Demaree St | EBL | 145 | 66 | 33 |
| | | EBR | 245 | 8 | 0 |
| | | WBL | 180 | 92 | 110 |
| | | NBL | 300 | 86 | 77 |
| | | SBL | 305 | 123 | 126 |
| 17 | Visalia Pkwy. & Dans St. ¹ | EBL | 190 | 18 | 3 |
| | | WBL | 75 | 0 | 0 |
| 18 | Visalia Pkwy. & County Center Dr. ¹ | EBL | 200 | 8 | 8 |
| | | SBL | 190 | 25 | 30 |

| # | Study Intersections | Lane Group | Storage Length | Existing | |
|----|--|------------|----------------|-------------|------------|
| | | | | AM | PM |
| 19 | Visalia Pkwy. & Target Access. ¹ | SBLR | - | 3 | 30 |
| 20 | Visalia Pkwy. & Mooney Blvd. | EBL | 180 | 85 | 170 |
| | | WBL | 175 | #295 | 330 |
| | | NBL | 205 | 113 | 178 |
| | | SBL | 290 | 28 | m0 |
| 21 | Visalia Pkwy. & Stonebrook St. ² | SBR | 210 | 0 | m5 |
| | | - | - | - | - |
| 22 | Midvalley Ave. & Mooney Blvd. | EBR | 25 | 0 | 0 |
| | | NBL | 475 | 13 | 16 |
| | | SBL | 465 | 13 | 19 |
| 23 | Ave. 272 & Mooney Blvd. ¹ | SBR | 140 | 0 | 10 |
| | | NBL | 470 | 5 | 23 |
| 24 | Ave. 271 & Rd. 122 ² | SBL | 485 | 0 | 3 |
| | | - | - | - | - |
| 25 | Ave. 268 & Mooney Blvd | - | - | - | - |
| | | NBL | 470 | 73 | 109 |
| 26 | Visalia Pkwy. & North Access Dwy 1. ¹ | SBL | 475 | 48 | 66 |
| | | - | - | - | - |
| 27 | Visalia Pkwy & Tuesday Morning Dwy ¹ | EBL | 150 | - | - |
| | | WBL | 150 | - | - |
| | | NBR | - | - | - |
| | | SBR | - | 3 | 10 |
| 28 | Visalia Pkwy. & Hall St. ¹ | NBR | - | - | - |
| 29 | Visalia Pkwy. & Costco Dwy. ¹ | SBL | - | 0 | 3 |
| | | SBR | - | 8 | 35 |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 ¹ | WBR | - | - | - |
| | | - | - | - | - |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 ¹ | WBR | - | - | - |
| | | NBL | - | - | - |
| | | SBL | - | - | - |
| 32 | Midvalley Ave. & South Access Dwy. 1 ¹ | SBLR | - | - | - |
| 33 | Midvalley Ave. & South Access Dwy. 2 ¹ | SBLR | - | - | - |
| 34 | Midvalley Ave. & South Access Dwy. 3 ¹ | SBLR | - | - | - |
| 35 | Midvalley Ave. & Hall St. ¹ | SBLR | - | - | - |
| 36 | Hall St. & East Access Dwy. 1 ¹ | EBLR | - | - | - |

Notes:

1. Stop-controlled intersection

2. Uncontrolled intersection

Storage length and 95th percentile queue is expressed in feet per lane

AM – morning peak hour, PM – evening peak hour

Bold indicates queue lengths exceeding capacity.

95th percentile volume exceeds capacity, queue may be longer

m Volume for 95th percentile queue is metered by upstream signal

4.0 EXISTING PLUS PROJECT CONDITIONS

This section describes the operational impacts of the proposed project on the existing transportation system in the immediate project site vicinity. Existing plus Project Conditions consist of existing traffic volumes and roadway facilities, plus new traffic generated by the proposed project. This scenario considers full build-out of the project, although the project is expected to be completed in two phases as discussed below.

The amount of traffic added to the roadway system by the proposed development is estimated using a three-step process.

- Trip Generation – Estimates the amount of traffic added to the roadway network,
- Trip Distribution – Estimates the direction of travel to and from the project site,
- Trip Assignment – The new trips are assigned to specific street segments and intersection turning movements.

4.1 PROJECT TRIP GENERATION

TJKM developed estimated project trip generation for both Phase I and full buildout of the proposed project based on published trip generation rates from the *Institute of Transportation Engineers' (ITE) publication Trip Generation (10th Edition)*.

The project proposes to develop approximately 42.5 acres of land and convert it into a shopping center that will contain an Aldi's Supermarket, gas station, drive-through restaurants and other retail land uses. TJKM used published trip rates for the ITE land uses Supermarket (ITE Code 850), Gasoline/Service Station (ITE Code 944), Fast Food Restaurant with Drive-Through Window (ITE Code 934), and Shopping Center (ITE Code 820). Although the proposed gas station use could be analyzed as Super convenience market/gas station (ITE code 960), with a market larger than 3,000 sq. ft. and more than 10 fueling positions, Gasoline/service station (ITE Code 944) features higher trip rates per 1,000 sq. ft. of market space and therefore produces a more conservative estimate of project trips. Approximate total sizes of the land uses are summarized below.

- Aldi's Supermarket – 21,000 square feet
- Gas Station – 4,250 square feet
- Drive-Through Restaurants – 20,100 square feet
- Retail/Commercial – 167,100 square feet

The project will have eight driveways where vehicles can exit or enter the development. Two driveways will be located along Visalia Parkway, one along Mooney Boulevard, three along Midvalley Avenue, and one along the future Hall Street. A prior version of the project, as analyzed in this report, also included a secondary driveway on Mooney Boulevard south of Visalia Parkway (intersection #30). That driveway has since been eliminated.

Table 8 shows the expected trips generated by Phase I of the project, and **Table 9** shows the total expected trips generated by both Phase I and Phase II (full buildout) of the project. Trip generation estimates take into account trips between separate uses within the development, known as internal

capture, as well as estimated pass-by trip reductions applied to all external trips for each use. For Phase I, the proposed project is expected to generate approximately 10,850 trips, including 640 a.m. peak hour trips (343 in, 297 out) and 902 p.m. peak hour trips (452 inbound, 450 outbound). At full buildout, the project is expected to generate 14,343 daily trips, including 767 a.m. peak hour (410 inbound, 357 outbound) and 1,216 p.m. peak hour (606 inbound, 610 outbound).

Table 8: Project Trip Generation, Phase I

| Land Use (ITE Code) ¹ | Size ² | Daily | | A.M. Peak | | | | P.M. Peak | | | | | |
|--|-------------------|----------|---------------|-----------|--------|------------|------------|------------|--------|--------|------------|------------|------------|
| | | Rate | Trips | Rate | In:Out | In | Out | Total | Rate | In:Out | In | Out | Total |
| Proposed Use | | | | | | | | | | | | | |
| Shopping Center (820) | 71.70 ksf | 66.87 | 4,795 | 2.62 | 62:38 | 117 | 71 | 188 | 5.93 | 48:52 | 204 | 221 | 425 |
| Internal Capture (4%) | | -4% | -192 | -4% | | -5 | -3 | -8 | -4% | | -8 | -9 | -17 |
| Subtotal | | | 4,603 | | | 112 | 68 | 180 | | | 196 | 212 | 408 |
| Pass-by trip reduction (34%) | | -34% | -1,565 | -34% | | -38 | -23 | -61 | -34% | | -67 | -72 | -139 |
| Subtotal (A) | | | 3,038 | | | 74 | 45 | 119 | | | 129 | 140 | 269 |
| Fast Food Restaurant with Drive-Through Window (934) | 15.10 ksf | 470.95 | 7,111 | 40.19 | 51:49 | 310 | 297 | 607 | 32.67 | 52:48 | 256 | 237 | 493 |
| Internal Capture (4%) | | -4% | -284 | -4% | | -12 | -12 | -24 | -4% | | -10 | -10 | -20 |
| Subtotal | | | 6,827 | | | 298 | 285 | 583 | | | 246 | 227 | 473 |
| Pass-by trip reduction (50%) | | -50% | -3,413 | -50% | | -149 | -143 | -292 | -50% | | -123 | -114 | -237 |
| Subtotal (B) | | | 3,413 | | | 149 | 142 | 291 | | | 123 | 113 | 236 |
| Supermarket (850) | 21.00 ksf | 128.63 | 2,701 | 3.82 | 60:40 | 48 | 32 | 80 | 11.57 | 51:49 | 124 | 119 | 243 |
| Internal Capture (4%) | | -4% | -108 | -4% | | -2 | -1 | -3 | -4% | | -5 | -5 | -10 |
| Subtotal | | | 2,593 | | | 46 | 31 | 77 | | | 119 | 114 | 233 |
| Pass-by trip reduction (25%) | | -25% | -648 | -25% | | -12 | -7 | -19 | -25% | | -30 | -28 | -58 |
| Subtotal (C) | | | 1,945 | | | 34 | 24 | 58 | | | 89 | 86 | 175 |
| Gasoline/Service Station (944) | 4.25 ksf | 1,202.83 | 5,112 | 84.55 | 50:50 | 180 | 179 | 359 | 109.27 | 50:50 | 232 | 232 | 464 |
| Internal Capture (4%) | | -4% | -204 | -4% | | -7 | -7 | -14 | -4% | | -9 | -10 | -19 |
| Subtotal | | | 4,908 | | | 173 | 172 | 345 | | | 223 | 222 | 445 |
| Pass-by trip reduction (50%) | | -50% | -2,454 | -50% | | -87 | -86 | -173 | -50% | | -112 | -111 | -223 |
| Subtotal (D) | | | 2,454 | | | 86 | 86 | 172 | | | 111 | 111 | 222 |
| Total Trips | | | 10,850 | | | 343 | 297 | 640 | | | 452 | 450 | 902 |

Notes:

¹ Source: Institute of Transportation Engineers *Trip Generation, 10th Edition*.² Ksf = 1,000 square feet

Table 9: Project Trip Generation, Phase I and Phase II

| Land Use (ITE Code) ¹ | Size ² | Daily | | A.M. Peak | | | | P.M. Peak | | | | | |
|--|-------------------|----------|---------------|-----------|--------|------------|------------|------------|--------|--------|------------|------------|--------------|
| | | Rate | Trips | Rate | In:Out | In | Out | Total | Rate | In:Out | In | Out | Total |
| Proposed Use | | | | | | | | | | | | | |
| Shopping Center (820) | 167.10 ksf | 51.01 | 8,524 | 1.41 | 62:38 | 146 | 89 | 235 | 4.76 | 48:52 | 382 | 413 | 795 |
| Internal Capture (4%) | | -4% | -341 | -4% | | -6 | -3 | -9 | -4% | | -15 | -17 | -32 |
| Subtotal | | | 8,183 | | | 140 | 86 | 226 | | | 367 | 396 | 763 |
| Pass-by trip reduction (34%) | | -34% | -2,782 | -34% | | -48 | -29 | -77 | -34% | | -125 | -134 | -259 |
| Subtotal (A) | | | 5,401 | | | 92 | 57 | 149 | | | 242 | 262 | 504 |
| Fast Food Restaurant with Drive-Through Window (934) | 20.10 ksf | 470.95 | 9,466 | 40.19 | 51:49 | 412 | 396 | 808 | 32.67 | 52:48 | 342 | 315 | 657 |
| Internal Capture (4%) | | -4% | -379 | -4% | | -16 | -16 | -32 | -4% | | -14 | -12 | -26 |
| Subtotal | | | 9,087 | | | 396 | 380 | 776 | | | 328 | 303 | 631 |
| Pass-by trip reduction (50%) | | -50% | -4,544 | -50% | | -198 | -190 | -388 | -50% | | -164 | -152 | -316 |
| Subtotal (B) | | | 4,544 | | | 198 | 190 | 388 | | | 164 | 151 | 315 |
| Supermarket (850) | 21.00 ksf | 128.63 | 2,701 | 3.82 | 60:40 | 48 | 32 | 80 | 11.57 | 51:49 | 124 | 119 | 243 |
| Internal Capture (4%) | | -4% | -108 | -4% | | -2 | -1 | -3 | -4% | | -5 | -5 | -10 |
| Subtotal | | | 2,593 | | | 46 | 31 | 77 | | | 119 | 114 | 233 |
| Pass-by trip reduction (25%) | | -25% | -648 | -25% | | -12 | -7 | -19 | -25% | | -30 | -28 | -58 |
| Subtotal (C) | | | 1,945 | | | 34 | 24 | 58 | | | 89 | 86 | 175 |
| Gasoline/Service Station (944) | 4.25 ksf | 1,202.83 | 5,112 | 84.55 | 50:50 | 180 | 179 | 359 | 109.27 | 50:50 | 232 | 232 | 464 |
| Internal Capture (4%) | | -4% | -204 | -4% | | -7 | -7 | -14 | -4% | | -9 | -10 | -19 |
| Subtotal | | | 4,908 | | | 173 | 172 | 345 | | | 223 | 222 | 445 |
| Pass-by trip reduction (50%) | | -50% | -2,454 | -50% | | -87 | -86 | -173 | -50% | | -112 | -111 | -223 |
| Subtotal (D) | | | 2,454 | | | 86 | 86 | 172 | | | 111 | 111 | 222 |
| Total Trips | | | 14,343 | | | 410 | 357 | 767 | | | 606 | 610 | 1,216 |

Notes:

¹ Source: Institute of Transportation Engineers *Trip Generation, 10th Edition*.² Ksf = 1,000 square feet

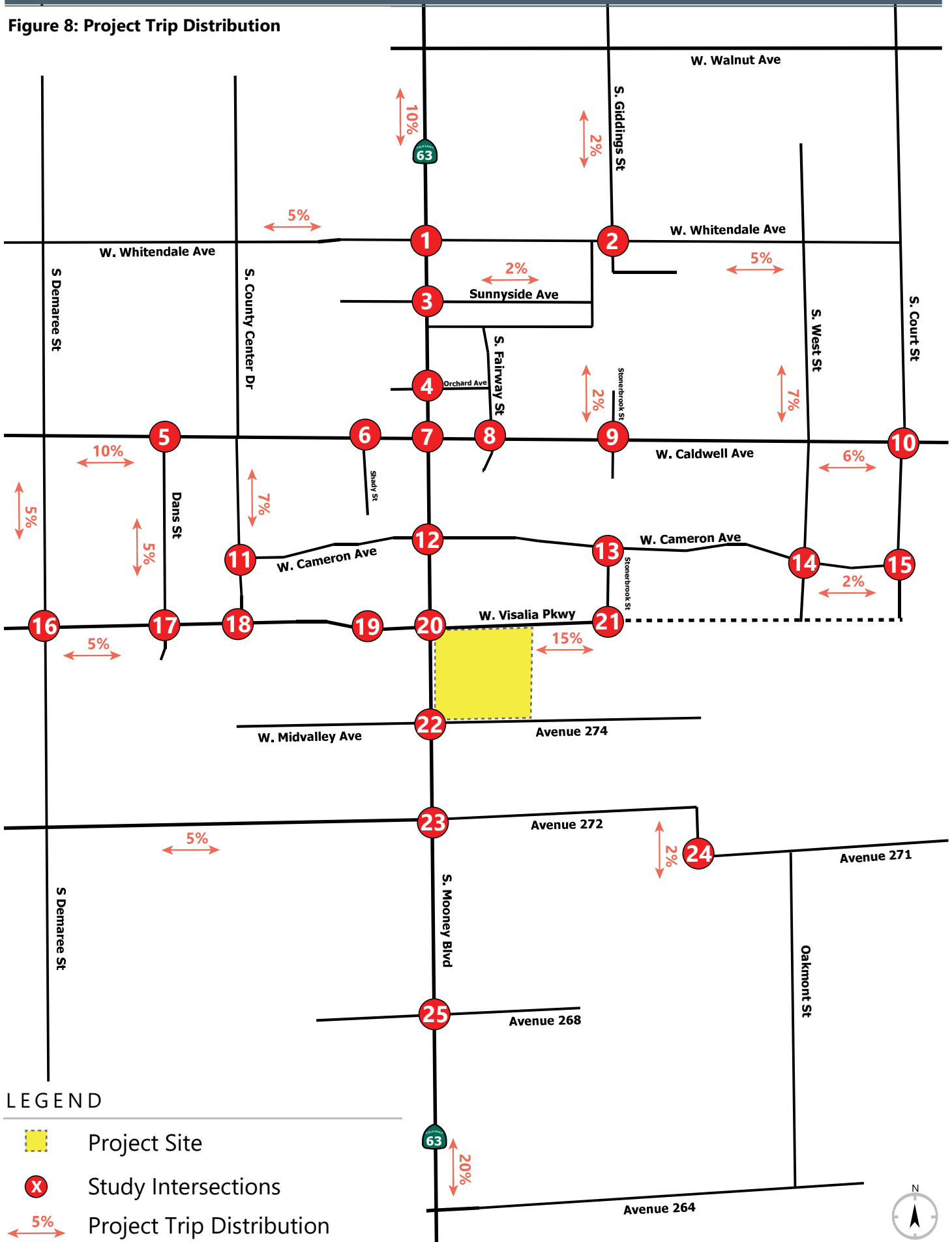
4.2 PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

Trip distribution is a process that determines in what proportion vehicles would be expected to travel between the project site and various destinations outside the project study area and also determines the various routes that vehicles would take from the project site to each destination using the calculated trip distribution. Trip distribution assumptions for the proposed project were developed based on existing travel patterns, knowledge of the study area, and consultation with City staff. Both Phase I and Phase II of the project use the same trip distribution assumptions, described below:

- 20 percent will travel to/from the south via Mooney Boulevard
- 5 percent will travel to/from the west via Avenue 272
- 2 percent will travel to/from the east via Road 122 and Avenue 271
- 5 percent will travel to/from the west via Visalia Parkway
- 5 percent will travel to/from the north via Demaree Road
- 5 percent will travel to/from the north via Dans Street
- 7 percent will travel to/from the north via County Center Drive
- 2 percent will travel to/from the east via Cameron Avenue
- 6 percent will travel to/from the east via Caldwell Avenue
- 7 percent will travel to/from the north via Court Street
- 10 percent will travel to/from the west via Caldwell Avenue
- 5 percent will travel to/from the west via Whitendale Avenue
- 2 percent will travel to/from the east via Sunnyside Avenue
- 10 percent will travel to/from the north via Mooney Boulevard
- 2 percent will travel to/from the north via Giddings Street
- 2 percent will travel to/from the south via Giddings Street
- 5 percent will travel to/from the east via Whitendale Avenue

Figure 8 illustrates the trip distribution percentages developed for the proposed project. **Figure 9** illustrates the trip assignment project volumes developed for Phase I, and **Figure 10** illustrates the trip assignment project volumes developed for full buildout of the proposed project. The assigned project trips for Phase I and Phase II (**Figure 10**) were then added to traffic volumes under Existing Conditions to generate Existing plus Project Conditions traffic volumes.

Figure 8: Project Trip Distribution



LEGEND



Project Site



Study Intersections



Project Trip Distribution



Figure 9a: Project Trip Assignment, Project Phase 1

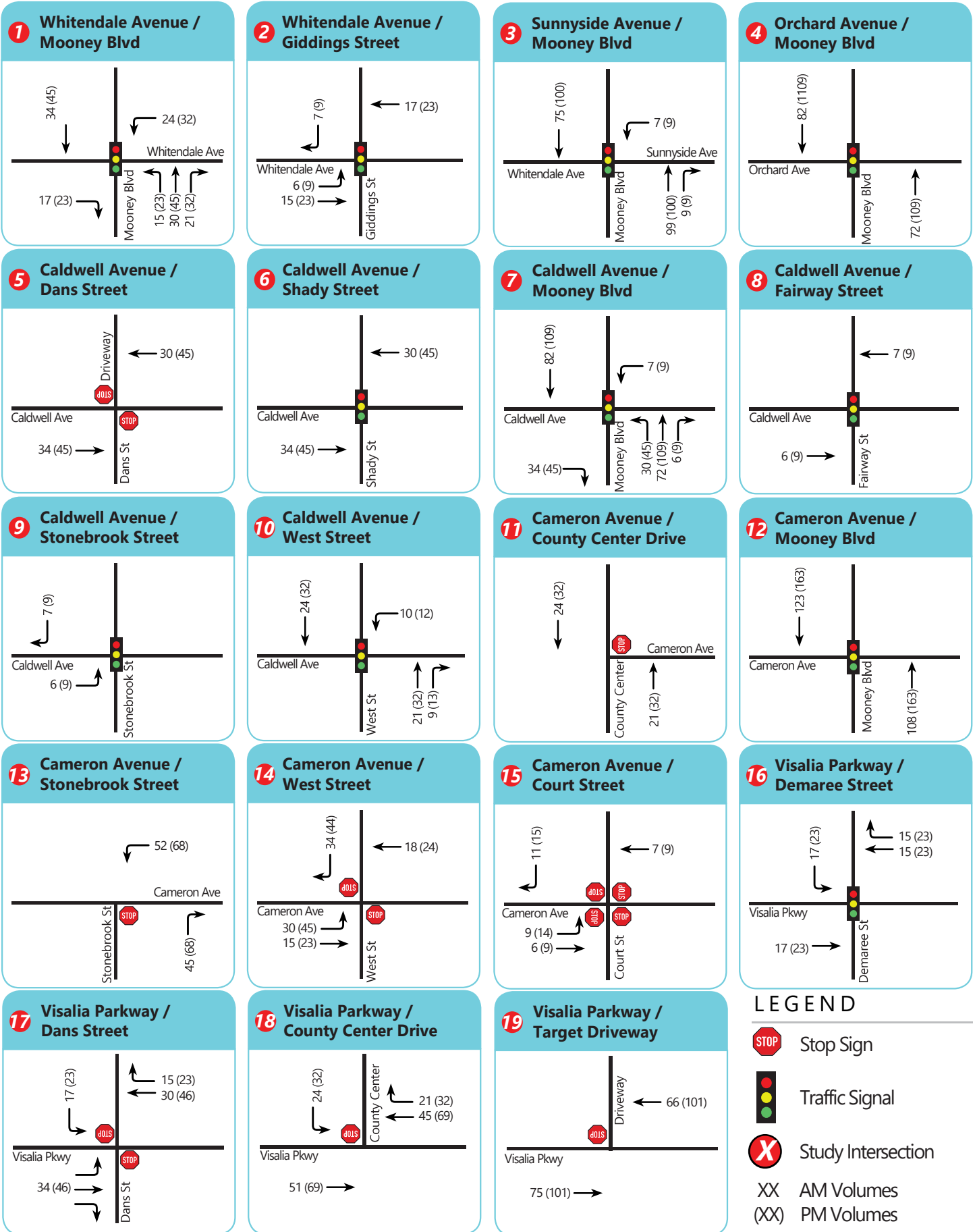


Figure 9b: Project Trip Assignment, Project Phase 1

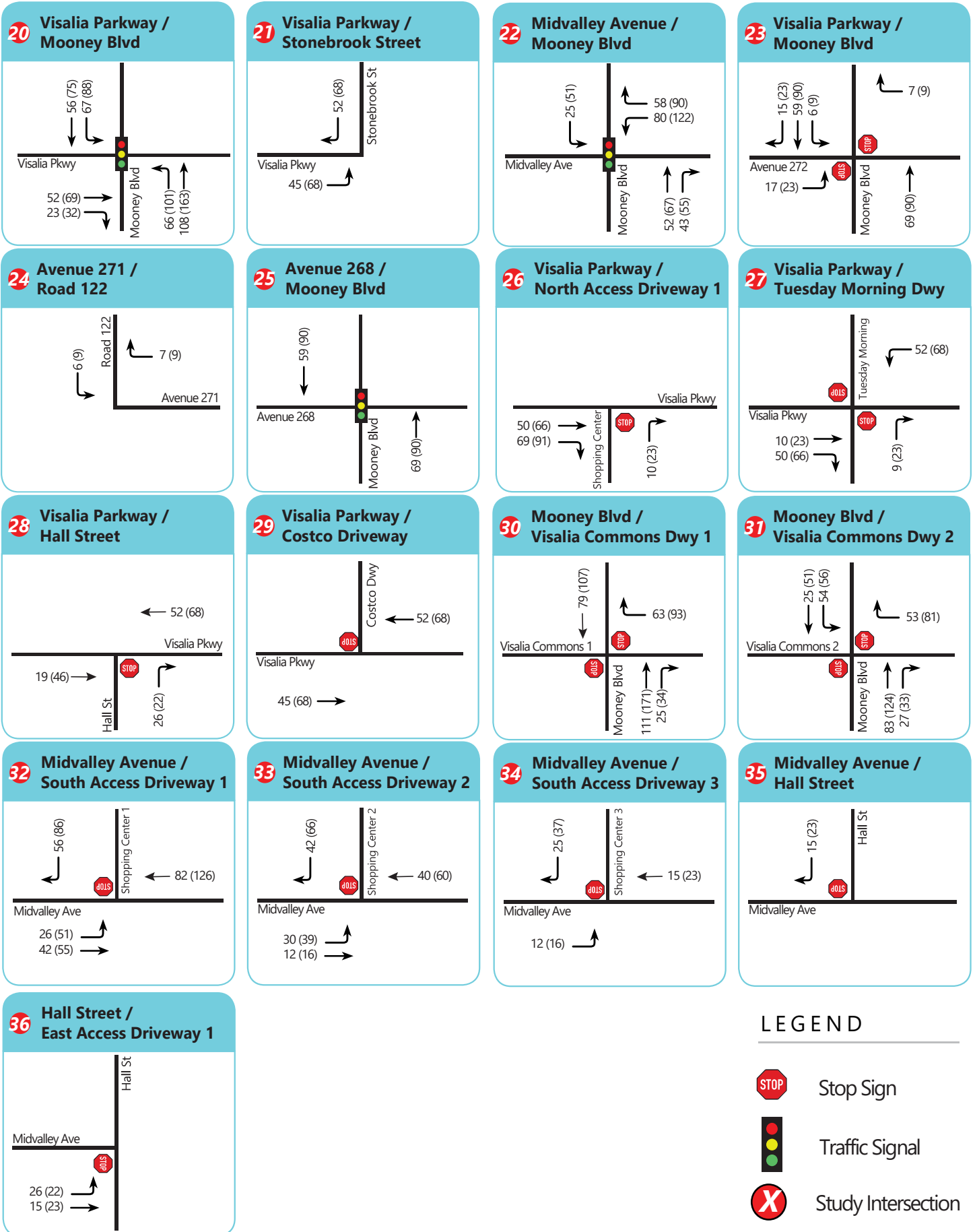


Figure 10a: Project Trip Assignment, Project Phase 1 and 2

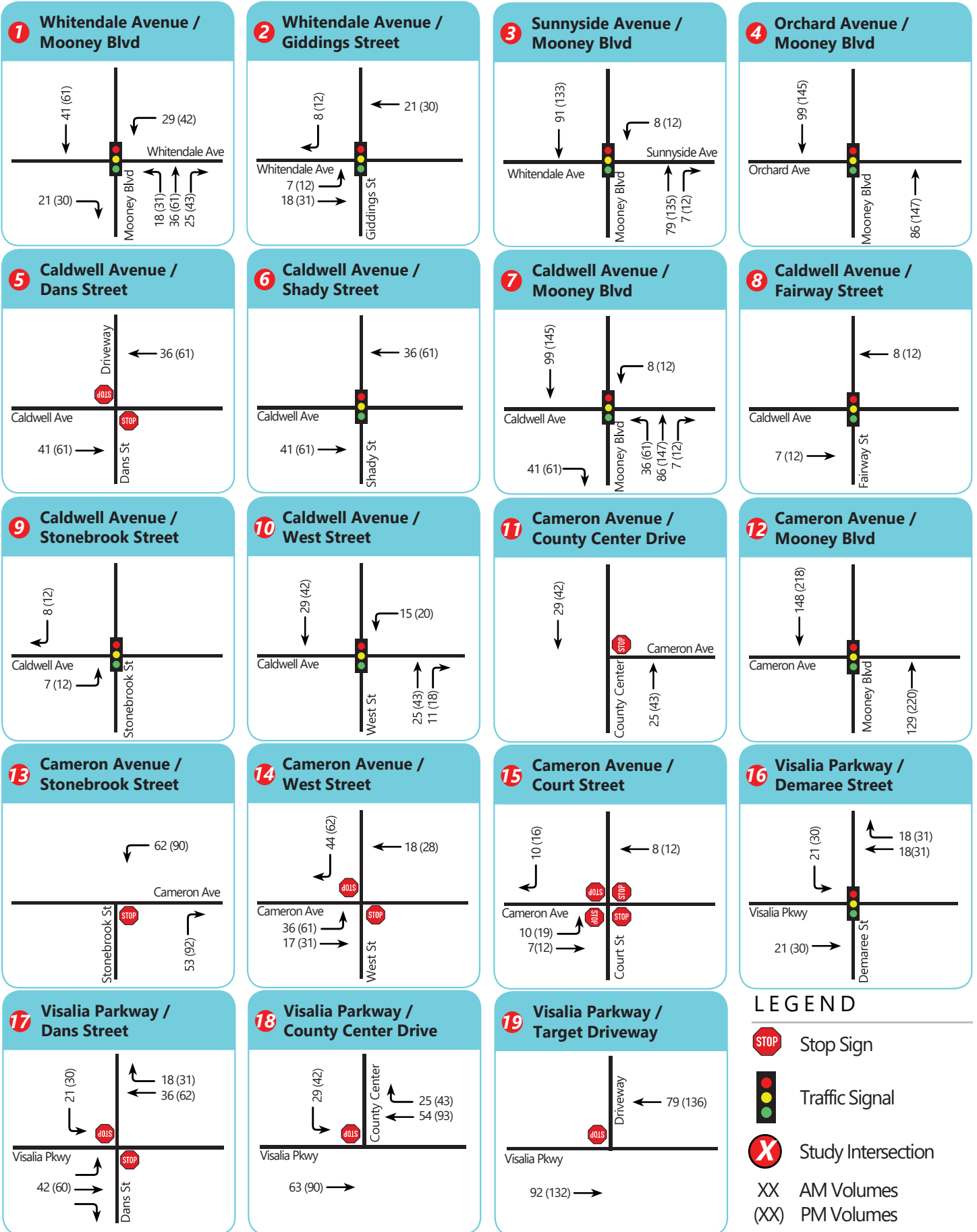
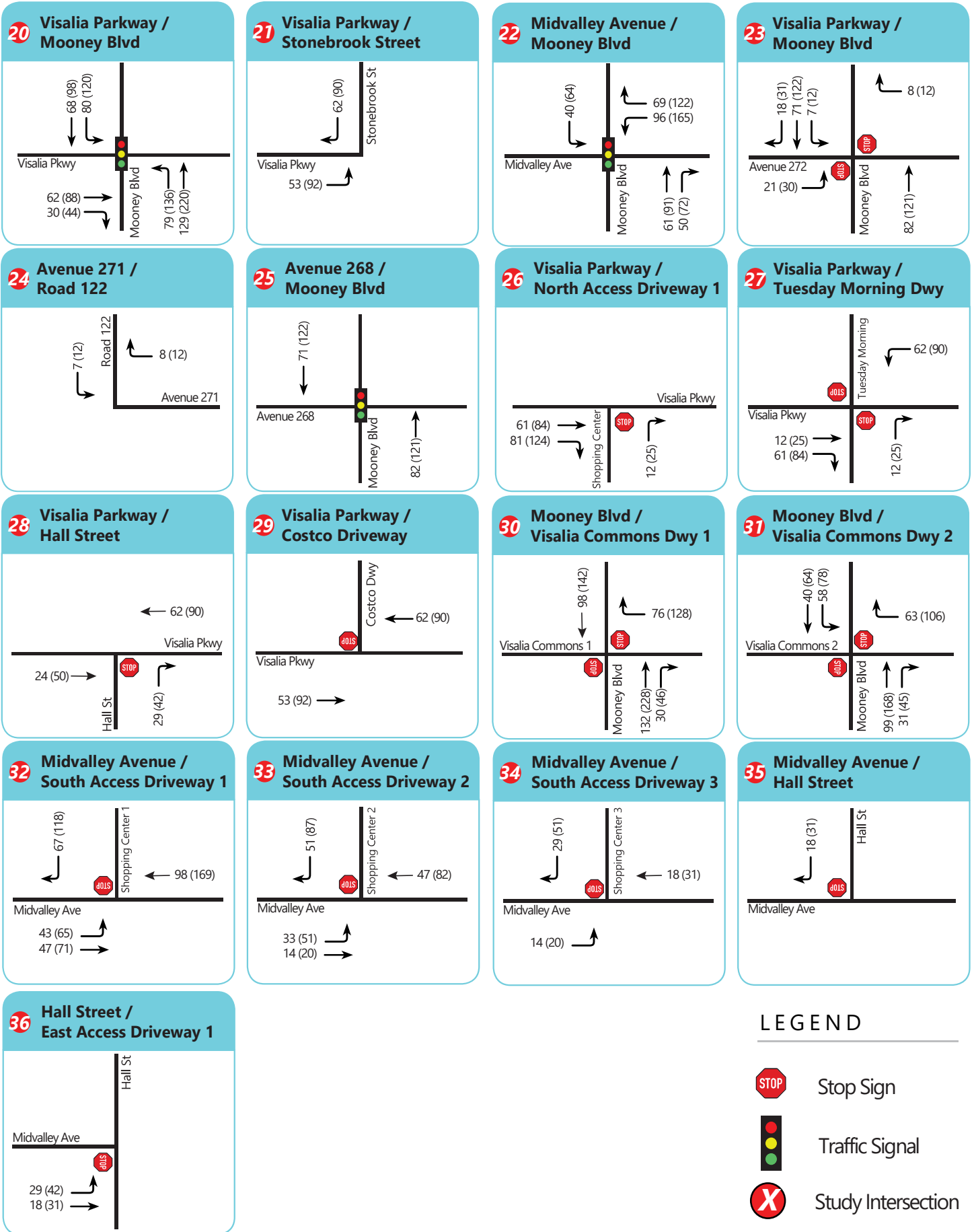


Figure 10b: Project Trip Assignment, Project Phase 1 and 2



4.3 INTERSECTION LEVEL OF SERVICE ANALYSIS – EXISTING PLUS PROJECT CONDITIONS

The intersection level of service analysis results for Existing Plus Project Conditions are summarized in **Table 10**. The results for Existing Conditions are included for comparison purposes. Detailed calculation sheets for Existing Plus Project Conditions are contained in **Appendix D**. **Figure 11** displays projected peak hour turning movement volumes at all of the study intersections for Existing plus Project Conditions.

Under this scenario, all but six of the study intersections would continue to operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour. The following three intersections already operate at unacceptable level of service without the addition of project traffic.

- Caldwell Avenue & Dans Street (intersection #5) would continue to operate at LOS E during both peak hours, with a *significant increase* in average delay of 8.0 seconds in the a.m. and p.m. peak hours.
- Cameron Avenue & West Street (intersection #14) would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 45.6 seconds.
- Avenue 272 & Mooney Boulevard (intersection #23) would continue to operate at LOS F in the a.m. and p.m. peak hour, with *significant increases* in average delay of 49.0 seconds in the a.m. peak hour and over 1,200 seconds in the p.m. peak hour.

The following three intersections would degrade from acceptable to unacceptable level of service with the addition of project traffic:

- Visalia Parkway & Dans Street (intersection #17) would degrade from LOS D to LOS F in the a.m. peak hour, a *significant degradation*.
- Visalia Parkway & County Center Drive (intersection #18) would degrade from LOS D to LOS F in the p.m. peak hour, a *significant degradation*.
- Visalia Parkway & Mooney Boulevard (intersection #20) would degrade from LOS D to LOS E in the p.m. peak hour, a *significant degradation*.

At the six intersections listed above, added project traffic would either degrade the level of service from acceptable to unacceptable, or increase average delay by more than 5.0 seconds, constituting significant inconsistencies with the City of Visalia General Plan. Five of these intersections are currently stop-controlled, and the identified inconsistencies can be mitigated with signalization, as shown in **Table 10**. At Visalia Parkway & Mooney Boulevard, mitigation would involve widening the eastbound, westbound, and northbound approaches. **Appendix M** includes full descriptions of all mitigation measures and LOS worksheets for mitigated conditions. Based on the City of Visalia impact criteria, with mitigation the project is expected to be **consistent** with general plan requirements at all study intersections.

Table 10: Intersection Level of Service Analysis – Existing plus Project Conditions

| # | Study Intersections | Control | Peak Hour ¹ | Existing Conditions | | Existing Plus Project Conditions | | Change in Delay | |
|----|-----------------------------------|------------------------------|------------------------|---------------------|------------------|----------------------------------|------------------|-----------------|--|
| | | | | Delay ² | LOS ³ | Delay ² | LOS ³ | | |
| 1 | Whitendale Ave. & Mooney Blvd. | Signal | A.M. | 39.4 | D | 39.8 | D | 0.4 | |
| | | | P.M. | 32.9 | C | 33.5 | C | 0.6 | |
| 2 | Whitendale Ave. & Giddings St. | Signal | A.M. | 11.9 | B | 12.2 | B | 0.3 | |
| | | | P.M. | 11.6 | B | 11.9 | B | 0.3 | |
| 3 | Sunnyside Ave. & Mooney Ave. | Signal | A.M. | 15.4 | B | 15.7 | B | 0.3 | |
| | | | P.M. | 17.0 | B | 16.6 | B | -0.4 | |
| 4 | Orchard Ave. & Mooney Ave. | Signal | A.M. | 20.3 | C | 20.7 | C | 0.4 | |
| | | | P.M. | 19.7 | B | 19.5 | B | -0.2 | |
| 5 | Caldwell Ave. & Dans St. | Two-Way Stop | A.M. | 36.7 | E | 44.7 | E | 8.0 | |
| | | | P.M. | 35.5 | E | 43.5 | E | 8.0 | |
| | | <i>Mitigation: Signalize</i> | <i>Signal</i> | A.M. | | | 14.2 | B | |
| | | | | P.M. | | | 8.0 | A | |
| 6 | Caldwell Ave. & Shady St. | Signal | A.M. | 10.1 | B | 10.0 | A | -0.1 | |
| | | | P.M. | 12.3 | B | 12.2 | B | -0.1 | |
| 7 | Caldwell Ave. & Mooney Blvd. | Signal | A.M. | 33.9 | C | 32.4 | C | -1.5 | |
| | | | P.M. | 35.7 | D | 35.3 | D | -0.4 | |
| 8 | Caldwell Ave. & Fairway St. | Signal | A.M. | 12.6 | B | 12.6 | B | 0.0 | |
| | | | P.M. | 19.2 | B | 19.3 | B | 0.1 | |
| 9 | Caldwell Ave. & Stonebrook St. | Signal | A.M. | 8.3 | A | 8.7 | A | 0.4 | |
| | | | P.M. | 9.2 | A | 9.9 | A | 0.7 | |
| 10 | Caldwell Ave. & West St. | Signal | A.M. | 12.1 | B | 12.7 | B | 0.6 | |
| | | | P.M. | 13.7 | B | 15.1 | B | 1.4 | |
| 11 | Cameron Ave. & County Center Dr. | One-Way Stop | A.M. | 15.1 | C | 15.8 | C | 0.7 | |
| | | | P.M. | 19.0 | C | 20.4 | C | 1.4 | |
| 12 | Cameron Ave. & Mooney Blvd. | Signal | A.M. | 38.1 | D | 35.6 | D | -2.5 | |
| | | | P.M. | 36.8 | D | 33.9 | C | -2.9 | |
| 13 | Cameron Ave. & Stonebrook St. | One-Way Stop | A.M. | 25.8 | D | 32.7 | D | 6.9 | |
| | | | P.M. | 21.9 | C | 29.1 | D | 7.2 | |
| 14 | Cameron Ave. & West St. | Two-Way Stop | A.M. | 20.4 | C | 27.8 | D | 7.4 | |
| | | | P.M. | 53.1 | F | 98.7 | F | 45.6 | |
| | | <i>Mitigation: Signalize</i> | <i>Signal</i> | A.M. | | | 8.5 | A | |
| | | | | P.M. | | | 14.7 | B | |
| 15 | Cameron Ave. & Court St. | All-Way Stop | A.M. | 10.8 | B | 11.1 | B | 0.3 | |
| | | | P.M. | 17.1 | C | 18.5 | C | 1.4 | |
| 16 | Visalia Pkwy. & Demaree S.t | Signal | A.M. | 24.4 | C | 26.0 | C | 1.6 | |
| | | | P.M. | 21.7 | C | 23.1 | C | 1.4 | |
| 17 | Visalia Pkwy. & Dans St. | Two-Way Stop | A.M. | 30.7 | D | 69.7 | F | 39.0 | |
| | | | P.M. | 19.7 | C | 30.9 | D | 11.2 | |
| | | <i>Mitigation: Signalize</i> | <i>Signal</i> | A.M. | | | 15.6 | B | |
| | | | | P.M. | | | 8.9 | A | |
| 18 | Visalia Pkwy. & County Center Dr. | One-Way Stop | A.M. | 21.9 | C | 34.2 | D | 12.3 | |
| | | | P.M. | 26.8 | D | 65.5 | F | 38.7 | |
| | | <i>Mitigation: Signalize</i> | <i>Signal</i> | A.M. | | | 10.8 | B | |
| | | | | P.M. | | | 11.0 | B | |
| 19 | Visalia Pkwy. & Target Access. | One-Way Stop | A.M. | 11.7 | B | 13.1 | B | 1.4 | |
| | | | P.M. | 17.4 | C | 25.6 | D | 8.2 | |
| 20 | Visalia Pkwy. & Mooney Blvd. | Signal | A.M. | 29.7 | C | 46.9 | D | 17.2 | |
| | | | P.M. | 50.5 | D | 78.6 | E | 28.1 | |
| | | <i>Mitigation: Widening</i> | <i>Signal</i> | A.M. | | | 31.8 | C | |
| | | | | P.M. | | | 50.0 | D | |

| # | Study Intersections | Control | Peak Hour ¹ | Existing Conditions | | Existing Plus Project Conditions | | Change in Delay |
|----|---------------------------------------|-----------------|------------------------|-----------------------------|----------------------|----------------------------------|----------------------|-------------------------------|
| | | | | Delay ² | LOS ³ | Delay ² | LOS ³ | |
| 21 | Visalia Pkwy. & Stonebrook St. | Uncontrolled | A.M. P.M. | - - | - - | - - | - - | - - |
| 22 | Midvalley Ave. & Mooney Blvd. | Signal | A.M. P.M. | 11.5 12.1 | B B | 16.8 25.9 | B C | 5.3 13.8 |
| 23 | Ave. 272 & Mooney Blvd. | Two-Way Stop | A.M. P.M. | 73.5 127.4 | F F | 122.5 1,422.5 | F F | 49.0 1,295.1 |
| | <i>Mitigation: Signalize</i> | <i>Signal</i> | A.M. P.M. | | | 10.3 9.9 | B A | |
| 24 | Ave. 271 & Rd. 122 | Uncontrolled | A.M. P.M. | - - | - - | - - | - - | - - |
| 25 | Ave. 268 & Mooney Blvd | Signal | A.M. P.M. | 14.3 24.4 | B C | 14.7 28.5 | B C | 0.4 4.1 |
| 26 | Visalia Pkwy. & North Access Dwy. 1. | One-Way Stop | A.M. P.M. | - - | - - | 12.2 13.2 | B B | - - |
| 27 | Visalia Pkwy & Tuesday Morning Dwy. | One-Way Stop | A.M. P.M. | 10.3 15.3 | B C | 10.9 12.0 | B B | 0.6 -3.3 |
| 28 | Visalia Pkwy. & Hall St. | One-Way Stop | A.M. P.M. | - - | - - | 10.1 12.6 | B B | - - |
| 29 | Visalia Pkwy. & Costco Dwy. | One-Way Stop | A.M. P.M. | 9.4 20.1 | A C | 10.0 25.8 | B D | 0.6 5.7 |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 | Two-Way Stop | A.M. P.M. | - - | - - | 13.3 20.0 | B C | - - |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 | Two-Way Stop | A.M. P.M. | - - | - - | 12.8 17.7 | B C | - - |
| 32 | Midvalley Ave. & South Access Dwy. 1 | One-Way Stop | A.M. P.M. | - - | - - | 9.2 10.1 | A B | - - |
| 33 | Midvalley Ave. & South Access Dwy. 2 | One-Way Stop | A.M. P.M. | - - | - - | 8.8 9.3 | A A | - - |
| 34 | Midvalley Ave. & South Access Dwy. 3 | One-Way Stop | A.M. P.M. | - - | - - | 8.6 8.8 | A A | - - |
| 35 | Midvalley Ave. & Hall St. | One-Way Stop | A.M. P.M. | - - | - - | 8.5 8.5 | A A | - - |
| 36 | Hall St. & East Access Dwy. 1 | One-Way Stop | A.M. P.M. | - - | - - | 8.6 8.7 | A A | - - |

Notes:

1. AM – morning peak hour, PM – evening peak hour
2. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop – controlled intersections.
3. LOS – Level of Service. **Bold** indicates unacceptable Level of Service. **Red** indicates a significant impact.

Figure 11a: Existing Plus Project Conditions Peak Hour Traffic Volumes

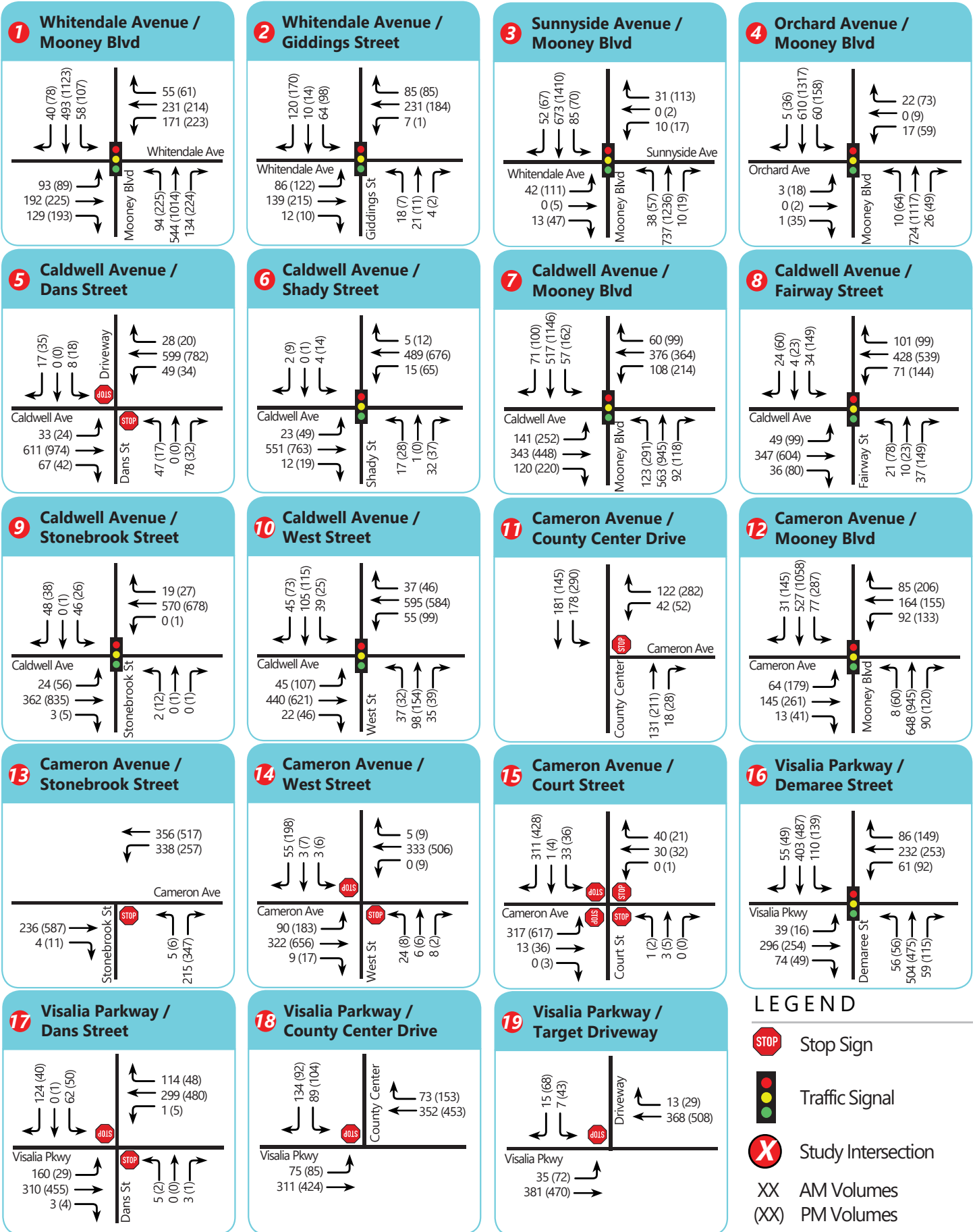
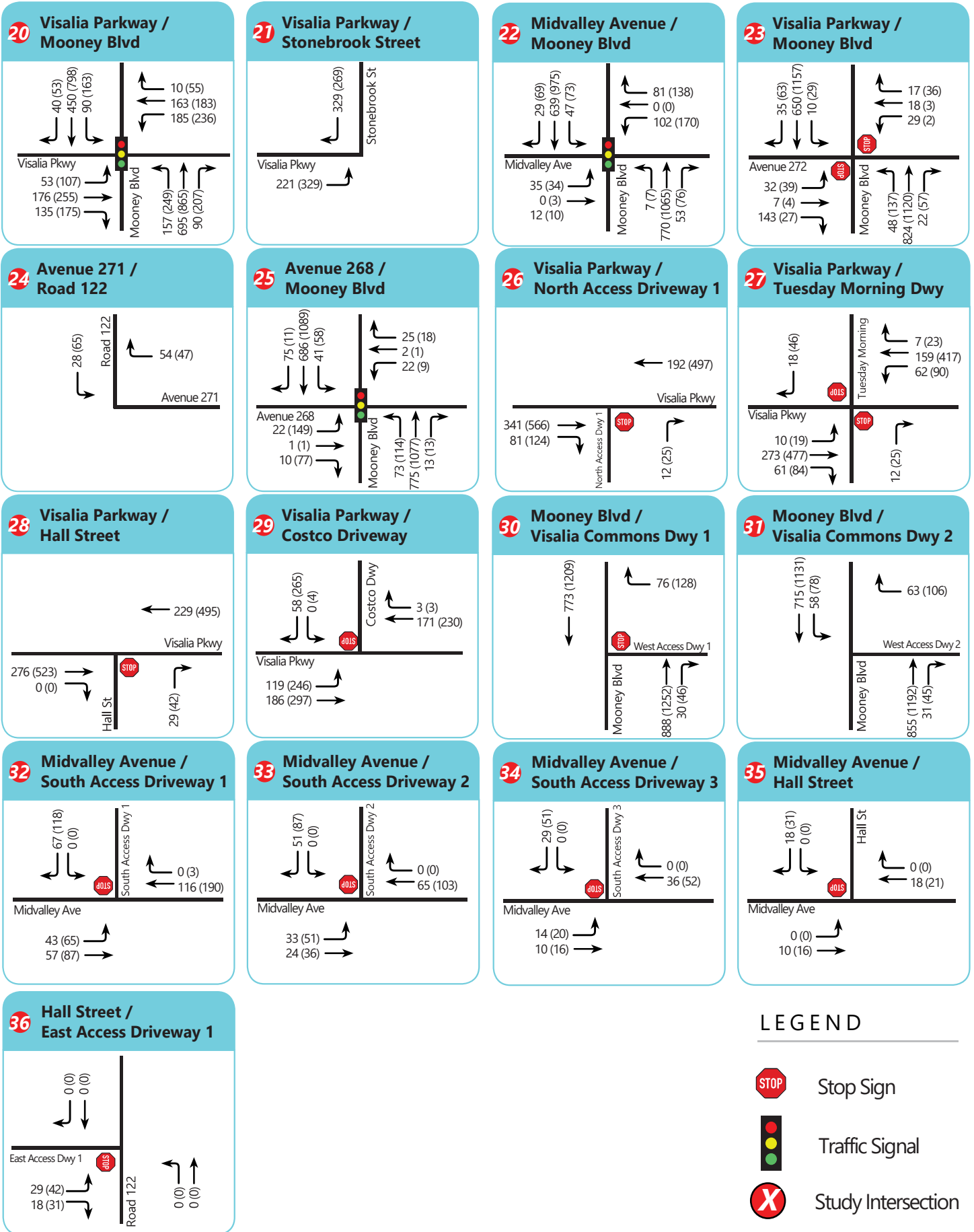


Figure 11b: Existing Plus Project Peak Hour Traffic Volumes



4.4 SIGNAL WARRANT ANALYSIS RESULTS – EXISTING PLUS PROJECT CONDITIONS

The results of the peak hour warrant under existing plus project conditions are summarized in **Table 11**. The results show that Caldwell Avenue & Dans Street, Cameron Avenue & West Street, Mooney Boulevard & Avenue 272, and Visalia Parkway & Costco Driveway meet the MUTCD peak hour signal warrant in one peak hour. **Table 11** also notes which intersections would require signalization in order to mitigate level of service impacts identified in section 4.3. The results of the eight-hour warrant under Existing Conditions for comparison purposes. Peak Hour warrants for existing conditions are provided in **Appendix D**.

As noted in section 2.3, signalization of an intersection may be appropriate if it meets one or more of the nine signal warrants detailed in the MUTCD. Peak hour and eight-hour signal warrants are used here to indicate whether signalization may be appropriate. Even if the Peak Hour Volume Warrant is met, a more detailed signal warrant study is recommended before a signal is installed. The more detailed study should consider volumes during the daily peak hours of roadway traffic, pedestrian traffic, and accident histories.

Table 11: Peak Hour Signal Warrant Results – Existing plus Project Conditions

| # | Intersection | Control | Existing Meets 8 Hour Warrant? | Existing plus Project Meets AM Peak Hour? | Existing plus Project Meets PM Peak Hour? | Mitigation Measures include Signalization? |
|----|--|--------------|--------------------------------|---|---|--|
| 5 | Caldwell Avenue & Dans Street | Two-Way Stop | No | Yes | No | Yes |
| 11 | Cameron Avenue & County Center Drive | One-Way Stop | No | No | No | NA |
| 13 | Cameron Avenue & Stonebrook Street | One-Way Stop | Yes ¹ | No | Yes | NA |
| 14 | Cameron Avenue & West Street | Two-Way Stop | Yes ¹ | No | Yes | Yes |
| 17 | Visalia Parkway & Dans Street | Two-Way Stop | No | Yes | Yes | Yes |
| 18 | Visalia Parkway & County Center Drive | One-Way Stop | No | No | No | Yes |
| 23 | Mooney Boulevard & Avenue 272 | Two-Way Stop | Yes ¹ | Yes | No | Yes |
| 27 | Visalia Parkway/Tuesday Morning Driveway | One-Way Stop | 8 Hour Data not available | No | No | NA |
| 29 | Visalia Parkway/Costco Driveway | One-Way Stop | 8 Hour Data not available | No | Yes ² | NA |

Note

¹ Majority of traffic is right turns. If right turns are excluded, then warrants may not be satisfied

² Majority of side street traffic is right turns.

4.5 QUEUING ANALYSIS – EXISTING PLUS PROJECT CONDITIONS

TJKM conducted a vehicle queuing and storage analysis for exclusive left and right turn pockets at the study intersections where project traffic is added under Existing Plus Project Conditions. The 95th percentile queues were analyzed using Synchro 10.0 software. Detailed calculations are included in the LOS appendices corresponding to each analysis scenario. **Table 12** summarizes the 95th percentile queue

lengths at selected study intersections under Existing and Existing Plus Project scenarios. It should be noted that at five study intersections, one or more queue lengths exceed capacity, creating a deficient condition. With the addition of project traffic, new queue overflows would be created at one intersection, Visalia Parkway & Mooney Boulevard (intersection #20). This can be mitigated using the same widening described previously in section 4.3. At all other study intersections, no new overflows would be created, and all existing queue overflows would be increased by less than one car length. With mitigation, the project is expected to have a **less-than-significant impact** on intersection queuing operations. Queuing calculation sheets for Existing Plus Project Conditions are included in **Appendix D**. Calculation sheets for mitigated conditions are included in **Appendix M**.

Table 12: 95th Percentile Queues at Study Intersections – Existing plus project Conditions

| # | Study Intersections | Lane Group | Storage Length | Existing | | Existing Plus Project | | Change | |
|---|---------------------------------------|------------|----------------|----------|-------------|-----------------------|-------------|--------|----|
| | | | | AM | PM | AM | PM | AM | PM |
| 1 | Whitendale Ave. & Mooney Blvd. | EBL | 155 | 79 | 73 | 79 | 73 | 0 | 0 |
| | | EBR | 260 | 21 | 60 | 43 | 64 | 22 | 4 |
| | | WBL | 250 | 112 | 129 | 130 | 156 | 18 | 27 |
| | | WBR | 235 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | NBL | 290 | 65 | 145 | 78 | 165 | 13 | 20 |
| | | NBR | 130 | 39 | 92 | 42 | 101 | 3 | 9 |
| | | SBL | 445 | 56 | 84 | 56 | 84 | 0 | 0 |
| | | SBR | 190 | 0 | 12 | 0 | 12 | 0 | 0 |
| 2 | Whitendale Ave. & Giddings St. | EBL | 105 | 74 | 77 | 81 | 89 | 7 | 12 |
| | | WBL | 105 | 15 | 4 | 15 | 4 | 0 | 0 |
| | | WBR | 35 | 35 | 29 | 35 | 33 | 0 | 4 |
| | | SBL | 150 | 49 | 65 | 51 | 69 | 2 | 4 |
| | | SBR | 50 | 29 | 38 | 31 | 40 | 2 | 2 |
| 3 | Sunnyside Ave. & Mooney Ave. | EBL | 170 | 66 | 173 | 66 | 173 | 0 | 0 |
| | | WBL | 100 | 10 | 17 | 27 | 40 | 17 | 23 |
| | | NBL | 400 | 62 | 77 | 62 | 80 | 0 | 3 |
| | | SBL | 270 | 110 | 116 | 110 | m115 | 0 | -1 |
| 4 | Orchard Ave. & Mooney Ave. | WBL | 105 | 42 | 108 | 42 | 108 | 0 | 0 |
| | | NBL | 125 | 14 | m43 | 14 | m40 | 0 | -3 |
| | | NBR | 100 | 0 | m9 | 0 | m7 | 0 | -2 |
| | | SBL | 250 | 101 | #294 | 101 | #296 | 0 | 2 |
| | | SBR | 100 | 0 | m6 | 0 | m2 | 0 | -4 |
| 5 | Caldwell Ave. & Dans St. ¹ | NBLTR | - | 78 | 30 | 93 | 38 | 15 | 8 |
| | | SBLTR | - | 10 | 28 | 10 | 33 | 0 | 5 |
| 6 | Caldwell Ave. & Shady St. | EBL | 240 | 29 | 72 | 29 | 74 | 0 | 2 |
| | | WBL | 250 | 22 | 88 | 22 | 90 | 0 | 2 |
| | | SBR | - | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | Caldwell Ave. & Mooney Blvd. | EBL | 345 | 100 | #178 | 100 | #178 | 0 | 0 |
| | | WBL | 340 | 75 | 145 | 80 | 153 | 5 | 8 |
| | | NBL | 265 | 68 | m107 | 90 | 147 | 22 | 40 |

| # | Study Intersections | Lane Group | Storage Length | Existing | | Existing Plus Project | | Change | | | |
|-----|--|------------|---|----------|-------------|-----------------------|--------------|--------|-----|----|---|
| | | | | AM | PM | AM | PM | AM | PM | | |
| | | NBR | 165 | 20 | m21 | 26 | m50 | 6 | 29 | | |
| | | SBL | 270 | 50 | 90 | 50 | 95 | 0 | 5 | | |
| | | SBR | 270 | 5 | 1 | 5 | 0 | 0 | -1 | | |
| 8 | Caldwell Ave. & Fairway St. | EBL | 200 | 69 | 125 | 69 | 125 | 0 | 0 | | |
| | | WBL | 285 | 90 | #176 | 90 | #176 | 0 | 0 | | |
| | | NBL | 120 | 20 | 59 | 20 | 59 | 0 | 0 | | |
| | | SBL | 55 | 28 | 104 | 28 | 104 | 0 | 0 | | |
| 9 | Caldwell Ave. & Stonebrook St | EBL | 235 | 24 | 50 | 29 | 59 | 5 | 9 | | |
| | | WBL | 300 | 0 | 5 | 0 | 5 | 0 | 0 | | |
| | | SBL | - | 42 | 34 | 42 | 34 | 0 | 0 | | |
| | | SBR | 200 | 0 | 1 | 0 | 10 | 0 | 9 | | |
| | | 10 | Caldwell Ave. & West St. | EBL | 300 | 55 | 105 | 53 | 105 | -2 | 0 |
| | | | | EBR | 110 | 0 | 11 | 0 | 11 | 0 | 0 |
| WBL | 290 | | | 50 | 84 | 61 | 100 | 11 | 16 | | |
| WBR | 100 | | | 7 | 11 | 6 | 11 | -1 | 0 | | |
| | | NBR | 50 | 0 | 0 | 0 | 2 | 0 | 2 | | |
| | | 11 | Cameron Ave. & County Center Dr. ¹ | WBR | 100 | 15 | 40 | 15 | 43 | 0 | 3 |
| | | | | NBR | 160 | - | - | - | - | - | - |
| SBL | 145 | | | 13 | 23 | 13 | 23 | 0 | 0 | | |
| 12 | Cameron Ave. & Mooney Blvd. | EBL | 155 | 106 | #342 | 106 | m#337 | 0 | -5 | | |
| | | WBL | 300 | 137 | #230 | 137 | #230 | 0 | 0 | | |
| | | NBL | 210 | 12 | m46 | 12 | m32 | 0 | -14 | | |
| | | NBR | 150 | 16 | m83 | 16 | m49 | 0 | -34 | | |
| | | SBL | 185 | 58 | 199 | 58 | 198 | 0 | -1 | | |
| | | SBR | 150 | 0 | 1 | 0 | 15 | 0 | 14 | | |
| 13 | Cameron Ave. & Stonebrook St. ¹ | NBL | 145 | 3 | 3 | 3 | 3 | 0 | 0 | | |
| 14 | Cameron Ave. & West St. ¹ | EBL | 100 | 5 | 10 | 8 | 18 | 3 | 8 | | |
| | | WBL | 90 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | SBL | 110 | 0 | 5 | 3 | 8 | 3 | 3 | | |
| 15 | Cameron Ave. & Court St. ¹ | EBL | 260 | 13 | 48 | 13 | 55 | 0 | 7 | | |
| | | NBL | 225 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | SBL | 195 | 3 | 3 | 3 | 3 | 0 | 0 | | |
| | | SBR | 200 | 8 | 15 | 8 | 18 | 0 | 3 | | |
| | | 16 | Visalia Pkwy. & Demaree S.t | EBL | 145 | 66 | 33 | 66 | 33 | 0 | 0 |
| | | | | EBR | 245 | 8 | 0 | 8 | 0 | 0 | 0 |
| WBL | 180 | | | 92 | 110 | 92 | 110 | 0 | 0 | | |
| NBL | 300 | | | 86 | 77 | 86 | 77 | 0 | 0 | | |
| | | SBL | 305 | 123 | 126 | 148 | 156 | 25 | 30 | | |
| | | 17 | Visalia Pkwy. & Dans St. ¹ | EBL | 190 | 18 | 3 | 18 | 3 | 0 | 0 |
| WBL | 75 | | | 0 | 0 | 0 | 0 | 0 | 0 | | |

| # | Study Intersections | Lane Group | Storage Length | Existing | | Existing Plus Project | | Change | |
|-----------------------------|--|------------|----------------|----------|-----|-----------------------|-------|--------|-----|
| | | | | AM | PM | AM | PM | AM | PM |
| 18 | Visalia Pkwy. & County Center Dr. ¹ | EBL | 200 | 8 | 8 | 8 | 8 | 0 | 0 |
| | | SBL | 190 | 25 | 30 | 60 | 105 | 35 | 75 |
| 19 | Visalia Pkwy. & Target Access. ¹ | SBLR | - | 3 | 30 | 5 | 48 | 2 | 18 |
| 20 | Visalia Pkwy. & Mooney Blvd. | EBL | 180 | 85 | 170 | 85 | 170 | 0 | 0 |
| | | WBL | 175 | #295 | 330 | #296 | 330 | 1 | 0 |
| | | NBL | 205 | 113 | 178 | #239 | #470 | 126 | 292 |
| | | SBL | 290 | 28 | m0 | 127 | m#373 | 99 | 373 |
| | | SBR | 210 | 0 | m5 | 0 | m4 | 0 | -1 |
| <i>Mitigation: widening</i> | | EBL | 180 | | | 39 | #87 | | |
| | | WBL | 175 | | | 101 | 142 | | |
| | | NBL | 205 | | | #113 | 137 | | |
| | | SBL | 290 | | | #165 | #293 | | |
| | | SBR | 210 | | | 0 | 0 | | |
| 21 | Visalia Pkwy. & Stonebrook St. ² | - | - | - | - | - | - | - | - |
| 22 | Midvalley Ave. & Mooney Blvd. | EBR | 25 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | NBL | 475 | 13 | 16 | 15 | 18 | 2 | 2 |
| | | SBL | 465 | 13 | 19 | 50 | 81 | 37 | 62 |
| 23 | Ave. 272 & Mooney Blvd. ¹ | SBR | 140 | 0 | 10 | 0 | 9 | 0 | -1 |
| | | NBL | 470 | 5 | 23 | 5 | 28 | 0 | 5 |
| | | SBL | 485 | 0 | 3 | 0 | 5 | 0 | 2 |
| 24 | Ave. 271 & Rd. 122 ² | - | - | - | - | - | - | - | - |
| 25 | Ave. 268 & Mooney Blvd | NBL | 470 | 73 | 109 | 73 | 109 | 0 | 0 |
| | | SBL | 475 | 48 | 66 | 48 | 66 | 0 | 0 |
| 26 | Visalia Pkwy. & North Access Dwy 1. ¹ | - | - | - | - | 3 | 5 | - | - |
| 27 | Visalia Pkwy & Tuesday Morning Dwy ¹ | EBL | 150 | - | - | 0 | 3 | - | - |
| | | WBL | 150 | - | - | 5 | 8 | - | - |
| | | NBR | - | - | - | 3 | 5 | - | - |
| | | SBR | - | 3 | 10 | 3 | 3 | 0 | -7 |
| 28 | Visalia Pkwy. & Hall St. ¹ | NBR | - | - | - | 3 | 8 | - | - |
| 29 | Visalia Pkwy. & Costco Dwy. ¹ | SBL | - | 0 | 3 | 0 | 3 | 0 | 0 |
| | | SBR | - | 8 | 35 | 8 | 40 | 0 | 5 |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 ¹ | WBR | - | - | - | 15 | 43 | - | - |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 ¹ | WBR | - | - | - | 10 | 30 | - | - |
| | | NBL | - | - | - | - | - | - | - |
| | | SBL | - | - | - | 8 | 15 | - | - |
| 32 | Midvalley Ave. & South Access Dwy. 1 ¹ | SBLR | - | - | - | 8 | 13 | - | - |
| 33 | Midvalley Ave. & | SBLR | - | - | - | 5 | 8 | - | - |

| # | Study Intersections | Lane Group | Storage Length | Existing | | Existing Plus Project | | Change | |
|----|---|------------|----------------|----------|----|-----------------------|----|--------|----|
| | | | | AM | PM | AM | PM | AM | PM |
| | South Access Dwy. 2 ¹ | | | | | | | | |
| 34 | Midvalley Ave. & South Access Dwy. 3 ¹ | SBLR | - | - | - | 3 | 5 | - | - |
| 35 | Midvalley Ave. & Hall St. ¹ | SBLR | - | - | - | 3 | 3 | - | - |
| 36 | Hall St. & East Access Dwy. 1 ¹ | EBLR | - | - | - | 5 | 5 | - | - |

Notes:

1. Stop-controlled intersection

2. Uncontrolled intersection

Storage length and 95th percentile queue is expressed in feet per lane

AM – morning peak hour, PM – evening peak hour

Bold indicates queue lengths exceeding capacity. **Red** indicates significant impact.

95th percentile volume exceeds capacity, queue may be longer

m Volume for 95th percentile queue is metered by upstream signal

5.0 FIVE-YEAR CUMULATIVE CONDITIONS

This chapter presents the results of the level of service calculations under Five-Year Cumulative Conditions without the project. Level of service analysis at the study intersections were conducted for five-Year Cumulative Conditions to establish a base to evaluate the impacts due to the addition of traffic from the proposed project. Where available, intersection volumes for this scenario are based on Five-Year Cumulative plus Project Conditions found in the Traffic Impact Study for the Commons at Visalia Parkway Shopping Center (Peters Engineering Group, January 2020). At study intersections not included in that study, Existing Conditions volumes were projected forward five years using growth factors derived from the Tulare County Association of Governments (TCAG) travel demand model. The following pending projects were included in the Visalia Parkway Shopping Center study:

- SPR 2018-191 La-Z-Boy furniture store: 15,600 sq. ft.
- CUP 2018-27 Oil and lube with three bays: 2,050 sq. ft.
- SPR 2018-138 furniture store: 33,000 sq. ft.
- SPR 2017-057 Convenience store and gas station : 3,191 sq. ft. with 12 fueling positions
- SPR 2017-057 Retail Buildings: Four 6,500 sq. ft. buildings
- SPR 2019-126 Residential: 228 multifamily units
- SPR 2019-125 Residential: 3 single family units
- SPR 2019-079 Restaurant: 7,522 sq. ft.
- CUP 2019-30 Dental: 3,552 sq. ft.
- CUP 2018-30 Medical office building: 56,000 sq. ft.
- CUP 2019-32 Luv-2-Play: 21,966 sq. ft.
- CUP 2019-11 Coffee Shop: 560 sq. ft.
- Los Pinos Subdivision: 21 single family units
- Southern Highlands Subdivision: 71 single-family and 40 multifamily units.

Figure 12 shows turning movement volumes at all the study intersections for Five-Year Cumulative Conditions. Lane geometries and traffic controls were maintained, similar to existing, aside from changes listed below:

- Visalia Parkway is extended east of Stonebrook Street
- Assumed the Visalia Parkway Shopping Center across the street is built-out

5.1 INTERSECTIONS LEVEL OF SERVICE ANALYSIS – FIVE-YEAR CUMULATIVE CONDITIONS

The intersection LOS analysis results for Five-Year Cumulative Conditions without the proposed project are summarized in **Table 13**. Detailed calculation sheets for Five-Year Cumulative Conditions are contained in **Appendix F**.

Under this scenario, all of the study intersections operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour, except for the following six intersections:

- Caldwell Avenue & Dans Street (intersection #5) would operate at LOS E in the a.m. peak hour and LOS F in the p.m. peak hour

- Cameron Avenue & West Street (intersection #14) would operate at LOS F in the p.m. peak hour
- Visalia Parkway & County Center Drive (intersection #18) would operate at LOS F in the p.m. peak hour.
- Visalia Parkway & Target Access. (intersection #19) would operate at LOS F in the a.m. and p.m. peak hours.
- Visalia Parkway & Mooney Boulevard (intersection #20) would operate at LOS F in the p.m. peak hour.
- Avenue 272 & Mooney Boulevard (intersection #23) is operating at LOS F in the a.m. and p.m. peak hours.

Table 13: Intersection Level of Service Analysis – Five-Year Cumulative Conditions

| # | Study Intersections | Control | Peak Hour ¹ | Five-Year Cumulative Conditions | |
|----|-----------------------------------|--------------|------------------------|---------------------------------|------------------|
| | | | | Delay ² | LOS ³ |
| 1 | Whitendale Ave. & Mooney Blvd. | Signal | A.M. | 39.2 | D |
| | | | P.M. | 32.9 | C |
| 2 | Whitendale Ave. & Giddings St. | Signal | A.M. | 11.2 | B |
| | | | P.M. | 11.6 | B |
| 3 | Sunnyside Ave. & Mooney Ave. | Signal | A.M. | 16.7 | B |
| | | | P.M. | 35.8 | D |
| 4 | Orchard Ave. & Mooney Ave. | Signal | A.M. | 20.3 | C |
| | | | P.M. | 19.8 | B |
| 5 | Caldwell Ave. & Dans St. | Two-Way Stop | A.M. | 44.6 | E |
| | | | P.M. | 51.8 | F |
| 6 | Caldwell Ave. & Shady St. | Signal | A.M. | 9.9 | A |
| | | | P.M. | 12.2 | B |
| 7 | Caldwell Ave. & Mooney Blvd. | Signal | A.M. | 32.0 | C |
| | | | P.M. | 36.8 | D |
| 8 | Caldwell Ave. & Fairway St. | Signal | A.M. | 12.7 | B |
| | | | P.M. | 19.7 | B |
| 9 | Caldwell Ave. & Stonebrook St. | Signal | A.M. | 9.7 | A |
| | | | P.M. | 9.8 | A |
| 10 | Caldwell Ave. & West St. | Signal | A.M. | 12.3 | B |
| | | | P.M. | 14.4 | B |
| 11 | Cameron Ave. & County Center Dr. | One-Way Stop | A.M. | 15.5 | C |
| | | | P.M. | 22.8 | C |
| 12 | Cameron Ave. & Mooney Blvd. | Signal | A.M. | 36.7 | D |
| | | | P.M. | 36.7 | D |
| 13 | Cameron Ave. & Stonebrook St. | One-Way Stop | A.M. | 30.4 | D |
| | | | P.M. | 28.6 | D |
| 14 | Cameron Ave. & West St. | Two-Way Stop | A.M. | 22.8 | C |
| | | | P.M. | 100.3 | F |
| 15 | Cameron Ave. & Court St. | All-Way Stop | A.M. | 11.3 | B |
| | | | P.M. | 23.8 | C |
| 16 | Visalia Pkwy. & Demaree S.t | Signal | A.M. | 25.0 | C |
| | | | P.M. | 25.1 | C |
| 17 | Visalia Pkwy. & Dans St. | Two-Way Stop | A.M. | 27.6 | D |
| | | | P.M. | 25.1 | D |
| 18 | Visalia Pkwy. & County Center Dr. | One-Way Stop | A.M. | 28.5 | D |
| | | | P.M. | 73.4 | F |

| # | Study Intersections | Control | Peak Hour ¹ | Five-Year Cumulative Conditions | |
|----|---------------------------------------|--------------|------------------------|---------------------------------|------------------|
| | | | | Delay ² | LOS ³ |
| 19 | Visalia Pkwy. & Target Access. | One-Way Stop | A.M. | 82.6 | F |
| | | | P.M. | >1,700 | F |
| 20 | Visalia Pkwy. & Mooney Blvd. | Signal | A.M. | 35.3 | D |
| | | | P.M. | 110.9 | F |
| 21 | Visalia Pkwy. & Stonebrook St. | Uncontrolled | A.M. | 10.0 | B |
| | | | P.M. | 9.2 | A |
| 22 | Midvalley Ave. & Mooney Blvd. | Signal | A.M. | 12.1 | B |
| | | | P.M. | 14.7 | B |
| 23 | Ave. 272 & Mooney Blvd. | Two-Way Stop | A.M. | 253.4 | F |
| | | | P.M. | >900 | F |
| 24 | Ave. 271 & Rd. 122 | Uncontrolled | A.M. | - | - |
| | | | P.M. | - | - |
| 25 | Ave. 268 & Mooney Blvd | Signal | A.M. | 15.3 | B |
| | | | P.M. | 34.8 | C |
| 26 | Visalia Pkwy. & North Access Dwy 1. | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 27 | Visalia Pkwy & Tuesday Morning Dwy. | One-Way Stop | A.M. | 12.1 | B |
| | | | P.M. | 17.6 | C |
| 28 | Visalia Pkwy. & Hall St. | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 29 | Visalia Pkwy. & Costco Dwy. | One-Way Stop | A.M. | 10.8 | B |
| | | | P.M. | 24.2 | C |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 | Two-Way Stop | A.M. | 12.1 | B |
| | | | P.M. | 17.1 | C |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 | Two-Way Stop | A.M. | 12.2 | B |
| | | | P.M. | 21.5 | C |
| 32 | Midvalley Ave. & South Access Dwy. 1 | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 33 | Midvalley Ave. & South Access Dwy. 2 | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 34 | Midvalley Ave. & South Access Dwy. 3 | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 35 | Midvalley Ave. & Hall St. | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 36 | Hall St. & East Access Dwy. 1 | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |

Notes:

1. AM – morning peak hour, PM – evening peak hour

2. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop – controlled intersections.

3. LOS – Level of Service. **Bold** indicates unacceptable LOS and Delay.

5.2 SIGNAL WARRANT ANALYSIS RESULTS – FIVE-YEAR CUMULATIVE CONDITIONS

The results of the peak hour warrant under five-year cumulative conditions are summarized in **Table 14**.

The results show that Caldwell Avenue & Dans Street, Cameron Avenue & Stonebrook Street, Cameron Avenue & West Street, Visalia Parkway & Dans Street, Mooney Boulevard & Avenue 272, and Visalia

Parkway & Costco Driveway meet the MUTCD peak hour signal warrant in one peak hour. Peak Hour warrants for existing conditions are provided in **Appendix G**.

It should be noted that eight-hour traffic volume volumes cannot be adequately projected based on projections of peak hour volumes, as traffic during off-peak hours may change differently over time. As such, the eight-hour signal warrant was not evaluated for Five Year Cumulative Conditions.

Table 14: Peak Hour Signal Warrant Results – Five-Year Cumulative Conditions

| # | Intersection | Control | Five-Year Cumulative | |
|----|--|--------------|----------------------|---------------------|
| | | | Meets AM Peak Hour? | Meets PM Peak Hour? |
| 5 | Caldwell Avenue & Dans Street | Two-Way Stop | Yes | No |
| 11 | Cameron Avenue & County Center Drive | One-Way Stop | No | No |
| 13 | Cameron Avenue & Stonebrook Street | One-Way Stop | No | Yes |
| 14 | Cameron Avenue & West Street | Two-Way Stop | No | Yes |
| 17 | Visalia Parkway & Dans Street | Two-Way Stop | Yes | No |
| 18 | Visalia Parkway & County Center Drive | One-Way Stop | No | No |
| 23 | Mooney Boulevard & Avenue 272 | Two-Way Stop | Yes | No |
| 27 | Visalia Parkway/Tuesday Morning Driveway | One-Way Stop | No | No |
| 29 | Visalia Parkway/Costco Driveway | One-Way Stop | No | Yes ¹ |

Note

¹ Majority of traffic is right turns. If right turns are excluded, then warrants may not be satisfied

5.3 QUEUING ANALYSIS – FIVE-YEAR CUMULATIVE CONDITIONS

TJKM conducted a vehicle queueing and storage analysis for exclusive left and right turn pockets at the study intersections. The 95th percentile queues were analyzed using Synchro software. Detailed calculations are included in **Appendix F**. **Table 15** summarizes the 95th percentile queue lengths at study intersections under Five-Year Cumulative Conditions. It should be noted that at five study intersections, one or more queue lengths exceed capacity, creating a deficient conditions.

Table 15: 95th Percentile Queues – Five Year Cumulative Conditions

| # | Study Intersections | Lane Group | Storage Length | Five-Year Cumulative | |
|---|--------------------------------|------------|----------------|----------------------|-----|
| | | | | AM | PM |
| 1 | Whitendale Ave. & Mooney Blvd. | EBL | 155 | 81 | 73 |
| | | EBR | 260 | 38 | 62 |
| | | WBL | 250 | 129 | 143 |

| # | Study Intersections | Lane Group | Storage Length | Five-Year Cumulative | |
|----|---------------------------------------|------------|----------------|----------------------|--------------|
| | | | | AM | PM |
| | | WBR | 235 | 0 | 0 |
| | | NBL | 290 | 73 | 159 |
| | | NBR | 130 | 42 | 100 |
| | | SBL | 445 | 55 | 84 |
| | | SBR | 190 | 0 | 16 |
| 2 | Whitendale Ave. & Giddings St. | EBL | 105 | 62 | 79 |
| | | WBL | 105 | 13 | 4 |
| | | WBR | 35 | 30 | 30 |
| | | SBL | 150 | 49 | 67 |
| | | SBR | 50 | 34 | 38 |
| 3 | Sunnyside Ave. & Mooney Ave. | EBL | 170 | 89 | 267 |
| | | WBL | 100 | 15 | 27 |
| | | NBL | 400 | 129 | 120 |
| | | SBL | 270 | 112 | m123 |
| 4 | Orchard Ave. & Mooney Ave. | WBL | 105 | 48 | 115 |
| | | NBL | 125 | 17 | 42 |
| | | NBR | 100 | 0 | m7 |
| | | SBL | 250 | 103 | m#299 |
| | | SBR | 100 | 0 | 0 |
| 5 | Caldwell Ave. & Dans St. ¹ | NBLTR | - | 90 | 43 |
| | | SBLTR | - | 10 | 38 |
| 6 | Caldwell Ave. & Shady St. | EBL | 240 | 28 | 78 |
| | | WBL | 250 | 22 | 97 |
| | | SBR | - | 0 | 0 |
| 7 | Caldwell Ave. & Mooney Blvd. | EBL | 345 | 108 | #204 |
| | | WBL | 340 | 97 | #187 |
| | | NBL | 265 | 89 | 150 |
| | | NBR | 165 | 44 | m85 |
| | | SBL | 270 | 54 | 110 |
| | | SBR | 270 | 11 | 0 |
| 8 | Caldwell Ave. & Fairway St. | EBL | 200 | 74 | 131 |
| | | WBL | 285 | 92 | #176 |
| | | NBL | 120 | 21 | 59 |
| | | SBL | 55 | 30 | 104 |
| 9 | Caldwell Ave. & Stonebrook St | EBL | 235 | 27 | 53 |
| | | WBL | 300 | 13 | 10 |
| | | SBL | - | 42 | 32 |
| | | SBR | 200 | 0 | 5 |
| 10 | Caldwell Ave. & West St. | EBL | 300 | 57 | 113 |
| | | EBR | 110 | 0 | 13 |
| | | WBL | 290 | 53 | 90 |

| # | Study Intersections | Lane Group | Storage Length | Five-Year Cumulative | |
|----|--|------------|----------------|----------------------|-------------|
| | | | | AM | PM |
| 11 | Cameron Ave. & County Center Dr. ¹ | WBR | 100 | 7 | 14 |
| | | NBR | 50 | 0 | 0 |
| | | WBR | 100 | 15 | 48 |
| | | NBR | 160 | - | - |
| | | SBL | 145 | 13 | 25 |
| 12 | Cameron Ave. & Mooney Blvd. | EBL | 155 | 110 | #348 |
| | | WBL | 300 | 166 | #324 |
| | | NBL | 210 | 23 | m42 |
| | | NBR | 150 | 33 | m72 |
| | | SBL | 185 | 67 | 221 |
| 13 | Cameron Ave. & Stonebrook St. ¹ | SBR | 150 | 0 | m23 |
| | | NBL | 145 | 18 | 5 |
| | | EBL | 100 | 5 | 13 |
| | | WBL | 90 | 0 | 0 |
| | | SBL | 110 | 0 | 10 |
| 14 | Cameron Ave. & West St. ¹ | EBL | 260 | 15 | 88 |
| | | NBL | 225 | 0 | 0 |
| | | SBL | 195 | 3 | 3 |
| | | SBR | 200 | 10 | 23 |
| | | EBL | 145 | 72 | 37 |
| 15 | Cameron Ave. & Court St. ¹ | EBR | 245 | 13 | 0 |
| | | WBL | 180 | 101 | 99 |
| | | NBL | 300 | 99 | 88 |
| | | SBL | 305 | 158 | 169 |
| | | EBL | 190 | 15 | 3 |
| 16 | Visalia Pkwy. & Demaree St | WBL | 75 | 0 | 0 |
| | | EBL | 200 | 8 | 10 |
| | | SBL | 190 | 45 | 118 |
| | | EBL | 100 | 5 | 8 |
| | | WBL | 100 | 10 | 15 |
| 17 | Visalia Pkwy. & Dans St. ¹ | NBLTR | - | 285 | 910 |
| | | SBLTR | - | 10 | 618 |
| | | EBL | 180 | #510 | #950 |
| | | WBL | 175 | 398 | #388 |
| | | NBL | 205 | 146 | 227 |
| 18 | Visalia Pkwy. & County Center Dr. ¹ | SBL | 290 | 31 | m71 |
| | | SBR | 210 | 16 | m13 |
| | | EBL | 150 | 10 | 18 |
| | | EBR | 25 | 0 | 0 |
| | | NBL | 475 | 13 | 16 |
| 19 | Visalia Pkwy. & Target Access. ¹ | NBLTR | - | 285 | 910 |
| | | SBLTR | - | 10 | 618 |
| 20 | Visalia Pkwy. & Mooney Blvd. | EBL | 180 | #510 | #950 |
| | | WBL | 175 | 398 | #388 |
| | | NBL | 205 | 146 | 227 |
| | | SBL | 290 | 31 | m71 |
| | | SBR | 210 | 16 | m13 |
| 21 | Visalia Pkwy. & Stonebrook St. ² | EBL | 150 | 10 | 18 |
| | | EBR | 25 | 0 | 0 |
| 22 | Midvalley Ave. & Mooney Blvd. | NBL | 475 | 13 | 16 |
| | | NBL | 475 | 13 | 16 |

| # | Study Intersections | Lane Group | Storage Length | Five-Year Cumulative | |
|----|--|------------|----------------|----------------------|-----|
| | | | | AM | PM |
| | | SBL | 465 | 13 | 19 |
| | | SBR | 140 | 0 | 16 |
| 23 | Ave. 272 & Mooney Blvd. ¹ | NBL | 470 | 5 | 33 |
| | | SBL | 485 | 0 | 3 |
| 24 | Ave. 271 & Rd. 122 ² | - | - | - | - |
| 25 | Ave. 268 & Mooney Blvd | NBL | 470 | 74 | 109 |
| | | SBL | 475 | 49 | 66 |
| 26 | Visalia Pkwy. & North Access Dwy 1. ¹ | - | - | - | - |
| | | EBL | 150 | - | - |
| 27 | Visalia Pkwy & Tuesday Morning Dwy ¹ | WBL | 150 | - | - |
| | | NBR | - | - | - |
| | | SBR | - | 3 | 13 |
| 28 | Visalia Pkwy. & Hall St. ¹ | NBR | - | - | - |
| 29 | Visalia Pkwy. & Costco Dwy. ¹ | SBL | - | - | 3 |
| | | SBR | - | 8 | 40 |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 ¹ | EBR | - | 10 | 25 |
| | | WBR | - | - | - |
| | | EBR | - | 15 | 35 |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 ¹ | WBR | - | - | - |
| | | NBL | 150 | 25 | 78 |
| | | SBL | 150 | - | - |
| 32 | Midvalley Ave. & South Access Dwy. 1 ¹ | SBLR | - | - | - |
| 33 | Midvalley Ave. & South Access Dwy. 2 ¹ | SBLR | - | - | - |
| 34 | Midvalley Ave. & South Access Dwy. 3 ¹ | SBLR | - | - | - |
| 35 | Midvalley Ave. & Hall St. ¹ | SBLR | - | - | - |
| 36 | Hall St. & East Access Dwy. 1 ¹ | EBLR | - | - | - |

Notes:

1. Stop-controlled intersection

2. Uncontrolled intersection

Storage length and 95th percentile queue is expressed in feet per lane

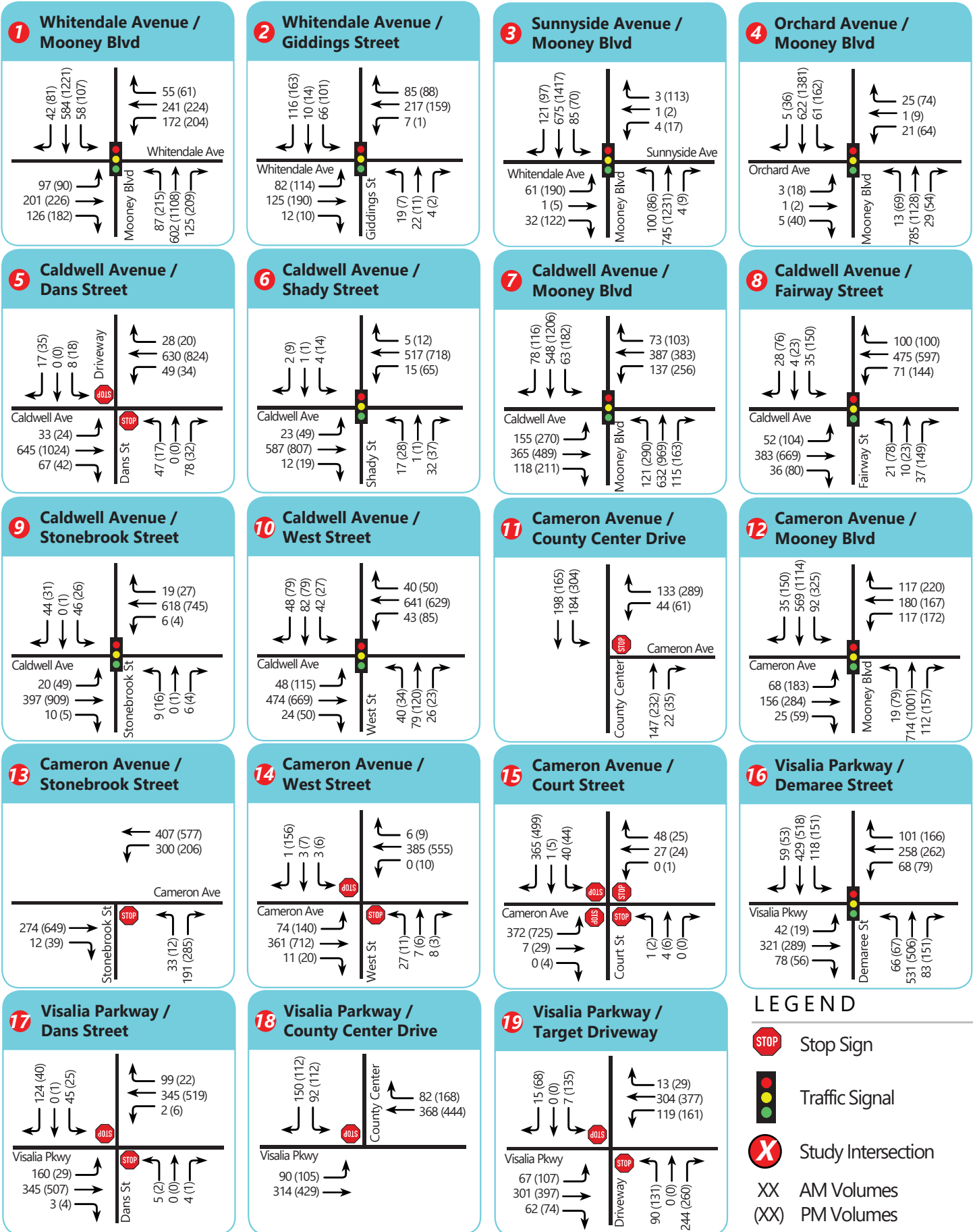
AM – morning peak hour, PM – evening peak hour

Bold indicates queue lengths exceeding capacity.

95th percentile volume exceeds capacity, queue may be longer

m Volume for 95th percentile queue is metered by upstream signal

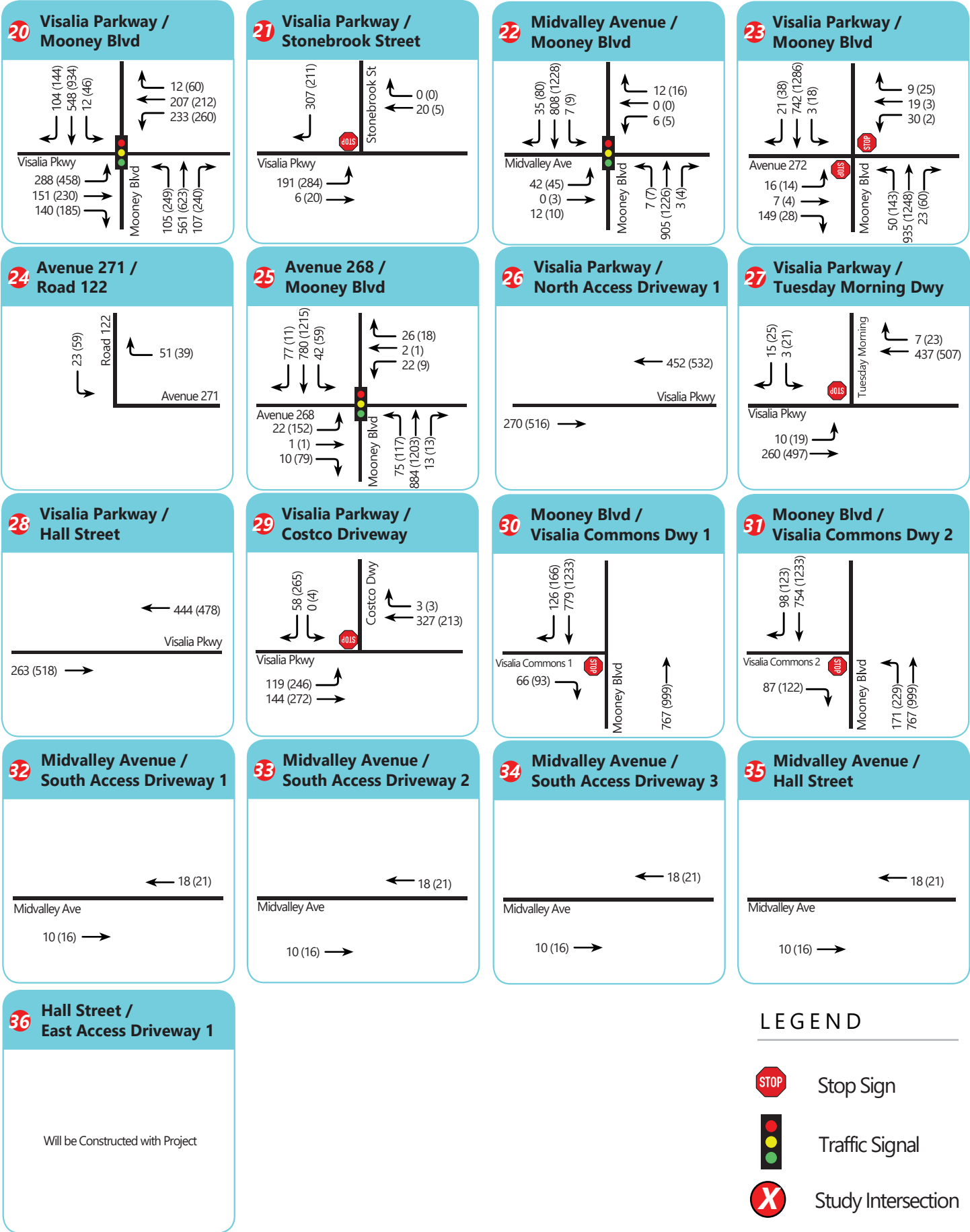
Figure 12a: Five-Year Cumulative Conditions Peak Hour Volumes



LEGEND

- Stop Sign
- Traffic Signal
- Study Intersection
- XX AM Volumes
- (XX) PM Volumes

Figure 12b: Five-Year Cumulative Conditions Peak Hour Volumes



6.0 FIVE-YEAR CUMULATIVE PLUS PHASE 1 PROJECT CONDITIONS

This scenario is identical to Five-Year Cumulative Conditions, with the addition of projected traffic from Phase I of the proposed development. Trip distribution assumptions are identical to those assumed under Existing Plus Project Conditions. Trip assignment for Phase I of the proposed project is shown in **Figure 9**. **Figure 13** shows projected turning movement volumes at all study intersections for Five-Year Cumulative Plus Project Conditions.

6.1 INTERSECTION LEVEL OF SERVICE ANALYSIS – FIVE-YEAR CUMULATIVE PLUS PHASE 1 PROJECT CONDITIONS

The intersection LOS analysis results for Five-Year Cumulative Plus Project Conditions are summarized in **Table 16**. The results for Five-Year Cumulative Conditions are included for comparison purposes. Detailed calculation sheets for Five-Year Cumulative Plus Project Conditions are contained in **Appendix H**.

Under this scenario, all but eight of the study intersections would continue to operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour. The following six intersections already operate at unacceptable level of service in one or both peak hours, without the addition of project traffic.

- Caldwell Avenue & Dans Street (intersection #5) would degrade from LOS E to LOS F in the a.m. peak hour, with a *significant increase* in average delay of 8.0 seconds, and it would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 9.8 seconds in the p.m. peak hours.
- Cameron Avenue & West Street (intersection #14) would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 87.6 seconds.
- Visalia Parkway & County Center Drive (intersection #18) would degrade from LOS D to LOS E in the a.m. peak hour, a *significant degradation*, and it would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 148.1 seconds
- Visalia Parkway & Target Access. (intersection #19) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 82.0 seconds in the a.m. peak hour and 1,302.3 seconds in the p.m. peak hour.
- Visalia Parkway & Mooney Boulevard (intersection #20) would continue to operate at LOS F in the p.m. peak hour, with a *less-than-significant increase* in average delay of 2.8 seconds.
- Avenue 272 & Mooney Boulevard (intersection #23) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 149.8 seconds in the a.m. peak hour and 4,322.7 seconds in the p.m. peak hour.

The following two intersections would degrade from acceptable to unacceptable level of service with the addition of project traffic:

- Cameron Avenue & Stonebrook Street (intersection #13) would degrade from LOS D to LOS E in the a.m. and p.m. peak hours, a *significant degradation*.
- Visalia Parkway & Dans Street (intersection #17) would degrade from LOS D to LOS F the a.m. and p.m. peak hours, a *significant degradation*.

At seven of the eight intersections listed above, added project traffic would either degrade the level of service from an acceptable to unacceptable, or increase average delay by more than 5.0 seconds, constituting significant inconsistencies with the City of Visalia General Plan. The seven intersections with significant inconsistencies are currently stop-controlled, and the identified inconsistencies can be mitigated with signalization, as shown in **Table 16**. Although there is no significant inconsistency at Visalia Parkway & Mooney Boulevard under this scenario, the same widening plan identified as a mitigation measure for Existing plus Project Conditions was also evaluated for this scenario. **Appendix M** includes full descriptions of all mitigation measures and LOS worksheets for mitigated conditions. Based on the City of Visalia impact criteria, with mitigation the project is expected to be **consistent** with general plan requirements at all study intersections.

Table 16: Intersection Level of Service Analysis – Five-Year Cumulative plus Phase 1 Project Conditions

| # | Study Intersections | Control | Peak Hour ¹ | Five-Year Cumulative Conditions | | Five-Year Cumulative Plus Project Conditions | | Change in Delay | |
|----|----------------------------------|------------------------------|------------------------|---------------------------------|------------------|--|------------------|-----------------|--|
| | | | | Delay ² | LOS ³ | Delay ² | LOS ³ | | |
| 1 | Whitendale Ave. & Mooney Blvd. | Signal | A.M. | 39.2 | D | 39.7 | D | 0.5 | |
| | | | P.M. | 32.9 | C | 33.5 | C | 0.6 | |
| 2 | Whitendale Ave. & Giddings St. | Signal | A.M. | 11.2 | B | 11.4 | B | 0.2 | |
| | | | P.M. | 11.6 | B | 11.9 | B | 0.3 | |
| 3 | Sunnyside Ave. & Mooney Ave. | Signal | A.M. | 16.7 | B | 17.2 | B | 0.5 | |
| | | | P.M. | 35.8 | D | 34.7 | C | -1.1 | |
| 4 | Orchard Ave. & Mooney Ave. | Signal | A.M. | 20.3 | C | 20.7 | C | 0.4 | |
| | | | P.M. | 19.8 | B | 20.2 | C | 0.4 | |
| 5 | Caldwell Ave. & Dans St. | Two-Way Stop | A.M. | 44.6 | E | 52.6 | F | 8.0 | |
| | | | P.M. | 51.8 | F | 61.6 | F | 9.8 | |
| | | <i>Mitigation: Signalize</i> | <i>Signal</i> | A.M. | | | 9.2 | A | |
| | | | | P.M. | | | 8.1 | A | |
| 6 | Caldwell Ave. & Shady St. | Signal | A.M. | 9.9 | A | 9.8 | A | -0.1 | |
| | | | P.M. | 12.2 | B | 12.2 | B | 0.0 | |
| 7 | Caldwell Ave. & Mooney Blvd. | Signal | A.M. | 32.0 | C | 31.0 | C | -1.0 | |
| | | | P.M. | 36.8 | D | 38.0 | D | 1.2 | |
| 8 | Caldwell Ave. & Fairway St. | Signal | A.M. | 12.7 | B | 12.7 | B | 0.0 | |
| | | | P.M. | 19.7 | B | 19.7 | B | 0.0 | |
| 9 | Caldwell Ave. & Stonebrook St. | Signal | A.M. | 9.7 | A | 10.0 | B | 0.3 | |
| | | | P.M. | 9.8 | A | 10.3 | B | 0.5 | |
| 10 | Caldwell Ave. & West St. | Signal | A.M. | 12.3 | B | 13.1 | B | 0.8 | |
| | | | P.M. | 14.4 | B | 15.5 | B | 1.1 | |
| 11 | Cameron Ave. & County Center Dr. | One-Way Stop | A.M. | 15.5 | C | 15.9 | C | 0.4 | |
| | | | P.M. | 22.8 | C | 24.2 | C | 1.4 | |
| 12 | Cameron Ave. & Mooney Blvd. | Signal | A.M. | 36.7 | D | 35.4 | D | -1.3 | |
| | | | P.M. | 36.7 | D | 35.2 | D | -1.5 | |
| 13 | Cameron Ave. & Stonebrook St. | One-Way Stop | A.M. | 30.4 | D | 38.1 | E | 7.7 | |
| | | | P.M. | 28.6 | D | 40.1 | E | 11.5 | |
| | | <i>Mitigation: Signalize</i> | <i>Signal</i> | A.M. | | | 15.7 | B | |
| | | | | P.M. | | | 36.7 | D | |
| 14 | Cameron Ave. & West St. | Two-Way Stop | A.M. | 22.8 | C | 29.2 | D | 6.4 | |
| | | | P.M. | 100.3 | F | 187.9 | F | 87.6 | |
| | | <i>Mitigation: Signalize</i> | <i>Signal</i> | A.M. | | | 8.1 | A | |

| # | Study Intersections | Control | Peak Hour ¹ | Five-Year Cumulative Conditions | | Five-Year Cumulative Plus Project Conditions | | Change in Delay |
|----|---------------------------------------|--------------|------------------------|---------------------------------|------------------|--|------------------|-----------------|
| | | | | Delay ² | LOS ³ | Delay ² | LOS ³ | |
| | | | P.M. | | | 16.1 | B | |
| 15 | Cameron Ave. & Court St. | All-Way Stop | A.M. | 11.3 | B | 11.6 | B | 0.3 |
| | | | P.M. | 23.8 | C | 26.0 | D | 2.2 |
| 16 | Visalia Pkwy. & Demaree S.t | Signal | A.M. | 25.0 | C | 26.2 | C | 1.2 |
| | | | P.M. | 25.1 | C | 26.6 | C | 1.5 |
| 17 | Visalia Pkwy. & Dans St. | Two-Way Stop | A.M. | 27.6 | D | 48.1 | E | 20.5 |
| | | | P.M. | 25.1 | D | 41.4 | E | 16.3 |
| | Mitigation: Signalize | Signal | A.M. | | | 14.3 | B | |
| | | | P.M. | | | 9.1 | A | |
| 18 | Visalia Pkwy. & County Center Dr. | One-Way Stop | A.M. | 28.5 | D | 44.2 | E | 15.7 |
| | | | P.M. | 73.4 | F | 221.5 | F | 148.1 |
| | Mitigation: Signalize | Signal | A.M. | | | 11.3 | B | |
| | | | P.M. | | | 13.5 | B | |
| 19 | Visalia Pkwy. & Target Access. | One-Way Stop | A.M. | 82.6 | F | 164.6 | F | 82.0 |
| | | | P.M. | 1,700.9 | F | 3003.2 | F | 1,302.3 |
| | Mitigation: Signalize | Signal | A.M. | | | 12.6 | B | |
| | | | P.M. | | | 15.6 | B | |
| 20 | Visalia Pkwy. & Mooney Blvd. | Signal | A.M. | 35.3 | D | 42.5 | D | 7.2 |
| | Existing plus Project | | P.M. | 110.9 | F | 113.7 | F | 2.8 |
| | Mitigation: Widening | Signal | | | | 37.3 | D | |
| | | | | | | 57.3 | E | |
| 21 | Visalia Pkwy. & Stonebrook St. | Uncontrolled | A.M. | 10.0 | B | 10.4 | B | 0.4 |
| | | | P.M. | 9.2 | A | 9.6 | A | 0.4 |
| 22 | Midvalley Ave. & Mooney Blvd. | Signal | A.M. | 12.1 | B | 15.9 | B | 3.8 |
| | | | P.M. | 14.7 | B | 29.6 | C | 14.9 |
| 23 | Ave. 272 & Mooney Blvd. | Two-Way Stop | A.M. | 253.4 | F | 403.2 | F | 149.8 |
| | | | P.M. | 923.7 | F | 5246.4 | F | 4,322.7 |
| | Mitigation: Signalize | Signal | A.M. | | | 10.8 | B | |
| | | | P.M. | | | 10.3 | B | |
| 24 | Ave. 271 & Rd. 122 | Uncontrolled | A.M. | - | - | - | - | - |
| | | | P.M. | - | - | - | - | - |
| 25 | Ave. 268 & Mooney Blvd | Signal | A.M. | 15.3 | B | 15.8 | B | 0.5 |
| | | | P.M. | 34.8 | C | 44.9 | D | 10.1 |
| 26 | Visalia Pkwy. & North Access Dwy 1. | One-Way Stop | A.M. | - | - | 10.5 | B | - |
| | | | P.M. | - | - | 13.1 | B | - |
| 27 | Visalia Pkwy & Tuesday Morning Dwy. | One-Way Stop | A.M. | 12.1 | B | 11.3 | B | -0.8 |
| | | | P.M. | 17.6 | C | 12.3 | B | -5.3 |
| 28 | Visalia Pkwy. & Hall St. | One-Way Stop | A.M. | - | - | 10.1 | B | - |
| | | | P.M. | - | - | 12.7 | B | - |
| 29 | Visalia Pkwy. & Costco Dwy. | One-Way Stop | A.M. | 10.8 | B | 11.3 | B | 0.5 |
| | | | P.M. | 24.2 | C | 29.7 | D | 5.5 |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 | Two-Way Stop | A.M. | 12.1 | B | 12.9 | B | 0.8 |
| | | | P.M. | 17.1 | C | 18.6 | C | 1.5 |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 | Two-Way Stop | A.M. | 12.2 | B | 12.6 | B | 0.4 |
| | | | P.M. | 21.5 | C | 23.2 | C | 1.7 |
| 32 | Midvalley Ave. & South Access Dwy. 1 | One-Way Stop | A.M. | - | - | 9.1 | A | - |
| | | | P.M. | - | - | 9.5 | A | - |
| 33 | Midvalley Ave. & South Access Dwy. 2 | One-Way Stop | A.M. | - | - | 8.8 | A | - |
| | | | P.M. | - | - | 9.0 | A | - |
| 34 | Midvalley Ave. & | | A.M. | - | - | 8.6 | A | - |

| # | Study Intersections | Control | Peak Hour ¹ | Five-Year Cumulative Conditions | | Five-Year Cumulative Plus Project Conditions | | Change in Delay |
|----|-------------------------------|--------------|------------------------|---------------------------------|------------------|--|------------------|-----------------|
| | | | | Delay ² | LOS ³ | Delay ² | LOS ³ | |
| | South Access Dwy. 3 | One-Way Stop | P.M. | - | - | 8.7 | A | - |
| 35 | Midvalley Ave. & Hall St. | One-Way | A.M. | - | - | 8.5 | A | - |
| | | Stop | P.M. | - | - | 8.5 | A | - |
| 36 | Hall St. & East Access Dwy. 1 | One-Way | A.M. | - | - | 8.6 | A | - |
| | | Stop | P.M. | - | - | 8.6 | A | - |

Notes:

1. AM – morning peak hour, PM – evening peak hour
2. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop – controlled intersections.
3. LOS – Level of Service. **Bold** indicates unacceptable Level of Service. **Red** indicates a significant impact.

6.2 SIGNAL WARRANT ANALYSIS RESULTS – FIVE-YEAR CUMULATIVE PLUS PHASE 1 PROJECT CONDITIONS

The results of the peak hour warrant under existing conditions are summarized in **Table 17**. The results show that Caldwell Avenue & Dans Street, Cameron Avenue & Stonebrook Street, Cameron Avenue & West Street, Visalia Parkway & Dans Street, Mooney Boulevard & Avenue 272, and Visalia Parkway & Costco Driveway meet the MUTCD peak hour signal warrant in one peak hour. **Table 17** also notes which intersections would require signalization in order to mitigate level of service impacts identified in section 6.1. Peak Hour warrants for existing conditions are provided in **Appendix F**.

Table 17: Peak Hour Signal Warrant Results – Five-Year Cumulative plus Phase 1 Project Conditions

| # | Intersection | Control | Five-Year Cumulative plus Project | | Mitigation Measures |
|----|--|--------------|-----------------------------------|---------------------|------------------------|
| | | | Meets AM Peak Hour? | Meets PM Peak Hour? | include Signalization? |
| 5 | Caldwell Avenue & Dans Street | Two-Way Stop | Yes | Yes | Yes |
| 11 | Cameron Avenue & County Center Drive | One-Way Stop | No | NA | NA |
| 13 | Cameron Avenue & Stonebrook Street | One-Way Stop | No | NA | Yes |
| 14 | Cameron Avenue & West Street | Two-Way Stop | No | Yes | Yes |
| 17 | Visalia Parkway & Dans Street | Two-Way Stop | Yes | Yes | Yes |
| 18 | Visalia Parkway & County Center Drive | One-Way Stop | No | Yes | Yes |
| 23 | Mooney Boulevard & Avenue 272 | Two-Way Stop | Yes | Yes | Yes |
| 27 | Visalia Parkway/Tuesday Morning Driveway | One-Way Stop | No | No | NA |

| # | Intersection | Control | Five-Year Cumulative plus Project | | Mitigation Measures include Signalization? |
|----|---------------------------------|--------------|-----------------------------------|---------------------|--|
| | | | Meets AM Peak Hour? | Meets PM Peak Hour? | |
| 29 | Visalia Parkway/Costco Driveway | One-Way Stop | No | Yes ¹ | NA |

Note

¹ Majority of traffic is right turns. If right turns are excluded, then warrants may not be satisfied

6.3 QUEUING ANALYSIS – FIVE-YEAR CUMULATIVE PLUS PHASE 1 PROJECT CONDITIONS

TJKM conducted a vehicle queuing and storage analysis for exclusive left and right turn pockets at the study intersections where project traffic is added under Five-Year Plus Project Conditions. The 95th percentile queues were analyzed using Synchro 10.0 software. Detailed calculations are included in the LOS appendices corresponding to each analysis scenario. **Table 18** summarizes the 95th percentile queue lengths at selected study intersections under Five-Year Cumulative and Five-Year Cumulative Plus Project scenarios. It should be noted that queue lengths at some locations exceed capacity, creating a deficient conditions. With the addition of project traffic, two intersections on Visalia Parkway (intersections #18 and #20) would experience new queue overflows and/or increase existing overflows by more than one car length, thus creating significant impacts. With the mitigation measures described in section 6.1, both impacts would be eliminated. With mitigation, the project is expected to have a **less-than-significant impact** on intersection queuing operations. Queuing calculation sheets for Five-Year Plus Project Conditions are included in **Appendix H**. Calculation sheets for mitigated conditions are included in **Appendix M**.

Table 18: 95th Percentile Queues – Five Year Cumulative plus Phase 1 Project Conditions

| # | Study Intersections | Lane Group | Storage Length | Five-Year Cumulative | | Five-Year Cumulative Plus Project | | Change | |
|---|--------------------------------|------------|----------------|----------------------|------------|-----------------------------------|------------|--------|----|
| | | | | AM | PM | AM | PM | AM | PM |
| 1 | Whitendale Ave. & Mooney Blvd. | EBL | 155 | 81 | 73 | 81 | 73 | 0 | 0 |
| | | EBR | 260 | 38 | 62 | 54 | 65 | 16 | 3 |
| | | WBL | 250 | 129 | 143 | 145 | 164 | 16 | 21 |
| | | WBR | 235 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | NBL | 290 | 73 | 159 | 82 | 173 | 9 | 14 |
| | | NBR | 130 | 42 | 100 | 46 | 103 | 4 | 3 |
| | | SBL | 445 | 55 | 84 | 55 | 84 | 0 | 0 |
| 2 | Whitendale Ave. & Giddings St. | SBR | 190 | 0 | 16 | 0 | 16 | 0 | 0 |
| | | EBL | 105 | 62 | 79 | 67 | 89 | 5 | 10 |
| | | WBL | 105 | 13 | 4 | 14 | 4 | 1 | 0 |
| | | WBR | 35 | 30 | 30 | 30 | 34 | 0 | 4 |
| | | SBL | 150 | 49 | 67 | 51 | 70 | 2 | 3 |
| 3 | Sunnyside Ave. & Mooney Ave. | SBR | 50 | 34 | 38 | 36 | 40 | 2 | 2 |
| | | EBL | 170 | 89 | 267 | 89 | 267 | 0 | 0 |
| | | WBL | 100 | 15 | 27 | 29 | 41 | 14 | 14 |
| | | NBL | 400 | 129 | 120 | 129 | 120 | 0 | 0 |

| # | Study Intersections | Lane Group | Storage Length | Five-Year Cumulative | | Five-Year Cumulative Plus Project | | Change | |
|----|---|------------|----------------|----------------------|--------------|-----------------------------------|--------------|--------|-----|
| | | | | AM | PM | AM | PM | AM | PM |
| 4 | Orchard Ave. & Mooney Ave. | SBL | 270 | 112 | m123 | 112 | m118 | 0 | -5 |
| | | WBL | 105 | 48 | 115 | 48 | 115 | 0 | 0 |
| | | NBL | 125 | 17 | 42 | 17 | 44 | 0 | 2 |
| | | NBR | 100 | 0 | m7 | 0 | 9 | 0 | 2 |
| | | SBL | 250 | 103 | m#299 | 103 | m#272 | 0 | -27 |
| 5 | Caldwell Ave. & Dans St. ¹ | SBR | 100 | 0 | 0 | 0 | m1 | 0 | 1 |
| | | NBLTR | - | 90 | 43 | 103 | 50 | 13 | 7 |
| 6 | Caldwell Ave. & Shady St. | SBLTR | - | 10 | 38 | 10 | 45 | 0 | 7 |
| | | EBL | 240 | 28 | 78 | 29 | 78 | 1 | 0 |
| 7 | Caldwell Ave. & Mooney Blvd. | WBL | 250 | 22 | 97 | 22 | 97 | 0 | 0 |
| | | SBR | - | 0 | 0 | 0 | 0 | 0 | 0 |
| | | EBL | 345 | 108 | #204 | 108 | #204 | 0 | 0 |
| | | WBL | 340 | 97 | #187 | 102 | #198 | 5 | 11 |
| | | NBL | 265 | 89 | 150 | 107 | 191 | 18 | 41 |
| 8 | Caldwell Ave. & Fairway St. | NBR | 165 | 44 | m85 | 46 | m105 | 2 | 20 |
| | | SBL | 270 | 54 | 110 | 54 | 111 | 0 | 1 |
| | | SBR | 270 | 11 | 0 | 11 | 0 | 0 | 0 |
| | | EBL | 200 | 74 | 131 | 74 | 131 | 0 | 0 |
| | | WBL | 285 | 92 | #176 | 92 | #176 | 0 | 0 |
| 9 | Caldwell Ave. & Stonebrook St | NBL | 120 | 21 | 59 | 21 | 59 | 0 | 0 |
| | | SBL | 55 | 30 | 104 | 30 | 104 | 0 | 0 |
| | | EBL | 235 | 27 | 53 | 31 | 61 | 4 | 8 |
| | | WBL | 300 | 13 | 10 | 13 | 10 | 0 | 0 |
| 10 | Caldwell Ave. & West St. | SBL | - | 42 | 32 | 43 | 33 | 1 | 1 |
| | | SBR | 200 | 0 | 5 | 0 | 11 | 0 | 6 |
| | | EBL | 300 | 57 | 113 | 57 | 113 | 0 | 0 |
| | | EBR | 110 | 0 | 13 | 0 | 13 | 0 | 0 |
| | | WBL | 290 | 53 | 90 | 61 | 100 | 8 | 10 |
| 11 | Cameron Ave. & County Center Dr. ¹ | WBR | 100 | 7 | 14 | 7 | 14 | 0 | 0 |
| | | NBR | 50 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | NBR | 100 | 15 | 48 | 15 | 50 | 0 | 2 |
| 12 | Cameron Ave. & Mooney Blvd. | NBR | 160 | - | - | - | - | - | - |
| | | SBL | 145 | 13 | 25 | 13 | 28 | 0 | 3 |
| | | EBL | 155 | 110 | #348 | 110 | m#348 | 0 | 0 |
| | | WBL | 300 | 166 | #324 | 166 | #324 | 0 | 0 |
| | | NBL | 210 | 23 | m42 | 23 | m35 | 0 | -7 |
| | | NBR | 150 | 33 | m72 | 33 | m44 | 0 | -28 |
| 13 | Cameron Ave. & Stonebrook St. ¹ | SBL | 185 | 67 | 221 | 67 | 221 | 0 | 0 |
| | | SBR | 150 | 0 | m23 | 0 | m20 | 0 | -3 |

| # | Study Intersections | Lane Group | Storage Length | Five-Year Cumulative | | Five-Year Cumulative Plus Project | | Change | |
|----|--|------------|----------------|----------------------|-------------|-----------------------------------|-------------|------------|------------|
| | | | | AM | PM | AM | PM | AM | PM |
| 14 | Cameron Ave. & West St. ¹ | EBL | 100 | 5 | 13 | 8 | 18 | 3 | 5 |
| | | WBL | 90 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | SBL | 110 | 0 | 10 | 3 | 10 | 3 | 0 |
| 15 | Cameron Ave. & Court St. ¹ | EBL | 260 | 15 | 88 | 15 | 100 | 0 | 12 |
| | | NBL | 225 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | SBL | 195 | 3 | 3 | 3 | 3 | 0 | 0 |
| 16 | Visalia Pkwy. & Demaree S.t | SBR | 200 | 10 | 23 | 10 | 25 | 0 | 2 |
| | | EBL | 145 | 72 | 37 | 72 | 37 | 0 | 0 |
| | | EBR | 245 | 13 | 0 | 13 | 0 | 0 | 0 |
| | | WBL | 180 | 101 | 99 | 101 | 99 | 0 | 0 |
| | | NBL | 300 | 99 | 88 | 99 | 88 | 0 | 0 |
| 17 | Visalia Pkwy. & Dans St. ¹ | SBL | 305 | 158 | 169 | #186 | #213 | 28 | 44 |
| | | EBL | 190 | 15 | 3 | 15 | 3 | 0 | 0 |
| 18 | Visalia Pkwy. & County Center Dr. ¹ | WBL | 75 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | EBL | 200 | 8 | 10 | 8 | 13 | 0 | 3 |
| | <i>Mitigation: signalize</i> | SBL | 190 | 45 | 118 | 85 | 243 | 40 | 125 |
| | | EBL | 200 | | | #83 | #128 | | |
| | | SBL | 190 | | | 72 | 114 | | |
| 19 | Visalia Pkwy. & Target Access. ¹ | EBL | 100 | 5 | 8 | 5 | 10 | 0 | 2 |
| | | WBL | 100 | 10 | 15 | 10 | 18 | 0 | 3 |
| | | NBLTR | - | 285 | 910 | 415 | 1050 | 130 | 140 |
| | | SBLTR | - | 10 | 618 | 13 | 670 | 3 | 52 |
| 20 | Visalia Pkwy. & Mooney Blvd. | EBL | 180 | #510 | #950 | #510 | #950 | 0 | 0 |
| | | WBL | 175 | 398 | #388 | #398 | #388 | 0 | 0 |
| | | NBL | 205 | 146 | 227 | #272 | #472 | 126 | 245 |
| | | SBL | 290 | 31 | m71 | 115 | m#286 | 84 | 215 |
| | | SBR | 210 | 16 | m13 | 16 | m11 | 0 | -2 |
| | <i>Mitigation: widening</i> | EBL | 180 | | | #227 | #364 | | |
| | | WBL | 175 | | | 120 | 187 | | |
| | | NBL | 205 | | | #127 | 181 | | |
| | | SBL | 290 | | | #143 | #281 | | |
| | | SBR | 210 | | | 0 | 49 | | |
| 21 | Visalia Pkwy. & Stonebrook St. ² | EBL | 150 | 10 | 18 | 15 | 23 | 5 | 5 |
| 22 | Midvalley Ave. & Mooney Blvd. | EBR | 25 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | NBL | 475 | 13 | 16 | 14 | 17 | 1 | 1 |
| | | SBL | 465 | 13 | 19 | 36 | 71 | 23 | 52 |
| 23 | Ave. 272 & Mooney Blvd. ¹ | SBR | 140 | 0 | 16 | 0 | 15 | 0 | -1 |
| | | NBL | 470 | 5 | 33 | 5 | 38 | 0 | 5 |
| 24 | Ave. 271 & | SBL | 485 | 0 | 3 | 0 | 5 | 0 | 2 |
| | | - | - | - | - | - | - | - | - |

| # | Study Intersections | Lane Group | Storage Length | Five-Year Cumulative | | Five-Year Cumulative Plus Project | | Change | |
|----------------------|--|------------|----------------|----------------------|-----|-----------------------------------|-----|--------|----|
| | | | | AM | PM | AM | PM | AM | PM |
| Rd. 122 ² | | | | | | | | | |
| 25 | Ave. 268 & Mooney Blvd | NBL | 470 | 74 | 109 | 74 | 109 | 0 | 0 |
| | | SBL | 475 | 49 | 66 | 49 | 66 | 0 | 0 |
| 26 | Visalia Pkwy. & North Access Dwy. 1. ¹ | - | - | - | - | 3 | 5 | - | - |
| | | EBL | 150 | - | - | 0 | 3 | - | - |
| 27 | Visalia Pkwy & Tuesday Morning Dwy ¹ | WBL | 150 | - | - | 3 | 5 | - | - |
| | | NBR | - | - | - | 0 | 5 | - | - |
| | | SBR | - | 3 | 13 | 3 | 8 | 0 | -5 |
| 28 | Visalia Pkwy. & Hall St. ¹ | NBR | - | - | - | 3 | 5 | - | - |
| 29 | Visalia Pkwy. & Costco Dwy. ¹ | SBL | - | - | 3 | - | 3 | - | 0 |
| | | SBR | - | 8 | 40 | 8 | 45 | 0 | 5 |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 ¹ | EBR | - | 10 | 25 | 13 | 28 | 3 | 3 |
| | | EBR | - | 15 | 35 | 15 | 38 | 0 | 3 |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 ¹ | WBR | - | - | - | 10 | 20 | - | - |
| | | NBL | 150 | 25 | 78 | 25 | 85 | 0 | 7 |
| | | SBL | 150 | - | - | 8 | 10 | - | - |
| 32 | Midvalley Ave. & South Access Dwy. 1 ¹ | SBLR | - | - | - | 5 | 10 | - | - |
| 33 | Midvalley Ave. & South Access Dwy. 2 ¹ | SBLR | - | - | - | 3 | 5 | - | - |
| 34 | Midvalley Ave. & South Access Dwy. 3 ¹ | SBLR | - | - | - | 3 | 3 | - | - |
| 35 | Midvalley Ave. & Hall St. ¹ | SBLR | - | - | - | 0 | 3 | - | - |
| 36 | Hall St. & East Access Dwy. 1 ¹ | EBLR | - | - | - | 3 | 3 | - | - |

Notes:

1. Stop-controlled intersection

2. Uncontrolled intersection

Storage length and 95th percentile queue is expressed in feet per lane

AM – morning peak hour, PM – evening peak hour

Bold indicates queue lengths exceeding capacity. **Red** indicates significant impact.

95th percentile volume exceeds capacity, queue may be longer

m Volume for 95th percentile queue is metered by upstream signal

Figure 13a: Five-Year Cumulative Plus Phase 1 Project Conditions Peak Hour Volumes

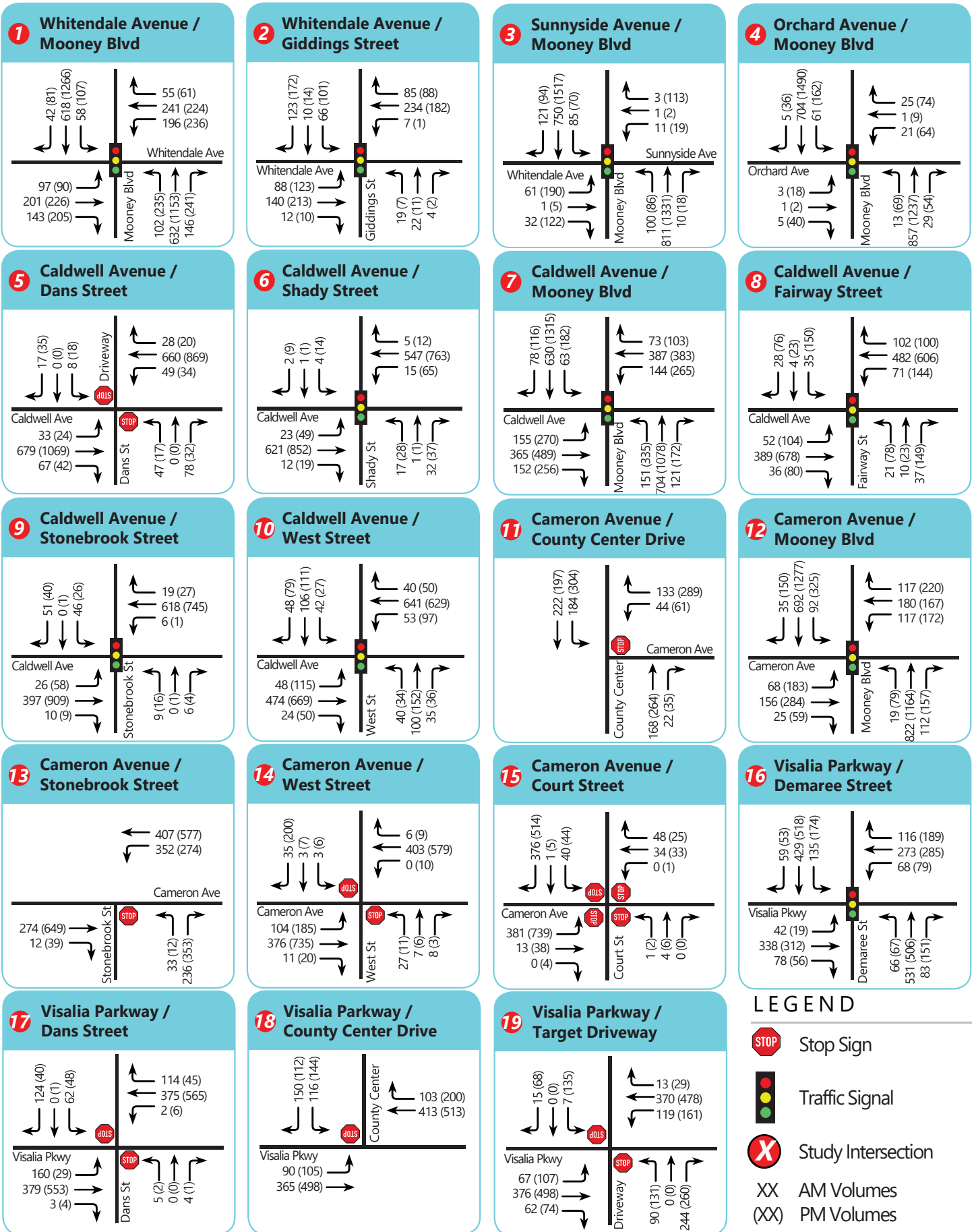
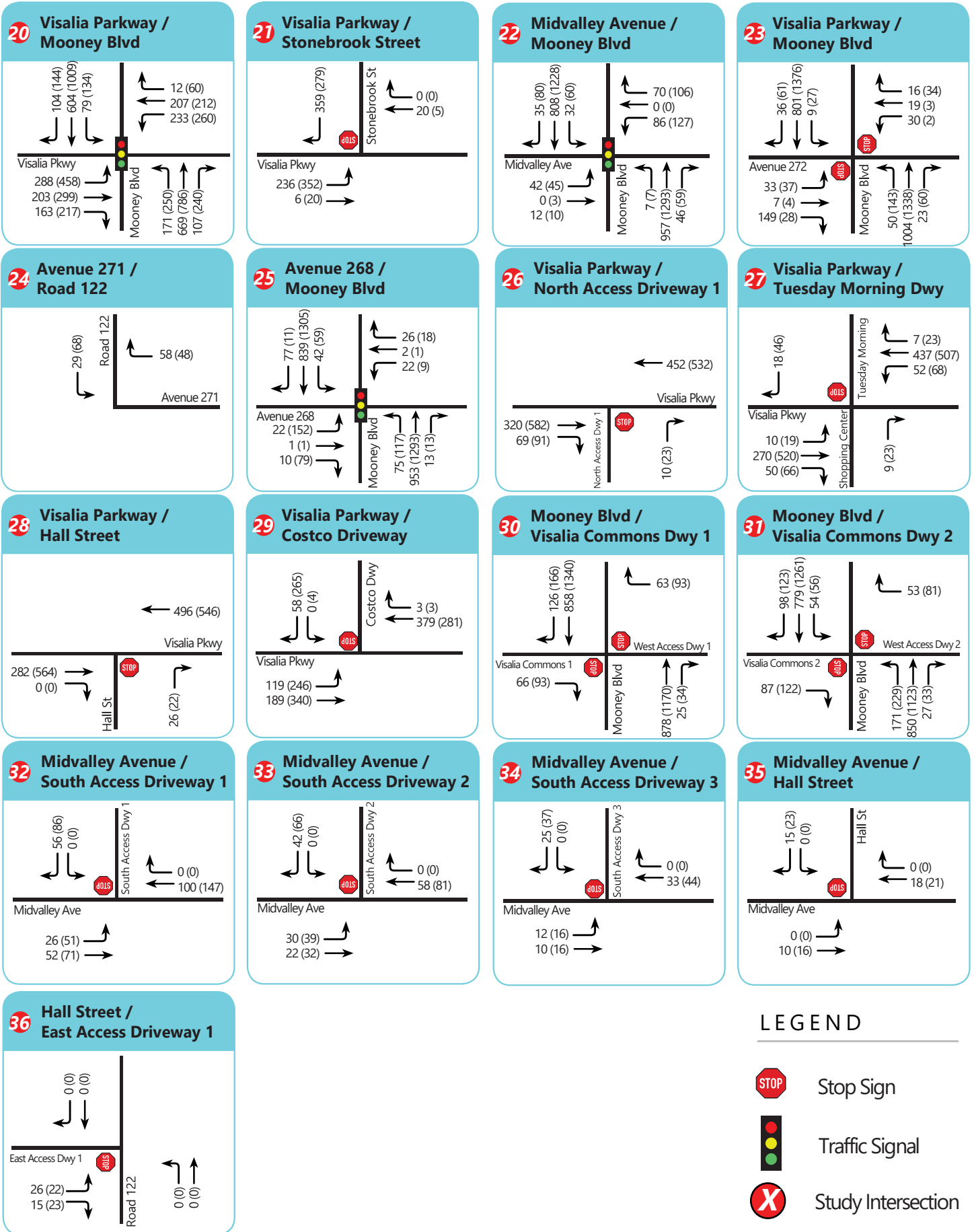


Figure 13b: Five-Year Cumulative Plus Phase 1 Project Conditions Peak Hour Volumes



LEGEND

-  Stop Sign
-  Traffic Signal
-  Study Intersection

7.0 10-YEAR CUMULATIVE CONDITIONS

This chapter presents the results of the level of service calculations under 10-Year Cumulative Conditions without the project. Level of service analysis at the study intersections were conducted for 10-Year Cumulative Conditions to establish a base to evaluate the impacts due to the addition of traffic from the proposed project. Existing Conditions volumes at the study intersections were projected forward 10 years using growth factors derived from the Tulare County Association of Governments (TCAG) travel demand model.

Figure 14 shows turning movement volumes at all the study intersections for 10-Year Cumulative Conditions. Lane geometries and traffic controls were maintained, similar to existing, aside from changes listed below:

- Visalia Parkway is extended east of Stonebrook Street (same as five-year cumulative)
- Assumed the Visalia Parkway Shopping Center across the street is built-out (same as five-year cumulative)
- Intersection #11, Cameron Avenue & County Center Drive: signalize
- Intersection #15, Cameron Avenue & Court Street: signalize

7.1 INTERSECTIONS LEVEL OF SERVICE ANALYSIS – 10-YEAR CUMULATIVE CONDITIONS

The intersection LOS analysis results for 10-Year Cumulative Conditions without the proposed project are summarized in **Table 19**. Detailed calculation sheets for 10-Year Cumulative Conditions are contained in **Appendix I**.

Under this scenario, all of the study intersections operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour, except for the following nine intersections:

- Sunnyside Avenue & Mooney Avenue (intersection #3) would operate at LOS E in the p.m. peak hour.
- Orchard Avenue & Mooney Avenue (intersection #4) would operate at LOS E in the p.m. peak hour.
- Caldwell Avenue & Dans Street (intersection #5) would operate at LOS F in the a.m. and p.m. peak hours.
- Caldwell Avenue & Mooney Boulevard (intersection #7) would operate at LOS F in the p.m. peak hour.
- Cameron Avenue & Mooney Boulevard (intersection #12) would operate at LOS E in the p.m. peak hour.
- Cameron Avenue & West Street (intersection #14) would operate at LOS F in the p.m. peak hour
- Visalia Parkway & County Center Drive (intersection #18) would operate at LOS E in the p.m. peak hour.
- Visalia Parkway & Target Access. (intersection #19) would operate at LOS F in the a.m. and p.m. peak hours.
- Avenue 272 & Mooney Boulevard (intersection #23) is operating at LOS F in the a.m. and p.m. peak hours.

Table 19: Intersection Level of Service Analysis – 10-Year Cumulative Conditions

| # | Study Intersections | Control | Peak Hour ¹ | 10-Year Cumulative Conditions | |
|----|-----------------------------------|--------------|------------------------|-------------------------------|------------------|
| | | | | Delay ² | LOS ³ |
| 1 | Whitendale Ave. & Mooney Blvd. | Signal | A.M. | 36.7 | D |
| | | | P.M. | 40.4 | D |
| 2 | Whitendale Ave. & Giddings St. | Signal | A.M. | 11.3 | B |
| | | | P.M. | 11.7 | B |
| 3 | Sunnyside Ave. & Mooney Ave. | Signal | A.M. | 15.9 | B |
| | | | P.M. | 64.8 | E |
| 4 | Orchard Ave. & Mooney Ave. | Signal | A.M. | 23.9 | C |
| | | | P.M. | 60.7 | E |
| 5 | Caldwell Ave. & Dans St. | Two-Way Stop | A.M. | 142.8 | F |
| | | | P.M. | 98.8 | F |
| 6 | Caldwell Ave. & Shady St. | Signal | A.M. | 10.4 | B |
| | | | P.M. | 13.2 | B |
| 7 | Caldwell Ave. & Mooney Blvd. | Signal | A.M. | 39.7 | D |
| | | | P.M. | 57.1 | E |
| 8 | Caldwell Ave. & Fairway St. | Signal | A.M. | 13.8 | B |
| | | | P.M. | 24.1 | C |
| 9 | Caldwell Ave. & Stonebrook St. | Signal | A.M. | 9.4 | A |
| | | | P.M. | 11.5 | B |
| 10 | Caldwell Ave. & West St. | Signal | A.M. | 13.0 | B |
| | | | P.M. | 15.2 | B |
| 11 | Cameron Ave. & County Center Dr. | Signal | A.M. | 6.0 | A |
| | | | P.M. | 10.4 | B |
| 12 | Cameron Ave. & Mooney Blvd. | Signal | A.M. | 35.6 | D |
| | | | P.M. | 71.7 | E |
| 13 | Cameron Ave. & Stonebrook St. | One-Way Stop | A.M. | 28.2 | D |
| | | | P.M. | 30.7 | D |
| 14 | Cameron Ave. & West St. | Two-Way Stop | A.M. | 18.7 | C |
| | | | P.M. | 59.6 | F |
| 15 | Cameron Ave. & Court St. | Signal | A.M. | 7.4 | A |
| | | | P.M. | 10.1 | B |
| 16 | Visalia Pkwy. & Demaree St | Signal | A.M. | 23.6 | C |
| | | | P.M. | 22.9 | C |
| 17 | Visalia Pkwy. & Dans St. | Two-Way Stop | A.M. | 23.3 | C |
| | | | P.M. | 19.2 | C |
| 18 | Visalia Pkwy. & County Center Dr. | One-Way Stop | A.M. | 22.5 | C |
| | | | P.M. | 35.6 | E |
| 19 | Visalia Pkwy. & Target Access. | One-Way Stop | A.M. | 64.0 | F |
| | | | P.M. | > 1,200 | F |
| 20 | Visalia Pkwy. & Mooney Blvd. | Signal | A.M. | 26.2 | C |
| | | | P.M. | 43.9 | D |
| 21 | Visalia Pkwy. & Stonebrook St. | Uncontrolled | A.M. | 10.4 | B |
| | | | P.M. | 9.4 | A |
| 22 | Midvalley Ave. & Mooney Blvd. | Signal | A.M. | 11.4 | B |
| | | | P.M. | 12.5 | B |
| 23 | Ave. 272 & Mooney Blvd. | Two-Way Stop | A.M. | 138.9 | F |
| | | | P.M. | 308.3 | F |
| 24 | Ave. 271 & Rd. 122 | Uncontrolled | A.M. | - | - |
| | | | P.M. | - | - |
| 25 | Ave. 268 & Mooney Blvd | Signal | A.M. | 14.7 | B |
| | | | P.M. | 25.1 | C |

| # | Study Intersections | Control | Peak Hour ¹ | 10-Year Cumulative Conditions | |
|----|---------------------------------------|--------------|------------------------|-------------------------------|------------------|
| | | | | Delay ² | LOS ³ |
| 26 | Visalia Pkwy. & North Access Dwy. 1. | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 27 | Visalia Pkwy & Tuesday Morning Dwy. | One-Way Stop | A.M. | 11.3 | B |
| | | | P.M. | 16.3 | C |
| 28 | Visalia Pkwy. & Hall St. | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 29 | Visalia Pkwy. & Costco Dwy. | One-Way Stop | A.M. | 11.1 | B |
| | | | P.M. | 23.0 | C |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 | Two-Way Stop | A.M. | 11.0 | B |
| | | | P.M. | 14.3 | B |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 | Two-Way Stop | A.M. | 11.1 | B |
| | | | P.M. | 15.5 | C |
| 32 | Midvalley Ave. & South Access Dwy. 1 | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 33 | Midvalley Ave. & South Access Dwy. 2 | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 34 | Midvalley Ave. & South Access Dwy. 3 | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 35 | Midvalley Ave. & Hall St. | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 36 | Hall St. & East Access Dwy. 1 | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |

Notes:

1. AM – morning peak hour, PM – evening peak hour

2. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop – controlled intersections.

3. LOS – Level of Service. **Bold** indicates unacceptable LOS and Delay.

7.2 QUEUING ANALYSIS – 10-YEAR CUMULATIVE CONDITIONS

TJKM conducted a vehicle queuing and storage analysis for exclusive left and right turn pockets at the study intersections. The 95th percentile queues were analyzed using Synchro software. Detailed calculations are included in **Appendix I. Table 20** summarizes the 95th percentile queue lengths at study intersections under 10-Year Cumulative Conditions. It should be noted that at five study intersections, one or more queue lengths exceed capacity, creating a deficient conditions.

Table 20: 95th Percentile Queues – 10-Year Cumulative Conditions

| # | Study Intersections | Lane Group | Storage Length | 10-Year Cumulative | |
|---|--------------------------------|------------|----------------|--------------------|------|
| | | | | AM | PM |
| 1 | Whitendale Ave. & Mooney Blvd. | EBL | 155 | 71 | 66 |
| | | EBR | 260 | 6 | 42 |
| | | WBL | 250 | 101 | #120 |
| | | WBR | 235 | 0 | 0 |
| | | NBL | 290 | 62 | #185 |
| | | NBR | 130 | 39 | 88 |

| # | Study Intersections | Lane Group | Storage Length | 10-Year Cumulative | |
|----|---------------------------------------|------------|----------------|--------------------|-----------|
| | | | | AM | PM |
| 2 | Whitendale Ave. & Giddings St. | SBL | 445 | 51 | #89 |
| | | SBR | 190 | 0 | 6 |
| | | EBL | 105 | 63 | 82 |
| | | WBL | 105 | 13 | 4 |
| | | WBR | 35 | 28 | 15 |
| | | SBL | 150 | 49 | 67 |
| 3 | Sunnyside Ave. & Mooney Ave. | SBR | 50 | 34 | 38 |
| | | EBL | 170 | 66 | 130 |
| | | WBL | 100 | 9 | 13 |
| | | NBL | 400 | 61 | #99 |
| 4 | Orchard Ave. & Mooney Ave. | SBL | 270 | #116 | 92 |
| | | WBL | 105 | 43 | #112 |
| | | NBL | 125 | 14 | 47 |
| | | NBR | 100 | 0 | 0 |
| | | SBL | 250 | 105 | #314 |
| 5 | Caldwell Ave. & Dans St. ¹ | SBR | 100 | 0 | 0 |
| | | NBLTR | - | 215 | 83 |
| 6 | Caldwell Ave. & Shady St. | SBLTR | - | 20 | 70 |
| | | EBL | 240 | 31 | 74 |
| | | WBL | 250 | 23 | 92 |
| 7 | Caldwell Ave. & Mooney Blvd. | SBR | - | 0 | 0 |
| | | EBL | 345 | 103 | #204 |
| | | WBL | 340 | 77 | 143 |
| | | NBL | 265 | #74 | #238 |
| | | NBR | 165 | 23 | 41 |
| | | SBL | 270 | 53 | #169 |
| 8 | Caldwell Ave. & Fairway St. | SBR | 270 | 7 | 32 |
| | | EBL | 200 | 72 | #169 |
| | | WBL | 285 | #120 | #250 |
| | | NBL | 120 | 18 | 46 |
| 9 | Caldwell Ave. & Stonebrook St | SBL | 55 | 24 | 81 |
| | | EBL | 235 | 29 | 56 |
| | | WBL | 300 | - | 5 |
| 10 | Caldwell Ave. & West St. | SBL | - | 52 | 35 |
| | | SBR | 200 | 0 | 4 |
| | | EBL | 300 | 58 | 109 |
| | | EBR | 110 | 1 | 15 |
| | | WBL | 290 | 52 | 88 |
| 11 | Cameron Ave. & | WBR | 100 | 10 | 16 |
| | | NBR | 50 | 0 | 0 |
| | | WBR | 100 | 25 | 50 |

| # | Study Intersections | Lane Group | Storage Length | 10-Year Cumulative | |
|----|--|------------|----------------|--------------------|-------------|
| | | | | AM | PM |
| | County Center Dr. ¹ | NBR | 160 | 6 | 8 |
| | | SBL | 145 | 53 | 129 |
| 12 | Cameron Ave. & Mooney Blvd. | EBL | 155 | 94 | #339 |
| | | WBL | 300 | 123 | #260 |
| | | NBL | 210 | 11 | m30 |
| | | NBR | 150 | 9 | m42 |
| | | SBL | 185 | 57 | #243 |
| | | SBR | 150 | 0 | 18 |
| 13 | Cameron Ave. & Stonebrook St. ¹ | NBL | 145 | 3 | 3 |
| 14 | Cameron Ave. & West St. ¹ | EBL | 100 | 5 | 10 |
| | | WBL | 90 | 0 | 0 |
| | | SBL | 110 | 0 | 5 |
| 15 | Cameron Ave. & Court St. ¹ | EBL | 260 | 75 | #297 |
| | | NBL | 225 | 2 | 6 |
| | | SBL | 195 | 24 | 37 |
| | | SBR | 200 | 0 | 52 |
| 16 | Visalia Pkwy. & Demaree St | EBL | 145 | 71 | 35 |
| | | EBR | 245 | 16 | 0 |
| | | WBL | 180 | 97 | #142 |
| | | NBL | 300 | 90 | 84 |
| | | SBL | 305 | 127 | #158 |
| 17 | Visalia Pkwy. & Dans St. ¹ | EBL | 190 | 13 | 3 |
| | | WBL | 75 | 0 | 0 |
| 18 | Visalia Pkwy. & County Center Dr. ¹ | EBL | 200 | 8 | 10 |
| | | SBL | 190 | 28 | 45 |
| 19 | Visalia Pkwy. & Target Access. ¹ | EBL | 100 | 3 | 5 |
| | | WBL | 100 | 10 | 15 |
| | | NBLTR | - | 255 | 830 |
| 20 | Visalia Pkwy. & Mooney Blvd. | SBLTR | - | 8 | 580 |
| | | EBL | 180 | #97 | #209 |
| | | WBL | 175 | 200 | #302 |
| | | NBL | 205 | #151 | #180 |
| | | SBL | 290 | 26 | m73 |
| 21 | Visalia Pkwy. & Stonebrook St. ² | SBR | 210 | 0 | m13 |
| | | EBL | 150 | 13 | 20 |
| 22 | Midvalley Ave. & Mooney Blvd. | EBR | 25 | 0 | 0 |
| | | NBL | 475 | 14 | 17 |
| | | SBL | 465 | 14 | 21 |
| | | SBR | 140 | 0 | 8 |
| 23 | Ave. 272 & | NBL | 470 | 5 | 28 |

| # | Study Intersections | Lane Group | Storage Length | 10-Year Cumulative | |
|----|--|------------|----------------|--------------------|------|
| | | | | AM | PM |
| | Mooney Blvd. ¹ | SBL | 485 | 0 | 3 |
| 24 | Ave. 271 & Rd. 122 ² | - | - | - | - |
| 25 | Ave. 268 & Mooney Blvd | NBL | 470 | 75 | #149 |
| | | SBL | 475 | 49 | 65 |
| 26 | Visalia Pkwy. & North Access Dwy 1. ¹ | - | - | - | - |
| 27 | Visalia Pkwy & Tuesday Morning Dwy ¹ | EBL | 150 | 0 | 3 |
| | | WBL | 150 | - | - |
| | | NBR | - | - | - |
| 28 | Visalia Pkwy. & Hall St. ¹ | SBR | - | 3 | 10 |
| | | NBR | - | - | - |
| 29 | Visalia Pkwy. & Costco Dwy. ¹ | SBL | - | - | 3 |
| | | SBR | - | 8 | 43 |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 ¹ | EBR | - | 10 | 20 |
| | | WBR | - | - | - |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 ¹ | EBR | - | 13 | 28 |
| | | WBR | - | - | - |
| | | NBL | 150 | 20 | 53 |
| | | SBL | 150 | - | - |
| 32 | Midvalley Ave. & South Access Dwy. 1 ¹ | SBLR | - | - | - |
| 33 | Midvalley Ave. & South Access Dwy. 2 ¹ | SBLR | - | - | - |
| 34 | Midvalley Ave. & South Access Dwy. 3 ¹ | SBLR | - | - | - |
| 35 | Midvalley Ave. & Hall St. ¹ | SBLR | - | - | - |
| 36 | Hall St. & East Access Dwy. 1 ¹ | EBLR | - | - | - |

Notes:

1. Stop-controlled intersection

2. Uncontrolled intersection

Storage length and 95th percentile queue is expressed in feet per lane

AM – morning peak hour, PM – evening peak hour

Bold indicates queue lengths exceeding capacity.

95th percentile volume exceeds capacity, queue may be longer

m Volume for 95th percentile queue is metered by upstream signal

Figure 14a: 10 Year Cumulative Conditions Peak Hour Volumes

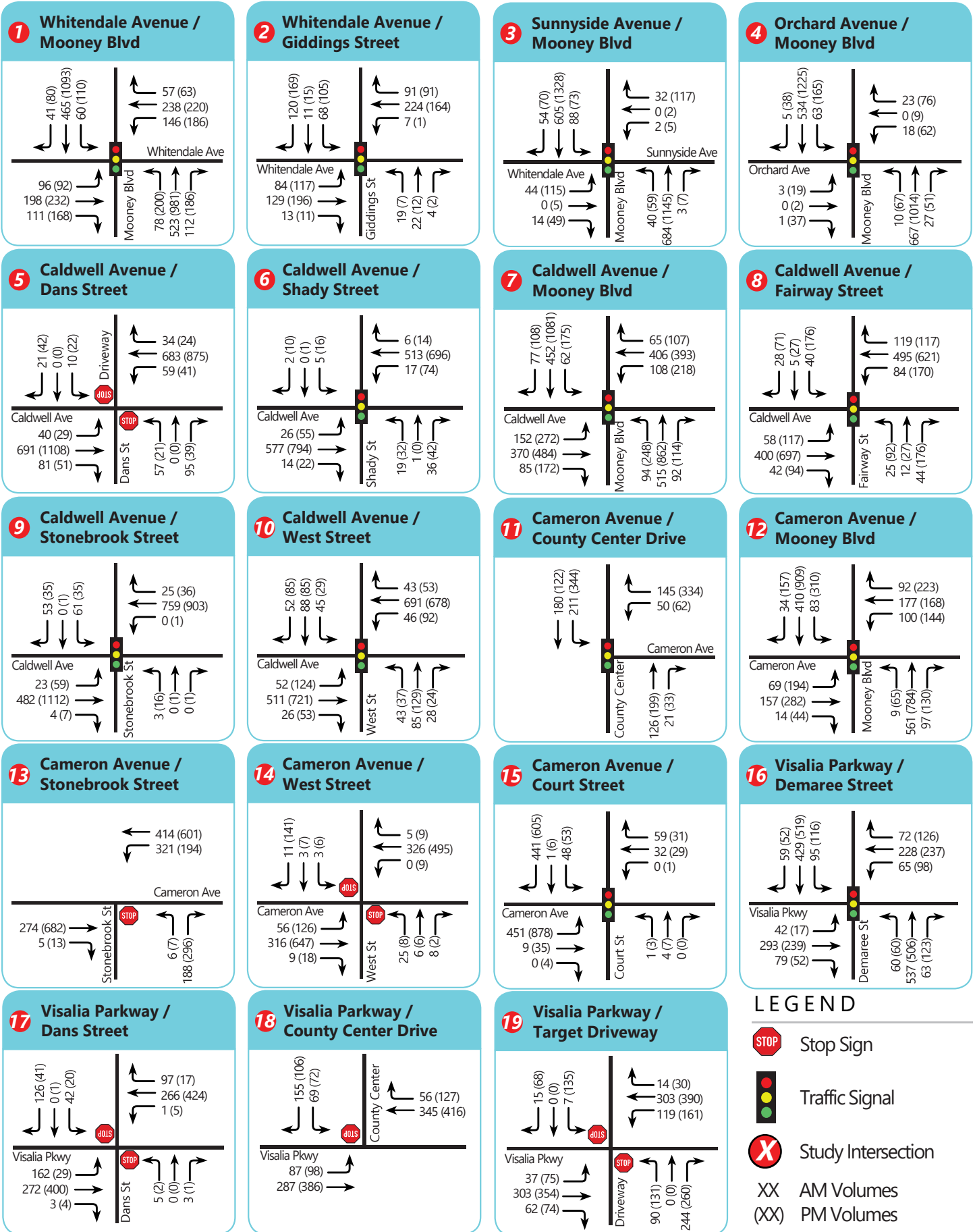
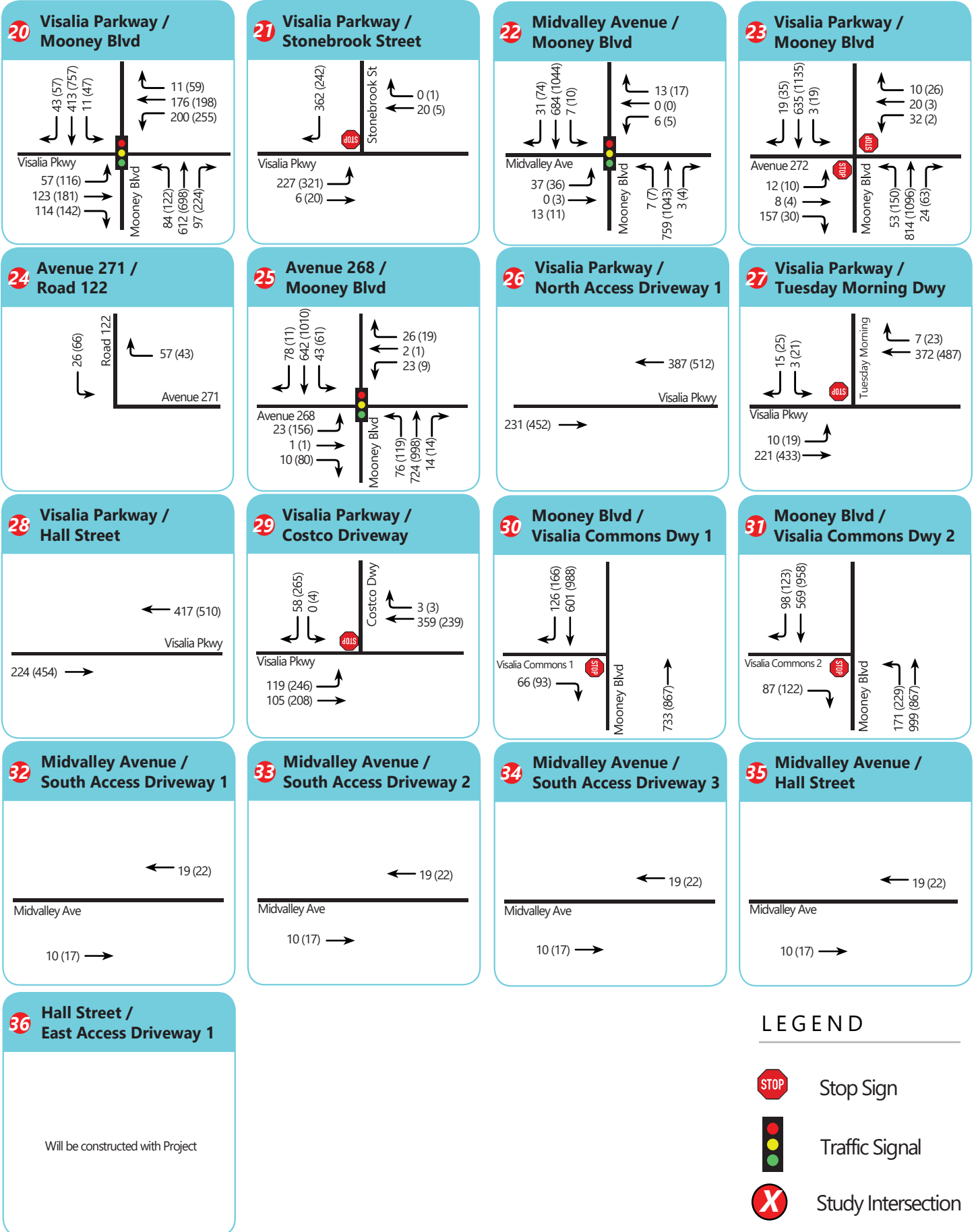


Figure 14b: 10-Year Cumulative Conditions Peak Hour Volumes



8.0 10-YEAR CUMULATIVE PLUS PROJECT CONDITIONS

This scenario is identical to Five-Year Cumulative Conditions, with the addition of projected traffic from both Phase I and Phase II of the proposed development. Trip distribution assumptions are identical to those assumed under Existing Plus Project Conditions. Trip assignment for Phase I and Phase II of the proposed project are shown in **Figure 10**. **Figure 15** shows projected turning movement volumes at all study intersections for 10-Year Cumulative Plus Project Conditions.

8.1 INTERSECTION LEVEL OF SERVICE ANALYSIS – 10-YEAR CUMULATIVE PLUS PROJECT CONDITIONS

The intersection LOS analysis results for 10-Year Cumulative Plus Project Conditions are summarized in **Table 21**. Detailed calculation sheets for 10-Year Cumulative Plus Project Conditions are contained in **Appendix J**.

Under this scenario, all but 11 of the study intersections would continue to operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour. The following nine intersections already operate at unacceptable level of service in one or both peak hours, without the addition of project traffic.

- Sunnyside Avenue & Mooney Avenue (intersection #3) would degrade from LOS E to LOS F in the p.m. peak hour with a *significant increase* in average delay of 18.4 seconds.
- Orchard Avenue & Mooney Avenue (intersection #4) would continue to operate at LOS E in the p.m. peak hour, with a *significant increase* in average delay of 14.8 seconds.
- Caldwell Avenue & Dans Street (intersection #5) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 48.5 in the a.m. peak hour and 44.2 seconds in the p.m. peak hour.
- Caldwell Avenue & Mooney Boulevard (intersection #7) would continue to operate at LOS E in the p.m. peak hour, with a *decrease* in average delay of 0.4 seconds.
- Cameron Avenue & Mooney Boulevard (intersection #12) would continue to operate at LOS E in the p.m. peak hour, with a *decrease* in average delay of 3.6 seconds.
- Cameron Avenue & West Street (intersection #14) would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 58.8 seconds.
- Visalia Parkway & County Center Drive (intersection #18) would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 73.7 seconds
- Visalia Parkway & Target Access. (intersection #19) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 82.8 seconds in the a.m. peak hour and 1,659.2 seconds in the p.m. peak hour.
- Avenue 272 & Mooney Boulevard (intersection #23) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 111.2 seconds in the a.m. peak hour and 2,513.9 seconds in the p.m. peak hour.

The following two intersections would degrade from acceptable to unacceptable level of service with the addition of project traffic:

- Cameron Avenue & Stonebrook Street (intersection #13) would degrade from LOS D to LOS E in the a.m. peak hour and from LOS D to LOS F in the p.m. peak hour, both *significant degradations*.

- Visalia Parkway & Mooney Boulevard (intersection #20) would degrade from LOS D to LOS F in the p.m. peak hour, a *significant degradation*.

At nine of the 11 intersections listed above, added project traffic would either degrade the level of service from an acceptable to unacceptable level, or increase average delay by more than 5.0 seconds, constituting significant inconsistencies with the City of Visalia General Plan. Six of the intersections with significant inconsistencies are currently stop-controlled, and the identified inconsistencies can be mitigated with signalization, as shown in **Table 21**. At the intersections of Sunnyside Avenue & Mooney Avenue (intersection #3) and Orchard Avenue & Mooney Avenue (intersection #4), optimizing the signal timing would provide adequate mitigation. At Visalia Parkway & Mooney Boulevard the same widening plan identified as a mitigation measure for Existing plus Project Conditions would provide adequate mitigation for this scenario. **Appendix M** includes full descriptions of all mitigation measures and LOS worksheets for mitigated conditions. Based on the City of Visalia impact criteria, with mitigation the project is expected to be **consistent** with general plan requirements at all study intersections.

Table 21: Intersection Level of Service Analysis – 10-Year Cumulative plus Project Conditions

| # | Study Intersections | Control | Peak Hour ¹ | 10-Year Cumulative Conditions | | 10-Year Cumulative Plus Project Conditions | | Change in Delay |
|----|---|--------------|------------------------|-------------------------------|------------------|--|------------------|-----------------|
| | | | | Delay ² | LOS ³ | Delay ² | LOS ³ | |
| 1 | Whitendale Ave. & Mooney Blvd. | Signal | A.M. | 36.7 | D | 40.1 | D | 3.4 |
| | | | P.M. | 40.4 | D | 47.1 | D | 6.7 |
| 2 | Whitendale Ave. & Giddings St. | Signal | A.M. | 11.3 | B | 11.5 | B | 0.2 |
| | | | P.M. | 11.7 | B | 12.1 | B | 0.4 |
| 3 | Sunnyside Ave. & Mooney Ave. <i>Mitigation: optimize signal timing</i> | Signal | A.M. | 15.9 | B | 16.3 | B | 0.4 |
| | | | P.M. | 64.8 | E | 83.2 | F | 18.4 |
| | | Signal | A.M. | | | 16.3 | B | |
| | | | P.M. | | | 49.2 | D | |
| 4 | Orchard Ave. & Mooney Ave. <i>Mitigation: optimize signal timing</i> | Signal | A.M. | 23.9 | C | 24.4 | C | 0.5 |
| | | | P.M. | 60.7 | E | 75.5 | E | 14.8 |
| | | Signal | A.M. | | | 22.7 | C | |
| | | | P.M. | | | 33.6 | C | |
| 5 | Caldwell Ave. & Dans St. <i>Mitigation: signalize</i> | Two-Way Stop | A.M. | 142.8 | F | 191.3 | F | 48.5 |
| | | | P.M. | 98.8 | F | 143.0 | F | 44.2 |
| | | Signal | A.M. | | | 10.4 | B | |
| | | | P.M. | | | 9.0 | A | |
| 6 | Caldwell Ave. & Shady St. | Signal | A.M. | 10.4 | B | 10.4 | B | 0.0 |
| | | | P.M. | 13.2 | B | 13.2 | B | 0.0 |
| 7 | Caldwell Ave. & Mooney Blvd. | Signal | A.M. | 39.7 | D | 39.1 | D | -0.6 |
| | | | P.M. | 57.1 | E | 56.7 | E | -0.4 |
| 8 | Caldwell Ave. & Fairway St. | Signal | A.M. | 13.8 | B | 13.8 | B | 0.0 |
| | | | P.M. | 24.1 | C | 24.2 | C | 0.1 |
| 9 | Caldwell Ave. & Stonebrook St. | Signal | A.M. | 9.4 | A | 9.8 | A | 0.4 |
| | | | P.M. | 11.5 | B | 12.0 | B | 0.5 |
| 10 | Caldwell Ave. & West St. | Signal | A.M. | 13.0 | B | 14.0 | B | 1.0 |
| | | | P.M. | 15.2 | B | 16.8 | B | 1.6 |
| 11 | Cameron Ave. & County Center Dr. | Signal | A.M. | 6.0 | A | 6.0 | A | 0.0 |
| | | | P.M. | 10.4 | B | 10.8 | B | 0.4 |
| 12 | Cameron Ave. & Mooney Blvd. | Signal | A.M. | 35.6 | D | 34.2 | C | -1.4 |
| | | | P.M. | 71.7 | E | 68.1 | E | -3.6 |

| # | Study Intersections | Control | Peak Hour ¹ | 10-Year Cumulative Conditions | | 10-Year Cumulative Plus Project Conditions | | Change in Delay |
|----|---|----------------------------------|------------------------|-------------------------------|------------------|--|------------------|-----------------|
| | | | | Delay ² | LOS ³ | Delay ² | LOS ³ | |
| 13 | Cameron Ave. & Stonebrook St. <i>Mitigation: signalize</i> | One-Way Stop <i>Signal</i> | A.M. | 28.2 | D | 35.4 | E | 7.2 |
| | | | P.M. | 30.7 | D | 56.9 | F | 26.2 |
| | | | A.M. P.M. | | | 15.5 44.8 | B D | |
| 14 | Cameron Ave. & West St. <i>Mitigation: signalize</i> | Two-Way Stop <i>Signal</i> | A.M. | 18.7 | C | 23.6 | C | 4.9 |
| | | | P.M. | 59.6 | F | 118.4 | F | 58.8 |
| | | | A.M. P.M. | | | 8.1 15.5 | A B | |
| 15 | Cameron Ave. & Court St. | Signal | A.M. | 7.4 | A | 7.6 | A | 0.2 |
| | | | P.M. | 10.1 | B | 10.5 | B | 0.4 |
| 16 | Visalia Pkwy. & Demaree S.t | Signal | A.M. | 23.6 | C | 24.8 | C | 1.2 |
| | | | P.M. | 22.9 | C | 24.7 | C | 1.8 |
| 17 | Visalia Pkwy. & Dans St. | Two-Way Stop | A.M. | 23.3 | C | 31.6 | D | 8.3 |
| | | | P.M. | 19.2 | C | 28.5 | D | 9.3 |
| 18 | Visalia Pkwy. & County Center Dr. <i>Mitigation: signalize</i> | One-Way Stop <i>Signal</i> | A.M. | 22.5 | C | 33.7 | D | 11.2 |
| | | | P.M. | 35.6 | E | 109.3 | F | 73.7 |
| | | | A.M. P.M. | | | 10.9 12.0 | B B | |
| 19 | Visalia Pkwy. & Target Access. <i>Mitigation: signalize</i> | One-Way Stop <i>Signal</i> | A.M. | 64.0 | F | 146.8 | F | 82.8 |
| | | | P.M. | 1,236.9 | F | 2,896.1 | F | 1,659.2 |
| | | | A.M. P.M. | | | 12.3 15.1 | B B | |
| 20 | Visalia Pkwy. & Mooney Blvd. <i>Mitigation: Widening</i> | Signal <i>Signal</i> | A.M. | 26.2 | C | 46.3 | D | 20.1 |
| | | | P.M. | 43.9 | D | 80.1 | F | 36.2 |
| | | | A.M. P.M. | | | 31.2 50.4 | C D | |
| 21 | Visalia Pkwy. & Stonebrook St. | Uncontrolled | A.M. | 10.4 | B | 11.0 | B | 0.6 |
| | | | P.M. | 9.4 | A | 10.0 | B | 0.6 |
| 22 | Midvalley Ave. & Mooney Blvd. | Signal | A.M. | 11.4 | B | 16.1 | B | 4.7 |
| | | | P.M. | 12.5 | B | 28.2 | C | 15.7 |
| 23 | Ave. 272 & Mooney Blvd. <i>Mitigation: Signalize</i> | Two-Way Stop <i>Signal</i> | A.M. | 138.9 | F | 250.1 | F | 111.2 |
| | | | P.M. | 308.3 | F | 2,822.2 | F | 2,513.9 |
| | | | A.M. P.M. | | | 10.8 10.4 | B B | |
| 24 | Ave. 271 & Rd. 122 | Uncontrolled | A.M. | - | - | - | - | - |
| | | | P.M. | - | - | - | - | - |
| 25 | Ave. 268 & Mooney Blvd | Signal | A.M. | 14.7 | B | 15.0 | B | 0.3 |
| | | | P.M. | 25.1 | C | 28.8 | C | 3.7 |
| 26 | Visalia Pkwy. & North Access Dwy 1. | One-Way Stop | A.M. | - | - | 10.4 | B | - |
| | | | P.M. | - | - | 12.8 | B | - |
| 27 | Visalia Pkwy & Tuesday Morning Dwy. | One-Way Stop | A.M. | 11.3 | B | 10.8 | B | -0.5 |
| | | | P.M. | 16.3 | C | 12.1 | B | -4.2 |
| 28 | Visalia Pkwy. & Hall St. | One-Way Stop | A.M. | - | - | 9.9 | A | - |
| | | | P.M. | - | - | 12.3 | B | - |
| 29 | Visalia Pkwy. & Costco Dwy. | One-Way Stop | A.M. | 11.1 | B | 11.7 | B | 0.6 |
| | | | P.M. | 23.0 | C | 30.1 | D | 7.1 |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 | Two-Way Stop | A.M. | 11.0 | B | 13.1 | B | 2.1 |
| | | | P.M. | 14.3 | B | 17.3 | C | 3.0 |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 | Two-Way Stop | A.M. | 11.1 | B | 12.2 | B | 1.1 |
| | | | P.M. | 15.5 | C | 16.7 | C | 1.2 |

| # | Study Intersections | Control | Peak Hour ¹ | 10-Year Cumulative Conditions | | 10-Year Cumulative Plus Project Conditions | | Change in Delay |
|----|--------------------------------------|---------|------------------------|-------------------------------|------------------|--|------------------|-----------------|
| | | | | Delay ² | LOS ³ | Delay ² | LOS ³ | |
| 32 | Midvalley Ave. & South Access Dwy. 1 | One-Way | A.M. | - | - | 9.2 | A | - |
| | | Stop | P.M. | - | - | 10.1 | B | - |
| 33 | Midvalley Ave. & South Access Dwy. 2 | One-Way | A.M. | - | - | 8.9 | A | - |
| | | Stop | P.M. | - | - | 9.3 | A | - |
| 34 | Midvalley Ave. & South Access Dwy. 3 | One-Way | A.M. | - | - | 8.6 | A | - |
| | | Stop | P.M. | - | - | 8.8 | A | - |
| 35 | Midvalley Ave. & Hall St. | One-Way | A.M. | - | - | 8.5 | A | - |
| | | Stop | P.M. | - | - | 8.5 | A | - |
| 36 | Hall St. & East Access Dwy. 1 | One-Way | A.M. | - | - | 8.6 | A | - |
| | | Stop | P.M. | - | - | 8.7 | A | - |

Notes:

1. AM – morning peak hour, PM – evening peak hour
2. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop – controlled intersections.
3. LOS – Level of Service. **Bold** indicates unacceptable Level of Service. **Red** indicates a significant impact.

8.2 QUEUING ANALYSIS – 10-YEAR CUMULATIVE PLUS PROJECT CONDITIONS

TJKM conducted a vehicle queuing and storage analysis for exclusive left and right turn pockets at the study intersections where project traffic is added under Five-Year Plus Project Conditions. The 95th percentile queues were analyzed using Synchro 10.0 software. Detailed calculations are included in the LOS appendices corresponding to each analysis scenario. **Table 22** summarizes the 95th percentile queue lengths at selected study intersections under Five-Year Cumulative and Five-Year Cumulative Plus Project scenarios. It should be noted that queue lengths at six locations exceed capacity, creating a deficient conditions. With the addition of project traffic, both Caldwell Avenue & Mooney Boulevard (intersection #7) and Visalia Parkway & Mooney Boulevard (intersection #20) would experience new queue overflows and/or increase existing overflows by more than one car length, thus creating significant impacts. With optimized signal timing at intersection #7 and widening at intersection #20 as described in section 8.1, both impacts would be eliminated. With mitigation, the project is expected to have a **less-than-significant impact** on intersection queuing operations. Queuing calculation sheets for 10-Year Plus Project Conditions are included in **Appendix J**. Calculation sheets for mitigated conditions are included in **Appendix M**.

Table 22: 95th Percentile Queues – 10 Year Cumulative plus Project Conditions

| # | Study Intersections | Lane Group | Storage Length | 10-Year Cumulative | | 10-Year Cumulative Plus Project | | Change | |
|---|--------------------------------|------------|----------------|--------------------|------|---------------------------------|------|--------|----|
| | | | | AM | PM | AM | PM | AM | PM |
| 1 | Whitendale Ave. & Mooney Blvd. | EBL | 155 | 71 | 66 | 71 | 66 | 0 | 0 |
| | | EBR | 260 | 6 | 42 | 21 | 64 | 15 | 22 |
| | | WBL | 250 | 101 | #120 | 118 | #165 | 17 | 45 |
| | | WBR | 235 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | NBL | 290 | 62 | #185 | #80 | #217 | 18 | 32 |

| # | Study Intersections | Lane Group | Storage Length | 10-Year Cumulative | | 10-Year Cumulative Plus Project | | Change | |
|---|---------------------------------------|------------|----------------|--------------------|------|---------------------------------|------|--------|----|
| | | | | AM | PM | AM | PM | AM | PM |
| | | NBR | 130 | 39 | 88 | 47 | 111 | 8 | 23 |
| | | SBL | 445 | 51 | #89 | 51 | #89 | 0 | 0 |
| | | SBR | 190 | 0 | 6 | 0 | 6 | 0 | 0 |
| 2 | Whitendale Ave. & Giddings St. | EBL | 105 | 63 | 82 | 68 | 93 | 5 | 11 |
| | | WBL | 105 | 13 | 4 | 13 | 4 | 0 | 0 |
| | | WBR | 35 | 28 | 15 | 28 | 15 | 0 | 0 |
| | | SBL | 150 | 49 | 67 | 50 | 69 | 1 | 2 |
| | | SBR | 50 | 34 | 38 | 35 | 40 | 1 | 2 |
| 3 | Sunnyside Ave. & Mooney Ave. | EBL | 170 | 66 | 130 | 66 | 130 | 0 | 0 |
| | | WBL | 100 | 9 | 13 | 25 | 29 | 16 | 16 |
| | | NBL | 400 | 61 | #99 | 61 | #99 | 0 | 0 |
| | | SBL | 270 | #116 | 92 | #116 | 92 | 0 | 0 |
| 4 | Orchard Ave. & Mooney Ave. | WBL | 105 | 43 | #112 | 43 | #112 | 0 | 0 |
| | | NBL | 125 | 14 | 47 | 14 | 47 | 0 | 0 |
| | | NBR | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | SBL | 250 | 105 | #314 | 105 | #314 | 0 | 0 |
| | | SBR | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Caldwell Ave. & Dans St. ¹ | NBLTR | - | 215 | 83 | 245 | 100 | 30 | 17 |
| | | SBLTR | - | 20 | 70 | 23 | 88 | 3 | 18 |
| 6 | Caldwell Ave. & Shady St. | EBL | 240 | 31 | 74 | 32 | 74 | 1 | 0 |
| | | WBL | 250 | 23 | 92 | 24 | 92 | 1 | 0 |
| | | SBR | - | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | Caldwell Ave. & Mooney Blvd. | EBL | 345 | 103 | #204 | 103 | #204 | 0 | 0 |
| | | WBL | 340 | 77 | 143 | 82 | #159 | 5 | 16 |
| | | NBL | 265 | #74 | #238 | #118 | #303 | 44 | 65 |
| | | NBR | 165 | 23 | 41 | 28 | 50 | 5 | 9 |
| | | SBL | 270 | 53 | #169 | 53 | #169 | 0 | 0 |
| | | SBR | 270 | 7 | 32 | 7 | 32 | 0 | 0 |
| | | EBL | 345 | | | 103 | 181 | | |
| | | WBL | 340 | | | 82 | 156 | | |
| | Mitigation: optimize signal timing | NBL | 265 | | | #102 | #253 | | |
| | | NBR | 165 | | | 28 | 61 | | |
| | | SBL | 270 | | | 53 | 125 | | |
| | | SBR | 270 | | | 7 | 41 | | |
| 8 | Caldwell Ave. & Fairway St. | EBL | 200 | 72 | #169 | 72 | #169 | 0 | 0 |
| | | WBL | 285 | #120 | #250 | #120 | #250 | 0 | 0 |
| | | NBL | 120 | 18 | 46 | 18 | 46 | 0 | 0 |
| | | SBL | 55 | 24 | 81 | 24 | 81 | 0 | 0 |
| 9 | Caldwell Ave. & Stonebrook St | EBL | 235 | 29 | 56 | 36 | 64 | 7 | 8 |
| | | WBL | 300 | - | 5 | - | 5 | - | 0 |
| | | SBL | - | 52 | 35 | 52 | 35 | 0 | 0 |

| # | Study Intersections | Lane Group | Storage Length | 10-Year Cumulative | | 10-Year Cumulative Plus Project | | Change | |
|----|--|------------|----------------|--------------------|------|---------------------------------|-------|--------|-----|
| | | | | AM | PM | AM | PM | AM | PM |
| 10 | Caldwell Ave. & West St. | SBR | 200 | 0 | 4 | 0 | 12 | 0 | 8 |
| | | EBL | 300 | 58 | 109 | 59 | #119 | 1 | 10 |
| | | EBR | 110 | 1 | 15 | 1 | 16 | 0 | 1 |
| | | WBL | 290 | 52 | 88 | 66 | #128 | 14 | 40 |
| | | WBR | 100 | 10 | 16 | 10 | 16 | 0 | 0 |
| 11 | Cameron Ave. & County Center Dr. ¹ | NBR | 50 | 0 | 0 | 3 | 5 | 3 | 5 |
| | | WBR | 100 | 25 | 50 | 26 | 50 | 1 | 0 |
| | | NBR | 160 | 6 | 8 | 6 | 8 | 0 | 0 |
| 12 | Cameron Ave. & Mooney Blvd. | SBL | 145 | 53 | 129 | 53 | 134 | 0 | 5 |
| | | EBL | 155 | 94 | #339 | 94 | #339 | 0 | 0 |
| | | WBL | 300 | 123 | #260 | 123 | #260 | 0 | 0 |
| | | NBL | 210 | 11 | m30 | 11 | m20 | 0 | -10 |
| | | NBR | 150 | 9 | m42 | 9 | m20 | 0 | -22 |
| 13 | Cameron Ave. & Stonebrook St. ¹ | SBL | 185 | 57 | #243 | 57 | #243 | 0 | 0 |
| | | SBR | 150 | 0 | 18 | 0 | 18 | 0 | 0 |
| 14 | Cameron Ave. & West St. ¹ | NBL | 145 | 3 | 3 | 5 | 5 | 2 | 2 |
| | | EBL | 100 | 5 | 10 | 8 | 18 | 3 | 8 |
| | | WBL | 90 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | Cameron Ave. & Court St. ¹ | SBL | 110 | 0 | 5 | 0 | 8 | 0 | 3 |
| | | EBL | 260 | 75 | #297 | 80 | #321 | 5 | 24 |
| | | NBL | 225 | 2 | 6 | 2 | 6 | 0 | 0 |
| | | SBL | 195 | 24 | 37 | 24 | 37 | 0 | 0 |
| 16 | Visalia Pkwy. & Demaree S.t | SBR | 200 | 0 | 52 | 0 | 53 | 0 | 1 |
| | | EBL | 145 | 71 | 35 | 71 | 36 | 0 | 1 |
| | | EBR | 245 | 16 | 0 | 16 | 0 | 0 | 0 |
| | | WBL | 180 | 97 | #142 | 97 | #146 | 0 | 4 |
| | | NBL | 300 | 90 | 84 | 90 | 86 | 0 | 2 |
| 17 | Visalia Pkwy. & Dans St. ¹ | SBL | 305 | 127 | #158 | #168 | #224 | 41 | 66 |
| | | EBL | 190 | 13 | 3 | 15 | 3 | 2 | 0 |
| 18 | Visalia Pkwy. & County Center Dr. ¹ | WBL | 75 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | EBL | 200 | 8 | 10 | 8 | 10 | 0 | 0 |
| 19 | Visalia Pkwy. & Target Access. ¹ | SBL | 190 | 28 | 45 | 58 | 147 | 30 | 102 |
| | | EBL | 100 | 3 | 5 | 3 | 8 | 0 | 3 |
| | | WBL | 100 | 10 | 15 | 10 | 18 | 0 | 3 |
| 20 | Visalia Pkwy. & Mooney Blvd. | NBLTR | - | 255 | 830 | 393 | 1035 | 138 | 205 |
| | | SBLTR | - | 8 | 580 | 13 | 668 | 5 | 88 |
| | | EBL | 180 | #97 | #209 | #97 | #209 | 0 | 0 |
| | | WBL | 175 | 200 | #302 | 200 | #313 | 0 | 11 |
| 20 | Visalia Pkwy. & Mooney Blvd. | NBL | 205 | #151 | #180 | #298 | #440 | 147 | 260 |
| | | SBL | 290 | 26 | m73 | #165 | m#324 | 139 | 251 |

| # | Study Intersections | Lane Group | Storage Length | 10-Year Cumulative | | 10-Year Cumulative Plus Project | | Change | |
|----|---|------------|----------------|--------------------|------|---------------------------------|------|--------|----|
| | | | | AM | PM | AM | PM | AM | PM |
| | | SBR | 210 | 0 | m13 | 0 | m10 | 0 | -3 |
| | | EBL | 180 | | | 41 | #105 | | |
| | | WBL | 175 | | | 106 | #175 | | |
| | <i>With mitigation: widening</i> | NBL | 205 | | | #119 | 163 | | |
| | | SBL | 290 | | | #165 | #298 | | |
| | | SBR | 210 | | | 0 | 0 | | |
| 21 | Visalia Pkwy. & Stonebrook St. ² | EBL | 150 | 13 | 20 | 18 | 28 | 5 | 8 |
| | | EBR | 25 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | Midvalley Ave. & Mooney Blvd. | NBL | 475 | 14 | 17 | 15 | 17 | 1 | 0 |
| | | SBL | 465 | 14 | 21 | 49 | #101 | 35 | 80 |
| | | SBR | 140 | 0 | 8 | 0 | 8 | 0 | 0 |
| 23 | Ave. 272 & Mooney Blvd. ¹ | NBL | 470 | 5 | 28 | 5 | 35 | 0 | 7 |
| | | SBL | 485 | 0 | 3 | 0 | 5 | 0 | 2 |
| 24 | Ave. 271 & Rd. 122 ² | - | - | - | - | - | - | - | - |
| 25 | Ave. 268 & Mooney Blvd | NBL | 470 | 75 | #149 | 75 | #149 | 0 | 0 |
| | | SBL | 475 | 49 | 65 | 49 | 65 | 0 | 0 |
| 26 | Visalia Pkwy. & North Access Dwy 1. ¹ | - | - | - | - | 3 | 5 | - | - |
| | | EBL | 150 | 0 | 3 | 0 | 3 | 0 | 0 |
| 27 | Visalia Pkwy & Tuesday Morning Dwy ¹ | WBL | 150 | - | - | 5 | 8 | - | - |
| | | NBR | - | - | - | 3 | 5 | - | - |
| | | SBR | - | 3 | 10 | 3 | 8 | 0 | -2 |
| 28 | Visalia Pkwy. & Hall St. ¹ | NBR | - | - | - | 3 | 8 | - | - |
| 29 | Visalia Pkwy. & Costco Dwy. ¹ | SBL | - | - | 3 | 0 | 3 | - | 0 |
| | | SBR | - | 8 | 43 | 8 | 50 | 0 | 7 |
| 30 | Mooney Blvd. & Visalia Commons Dwy. ¹ | EBR | - | 10 | 20 | 10 | 23 | 0 | 3 |
| | | WBR | - | - | - | 15 | 35 | - | - |
| | | EBR | - | 13 | 28 | 13 | 28 | 0 | 0 |
| 31 | Mooney Blvd. & Visalia Commons Dwy. ² | WBR | - | - | - | 10 | 25 | - | - |
| | | NBL | 150 | 20 | 53 | 20 | 58 | 0 | 5 |
| | | SBL | 150 | - | - | 8 | 13 | - | - |
| 32 | Midvalley Ave. & South Access Dwy. 1 ¹ | SBLR | - | - | - | 8 | 13 | - | - |
| 33 | Midvalley Ave. & South Access Dwy. 2 ¹ | SBLR | - | - | - | 5 | 8 | - | - |
| 34 | Midvalley Ave. & South Access Dwy. 3 ¹ | SBLR | - | - | - | 3 | 5 | - | - |
| 35 | Midvalley Ave. & Hall St. ¹ | SBLR | - | - | - | 3 | 3 | - | - |
| 36 | Hall St. & East Access Dwy. 1 ¹ | EBLR | - | - | - | 5 | 5 | - | - |

Notes:

1. Stop-controlled intersection
2. Uncontrolled intersection

Storage length and 95th percentile queue is expressed in feet per lane

AM – morning peak hour, PM – evening peak hour

Bold indicates queue lengths exceeding capacity. **Red** indicates significant impact.

95th percentile volume exceeds capacity, queue may be longer

m Volume for 95th percentile queue is metered by upstream signal

Figure 15a: 10 Year Cumulative Plus Project Peak Hour Volumes

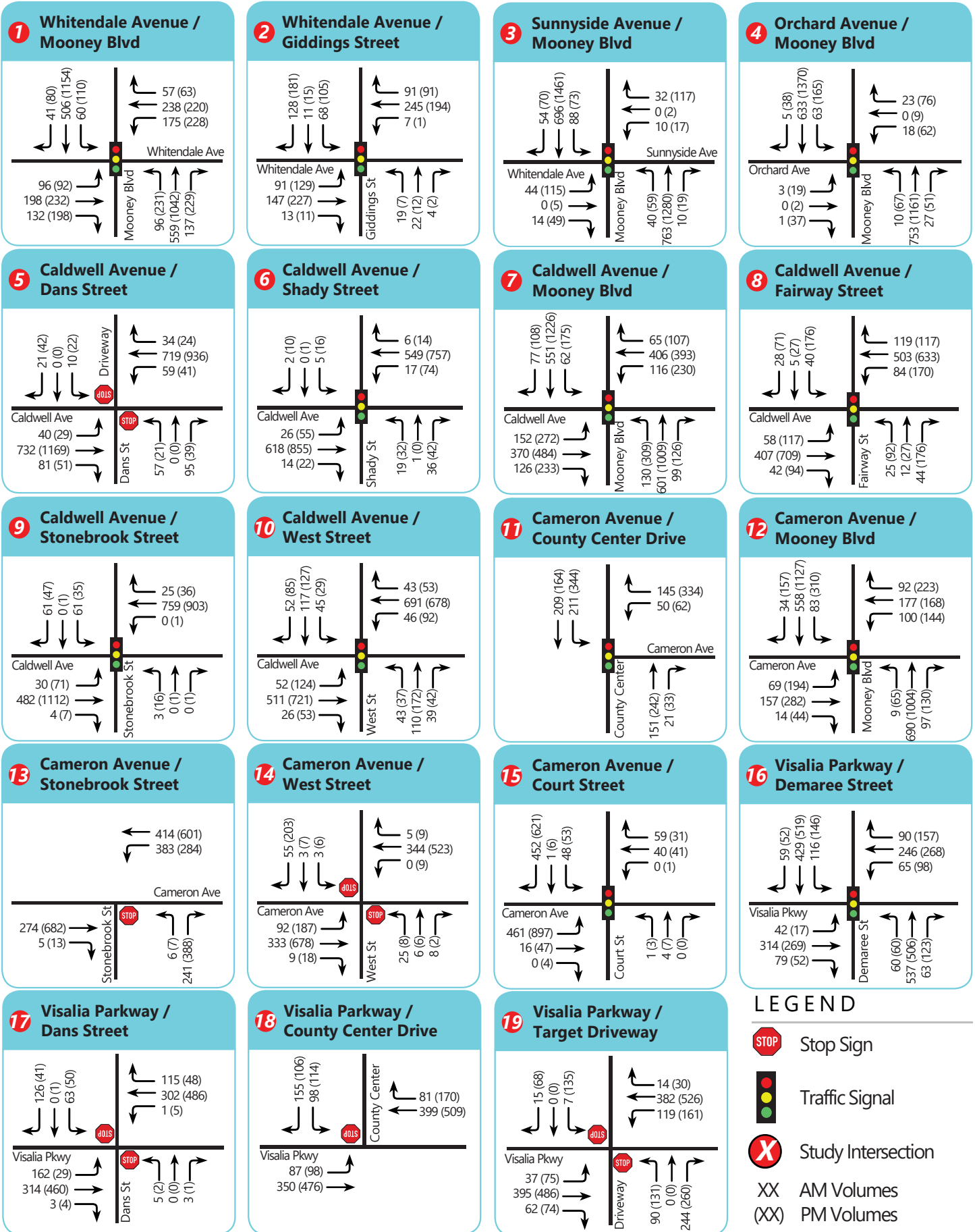
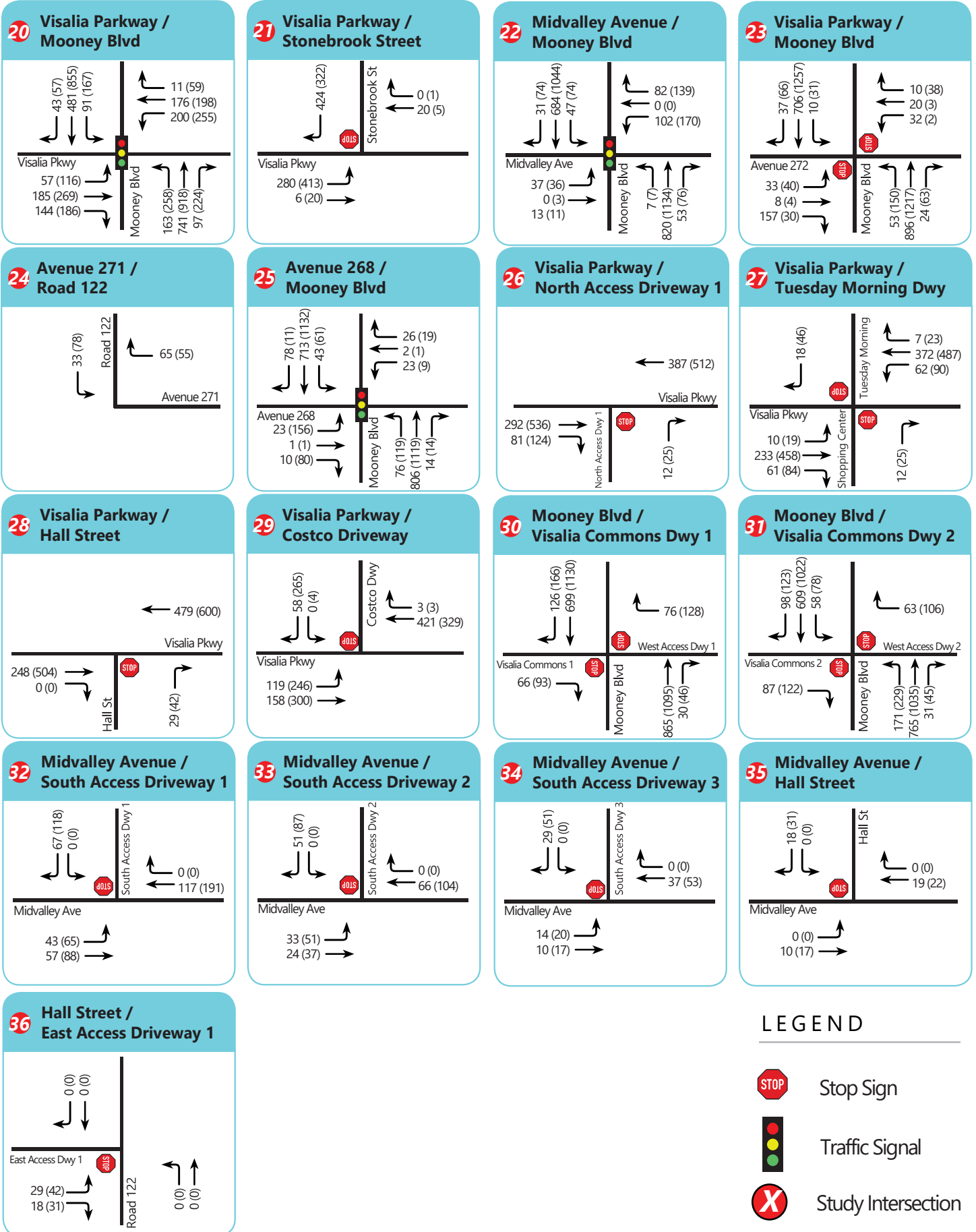


Figure 15b: 10-Year Cumulative Plus Project Peak Hour Volumes



LEGEND

-  Stop Sign
-  Traffic Signal
-  Study Intersection

9.0 20-YEAR CUMULATIVE CONDITIONS

This chapter presents the results of the level of service calculations under 20-Year Cumulative Conditions without the project. Level of service analysis at the study intersections were conducted for 20-Year Cumulative Conditions to establish a base to evaluate the impacts due to the addition of traffic from the proposed project. Existing Conditions volumes at the study intersections were projected forward 20 years using growth factors derived from the Tulare County Association of Governments (TCAG) travel demand model.

Figure 16 shows turning movement volumes at all the study intersections for 10-Year Cumulative Conditions. Lane geometries and traffic controls were maintained, similar to existing, aside from changes listed below:

- Visalia Parkway is extended east of Stonebrook Street (same as five-year cumulative)
- Assumed the Visalia Parkway Shopping Center across the street is built-out (same as five-year cumulative)
- Intersection #11, Cameron Avenue & County Center Drive: signalize (same as 10-year cumulative)
- Intersection #15, Cameron Avenue & Court Street: signalize (same as 10-year cumulative)
- Visalia Parkway is widened to a four-lane roadway
- Stonebrook Street is extended from Cameron Avenue to Caldwell Avenue

9.1 INTERSECTIONS LEVEL OF SERVICE ANALYSIS – 20-YEAR CUMULATIVE CONDITIONS

The intersection LOS analysis results for 20-Year Cumulative Conditions without the proposed project are summarized in **Table 23**. Detailed calculation sheets for 20-Year Cumulative Conditions are contained in **Appendix K**.

Under this scenario, all of the study intersections operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour, except for the following seven intersections:

- Orchard Avenue & Mooney Avenue (intersection #4) would operate at LOS E in the p.m. peak hour.
- Caldwell Avenue & Dans Street (intersection #5) would operate at LOS F in the a.m. and p.m. peak hours.
- Caldwell Avenue & Mooney Boulevard (intersection #7) would operate at LOS E in the p.m. peak hour.
- Cameron Avenue & Stonebrook Street (intersection #13) would operate at LOS F in the a.m. and p.m. peak hours.
- Cameron Avenue & West Street (intersection #14) would operate at LOS F in the p.m. peak hour
- Visalia Parkway & County Center Drive (intersection #18) would operate at LOS E in the p.m. peak hour.
- Visalia Parkway & Target Access. (intersection #19) would operate at LOS E in the a.m. peak hour and LOS F in the p.m. peak hour.
- Avenue 272 & Mooney Boulevard (intersection #23) is operating at LOS F in the a.m. and p.m. peak hours.

It should be noted that at the intersections of Sunnyside Avenue & Mooney Avenue (intersection #3) and Cameron Avenue & Mooney Boulevard (intersection #12), level of service would improve in the p.m. peak hour compared to 10-Year Cumulative Conditions. This is related to signal coordination on Mooney Boulevard, which affects when vehicles arrive during each cycle. At the individual turning movements with the highest average delay at both intersections under 10-Year Cumulative Conditions, a larger proportion of vehicles would arrive during the green phase under 20-Year Cumulative Conditions, and average delay at these movements would be reduced. Due to reduced delay for these movements, and modest increases for other movements, overall intersection delay would be reduced.

Table 23: Intersection Level of Service Analysis – 20-Year Cumulative Conditions

| # | Study Intersections | Control | Peak Hour ¹ | 20-Year Cumulative Conditions | |
|----|-----------------------------------|--------------|------------------------|-------------------------------|------------------|
| | | | | Delay ² | LOS ³ |
| 1 | Whitendale Ave. & Mooney Blvd. | Signal | A.M. | 37.1 | D |
| | | | P.M. | 41.3 | D |
| 2 | Whitendale Ave. & Giddings St. | Signal | A.M. | 11.6 | B |
| | | | P.M. | 12.0 | B |
| 3 | Sunnyside Ave. & Mooney Ave. | Signal | A.M. | 16.1 | B |
| | | | P.M. | 46.6 | D |
| 4 | Orchard Ave. & Mooney Ave. | Signal | A.M. | 22.6 | C |
| | | | P.M. | 68.6 | E |
| 5 | Caldwell Ave. & Dans St. | Two-Way Stop | A.M. | 593.8 | F |
| | | | P.M. | 682.3 | F |
| 6 | Caldwell Ave. & Shady St. | Signal | A.M. | 10.7 | B |
| | | | P.M. | 13.8 | B |
| 7 | Caldwell Ave. & Mooney Blvd. | Signal | A.M. | 39.9 | D |
| | | | P.M. | 61.9 | E |
| 8 | Caldwell Ave. & Fairway St. | Signal | A.M. | 14.8 | B |
| | | | P.M. | 33.8 | C |
| 9 | Caldwell Ave. & Stonebrook St. | Signal | A.M. | 18.4 | B |
| | | | P.M. | 26.1 | C |
| 10 | Caldwell Ave. & West St. | Signal | A.M. | 14.7 | B |
| | | | P.M. | 17.5 | B |
| 11 | Cameron Ave. & County Center Dr. | Signal | A.M. | 6.5 | A |
| | | | P.M. | 17.8 | B |
| 12 | Cameron Ave. & Mooney Blvd. | Signal | A.M. | 36.0 | D |
| | | | P.M. | 51.1 | D |
| 13 | Cameron Ave. & Stonebrook St. | One-Way Stop | A.M. | 162.1 | F |
| | | | P.M. | 859.1 | F |
| 14 | Cameron Ave. & West St. | Two-Way Stop | A.M. | 33.1 | D |
| | | | P.M. | 70.4 | F |
| 15 | Cameron Ave. & Court St. | Signal | A.M. | 7.0 | A |
| | | | P.M. | 7.8 | A |
| 16 | Visalia Pkwy. & Demaree St | Signal | A.M. | 24.9 | C |
| | | | P.M. | 24.1 | C |
| 17 | Visalia Pkwy. & Dans St. | Two-Way Stop | A.M. | 21.8 | C |
| | | | P.M. | 15.5 | C |
| 18 | Visalia Pkwy. & County Center Dr. | One-Way Stop | A.M. | 25.4 | D |
| | | | P.M. | 43.6 | E |
| 19 | Visalia Pkwy. & | | A.M. | 38.8 | E |

| # | Study Intersections | Control | Peak Hour ¹ | 20-Year Cumulative Conditions | |
|----|---------------------------------------|--------------|------------------------|-------------------------------|------------------|
| | | | | Delay ² | LOS ³ |
| | Target Access. | One-Way Stop | P.M. | 584.1 | F |
| 20 | Visalia Pkwy. & Mooney Blvd. | Signal | A.M. | 28.5 | C |
| | | | P.M. | 48.7 | D |
| 21 | Visalia Pkwy. & Stonebrook St. | Uncontrolled | A.M. | 13.2 | B |
| | | | P.M. | 26.7 | D |
| 22 | Midvalley Ave. & Mooney Blvd. | Signal | A.M. | 11.7 | B |
| | | | P.M. | 13.2 | B |
| 23 | Ave. 272 & Mooney Blvd. | Two-Way Stop | A.M. | 279.1 | F |
| | | | P.M. | 907.5 | F |
| 24 | Ave. 271 & Rd. 122 | Uncontrolled | A.M. | - | - |
| | | | P.M. | - | - |
| 25 | Ave. 268 & Mooney Blvd | Signal | A.M. | 14.9 | B |
| | | | P.M. | 25.6 | C |
| 26 | Visalia Pkwy. & North Access Dwy. 1. | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 27 | Visalia Pkwy & Tuesday Morning Dwy. | One-Way Stop | A.M. | 12.6 | B |
| | | | P.M. | 15.8 | C |
| 28 | Visalia Pkwy. & Hall St. | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 29 | Visalia Pkwy. & Costco Dwy. | One-Way Stop | A.M. | 9.5 | A |
| | | | P.M. | 29.5 | D |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 | Two-Way Stop | A.M. | 11.4 | B |
| | | | P.M. | 15.2 | C |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 | Two-Way Stop | A.M. | 11.4 | B |
| | | | P.M. | 17.2 | C |
| 32 | Midvalley Ave. & South Access Dwy. 1 | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 33 | Midvalley Ave. & South Access Dwy. 2 | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 34 | Midvalley Ave. & South Access Dwy. 3 | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 35 | Midvalley Ave. & Hall St. | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 36 | Hall St. & East Access Dwy. 1 | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |

Notes:

1. AM – morning peak hour, PM – evening peak hour

2. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop – controlled intersections.

3. LOS – Level of Service. **Bold** indicates unacceptable LOS and Delay.

9.2 QUEUING ANALYSIS – 20-YEAR CUMULATIVE CONDITIONS

TJKM conducted a vehicle queuing and storage analysis for exclusive left and right turn pockets at the study intersections. The 95th percentile queues were analyzed using Synchro software. Detailed calculations are included in **Appendix K. Table 24** summarizes the 95th percentile queue lengths at study intersections under Five-Year Cumulative Conditions. It should be noted that at six study intersections, one or more queue lengths exceed capacity, creating a deficient conditions.

Table 24: 95th Percentile Queues – 20 Year Cumulative Conditions

| # | Study Intersections | Lane Group | Storage Length | 20-Year Cumulative | |
|-----|---------------------------------------|------------|----------------|--------------------|-------------|
| | | | | AM | PM |
| 1 | Whitendale Ave. & Mooney Blvd. | EBL | 155 | 73 | 68 |
| | | EBR | 260 | 8 | 45 |
| | | WBL | 250 | 103 | #128 |
| | | WBR | 235 | 0 | 0 |
| | | NBL | 290 | 64 | #189 |
| | | NBR | 130 | 42 | 93 |
| | | SBL | 445 | 52 | #93 |
| | | SBR | 190 | 0 | 9 |
| 2 | Whitendale Ave. & Giddings St. | EBL | 105 | 68 | 90 |
| | | WBL | 105 | 14 | 4 |
| | | WBR | 35 | 31 | 18 |
| | | SBL | 150 | 53 | 72 |
| | | SBR | 50 | 35 | 39 |
| 3 | Sunnyside Ave. & Mooney Ave. | EBL | 170 | 67 | 145 |
| | | WBL | 100 | 9 | 14 |
| | | NBL | 400 | 62 | #117 |
| 4 | Orchard Ave. & Mooney Ave. | SBL | 270 | #124 | 103 |
| | | WBL | 105 | 38 | #114 |
| | | NBL | 125 | 13 | 48 |
| | | NBR | 100 | 0 | 0 |
| | | SBL | 250 | #117 | #328 |
| SBR | 100 | 0 | 0 | | |
| 5 | Caldwell Ave. & Dans St. ¹ | NBLTR | - | 433 | 203 |
| | | SBLTR | - | 45 | 203 |
| 6 | Caldwell Ave. & Shady St. | EBL | 240 | 36 | #92 |
| | | WBL | 250 | 27 | #124 |
| | | SBR | - | 0 | 0 |
| 7 | Caldwell Ave. & Mooney Blvd. | EBL | 345 | 110 | #227 |
| | | WBL | 340 | 82 | #165 |
| | | NBL | 265 | #84 | #259 |
| | | NBR | 165 | 28 | 49 |
| | | SBL | 270 | 57 | #185 |
| | | SBR | 270 | 12 | 39 |
| 8 | Caldwell Ave. & Fairway St. | EBL | 200 | #92 | #200 |
| | | WBL | 285 | #146 | #295 |
| | | NBL | 120 | 20 | 52 |
| | | SBL | 55 | 28 | 94 |
| 9 | Caldwell Ave. & Stonebrook St | EBL | 235 | 30 | 70 |
| | | WBL | 300 | #235 | #216 |
| | | SBL | - | 55 | 53 |

| # | Study Intersections | Lane Group | Storage Length | 20-Year Cumulative | |
|----|--|------------|----------------|--------------------|-------------|
| | | | | AM | PM |
| | | SBR | 200 | 15 | 7 |
| 10 | Caldwell Ave. & West St. | EBL | 300 | 65 | #150 |
| | | EBR | 110 | 3 | 20 |
| | | WBL | 290 | 61 | #110 |
| | | WBR | 100 | 13 | 21 |
| | | NBR | 50 | 0 | 0 |
| 11 | Cameron Ave. & County Center Dr. ¹ | WBR | 100 | 28 | 57 |
| | | NBR | 160 | 6 | 10 |
| | | SBL | 145 | 67 | #205 |
| 12 | Cameron Ave. & Mooney Blvd. | EBL | 155 | 100 | #330 |
| | | WBL | 300 | 131 | #255 |
| | | NBL | 210 | 11 | 53 |
| | | NBR | 150 | 13 | 21 |
| | | SBL | 185 | 61 | #241 |
| 13 | Cameron Ave. & Stonebrook St. ¹ | NBL | 145 | 70 | 138 |
| | | SBL | 150 | 100 | 237 |
| 14 | Cameron Ave. & West St. ¹ | EBL | 100 | 5 | 13 |
| | | WBL | 90 | 0 | 0 |
| | | SBL | 110 | 3 | 5 |
| 15 | Cameron Ave. & Court St. ¹ | EBL | 260 | 55 | 128 |
| | | NBL | 225 | 3 | 7 |
| | | SBL | 195 | 29 | 51 |
| | | SBR | 200 | 0 | 49 |
| 16 | Visalia Pkwy. & Demaree St | EBL | 145 | 72 | 37 |
| | | EBR | 245 | 20 | 0 |
| | | WBL | 180 | 100 | #164 |
| | | NBL | 300 | 94 | 89 |
| | | SBL | 305 | 135 | #180 |
| 17 | Visalia Pkwy. & Dans St. ¹ | EBL | 190 | 15 | 3 |
| | | WBL | 75 | 0 | 0 |
| 18 | Visalia Pkwy. & County Center Dr. ¹ | EBL | 200 | 8 | 13 |
| | | SBL | 190 | 35 | 63 |
| 19 | Visalia Pkwy. & Target Access. ¹ | EBL | 100 | 3 | 8 |
| | | WBL | 100 | 10 | 15 |
| | | NBLTR | - | 185 | 690 |
| | | SBLTR | - | 5 | 468 |
| 20 | Visalia Pkwy. & Mooney Blvd. | EBL | 180 | #107 | #236 |
| | | WBL | 175 | 211 | 280 |
| | | NBL | 205 | #165 | #199 |
| | | SBL | 290 | 28 | #92 |

| # | Study Intersections | Lane Group | Storage Length | 20-Year Cumulative | |
|----|--|------------|----------------|--------------------|------|
| | | | | AM | PM |
| | | SBR | 210 | 0 | 0 |
| 21 | Visalia Pkwy. & Stonebrook St. ² | EBL | 150 | 8 | 13 |
| | | EBR | 25 | 0 | 0 |
| 22 | Midvalley Ave. & Mooney Blvd. | NBL | 475 | 14 | 18 |
| | | SBL | 465 | 14 | 21 |
| | | SBR | 140 | 0 | 11 |
| 23 | Ave. 272 & Mooney Blvd. ¹ | NBL | 470 | 5 | 38 |
| | | SBL | 485 | 0 | 3 |
| 24 | Ave. 271 & Rd. 122 ² | - | - | - | - |
| 25 | Ave. 268 & Mooney Blvd | NBL | 470 | 79 | #153 |
| | | SBL | 475 | 50 | 70 |
| 26 | Visalia Pkwy. & North Access Dwy 1. ¹ | - | - | - | - |
| 27 | Visalia Pkwy & Tuesday Morning Dwy ¹ | EBL | 150 | 0 | 3 |
| | | WBL | 150 | - | - |
| | | NBR | - | - | - |
| | | SBR | - | 3 | 10 |
| 28 | Visalia Pkwy. & Hall St. ¹ | NBR | - | - | - |
| 29 | Visalia Pkwy. & Costco Dwy. ¹ | SBL | - | - | 3 |
| | | SBR | - | 5 | 38 |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 ¹ | EBR | - | 10 | 20 |
| | | WBR | - | - | - |
| | | EBR | - | 13 | 30 |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 ¹ | WBR | - | - | - |
| | | NBL | 150 | 23 | 60 |
| | | SBL | 150 | - | - |
| 32 | Midvalley Ave. & South Access Dwy. 1 ¹ | SBLR | - | - | - |
| 33 | Midvalley Ave. & South Access Dwy. 2 ¹ | SBLR | - | - | - |
| 34 | Midvalley Ave. & South Access Dwy. 3 ¹ | SBLR | - | - | - |
| 35 | Midvalley Ave. & Hall St. ¹ | SBLR | - | - | - |
| 36 | Hall St. & East Access Dwy. 1 ¹ | EBLR | - | - | - |

Notes:

1. Stop-controlled intersection

2. Uncontrolled intersection

Storage length and 95th percentile queue is expressed in feet per lane

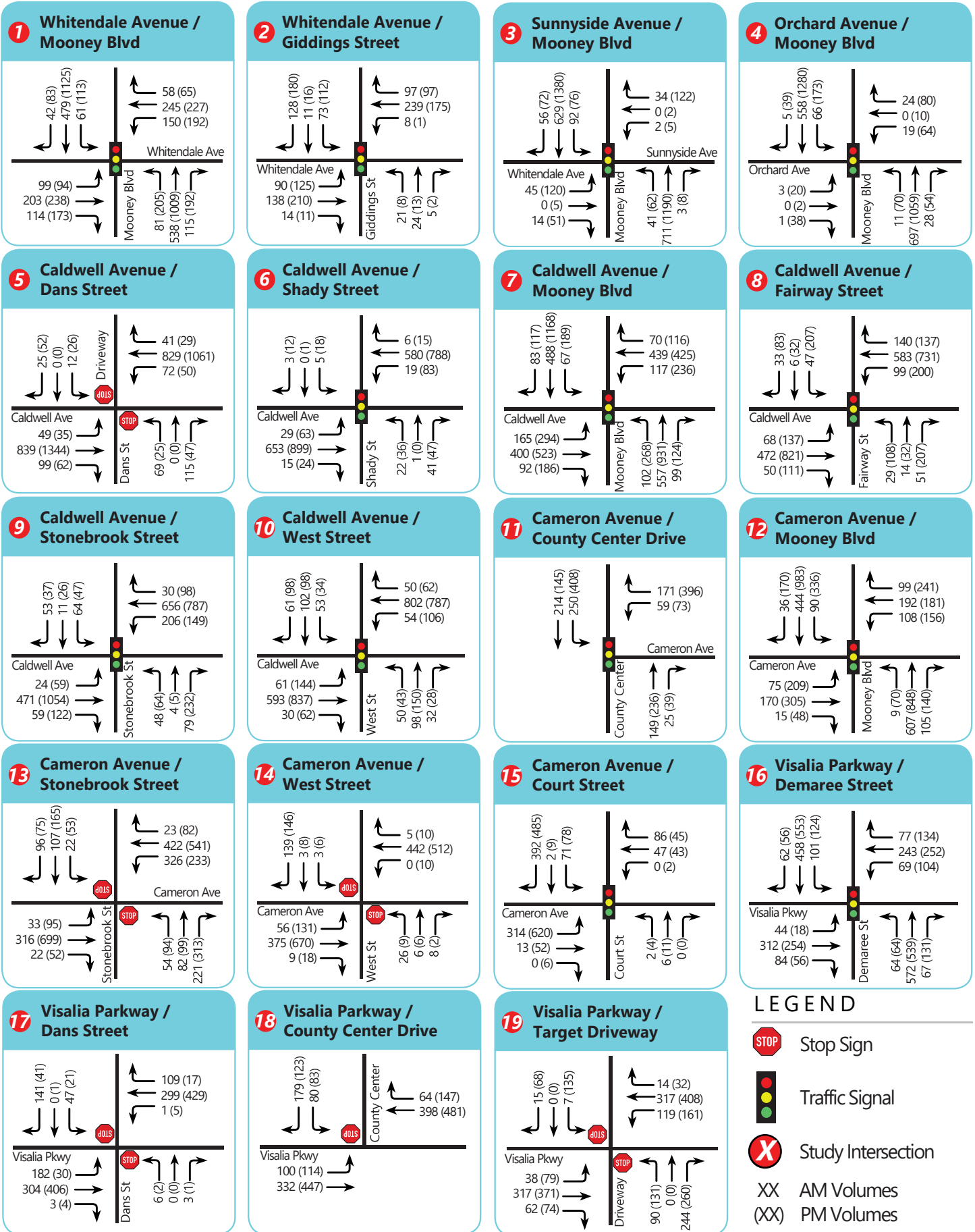
AM – morning peak hour, PM – evening peak hour

Bold indicates queue lengths exceeding capacity.

95th percentile volume exceeds capacity, queue may be longer

m Volume for 95th percentile queue is metered by upstream signal

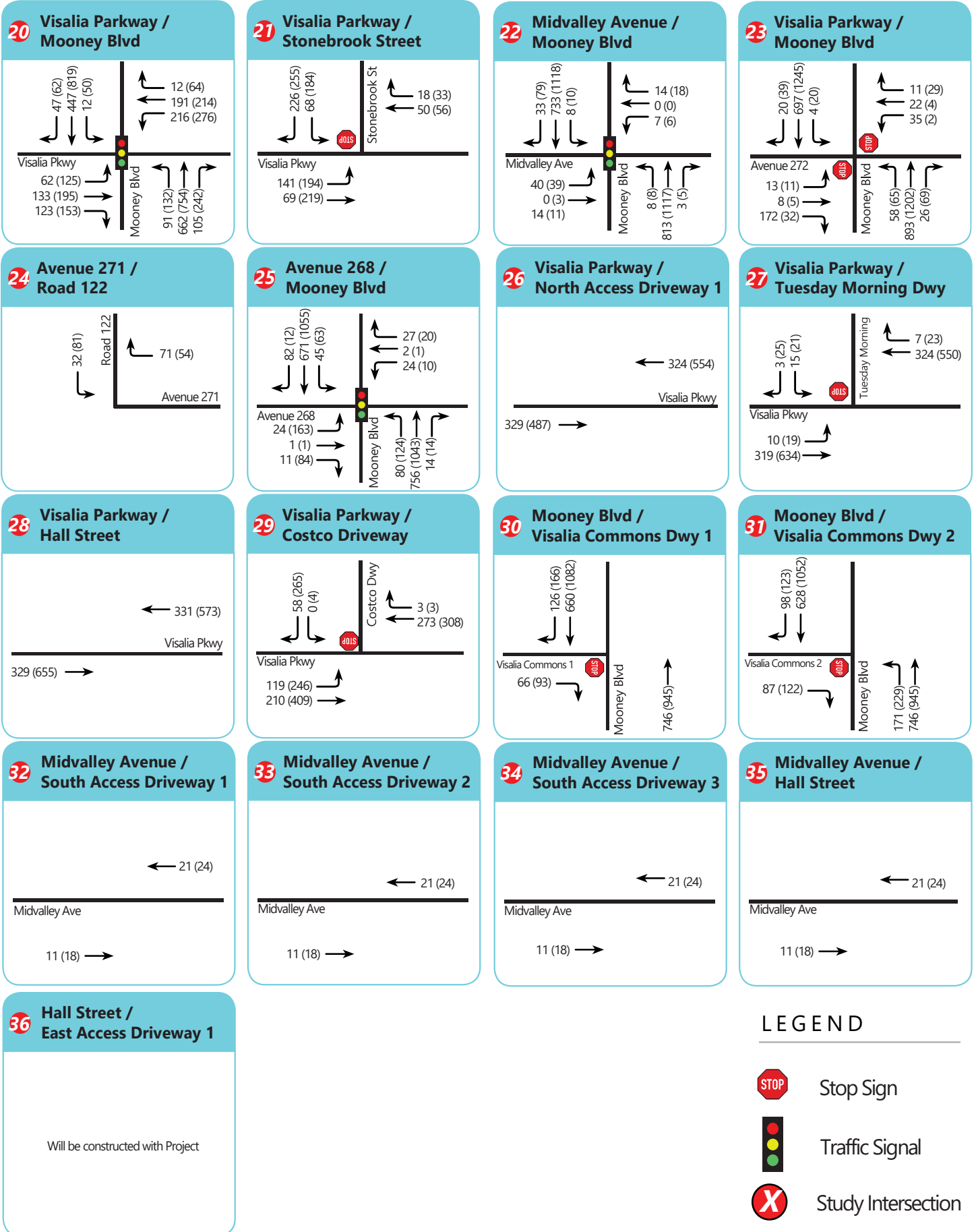
Figure 16a: 20-Year Cumulative Conditions Peak Hour Volumes



LEGEND

- Stop Sign
- Traffic Signal
- Study Intersection
- XX AM Volumes
- (XX) PM Volumes

Figure 16b: 20-Year Cumulative Conditions Peak Hour Volumes



10.0 20-YEAR CUMULATIVE PLUS PROJECT CONDITIONS

This scenario is identical to 20-Year Cumulative Conditions, with the addition of projected traffic from both Phase I and Phase II of the proposed development. Trip distribution assumptions are identical to those assumed under Existing Plus Project Conditions. Trip assignment for Phase I and Phase II of the proposed project are shown in **Figure 10**. **Figure 17** shows projected turning movement volumes at all study intersections for 20-Year Cumulative Plus Project Conditions.

Although the proposed project was analyzed with two driveways on Mooney Boulevard (intersections #30 and #31), the site plan has since been revised to close the driveway closer to Visalia Parkway (intersection #30). All project trips assigned to intersection #30 were reassigned to intersection #31, and level of service was recalculated for 20-Year Cumulative plus Project Phase I and II Conditions.

10.1 INTERSECTION LEVEL OF SERVICE ANALYSIS – 20-YEAR CUMULATIVE PLUS PROJECT CONDITIONS

The intersection LOS analysis results for 20-Year Cumulative Plus Project Conditions are summarized in **Table 25**. Detailed calculation sheets for 20-Year Cumulative Plus Project Conditions are contained in **Appendix L**.

Under this scenario, all but 12 of the study intersections would continue to operate at acceptable service levels (LOS D or better) during the a.m. and p.m. peak hour. The following eight intersections already operate at unacceptable level of service in one or both peak hours, without the addition of project traffic:

- Orchard Avenue & Mooney Avenue (intersection #4) would degrade from LOS E to LOS F in the p.m. peak hour, with a *significant increase* in average delay of 12.0 seconds.
- Caldwell Avenue & Dans Street (intersection #5) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 156.0 in the a.m. peak hour and 546.7 seconds in the p.m. peak hour.
- Caldwell Avenue & Mooney Boulevard (intersection #7) would continue to operate at LOS E in the p.m. peak hour, with a *decrease* in average delay of 0.6 seconds.
- Cameron Avenue & Stonebrook Street (intersection #13) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 117.1 in the a.m. peak hour and 702.5 seconds in the p.m. peak hour.
- Cameron Avenue & West Street (intersection #14) would degrade from LOS D to LOS F in the a.m. peak hour, and it would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 81.8 seconds.
- Visalia Parkway & County Center Drive (intersection #18) would degrade from LOS D to LOS E in the a.m. peak hour, and it would continue to operate at LOS F in the p.m. peak hour, with a *significant increase* in average delay of 73.7 seconds
- Visalia Parkway & Target Access. (intersection #19) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 33.7 seconds in the a.m. peak hour and 578.7 seconds in the p.m. peak hour.

- Avenue 272 & Mooney Boulevard (intersection #23) would continue to operate at LOS F in the a.m. and p.m. peak hours, with *significant increases* in average delay of 111.2 seconds in the a.m. peak hour and an undefined number of seconds in the p.m. peak hour.

The following four intersections would degrade from acceptable to unacceptable level of service with the addition of project traffic:

- Sunnyside Avenue & Mooney Avenue (intersection #3) would degrade from LOS D to LOS E in the p.m. peak hour, a *significant degradation*.
- Visalia Parkway & Mooney Boulevard (intersection #20) would degrade from LOS D to LOS F in the p.m. peak hour, a *significant degradation*.
- Visalia Pkwy. & Stonebrook St. (intersection #21) would degrade from LOS D to LOS F, a *significant degradation*.
- Visalia Parkway & Costco Driveway (intersection #29) would degrade from LOS D to LOS E in the p.m. peak hour, a *significant degradation*.

At 11 of the 12 intersections listed above, added project traffic would either degrade the level of service from an acceptable to unacceptable level, or increase average delay by more than 5.0 seconds, constituting significant inconsistencies with the City of Visalia General Plan. Seven of the intersections with significant inconsistencies are currently stop-controlled, and at six of them the identified inconsistencies can be mitigated with signalization, as shown in **Table 25**. At the intersections of Sunnyside Avenue & Mooney Avenue (intersection #3) and Orchard Avenue & Mooney Avenue (intersection #4), optimizing the signal timing would provide adequate mitigation. At Visalia Parkway & Mooney Boulevard (intersection #20), the same widening and restriping plan identified as a mitigation measure for Existing plus Project Conditions would provide adequate mitigation for this scenario. At the Costco Driveway on Visalia Parkway (intersection #29), it should be noted that the excessive delay in the p.m. peak hour occurs on the very low-volume southbound left turn movement, with right turning vehicles experiencing only 12.1 seconds of average delay (LOS B) at that time. This delay can be mitigated by providing a refuge lane in the median to permit two-stage left turns for exiting vehicles. **Appendix M** includes full descriptions of all mitigation measures and LOS worksheets for mitigated conditions. Based on the City of Visalia impact criteria, with mitigation the project is expected to be **consistent** with general plan requirements at all study intersections.

Table 25: Intersection Level of Service Analysis – 20-Year Cumulative plus Project Conditions

| # | Study Intersections | Control | Peak Hour ¹ | 20-Year Cumulative Conditions | | 20-Year Cumulative Plus Project Conditions | | Change in Delay |
|---|---|---------|------------------------|-------------------------------|------------------|--|------------------|-----------------|
| | | | | Delay ² | LOS ³ | Delay ² | LOS ³ | |
| 1 | Whitendale Ave. & Mooney Blvd. | Signal | A.M. | 37.1 | D | 40.7 | D | 3.6 |
| | | | P.M. | 41.3 | D | 48.3 | D | 7.0 |
| 2 | Whitendale Ave. & Giddings St. | Signal | A.M. | 11.6 | B | 11.8 | B | 0.2 |
| | | | P.M. | 12.0 | B | 12.3 | B | 0.3 |
| 3 | Sunnyside Ave. & Mooney Ave. <i>Mitigation: optimize signal timing</i> | Signal | A.M. | 16.1 | B | 16.5 | B | 0.4 |
| | | | P.M. | 46.6 | D | 58.6 | E | 12.0 |
| | | Signal | A.M. | | | 16.5 | B | |
| | | | P.M. | | | 51.1 | D | |

| # | Study Intersections | Control | Peak Hour ¹ | 20-Year Cumulative Conditions | | 20-Year Cumulative Plus Project Conditions | | Change in Delay |
|----|---|--------------|------------------------|-------------------------------|------------------|--|------------------|-----------------|
| | | | | Delay ² | LOS ³ | Delay ² | LOS ³ | |
| 4 | Orchard Ave. & Mooney Ave. <i>Mitigation: optimize signal timing</i> | Signal | A.M. | 22.6 | C | 23.1 | C | 0.5 |
| | | | P.M. | 68.6 | E | 86.1 | F | 17.5 |
| | | Signal | A.M. | | | 23.1 | C | |
| | | | P.M. | | | 34.5 | C | |
| 5 | Caldwell Ave. & Dans St. <i>Mitigation: signalize</i> | Two-Way Stop | A.M. | 593.8 | F | 749.8 | F | 156.0 |
| | | | P.M. | 682.3 | F | 1229.0 | F | 546.7 |
| | | Signal | A.M. | | | 11.9 | B | |
| | | | P.M. | | | 9.6 | A | |
| 6 | Caldwell Ave. & Shady St. | Signal | A.M. | 10.7 | B | 10.7 | B | 0.0 |
| | | | P.M. | 13.8 | B | 13.8 | B | 0.0 |
| 7 | Caldwell Ave. & Mooney Blvd. <i>Mitigation: optimize signal timing</i> | Signal | A.M. | 39.9 | D | 39.4 | D | -0.5 |
| | | | P.M. | 61.9 | E | 61.3 | E | -0.6 |
| | | Signal | A.M. | | | 39.9 | D | |
| | | | P.M. | | | 49.2 | D | |
| 8 | Caldwell Ave. & Fairway St. | Signal | A.M. | 14.8 | B | 14.8 | B | 0.0 |
| | | | P.M. | 33.8 | C | 33.9 | C | 0.1 |
| 9 | Caldwell Ave. & Stonebrook St. | Signal | A.M. | 18.4 | B | 18.6 | B | 0.2 |
| | | | P.M. | 26.1 | C | 26.3 | C | 0.2 |
| 10 | Caldwell Ave. & West St. | Signal | A.M. | 14.7 | B | 15.8 | B | 1.1 |
| | | | P.M. | 17.5 | B | 19.8 | B | 2.3 |
| 11 | Cameron Ave. & County Center Dr. | Signal | A.M. | 6.5 | A | 6.5 | A | 0.0 |
| | | | P.M. | 17.8 | B | 19.7 | B | 1.9 |
| 12 | Cameron Ave. & Mooney Blvd. | Signal | A.M. | 36.0 | D | 34.6 | C | -1.4 |
| | | | P.M. | 51.1 | D | 51.8 | D | 0.7 |
| 13 | Cameron Ave. & Stonebrook St. <i>Mitigation: signalize</i> | One-Way Stop | A.M. | 162.1 | F | 279.2 | F | 117.1 |
| | | | P.M. | 859.1 | F | 1,561.6 | F | 702.5 |
| | | Signal | A.M. | | | 23.9 | C | |
| | | | P.M. | | | 48.1 | D | |
| 14 | Cameron Ave. & West St. <i>Mitigation: signalize</i> | Two-Way Stop | A.M. | 33.1 | D | 50.6 | F | 17.5 |
| | | | P.M. | 70.4 | F | 152.2 | F | 81.8 |
| | | Signal | A.M. | | | 11.0 | B | |
| | | | P.M. | | | 16.6 | B | |
| 15 | Cameron Ave. & Court St. | Signal | A.M. | 7.0 | A | 7.1 | A | 0.1 |
| | | | P.M. | 7.8 | A | 8.0 | A | 0.2 |
| 16 | Visalia Pkwy. & Demaree St. | Signal | A.M. | 24.9 | C | 26.1 | C | 1.2 |
| | | | P.M. | 24.1 | C | 26.6 | C | 2.5 |
| 17 | Visalia Pkwy. & Dans St. | Two-Way Stop | A.M. | 21.8 | C | 33.4 | D | 11.6 |
| | | | P.M. | 15.5 | C | 20.9 | C | 5.4 |
| 18 | Visalia Pkwy. & County Center Dr. <i>Mitigation: signalize</i> | One-Way Stop | A.M. | 25.4 | D | 38.4 | E | 13.0 |
| | | | P.M. | 43.6 | E | 143.0 | F | 99.4 |
| | | Signal | A.M. | | | 9.8 | A | |
| | | | P.M. | | | 9.6 | A | |
| 19 | Visalia Pkwy. & Target Access. <i>Mitigation: signalize</i> | One-Way Stop | A.M. | 38.8 | E | 72.5 | F | 33.7 |
| | | | P.M. | 584.1 | F | 1,162.8 | F | 578.7 |
| | | Signal | A.M. | | | 12.3 | B | |
| | | | P.M. | | | 15.3 | B | |
| 20 | Visalia Pkwy. & Mooney Blvd. <i>Mitigation: Widening</i> | Signal | A.M. | 28.5 | C | 55.4 | E | 26.9 |
| | | | P.M. | 48.7 | D | 86.6 | F | 37.9 |
| | | Signal | A.M. | | | 31.8 | C | |
| | | | P.M. | | | 54.3 | D | |
| 21 | Visalia Pkwy. & | Uncontrolled | A.M. | 13.2 | B | 15.5 | C | - |

| # | Study Intersections | Control | Peak Hour ¹ | 20-Year Cumulative Conditions | | 20-Year Cumulative Plus Project Conditions | | Change in Delay |
|----|---|----------------|------------------------|-------------------------------|------------------|--|------------------|-----------------|
| | | | | Delay ² | LOS ³ | Delay ² | LOS ³ | |
| | Stonebrook St. | | P.M. | 26.7 | D | 60.6 | F | - |
| | <i>Mitigation: Signalize</i> | <i>Signal</i> | A.M. | | | 12.3 | B | |
| | | | P.M. | | | 14.4 | B | |
| 22 | Midvalley Ave. & Mooney Blvd. | Signal | A.M. | 11.7 | B | 16.7 | B | 5.0 |
| | | | P.M. | 13.2 | B | 33.4 | C | 20.2 |
| 23 | Ave. 272 & Mooney Blvd. | Two-Way | A.M. | 279.1 | F | 497.7 | F | 218.6 |
| | | Stop | P.M. | 907.5 | F | Err | Err | Err |
| | <i>Mitigation: Signalize</i> | <i>Signal</i> | A.M. | | | 11.4 | B | |
| | | | P.M. | | | 11.2 | B | |
| 24 | Ave. 271 & Rd. 122 | Uncontrolled | A.M. | - | - | - | - | - |
| | | | P.M. | - | - | - | - | - |
| 25 | Ave. 268 & Mooney Blvd | Signal | A.M. | 14.9 | B | 15.3 | B | 0.4 |
| | | | P.M. | 25.6 | C | 29.1 | C | 3.5 |
| 26 | Visalia Pkwy. & North Access Dwy 1. | One-Way | A.M. | - | - | 9.9 | A | - |
| | | Stop | P.M. | - | - | 10.9 | B | - |
| 27 | Visalia Pkwy & Tuesday Morning Dwy. | One-Way | A.M. | 12.6 | B | 9.6 | A | -3.0 |
| | | Stop | P.M. | 15.8 | C | 11.2 | B | -4.6 |
| 28 | Visalia Pkwy. & Hall St. | One-Way | A.M. | - | - | 9.6 | A | - |
| | | Stop | P.M. | - | - | 11.3 | B | - |
| 29 | Visalia Pkwy. & Costco Dwy. | One-Way | A.M. | 9.5 | A | 9.7 | A | 0.2 |
| | | Stop | P.M. | 29.5 | D | 38.1 | E | 8.6 |
| | <i>Mitigation: Median refuge</i> | <i>One-Way</i> | A.M. | | | 9.7 | A | |
| | | <i>Stop</i> | P.M. | | | 20.4 | C | |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 | Two-Way | A.M. | 11.4 | B | 13.2 | B | 1.8 |
| | | Stop | P.M. | 15.2 | C | 18.5 | C | 3.3 |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 | Two-Way | A.M. | 11.4 | B | 12.7 | B | 1.3 |
| | | Stop | P.M. | 17.2 | C | 18.8 | C | 1.6 |
| | <i>Access change: Close driveway at Int. 30</i> | <i>Two-Way</i> | A.M. | | | 14.4 | B | 3.0 |
| | | <i>Stop</i> | P.M. | | | 25.4 | D | 8.2 |
| 32 | Midvalley Ave. & South Access Dwy. 1 | One-Way | A.M. | - | - | 9.2 | A | - |
| | | Stop | P.M. | - | - | 10.1 | B | - |
| 33 | Midvalley Ave. & South Access Dwy. 2 | One-Way | A.M. | - | - | 8.9 | A | - |
| | | Stop | P.M. | - | - | 9.3 | A | - |
| 34 | Midvalley Ave. & South Access Dwy. 3 | One-Way | A.M. | - | - | 8.6 | A | - |
| | | Stop | P.M. | - | - | 8.8 | A | - |
| 35 | Midvalley Ave. & Hall St. | One-Way | A.M. | - | - | 8.5 | A | - |
| | | Stop | P.M. | - | - | 8.5 | A | - |
| 36 | Hall St. & East Access Dwy. 1 | One-Way | A.M. | - | - | 8.6 | A | - |
| | | Stop | P.M. | - | - | 8.7 | A | - |

Notes:

1. AM – morning peak hour, PM – evening peak hour

2. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop – controlled intersections.

3. LOS – Level of Service. **Bold** indicates unacceptable Level of Service. **Red** indicates a significant impact.

10.2 QUEUING ANALYSIS – 20-YEAR CUMULATIVE PLUS PROJECT CONDITIONS

TJKM conducted a vehicle queuing and storage analysis for exclusive left and right turn pockets at the study intersections where project traffic is added under 20-Year Plus Project Conditions. The 95th

percentile queues were analyzed using Synchro 10.0 software. Detailed calculations are included in the LOS appendices corresponding to each analysis scenario. **Table 26** summarizes the 95th percentile queue lengths at selected study intersections under 20-Year Cumulative and 20-Year Cumulative Plus Project scenarios. It should be noted that queue lengths at seven locations exceed capacity, creating a deficient conditions. With the addition of project traffic, the intersections of Caldwell Avenue & Mooney Boulevard (intersection #7), Cameron Avenue & County Center Drive (intersection #11), and Cameron Avenue & Stonebrook Street (intersection #13) would experience new queue overflows and/or increase existing overflows by more than one car length, thus creating significant impacts. With optimized signal timing at intersections #7 and #11, and both signalization and increased storage length at intersection #13, all impacts would be eliminated. Although not require for queue mitigation under this project, Visalia Parkway & Mooney Boulevard (intersection #20) was also evaluated with the widening used for mitigation in section 10.1. With mitigation, the project is expected to have a **less-than-significant impact** on intersection queuing operations. Queuing calculation sheets for 20-Year Plus Project Conditions are included in **Appendix L**. Calculation sheets for mitigated conditions are included in **Appendix M**.

Table 26: 95th Percentile Queues – 20 Year Cumulative plus Project Conditions

| # | Study Intersections | Lane Group | Storage Length | 20-Year Cumulative | | 20-Year Cumulative Plus Project | | Change | |
|---|--------------------------------|------------|----------------|--------------------|------|---------------------------------|------|--------|-----|
| | | | | AM | PM | AM | PM | AM | PM |
| 1 | Whitendale Ave. & Mooney Blvd. | EBL | 155 | 73 | 68 | 73 | 68 | 0 | 0 |
| | | EBR | 260 | 8 | 45 | 24 | 68 | 16 | 23 |
| | | WBL | 250 | 103 | #128 | 120 | #172 | 17 | 44 |
| | | WBR | 235 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | NBL | 290 | 64 | #189 | #84 | #222 | 20 | 33 |
| | | NBR | 130 | 42 | 93 | 48 | 116 | 6 | 23 |
| | | SBL | 445 | 52 | #93 | 52 | #93 | 0 | 0 |
| | | SBR | 190 | 0 | 9 | 0 | 9 | 0 | 0 |
| 2 | Whitendale Ave. & Giddings St. | EBL | 105 | 68 | 90 | 74 | 102 | 6 | 12 |
| | | WBL | 105 | 14 | 4 | 14 | 4 | 0 | 0 |
| | | WBR | 35 | 31 | 18 | 31 | 17 | 0 | -1 |
| | | SBL | 150 | 53 | 72 | 54 | 76 | 1 | 4 |
| | | SBR | 50 | 35 | 39 | 37 | 42 | 2 | 3 |
| 3 | Sunnyside Ave. & Mooney Ave. | EBL | 170 | 67 | 145 | 67 | 87 | 0 | -58 |
| | | WBL | 100 | 9 | 14 | 25 | 32 | 16 | 18 |
| | | NBL | 400 | 62 | #117 | 62 | #117 | 0 | 0 |
| | | SBL | 270 | #124 | 103 | #124 | 103 | 0 | 0 |
| 4 | Orchard Ave. & Mooney Ave. | WBL | 105 | 38 | #114 | 38 | #114 | 0 | 0 |
| | | NBL | 125 | 13 | 48 | 13 | 48 | 0 | 0 |
| | | NBR | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | SBL | 250 | #117 | #328 | #117 | #328 | 0 | 0 |
| | | SBR | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Caldwell Ave. & | NBLTR | - | 433 | 203 | 465 | 233 | 32 | 30 |

| # | Study Intersections | Lane Group | Storage Length | 20-Year Cumulative | | 20-Year Cumulative Plus Project | | Change | |
|----|---|------------|----------------|--------------------|-------------|---------------------------------|-------------|--------|-----------|
| | | | | AM | PM | AM | PM | AM | PM |
| | Dans St. ¹ | SBLTR | - | 45 | 203 | 50 | 230 | 5 | 27 |
| 6 | Caldwell Ave. & Shady St. | EBL | 240 | 36 | #92 | 37 | #92 | 1 | 0 |
| | | WBL | 250 | 27 | #124 | 28 | #124 | 1 | 0 |
| | | SBR | - | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | Caldwell Ave. & Mooney Blvd. | EBL | 345 | 110 | #227 | 110 | #227 | 0 | 0 |
| | | WBL | 340 | 82 | #165 | 87 | #179 | 5 | 14 |
| | | NBL | 265 | #84 | #259 | #127 | #324 | 43 | 65 |
| | | NBR | 165 | 28 | 49 | 35 | 58 | 7 | 9 |
| | | SBL | 270 | 57 | #185 | 57 | #185 | 0 | 0 |
| | | SBR | 270 | 12 | 39 | 12 | 39 | 0 | 0 |
| | | EBL | 345 | | | 111 | #204 | | |
| | | WBL | 340 | | | 88 | 167 | | |
| | Mitigation: optimize signal timing | NBL | 265 | | | #114 | #275 | | |
| | | NBR | 165 | | | 35 | 69 | | |
| | | SBL | 270 | | | 56 | 136 | | |
| | | SBR | 270 | | | 12 | 49 | | |
| 8 | Caldwell Ave. & Fairway St. | EBL | 200 | #92 | #200 | #92 | #200 | 0 | 0 |
| | | WBL | 285 | #146 | #295 | #146 | #295 | 0 | 0 |
| | | NBL | 120 | 20 | 52 | 20 | 52 | 0 | 0 |
| | | SBL | 55 | 28 | 94 | 28 | 94 | 0 | 0 |
| 9 | Caldwell Ave. & Stonebrook St | EBL | 235 | 30 | 70 | 37 | #89 | 7 | 19 |
| | | WBL | 300 | #235 | #216 | #235 | #216 | 0 | 0 |
| | | SBL | - | 55 | 53 | 55 | 53 | 0 | 0 |
| | | SBR | 200 | 15 | 7 | 19 | 16 | 4 | 9 |
| 10 | Caldwell Ave. & West St. | EBL | 300 | 65 | #150 | 68 | #159 | 3 | 9 |
| | | EBR | 110 | 3 | 20 | 3 | 21 | 0 | 1 |
| | | WBL | 290 | 61 | #110 | 76 | #148 | 15 | 38 |
| | | WBR | 100 | 13 | 21 | 14 | 22 | 1 | 1 |
| | | NBR | 50 | 0 | 0 | 5 | 7 | 5 | 7 |
| 11 | Cameron Ave. & County Center Dr. ¹ | WBR | 100 | 28 | 57 | 28 | 57 | 0 | 0 |
| | | NBR | 160 | 6 | 10 | 9 | 10 | 3 | 0 |
| | | SBL | 145 | 67 | #205 | 68 | #254 | 1 | 49 |
| | | WBR | 100 | | | 28 | 71 | | |
| | Mitigation: optimize signal timing | NBR | 160 | | | 6 | 9 | | |
| | | SBL | 145 | | | 68 | 195 | | |
| 12 | Cameron Ave. & Mooney Blvd. | EBL | 155 | 100 | #330 | 100 | #330 | 0 | 0 |
| | | WBL | 300 | 131 | #255 | 131 | #255 | 0 | 0 |
| | | NBL | 210 | 11 | 53 | 11 | 53 | 0 | 0 |
| | | NBR | 150 | 13 | 21 | 13 | 21 | 0 | 0 |
| | | SBL | 185 | 61 | #241 | 61 | #241 | 0 | 0 |
| | | SBR | 150 | 0 | 38 | 0 | 38 | 0 | 0 |

| # | Study Intersections | Lane Group | Storage Length | 20-Year Cumulative | | 20-Year Cumulative Plus Project | | Change | |
|----|--|------------|----------------|--------------------|------------|---------------------------------|------------|--------|-----------|
| | | | | AM | PM | AM | PM | AM | PM |
| 13 | Cameron Ave. & Stonebrook St. ¹ | NBL | 145 | 70 | 138 | 90 | 163 | 20 | 25 |
| | | SBL | 150 | 100 | 237 | 125 | 268 | 25 | 31 |
| | <i>Mitigation: signalize, increase NBL storage</i> | NBL | 200 | | | #70 | #163 | | |
| | | SBL | 150 | | | 33 | #86 | | |
| 14 | Cameron Ave. & West St. ¹ | EBL | 100 | 5 | 13 | 8 | 18 | 3 | 5 |
| | | WBL | 90 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | SBL | 110 | 3 | 5 | 3 | 10 | 0 | 5 |
| 15 | Cameron Ave. & Court St. ¹ | EBL | 260 | 55 | 128 | 58 | 140 | 3 | 12 |
| | | NBL | 225 | 3 | 7 | 3 | 7 | 0 | 0 |
| | | SBL | 195 | 29 | 51 | 30 | 53 | 1 | 2 |
| | | SBR | 200 | 0 | 49 | 0 | 51 | 0 | 2 |
| 16 | Visalia Pkwy. & Demaree S.t | EBL | 145 | 72 | 37 | 72 | 38 | 0 | 1 |
| | | EBR | 245 | 20 | 0 | 20 | 0 | 0 | 0 |
| | | WBL | 180 | 100 | #164 | 100 | #170 | 0 | 6 |
| | | NBL | 300 | 94 | 89 | 94 | 91 | 0 | 2 |
| | | SBL | 305 | 135 | #180 | #181 | #244 | 46 | 64 |
| 17 | Visalia Pkwy. & Dans St. ¹ | EBL | 190 | 15 | 3 | 18 | 3 | 3 | 0 |
| | | WBL | 75 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | Visalia Pkwy. & County Center Dr. ¹ | EBL | 200 | 8 | 13 | 10 | 13 | 2 | 0 |
| | | SBL | 190 | 35 | 63 | 70 | 180 | 35 | 117 |
| 19 | Visalia Pkwy. & Target Access. ¹ | EBL | 100 | 3 | 8 | 3 | 8 | 0 | 0 |
| | | WBL | 100 | 10 | 15 | 10 | 18 | 0 | 3 |
| | | NBLTR | - | 185 | 690 | 273 | 890 | 88 | 200 |
| | | SBLTR | - | 5 | 468 | 8 | 570 | 3 | 102 |
| 20 | Visalia Pkwy. & Mooney Blvd. | EBL | 180 | #107 | #236 | #107 | #236 | 0 | 0 |
| | | WBL | 175 | 211 | 280 | 211 | 280 | 0 | 0 |
| | | NBL | 205 | #165 | #199 | #312 | #455 | 147 | 256 |
| | | SBL | 290 | 28 | #92 | #168 | #340 | 140 | 248 |
| | | SBR | 210 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | EBL | 180 | | | 47 | #124 | | |
| | | WBL | 175 | | | 123 | 184 | | |
| | <i>With LOS mitigation: widening/restriping</i> | NBL | 205 | | | 102 | 180 | | |
| | | SBL | 290 | | | #171 | #318 | | |
| | | SBR | 210 | | | 0 | 0 | | |
| 21 | Visalia Pkwy. & Stonebrook St. ² | EBL | 150 | 8 | 13 | 13 | 20 | 5 | 7 |
| 22 | Midvalley Ave. & Mooney Blvd. | EBR | 25 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | NBL | 475 | 14 | 18 | 16 | 18 | 2 | 0 |
| | | SBL | 465 | 14 | 21 | 50 | #101 | 36 | 80 |
| | | SBR | 140 | 0 | 11 | 0 | 11 | 0 | 0 |
| 23 | Ave. 272 & | NBL | 470 | 5 | 38 | 8 | 48 | 3 | 10 |

| # | Study Intersections | Lane Group | Storage Length | 20-Year Cumulative | | 20-Year Cumulative Plus Project | | Change | |
|----|--|------------|----------------|--------------------|------|---------------------------------|------|--------|----|
| | | | | AM | PM | AM | PM | AM | PM |
| | Mooney Blvd. ¹ | SBL | 485 | 0 | 3 | 3 | 5 | 3 | 2 |
| 24 | Ave. 271 & Rd. 122 ² | - | - | - | - | - | - | - | - |
| 25 | Ave. 268 & Mooney Blvd | NBL | 470 | 79 | #153 | 79 | #153 | 0 | 0 |
| | | SBL | 475 | 50 | 70 | 50 | 70 | 0 | 0 |
| 26 | Visalia Pkwy. & North Access Dwy 1. ¹ | - | - | - | - | 3 | 3 | - | - |
| | | EBL | 150 | 0 | 3 | 0 | 3 | 0 | 0 |
| 27 | Visalia Pkwy & Tuesday Morning Dwy ¹ | WBL | 150 | - | - | 5 | 10 | - | - |
| | | NBR | - | - | - | 3 | 3 | - | - |
| | | SBR | - | 3 | 10 | 3 | 5 | 0 | -5 |
| 28 | Visalia Pkwy. & Hall St. ¹ | NBR | - | - | - | 3 | 5 | - | - |
| 29 | Visalia Pkwy. & Costco Dwy. ¹ | SBL | - | - | 3 | - | 3 | - | 0 |
| | | SBR | - | 5 | 38 | 5 | 43 | 0 | 5 |
| 30 | Mooney Blvd. & Visalia Commons Dwy. 1 ¹ | EBR | - | 10 | 20 | 10 | 25 | 0 | 5 |
| | | WBR | - | - | - | 15 | 38 | - | - |
| | | EBR | - | 13 | 30 | 13 | 33 | 0 | 3 |
| 31 | Mooney Blvd. & Visalia Commons Dwy. 2 ¹ | WBR | - | - | - | 10 | 28 | - | - |
| | | NBL | 150 | 23 | 60 | 23 | 68 | 0 | 8 |
| | | SBL | 150 | - | - | 8 | 13 | - | - |
| 32 | Midvalley Ave. & South Access Dwy. 1 ¹ | SBLR | - | - | - | 8 | 13 | - | - |
| 33 | Midvalley Ave. & South Access Dwy. 2 ¹ | SBLR | - | - | - | 5 | 8 | - | - |
| 34 | Midvalley Ave. & South Access Dwy. 3 ¹ | SBLR | - | - | - | 3 | 5 | - | - |
| 35 | Midvalley Ave. & Hall St. ¹ | SBLR | - | - | - | 3 | 3 | - | - |
| 36 | Hall St. & East Access Dwy. 1 ¹ | EBLR | - | - | - | 5 | 5 | - | - |

Notes:

1. Stop-controlled intersection

2. Uncontrolled intersection

Storage length and 95th percentile queue is expressed in feet per lane

AM – morning peak hour, PM – evening peak hour

Bold indicates queue lengths exceeding capacity. **Red** indicates significant impact.

95th percentile volume exceeds capacity, queue may be longer

m Volume for 95th percentile queue is metered by upstream signal

Figure 17a: 20-Year Cumulative Plus Project Peak Hour Volumes

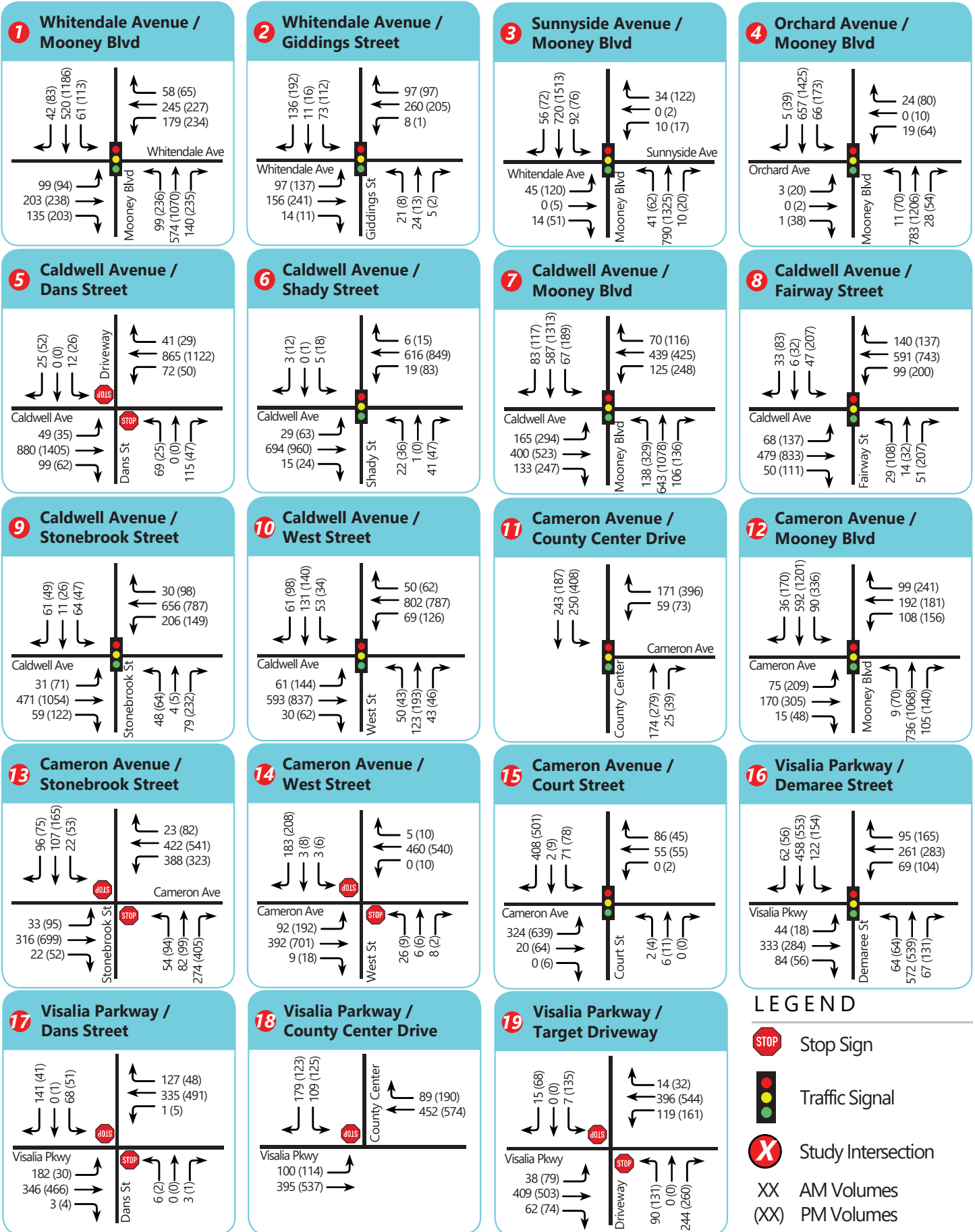
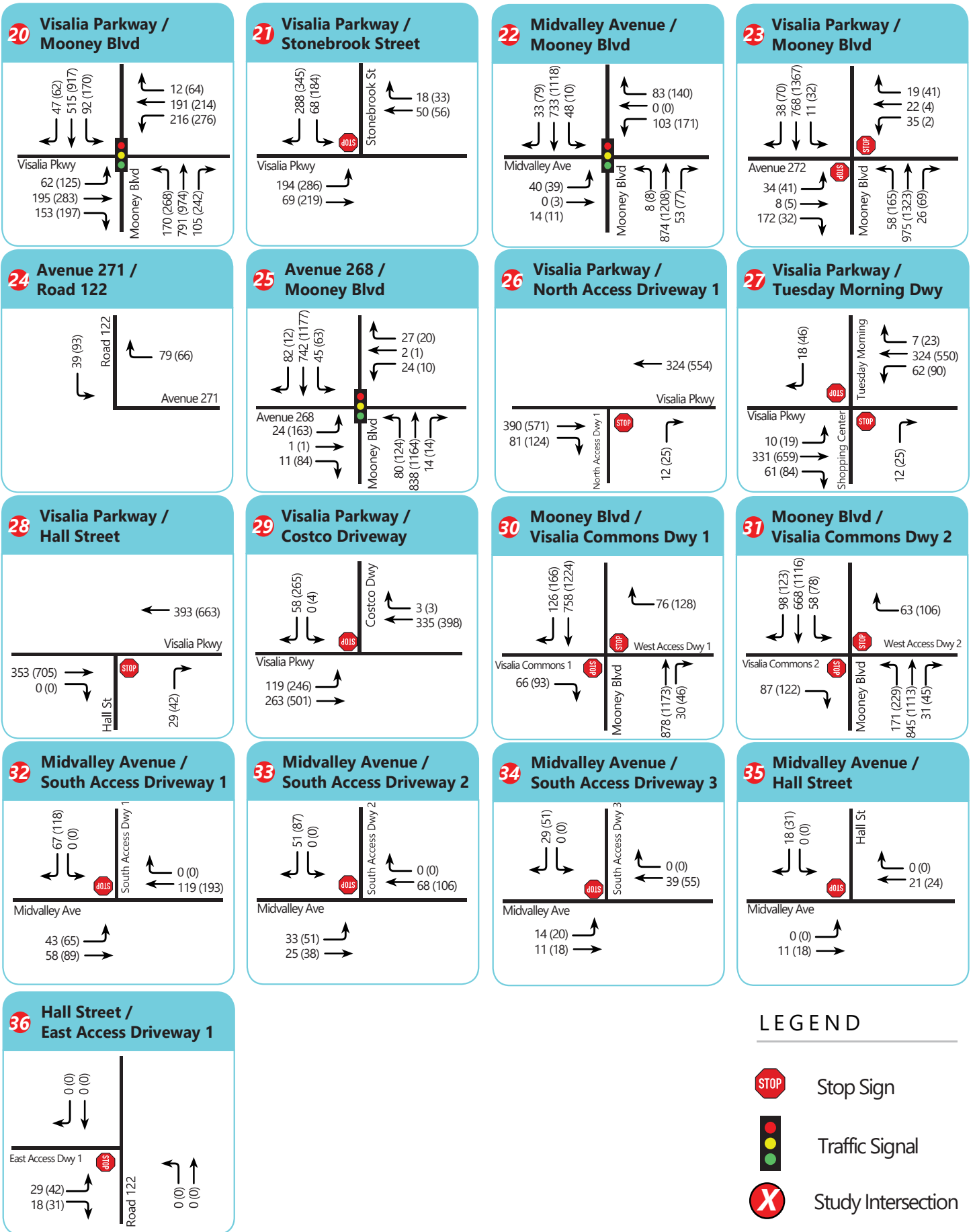


Figure 17b: 20-Year Cumulative Plus Project Peak Hour Volumes



11.0 ADDITIONAL ANALYSES

The following sections provide additional analyses of other transportation issues associated with the project site, including:

- Vehicle Miles Traveled
- Site access
- Onsite circulation
- Pedestrian, Bicycle, and Transit Impacts
- Phasing of frontage improvements
- Funding of mitigation measures

Unlike the LOS impact methodology, which is adopted by the City, the analyses in these sections are based on professional judgment in accordance with the standards and methods employed by traffic engineers. Vehicle miles traveled (VMT) is evaluated as a CEQA impact, however, there is no methodology or standard currently adopted by the City. Although operational issues are not considered CEQA impacts, they do describe traffic conditions that are relevant to the project environment.

11.1 VEHICLE MILES TRAVELED (VMT)

Project Screening

Compliance with Senate Bill (SB) 743 included replacement of LOS with VMT for purposes of assessing traffic impacts under CEQA described in new Section 15064.3 of the CEQA Guidelines that applied statewide beginning on July 1, 2020. Lead agencies have discretion to choose the most appropriate methodology to evaluate a project's vehicles miles traveled, including whether to express the change in absolute terms, per capita, per household or any other measure. Most jurisdictions, including the City of Visalia, do not yet have an adopted VMT threshold. As of March 2021, the City of Visalia has adopted *VMT Thresholds and Implementation Guidelines*, which are generally consistent with OPR guidance. For the purposes of this study, the screening guidelines and significance thresholds that are contained in the City's VMT guidelines are utilized and compared to OPR recommendations.

VMT refers to the amount and distance of automobile travel "attributable to a project". As described separately in the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR, December 2018), VMT re-routed from other origins or destinations as the result of a project would not be attributable to a project except to the extent that the re-routing results in a net increase in VMT. For example, OPR guidelines note that retail projects typically re-route travel from other retail destinations, and therefore a retail project may lead to increases or decreases in VMT, depending on previously existing travel patterns. Similarly, a large share of retail trips are "pass-by trips" that would not be considered attributable to a retail project.

It should be noted that although the OPR Technical Advisory states that lead agencies may generally presume that local-serving retail development creates a less-than-significant impact, it does not provide a clear distinction between local- and regional-serving developments. It also states that retail developments with stores larger than 50,000 square feet might be considered regional-serving. However, the City's VMT guidelines consider the total size of a retail project, with 50,000 sq. ft. to be the upper limit for a

development to be considered local serving. The proposed project would include one smaller anchor store of 20,473 sq. ft. and multiple others up to 15,500 sq. ft., with the total development providing approximately 215,000 sq. ft. of primarily retail and restaurant space. Due to the total project size, the project does not meet the City’s screening criterion for size.

The City’s guidelines also screen out certain projects located within 0.5 miles of a High Transit Priority Area or a High-Quality Transit Area. Among the required conditions is a minimum floor area ratio (FAR) greater than 0.75. Although the entire project site is located within the 0.5 mile buffer around the Visalia Transit Route 1, the proposed FAR is below 0.75. It should be noted, however, that the project site’s land use and zoning designation, Regional Commercial, permits a maximum FAR of 0.6, below the threshold to take advantage of this screening criterion. The project does not meet this or any other screening criteria and therefore requires a detailed VMT analysis.

Identification of Project VMT and Assessment of Impact

Consistent with OPR recommendations, the City’s guidelines specify that the TCAG travel demand model be used for analyzing large retail projects. The guidelines specify that the appropriate VMT metric is the change in total VMT within Tulare County with and without the proposed project. TJKM used the TCAG travel demand model to determine total VMT within Tulare County in 2020 and 2042 without the project (no build), and 2042 with full build-out of the project. For the purposes of the travel demand model analysis, a project size of 212,450 sq. ft. was analyzed. Due to the expected project phasing, with full build-out assumed to be at least five years in the future, the project-related net change in total VMT was evaluated for 2042 conditions. As shown in **Table 26**, total daily VMT within the County is expected to increase by approximately 1,999,314 miles between 2020 and 2042 under no-build conditions, an increase of approximately 13 percent. In 2042, the project is expected to result in an additional 11,224 net VMT, compared to 2042 no-build conditions. From 2020 no-build and 2042 build-out conditions, the project would contribute less than one percent to the total cumulative growth. However, based on the significance threshold recommended by OPR and specified in the City of Visalia VMT guidelines, the project would have a *potentially significant impact* on regional VMT.

Table 26: Cumulative VMT Growth, Tulare County

| # | Scenario | VMT |
|---|---|---------------|
| A | 2020 Base Year No Build | 15,164,825 |
| B | 2042 Forecast Year No Build | 17,164,139 |
| C | 2042 Forecast Year Build | 17,175,362 |
| D | No-Build Growth (B-A) | 1,999,314 |
| E | Growth with Build (C-A) | 2,010,538 |
| F | Project Net VMT(C-B) | 11,224 |
| G | Project Cumulative Contribution (F ÷ E) | 0.6% |

Source: TCAG Model application

Relation of VMT to Indirect Source Review

As the project is located within the San Joaquin Valley air basin, the San Joaquin Valley Air Pollution Control District’s requires a review of both direct and indirect sources of air pollution and payment of fees

to mitigate any impacts identified. A key part of the Rule 9510 indirect source review (ISR) involves estimating VMT generated during the operational phase of the project in order to identify the amount of nitrous oxides (NOx) and particulates (PM10) generated. Although the District does not directly address CO2 production, NOx is both a ground-level pollutant and a powerful GHG. The amount of NOx and PM10 generated by indirect sources can then be reduced through a variety of mitigation measures, and fees are assessed for the remainder. The District uses these fees for programs aimed at reducing air pollution, primarily grants for replacing vehicles and heaters, such as wood stoves, with low- or zero-emission alternatives. A large proportion of the grants reported in recent years reduce both NOx and other GHG. For projects where a large proportion of emissions are due to mobile sources, such as vehicles, the mitigation fees seek to offset impacts from mobile sources by reducing emissions from both mobile and fixed sources.

The ISR conducted for the proposed project involved using the California Emissions Estimator Model (CalEEMod) to estimate emissions, including those due to VMT. The CalEEMod analysis incorporated the following location- and neighborhood/site-based mitigation measures affecting VMT:

- Increase density
- Improve walkability design
- Improve destination accessibility
- Increase transit accessibility
- Improve pedestrian network
- Provide traffic calming measures

Based on mitigation measures due to the project location and features related to the surrounding built environment (e.g., roadway medians, intersection density, well connected sidewalk network), the CalEEMod analysis identified a VMT reduction of approximately 14 percent, compared to a similar project without these mitigations. In order to fully mitigate emissions-related impacts that could not be reduced through on-site measures, the District assesses over \$500,000 in impact fees. Based on the types of grants funded by such fees, this also partially mitigates the ongoing GHG-related impacts of project VMT.

Mitigation Measures

In order to mitigate the VMT impact associated with the project, TJKM considers a fair share contribution to a regional VMT reduction program to be the most appropriate mitigation measure for this project. However, no such program exists at this time within the project region. In addition, as the VMT metric used for large retail projects is the total change in regional VMT, the project-associated VMT impact would need to be eliminated entirely (no net change), rather than reduced as would be required when different metrics are used (e.g., 16 percent below regional average VMT per capita). As shown in section 2.1, the City of Visalia's VMT guidelines state that "it may be that identified VMT impacts cannot be mitigated at the project-specific level...Also, VMT, as a proxy for GHG emissions, may not require locational specificity. A project does not necessarily need to diminish the VMT at the project site to gain benefit in VMT and GHG reduction in the State. Offsets in an area where the benefit would be greater will have a more effective reduction in VMT and GHG and contribute to the State's ultimate climate goals." As no regional VMT-specific mitigation programs exist, TJKM recommends that a multi-pronged approach be used to fully mitigate project-related VMT impacts, focusing on:

- Pay an impact fee with the building permit issuance of each parcel to the City, to be placed into a VMT mitigation bank to be created at a later date. If a VMT mitigation fee program is implemented by the City prior to building permits being issued and fees being paid, the project would pay those fees instead. Otherwise, the fees would be calculated as below, based on the market rate price for GHG equivalents and a time period to be negotiated by the City and project applicant in light of other mitigating factors.
- Take into account the mitigation fees paid to the San Joaquin Valley Air Pollution Control District, as discussed above, which are based in part on VMT generated by the project.
- Implement all feasible project-level mitigation measures, as described below.

Calculating One-Time VMT Impact Fee

Typically, and in accordance with the California Mitigation Fee Act, any impact fee program would be based on a nexus study, which would derive the relationship between new development and necessary infrastructure improvements. However, for mitigating VMT this would require a nexus study far beyond the scope of a single project. Such a study would consider regional development projections and a range of VMT-reducing programs and projects. It is TJKM’s understanding that such a program is planned, but as noted above it is not yet in place.

As stated in the City’s VMT guidelines and OPR advisory, VMT is used as a proxy metric for measuring the long-term climate impact of greenhouse gas emissions, due to the large proportion of emissions generated by transportation. As such, a monetary value of project-generated VMT can be derived based on average vehicle fuel economy and the market rate price for GHG equivalents in the California Air Resources Board (CARB) Cap-And-Trade Program auction. In principle, the fees collected could be used to directly purchase GHG allowances through the CARB program, although the intention is that the fees would be used for VMT-reducing projects. As VMT generation would be an ongoing impact, the assessed monetary value of the VMT impact would depend on the amount of time used as a basis for calculating fees. TJKM recommends that the fee be based on a period of 10 years, to account for ongoing improvements to fuel economy and VMT-reducing infrastructure. Final determination of this time period is to be negotiated by the City and the project applicant. It should be noted that other agencies, such as the San Joaquin Valley Air Pollution Control District, also assess the cost of certain related impacts (e.g., PM10) based on total generation for a period of 10 years.

As noted above, the project would generate an additional 11,224 vehicle miles traveled per weekday within the bounds of Tulare County during the model horizon year of 2042. The project-specific model run evaluated a proposed project size of 212,450 sq. ft. TJKM utilized the US EPA’s greenhouse gas equivalencies calculator to convert vehicle miles traveled to metric tons of CO₂ equivalents (MT CO₂e). The equivalency is in turn based on weighted average fuel economy of light vehicles as reported by the FHWA as of 2018 and typical CO₂e generated by burning gasoline. The project would thus generate the following amount of MT CO₂e per weekday:

$$11,224 \frac{\text{miles}}{\text{weekday}} \times 3.98 \times 10^{-4} \frac{\text{MT CO}_2\text{e}}{\text{mile}} = 4.467 \frac{\text{MT CO}_2\text{e}}{\text{weekday}}$$

The most recent Cap-And-Trade auction held by CARB and Québec’s ministère de l’Environnement et de la Lutte contre les changements climatiques (MELCC) was conducted in August 2021 and provided 71,261,536 total allowances offered for sale. Each allowance consists of 1 MT CO₂e. The resulting auction price was \$23.30 (US) per allowance. The project would thus generate the following monetary value in GHG equivalents per weekday, based on current fuel economy and market conditions:

$$4.467 \frac{\text{MT CO}_2\text{e}}{\text{weekday}} \times \frac{\$23.30}{\text{MT CO}_2\text{e}} = \frac{\$104.08}{\text{weekday}}$$

According to the OPR technical advisory, using VMT as a CEQA metric is intended to address passenger vehicle travel on weekdays only. In addition, the Tulare County travel demand model only covers weekdays, and the project’s impact is only assessed for weekdays. There are an average of 260.7 weekdays per year. Based on a recommended time frame of 10 years, the total monetary value of the project’s impact on weekday VMT is the following:

$$\frac{\$104.08}{\text{weekday}} \times 260.7 \frac{\text{weekdays}}{\text{year}} \times 10 \text{ years} = \$271,336.56$$

As noted above, the project-specific travel demand model evaluated a project size of 212,450 sq. ft. The recommended VMT impact fee is the following:

$$\$271,336.56 \div 212.450 \text{ ksf} = \$1277/\text{ksf}$$

The recommended fee of \$1,277/ksf is based on TJKM’s recommendation that VMT impacts be assessed for 10 years of GHG production. As noted above, other annual GHG generated by the project, including that from VMT, are already considered and mitigated under the San Joaquin Valley Air Pollution Control District’s evaluation of NOX emissions. Such mitigation should be considered when negotiating the number of years used to assess the project’s VMT impact fee.

Project-Level Mitigation Strategies

For project-level mitigation, TJKM recommends implementation of multiple measures that take advantage of the project’s location along a high quality transit corridor to encourage use of transit and other non-automobile modes by both employees and customers. Preferred mitigation measures fall into two categories:

- Site and frontage design improvements to improve access, circulation, and convenience of transit users, pedestrians, and bicycles. A variety of such improvements is detailed below in section 11.5. The project should incorporate as many of these improvements as possible.
- Consider implementing a travel demand management (TDM) program for employees at the proposed shopping center. A TDM program for shopping center employees may include measures such as subsidized transit passes, facilitating ride sharing, contracting with a vanpool provider, providing information on local transportation facilities and services, or providing on-site amenities for bicycle commuters such as showers and changing areas.

TJKM recommends that the applicant work with City of Visalia Staff to finalize the preferred non-automobile physical improvements and specific TDM elements that would be most appropriate for the proposed project and its location on a high quality transit corridor. As the project would be constructed in

multiple phases, TDM programs may be most appropriately evaluated at the time of site plan review for specific uses within the shopping center, such that they can be tailored to the expected operational characteristics at each business. Although a specific target reduction is not required to mitigate the VMT impacts covered by the recommended fee discussed above, implementing any level of TDM program would further lower the amount of VMT generated by employees.

With these combined mitigation measures, the project would have a **less-than-significant impact** on regional VMT.

11.2 SITE ACCESS

The project vicinity and driveway locations are shown in **Figure 1**, and the project site plan dated August 6, 2020, is shown in **Figure 2**. The proposed shopping center would include two main drive aisles connecting to the four streets that will border the project site. The main driveway on Visalia Parkway would be aligned with the existing driveway for the Packwood Creek shopping center on the north side of the street (intersection #27). The main driveway on Mooney Boulevard would have a partial median opening precluding left turn exits from the shopping center to southbound Mooney. In addition to these primary access points, the project would include one secondary driveway on Visalia Parkway east of Mooney Boulevard (intersection #26) and two secondary driveways on Midvalley Avenue (intersections #32 and #34). As shown on the site plan, the four driveways on Visalia Parkway and Mooney Boulevard would prohibit outbound left turns, and inbound left turns would only be permitted at the two primary driveways (intersections #27 and #31). The remaining four driveways, located on Midvalley and Hall Street, would all permit full access. A prior version of the project, as analyzed in this report, also included a secondary driveway on Mooney Boulevard south of Visalia Parkway (intersection #30). That driveway has since been eliminated.

It should be noted that the site plan includes the future lane geometry on Visalia Parkway and Mooney Boulevard, after planned widening and installation of raised medians. Based on the adjacent roadways and overall project design, driveway locations and access restrictions are appropriate. As shown on the project site plan, all proposed driveways would satisfy City of Visalia design requirements. The trees and buildings shown on the site plan are all located far enough away from driveway openings to not obstruct sight lines. The proposed driveway locations, design, and sight distance are all **adequate**.

11.3 DECELERATION LANE ANALYSIS

Deceleration lanes are short auxiliary lanes designed to allow vehicles to safely turn at an intersection or driveway without impeding the flow of through traffic. The City of Visalia requires a deceleration lane at a project driveway if any of the following criteria are met:

- a) At least 5,000 vehicles per day are using or are expected in the near future (five years after the development is built-out) to be using the adjacent street.
- b) The posted speed limit is 35 mph or the 85th percentile speed limit is greater than 35 mph
- c) At least 1,000 vehicles per day are using or are expected to use the driveway(s) for the development or adjacent developments(s) (existing or future).
- d) At least 40 vehicles are expected to make right turns into the driveway(s) for a one-hour period for the development or adjacent developments (existing or future).

Since the speed limit along Mooney Boulevard is 45 mph, criteria b) is met. Based on the site plan received, the project will be constructing a deceleration lane along Mooney Boulevard. However, the site plan does not indicate deceleration lanes along Visalia Parkway. Since the speed limit along Visalia Parkway is 40 mph, the project should construct deceleration lanes for the site access. According to *A Policy on Geometric Design of Highways and Streets, 7th Edition*, the desirable lane change and deceleration distance based on a 40 mph roadway is 265 feet.

11.4 ON-SITE CIRCULATION

As shown in **Figure 2**, the project site plan includes two primary drive aisles, 40 feet wide, connected by a central roundabout. These drive aisles also connect to individual parking areas in the four quadrants of the project site. The positioning of buildings and vertical landscaping such as trees provide clear sight lines at all internal intersections. Visibility would also be adequate at drive through entrances and exits, enclosed trash locations, and pedestrian crosswalks.

Drive aisles in the parking areas are typically 30 feet wide, with two-way travel and perpendicular parking on both sides. Parking areas include adequate space to turn around in dead-end aisles and can accommodate trucks and emergency vehicles throughout. Trash enclosures are conveniently located for truck access.

The site plan shows sidewalks provided on all project frontages and on both sides of the primary drive aisles, with marked crosswalks and pedestrian walkways on some, but not all, parcels. Although there are continuous, accessible pedestrian paths from all accessible parking spaces to the nearest buildings, there is inconsistent pedestrian connectivity to the project frontages, primary drive aisles, and between nearby buildings. No bike racks or long-term bike storage are shown on the site plan. In addition, the existing bus stop located on Mooney Boulevard north of Midvalley Avenue is not shown. Although the internal circulation on the project site would be **adequate**, TJKM recommends that it be revised to include consistent internal pedestrian connectivity, as well as the locations of bike racks and bus stops.

11.5 PEDESTRIAN, BICYCLE, AND TRANSIT IMPACTS

Pedestrian Access

Pedestrian access to the project site will be facilitated by new sidewalks on all frontages of the project site. The new sidewalks would connect to existing and proposed pedestrian facilities at the intersections of Visalia Parkway & Mooney Boulevard (intersection #20) and Midvalley Avenue & Mooney Boulevard (intersection #22). Both intersections include crosswalks with pedestrian signal heads on one or more legs, which would be expanded to all legs with construction of the proposed project and the planned Visalia Commons shopping center on the west side of Mooney Boulevard. The proposed development project does not conflict with existing and planned pedestrian facilities; therefore, the impact to pedestrian facilities is **less than significant**.

Bicycle Access

As shown in **Figure 4**, there are no existing bicycle facilities on either Visalia Parkway or Mooney Boulevard in the project vicinity. The proposed site plan shows bike lanes on both sides of each street. The City of Visalia's Active Transportation Plan (2017) proposes bicycle facilities on Visalia Parkway, and the Caltrans

plans for Mooney Boulevard (SR-63) include bike lanes on both sides. The project does not conflict with existing and planned bicycle facilities; therefore, the impact to bicycle facilities is ***less than significant***

Transit Access

The project site is within a quarter mile of two Visalia Transit bus stops, located on the northeast corners of Visalia Parkway & Mooney Boulevard (intersection #20) and Midvalley Avenue & Mooney Boulevard (intersection #22). The bus stops provide local access, and passengers can access regional transit lines with a single transfer at either the Visalia Transfer Center or the Tulare County Government Plaza. The existing pedestrian facilities in the project vicinity provide adequate connectivity for pedestrians to the nearest transit stops. Impacts to transit service are expected to be ***less than significant***.

On-Site Facility Improvement Opportunities

As noted in section 11.1, it is expected that the project would generate a small net increase in VMT within Tulare County. Shifting transportation modes away from automobiles and toward alternate modes is expected to reduce this increase. TJKM has identified improvements on the project site and frontages that would make the project more accessible and functional for alternate modes. In order to contribute to adequate mitigation, the project should incorporate as many of the following on-site improvements as possible:

- Wherever feasible, provide pedestrian connections between sidewalks and buildings that provide a shorter path of travel than walking to the nearest driveway.
- Provide marked pedestrian crosswalks connecting buildings that are separated by parking areas.
- Provide adequate lighting for sidewalks and internal walkways, particularly at major conflict points with vehicles.
- Provide benches and trash cans throughout the project site.
- Provide bike racks near building entrances.
- Provide bike lockers or other long-term bike storage facilities for shopping center employees.
- At the existing bus stop on Mooney Boulevard north of Midvalley Avenue, reconstruct the stop to provide a bus shelter, trash can, and adequate lighting.

11.6 PHASING OF FRONTAGE IMPROVEMENTS

In conjunction with phased site development, the project would also construct improvements along the project frontages. These consist the following, to be included as part of Phase 1:

- Visalia Parkway: full and ultimate improvements from the median break to the west. A transition taper will extend to the existing roadway to the east.
- Mooney Boulevard: full and ultimate improvements.
- Midvalley Avenue: half-street improvements from Mooney Boulevard to the main north-south driveway, with no taper to the east.

TJKM considers this proposed phasing to be adequate.

11.7 FUNDING OF MITIGATION MEASURES

Table ES-1 describes the mitigation measures that are needed in each project phase and scenario described in this report. Most of the mitigation measures consist of installing new traffic signals. Nearly

all of the needed new signals become warranted as a result of traffic generated by various development projects around the City. The City of Visalia has adopted a traffic impact fee mitigation program to construct various highway and intersection improvements whose need has been triggered by traffic from new growth. Most of the planned improvements are street widening projects. In addition, the fee program includes new traffic signals at 50 unspecified locations. The need for traffic signals arise over time and it is not possible to predict in a 20-year program exactly where signals will be needed. This project shares in justifying new signals at several locations, just as contemplated in the fee program. Accordingly, it is appropriate to consider that payment of traffic fees for this project serves as a fair share contribution to the costs for installation of needed new signals.

Another impacts identified in this study are widening and signal modifications at the intersection of Mooney Boulevard and Visalia Parkway at the northwest corner of this project. The City of Visalia and the project sponsor are planning an improvement for that intersection. That project will effectively mitigate at this intersection.

As discussed in section 11.1, VMT impacts would be mitigated through an impact fee to be assessed at the time building permits are issued for each parcel, based on the square footage for each phase of development.

Appendix A – VMT and Level of Service Methodology



City of Visalia VMT Thresholds and Implementation Guidelines

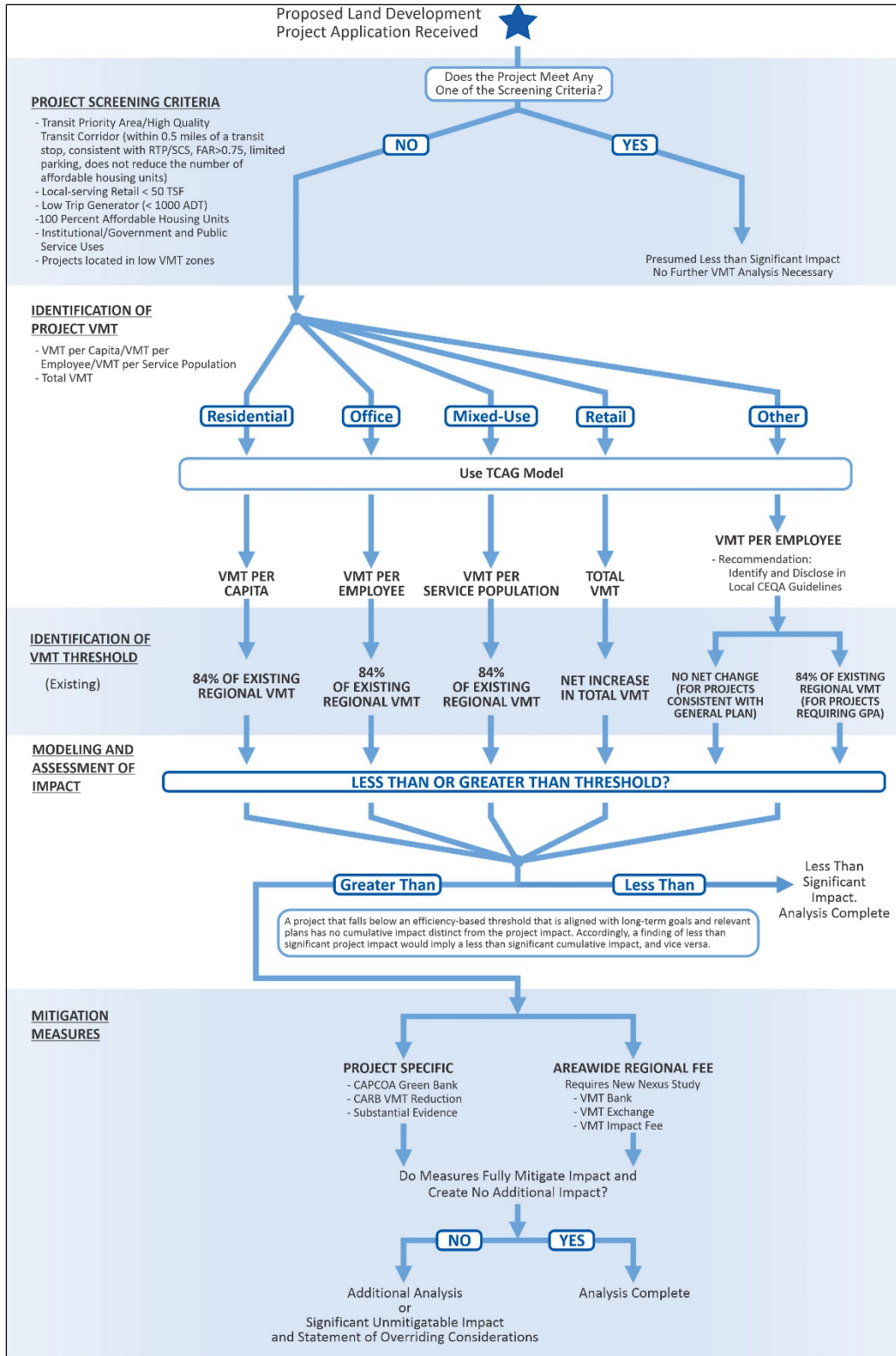


Figure 10: VMT Analysis Process for Development Projects



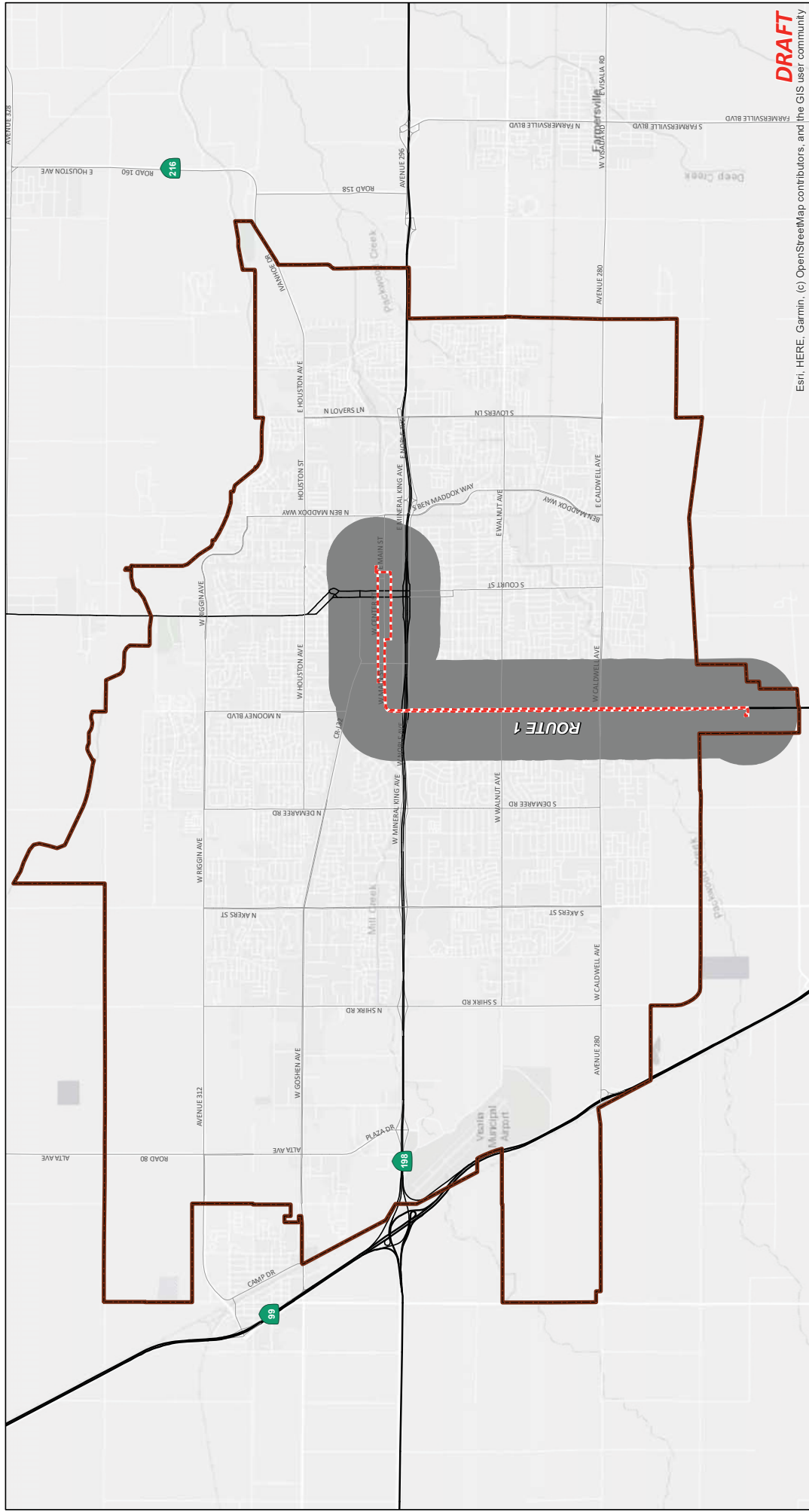





FIGURE 4

DRAFT

Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

- LEGEND**
-  City of Visalia Sphere of Influence
 -  Visalia Transit Route 1
 -  Half Mile Buffer



City of Visalia VMT Thresholds and Implementation Guidelines
 High Quality Transit Area within City of Visalia

SOURCE: TCG Model; City of Visalia; Tulare County (11/20)
 R:\VSL2001 Visalia VMT\GIS\Fig_4_HQ Transit.mxd (1/19/2021)

APPENDIX A

LEVEL OF SERVICE

The description and procedures for calculating capacity and level of service are found in Transportation Research Board, *Highway Capacity Manual 2000*. *Highway Capacity Manual 2000* represents the latest research on capacity and quality of service for transportation facilities.

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

Six levels of service are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with level-of-service A representing the best operating conditions and level-of-service F the worst. Each level of service represents a range of operating conditions and the driver's perception of these conditions. Safety is not included in the measures that establish service levels.

A general description of service levels for various types of facilities is shown in Table A-I.

Table A-I

Level of Service Description

| Facility Type | Uninterrupted Flow | Interrupted Flow |
|---------------|---|---|
| | | Freeways Multi-lane Highways Two-lane Highways Urban Streets |
| LOS | | |
| A | Free-flow | Very low delay. |
| B | Stable flow. Presence of other users noticeable. | Low delay. |
| C | Stable flow. Comfort and convenience starts to decline. | Acceptable delay. |
| D | High density stable flow. | Tolerable delay. |
| E | Unstable flow. | Limit of acceptable delay. |
| F | Forced or breakdown flow. | Unacceptable delay |

Source: *Highway Capacity Manual 2000*

Urban Streets

The term “urban streets” refers to urban arterials and collectors, including those in downtown areas.

Arterial streets are roads that primarily serve longer through trips. However, providing access to abutting commercial and residential land uses is also an important function of arterials.

Collector streets provide both land access and traffic circulation within residential, commercial and industrial areas. Their access function is more important than that of arterials, and unlike arterials their operation is not always dominated by traffic signals.

Downtown streets are signalized facilities that often resemble arterials. They not only move through traffic but also provide access to local businesses for passenger cars, transit buses, and trucks. Pedestrian conflicts and lane obstructions created by stopping or standing buses, trucks and parking vehicles that cause turbulence in the traffic flow are typical of downtown streets.

The speed of vehicles on urban streets is influenced by three main factors, street environment, interaction among vehicles and traffic control. As a result, these factors also affect quality of service.

The street environment includes the geometric characteristics of the facility, the character of roadside activity and adjacent land uses. Thus, the environment reflects the number and width of lanes, type of median, driveway density, spacing between signalized intersections, existence of parking, level of pedestrian activity and speed limit.

The interaction among vehicles is determined by traffic density, the proportion of trucks and buses, and turning movements. This interaction affects the operation of vehicles at intersections and, to a lesser extent, between signals.

Traffic control (including signals and signs) forces a portion of all vehicles to slow or stop. The delays and speed changes caused by traffic control devices reduce vehicle speeds, however, such controls are needed to establish right-of-way.

The average travel speed for through vehicles along an urban street is the determinant of the operating level of service. The travel speed along a segment, section or entire length of an urban street is dependent on the running speed between signalized intersections and the amount of control delay incurred at signalized intersections.

Level-of-service A describes primarily free-flow operations. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.

Level-of-service B describes reasonably unimpeded operations. The ability to maneuver within the traffic stream is only slightly restricted, and control delays at signalized intersections are not significant.

Level-of-service C describes stable operations, however, ability to maneuver and change lanes in midblock location may be more restricted than at level-of-service B. Longer queues, adverse signal coordination, or both may contribute to lower travel speeds.

Level-of-service D borders on a range in which in which small increases in flow may cause substantial increases in delay and decreases in travel speed. Level-of-service D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors.

Level-of-service E is characterized by significant delays and lower travel speeds. Such operations are caused by a combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.

Level-of-service F is characterized by urban street flow at extremely low speeds. Intersection congestion is likely at critical signalized locations, with high delays, high volumes, and extensive queuing.

The methodology to determine level of service stratifies urban streets into four classifications. The classifications are complex, and are related to functional and design categories. Table A-II describes the functional and design categories, while Table A-III relates these to the urban street classification.

Once classified, the urban street is divided into segments for analysis. An urban street segment is a one-way section of street encompassing a series of blocks or links terminating at a signalized intersection. Adjacent segments of urban streets may be combined to form larger street sections, provided that the segments have similar demand flows and characteristics.

Levels of service are related to the average travel speed of vehicles along the urban street segment or section.

Travel times for existing conditions are obtained by field measurements. The maximum-car technique is used. The vehicle is driven at the posted speed limit unless impeded by actual traffic conditions. In the maximum-car technique, a safe level of vehicular operation is maintained by observing proper following distances and by changing speeds at reasonable rates of acceleration and deceleration. The maximum-car technique provides the best base for measuring traffic performance.

An observer records the travel time and locations and duration of delay. The beginning and ending points are the centers of intersections. Delays include times waiting in queues at signalized intersections. The travel speed is determined by dividing the length of the segment by the travel time. Once the travel speed on the arterial is determined, the level of service is found by comparing the speed to the criteria in Table A-IV. Level-of-service criteria vary for the different classifications of urban street, reflecting differences in driver expectations.

Table A-II

Functional and Design Categories for Urban Streets

| Criterion | Functional Category | | | |
|--------------------------|--|---|---|---|
| | Principal Arterial | | Minor Arterial | |
| Mobility function | Very important | | Important | |
| Access function | Very minor | | Substantial | |
| Points connected | Freeways, important activity centers, major traffic generators | | Principal arterials | |
| Predominant trips served | Relatively long trips between major points and through trips entering, leaving, and passing through city | | Trips of moderate length within relatively small geographical areas | |
| Criterion | Design Category | | | |
| | High-Speed | Suburban | Intermediate | Urban |
| Driveway access density | Very low density | Low density | Moderate density | High density |
| Arterial type | Multilane divided; undivided or two-lane with shoulders | Multilane divided: undivided or two-lane with shoulders | Multilane divided or undivided; one way, two lane | Undivided one way; two way, two or more lanes |
| Parking | No | No | Some | Usually |
| Separate left-turn lanes | Yes | Yes | Usually | Some |
| Signals per mile | 0.5 to 2 | 1 to 5 | 4 to 10 | 6 to 12 |
| Speed limits | 45 to 55 mph | 40 to 45 mph | 30 to 40 mph | 25 to 35 mph |
| Pedestrian activity | Very little | Little | Some | Usually |
| Roadside development | Low density | Low to medium density | Medium to moderate density | High density |

Source: *Highway Capacity Manual 2000*

Table A-III

Urban Street Class based on Function and Design Categories

| Design Category | Functional Category | |
|-----------------|---------------------|----------------|
| | Principal Arterial | Minor Arterial |
| High-Speed | I | Not applicable |
| Suburban | II | II |
| Intermediate | II | III or IV |
| Urban | III or IV | IV |

Source: *Highway Capacity Manual 2000*

Table A-IV

Urban Street Levels of Service by Class

| Urban Street Class | I | II | III | IV |
|---------------------------------|-----------------------------------|-----------|------------|-----------|
| Range of Free Flow Speeds (mph) | 45 to 55 | 35 to 45 | 30 to 35 | 25 to 35 |
| Typical Free Flow Speed (mph) | 50 | 40 | 33 | 30 |
| Level of Service | Average Travel Speed (mph) | | | |
| A | >42 | >35 | >30 | >25 |
| B | >34 | >28 | >24 | >19 |
| C | >27 | >22 | >18 | >13 |
| D | >21 | >17 | >14 | >9 |
| E | >16 | >13 | >10 | >7 |
| F | ≤16 | ≤13 | ≤10 | ≤7 |

Source: *Highway Capacity Manual 2000*

Interrupted Flow

One of the more important elements limiting, and often interrupting the flow of traffic on a highway is the intersection. Flow on an interrupted facility is usually dominated by points of fixed operation such as traffic signals, stop and yield signs. These all operate quite differently and have differing impacts on overall flow.

Signalized Intersections

The capacity of a highway is related primarily to the geometric characteristics of the facility, as well as to the composition of the traffic stream on the facility. Geometrics are a fixed, or non-varying, characteristic of a facility.

At the signalized intersection, an additional element is introduced into the concept of capacity: time allocation. A traffic signal essentially allocates time among conflicting traffic movements seeking use of the same physical space. The way in which time is allocated has a significant impact on the operation of the intersection and on the capacity of the intersection and its approaches.

Level of service for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.*, in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Specifically, level of service criteria for traffic signals are stated in terms of average control delay per vehicle, typically for a 15-minute analysis period. Delay is a complex measure and depends on a number of variables, including the quality of progression, the cycle length, the ratio of green time to cycle length and the volume to capacity ratio for the lane group.

For each intersection analyzed the average control delay per vehicle per approach is determined for the peak hour. A weighted average of control delay per vehicle is then determined for the intersection. A level of service designation is given to the control delay to better describe the level of operation. A

description of levels of service for signalized intersections can be found in Table A-V.

Table A-V

Description of Level of Service for Signalized Intersections

| Level of Service | Description |
|-------------------------|---|
| A | Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values. |
| B | Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay. |
| C | Control delay greater than 20 and up to 35 seconds per vehicle. Higher delays are caused by fair progression or longer cycle lengths or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping. |
| D | Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestions becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable. |
| E | Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent. |
| F | Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay. |

Source: *Highway Capacity Manual 2000*

The use of control delay, which may also be referred to as signal delay, was introduced in the 1997 update to the *Highway Capacity Manual*, and represents a departure from previous updates. In the third edition, published in 1985 and the 1994 update to the third edition, delay only included stopped delay. Thus, the level of service criteria listed in Table A-V differs from earlier criteria.

Unsignalized Intersections

The current procedures on unsignalized intersections were first introduced in the 1997 update to the *Highway Capacity Manual* and represent a revision of the methodology published in the 1994 update to the 1985 *Highway Capacity Manual*. The revised procedures use control delay as a measure of effectiveness to determine level of service. Delay is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.*, in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Control delay is the increased time of travel for a vehicle approaching and passing through an unsignalized intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection.

Two-Way Stop Controlled Intersections

Two-way stop controlled intersections in which stop signs are used to assign the right-of-way, are the most prevalent type of intersection in the United States. At two-way stop-controlled intersections the stop-controlled approaches are referred as the minor street approaches and can be either public streets or private driveways. The approaches that are not controlled by stop signs are referred to as the major street approaches.

The capacity of movements subject to delay are determined using the "critical gap" method of capacity analysis. Expected average control delay based on movement volume and movement capacity is calculated. A level of service designation is given to the expected control delay for each minor movement. Level of service is not defined for the intersection as a whole. Control delay is the increased time of travel for a vehicle approaching and passing through a stop-controlled intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection. A description of levels of service for two-way stop-controlled intersections is found in Table A-VI.

Table A-VI

Description of Level of Service for Two-Way Stop Controlled Intersections

| Level of Service | Description |
|-------------------------|---|
| A | Very low control delay less than 10 seconds per vehicle for each movement subject to delay. |
| B | Low control delay greater than 10 and up to 15 seconds per vehicle for each movement subject to delay. |
| C | Acceptable control delay greater than 15 and up to 25 seconds per vehicle for each movement subject to delay. |
| D | Tolerable control delay greater than 25 and up to 35 seconds per vehicle for each movement subject to delay. |
| E | Limit of tolerable control delay greater than 35 and up to 50 seconds per vehicle for each movement subject to delay. |
| F | Unacceptable control delay in excess of 50 seconds per vehicle for each movement subject to delay. |

Source: *Highway Capacity Manual 2000*

Appendix B – Existing Traffic Counts



Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 2 Whitendale / Mooney

LATITUDE 36.305744

COUNTY Tulare

LONGITUDE -119.313806

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | | Interval Total |
|-------------------|------------|------|-------|--------|--------|------------|------|-------|--------|--------|-----------|------|-------|--------|--------|-----------|------|-------|--------|--------|----------------|
| | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | |
| 7:00 AM - 7:15 AM | 11 | 67 | 18 | 8 | 2 | 2 | 53 | 3 | 0 | 2 | 7 | 19 | 14 | 5 | 2 | 26 | 30 | 12 | 4 | 0 | 262 |
| 7:15 AM - 7:30 AM | 15 | 91 | 6 | 0 | 4 | 6 | 64 | 4 | 1 | 3 | 6 | 29 | 8 | 5 | 0 | 26 | 28 | 16 | 6 | 1 | 299 |
| 7:30 AM - 7:45 AM | 5 | 98 | 19 | 8 | 5 | 9 | 81 | 11 | 3 | 5 | 11 | 45 | 15 | 7 | 1 | 40 | 76 | 25 | 9 | 2 | 435 |
| 7:45 AM - 8:00 AM | 13 | 138 | 24 | 13 | 3 | 9 | 127 | 8 | 2 | 4 | 27 | 55 | 26 | 6 | 1 | 42 | 89 | 22 | 5 | 0 | 580 |
| 8:00 AM - 8:15 AM | 17 | 122 | 32 | 6 | 2 | 14 | 103 | 6 | 0 | 2 | 24 | 67 | 25 | 10 | 0 | 39 | 60 | 12 | 4 | 0 | 521 |
| 8:15 AM - 8:30 AM | 22 | 119 | 33 | 9 | 2 | 18 | 120 | 14 | 2 | 5 | 20 | 38 | 30 | 9 | 2 | 35 | 38 | 12 | 3 | 0 | 499 |
| 8:30 AM - 8:45 AM | 24 | 129 | 20 | 9 | 6 | 17 | 102 | 12 | 7 | 5 | 22 | 32 | 27 | 8 | 1 | 26 | 44 | 9 | 4 | 1 | 464 |
| 8:45 AM - 9:00 AM | 26 | 146 | 23 | 10 | 5 | 22 | 119 | 10 | 4 | 7 | 16 | 41 | 23 | 6 | 0 | 34 | 44 | 13 | 1 | 2 | 517 |

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------|----|-----|----|---|---|----|-----|----|---|---|----|----|----|----|---|----|----|----|---|---|-----|
| 11:00 AM - 11:15 AM | 36 | 203 | 21 | 3 | 7 | 37 | 248 | 17 | 0 | 8 | 29 | 32 | 34 | 22 | 1 | 40 | 28 | 13 | 5 | 0 | 738 |
| 11:15 AM - 11:30 AM | 37 | 204 | 30 | 9 | 5 | 23 | 240 | 17 | 3 | 5 | 20 | 33 | 47 | 20 | 1 | 32 | 31 | 18 | 9 | 0 | 732 |
| 11:30 AM - 11:45 AM | 52 | 231 | 29 | 0 | 9 | 34 | 267 | 9 | 1 | 2 | 18 | 29 | 37 | 16 | 0 | 43 | 42 | 12 | 6 | 0 | 803 |
| 11:45 AM - 12:00 PM | 51 | 211 | 30 | 7 | 3 | 30 | 226 | 28 | 3 | 3 | 21 | 31 | 46 | 25 | 1 | 45 | 47 | 12 | 7 | 1 | 778 |
| 12:00 PM - 12:15 PM | 44 | 257 | 36 | 7 | 5 | 44 | 275 | 15 | 3 | 2 | 24 | 40 | 56 | 23 | 3 | 52 | 38 | 21 | 6 | 2 | 902 |
| 12:15 PM - 12:30 PM | 37 | 247 | 41 | 7 | 1 | 31 | 331 | 18 | 2 | 2 | 21 | 34 | 42 | 15 | 1 | 37 | 40 | 12 | 8 | 1 | 891 |
| 12:30 PM - 12:45 PM | 54 | 227 | 28 | 4 | 3 | 23 | 252 | 17 | 3 | 2 | 35 | 42 | 46 | 15 | 2 | 55 | 50 | 9 | 6 | 0 | 838 |
| 12:45 PM - 1:00 PM | 42 | 279 | 33 | 8 | 5 | 30 | 295 | 18 | 2 | 7 | 20 | 28 | 34 | 18 | 2 | 47 | 39 | 18 | 7 | 1 | 883 |

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|----|-----|----|---|---|----|-----|----|---|---|----|----|----|----|---|----|----|----|----|---|-----|
| 2:00 PM - 2:15 PM | 31 | 196 | 23 | 2 | 5 | 35 | 289 | 18 | 1 | 4 | 23 | 44 | 24 | 12 | 1 | 39 | 39 | 14 | 8 | 0 | 775 |
| 2:15 PM - 2:30 PM | 42 | 190 | 35 | 3 | 2 | 24 | 238 | 12 | 1 | 5 | 25 | 51 | 38 | 24 | 0 | 49 | 69 | 18 | 3 | 1 | 791 |
| 2:30 PM - 2:45 PM | 36 | 222 | 35 | 2 | 3 | 20 | 230 | 13 | 1 | 4 | 21 | 39 | 26 | 19 | 0 | 40 | 45 | 13 | 6 | 2 | 740 |
| 2:45 PM - 3:00 PM | 44 | 204 | 32 | 3 | 5 | 19 | 259 | 22 | 3 | 2 | 20 | 41 | 32 | 26 | 0 | 39 | 51 | 16 | 7 | 2 | 779 |
| 3:00 PM - 3:15 PM | 41 | 210 | 40 | 1 | 3 | 28 | 241 | 19 | 7 | 1 | 25 | 57 | 28 | 15 | 0 | 55 | 69 | 15 | 5 | 1 | 828 |
| 3:15 PM - 3:30 PM | 49 | 231 | 38 | 5 | 0 | 26 | 231 | 21 | 3 | 2 | 18 | 56 | 45 | 24 | 2 | 40 | 60 | 11 | 2 | 0 | 826 |
| 3:30 PM - 3:45 PM | 49 | 195 | 47 | 4 | 2 | 19 | 258 | 17 | 2 | 3 | 32 | 61 | 39 | 17 | 0 | 58 | 77 | 12 | 5 | 2 | 864 |
| 3:45 PM - 4:00 PM | 34 | 250 | 36 | 4 | 2 | 56 | 320 | 23 | 0 | 4 | 30 | 45 | 44 | 28 | 0 | 54 | 57 | 20 | 10 | 0 | 969 |
| 4:00 PM - 4:15 PM | 46 | 204 | 40 | 1 | 2 | 35 | 237 | 21 | 3 | 1 | 13 | 74 | 42 | 23 | 0 | 43 | 53 | 15 | 8 | 0 | 823 |
| 4:15 PM - 4:30 PM | 39 | 228 | 23 | 0 | 5 | 31 | 280 | 18 | 0 | 1 | 20 | 58 | 30 | 17 | 2 | 40 | 48 | 13 | 4 | 0 | 828 |
| 4:30 PM - 4:45 PM | 52 | 214 | 36 | 0 | 1 | 25 | 252 | 18 | 2 | 3 | 20 | 65 | 29 | 18 | 0 | 46 | 52 | 11 | 6 | 0 | 820 |
| 4:45 PM - 5:00 PM | 49 | 217 | 37 | 2 | 3 | 35 | 272 | 22 | 0 | 2 | 27 | 48 | 45 | 14 | 0 | 40 | 54 | 11 | 1 | 0 | 857 |
| 5:00 PM - 5:15 PM | 54 | 269 | 60 | 1 | 3 | 16 | 282 | 17 | 0 | 1 | 21 | 38 | 37 | 25 | 0 | 48 | 50 | 14 | 6 | 0 | 906 |
| 5:15 PM - 5:30 PM | 46 | 215 | 43 | 1 | 3 | 27 | 247 | 19 | 4 | 1 | 21 | 75 | 36 | 17 | 3 | 57 | 61 | 18 | 4 | 1 | 865 |
| 5:30 PM - 5:45 PM | 45 | 252 | 41 | 0 | 1 | 29 | 261 | 20 | 3 | 3 | 20 | 64 | 45 | 34 | 0 | 36 | 49 | 18 | 4 | 0 | 880 |
| 5:45 PM - 6:00 PM | 36 | 217 | 52 | 9 | 2 | 24 | 224 | 17 | 4 | 0 | 16 | 53 | 34 | 12 | 0 | 44 | 58 | 12 | 3 | 0 | 787 |

- 7-9 AM Peak Hour: 7:45 AM - 8:45 AM
- 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
- 2-6 PM Peak Hour: 4:45 PM - 5:45 PM
- 4-6 PM Peak Hour: 4:45 PM - 5:45 PM



Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 2 Whitendale / Mooney

LATITUDE 36.305744

COUNTY Tulare

LONGITUDE -119.313806

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 |
| 7:30 AM - 7:45 AM | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 7 | 1 |
| 7:45 AM - 8:00 AM | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 4 | 1 |
| HOURLY TOTAL | 0 | 2 | 1 | 7 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 3 | 14 | 4 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 8:00 AM - 8:15 AM | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 4 | 0 |
| HOURLY TOTAL | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 12 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 4 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 4 | 1 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 7 | 0 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 | 0 |
| HOURLY TOTAL | 0 | 0 | 1 | 5 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 7 | 18 | 5 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 6 | 0 |
| 12:15 PM - 12:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 2 |
| 12:30 PM - 12:45 PM | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 3 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| HOURLY TOTAL | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 6 | 10 | 7 |

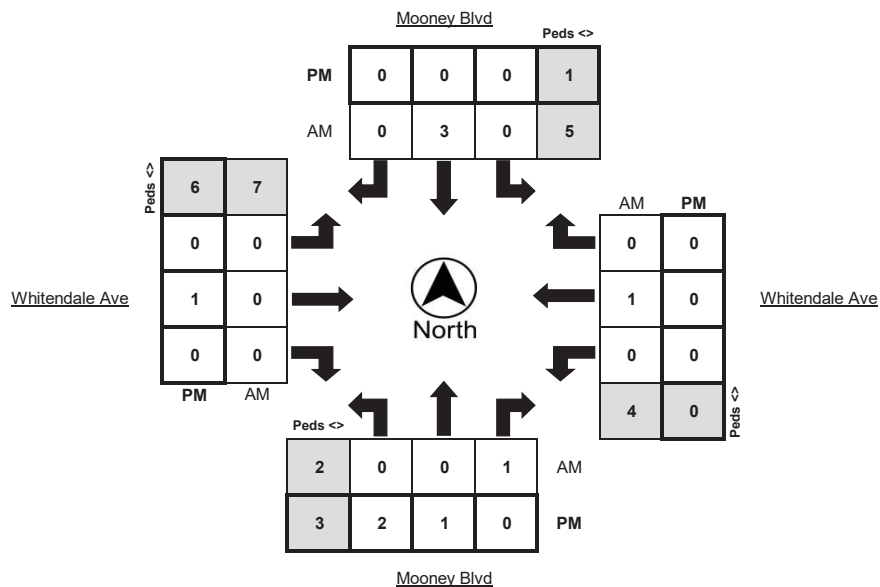
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|----------|
| 2:00 PM - 2:15 PM | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 6 | 10 | 2 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 5 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 1 | 9 | 3 |
| 2:30 PM - 2:45 PM | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 3 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 |
| HOURLY TOTAL | 1 | 3 | 0 | 6 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 2 | 0 | 10 | 23 | 8 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|----------|
| 3:00 PM - 3:15 PM | 0 | 2 | 0 | 5 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 5 | 12 | 6 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 9 | 0 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 5 | 2 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 |
| HOURLY TOTAL | 0 | 2 | 0 | 8 | 0 | 3 | 1 | 4 | 0 | 2 | 0 | 6 | 0 | 1 | 0 | 10 | 28 | 9 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|----------|
| 4:00 PM - 4:15 PM | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 4 | 3 |
| 4:15 PM - 4:30 PM | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 3 | 8 | 2 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 6 | 0 |
| 4:45 PM - 5:00 PM | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 2 |
| HOURLY TOTAL | 3 | 1 | 0 | 6 | 0 | 0 | 0 | 3 | 0 | 2 | 0 | 4 | 0 | 1 | 0 | 12 | 25 | 7 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 6 | 1 |
| HOURLY TOTAL | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 5 | 9 | 3 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 0 | 1 | 5 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 7 | 18 | 5 |
| 12:00 PM - 1:00 PM | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 6 | 10 | 4 |





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 310 N. Irwin Street - Suite 20
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Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 3 Mooney / Sunnyside

LATITUDE 36.303461

COUNTY Tulare

LONGITUDE -119.313746

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | | Interval Total |
|-------------------|------------|------|-------|--------|--------|------------|------|-------|--------|--------|-----------|------|-------|--------|--------|-----------|------|-------|--------|--------|----------------|
| | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | |
| 7:00 AM - 7:15 AM | 7 | 86 | 0 | 0 | 3 | 3 | 85 | 6 | 0 | 2 | 7 | 1 | 2 | 0 | 0 | 0 | 0 | 6 | 4 | 0 | 203 |
| 7:15 AM - 7:30 AM | 7 | 112 | 0 | 0 | 2 | 7 | 76 | 10 | 0 | 3 | 6 | 0 | 3 | 3 | 2 | 0 | 0 | 4 | 2 | 1 | 225 |
| 7:30 AM - 7:45 AM | 7 | 120 | 1 | 0 | 6 | 13 | 116 | 14 | 0 | 6 | 8 | 0 | 3 | 3 | 1 | 0 | 0 | 9 | 3 | 0 | 291 |
| 7:45 AM - 8:00 AM | 11 | 161 | 1 | 0 | 3 | 32 | 134 | 15 | 0 | 4 | 7 | 0 | 3 | 0 | 2 | 0 | 2 | 7 | 7 | 0 | 373 |
| 8:00 AM - 8:15 AM | 12 | 174 | 0 | 0 | 3 | 24 | 146 | 15 | 0 | 3 | 9 | 0 | 4 | 3 | 0 | 2 | 0 | 5 | 4 | 0 | 391 |
| 8:15 AM - 8:30 AM | 9 | 142 | 0 | 0 | 2 | 22 | 150 | 15 | 0 | 4 | 11 | 0 | 1 | 1 | 0 | 0 | 0 | 8 | 5 | 0 | 358 |
| 8:30 AM - 8:45 AM | 5 | 168 | 3 | 0 | 6 | 20 | 136 | 12 | 0 | 2 | 5 | 0 | 3 | 3 | 0 | 0 | 0 | 8 | 4 | 1 | 360 |
| 8:45 AM - 9:00 AM | 12 | 174 | 0 | 0 | 4 | 19 | 150 | 10 | 0 | 7 | 17 | 0 | 5 | 3 | 0 | 0 | 0 | 10 | 5 | 1 | 397 |

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------|----|-----|---|---|---|----|-----|----|---|---|----|---|----|---|---|---|---|----|----|---|-----|
| 11:00 AM - 11:15 AM | 11 | 223 | 0 | 0 | 5 | 11 | 279 | 22 | 0 | 7 | 30 | 0 | 11 | 7 | 1 | 2 | 1 | 12 | 9 | 1 | 602 |
| 11:15 AM - 11:30 AM | 18 | 246 | 0 | 0 | 5 | 20 | 328 | 34 | 0 | 8 | 23 | 0 | 15 | 7 | 0 | 0 | 0 | 10 | 5 | 0 | 694 |
| 11:30 AM - 11:45 AM | 12 | 257 | 1 | 0 | 6 | 23 | 306 | 20 | 0 | 2 | 39 | 1 | 10 | 5 | 1 | 3 | 1 | 12 | 5 | 0 | 685 |
| 11:45 AM - 12:00 PM | 19 | 249 | 5 | 0 | 3 | 16 | 326 | 22 | 0 | 5 | 24 | 0 | 14 | 7 | 0 | 1 | 2 | 20 | 11 | 0 | 698 |
| 12:00 PM - 12:15 PM | 28 | 314 | 1 | 0 | 4 | 15 | 350 | 21 | 0 | 4 | 30 | 3 | 19 | 5 | 0 | 1 | 0 | 12 | 7 | 1 | 794 |
| 12:15 PM - 12:30 PM | 22 | 291 | 2 | 0 | 2 | 15 | 377 | 26 | 0 | 3 | 31 | 0 | 13 | 8 | 0 | 3 | 0 | 13 | 9 | 1 | 793 |
| 12:30 PM - 12:45 PM | 24 | 273 | 1 | 0 | 2 | 21 | 347 | 30 | 0 | 4 | 20 | 2 | 12 | 8 | 0 | 4 | 1 | 24 | 16 | 1 | 759 |
| 12:45 PM - 1:00 PM | 19 | 319 | 2 | 0 | 6 | 32 | 309 | 22 | 0 | 5 | 34 | 1 | 13 | 6 | 0 | 0 | 3 | 21 | 8 | 0 | 775 |

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|----|-----|---|---|---|----|-----|----|---|---|----|---|----|----|---|---|---|----|----|---|-----|
| 2:00 PM - 2:15 PM | 24 | 222 | 2 | 0 | 6 | 17 | 317 | 23 | 0 | 4 | 26 | 2 | 7 | 5 | 0 | 1 | 0 | 10 | 7 | 0 | 651 |
| 2:15 PM - 2:30 PM | 18 | 237 | 0 | 0 | 2 | 15 | 285 | 27 | 0 | 6 | 34 | 2 | 12 | 5 | 0 | 2 | 0 | 16 | 12 | 1 | 648 |
| 2:30 PM - 2:45 PM | 18 | 223 | 2 | 0 | 2 | 17 | 286 | 17 | 0 | 4 | 31 | 2 | 10 | 7 | 0 | 5 | 1 | 21 | 12 | 1 | 633 |
| 2:45 PM - 3:00 PM | 14 | 217 | 2 | 0 | 3 | 19 | 285 | 19 | 0 | 4 | 24 | 0 | 12 | 8 | 0 | 3 | 0 | 18 | 3 | 1 | 613 |
| 3:00 PM - 3:15 PM | 9 | 267 | 0 | 0 | 1 | 17 | 283 | 18 | 0 | 1 | 29 | 0 | 16 | 4 | 0 | 0 | 1 | 12 | 6 | 1 | 652 |
| 3:15 PM - 3:30 PM | 13 | 256 | 0 | 0 | 0 | 14 | 282 | 25 | 0 | 2 | 21 | 2 | 6 | 3 | 0 | 1 | 1 | 11 | 3 | 0 | 632 |
| 3:30 PM - 3:45 PM | 12 | 239 | 1 | 0 | 3 | 21 | 323 | 21 | 0 | 4 | 31 | 1 | 8 | 3 | 0 | 5 | 4 | 17 | 8 | 0 | 683 |
| 3:45 PM - 4:00 PM | 20 | 270 | 2 | 0 | 1 | 21 | 347 | 25 | 0 | 4 | 13 | 1 | 9 | 2 | 0 | 1 | 1 | 22 | 14 | 0 | 732 |
| 4:00 PM - 4:15 PM | 15 | 246 | 2 | 0 | 2 | 17 | 294 | 15 | 0 | 1 | 23 | 2 | 14 | 7 | 0 | 1 | 0 | 30 | 18 | 0 | 659 |
| 4:15 PM - 4:30 PM | 13 | 241 | 0 | 0 | 5 | 13 | 303 | 16 | 0 | 2 | 14 | 2 | 4 | 2 | 0 | 3 | 2 | 22 | 10 | 0 | 633 |
| 4:30 PM - 4:45 PM | 13 | 256 | 0 | 0 | 2 | 16 | 290 | 20 | 0 | 4 | 30 | 2 | 9 | 7 | 0 | 0 | 0 | 19 | 8 | 0 | 655 |
| 4:45 PM - 5:00 PM | 5 | 253 | 2 | 0 | 3 | 24 | 302 | 23 | 0 | 2 | 30 | 0 | 17 | 7 | 0 | 1 | 0 | 27 | 7 | 1 | 684 |
| 5:00 PM - 5:15 PM | 17 | 264 | 1 | 0 | 3 | 13 | 351 | 19 | 0 | 2 | 38 | 0 | 8 | 5 | 0 | 2 | 1 | 54 | 19 | 0 | 768 |
| 5:15 PM - 5:30 PM | 20 | 297 | 2 | 0 | 3 | 19 | 298 | 11 | 0 | 1 | 25 | 3 | 8 | 8 | 0 | 2 | 1 | 15 | 6 | 0 | 701 |
| 5:30 PM - 5:45 PM | 15 | 287 | 2 | 0 | 2 | 14 | 326 | 14 | 0 | 2 | 18 | 2 | 14 | 13 | 0 | 0 | 0 | 17 | 10 | 0 | 709 |
| 5:45 PM - 6:00 PM | 18 | 256 | 1 | 0 | 2 | 17 | 277 | 13 | 0 | 1 | 22 | 1 | 11 | 6 | 0 | 3 | 1 | 20 | 5 | 0 | 640 |

7-9 AM Peak Hour: 8:00 AM - 9:00 AM
 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
 2-6 PM Peak Hour: 4:45 PM - 5:45 PM
 4-6 PM Peak Hour: 4:45 PM - 5:45 PM



Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 3 Mooney / Sunnyside

LATITUDE 36.303461

COUNTY Tulare

LONGITUDE -119.313746

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 4 | 2 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 1 |
| 7:30 AM - 7:45 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 2 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 |
| HOURLY TOTAL | 0 | 4 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 5 | 11 | 5 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 5 | 0 |
| HOURLY TOTAL | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 9 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 0 |
| 11:30 AM - 11:45 AM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 1 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 |
| HOURLY TOTAL | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 14 | 4 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 4 | 1 |
| 12:15 PM - 12:30 PM | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 5 | 3 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 5 | 3 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 |
| HOURLY TOTAL | 0 | 2 | 0 | 2 | 1 | 2 | 1 | 3 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 7 | 16 | 7 |

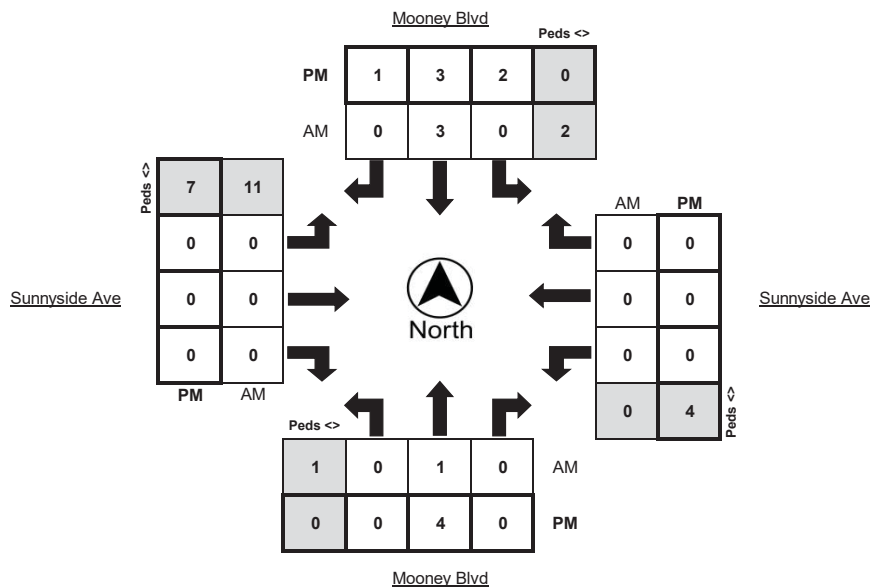
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|
| 2:00 PM - 2:15 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 3 | 3 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 3 | 7 | 4 |
| 2:30 PM - 2:45 PM | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 3 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 1 |
| HOURLY TOTAL | 0 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 6 | 13 | 11 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| 3:00 PM - 3:15 PM | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 3 |
| 3:15 PM - 3:30 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 5 | 2 |
| 3:30 PM - 3:45 PM | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 3:45 PM - 4:00 PM | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 4 |
| HOURLY TOTAL | 0 | 5 | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 4 | 1 | 0 | 0 | 3 | 8 | 11 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| 4:00 PM - 4:15 PM | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| 4:15 PM - 4:30 PM | 0 | 2 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 3 |
| 4:30 PM - 4:45 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:45 PM - 5:00 PM | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 5 |
| HOURLY TOTAL | 0 | 7 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 6 | 11 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 5:00 PM - 5:15 PM | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 2 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 6 | 2 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 |
| HOURLY TOTAL | 0 | 1 | 0 | 0 | 2 | 1 | 2 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 6 | 11 | 6 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 14 | 4 |
| 12:00 PM - 1:00 PM | 0 | 4 | 0 | 0 | 2 | 3 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 7 | 11 | 10 |





Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 4 Mooney / Orchard
COUNTY Tulare
COLLECTION DATE Tuesday, May 14, 2019

LATITUDE 36.300276
LONGITUDE -119.313668
WEATHER Clear

| Time | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | | Interval Total |
|-------------------|------------|------|-------|--------|--------|------------|------|-------|--------|--------|-----------|------|-------|--------|--------|-----------|------|-------|--------|--------|----------------|
| | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | |
| 7:00 AM - 7:15 AM | 0 | 84 | 3 | 0 | 2 | 5 | 81 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 2 | 176 |
| 7:15 AM - 7:30 AM | 0 | 113 | 9 | 0 | 1 | 1 | 79 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 204 |
| 7:30 AM - 7:45 AM | 0 | 116 | 10 | 0 | 8 | 9 | 100 | 0 | 0 | 6 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 4 | 2 | 1 | 241 |
| 7:45 AM - 8:00 AM | 2 | 175 | 18 | 0 | 3 | 15 | 115 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 1 | 332 |
| 8:00 AM - 8:15 AM | 3 | 160 | 10 | 0 | 3 | 14 | 119 | 1 | 0 | 3 | 1 | 0 | 1 | 1 | 0 | 5 | 0 | 7 | 0 | 1 | 321 |
| 8:15 AM - 8:30 AM | 2 | 146 | 5 | 0 | 2 | 18 | 149 | 1 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 7 | 1 | 2 | 334 |
| 8:30 AM - 8:45 AM | 2 | 154 | 7 | 0 | 8 | 13 | 113 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 2 | 297 |
| 8:45 AM - 9:00 AM | 3 | 178 | 4 | 0 | 4 | 15 | 130 | 2 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 5 | 0 | 1 | 341 |

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------|----|-----|----|---|---|----|-----|----|---|---|----|---|----|---|---|----|---|----|----|---|-----|
| 11:00 AM - 11:15 AM | 11 | 187 | 10 | 0 | 7 | 34 | 238 | 6 | 0 | 6 | 2 | 4 | 4 | 0 | 0 | 10 | 0 | 11 | 4 | 2 | 517 |
| 11:15 AM - 11:30 AM | 5 | 237 | 6 | 0 | 5 | 38 | 274 | 12 | 0 | 6 | 6 | 1 | 5 | 0 | 0 | 5 | 1 | 17 | 10 | 1 | 607 |
| 11:30 AM - 11:45 AM | 13 | 235 | 11 | 0 | 6 | 25 | 263 | 11 | 0 | 2 | 4 | 0 | 7 | 0 | 0 | 14 | 2 | 13 | 3 | 2 | 598 |
| 11:45 AM - 12:00 PM | 3 | 230 | 7 | 0 | 4 | 41 | 280 | 8 | 0 | 5 | 9 | 2 | 6 | 0 | 0 | 12 | 0 | 14 | 10 | 0 | 612 |
| 12:00 PM - 12:15 PM | 12 | 277 | 15 | 1 | 3 | 38 | 324 | 6 | 0 | 5 | 12 | 3 | 6 | 2 | 0 | 12 | 1 | 16 | 8 | 2 | 722 |
| 12:15 PM - 12:30 PM | 9 | 262 | 11 | 1 | 2 | 52 | 342 | 5 | 0 | 5 | 1 | 0 | 4 | 1 | 0 | 18 | 2 | 20 | 11 | 2 | 726 |
| 12:30 PM - 12:45 PM | 6 | 234 | 8 | 0 | 3 | 45 | 292 | 8 | 0 | 4 | 3 | 2 | 3 | 1 | 0 | 11 | 4 | 18 | 7 | 1 | 634 |
| 12:45 PM - 1:00 PM | 8 | 271 | 3 | 0 | 4 | 54 | 276 | 5 | 0 | 5 | 6 | 3 | 10 | 0 | 0 | 8 | 3 | 19 | 6 | 1 | 666 |

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|----|-----|----|---|---|----|-----|----|---|---|---|---|----|----|---|----|---|----|----|---|-----|
| 2:00 PM - 2:15 PM | 5 | 198 | 4 | 1 | 6 | 24 | 297 | 4 | 0 | 3 | 4 | 1 | 9 | 6 | 0 | 11 | 1 | 21 | 12 | 3 | 579 |
| 2:15 PM - 2:30 PM | 6 | 223 | 8 | 0 | 1 | 23 | 283 | 6 | 0 | 5 | 5 | 2 | 3 | 3 | 0 | 5 | 2 | 15 | 12 | 2 | 581 |
| 2:30 PM - 2:45 PM | 8 | 210 | 10 | 1 | 5 | 28 | 275 | 10 | 0 | 4 | 3 | 2 | 7 | 4 | 0 | 11 | 2 | 10 | 5 | 1 | 576 |
| 2:45 PM - 3:00 PM | 8 | 247 | 6 | 1 | 3 | 29 | 278 | 4 | 0 | 4 | 2 | 2 | 7 | 5 | 0 | 8 | 1 | 14 | 8 | 1 | 606 |
| 3:00 PM - 3:15 PM | 6 | 226 | 10 | 5 | 2 | 33 | 265 | 4 | 0 | 1 | 7 | 2 | 6 | 4 | 0 | 8 | 3 | 11 | 9 | 1 | 581 |
| 3:15 PM - 3:30 PM | 7 | 231 | 5 | 1 | 0 | 22 | 256 | 3 | 0 | 2 | 3 | 2 | 4 | 1 | 0 | 6 | 0 | 16 | 13 | 1 | 555 |
| 3:30 PM - 3:45 PM | 5 | 233 | 10 | 2 | 6 | 33 | 311 | 5 | 0 | 3 | 3 | 3 | 6 | 2 | 0 | 10 | 2 | 28 | 16 | 1 | 649 |
| 3:45 PM - 4:00 PM | 18 | 260 | 7 | 1 | 1 | 53 | 335 | 9 | 0 | 3 | 1 | 0 | 5 | 5 | 0 | 8 | 0 | 14 | 11 | 1 | 710 |
| 4:00 PM - 4:15 PM | 11 | 233 | 11 | 1 | 3 | 37 | 313 | 6 | 0 | 3 | 3 | 2 | 7 | 3 | 0 | 4 | 1 | 20 | 11 | 2 | 648 |
| 4:15 PM - 4:30 PM | 10 | 212 | 7 | 0 | 3 | 49 | 287 | 3 | 0 | 2 | 7 | 0 | 5 | 5 | 0 | 10 | 0 | 12 | 9 | 1 | 602 |
| 4:30 PM - 4:45 PM | 9 | 234 | 19 | 8 | 4 | 34 | 264 | 5 | 0 | 4 | 1 | 0 | 4 | 3 | 0 | 7 | 3 | 16 | 12 | 1 | 596 |
| 4:45 PM - 5:00 PM | 15 | 221 | 16 | 4 | 3 | 40 | 282 | 8 | 0 | 3 | 3 | 2 | 13 | 11 | 0 | 11 | 1 | 21 | 14 | 1 | 633 |
| 5:00 PM - 5:15 PM | 16 | 245 | 12 | 3 | 3 | 46 | 317 | 11 | 0 | 2 | 5 | 0 | 8 | 5 | 0 | 20 | 4 | 22 | 10 | 1 | 706 |
| 5:15 PM - 5:30 PM | 20 | 260 | 8 | 1 | 3 | 27 | 271 | 9 | 0 | 1 | 5 | 0 | 9 | 7 | 0 | 19 | 2 | 17 | 11 | 1 | 647 |
| 5:30 PM - 5:45 PM | 13 | 244 | 13 | 3 | 4 | 45 | 302 | 8 | 0 | 2 | 5 | 0 | 5 | 4 | 0 | 9 | 2 | 13 | 8 | 1 | 659 |
| 5:45 PM - 6:00 PM | 12 | 254 | 10 | 3 | 2 | 28 | 262 | 4 | 0 | 1 | 6 | 3 | 7 | 4 | 0 | 5 | 4 | 13 | 10 | 1 | 608 |

7-9 AM Peak Hour: 8:00 AM - 9:00 AM
 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
 2-6 PM Peak Hour: 4:45 PM - 5:45 PM
 4-6 PM Peak Hour: 4:45 PM - 5:45 PM



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Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

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LOCATION 4 Mooney / Orchard

LATITUDE 36.300276

COUNTY Tulare

LONGITUDE -119.313668

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 |
| 7:15 AM - 7:30 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 |
| 7:30 AM - 7:45 AM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 5 | 1 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 | 0 |
| HOURLY TOTAL | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 6 | 14 | 3 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 4 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 1 | 7 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 3 | 0 |
| 11:30 AM - 11:45 AM | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 1 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 6 | 0 |
| HOURLY TOTAL | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 17 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|-----------|----------|
| 12:00 PM - 12:15 PM | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 7 | 2 |
| 12:15 PM - 12:30 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 1 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 7 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| HOURLY TOTAL | 0 | 3 | 0 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 2 | 18 | 3 |

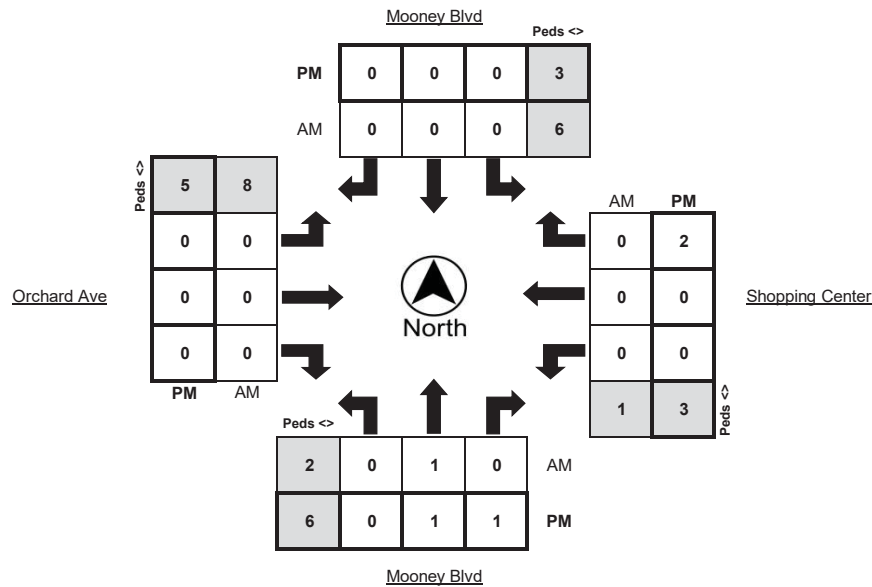
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 2:00 PM - 2:15 PM | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 9 | 1 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 2 |
| 2:30 PM - 2:45 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 7 | 2 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 9 | 0 |
| HOURLY TOTAL | 0 | 2 | 0 | 6 | 2 | 0 | 0 | 11 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 7 | 28 | 5 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 |
| 3:30 PM - 3:45 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 |
| 3:45 PM - 4:00 PM | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| HOURLY TOTAL | 0 | 2 | 0 | 1 | 0 | 3 | 0 | 5 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 9 | 5 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 4:00 PM - 4:15 PM | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| 4:15 PM - 4:30 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 4 | 1 |
| 4:45 PM - 5:00 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 4 | 3 |
| HOURLY TOTAL | 0 | 3 | 1 | 0 | 0 | 2 | 0 | 5 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 3 | 10 | 9 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 1 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 5 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| HOURLY TOTAL | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 14 | 1 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 17 | 1 |
| 12:00 PM - 1:00 PM | 0 | 1 | 1 | 3 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 5 | 17 | 4 |





Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 6 Caldwell / Dans

LATITUDE 0

COUNTY Tulare

LONGITUDE 0

COLLECTION DATE Tuesday, May 7, 2019

WEATHER 0.0000

| Time | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Interval |
|-------------------|------------|------|-------|--------|------------|------|-------|--------|-----------|------|-------|--------|-----------|------|-------|--------|----------|
| | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | |
| 7:00 AM - 7:15 AM | 6 | 0 | 9 | 0 | 1 | 0 | 7 | 0 | 2 | 63 | 4 | 3 | 2 | 82 | 2 | 4 | 178 |
| 7:15 AM - 7:30 AM | 5 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 74 | 4 | 5 | 12 | 109 | 3 | 2 | 209 |
| 7:30 AM - 7:45 AM | 7 | 0 | 15 | 1 | 1 | 0 | 1 | 0 | 2 | 85 | 9 | 1 | 9 | 117 | 5 | 0 | 251 |
| 7:45 AM - 8:00 AM | 14 | 0 | 27 | 1 | 2 | 0 | 8 | 0 | 7 | 139 | 21 | 3 | 10 | 176 | 7 | 4 | 411 |
| 8:00 AM - 8:15 AM | 18 | 0 | 20 | 0 | 2 | 0 | 2 | 0 | 4 | 151 | 23 | 1 | 17 | 162 | 4 | 4 | 403 |
| 8:15 AM - 8:30 AM | 13 | 0 | 21 | 0 | 4 | 0 | 4 | 0 | 14 | 160 | 17 | 4 | 15 | 116 | 8 | 3 | 372 |
| 8:30 AM - 8:45 AM | 2 | 0 | 10 | 0 | 0 | 0 | 3 | 0 | 8 | 120 | 6 | 3 | 7 | 109 | 9 | 2 | 274 |
| 8:45 AM - 9:00 AM | 2 | 0 | 8 | 0 | 2 | 0 | 3 | 0 | 10 | 127 | 9 | 6 | 10 | 106 | 8 | 4 | 285 |

| | | | | | | | | | | | | | | | | | |
|---------------------|---|---|----|---|---|---|----|---|---|-----|----|---|---|-----|---|---|-----|
| 11:00 AM - 11:15 AM | 1 | 0 | 7 | 0 | 3 | 0 | 6 | 0 | 4 | 144 | 2 | 1 | 7 | 132 | 3 | 3 | 309 |
| 11:15 AM - 11:30 AM | 1 | 0 | 6 | 0 | 3 | 0 | 6 | 0 | 1 | 176 | 13 | 3 | 3 | 140 | 4 | 3 | 353 |
| 11:30 AM - 11:45 AM | 2 | 0 | 5 | 0 | 3 | 0 | 10 | 0 | 5 | 191 | 4 | 3 | 6 | 169 | 7 | 2 | 402 |
| 11:45 AM - 12:00 PM | 2 | 0 | 9 | 0 | 7 | 0 | 6 | 0 | 4 | 208 | 8 | 5 | 1 | 146 | 1 | 2 | 392 |
| 12:00 PM - 12:15 PM | 1 | 1 | 17 | 0 | 1 | 0 | 2 | 0 | 1 | 175 | 5 | 2 | 4 | 144 | 2 | 2 | 353 |
| 12:15 PM - 12:30 PM | 4 | 0 | 7 | 0 | 4 | 0 | 5 | 0 | 1 | 210 | 9 | 3 | 7 | 171 | 4 | 1 | 422 |
| 12:30 PM - 12:45 PM | 3 | 0 | 5 | 0 | 0 | 0 | 6 | 0 | 3 | 167 | 5 | 1 | 4 | 178 | 3 | 1 | 374 |
| 12:45 PM - 1:00 PM | 2 | 0 | 8 | 2 | 1 | 0 | 4 | 0 | 7 | 170 | 11 | 1 | 5 | 169 | 4 | 7 | 381 |

| | | | | | | | | | | | | | | | | | |
|-------------------|----|---|----|---|---|---|----|---|----|-----|----|---|----|-----|---|---|-----|
| 2:00 PM - 2:15 PM | 5 | 0 | 10 | 0 | 6 | 0 | 16 | 0 | 6 | 154 | 4 | 3 | 8 | 141 | 6 | 0 | 356 |
| 2:15 PM - 2:30 PM | 10 | 0 | 15 | 1 | 3 | 1 | 12 | 0 | 5 | 182 | 8 | 4 | 5 | 175 | 8 | 5 | 424 |
| 2:30 PM - 2:45 PM | 5 | 0 | 8 | 1 | 9 | 1 | 7 | 0 | 4 | 177 | 5 | 5 | 9 | 184 | 4 | 3 | 413 |
| 2:45 PM - 3:00 PM | 3 | 0 | 5 | 0 | 6 | 0 | 7 | 1 | 6 | 162 | 10 | 0 | 1 | 183 | 4 | 5 | 387 |
| 3:00 PM - 3:15 PM | 10 | 0 | 18 | 2 | 2 | 1 | 11 | 0 | 11 | 181 | 11 | 3 | 6 | 185 | 5 | 3 | 441 |
| 3:15 PM - 3:30 PM | 6 | 0 | 11 | 0 | 4 | 0 | 8 | 0 | 5 | 214 | 8 | 3 | 8 | 184 | 9 | 2 | 457 |
| 3:30 PM - 3:45 PM | 7 | 0 | 6 | 0 | 5 | 0 | 8 | 0 | 4 | 220 | 10 | 3 | 7 | 174 | 3 | 2 | 444 |
| 3:45 PM - 4:00 PM | 2 | 0 | 5 | 0 | 3 | 0 | 7 | 0 | 8 | 239 | 11 | 2 | 10 | 195 | 3 | 2 | 483 |
| 4:00 PM - 4:15 PM | 2 | 0 | 10 | 0 | 6 | 0 | 12 | 0 | 7 | 240 | 13 | 1 | 9 | 168 | 5 | 5 | 472 |
| 4:15 PM - 4:30 PM | 1 | 0 | 5 | 0 | 4 | 0 | 5 | 0 | 2 | 199 | 8 | 3 | 3 | 179 | 5 | 4 | 411 |
| 4:30 PM - 4:45 PM | 1 | 0 | 14 | 0 | 3 | 0 | 3 | 0 | 1 | 205 | 8 | 1 | 7 | 181 | 7 | 1 | 430 |
| 4:45 PM - 5:00 PM | 5 | 0 | 11 | 0 | 1 | 0 | 7 | 0 | 3 | 209 | 10 | 3 | 8 | 174 | 3 | 4 | 431 |
| 5:00 PM - 5:15 PM | 2 | 0 | 8 | 1 | 4 | 1 | 7 | 0 | 2 | 232 | 13 | 1 | 9 | 225 | 0 | 1 | 503 |
| 5:15 PM - 5:30 PM | 4 | 0 | 19 | 0 | 2 | 0 | 1 | 0 | 1 | 219 | 14 | 1 | 7 | 180 | 3 | 1 | 450 |
| 5:30 PM - 5:45 PM | 3 | 0 | 13 | 0 | 4 | 0 | 7 | 0 | 3 | 206 | 7 | 1 | 5 | 180 | 0 | 0 | 428 |
| 5:45 PM - 6:00 PM | 5 | 0 | 5 | 0 | 5 | 0 | 2 | 0 | 2 | 195 | 5 | 1 | 3 | 201 | 0 | 3 | 423 |

7-9 AM Peak Hour: 7:45 AM - 8:45 AM
 11-1 Mid-Day Peak Hour: 11:30 AM - 12:30 PM
 2-6 PM Peak Hour: 3:15 PM - 4:15 PM
 4-6 PM Peak Hour: 4:30 PM - 5:30 PM



Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
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Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 6 Caldwell / Dans

LATITUDE 36.298407

COUNTY Tulare

LONGITUDE -119.325935

COLLECTION DATE Tuesday, May 7, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 6 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 8:30 AM - 8:45 AM | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| HOURLY TOTAL | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |

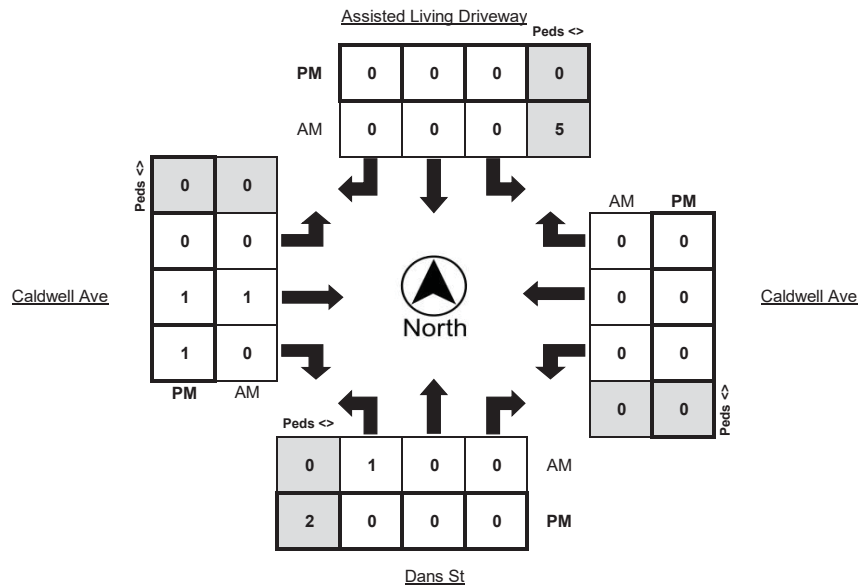
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 3 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 5:15 PM - 5:30 PM | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 2 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 3 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|-------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:45 AM - 8:45 AM | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 2 |
| 3:15 PM - 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |





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Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 8 Caldwell / Shady

LATITUDE 36.298375

COUNTY Tulare

LONGITUDE -119.316513

COLLECTION DATE Wednesday, May 15, 2019

WEATHER Clear

| Time | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | | Interval Total |
|-------------------|------------|------|-------|--------|--------|------------|------|-------|--------|--------|-----------|------|-------|--------|--------|-----------|------|-------|--------|--------|----------------|
| | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | |
| 7:00 AM - 7:15 AM | 2 | 0 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 66 | 1 | 0 | 2 | 3 | 58 | 0 | 0 | 3 | 138 |
| 7:15 AM - 7:30 AM | 3 | 0 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 63 | 1 | 0 | 1 | 5 | 70 | 0 | 0 | 4 | 154 |
| 7:30 AM - 7:45 AM | 2 | 0 | 9 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 2 | 83 | 1 | 0 | 1 | 3 | 120 | 0 | 0 | 2 | 223 |
| 7:45 AM - 8:00 AM | 11 | 1 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 139 | 4 | 0 | 1 | 4 | 123 | 0 | 0 | 2 | 298 |
| 8:00 AM - 8:15 AM | 4 | 0 | 7 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 9 | 118 | 3 | 0 | 1 | 5 | 120 | 3 | 0 | 2 | 271 |
| 8:15 AM - 8:30 AM | 0 | 0 | 8 | 7 | 0 | 0 | 0 | 1 | 1 | 0 | 4 | 170 | 4 | 0 | 1 | 3 | 90 | 2 | 0 | 1 | 282 |
| 8:30 AM - 8:45 AM | 2 | 0 | 8 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 98 | 3 | 0 | 2 | 6 | 89 | 0 | 0 | 3 | 210 |
| 8:45 AM - 9:00 AM | 4 | 0 | 6 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 6 | 131 | 2 | 0 | 5 | 7 | 82 | 1 | 0 | 2 | 240 |

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|----|---|---|---|---|---|---|---|----|-----|---|---|---|----|-----|---|---|---|-----|
| 11:00 AM - 11:15 AM | 1 | 0 | 10 | 4 | 0 | 3 | 0 | 1 | 1 | 0 | 7 | 186 | 1 | 0 | 3 | 7 | 120 | 7 | 0 | 4 | 343 |
| 11:15 AM - 11:30 AM | 6 | 0 | 4 | 1 | 0 | 2 | 1 | 2 | 0 | 0 | 5 | 151 | 4 | 0 | 3 | 10 | 103 | 4 | 0 | 2 | 292 |
| 11:30 AM - 11:45 AM | 1 | 0 | 9 | 8 | 0 | 3 | 0 | 2 | 2 | 1 | 5 | 157 | 0 | 0 | 4 | 15 | 125 | 1 | 0 | 2 | 318 |
| 11:45 AM - 12:00 PM | 3 | 0 | 8 | 6 | 0 | 4 | 0 | 1 | 1 | 0 | 15 | 142 | 1 | 0 | 2 | 12 | 147 | 6 | 0 | 3 | 339 |
| 12:00 PM - 12:15 PM | 3 | 1 | 3 | 2 | 0 | 5 | 2 | 1 | 1 | 0 | 12 | 171 | 1 | 0 | 3 | 12 | 143 | 4 | 0 | 2 | 358 |
| 12:15 PM - 12:30 PM | 5 | 1 | 4 | 3 | 0 | 4 | 0 | 2 | 2 | 1 | 13 | 129 | 2 | 0 | 2 | 13 | 148 | 4 | 0 | 2 | 325 |
| 12:30 PM - 12:45 PM | 4 | 1 | 10 | 5 | 0 | 6 | 0 | 3 | 2 | 1 | 7 | 150 | 3 | 0 | 3 | 9 | 141 | 1 | 0 | 2 | 335 |
| 12:45 PM - 1:00 PM | 1 | 0 | 10 | 9 | 1 | 2 | 0 | 4 | 4 | 0 | 13 | 156 | 4 | 0 | 3 | 16 | 133 | 4 | 0 | 4 | 343 |

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|----|---|---|---|---|---|---|---|----|-----|---|---|---|----|-----|---|---|---|-----|
| 2:00 PM - 2:15 PM | 3 | 0 | 7 | 4 | 0 | 1 | 0 | 6 | 3 | 0 | 10 | 113 | 3 | 0 | 4 | 17 | 146 | 0 | 0 | 3 | 306 |
| 2:15 PM - 2:30 PM | 7 | 0 | 10 | 5 | 0 | 7 | 0 | 4 | 0 | 0 | 12 | 166 | 2 | 0 | 7 | 10 | 140 | 2 | 1 | 1 | 360 |
| 2:30 PM - 2:45 PM | 6 | 1 | 9 | 5 | 0 | 6 | 0 | 1 | 0 | 0 | 8 | 159 | 8 | 0 | 4 | 14 | 153 | 2 | 0 | 4 | 367 |
| 2:45 PM - 3:00 PM | 4 | 0 | 9 | 5 | 1 | 3 | 0 | 0 | 0 | 1 | 11 | 153 | 3 | 0 | 3 | 15 | 139 | 1 | 0 | 2 | 338 |
| 3:00 PM - 3:15 PM | 2 | 0 | 8 | 2 | 0 | 2 | 1 | 3 | 2 | 0 | 12 | 144 | 2 | 0 | 1 | 11 | 174 | 2 | 0 | 2 | 361 |
| 3:15 PM - 3:30 PM | 6 | 0 | 7 | 6 | 0 | 1 | 0 | 1 | 0 | 0 | 17 | 177 | 5 | 0 | 3 | 16 | 183 | 1 | 0 | 4 | 414 |
| 3:30 PM - 3:45 PM | 7 | 0 | 13 | 6 | 0 | 2 | 0 | 2 | 1 | 0 | 9 | 189 | 3 | 0 | 1 | 14 | 140 | 2 | 0 | 3 | 381 |
| 3:45 PM - 4:00 PM | 9 | 0 | 4 | 4 | 0 | 3 | 1 | 2 | 0 | 0 | 15 | 150 | 4 | 0 | 6 | 24 | 154 | 6 | 0 | 2 | 372 |
| 4:00 PM - 4:15 PM | 6 | 0 | 13 | 9 | 0 | 8 | 0 | 4 | 3 | 0 | 8 | 186 | 7 | 0 | 2 | 11 | 138 | 3 | 0 | 2 | 384 |
| 4:15 PM - 4:30 PM | 2 | 0 | 5 | 3 | 0 | 7 | 0 | 2 | 0 | 0 | 10 | 154 | 1 | 0 | 2 | 9 | 149 | 1 | 0 | 1 | 340 |
| 4:30 PM - 4:45 PM | 4 | 0 | 6 | 3 | 0 | 2 | 0 | 1 | 1 | 0 | 15 | 178 | 4 | 0 | 1 | 13 | 147 | 3 | 0 | 5 | 373 |
| 4:45 PM - 5:00 PM | 5 | 0 | 10 | 5 | 1 | 7 | 0 | 2 | 2 | 0 | 6 | 163 | 4 | 0 | 2 | 11 | 133 | 6 | 0 | 3 | 347 |
| 5:00 PM - 5:15 PM | 2 | 0 | 10 | 7 | 0 | 4 | 0 | 1 | 1 | 0 | 10 | 178 | 2 | 0 | 0 | 18 | 171 | 6 | 0 | 0 | 402 |
| 5:15 PM - 5:30 PM | 7 | 0 | 14 | 6 | 0 | 5 | 0 | 4 | 2 | 0 | 12 | 184 | 5 | 0 | 1 | 19 | 146 | 3 | 0 | 2 | 399 |
| 5:30 PM - 5:45 PM | 1 | 0 | 9 | 4 | 0 | 5 | 0 | 0 | 0 | 0 | 13 | 178 | 2 | 0 | 3 | 14 | 145 | 2 | 0 | 2 | 369 |
| 5:45 PM - 6:00 PM | 3 | 0 | 9 | 3 | 0 | 4 | 0 | 2 | 0 | 0 | 10 | 183 | 4 | 0 | 3 | 13 | 127 | 7 | 0 | 1 | 362 |

7-9 AM Peak Hour: 7:30 AM - 8:30 AM
 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
 2-6 PM Peak Hour: 3:15 PM - 4:15 PM
 4-6 PM Peak Hour: 5:00 PM - 6:00 PM



Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 8 Caldwell / Shady

LATITUDE 36.298375

COUNTY Tulare

LONGITUDE -119.316513

COLLECTION DATE Wednesday, May 15, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| 7:45 AM - 8:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| HOURLY TOTAL | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 2 | |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |

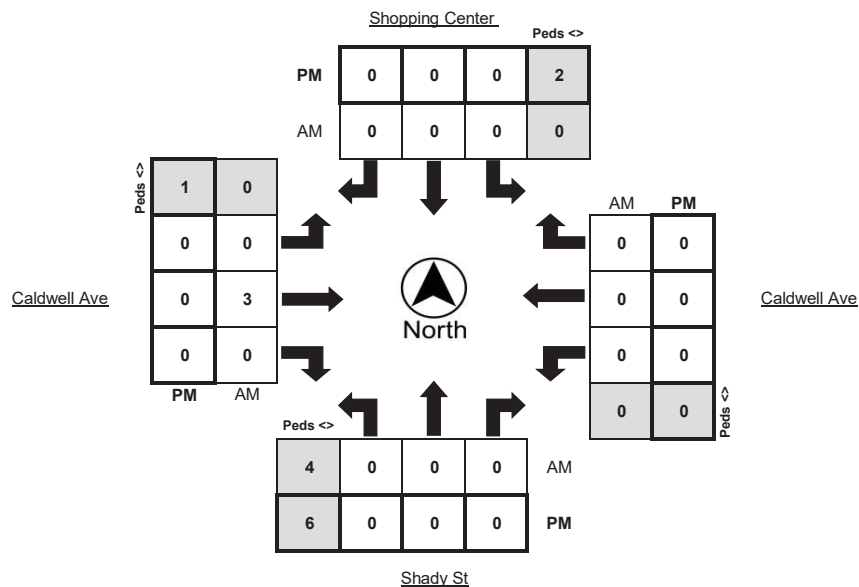
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| HOURLY TOTAL | 0 | 0 | 1 | 3 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 6 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 8 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 5 |
| HOURLY TOTAL | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 10 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 5:45 PM - 6:00 PM | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| HOURLY TOTAL | 0 | 0 | 2 | 5 | 0 | 1 | 0 | 5 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 11 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 3 |
| 3:15 PM - 4:15 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 9 | 0 |





Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
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 800-975-6938 Phone/Fax
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Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 9 Caldwell / Mooney

LATITUDE 36.298424

COUNTY Tulare

LONGITUDE -119.313678

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | | Interval Total |
|-------------------|------------|------|-------|--------|--------|------------|------|-------|--------|--------|-----------|------|-------|--------|--------|-----------|------|-------|--------|--------|----------------|
| | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | |
| 7:00 AM - 7:15 AM | 19 | 51 | 7 | 3 | 0 | 13 | 40 | 12 | 2 | 3 | 23 | 60 | 6 | 1 | 3 | 7 | 68 | 9 | 1 | 3 | 315 |
| 7:15 AM - 7:30 AM | 12 | 53 | 6 | 4 | 6 | 25 | 56 | 12 | 1 | 1 | 27 | 98 | 11 | 3 | 4 | 5 | 63 | 10 | 0 | 6 | 378 |
| 7:30 AM - 7:45 AM | 33 | 95 | 16 | 3 | 1 | 26 | 68 | 14 | 4 | 4 | 16 | 103 | 23 | 3 | 4 | 12 | 96 | 8 | 1 | 6 | 510 |
| 7:45 AM - 8:00 AM | 24 | 99 | 18 | 2 | 1 | 40 | 75 | 17 | 4 | 3 | 19 | 137 | 15 | 8 | 3 | 9 | 111 | 22 | 6 | 5 | 586 |
| 8:00 AM - 8:15 AM | 20 | 94 | 11 | 3 | 4 | 39 | 89 | 21 | 4 | 4 | 29 | 127 | 31 | 13 | 5 | 19 | 93 | 22 | 8 | 2 | 595 |
| 8:15 AM - 8:30 AM | 23 | 88 | 15 | 2 | 1 | 36 | 111 | 27 | 5 | 2 | 23 | 110 | 16 | 4 | 5 | 17 | 118 | 19 | 6 | 4 | 603 |
| 8:30 AM - 8:45 AM | 22 | 48 | 18 | 6 | 0 | 26 | 60 | 11 | 5 | 4 | 31 | 125 | 18 | 4 | 6 | 21 | 101 | 20 | 4 | 4 | 501 |
| 8:45 AM - 9:00 AM | 31 | 59 | 14 | 5 | 0 | 29 | 65 | 20 | 1 | 4 | 24 | 153 | 15 | 1 | 9 | 18 | 112 | 14 | 3 | 9 | 554 |

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------|----|----|----|----|---|----|----|----|----|---|----|-----|----|----|---|----|-----|----|----|---|------|
| 11:00 AM - 11:15 AM | 43 | 70 | 34 | 6 | 2 | 52 | 69 | 35 | 4 | 2 | 38 | 161 | 28 | 13 | 6 | 30 | 216 | 26 | 2 | 6 | 802 |
| 11:15 AM - 11:30 AM | 48 | 54 | 28 | 9 | 0 | 53 | 66 | 43 | 9 | 2 | 44 | 190 | 21 | 7 | 1 | 44 | 235 | 41 | 7 | 6 | 867 |
| 11:30 AM - 11:45 AM | 54 | 64 | 30 | 10 | 1 | 69 | 71 | 46 | 10 | 4 | 61 | 178 | 20 | 5 | 9 | 35 | 238 | 31 | 6 | 3 | 897 |
| 11:45 AM - 12:00 PM | 57 | 55 | 26 | 3 | 1 | 54 | 82 | 43 | 3 | 2 | 58 | 210 | 31 | 13 | 4 | 40 | 271 | 30 | 4 | 5 | 957 |
| 12:00 PM - 12:15 PM | 52 | 67 | 27 | 4 | 0 | 69 | 98 | 41 | 9 | 4 | 68 | 221 | 28 | 6 | 2 | 39 | 300 | 25 | 6 | 6 | 1035 |
| 12:15 PM - 12:30 PM | 54 | 58 | 28 | 2 | 0 | 75 | 77 | 38 | 2 | 4 | 63 | 196 | 29 | 5 | 2 | 58 | 315 | 33 | 11 | 5 | 1024 |
| 12:30 PM - 12:45 PM | 63 | 69 | 19 | 3 | 1 | 54 | 68 | 34 | 5 | 1 | 73 | 215 | 22 | 4 | 7 | 38 | 256 | 34 | 7 | 5 | 945 |
| 12:45 PM - 1:00 PM | 61 | 81 | 27 | 6 | 0 | 72 | 81 | 36 | 11 | 1 | 47 | 198 | 21 | 11 | 6 | 38 | 247 | 26 | 6 | 5 | 935 |

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|----|-----|----|----|---|----|-----|----|----|---|----|-----|----|----|---|----|-----|----|----|---|------|
| 2:00 PM - 2:15 PM | 66 | 65 | 16 | 6 | 2 | 43 | 68 | 28 | 5 | 3 | 52 | 153 | 26 | 9 | 5 | 35 | 252 | 30 | 11 | 5 | 834 |
| 2:15 PM - 2:30 PM | 33 | 74 | 13 | 5 | 1 | 44 | 88 | 31 | 8 | 4 | 43 | 193 | 22 | 6 | 1 | 43 | 238 | 30 | 5 | 6 | 852 |
| 2:30 PM - 2:45 PM | 59 | 76 | 23 | 9 | 2 | 49 | 81 | 24 | 5 | 3 | 50 | 179 | 27 | 13 | 2 | 35 | 238 | 31 | 3 | 5 | 872 |
| 2:45 PM - 3:00 PM | 40 | 79 | 19 | 8 | 4 | 67 | 95 | 42 | 8 | 0 | 58 | 191 | 26 | 6 | 2 | 37 | 253 | 31 | 3 | 4 | 938 |
| 3:00 PM - 3:15 PM | 65 | 90 | 30 | 5 | 1 | 59 | 119 | 28 | 5 | 4 | 59 | 169 | 21 | 10 | 3 | 34 | 209 | 36 | 10 | 3 | 919 |
| 3:15 PM - 3:30 PM | 37 | 72 | 17 | 7 | 2 | 40 | 101 | 35 | 5 | 4 | 48 | 179 | 25 | 12 | 1 | 34 | 224 | 44 | 8 | 3 | 856 |
| 3:30 PM - 3:45 PM | 41 | 92 | 20 | 7 | 1 | 53 | 130 | 42 | 8 | 3 | 53 | 158 | 22 | 8 | 3 | 38 | 239 | 49 | 3 | 4 | 937 |
| 3:45 PM - 4:00 PM | 58 | 94 | 20 | 5 | 2 | 54 | 122 | 32 | 8 | 2 | 52 | 186 | 32 | 16 | 1 | 43 | 262 | 34 | 5 | 5 | 989 |
| 4:00 PM - 4:15 PM | 43 | 78 | 25 | 5 | 2 | 61 | 116 | 40 | 7 | 2 | 63 | 193 | 34 | 9 | 3 | 32 | 251 | 26 | 2 | 3 | 962 |
| 4:15 PM - 4:30 PM | 53 | 67 | 19 | 5 | 0 | 68 | 117 | 46 | 9 | 2 | 39 | 165 | 21 | 4 | 4 | 40 | 249 | 25 | 5 | 3 | 909 |
| 4:30 PM - 4:45 PM | 56 | 79 | 22 | 8 | 1 | 58 | 115 | 39 | 11 | 2 | 53 | 216 | 30 | 9 | 2 | 37 | 235 | 22 | 3 | 4 | 962 |
| 4:45 PM - 5:00 PM | 46 | 100 | 30 | 7 | 0 | 69 | 120 | 42 | 9 | 2 | 61 | 164 | 29 | 9 | 2 | 37 | 241 | 23 | 10 | 3 | 962 |
| 5:00 PM - 5:15 PM | 68 | 95 | 20 | 3 | 1 | 67 | 102 | 37 | 5 | 1 | 58 | 204 | 21 | 5 | 4 | 49 | 283 | 27 | 5 | 2 | 1031 |
| 5:15 PM - 5:30 PM | 32 | 90 | 27 | 7 | 0 | 58 | 111 | 41 | 7 | 1 | 58 | 214 | 26 | 5 | 2 | 39 | 242 | 28 | 8 | 3 | 966 |
| 5:30 PM - 5:45 PM | 49 | 67 | 23 | 2 | 0 | 67 | 77 | 35 | 11 | 2 | 51 | 204 | 20 | 6 | 3 | 46 | 286 | 24 | 5 | 3 | 949 |
| 5:45 PM - 6:00 PM | 51 | 75 | 26 | 12 | 1 | 52 | 97 | 25 | 7 | 1 | 67 | 197 | 29 | 14 | 2 | 37 | 209 | 27 | 6 | 3 | 892 |

7-9 AM Peak Hour: 7:30 AM - 8:30 AM

11-1 Mid-Day Peak Hour: 11:45 AM - 12:45 PM

2-6 PM Peak Hour: 4:30 PM - 5:30 PM

4-6 PM Peak Hour: 4:30 PM - 5:30 PM



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Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 9 Caldwell / Mooney

LATITUDE 36.298424

COUNTY Tulare

LONGITUDE -119.313678

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 5 | 3 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 4 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 12 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 3 | 6 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 2 |
| 11:45 AM - 12:00 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 4 |
| HOURLY TOTAL | 0 | 2 | 0 | 1 | 3 | 3 | 0 | 5 | 1 | 1 | 0 | 2 | 0 | 2 | 1 | 1 | 9 | 13 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 1 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 7 | 0 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 11 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 4 | 0 | 1 | 0 | 2 | 0 | 0 | 1 | 3 | 10 | 3 |
| HOURLY TOTAL | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 16 | 0 | 2 | 0 | 6 | 0 | 0 | 1 | 7 | 32 | 4 |

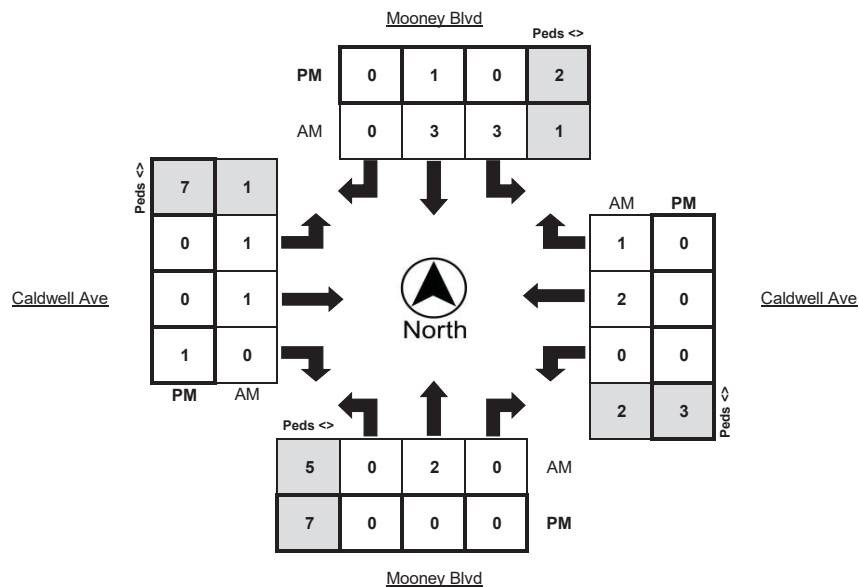
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 6 | 4 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 2 | 2 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 4 | 1 | 2 | 0 | 5 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 5 | 14 | 6 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 5 | 0 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 | 1 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 0 |
| 3:45 PM - 4:00 PM | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 |
| HOURLY TOTAL | 0 | 2 | 0 | 3 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 19 | 3 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 5 | 0 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 6 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 7 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 6 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 5 | 20 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 | 1 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 11 | 1 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 2 | 0 | 1 | 3 | 3 | 0 | 5 | 1 | 1 | 0 | 2 | 0 | 2 | 1 | 1 | 9 | 13 |
| 12:00 PM - 1:00 PM | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 7 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 7 | 19 | 2 |





Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 10 Caldwell / Fairway

LATITUDE 36.298429

COUNTY Tulare

LONGITUDE -119.310715

COLLECTION DATE Wednesday, May 15, 2019

WEATHER Clear

| Time | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | | Interval Total |
|-------------------|------------|------|-------|--------|--------|------------|------|-------|--------|--------|-----------|------|-------|--------|--------|-----------|------|-------|--------|--------|----------------|
| | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | |
| 7:00 AM - 7:15 AM | 2 | 0 | 4 | 3 | 1 | 5 | 0 | 3 | 2 | 1 | 4 | 46 | 4 | 0 | 0 | 12 | 64 | 8 | 1 | 1 | 152 |
| 7:15 AM - 7:30 AM | 4 | 2 | 8 | 5 | 0 | 4 | 0 | 2 | 1 | 0 | 5 | 54 | 7 | 1 | 3 | 8 | 87 | 15 | 1 | 3 | 196 |
| 7:30 AM - 7:45 AM | 7 | 0 | 9 | 5 | 0 | 4 | 0 | 3 | 2 | 1 | 8 | 61 | 5 | 0 | 0 | 14 | 99 | 15 | 0 | 0 | 225 |
| 7:45 AM - 8:00 AM | 6 | 3 | 4 | 2 | 0 | 7 | 1 | 2 | 1 | 2 | 17 | 83 | 5 | 0 | 1 | 19 | 132 | 37 | 2 | 3 | 316 |
| 8:00 AM - 8:15 AM | 5 | 3 | 11 | 8 | 0 | 8 | 0 | 11 | 1 | 2 | 9 | 83 | 5 | 0 | 1 | 17 | 118 | 24 | 1 | 2 | 294 |
| 8:15 AM - 8:30 AM | 3 | 1 | 12 | 5 | 1 | 7 | 0 | 1 | 0 | 0 | 14 | 110 | 15 | 0 | 0 | 22 | 88 | 24 | 3 | 2 | 297 |
| 8:30 AM - 8:45 AM | 7 | 3 | 10 | 2 | 0 | 12 | 3 | 10 | 1 | 1 | 9 | 64 | 11 | 1 | 0 | 13 | 82 | 16 | 0 | 1 | 240 |
| 8:45 AM - 9:00 AM | 5 | 2 | 9 | 3 | 0 | 7 | 1 | 3 | 1 | 1 | 15 | 77 | 11 | 1 | 3 | 21 | 84 | 32 | 0 | 3 | 267 |

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------|----|----|----|----|---|----|----|----|---|---|----|-----|----|---|---|----|-----|----|---|---|-----|
| 11:00 AM - 11:15 AM | 10 | 5 | 19 | 7 | 1 | 22 | 8 | 16 | 1 | 1 | 16 | 113 | 23 | 1 | 2 | 16 | 105 | 15 | 1 | 2 | 368 |
| 11:15 AM - 11:30 AM | 11 | 8 | 28 | 11 | 1 | 14 | 11 | 13 | 3 | 0 | 22 | 94 | 18 | 1 | 2 | 28 | 98 | 13 | 0 | 1 | 358 |
| 11:30 AM - 11:45 AM | 20 | 7 | 33 | 13 | 0 | 24 | 10 | 9 | 4 | 1 | 14 | 105 | 26 | 2 | 5 | 33 | 132 | 14 | 1 | 3 | 427 |
| 11:45 AM - 12:00 PM | 23 | 11 | 27 | 9 | 0 | 22 | 11 | 13 | 2 | 2 | 26 | 99 | 28 | 3 | 2 | 26 | 107 | 29 | 4 | 0 | 422 |
| 12:00 PM - 12:15 PM | 14 | 10 | 34 | 8 | 0 | 17 | 9 | 21 | 7 | 1 | 17 | 106 | 13 | 3 | 1 | 30 | 101 | 25 | 0 | 1 | 397 |
| 12:15 PM - 12:30 PM | 22 | 7 | 30 | 7 | 0 | 24 | 4 | 7 | 1 | 1 | 27 | 95 | 14 | 2 | 2 | 33 | 127 | 15 | 2 | 2 | 405 |
| 12:30 PM - 12:45 PM | 28 | 5 | 27 | 7 | 0 | 32 | 4 | 15 | 1 | 1 | 19 | 105 | 16 | 2 | 1 | 30 | 95 | 15 | 2 | 1 | 391 |
| 12:45 PM - 1:00 PM | 18 | 7 | 25 | 5 | 0 | 28 | 5 | 16 | 4 | 1 | 22 | 117 | 16 | 2 | 2 | 28 | 105 | 26 | 3 | 2 | 413 |

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|----|----|----|----|---|----|---|----|---|---|----|-----|----|---|---|----|-----|----|---|---|-----|
| 2:00 PM - 2:15 PM | 17 | 4 | 20 | 7 | 0 | 23 | 7 | 12 | 2 | 1 | 23 | 100 | 15 | 2 | 1 | 25 | 132 | 15 | 1 | 1 | 393 |
| 2:15 PM - 2:30 PM | 19 | 9 | 35 | 10 | 0 | 17 | 3 | 10 | 3 | 0 | 15 | 138 | 27 | 4 | 1 | 36 | 120 | 22 | 1 | 2 | 451 |
| 2:30 PM - 2:45 PM | 13 | 4 | 23 | 15 | 0 | 26 | 8 | 8 | 4 | 2 | 11 | 126 | 23 | 1 | 3 | 32 | 119 | 18 | 2 | 2 | 411 |
| 2:45 PM - 3:00 PM | 21 | 5 | 32 | 13 | 0 | 22 | 5 | 12 | 1 | 1 | 24 | 120 | 23 | 2 | 1 | 30 | 111 | 21 | 5 | 1 | 426 |
| 3:00 PM - 3:15 PM | 22 | 6 | 23 | 5 | 0 | 24 | 5 | 14 | 3 | 2 | 14 | 119 | 22 | 1 | 0 | 26 | 131 | 20 | 1 | 1 | 426 |
| 3:15 PM - 3:30 PM | 27 | 7 | 26 | 8 | 1 | 32 | 5 | 16 | 2 | 0 | 21 | 131 | 13 | 0 | 1 | 19 | 114 | 16 | 5 | 4 | 427 |
| 3:30 PM - 3:45 PM | 22 | 6 | 18 | 9 | 0 | 26 | 9 | 7 | 2 | 0 | 17 | 150 | 15 | 0 | 1 | 30 | 121 | 16 | 2 | 0 | 437 |
| 3:45 PM - 4:00 PM | 17 | 5 | 27 | 9 | 0 | 24 | 6 | 12 | 2 | 2 | 26 | 135 | 18 | 1 | 4 | 34 | 136 | 23 | 1 | 1 | 463 |
| 4:00 PM - 4:15 PM | 20 | 10 | 32 | 11 | 0 | 24 | 7 | 18 | 4 | 2 | 17 | 162 | 25 | 0 | 2 | 28 | 109 | 15 | 3 | 1 | 467 |
| 4:15 PM - 4:30 PM | 21 | 8 | 30 | 7 | 0 | 29 | 6 | 10 | 0 | 0 | 23 | 138 | 21 | 2 | 0 | 40 | 113 | 19 | 2 | 0 | 458 |
| 4:30 PM - 4:45 PM | 17 | 8 | 28 | 5 | 0 | 36 | 6 | 19 | 0 | 2 | 27 | 134 | 20 | 3 | 1 | 36 | 109 | 26 | 2 | 2 | 466 |
| 4:45 PM - 5:00 PM | 19 | 5 | 31 | 6 | 0 | 32 | 8 | 13 | 2 | 1 | 23 | 136 | 20 | 4 | 1 | 33 | 121 | 28 | 8 | 3 | 469 |
| 5:00 PM - 5:15 PM | 24 | 4 | 39 | 8 | 0 | 49 | 7 | 31 | 6 | 1 | 21 | 135 | 23 | 1 | 0 | 40 | 131 | 28 | 8 | 0 | 532 |
| 5:15 PM - 5:30 PM | 16 | 4 | 36 | 17 | 0 | 40 | 4 | 11 | 4 | 0 | 25 | 154 | 17 | 3 | 1 | 42 | 148 | 25 | 6 | 2 | 522 |
| 5:30 PM - 5:45 PM | 16 | 7 | 39 | 11 | 0 | 34 | 8 | 10 | 1 | 1 | 26 | 168 | 21 | 5 | 1 | 28 | 115 | 26 | 0 | 1 | 498 |
| 5:45 PM - 6:00 PM | 22 | 8 | 35 | 9 | 0 | 26 | 4 | 8 | 3 | 1 | 27 | 135 | 19 | 2 | 1 | 34 | 133 | 20 | 3 | 1 | 471 |

- 7-9 AM Peak Hour: 7:45 AM - 8:45 AM
- 11-1 Mid-Day Peak Hour: 11:30 AM - 12:30 PM
- 2-6 PM Peak Hour: 5:00 PM - 6:00 PM
- 4-6 PM Peak Hour: 5:00 PM - 6:00 PM



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Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 10 Caldwell / Fairway

LATITUDE 36.298429

COUNTY Tulare

LONGITUDE -119.310715

COLLECTION DATE Wednesday, May 15, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | |
| 7:15 AM - 7:30 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 1 | |
| HOURLY TOTAL | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 4 | 7 | |

| | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 3 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 4 | 5 |

| | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 3 |
| HOURLY TOTAL | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 2 | 7 | 4 |

| | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 12:15 PM - 12:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 |
| HOURLY TOTAL | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 2 | 6 | 2 |

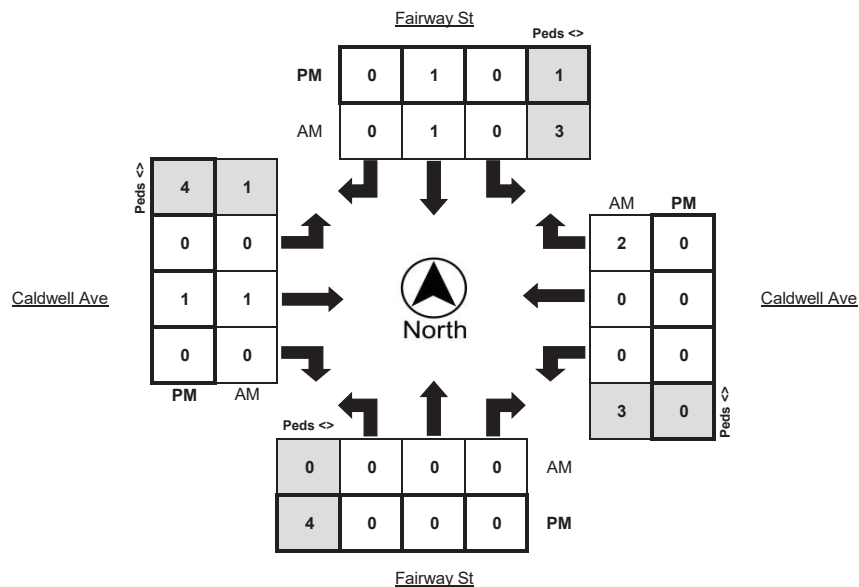
| | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 2:15 PM - 2:30 PM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 4 | 1 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 2 | 4 | 2 |
| HOURLY TOTAL | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 4 | 0 | 0 | 3 | 10 | 5 |

| | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| 3:15 PM - 3:30 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| 3:30 PM - 3:45 PM | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 5 | 4 |
| 3:45 PM - 4:00 PM | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 4 | 2 |
| HOURLY TOTAL | 0 | 3 | 1 | 5 | 0 | 2 | 0 | 2 | 1 | 1 | 1 | 3 | 0 | 3 | 0 | 10 | 12 |

| | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 6 | 3 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 2 |
| HOURLY TOTAL | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 6 | 0 | 2 | 0 | 6 | 0 | 2 | 0 | 15 | 7 |

| | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 9 | 2 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 2 | 1 | 7 | |
| 5:00 PM - 6:00 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 9 | |





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Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 11 Caldwell / Stonebrook

LATITUDE 36.298345

COUNTY Tulare

LONGITUDE -119.30516

COLLECTION DATE Wednesday, May 15, 2019

WEATHER Clear

| Time | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | | Interval Total | |
|-------------------|------------|------|-------|--------|--------|------------|------|-------|--------|--------|-----------|------|-------|--------|--------|-----------|------|-------|--------|--------|----------------|-----|
| | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 4 | 3 | 0 | 1 | 53 | 0 | 0 | 1 | 0 | 72 | 0 | 0 | 0 | 1 | 139 |
| 7:15 AM - 7:30 AM | 0 | 0 | 1 | 1 | 0 | 4 | 0 | 7 | 6 | 0 | 3 | 57 | 0 | 0 | 1 | 0 | 100 | 4 | 0 | 3 | 176 | |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 13 | 12 | 0 | 3 | 76 | 0 | 0 | 2 | 0 | 115 | 6 | 0 | 0 | 223 | |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 18 | 17 | 1 | 2 | 80 | 0 | 0 | 2 | 0 | 167 | 4 | 0 | 4 | 291 | |
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 1 | 1 | 0 | 4 | 96 | 1 | 1 | 1 | 0 | 167 | 4 | 0 | 2 | 283 | |
| 8:15 AM - 8:30 AM | 2 | 0 | 0 | 0 | 0 | 6 | 0 | 8 | 8 | 0 | 8 | 110 | 2 | 0 | 0 | 0 | 121 | 5 | 0 | 1 | 262 | |
| 8:30 AM - 8:45 AM | 1 | 0 | 0 | 0 | 0 | 9 | 0 | 7 | 5 | 0 | 2 | 84 | 1 | 0 | 1 | 1 | 95 | 4 | 0 | 1 | 204 | |
| 8:45 AM - 9:00 AM | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 6 | 6 | 0 | 4 | 74 | 0 | 0 | 2 | 1 | 131 | 4 | 0 | 3 | 224 | |

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|-----|---|---|---|-----|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 5 | 5 | 0 | 7 | 132 | 1 | 0 | 1 | 0 | 125 | 7 | 0 | 1 | 280 |
| 11:15 AM - 11:30 AM | 3 | 0 | 0 | 0 | 0 | 7 | 0 | 5 | 4 | 0 | 8 | 127 | 0 | 0 | 2 | 1 | 134 | 6 | 0 | 1 | 291 |
| 11:30 AM - 11:45 AM | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 5 | 5 | 0 | 5 | 148 | 1 | 0 | 4 | 0 | 158 | 6 | 0 | 3 | 329 |
| 11:45 AM - 12:00 PM | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 6 | 6 | 0 | 4 | 140 | 1 | 0 | 5 | 1 | 150 | 5 | 0 | 1 | 309 |
| 12:00 PM - 12:15 PM | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 5 | 4 | 0 | 6 | 155 | 0 | 0 | 2 | 0 | 154 | 4 | 0 | 0 | 329 |
| 12:15 PM - 12:30 PM | 5 | 0 | 3 | 1 | 0 | 3 | 0 | 6 | 4 | 1 | 7 | 133 | 2 | 0 | 1 | 0 | 146 | 4 | 0 | 5 | 309 |
| 12:30 PM - 12:45 PM | 2 | 0 | 0 | 0 | 0 | 8 | 0 | 6 | 5 | 0 | 5 | 170 | 1 | 1 | 2 | 2 | 132 | 3 | 0 | 2 | 329 |
| 12:45 PM - 1:00 PM | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 3 | 0 | 6 | 156 | 1 | 0 | 1 | 0 | 143 | 0 | 0 | 1 | 313 |

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----|----|---|----|-----|---|---|---|---|-----|----|---|---|-----|
| 2:00 PM - 2:15 PM | 2 | 0 | 0 | 0 | 0 | 7 | 0 | 4 | 4 | 0 | 3 | 131 | 4 | 0 | 3 | 0 | 150 | 8 | 2 | 1 | 309 |
| 2:15 PM - 2:30 PM | 3 | 0 | 0 | 0 | 0 | 6 | 0 | 8 | 7 | 0 | 14 | 166 | 2 | 0 | 1 | 0 | 157 | 7 | 2 | 2 | 363 |
| 2:30 PM - 2:45 PM | 4 | 0 | 0 | 0 | 0 | 8 | 0 | 7 | 4 | 0 | 3 | 157 | 2 | 0 | 4 | 1 | 157 | 5 | 1 | 3 | 344 |
| 2:45 PM - 3:00 PM | 2 | 0 | 1 | 1 | 0 | 1 | 0 | 3 | 3 | 0 | 4 | 154 | 5 | 0 | 1 | 0 | 147 | 5 | 0 | 3 | 322 |
| 3:00 PM - 3:15 PM | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 10 | 7 | 0 | 4 | 150 | 1 | 0 | 2 | 0 | 147 | 7 | 2 | 1 | 328 |
| 3:15 PM - 3:30 PM | 0 | 0 | 2 | 2 | 0 | 3 | 0 | 4 | 4 | 0 | 10 | 185 | 0 | 0 | 3 | 0 | 145 | 8 | 0 | 3 | 357 |
| 3:30 PM - 3:45 PM | 2 | 0 | 2 | 1 | 0 | 8 | 0 | 6 | 5 | 0 | 8 | 170 | 0 | 0 | 0 | 1 | 157 | 10 | 1 | 1 | 364 |
| 3:45 PM - 4:00 PM | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 11 | 11 | 0 | 5 | 158 | 6 | 0 | 3 | 1 | 165 | 5 | 0 | 1 | 355 |
| 4:00 PM - 4:15 PM | 6 | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 2 | 0 | 9 | 216 | 3 | 1 | 4 | 0 | 142 | 8 | 0 | 1 | 391 |
| 4:15 PM - 4:30 PM | 1 | 0 | 1 | 0 | 0 | 5 | 0 | 7 | 7 | 0 | 6 | 166 | 0 | 0 | 0 | 1 | 150 | 4 | 2 | 0 | 341 |
| 4:30 PM - 4:45 PM | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 3 | 2 | 0 | 11 | 166 | 5 | 0 | 1 | 1 | 153 | 4 | 1 | 4 | 369 |
| 4:45 PM - 5:00 PM | 4 | 0 | 1 | 1 | 0 | 6 | 0 | 8 | 5 | 1 | 14 | 175 | 2 | 0 | 1 | 1 | 149 | 9 | 1 | 0 | 369 |
| 5:00 PM - 5:15 PM | 2 | 0 | 0 | 0 | 0 | 6 | 0 | 9 | 8 | 0 | 6 | 210 | 2 | 0 | 1 | 1 | 166 | 9 | 2 | 0 | 411 |
| 5:15 PM - 5:30 PM | 5 | 0 | 1 | 0 | 0 | 8 | 1 | 7 | 5 | 0 | 14 | 231 | 1 | 0 | 0 | 0 | 183 | 8 | 0 | 2 | 459 |
| 5:30 PM - 5:45 PM | 2 | 1 | 0 | 0 | 0 | 7 | 0 | 2 | 1 | 1 | 12 | 219 | 2 | 0 | 1 | 0 | 157 | 7 | 0 | 1 | 409 |
| 5:45 PM - 6:00 PM | 3 | 0 | 0 | 0 | 0 | 5 | 0 | 8 | 7 | 1 | 12 | 175 | 0 | 0 | 1 | 0 | 172 | 3 | 0 | 2 | 378 |

- 7-9 AM Peak Hour: 7:30 AM - 8:30 AM
- 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
- 2-6 PM Peak Hour: 5:00 PM - 6:00 PM
- 4-6 PM Peak Hour: 5:00 PM - 6:00 PM



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LOCATION 11 Caldwell / Stonebrook

LATITUDE 36.298345

COUNTY Tulare

LONGITUDE -119.30516

COLLECTION DATE Wednesday, May 15, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 0 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 6 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

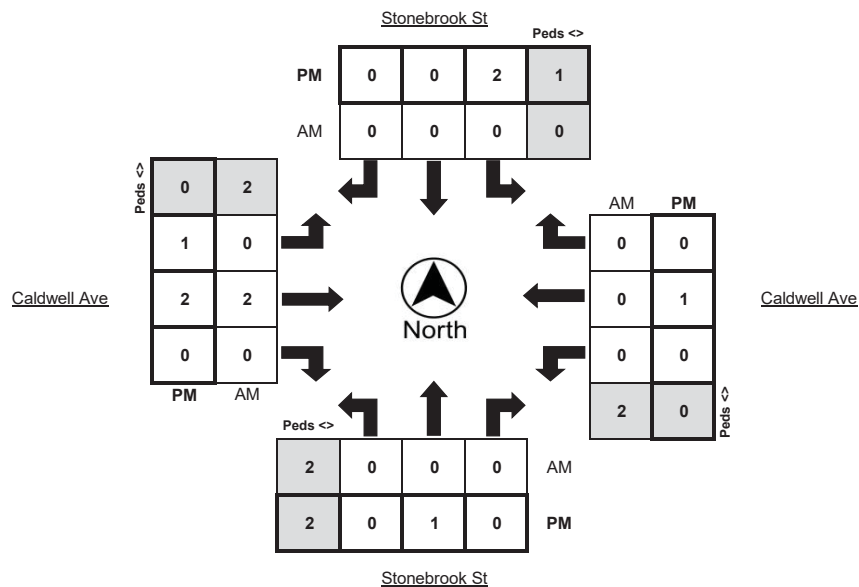
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 1 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | 3 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 3 | 4 | 4 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 2 | 2 | 4 | 8 | 7 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| 5:15 PM - 5:30 PM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 7 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 6 | 2 |
| 5:00 PM - 6:00 PM | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 7 |





Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 12 Cameron / County Center

LATITUDE 0

COUNTY Tulare

LONGITUDE 0

COLLECTION DATE Tuesday, May 7, 2019

WEATHER 0.0000

| Time | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Interval Total |
|-------------------|------------|------|-------|--------|------------|------|-------|--------|-----------|------|-------|--------|-----------|------|-------|--------|----------------|
| | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | |
| 7:00 AM - 7:15 AM | 0 | 4 | 2 | 0 | 27 | 21 | 0 | 2 | 0 | 0 | 0 | 0 | 6 | 0 | 16 | 0 | 76 |
| 7:15 AM - 7:30 AM | 0 | 10 | 2 | 0 | 19 | 24 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 23 | 0 | 83 |
| 7:30 AM - 7:45 AM | 0 | 17 | 6 | 0 | 23 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 27 | 0 | 119 |
| 7:45 AM - 8:00 AM | 0 | 24 | 4 | 1 | 40 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 42 | 0 | 165 |
| 8:00 AM - 8:15 AM | 0 | 28 | 5 | 0 | 57 | 53 | 0 | 1 | 0 | 0 | 0 | 0 | 15 | 0 | 23 | 0 | 181 |
| 8:15 AM - 8:30 AM | 0 | 37 | 3 | 0 | 58 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 30 | 1 | 153 |
| 8:30 AM - 8:45 AM | 0 | 17 | 4 | 0 | 28 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 25 | 0 | 95 |
| 8:45 AM - 9:00 AM | 0 | 20 | 4 | 1 | 34 | 13 | 0 | 1 | 0 | 0 | 0 | 0 | 6 | 0 | 26 | 0 | 103 |

| | | | | | | | | | | | | | | | | | |
|---------------------|---|----|----|---|----|----|---|---|---|---|---|---|----|---|----|---|-----|
| 11:00 AM - 11:15 AM | 0 | 18 | 2 | 0 | 44 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 37 | 1 | 129 |
| 11:15 AM - 11:30 AM | 0 | 24 | 5 | 0 | 47 | 25 | 0 | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 45 | 0 | 154 |
| 11:30 AM - 11:45 AM | 0 | 16 | 4 | 1 | 44 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 60 | 0 | 152 |
| 11:45 AM - 12:00 PM | 0 | 19 | 5 | 0 | 52 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 56 | 0 | 155 |
| 12:00 PM - 12:15 PM | 0 | 23 | 10 | 0 | 66 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 54 | 0 | 186 |
| 12:15 PM - 12:30 PM | 0 | 20 | 5 | 0 | 56 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 68 | 0 | 188 |
| 12:30 PM - 12:45 PM | 0 | 33 | 2 | 0 | 49 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 55 | 0 | 174 |
| 12:45 PM - 1:00 PM | 0 | 27 | 4 | 0 | 61 | 41 | 0 | 1 | 0 | 0 | 0 | 0 | 14 | 0 | 76 | 0 | 223 |

| | | | | | | | | | | | | | | | | | |
|-------------------|---|----|----|---|----|----|---|---|---|---|---|---|----|---|----|---|-----|
| 2:00 PM - 2:15 PM | 0 | 28 | 8 | 0 | 50 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 55 | 0 | 195 |
| 2:15 PM - 2:30 PM | 0 | 32 | 5 | 0 | 63 | 30 | 0 | 1 | 0 | 0 | 0 | 0 | 12 | 0 | 58 | 0 | 200 |
| 2:30 PM - 2:45 PM | 0 | 33 | 9 | 1 | 45 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 68 | 0 | 190 |
| 2:45 PM - 3:00 PM | 0 | 29 | 7 | 0 | 46 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 50 | 1 | 170 |
| 3:00 PM - 3:15 PM | 0 | 36 | 13 | 0 | 66 | 42 | 0 | 1 | 0 | 0 | 0 | 0 | 9 | 0 | 59 | 1 | 225 |
| 3:15 PM - 3:30 PM | 0 | 33 | 5 | 0 | 59 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 43 | 2 | 171 |
| 3:30 PM - 3:45 PM | 0 | 31 | 11 | 0 | 60 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 67 | 0 | 208 |
| 3:45 PM - 4:00 PM | 0 | 39 | 10 | 0 | 66 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 51 | 0 | 203 |
| 4:00 PM - 4:15 PM | 0 | 41 | 5 | 1 | 60 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 61 | 1 | 203 |
| 4:15 PM - 4:30 PM | 0 | 34 | 3 | 0 | 53 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 53 | 0 | 173 |
| 4:30 PM - 4:45 PM | 0 | 30 | 6 | 0 | 57 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 90 | 0 | 218 |
| 4:45 PM - 5:00 PM | 0 | 32 | 6 | 0 | 63 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 75 | 0 | 210 |
| 5:00 PM - 5:15 PM | 0 | 45 | 7 | 0 | 73 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 70 | 0 | 223 |
| 5:15 PM - 5:30 PM | 0 | 43 | 9 | 0 | 81 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 54 | 0 | 241 |
| 5:30 PM - 5:45 PM | 0 | 48 | 6 | 0 | 73 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 83 | 0 | 249 |
| 5:45 PM - 6:00 PM | 0 | 27 | 5 | 0 | 51 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 63 | 1 | 182 |

7-9 AM Peak Hour: 7:30 AM - 8:30 AM
 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
 2-6 PM Peak Hour: 4:45 PM - 5:45 PM
 4-6 PM Peak Hour: 4:45 PM - 5:45 PM



Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 12 Cameron / County Center

LATITUDE 36.293702

COUNTY Tulare

LONGITUDE -119.322383

COLLECTION DATE Tuesday, May 7, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| 7:15 AM - 7:30 AM | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 5 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 2 | 5 |

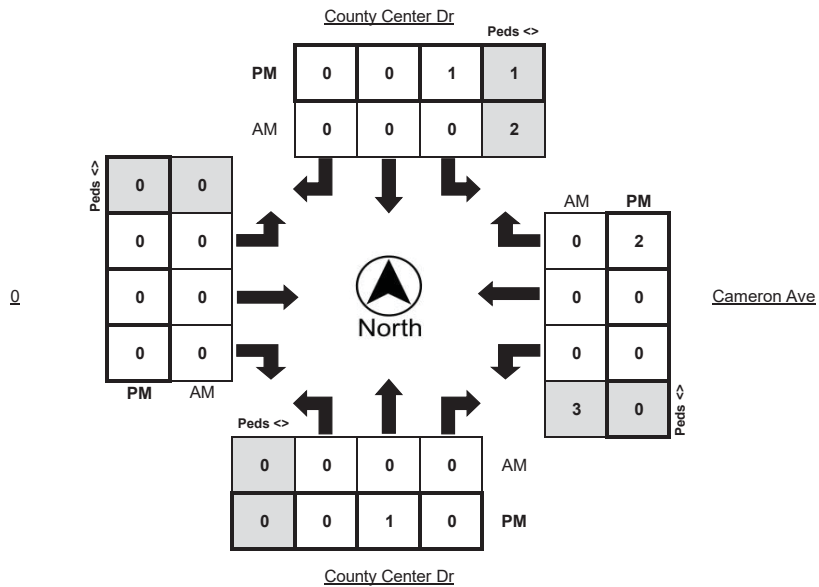
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 4 | 0 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 5 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 5:15 PM - 5:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 4 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|-------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:30 AM - 8:30 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 5 | 0 |
| 4:45 PM - 5:45 PM | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 4 |





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Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 13 Cameron / Mooney

LATITUDE 36.294514

COUNTY Tulare

LONGITUDE -119.313669

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | | Interval Total |
|-------------------|------------|------|-------|--------|--------|------------|------|-------|--------|--------|-----------|------|-------|--------|--------|-----------|------|-------|--------|--------|----------------|
| | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | |
| 7:00 AM - 7:15 AM | 1 | 58 | 16 | 3 | 1 | 12 | 63 | 10 | 1 | 2 | 7 | 24 | 2 | 0 | 0 | 21 | 12 | 24 | 6 | 3 | 250 |
| 7:15 AM - 7:30 AM | 0 | 93 | 11 | 2 | 2 | 13 | 64 | 5 | 1 | 4 | 8 | 22 | 4 | 0 | 0 | 19 | 28 | 22 | 2 | 2 | 289 |
| 7:30 AM - 7:45 AM | 3 | 126 | 25 | 4 | 6 | 10 | 102 | 6 | 1 | 6 | 11 | 19 | 7 | 1 | 2 | 25 | 48 | 21 | 6 | 2 | 403 |
| 7:45 AM - 8:00 AM | 1 | 137 | 20 | 2 | 3 | 20 | 100 | 6 | 0 | 5 | 16 | 36 | 1 | 1 | 1 | 24 | 55 | 17 | 2 | 3 | 433 |
| 8:00 AM - 8:15 AM | 3 | 132 | 25 | 8 | 2 | 14 | 86 | 10 | 3 | 4 | 19 | 45 | 3 | 1 | 0 | 22 | 36 | 26 | 9 | 2 | 421 |
| 8:15 AM - 8:30 AM | 1 | 124 | 20 | 4 | 4 | 33 | 91 | 9 | 4 | 2 | 18 | 45 | 2 | 1 | 3 | 21 | 25 | 21 | 7 | 3 | 410 |
| 8:30 AM - 8:45 AM | 7 | 116 | 17 | 2 | 5 | 25 | 83 | 13 | 0 | 3 | 13 | 28 | 3 | 3 | 0 | 23 | 13 | 41 | 15 | 0 | 382 |
| 8:45 AM - 9:00 AM | 4 | 142 | 15 | 1 | 8 | 39 | 97 | 12 | 2 | 6 | 18 | 19 | 2 | 1 | 1 | 14 | 20 | 29 | 5 | 1 | 411 |

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------|----|-----|----|----|---|----|-----|----|----|----|----|----|----|---|---|----|----|----|----|---|-----|
| 11:00 AM - 11:15 AM | 15 | 110 | 18 | 6 | 3 | 64 | 137 | 25 | 11 | 2 | 47 | 41 | 6 | 0 | 3 | 18 | 37 | 63 | 20 | 0 | 581 |
| 11:15 AM - 11:30 AM | 8 | 148 | 19 | 15 | 4 | 86 | 175 | 36 | 10 | 10 | 39 | 42 | 4 | 2 | 1 | 16 | 31 | 63 | 35 | 2 | 667 |
| 11:30 AM - 11:45 AM | 17 | 153 | 17 | 7 | 4 | 59 | 172 | 47 | 18 | 3 | 41 | 46 | 2 | 1 | 0 | 24 | 44 | 47 | 18 | 2 | 669 |
| 11:45 AM - 12:00 PM | 12 | 156 | 18 | 8 | 3 | 93 | 212 | 50 | 18 | 4 | 59 | 47 | 4 | 1 | 0 | 14 | 39 | 58 | 20 | 0 | 762 |
| 12:00 PM - 12:15 PM | 18 | 212 | 14 | 5 | 3 | 89 | 209 | 58 | 16 | 4 | 51 | 43 | 7 | 1 | 0 | 26 | 28 | 54 | 28 | 0 | 809 |
| 12:15 PM - 12:30 PM | 20 | 159 | 17 | 13 | 3 | 83 | 239 | 45 | 21 | 3 | 59 | 69 | 13 | 5 | 0 | 29 | 31 | 69 | 32 | 0 | 833 |
| 12:30 PM - 12:45 PM | 17 | 169 | 17 | 8 | 7 | 84 | 213 | 40 | 16 | 4 | 59 | 53 | 14 | 5 | 1 | 28 | 30 | 66 | 21 | 3 | 790 |
| 12:45 PM - 1:00 PM | 14 | 144 | 14 | 7 | 4 | 65 | 231 | 42 | 16 | 5 | 69 | 78 | 4 | 1 | 0 | 27 | 35 | 46 | 15 | 1 | 769 |

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|----|-----|----|----|---|----|-----|----|----|---|----|----|----|---|---|----|----|----|----|---|-----|
| 2:00 PM - 2:15 PM | 11 | 136 | 16 | 3 | 4 | 76 | 218 | 29 | 5 | 6 | 32 | 52 | 5 | 0 | 0 | 28 | 34 | 44 | 11 | 0 | 681 |
| 2:15 PM - 2:30 PM | 13 | 150 | 20 | 4 | 2 | 49 | 200 | 28 | 10 | 4 | 43 | 55 | 5 | 1 | 0 | 17 | 30 | 45 | 25 | 0 | 655 |
| 2:30 PM - 2:45 PM | 19 | 140 | 21 | 7 | 2 | 74 | 177 | 25 | 18 | 5 | 56 | 58 | 3 | 1 | 0 | 22 | 44 | 62 | 20 | 0 | 701 |
| 2:45 PM - 3:00 PM | 12 | 191 | 31 | 15 | 1 | 61 | 198 | 35 | 11 | 2 | 39 | 65 | 3 | 1 | 0 | 19 | 42 | 51 | 13 | 2 | 747 |
| 3:00 PM - 3:15 PM | 10 | 136 | 18 | 5 | 1 | 57 | 179 | 23 | 7 | 5 | 36 | 50 | 5 | 4 | 0 | 18 | 50 | 42 | 13 | 0 | 624 |
| 3:15 PM - 3:30 PM | 13 | 140 | 15 | 4 | 3 | 60 | 184 | 22 | 7 | 3 | 41 | 55 | 9 | 3 | 1 | 26 | 46 | 52 | 15 | 0 | 663 |
| 3:30 PM - 3:45 PM | 17 | 172 | 20 | 6 | 3 | 62 | 175 | 33 | 8 | 3 | 31 | 59 | 12 | 4 | 0 | 28 | 31 | 53 | 17 | 1 | 693 |
| 3:45 PM - 4:00 PM | 16 | 158 | 25 | 7 | 0 | 80 | 196 | 33 | 10 | 3 | 47 | 76 | 6 | 2 | 1 | 19 | 27 | 38 | 9 | 2 | 721 |
| 4:00 PM - 4:15 PM | 13 | 182 | 28 | 7 | 2 | 64 | 217 | 38 | 4 | 3 | 35 | 68 | 5 | 1 | 0 | 22 | 32 | 45 | 7 | 1 | 749 |
| 4:15 PM - 4:30 PM | 10 | 130 | 23 | 6 | 3 | 74 | 181 | 38 | 17 | 3 | 41 | 64 | 8 | 3 | 0 | 30 | 42 | 63 | 11 | 0 | 704 |
| 4:30 PM - 4:45 PM | 15 | 200 | 22 | 4 | 2 | 82 | 215 | 33 | 9 | 4 | 53 | 59 | 11 | 5 | 0 | 23 | 43 | 47 | 22 | 0 | 803 |
| 4:45 PM - 5:00 PM | 15 | 164 | 31 | 4 | 2 | 57 | 201 | 40 | 12 | 2 | 35 | 71 | 9 | 1 | 0 | 38 | 38 | 56 | 14 | 0 | 755 |
| 5:00 PM - 5:15 PM | 14 | 154 | 31 | 6 | 3 | 79 | 237 | 40 | 12 | 2 | 59 | 67 | 12 | 3 | 0 | 32 | 34 | 47 | 16 | 1 | 806 |
| 5:15 PM - 5:30 PM | 16 | 207 | 36 | 11 | 4 | 69 | 187 | 32 | 5 | 3 | 32 | 64 | 9 | 2 | 0 | 40 | 40 | 56 | 13 | 0 | 788 |
| 5:30 PM - 5:45 PM | 14 | 176 | 30 | 10 | 1 | 80 | 207 | 46 | 21 | 3 | 39 | 67 | 8 | 2 | 1 | 30 | 35 | 61 | 23 | 0 | 793 |
| 5:45 PM - 6:00 PM | 15 | 185 | 31 | 12 | 1 | 54 | 192 | 29 | 6 | 3 | 47 | 50 | 5 | 0 | 0 | 25 | 41 | 51 | 19 | 0 | 725 |

- 7-9 AM Peak Hour: 7:30 AM - 8:30 AM
- 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
- 2-6 PM Peak Hour: 4:30 PM - 5:30 PM
- 4-6 PM Peak Hour: 4:30 PM - 5:30 PM



Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 13 Cameron / Mooney

LATITUDE 36.294514

COUNTY Tulare

LONGITUDE -119.313669

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 2 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 3 | 3 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 2 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 5 | 6 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 3 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 6 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 2 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 0 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 5 | 13 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 12:15 PM - 12:30 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 3 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 |
| HOURLY TOTAL | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 4 | 0 | 1 | 2 | 0 | 7 | 8 |

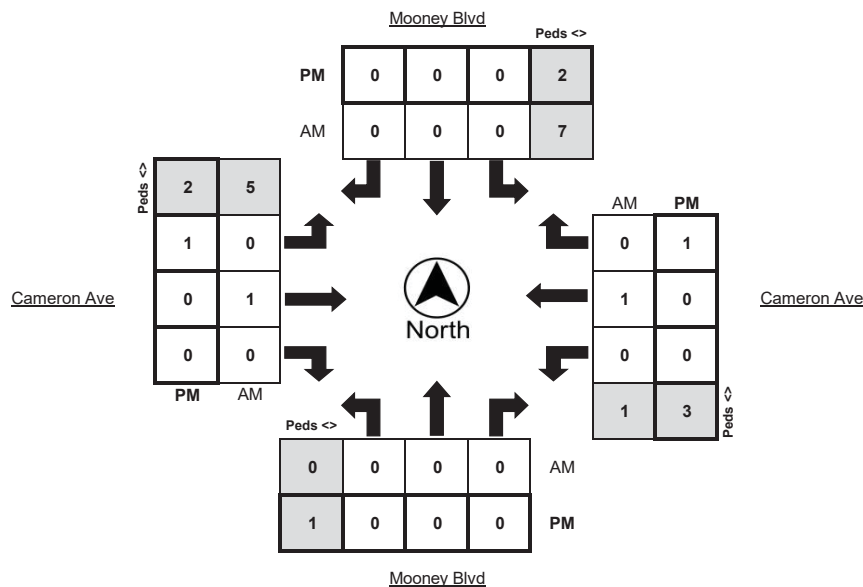
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 2:30 PM - 2:45 PM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 5 | 1 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 5 | 1 |
| HOURLY TOTAL | 0 | 1 | 0 | 3 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 6 | 14 | 4 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 6 | 1 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 5 | 2 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 2 |
| HOURLY TOTAL | 0 | 0 | 0 | 5 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 1 | 2 | 2 | 15 | 5 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 4:00 PM - 4:15 PM | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 2 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 4 | 1 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 1 |
| HOURLY TOTAL | 0 | 1 | 0 | 4 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 1 | 10 | 4 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 4 | 0 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 1 | 1 | 10 | 1 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 5 | 13 | 2 |
| 12:00 PM - 1:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 3 | 0 | 0 | 1 | 2 | 8 | 2 |





Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 14 Cameron / Stonebook

LATITUDE 0

COUNTY Tulare

LONGITUDE 0

COLLECTION DATE Tuesday, May 7, 2019

WEATHER 0.0000

| Time | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Interval |
|-------------------|------------|------|-------|--------|------------|------|-------|--------|-----------|------|-------|--------|-----------|------|-------|--------|----------|
| | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | |
| 7:00 AM - 7:15 AM | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 30 | 70 | 0 | 0 | 149 |
| 7:15 AM - 7:30 AM | 1 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 1 | 0 | 47 | 78 | 0 | 1 | 188 |
| 7:30 AM - 7:45 AM | 2 | 0 | 25 | 1 | 0 | 0 | 0 | 0 | 0 | 52 | 1 | 0 | 72 | 85 | 0 | 2 | 237 |
| 7:45 AM - 8:00 AM | 0 | 0 | 38 | 1 | 0 | 0 | 0 | 0 | 0 | 58 | 3 | 1 | 104 | 111 | 0 | 3 | 314 |
| 8:00 AM - 8:15 AM | 1 | 0 | 41 | 1 | 0 | 0 | 0 | 0 | 0 | 61 | 0 | 3 | 75 | 87 | 0 | 1 | 265 |
| 8:15 AM - 8:30 AM | 2 | 0 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 1 | 25 | 73 | 0 | 1 | 223 |
| 8:30 AM - 8:45 AM | 0 | 0 | 33 | 1 | 0 | 0 | 0 | 0 | 0 | 58 | 0 | 0 | 21 | 65 | 0 | 1 | 177 |
| 8:45 AM - 9:00 AM | 1 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 1 | 28 | 68 | 0 | 0 | 164 |

| | | | | | | | | | | | | | | | | | |
|---------------------|---|---|----|---|---|---|---|---|---|-----|---|---|----|-----|---|---|-----|
| 11:00 AM - 11:15 AM | 4 | 0 | 25 | 1 | 0 | 0 | 0 | 0 | 0 | 89 | 3 | 0 | 37 | 97 | 0 | 0 | 255 |
| 11:15 AM - 11:30 AM | 1 | 0 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 71 | 8 | 0 | 28 | 118 | 0 | 1 | 270 |
| 11:30 AM - 11:45 AM | 2 | 0 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 81 | 3 | 1 | 39 | 96 | 0 | 1 | 269 |
| 11:45 AM - 12:00 PM | 1 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 1 | 0 | 35 | 101 | 0 | 1 | 265 |
| 12:00 PM - 12:15 PM | 4 | 0 | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 96 | 3 | 0 | 54 | 108 | 0 | 2 | 316 |
| 12:15 PM - 12:30 PM | 5 | 0 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 108 | 6 | 0 | 39 | 114 | 0 | 0 | 320 |
| 12:30 PM - 12:45 PM | 3 | 0 | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 116 | 2 | 0 | 44 | 109 | 0 | 4 | 333 |
| 12:45 PM - 1:00 PM | 6 | 0 | 46 | 1 | 0 | 0 | 0 | 0 | 0 | 117 | 4 | 1 | 42 | 112 | 0 | 0 | 327 |

| | | | | | | | | | | | | | | | | | |
|-------------------|---|---|----|---|---|---|---|---|---|-----|---|---|----|-----|---|---|-----|
| 2:00 PM - 2:15 PM | 2 | 0 | 55 | 1 | 0 | 0 | 0 | 0 | 0 | 108 | 3 | 1 | 44 | 103 | 0 | 0 | 315 |
| 2:15 PM - 2:30 PM | 5 | 0 | 58 | 1 | 0 | 0 | 0 | 0 | 0 | 146 | 4 | 2 | 49 | 92 | 0 | 0 | 354 |
| 2:30 PM - 2:45 PM | 3 | 0 | 59 | 2 | 0 | 0 | 0 | 0 | 0 | 128 | 3 | 1 | 48 | 90 | 0 | 2 | 331 |
| 2:45 PM - 3:00 PM | 1 | 0 | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 107 | 2 | 0 | 35 | 91 | 0 | 2 | 297 |
| 3:00 PM - 3:15 PM | 4 | 0 | 75 | 1 | 0 | 0 | 0 | 0 | 0 | 134 | 4 | 2 | 48 | 105 | 0 | 2 | 370 |
| 3:15 PM - 3:30 PM | 0 | 1 | 64 | 0 | 0 | 0 | 0 | 0 | 0 | 123 | 2 | 1 | 46 | 111 | 0 | 0 | 347 |
| 3:30 PM - 3:45 PM | 1 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 129 | 5 | 1 | 29 | 124 | 0 | 2 | 338 |
| 3:45 PM - 4:00 PM | 1 | 0 | 57 | 0 | 0 | 0 | 0 | 0 | 0 | 120 | 2 | 0 | 42 | 119 | 0 | 2 | 341 |
| 4:00 PM - 4:15 PM | 1 | 0 | 64 | 0 | 1 | 0 | 0 | 0 | 0 | 138 | 5 | 1 | 35 | 118 | 0 | 0 | 362 |
| 4:15 PM - 4:30 PM | 4 | 0 | 56 | 1 | 0 | 0 | 0 | 0 | 0 | 133 | 8 | 2 | 58 | 112 | 0 | 0 | 371 |
| 4:30 PM - 4:45 PM | 1 | 0 | 69 | 0 | 0 | 0 | 0 | 0 | 0 | 153 | 3 | 1 | 39 | 107 | 0 | 1 | 372 |
| 4:45 PM - 5:00 PM | 1 | 0 | 54 | 0 | 0 | 0 | 0 | 0 | 0 | 132 | 0 | 0 | 44 | 118 | 0 | 0 | 349 |
| 5:00 PM - 5:15 PM | 0 | 0 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 135 | 3 | 0 | 45 | 137 | 0 | 1 | 375 |
| 5:15 PM - 5:30 PM | 2 | 0 | 68 | 0 | 0 | 0 | 0 | 0 | 0 | 149 | 1 | 0 | 54 | 122 | 0 | 0 | 396 |
| 5:30 PM - 5:45 PM | 2 | 0 | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 143 | 2 | 0 | 33 | 133 | 0 | 2 | 393 |
| 5:45 PM - 6:00 PM | 2 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 160 | 5 | 0 | 35 | 125 | 0 | 0 | 379 |

7-9 AM Peak Hour: 7:30 AM - 8:30 AM
 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
 2-6 PM Peak Hour: 5:00 PM - 6:00 PM
 4-6 PM Peak Hour: 5:00 PM - 6:00 PM



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Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 14 Cameron / Stonebrook

LATITUDE 36.294026

COUNTY Tulare

LONGITUDE -119.305272

COLLECTION DATE Tuesday, May 7, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---|
| 11:00 AM - 11:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:15 AM - 11:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| HOURLY TOTAL | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 4 |
| HOURLY TOTAL | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 4 | |

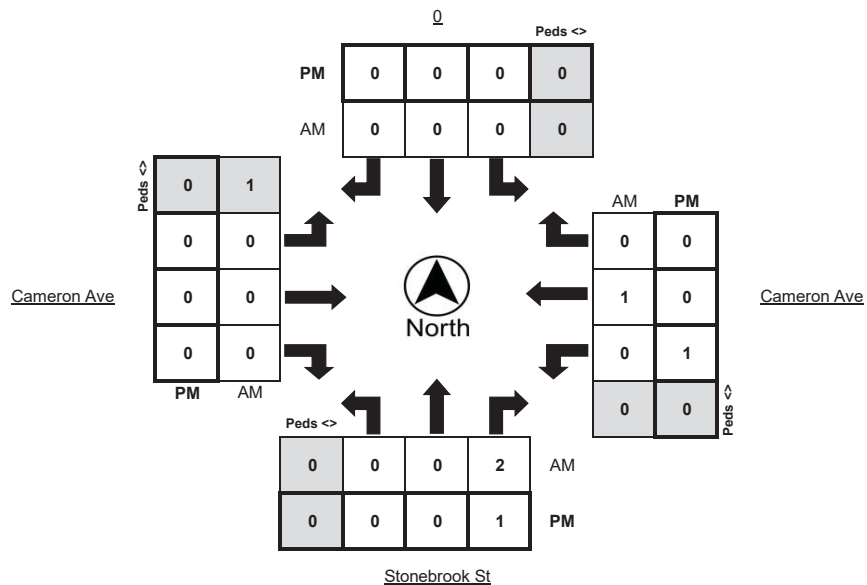
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM - 4:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 3 |
| 5:00 PM - 6:00 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |





Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Vehicles)

Prepared For:
Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 15 Cameron / West LATITUDE 0
 COUNTY Tulare LONGITUDE 0
 COLLECTION DATE Tuesday, May 7, 2019 WEATHER 0.0000

| Time | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Interval Total |
|-------------------|------------|------|-------|--------|------------|------|-------|--------|-----------|------|-------|--------|-----------|------|-------|--------|----------------|
| | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | |
| 7:00 AM - 7:15 AM | 4 | 1 | 2 | 0 | 0 | 1 | 23 | 0 | 5 | 39 | 0 | 0 | 0 | 46 | 0 | 0 | 121 |
| 7:15 AM - 7:30 AM | 5 | 3 | 1 | 0 | 0 | 0 | 18 | 0 | 10 | 44 | 0 | 0 | 0 | 82 | 1 | 0 | 164 |
| 7:30 AM - 7:45 AM | 6 | 3 | 1 | 0 | 3 | 0 | 27 | 0 | 18 | 65 | 0 | 0 | 0 | 73 | 2 | 1 | 198 |
| 7:45 AM - 8:00 AM | 9 | 2 | 3 | 0 | 0 | 1 | 46 | 1 | 11 | 84 | 3 | 1 | 0 | 100 | 0 | 1 | 259 |
| 8:00 AM - 8:15 AM | 6 | 1 | 2 | 0 | 0 | 1 | 26 | 0 | 12 | 73 | 2 | 4 | 0 | 75 | 1 | 0 | 199 |
| 8:15 AM - 8:30 AM | 3 | 0 | 2 | 0 | 0 | 1 | 16 | 0 | 13 | 83 | 4 | 0 | 0 | 67 | 2 | 1 | 191 |
| 8:30 AM - 8:45 AM | 1 | 1 | 0 | 0 | 1 | 0 | 13 | 0 | 7 | 74 | 0 | 1 | 0 | 59 | 1 | 1 | 157 |
| 8:45 AM - 9:00 AM | 3 | 0 | 1 | 0 | 0 | 1 | 14 | 0 | 10 | 49 | 2 | 0 | 0 | 58 | 2 | 0 | 140 |

| | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|----|---|----|-----|---|---|---|-----|---|---|-----|
| 11:00 AM - 11:15 AM | 1 | 1 | 0 | 0 | 0 | 0 | 19 | 0 | 14 | 92 | 1 | 0 | 1 | 94 | 1 | 0 | 224 |
| 11:15 AM - 11:30 AM | 1 | 1 | 1 | 1 | 0 | 2 | 18 | 1 | 15 | 105 | 0 | 0 | 0 | 110 | 2 | 1 | 255 |
| 11:30 AM - 11:45 AM | 2 | 1 | 0 | 0 | 0 | 0 | 19 | 0 | 20 | 101 | 1 | 0 | 1 | 101 | 0 | 2 | 246 |
| 11:45 AM - 12:00 PM | 4 | 2 | 0 | 0 | 0 | 0 | 20 | 0 | 11 | 113 | 1 | 0 | 0 | 96 | 0 | 1 | 247 |
| 12:00 PM - 12:15 PM | 1 | 1 | 0 | 0 | 0 | 2 | 26 | 0 | 21 | 116 | 1 | 0 | 3 | 102 | 0 | 2 | 273 |
| 12:15 PM - 12:30 PM | 2 | 0 | 1 | 0 | 1 | 0 | 27 | 0 | 21 | 135 | 2 | 1 | 0 | 102 | 0 | 0 | 291 |
| 12:30 PM - 12:45 PM | 5 | 1 | 0 | 0 | 0 | 1 | 25 | 2 | 21 | 128 | 4 | 0 | 2 | 109 | 1 | 0 | 297 |
| 12:45 PM - 1:00 PM | 4 | 1 | 0 | 0 | 0 | 0 | 28 | 1 | 24 | 138 | 1 | 1 | 0 | 96 | 0 | 0 | 292 |

| | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|----|---|----|-----|---|---|---|-----|---|---|-----|
| 2:00 PM - 2:15 PM | 1 | 0 | 1 | 0 | 0 | 1 | 24 | 0 | 26 | 136 | 1 | 1 | 2 | 97 | 0 | 0 | 289 |
| 2:15 PM - 2:30 PM | 2 | 1 | 1 | 0 | 0 | 3 | 22 | 0 | 26 | 134 | 2 | 0 | 0 | 94 | 0 | 0 | 285 |
| 2:30 PM - 2:45 PM | 6 | 1 | 0 | 0 | 2 | 3 | 24 | 0 | 16 | 146 | 2 | 1 | 0 | 92 | 0 | 0 | 292 |
| 2:45 PM - 3:00 PM | 1 | 1 | 0 | 0 | 0 | 2 | 24 | 0 | 19 | 133 | 2 | 2 | 0 | 72 | 1 | 0 | 255 |
| 3:00 PM - 3:15 PM | 2 | 0 | 3 | 0 | 0 | 1 | 19 | 1 | 36 | 156 | 2 | 1 | 1 | 100 | 1 | 0 | 321 |
| 3:15 PM - 3:30 PM | 2 | 2 | 3 | 0 | 2 | 4 | 30 | 0 | 20 | 155 | 2 | 1 | 1 | 96 | 1 | 0 | 318 |
| 3:30 PM - 3:45 PM | 1 | 0 | 1 | 0 | 0 | 6 | 37 | 0 | 18 | 113 | 4 | 2 | 3 | 95 | 0 | 0 | 278 |
| 3:45 PM - 4:00 PM | 3 | 1 | 0 | 0 | 1 | 1 | 25 | 0 | 29 | 155 | 3 | 0 | 0 | 114 | 0 | 1 | 332 |
| 4:00 PM - 4:15 PM | 3 | 0 | 0 | 0 | 0 | 2 | 25 | 0 | 38 | 139 | 5 | 0 | 1 | 106 | 0 | 0 | 319 |
| 4:15 PM - 4:30 PM | 1 | 0 | 0 | 0 | 1 | 1 | 28 | 0 | 24 | 142 | 6 | 0 | 0 | 122 | 3 | 0 | 328 |
| 4:30 PM - 4:45 PM | 0 | 1 | 3 | 0 | 0 | 0 | 30 | 0 | 30 | 167 | 1 | 1 | 2 | 97 | 1 | 0 | 332 |
| 4:45 PM - 5:00 PM | 2 | 4 | 2 | 0 | 1 | 1 | 21 | 0 | 32 | 137 | 3 | 0 | 3 | 105 | 1 | 0 | 312 |
| 5:00 PM - 5:15 PM | 3 | 2 | 0 | 0 | 0 | 1 | 32 | 0 | 27 | 146 | 2 | 0 | 4 | 134 | 3 | 0 | 354 |
| 5:15 PM - 5:30 PM | 3 | 2 | 0 | 0 | 3 | 2 | 41 | 0 | 35 | 159 | 4 | 0 | 1 | 118 | 1 | 0 | 369 |
| 5:30 PM - 5:45 PM | 0 | 1 | 0 | 0 | 0 | 3 | 31 | 0 | 42 | 162 | 5 | 0 | 2 | 114 | 1 | 0 | 361 |
| 5:45 PM - 6:00 PM | 2 | 1 | 2 | 0 | 3 | 1 | 32 | 0 | 18 | 158 | 6 | 0 | 2 | 112 | 4 | 0 | 341 |

7-9 AM Peak Hour: 7:30 AM - 8:30 AM
 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
 2-6 PM Peak Hour: 5:00 PM - 6:00 PM
 4-6 PM Peak Hour: 5:00 PM - 6:00 PM



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 310 N. Irwin Street - Suite 20
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Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 15 Cameron / West

LATITUDE 36.293725

COUNTY Tulare

LONGITUDE -119.296237

COLLECTION DATE Tuesday, May 7, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | 4 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

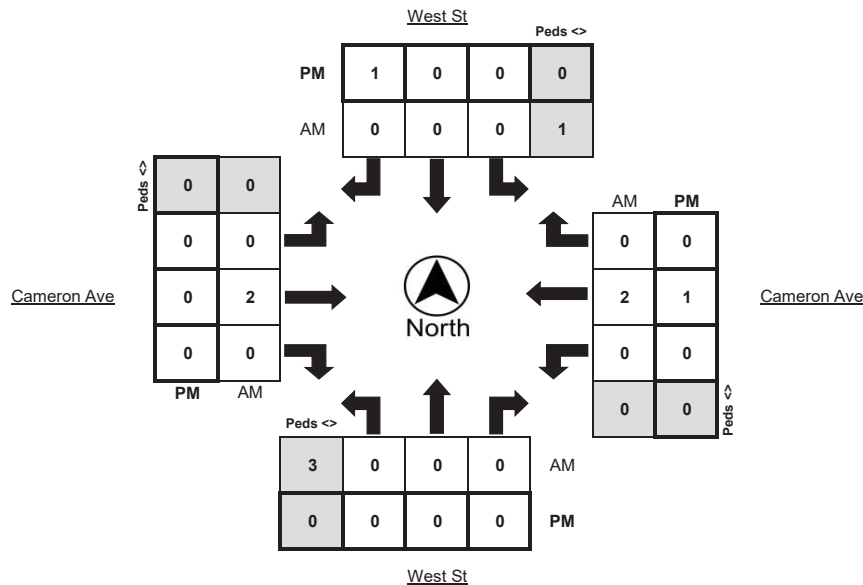
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | 4 |
| 5:00 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |





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 800-975-6938 Phone/Fax
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Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 16 Visalia Parkway / Demaree

LATITUDE 36.29122

COUNTY Tulare

LONGITUDE -119.331446

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | | Interval Total |
|-------------------|------------|------|-------|--------|--------|------------|------|-------|--------|--------|-----------|------|-------|--------|--------|-----------|------|-------|--------|--------|----------------|
| | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | |
| 7:00 AM - 7:15 AM | 9 | 65 | 11 | 4 | 1 | 11 | 56 | 1 | 0 | 2 | 4 | 18 | 13 | 3 | 0 | 18 | 21 | 3 | 0 | 0 | 230 |
| 7:15 AM - 7:30 AM | 3 | 71 | 10 | 0 | 0 | 5 | 103 | 3 | 0 | 2 | 7 | 25 | 20 | 2 | 2 | 22 | 27 | 8 | 0 | 0 | 304 |
| 7:30 AM - 7:45 AM | 13 | 91 | 6 | 0 | 0 | 18 | 118 | 11 | 0 | 1 | 6 | 35 | 26 | 5 | 0 | 13 | 30 | 3 | 0 | 2 | 370 |
| 7:45 AM - 8:00 AM | 15 | 150 | 16 | 0 | 1 | 21 | 115 | 13 | 0 | 1 | 10 | 83 | 17 | 2 | 0 | 19 | 57 | 22 | 4 | 0 | 538 |
| 8:00 AM - 8:15 AM | 22 | 159 | 20 | 6 | 1 | 29 | 90 | 24 | 2 | 0 | 12 | 101 | 14 | 3 | 1 | 17 | 81 | 18 | 6 | 0 | 587 |
| 8:15 AM - 8:30 AM | 6 | 104 | 17 | 4 | 0 | 21 | 80 | 7 | 2 | 1 | 11 | 56 | 17 | 2 | 0 | 12 | 46 | 25 | 5 | 1 | 402 |
| 8:30 AM - 8:45 AM | 7 | 106 | 13 | 0 | 0 | 20 | 66 | 3 | 0 | 0 | 3 | 36 | 10 | 0 | 1 | 14 | 28 | 16 | 4 | 1 | 322 |
| 8:45 AM - 9:00 AM | 7 | 113 | 23 | 1 | 0 | 22 | 68 | 4 | 0 | 1 | 10 | 28 | 7 | 0 | 0 | 4 | 17 | 9 | 1 | 0 | 312 |

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------|----|-----|----|---|---|----|-----|---|---|---|---|----|----|---|---|----|----|----|---|---|-----|
| 11:00 AM - 11:15 AM | 11 | 55 | 15 | 4 | 0 | 20 | 71 | 6 | 0 | 0 | 6 | 31 | 6 | 0 | 1 | 7 | 26 | 17 | 3 | 0 | 271 |
| 11:15 AM - 11:30 AM | 4 | 77 | 13 | 4 | 1 | 21 | 66 | 4 | 0 | 0 | 3 | 29 | 6 | 1 | 1 | 8 | 24 | 16 | 5 | 1 | 271 |
| 11:30 AM - 11:45 AM | 9 | 68 | 8 | 0 | 0 | 26 | 67 | 2 | 0 | 2 | 4 | 39 | 4 | 0 | 0 | 14 | 33 | 30 | 3 | 0 | 304 |
| 11:45 AM - 12:00 PM | 4 | 76 | 27 | 3 | 1 | 26 | 70 | 9 | 1 | 1 | 7 | 34 | 4 | 0 | 0 | 19 | 29 | 24 | 7 | 2 | 329 |
| 12:00 PM - 12:15 PM | 8 | 105 | 18 | 1 | 2 | 31 | 97 | 9 | 1 | 4 | 6 | 39 | 5 | 0 | 1 | 13 | 32 | 28 | 2 | 1 | 391 |
| 12:15 PM - 12:30 PM | 5 | 79 | 15 | 4 | 1 | 23 | 104 | 4 | 0 | 1 | 5 | 29 | 6 | 2 | 0 | 9 | 39 | 15 | 2 | 0 | 333 |
| 12:30 PM - 12:45 PM | 6 | 69 | 17 | 5 | 2 | 22 | 100 | 8 | 0 | 1 | 4 | 42 | 10 | 1 | 0 | 23 | 33 | 20 | 4 | 0 | 354 |
| 12:45 PM - 1:00 PM | 6 | 101 | 16 | 3 | 0 | 27 | 75 | 6 | 0 | 0 | 7 | 37 | 6 | 0 | 0 | 21 | 33 | 37 | 1 | 0 | 372 |

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|----|-----|----|----|---|----|-----|----|---|---|----|----|----|---|---|----|----|----|----|---|-----|
| 2:00 PM - 2:15 PM | 4 | 79 | 18 | 0 | 1 | 20 | 103 | 10 | 2 | 1 | 14 | 43 | 8 | 0 | 0 | 13 | 35 | 15 | 7 | 0 | 362 |
| 2:15 PM - 2:30 PM | 4 | 76 | 10 | 3 | 1 | 38 | 123 | 18 | 1 | 3 | 4 | 39 | 10 | 4 | 0 | 26 | 54 | 31 | 13 | 2 | 433 |
| 2:30 PM - 2:45 PM | 6 | 66 | 13 | 4 | 0 | 12 | 96 | 15 | 5 | 3 | 6 | 33 | 7 | 4 | 1 | 14 | 48 | 18 | 4 | 1 | 334 |
| 2:45 PM - 3:00 PM | 12 | 133 | 16 | 4 | 1 | 13 | 89 | 6 | 4 | 0 | 8 | 45 | 12 | 3 | 0 | 16 | 39 | 19 | 2 | 2 | 408 |
| 3:00 PM - 3:15 PM | 11 | 110 | 18 | 6 | 1 | 22 | 97 | 17 | 5 | 1 | 4 | 42 | 7 | 1 | 0 | 20 | 72 | 27 | 5 | 2 | 447 |
| 3:15 PM - 3:30 PM | 7 | 107 | 18 | 3 | 0 | 27 | 88 | 17 | 2 | 2 | 10 | 40 | 7 | 1 | 2 | 11 | 58 | 22 | 3 | 0 | 412 |
| 3:30 PM - 3:45 PM | 11 | 101 | 19 | 2 | 0 | 23 | 82 | 9 | 1 | 1 | 8 | 44 | 7 | 2 | 0 | 20 | 53 | 22 | 3 | 0 | 399 |
| 3:45 PM - 4:00 PM | 7 | 96 | 20 | 5 | 1 | 28 | 107 | 14 | 3 | 0 | 18 | 37 | 12 | 5 | 0 | 18 | 42 | 27 | 9 | 2 | 426 |
| 4:00 PM - 4:15 PM | 9 | 123 | 11 | 9 | 0 | 19 | 104 | 13 | 0 | 2 | 6 | 33 | 9 | 4 | 0 | 32 | 49 | 20 | 3 | 0 | 428 |
| 4:15 PM - 4:30 PM | 15 | 98 | 17 | 2 | 2 | 20 | 99 | 11 | 2 | 1 | 8 | 59 | 8 | 3 | 0 | 25 | 41 | 29 | 9 | 2 | 430 |
| 4:30 PM - 4:45 PM | 17 | 132 | 18 | 3 | 0 | 25 | 120 | 8 | 1 | 1 | 4 | 48 | 10 | 1 | 0 | 26 | 54 | 29 | 5 | 0 | 491 |
| 4:45 PM - 5:00 PM | 8 | 124 | 30 | 6 | 1 | 23 | 104 | 13 | 1 | 0 | 5 | 49 | 14 | 2 | 0 | 15 | 47 | 34 | 9 | 0 | 466 |
| 5:00 PM - 5:15 PM | 22 | 126 | 26 | 5 | 0 | 24 | 137 | 16 | 1 | 0 | 3 | 56 | 13 | 7 | 0 | 28 | 45 | 33 | 8 | 1 | 529 |
| 5:15 PM - 5:30 PM | 14 | 111 | 35 | 16 | 0 | 38 | 114 | 10 | 0 | 0 | 5 | 70 | 11 | 1 | 1 | 22 | 56 | 26 | 7 | 0 | 512 |
| 5:30 PM - 5:45 PM | 12 | 114 | 24 | 5 | 1 | 24 | 132 | 10 | 0 | 0 | 3 | 49 | 11 | 3 | 1 | 27 | 74 | 25 | 8 | 0 | 505 |
| 5:45 PM - 6:00 PM | 19 | 119 | 31 | 9 | 3 | 17 | 94 | 14 | 2 | 0 | 5 | 44 | 12 | 5 | 1 | 17 | 49 | 30 | 6 | 0 | 451 |

7-9 AM Peak Hour: 7:30 AM - 8:30 AM
 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
 2-6 PM Peak Hour: 4:45 PM - 5:45 PM
 4-6 PM Peak Hour: 4:45 PM - 5:45 PM



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 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
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Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 16 Visalia Parkway / Demaree

LATITUDE 36.29122

COUNTY Tulare

LONGITUDE -119.331446

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |

| | | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 8:15 AM - 8:30 AM | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |

| | | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

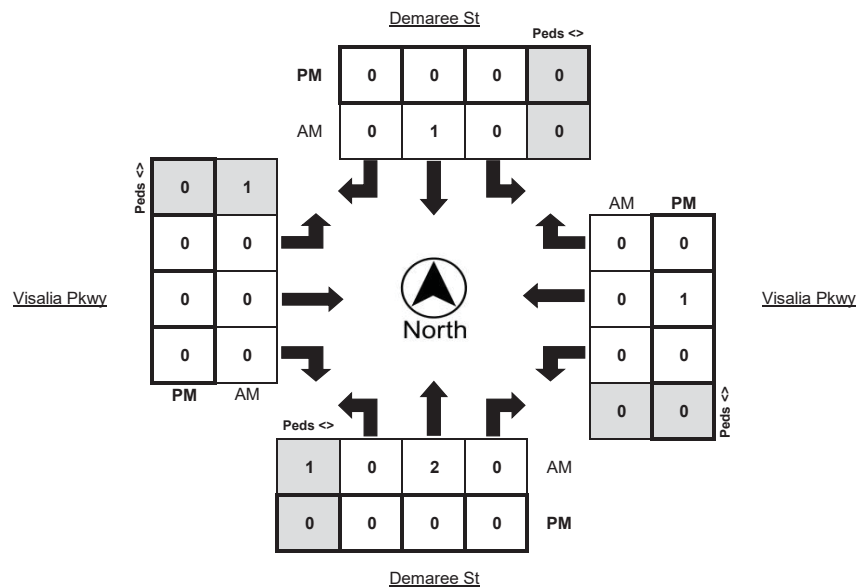
| | | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:45 PM - 3:00 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| HOURLY TOTAL | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |

| | | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |

| | | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|-------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:30 AM - 8:30 AM | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| 4:45 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |





Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Vehicles)

Prepared For:
Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 17 Visalia Parkway / Dans LATITUDE 0
 COUNTY Tulare LONGITUDE 0
 COLLECTION DATE Tuesday, May 7, 2019 WEATHER 0.0000

| Time | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Interval Total |
|-------------------|------------|------|-------|--------|------------|------|-------|--------|-----------|------|-------|--------|-----------|------|-------|--------|----------------|
| | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | |
| 7:00 AM - 7:15 AM | 1 | 0 | 0 | 0 | 3 | 0 | 2 | 0 | 2 | 27 | 0 | 1 | 0 | 42 | 0 | 0 | 77 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 8 | 31 | 0 | 1 | 0 | 44 | 2 | 0 | 88 |
| 7:30 AM - 7:45 AM | 0 | 0 | 1 | 0 | 8 | 0 | 19 | 1 | 20 | 54 | 1 | 1 | 0 | 51 | 18 | 0 | 172 |
| 7:45 AM - 8:00 AM | 1 | 0 | 1 | 0 | 8 | 0 | 32 | 0 | 58 | 72 | 1 | 2 | 1 | 71 | 29 | 0 | 274 |
| 8:00 AM - 8:15 AM | 3 | 0 | 1 | 2 | 10 | 0 | 37 | 0 | 62 | 75 | 1 | 0 | 0 | 80 | 37 | 0 | 306 |
| 8:15 AM - 8:30 AM | 1 | 0 | 0 | 0 | 15 | 0 | 36 | 0 | 20 | 67 | 0 | 0 | 0 | 61 | 12 | 0 | 212 |
| 8:30 AM - 8:45 AM | 1 | 0 | 0 | 0 | 4 | 0 | 7 | 0 | 4 | 53 | 0 | 1 | 0 | 40 | 2 | 2 | 111 |
| 8:45 AM - 9:00 AM | 0 | 1 | 1 | 1 | 6 | 1 | 2 | 1 | 6 | 54 | 0 | 1 | 1 | 24 | 1 | 1 | 97 |

| | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|----|---|----|---|----|----|---|---|---|----|----|---|-----|
| 11:00 AM - 11:15 AM | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 77 | 0 | 0 | 0 | 56 | 3 | 0 | 140 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 68 | 0 | 0 | 1 | 73 | 6 | 3 | 160 |
| 11:30 AM - 11:45 AM | 0 | 0 | 1 | 0 | 6 | 0 | 8 | 0 | 4 | 68 | 0 | 0 | 1 | 65 | 3 | 0 | 156 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 1 | 70 | 1 | 1 | 0 | 82 | 3 | 0 | 163 |
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 10 | 1 | 9 | 0 | 4 | 82 | 0 | 0 | 1 | 67 | 4 | 1 | 178 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 4 | 0 | 6 | 0 | 6 | 81 | 0 | 0 | 0 | 82 | 10 | 1 | 189 |
| 12:30 PM - 12:45 PM | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 13 | 61 | 0 | 1 | 5 | 69 | 5 | 1 | 157 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 7 | 0 | 12 | 0 | 6 | 83 | 0 | 0 | 0 | 85 | 5 | 0 | 198 |

| | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|----|---|----|---|----|-----|---|---|---|-----|----|---|-----|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 10 | 0 | 13 | 0 | 19 | 73 | 0 | 0 | 0 | 118 | 9 | 1 | 242 |
| 2:15 PM - 2:30 PM | 2 | 0 | 2 | 1 | 11 | 1 | 25 | 1 | 11 | 78 | 1 | 0 | 2 | 93 | 7 | 1 | 233 |
| 2:30 PM - 2:45 PM | 1 | 0 | 1 | 0 | 2 | 0 | 6 | 0 | 10 | 80 | 2 | 1 | 0 | 98 | 7 | 0 | 207 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 2 | 1 | 5 | 0 | 21 | 81 | 0 | 0 | 0 | 84 | 14 | 0 | 208 |
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 17 | 1 | 29 | 0 | 14 | 85 | 2 | 0 | 1 | 111 | 8 | 0 | 268 |
| 3:15 PM - 3:30 PM | 2 | 0 | 1 | 0 | 3 | 1 | 3 | 0 | 4 | 91 | 2 | 0 | 0 | 98 | 4 | 1 | 209 |
| 3:30 PM - 3:45 PM | 2 | 0 | 1 | 0 | 4 | 0 | 6 | 0 | 8 | 98 | 2 | 1 | 1 | 103 | 2 | 0 | 227 |
| 3:45 PM - 4:00 PM | 0 | 0 | 1 | 0 | 0 | 0 | 12 | 0 | 9 | 105 | 2 | 0 | 0 | 81 | 6 | 0 | 216 |
| 4:00 PM - 4:15 PM | 1 | 0 | 0 | 0 | 2 | 0 | 10 | 0 | 9 | 98 | 0 | 0 | 1 | 92 | 5 | 0 | 218 |
| 4:15 PM - 4:30 PM | 1 | 0 | 0 | 0 | 4 | 0 | 8 | 0 | 8 | 92 | 0 | 1 | 0 | 107 | 5 | 1 | 225 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 8 | 0 | 7 | 0 | 8 | 111 | 0 | 1 | 2 | 83 | 2 | 0 | 221 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 8 | 90 | 0 | 0 | 1 | 103 | 5 | 0 | 215 |
| 5:00 PM - 5:15 PM | 2 | 0 | 0 | 0 | 8 | 0 | 15 | 0 | 10 | 79 | 1 | 0 | 1 | 107 | 3 | 2 | 226 |
| 5:15 PM - 5:30 PM | 0 | 0 | 1 | 0 | 4 | 0 | 12 | 0 | 9 | 118 | 2 | 2 | 1 | 110 | 6 | 0 | 263 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 4 | 1 | 9 | 0 | 2 | 108 | 1 | 0 | 2 | 98 | 3 | 0 | 228 |
| 5:45 PM - 6:00 PM | 1 | 0 | 1 | 0 | 1 | 1 | 6 | 0 | 7 | 97 | 0 | 0 | 2 | 89 | 3 | 0 | 208 |

7-9 AM Peak Hour: 7:30 AM - 8:30 AM
 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
 2-6 PM Peak Hour: 4:45 PM - 5:45 PM
 4-6 PM Peak Hour: 4:45 PM - 5:45 PM



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Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 17 Visalia Parkway / Dans

LATITUDE 36.291343

COUNTY Tulare

LONGITUDE -119.325892

COLLECTION DATE Tuesday, May 7, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 |

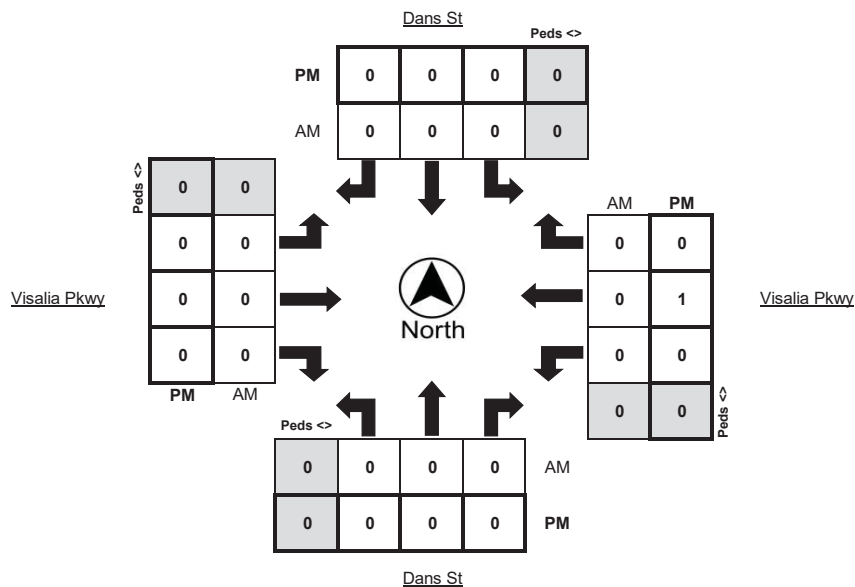
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|-------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:30 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |





Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
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Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 18 Visalia Parkway/ County Center

LATITUDE 0

COUNTY Tulare

LONGITUDE 0

COLLECTION DATE Tuesday, May 7, 2019

WEATHER 0.0000

| Time | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Interval |
|-------------------|------------|------|-------|--------|------------|------|-------|--------|-----------|------|-------|--------|-----------|------|-------|--------|----------|
| | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 14 | 0 | 14 | 1 | 4 | 25 | 0 | 0 | 0 | 29 | 3 | 0 | 89 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 14 | 0 | 16 | 0 | 9 | 23 | 0 | 0 | 0 | 35 | 3 | 0 | 100 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 21 | 0 | 23 | 0 | 11 | 47 | 0 | 1 | 0 | 65 | 14 | 1 | 181 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 16 | 0 | 40 | 0 | 18 | 54 | 0 | 3 | 0 | 91 | 9 | 0 | 228 |
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 13 | 0 | 56 | 0 | 24 | 69 | 0 | 0 | 0 | 97 | 8 | 0 | 267 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 10 | 0 | 15 | 0 | 22 | 78 | 0 | 2 | 0 | 45 | 17 | 1 | 187 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 9 | 0 | 13 | 0 | 16 | 42 | 0 | 2 | 0 | 32 | 7 | 2 | 119 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 11 | 0 | 9 | 0 | 15 | 48 | 0 | 2 | 0 | 21 | 9 | 1 | 113 |

| | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|----|---|----|---|----|----|---|---|---|----|----|---|-----|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 12 | 0 | 17 | 0 | 7 | 74 | 0 | 1 | 0 | 46 | 13 | 0 | 169 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 12 | 0 | 18 | 1 | 13 | 64 | 0 | 0 | 0 | 69 | 14 | 4 | 190 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 13 | 0 | 15 | 0 | 11 | 63 | 0 | 4 | 0 | 57 | 11 | 2 | 170 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 11 | 0 | 12 | 0 | 11 | 73 | 0 | 1 | 0 | 73 | 12 | 0 | 192 |
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 20 | 0 | 12 | 0 | 19 | 72 | 0 | 0 | 0 | 65 | 12 | 1 | 200 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 21 | 0 | 21 | 0 | 12 | 73 | 0 | 0 | 0 | 76 | 14 | 1 | 217 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 17 | 0 | 19 | 0 | 10 | 54 | 0 | 1 | 0 | 60 | 22 | 0 | 182 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 26 | 0 | 29 | 0 | 13 | 74 | 0 | 0 | 0 | 65 | 20 | 0 | 227 |

| | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|----|---|----|---|----|-----|---|---|---|-----|----|---|-----|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 14 | 0 | 37 | 0 | 19 | 69 | 0 | 0 | 0 | 100 | 17 | 1 | 256 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 22 | 0 | 24 | 0 | 18 | 76 | 0 | 0 | 0 | 72 | 20 | 1 | 232 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 18 | 0 | 16 | 0 | 23 | 64 | 0 | 1 | 0 | 89 | 19 | 0 | 229 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 10 | 0 | 28 | 0 | 18 | 63 | 0 | 0 | 0 | 89 | 13 | 0 | 221 |
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 19 | 0 | 30 | 0 | 31 | 102 | 0 | 0 | 0 | 82 | 21 | 0 | 285 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 0 | 6 | 0 | 25 | 1 | 12 | 59 | 0 | 0 | 0 | 80 | 22 | 0 | 204 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 0 | 14 | 0 | 27 | 0 | 22 | 82 | 0 | 1 | 0 | 82 | 20 | 0 | 247 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 14 | 0 | 19 | 0 | 22 | 83 | 0 | 0 | 0 | 68 | 26 | 0 | 232 |
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 0 | 19 | 0 | 16 | 0 | 21 | 85 | 0 | 0 | 0 | 77 | 24 | 1 | 242 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 12 | 0 | 18 | 0 | 11 | 81 | 0 | 1 | 0 | 92 | 23 | 1 | 237 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 17 | 0 | 17 | 0 | 16 | 109 | 0 | 1 | 0 | 79 | 19 | 0 | 257 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 17 | 0 | 19 | 0 | 19 | 75 | 0 | 0 | 0 | 88 | 20 | 0 | 238 |
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 10 | 0 | 18 | 0 | 19 | 69 | 0 | 0 | 0 | 93 | 31 | 2 | 240 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 18 | 0 | 35 | 0 | 26 | 99 | 0 | 0 | 0 | 89 | 25 | 0 | 292 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 17 | 0 | 20 | 0 | 21 | 91 | 0 | 0 | 0 | 90 | 34 | 0 | 273 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 17 | 0 | 20 | 0 | 14 | 90 | 0 | 0 | 0 | 76 | 14 | 0 | 231 |

7-9 AM Peak Hour: 7:30 AM - 8:30 AM
 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
 2-6 PM Peak Hour: 4:45 PM - 5:45 PM
 4-6 PM Peak Hour: 4:45 PM - 5:45 PM



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Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 18 Visalia Parkway/ County Center

LATITUDE 36.291337

COUNTY Tulare

LONGITUDE -119.322443

COLLECTION DATE Tuesday, May 7, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 |

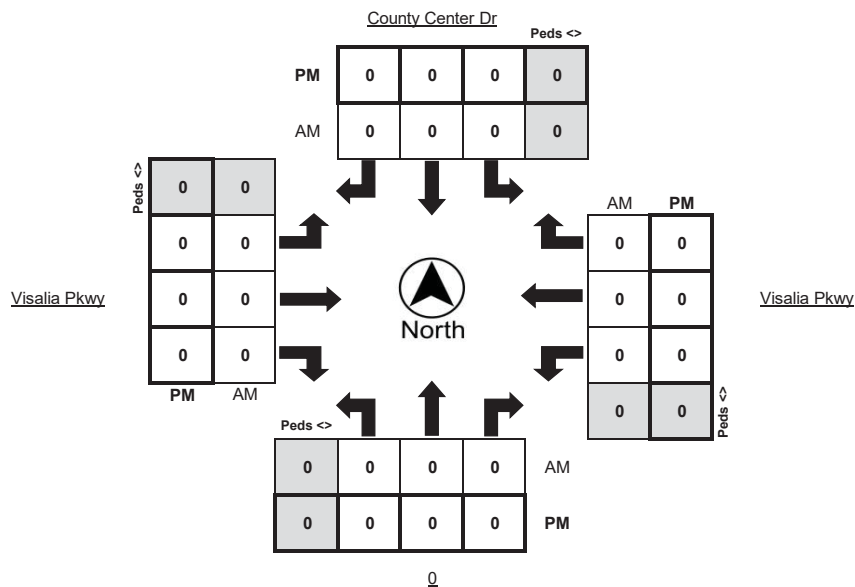
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|-------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:30 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |





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Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 19 Visalia Parkway / West Target Access

LATITUDE 0

COUNTY Tulare

LONGITUDE 0

COLLECTION DATE Thursday, May 9, 2019

WEATHER 0.0000

| Time | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Interval |
|-------------------|------------|------|-------|--------|------------|------|-------|--------|-----------|------|-------|--------|-----------|------|-------|--------|----------|
| | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 31 | 0 | 0 | 0 | 30 | 0 | 0 | 62 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 1 | 0 | 41 | 0 | 0 | 81 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 43 | 0 | 1 | 0 | 65 | 1 | 0 | 111 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 77 | 0 | 3 | 0 | 82 | 6 | 4 | 171 |
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 15 | 74 | 0 | 2 | 0 | 100 | 3 | 0 | 198 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 3 | 0 | 10 | 0 | 15 | 95 | 0 | 2 | 0 | 42 | 3 | 0 | 168 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 4 | 0 | 5 | 0 | 10 | 55 | 0 | 0 | 0 | 27 | 4 | 0 | 105 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 4 | 53 | 0 | 0 | 0 | 40 | 4 | 0 | 111 |

| | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|----|---|----|---|----|----|---|---|---|----|----|---|-----|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 9 | 0 | 8 | 0 | 13 | 59 | 0 | 0 | 0 | 52 | 7 | 2 | 148 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 2 | 0 | 11 | 0 | 12 | 72 | 0 | 1 | 0 | 61 | 10 | 1 | 168 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 10 | 0 | 14 | 2 | 18 | 63 | 0 | 0 | 0 | 78 | 3 | 0 | 186 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 11 | 0 | 5 | 0 | 11 | 72 | 0 | 0 | 0 | 74 | 6 | 1 | 179 |
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 8 | 0 | 14 | 0 | 8 | 67 | 0 | 0 | 0 | 85 | 11 | 0 | 193 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 15 | 0 | 12 | 0 | 18 | 86 | 0 | 0 | 0 | 61 | 6 | 0 | 198 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 11 | 0 | 20 | 0 | 14 | 50 | 0 | 0 | 0 | 86 | 12 | 1 | 193 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 10 | 0 | 14 | 0 | 19 | 77 | 0 | 0 | 0 | 77 | 5 | 0 | 202 |

| | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|----|---|----|---|----|----|---|---|---|-----|----|---|-----|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 9 | 0 | 24 | 0 | 12 | 71 | 0 | 0 | 0 | 86 | 9 | 1 | 211 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 6 | 0 | 13 | 0 | 18 | 80 | 0 | 1 | 0 | 81 | 12 | 2 | 210 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 10 | 0 | 11 | 0 | 9 | 59 | 0 | 0 | 0 | 97 | 6 | 2 | 192 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 14 | 0 | 16 | 0 | 9 | 57 | 0 | 0 | 0 | 76 | 3 | 1 | 175 |
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 4 | 0 | 23 | 0 | 10 | 75 | 0 | 2 | 0 | 91 | 10 | 1 | 213 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 0 | 11 | 0 | 10 | 0 | 17 | 69 | 0 | 1 | 0 | 62 | 6 | 1 | 175 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 0 | 8 | 0 | 18 | 0 | 19 | 82 | 0 | 1 | 0 | 78 | 10 | 0 | 215 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 7 | 0 | 19 | 0 | 24 | 98 | 0 | 0 | 0 | 66 | 5 | 0 | 219 |
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 0 | 5 | 0 | 26 | 1 | 22 | 77 | 0 | 1 | 0 | 104 | 8 | 0 | 242 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 9 | 0 | 23 | 0 | 15 | 83 | 0 | 0 | 0 | 88 | 8 | 2 | 226 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 10 | 0 | 17 | 0 | 11 | 78 | 0 | 0 | 0 | 93 | 13 | 2 | 222 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 11 | 0 | 12 | 1 | 20 | 82 | 0 | 2 | 0 | 99 | 5 | 0 | 229 |
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 11 | 0 | 15 | 0 | 19 | 78 | 0 | 1 | 0 | 104 | 11 | 1 | 238 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 14 | 0 | 20 | 0 | 16 | 86 | 0 | 1 | 0 | 88 | 6 | 0 | 230 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 7 | 0 | 21 | 0 | 17 | 92 | 0 | 0 | 0 | 81 | 7 | 0 | 225 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 5 | 0 | 26 | 0 | 13 | 82 | 0 | 0 | 0 | 83 | 10 | 0 | 219 |

7-9 AM Peak Hour: 7:30 AM - 8:30 AM
 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
 2-6 PM Peak Hour: 4:45 PM - 5:45 PM
 4-6 PM Peak Hour: 4:45 PM - 5:45 PM



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Prepared For:

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LOCATION 19 Visalia Parkway / West Target Access

LATITUDE 36.291303

COUNTY Tulare

LONGITUDE -119.316496

COLLECTION DATE Thursday, May 9, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

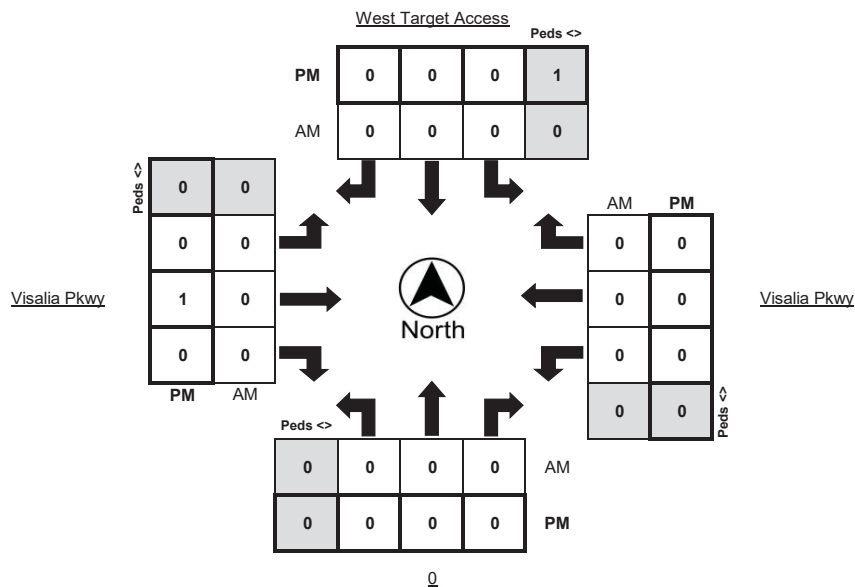
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |





Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 20 Visalia Parkway / Mooney

LATITUDE 36.291289

COUNTY Tulare

LONGITUDE -119.313604

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | | Interval Total |
|-------------------|------------|------|-------|--------|--------|------------|------|-------|--------|--------|-----------|------|-------|--------|--------|-----------|------|-------|--------|--------|----------------|
| | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | |
| 7:00 AM - 7:15 AM | 11 | 69 | 12 | 1 | 2 | 0 | 71 | 4 | 1 | 2 | 3 | 11 | 24 | 4 | 1 | 40 | 13 | 2 | 0 | 2 | 260 |
| 7:15 AM - 7:30 AM | 12 | 93 | 20 | 1 | 1 | 0 | 69 | 8 | 1 | 1 | 4 | 7 | 28 | 6 | 0 | 40 | 19 | 3 | 0 | 2 | 303 |
| 7:30 AM - 7:45 AM | 20 | 145 | 19 | 6 | 3 | 2 | 105 | 6 | 4 | 5 | 4 | 15 | 25 | 3 | 1 | 52 | 31 | 3 | 0 | 2 | 427 |
| 7:45 AM - 8:00 AM | 23 | 162 | 30 | 11 | 3 | 1 | 102 | 17 | 5 | 2 | 9 | 19 | 33 | 7 | 0 | 67 | 56 | 1 | 0 | 1 | 520 |
| 8:00 AM - 8:15 AM | 17 | 141 | 21 | 9 | 4 | 3 | 78 | 11 | 4 | 5 | 17 | 32 | 27 | 5 | 3 | 41 | 59 | 3 | 0 | 0 | 450 |
| 8:15 AM - 8:30 AM | 18 | 118 | 20 | 4 | 2 | 4 | 97 | 6 | 3 | 2 | 23 | 48 | 20 | 0 | 0 | 25 | 17 | 3 | 0 | 1 | 399 |
| 8:30 AM - 8:45 AM | 19 | 126 | 31 | 0 | 3 | 3 | 62 | 5 | 0 | 2 | 10 | 25 | 19 | 0 | 0 | 25 | 21 | 2 | 0 | 2 | 348 |
| 8:45 AM - 9:00 AM | 15 | 157 | 39 | 5 | 5 | 6 | 77 | 5 | 1 | 3 | 10 | 32 | 19 | 3 | 1 | 13 | 9 | 5 | 0 | 0 | 387 |

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------|----|-----|----|----|---|----|-----|----|---|---|----|----|----|---|---|----|----|----|---|---|-----|
| 11:00 AM - 11:15 AM | 19 | 103 | 42 | 18 | 2 | 9 | 87 | 2 | 0 | 1 | 24 | 34 | 18 | 2 | 1 | 38 | 34 | 13 | 0 | 2 | 423 |
| 11:15 AM - 11:30 AM | 25 | 134 | 39 | 8 | 3 | 16 | 116 | 5 | 0 | 8 | 12 | 33 | 25 | 1 | 1 | 63 | 31 | 20 | 1 | 4 | 519 |
| 11:30 AM - 11:45 AM | 26 | 159 | 40 | 11 | 3 | 9 | 125 | 15 | 5 | 2 | 12 | 44 | 15 | 0 | 1 | 51 | 34 | 16 | 0 | 2 | 546 |
| 11:45 AM - 12:00 PM | 22 | 138 | 34 | 8 | 3 | 16 | 129 | 15 | 5 | 3 | 21 | 50 | 24 | 0 | 2 | 55 | 49 | 10 | 1 | 1 | 563 |
| 12:00 PM - 12:15 PM | 27 | 188 | 51 | 12 | 3 | 16 | 157 | 14 | 2 | 4 | 20 | 49 | 28 | 0 | 1 | 37 | 39 | 17 | 5 | 1 | 643 |
| 12:15 PM - 12:30 PM | 18 | 120 | 41 | 10 | 3 | 24 | 169 | 15 | 2 | 1 | 30 | 33 | 18 | 0 | 1 | 51 | 36 | 23 | 4 | 0 | 578 |
| 12:30 PM - 12:45 PM | 18 | 149 | 41 | 9 | 5 | 25 | 165 | 13 | 2 | 3 | 24 | 29 | 27 | 0 | 0 | 68 | 51 | 14 | 1 | 1 | 624 |
| 12:45 PM - 1:00 PM | 32 | 135 | 53 | 15 | 5 | 14 | 141 | 18 | 0 | 3 | 28 | 52 | 26 | 1 | 0 | 61 | 44 | 13 | 1 | 2 | 617 |

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|----|-----|----|----|---|----|-----|----|---|---|----|----|----|---|---|----|----|----|---|---|-----|
| 2:00 PM - 2:15 PM | 28 | 109 | 47 | 9 | 4 | 10 | 166 | 11 | 1 | 4 | 21 | 38 | 29 | 2 | 0 | 50 | 50 | 9 | 2 | 0 | 568 |
| 2:15 PM - 2:30 PM | 16 | 109 | 41 | 16 | 2 | 11 | 152 | 14 | 2 | 3 | 34 | 44 | 26 | 1 | 2 | 64 | 38 | 17 | 3 | 1 | 566 |
| 2:30 PM - 2:45 PM | 26 | 127 | 34 | 10 | 2 | 11 | 146 | 16 | 4 | 3 | 24 | 37 | 27 | 0 | 0 | 46 | 35 | 12 | 0 | 3 | 541 |
| 2:45 PM - 3:00 PM | 22 | 158 | 47 | 4 | 1 | 8 | 125 | 16 | 5 | 2 | 16 | 25 | 21 | 2 | 1 | 53 | 55 | 18 | 0 | 0 | 564 |
| 3:00 PM - 3:15 PM | 21 | 109 | 55 | 18 | 2 | 13 | 132 | 16 | 3 | 2 | 23 | 45 | 20 | 0 | 1 | 48 | 49 | 9 | 0 | 1 | 540 |
| 3:15 PM - 3:30 PM | 13 | 124 | 41 | 14 | 3 | 11 | 143 | 15 | 3 | 3 | 13 | 40 | 25 | 0 | 0 | 60 | 61 | 10 | 1 | 0 | 556 |
| 3:30 PM - 3:45 PM | 42 | 174 | 49 | 10 | 2 | 8 | 146 | 12 | 5 | 3 | 18 | 46 | 23 | 0 | 0 | 48 | 40 | 6 | 0 | 1 | 612 |
| 3:45 PM - 4:00 PM | 30 | 130 | 55 | 10 | 0 | 13 | 130 | 15 | 4 | 4 | 29 | 49 | 17 | 0 | 0 | 50 | 54 | 11 | 1 | 0 | 583 |
| 4:00 PM - 4:15 PM | 23 | 178 | 46 | 13 | 2 | 15 | 159 | 20 | 4 | 3 | 19 | 31 | 26 | 2 | 0 | 46 | 51 | 11 | 1 | 3 | 625 |
| 4:15 PM - 4:30 PM | 32 | 130 | 61 | 19 | 4 | 12 | 137 | 13 | 6 | 1 | 18 | 38 | 37 | 0 | 0 | 61 | 36 | 11 | 0 | 0 | 586 |
| 4:30 PM - 4:45 PM | 29 | 164 | 46 | 5 | 1 | 16 | 154 | 15 | 3 | 2 | 21 | 45 | 34 | 0 | 0 | 73 | 63 | 15 | 0 | 2 | 675 |
| 4:45 PM - 5:00 PM | 23 | 145 | 46 | 10 | 1 | 9 | 173 | 7 | 4 | 2 | 28 | 41 | 27 | 1 | 0 | 53 | 39 | 16 | 0 | 1 | 607 |
| 5:00 PM - 5:15 PM | 33 | 138 | 62 | 14 | 1 | 10 | 187 | 15 | 7 | 2 | 25 | 32 | 42 | 0 | 2 | 48 | 43 | 11 | 0 | 0 | 646 |
| 5:15 PM - 5:30 PM | 28 | 198 | 53 | 20 | 4 | 8 | 186 | 16 | 4 | 2 | 33 | 49 | 28 | 0 | 0 | 62 | 38 | 13 | 1 | 0 | 712 |
| 5:30 PM - 5:45 PM | 42 | 146 | 55 | 9 | 0 | 12 | 154 | 20 | 6 | 3 | 20 | 54 | 30 | 0 | 0 | 58 | 52 | 16 | 1 | 1 | 659 |
| 5:45 PM - 6:00 PM | 28 | 173 | 52 | 16 | 1 | 10 | 151 | 7 | 4 | 1 | 20 | 35 | 23 | 0 | 0 | 55 | 55 | 4 | 0 | 0 | 613 |

7-9 AM Peak Hour: 7:30 AM - 8:30 AM
 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
 2-6 PM Peak Hour: 4:30 PM - 5:30 PM
 4-6 PM Peak Hour: 4:30 PM - 5:30 PM



Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
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Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 20 Visalia Parkway / Mooney

LATITUDE 36.291289

COUNTY Tulare

LONGITUDE -119.313604

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 AM - 11:45 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| HOURLY TOTAL | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 |

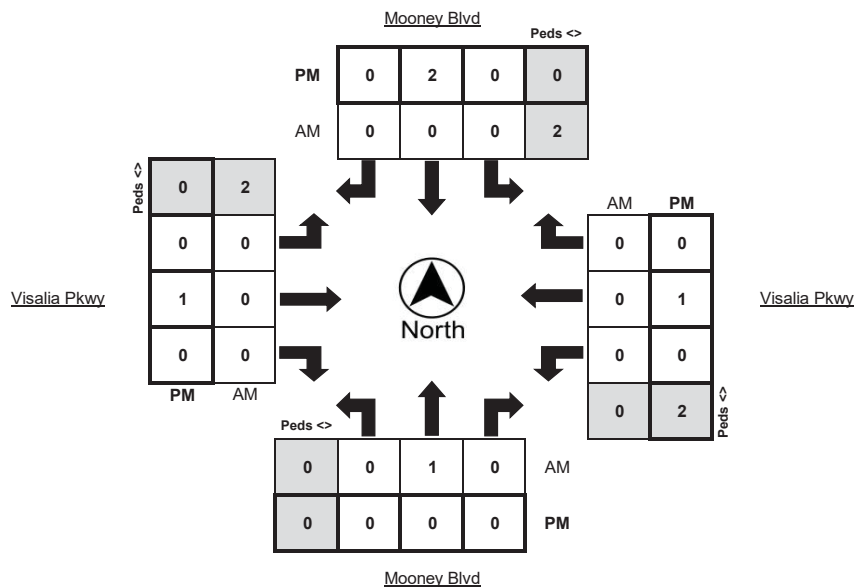
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| HOURLY TOTAL | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 3 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 1 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 2 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 1 | 0 | 0 | 6 | 6 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 2 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 4 | 5 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 1 |
| 4:30 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 2 | 4 |





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Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 21 Visalia Parkway / Stonebrook

LATITUDE 0

COUNTY Tulare

LONGITUDE 0

COLLECTION DATE Thursday, May 9, 2019

WEATHER 0.0000

| Time | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Interval |
|-------------------|------------|------|-------|--------|------------|------|-------|--------|-----------|------|-------|--------|-----------|------|-------|--------|----------|
| | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 33 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 44 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 1 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 104 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 87 | 1 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 73 | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 122 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 27 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 1 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58 |

| | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|----|---|----|---|---|---|---|---|---|---|----|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 51 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 63 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 1 | 48 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 87 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 36 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 69 |
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 0 | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 1 | 0 | 32 | 1 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 64 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 64 |

| | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|----|---|----|---|---|---|---|---|---|---|-----|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 44 | 2 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 86 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 1 | 57 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 98 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 2 | 34 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 79 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70 |
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 52 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 80 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 51 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 79 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 1 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 79 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 87 |
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 0 | 68 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 106 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 56 | 2 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 114 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 1 | 63 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 109 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85 |
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 99 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 0 | 65 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 113 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 1 | 62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 0 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 |

7-9 AM Peak Hour: 7:30 AM - 8:30 AM
 11-1 Mid-Day Peak Hour: 11:30 AM - 12:30 PM
 2-6 PM Peak Hour: 3:45 PM - 4:45 PM
 4-6 PM Peak Hour: 4:00 PM - 5:00 PM



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 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 21 Visalia Parkway / Stonebrook

LATITUDE 36.291412

COUNTY Tulare

LONGITUDE -119.305346

COLLECTION DATE Thursday, May 9, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 |

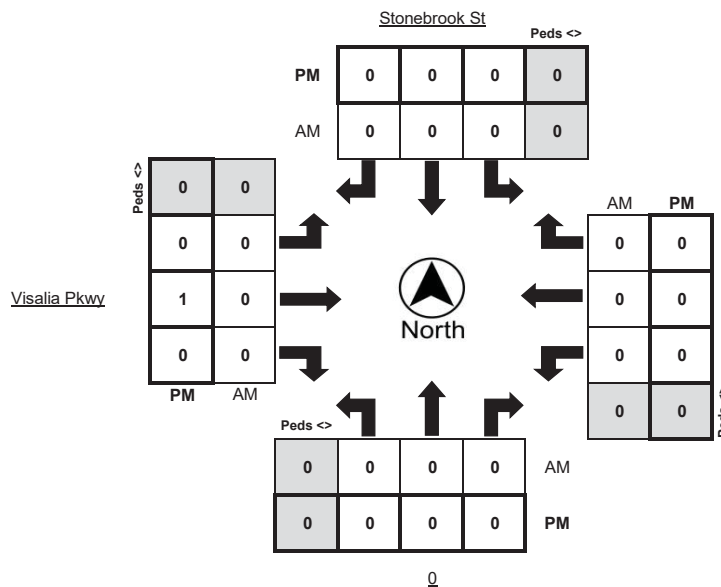
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|-------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:30 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |





Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 22 Midvalley / Mooney

LATITUDE 36.287514

COUNTY Tulare

LONGITUDE -119.313526

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | | Interval Total |
|-------------------|------------|------|-------|--------|--------|------------|------|-------|--------|--------|-----------|------|-------|--------|--------|-----------|------|-------|--------|--------|----------------|
| | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | |
| 7:00 AM - 7:15 AM | 1 | 90 | 0 | 0 | 2 | 0 | 119 | 7 | 0 | 5 | 9 | 0 | 7 | 6 | 0 | 0 | 0 | 1 | 1 | 0 | 234 |
| 7:15 AM - 7:30 AM | 0 | 107 | 0 | 0 | 1 | 1 | 124 | 8 | 0 | 2 | 10 | 0 | 4 | 4 | 0 | 1 | 0 | 4 | 3 | 0 | 259 |
| 7:30 AM - 7:45 AM | 2 | 172 | 2 | 0 | 3 | 2 | 166 | 5 | 0 | 5 | 15 | 0 | 6 | 5 | 0 | 3 | 0 | 5 | 3 | 2 | 378 |
| 7:45 AM - 8:00 AM | 2 | 191 | 0 | 0 | 3 | 2 | 201 | 6 | 1 | 2 | 11 | 0 | 4 | 4 | 0 | 3 | 0 | 4 | 2 | 0 | 424 |
| 8:00 AM - 8:15 AM | 1 | 179 | 1 | 0 | 4 | 3 | 132 | 10 | 0 | 7 | 5 | 0 | 1 | 1 | 0 | 0 | 0 | 3 | 2 | 0 | 335 |
| 8:15 AM - 8:30 AM | 2 | 167 | 0 | 0 | 3 | 0 | 140 | 8 | 0 | 2 | 4 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 322 |
| 8:30 AM - 8:45 AM | 1 | 180 | 1 | 0 | 1 | 3 | 101 | 4 | 0 | 2 | 11 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 304 |
| 8:45 AM - 9:00 AM | 2 | 188 | 0 | 0 | 6 | 2 | 103 | 7 | 0 | 3 | 9 | 0 | 6 | 4 | 1 | 4 | 1 | 3 | 1 | 0 | 325 |

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|-----|---|---|---|---|-----|----|---|---|----|---|---|---|---|---|---|---|---|---|-----|
| 11:00 AM - 11:15 AM | 2 | 162 | 2 | 0 | 2 | 1 | 150 | 13 | 0 | 1 | 10 | 0 | 4 | 3 | 1 | 1 | 0 | 2 | 2 | 0 | 347 |
| 11:15 AM - 11:30 AM | 1 | 173 | 0 | 0 | 3 | 6 | 185 | 10 | 0 | 8 | 14 | 0 | 6 | 6 | 0 | 0 | 0 | 6 | 4 | 0 | 401 |
| 11:30 AM - 11:45 AM | 3 | 224 | 1 | 0 | 3 | 5 | 175 | 8 | 0 | 2 | 15 | 0 | 1 | 1 | 0 | 3 | 0 | 2 | 2 | 0 | 437 |
| 11:45 AM - 12:00 PM | 2 | 206 | 0 | 0 | 3 | 3 | 186 | 13 | 0 | 4 | 10 | 0 | 2 | 2 | 0 | 1 | 1 | 2 | 0 | 0 | 426 |
| 12:00 PM - 12:15 PM | 4 | 271 | 1 | 0 | 5 | 4 | 207 | 11 | 0 | 4 | 3 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 504 |
| 12:15 PM - 12:30 PM | 2 | 188 | 1 | 0 | 4 | 3 | 219 | 10 | 0 | 1 | 4 | 0 | 2 | 2 | 0 | 2 | 0 | 3 | 1 | 0 | 434 |
| 12:30 PM - 12:45 PM | 2 | 200 | 1 | 0 | 3 | 4 | 220 | 19 | 0 | 3 | 13 | 0 | 8 | 6 | 1 | 0 | 0 | 6 | 6 | 0 | 473 |
| 12:45 PM - 1:00 PM | 1 | 201 | 2 | 0 | 6 | 1 | 237 | 13 | 0 | 5 | 13 | 0 | 4 | 4 | 0 | 2 | 0 | 3 | 2 | 0 | 477 |

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|-----|---|---|---|---|-----|----|---|---|----|---|---|---|---|---|---|---|---|---|-----|
| 2:00 PM - 2:15 PM | 2 | 189 | 1 | 0 | 4 | 3 | 240 | 7 | 0 | 3 | 4 | 0 | 4 | 4 | 0 | 0 | 0 | 3 | 3 | 0 | 453 |
| 2:15 PM - 2:30 PM | 1 | 170 | 0 | 0 | 2 | 3 | 232 | 17 | 1 | 1 | 10 | 0 | 6 | 5 | 0 | 1 | 0 | 3 | 2 | 0 | 443 |
| 2:30 PM - 2:45 PM | 2 | 198 | 0 | 0 | 3 | 1 | 214 | 10 | 0 | 4 | 9 | 0 | 5 | 3 | 0 | 3 | 0 | 1 | 1 | 0 | 443 |
| 2:45 PM - 3:00 PM | 0 | 225 | 1 | 0 | 1 | 5 | 180 | 10 | 1 | 3 | 14 | 0 | 4 | 3 | 0 | 4 | 0 | 2 | 1 | 0 | 445 |
| 3:00 PM - 3:15 PM | 6 | 176 | 0 | 0 | 2 | 3 | 190 | 13 | 0 | 2 | 10 | 2 | 4 | 4 | 1 | 2 | 1 | 1 | 1 | 0 | 408 |
| 3:15 PM - 3:30 PM | 2 | 190 | 1 | 0 | 3 | 4 | 198 | 14 | 0 | 3 | 8 | 0 | 2 | 2 | 0 | 1 | 0 | 2 | 0 | 0 | 422 |
| 3:30 PM - 3:45 PM | 0 | 232 | 0 | 0 | 2 | 2 | 207 | 13 | 4 | 3 | 10 | 1 | 4 | 4 | 0 | 1 | 0 | 6 | 2 | 0 | 476 |
| 3:45 PM - 4:00 PM | 0 | 230 | 1 | 0 | 1 | 2 | 196 | 7 | 1 | 4 | 7 | 1 | 6 | 3 | 0 | 3 | 2 | 6 | 3 | 0 | 461 |
| 4:00 PM - 4:15 PM | 1 | 231 | 1 | 0 | 1 | 4 | 205 | 12 | 2 | 2 | 9 | 0 | 7 | 6 | 0 | 3 | 2 | 3 | 2 | 1 | 478 |
| 4:15 PM - 4:30 PM | 4 | 236 | 0 | 0 | 3 | 9 | 235 | 11 | 0 | 1 | 9 | 0 | 1 | 1 | 1 | 1 | 0 | 4 | 3 | 0 | 510 |
| 4:30 PM - 4:45 PM | 5 | 240 | 1 | 0 | 1 | 4 | 244 | 8 | 0 | 2 | 11 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 3 | 0 | 518 |
| 4:45 PM - 5:00 PM | 3 | 211 | 2 | 0 | 1 | 1 | 245 | 19 | 2 | 2 | 5 | 1 | 2 | 2 | 0 | 1 | 0 | 4 | 4 | 0 | 494 |
| 5:00 PM - 5:15 PM | 2 | 249 | 1 | 0 | 2 | 1 | 247 | 20 | 2 | 2 | 10 | 1 | 3 | 1 | 0 | 4 | 0 | 3 | 2 | 0 | 541 |
| 5:15 PM - 5:30 PM | 2 | 233 | 0 | 0 | 0 | 2 | 256 | 20 | 0 | 2 | 10 | 0 | 2 | 1 | 0 | 0 | 0 | 5 | 4 | 0 | 530 |
| 5:30 PM - 5:45 PM | 0 | 281 | 1 | 0 | 0 | 5 | 227 | 10 | 2 | 1 | 9 | 1 | 3 | 3 | 0 | 0 | 0 | 4 | 4 | 0 | 541 |
| 5:45 PM - 6:00 PM | 2 | 231 | 1 | 0 | 1 | 6 | 195 | 17 | 0 | 1 | 12 | 0 | 1 | 1 | 0 | 2 | 0 | 2 | 2 | 0 | 469 |

7-9 AM Peak Hour: 7:30 AM - 8:30 AM
 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
 2-6 PM Peak Hour: 4:45 PM - 5:45 PM
 4-6 PM Peak Hour: 4:45 PM - 5:45 PM



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Turning Movement Report (Bicycles & Pedestrians)

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Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 22 Midvalley / Mooney

LATITUDE 36.287514

COUNTY Tulare

LONGITUDE -119.313526

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 AM - 11:45 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 |
| 11:45 AM - 12:00 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM - 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |

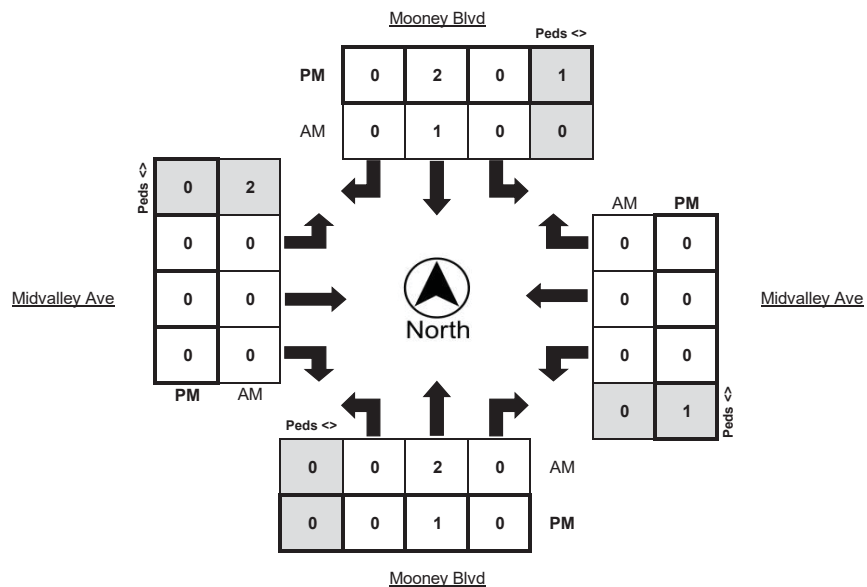
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2:00 PM - 2:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:30 PM - 2:45 PM | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 |
| HOURLY TOTAL | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 5 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM - 3:45 PM | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 3 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 4:00 PM - 4:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 |
| 4:45 PM - 5:00 PM | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| HOURLY TOTAL | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 4 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 |
| 4:45 PM - 5:45 PM | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 3 |





Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Vehicles)

Prepared For:
Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 24 Avenue 272 / Mooney LATITUDE 0
 COUNTY Tulare LONGITUDE 0
 COLLECTION DATE Tuesday, May 7, 2019 WEATHER 0.0000

| Time | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Interval |
|-------------------|------------|------|-------|--------|------------|------|-------|--------|-----------|------|-------|--------|-----------|------|-------|--------|----------|
| | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | Left | Thru | Right | Trucks | |
| 7:00 AM - 7:15 AM | 6 | 85 | 0 | 1 | 2 | 113 | 4 | 2 | 1 | 1 | 23 | 1 | 2 | 2 | 0 | 0 | 239 |
| 7:15 AM - 7:30 AM | 5 | 99 | 0 | 2 | 1 | 133 | 5 | 4 | 1 | 3 | 40 | 1 | 6 | 1 | 2 | 0 | 296 |
| 7:30 AM - 7:45 AM | 15 | 187 | 3 | 3 | 0 | 165 | 5 | 3 | 3 | 0 | 48 | 0 | 7 | 4 | 2 | 0 | 439 |
| 7:45 AM - 8:00 AM | 11 | 183 | 4 | 5 | 1 | 177 | 3 | 4 | 3 | 0 | 42 | 0 | 12 | 5 | 2 | 1 | 443 |
| 8:00 AM - 8:15 AM | 16 | 191 | 6 | 4 | 0 | 127 | 6 | 4 | 4 | 4 | 24 | 1 | 4 | 4 | 1 | 0 | 387 |
| 8:15 AM - 8:30 AM | 6 | 181 | 9 | 3 | 2 | 110 | 3 | 2 | 1 | 3 | 29 | 1 | 6 | 5 | 4 | 2 | 359 |
| 8:30 AM - 8:45 AM | 13 | 186 | 8 | 5 | 2 | 119 | 8 | 1 | 3 | 1 | 11 | 0 | 2 | 2 | 4 | 0 | 359 |
| 8:45 AM - 9:00 AM | 6 | 181 | 1 | 3 | 2 | 111 | 3 | 2 | 4 | 2 | 13 | 0 | 1 | 2 | 3 | 0 | 329 |

| | | | | | | | | | | | | | | | | | |
|---------------------|----|-----|----|---|----|-----|---|---|---|---|----|---|---|---|---|---|-----|
| 11:00 AM - 11:15 AM | 9 | 196 | 6 | 3 | 6 | 161 | 4 | 1 | 4 | 2 | 7 | 0 | 1 | 0 | 2 | 0 | 398 |
| 11:15 AM - 11:30 AM | 13 | 214 | 11 | 4 | 4 | 152 | 6 | 1 | 9 | 1 | 6 | 0 | 3 | 2 | 8 | 0 | 429 |
| 11:30 AM - 11:45 AM | 10 | 198 | 4 | 2 | 3 | 179 | 3 | 4 | 1 | 0 | 8 | 0 | 2 | 3 | 3 | 0 | 414 |
| 11:45 AM - 12:00 PM | 10 | 219 | 0 | 4 | 4 | 178 | 6 | 8 | 3 | 1 | 8 | 2 | 4 | 0 | 4 | 0 | 437 |
| 12:00 PM - 12:15 PM | 4 | 203 | 6 | 4 | 3 | 180 | 4 | 2 | 5 | 1 | 8 | 0 | 2 | 0 | 5 | 0 | 421 |
| 12:15 PM - 12:30 PM | 7 | 181 | 4 | 2 | 3 | 282 | 5 | 5 | 4 | 3 | 15 | 0 | 4 | 1 | 5 | 0 | 514 |
| 12:30 PM - 12:45 PM | 5 | 219 | 5 | 3 | 0 | 230 | 8 | 3 | 2 | 7 | 10 | 0 | 4 | 1 | 5 | 1 | 496 |
| 12:45 PM - 1:00 PM | 9 | 214 | 8 | 3 | 10 | 271 | 9 | 2 | 6 | 3 | 13 | 1 | 1 | 3 | 5 | 0 | 552 |

| | | | | | | | | | | | | | | | | | |
|-------------------|----|-----|----|---|---|-----|----|---|----|---|----|---|---|---|---|---|-----|
| 2:00 PM - 2:15 PM | 17 | 196 | 9 | 2 | 4 | 230 | 6 | 4 | 7 | 5 | 15 | 1 | 4 | 2 | 8 | 0 | 503 |
| 2:15 PM - 2:30 PM | 7 | 161 | 3 | 2 | 5 | 229 | 7 | 1 | 2 | 0 | 11 | 0 | 3 | 4 | 4 | 0 | 436 |
| 2:30 PM - 2:45 PM | 13 | 206 | 6 | 4 | 2 | 218 | 4 | 0 | 5 | 2 | 11 | 1 | 4 | 3 | 3 | 0 | 477 |
| 2:45 PM - 3:00 PM | 20 | 233 | 4 | 2 | 4 | 203 | 11 | 5 | 7 | 3 | 4 | 0 | 0 | 1 | 2 | 0 | 492 |
| 3:00 PM - 3:15 PM | 15 | 197 | 5 | 2 | 3 | 206 | 7 | 4 | 2 | 0 | 7 | 1 | 2 | 6 | 8 | 2 | 458 |
| 3:15 PM - 3:30 PM | 16 | 201 | 6 | 3 | 5 | 205 | 9 | 1 | 3 | 3 | 14 | 1 | 7 | 1 | 9 | 1 | 479 |
| 3:30 PM - 3:45 PM | 24 | 204 | 10 | 2 | 3 | 223 | 4 | 2 | 4 | 2 | 16 | 0 | 0 | 3 | 5 | 0 | 498 |
| 3:45 PM - 4:00 PM | 10 | 230 | 3 | 1 | 4 | 202 | 7 | 3 | 4 | 2 | 10 | 0 | 1 | 3 | 9 | 0 | 485 |
| 4:00 PM - 4:15 PM | 20 | 182 | 9 | 2 | 3 | 216 | 6 | 3 | 1 | 2 | 9 | 0 | 2 | 2 | 3 | 1 | 455 |
| 4:15 PM - 4:30 PM | 11 | 238 | 7 | 2 | 1 | 241 | 8 | 2 | 10 | 1 | 9 | 1 | 2 | 4 | 6 | 0 | 538 |
| 4:30 PM - 4:45 PM | 38 | 271 | 11 | 0 | 5 | 251 | 10 | 1 | 4 | 2 | 9 | 0 | 1 | 1 | 9 | 0 | 612 |
| 4:45 PM - 5:00 PM | 21 | 207 | 11 | 2 | 5 | 258 | 7 | 3 | 0 | 1 | 9 | 0 | 0 | 0 | 7 | 0 | 526 |
| 5:00 PM - 5:15 PM | 57 | 263 | 21 | 0 | 6 | 245 | 9 | 1 | 3 | 0 | 7 | 0 | 1 | 1 | 4 | 0 | 617 |
| 5:15 PM - 5:30 PM | 21 | 258 | 14 | 1 | 1 | 281 | 6 | 4 | 2 | 1 | 2 | 0 | 0 | 1 | 4 | 0 | 591 |
| 5:30 PM - 5:45 PM | 35 | 295 | 19 | 2 | 3 | 201 | 4 | 2 | 5 | 6 | 6 | 0 | 0 | 4 | 6 | 1 | 584 |
| 5:45 PM - 6:00 PM | 19 | 216 | 8 | 2 | 7 | 217 | 1 | 1 | 3 | 2 | 4 | 0 | 1 | 0 | 3 | 0 | 481 |

7-9 AM Peak Hour: 7:30 AM - 8:30 AM
 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
 2-6 PM Peak Hour: 4:30 PM - 5:30 PM
 4-6 PM Peak Hour: 4:30 PM - 5:30 PM



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Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 24 Avenue 272 / Mooney

LATITUDE 36.283889

COUNTY Tulare

LONGITUDE -119.313502

COLLECTION DATE Tuesday, May 7, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 11:15 AM - 11:30 AM | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM - 12:00 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| HOURLY TOTAL | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 3 | 4 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM - 12:30 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 12:30 PM - 12:45 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |

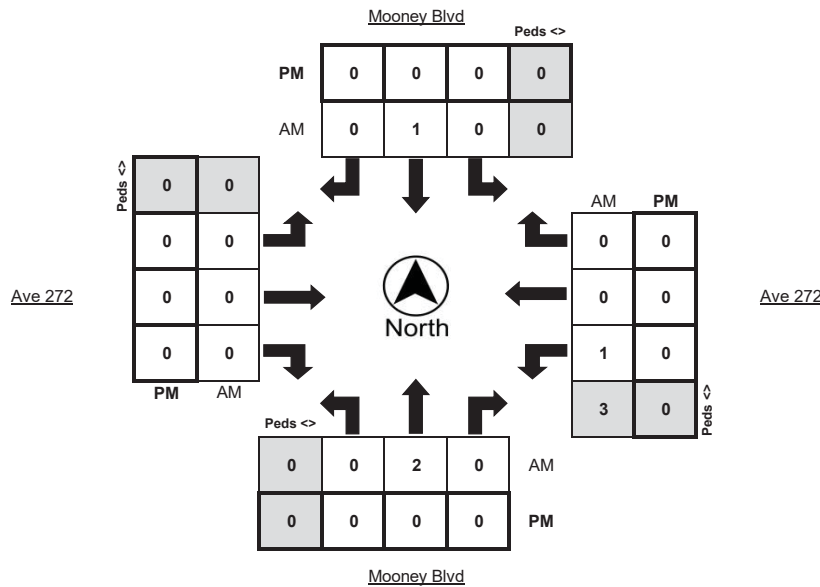
| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| 2:15 PM - 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:30 PM - 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:45 PM - 3:00 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 3 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 3:15 PM - 3:30 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 4:00 PM - 4:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:15 PM - 4:30 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM - 5:45 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HOURLY TOTAL | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 3 | 4 |
| 4:30 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |





Metro Traffic Data Inc.
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 800-975-6938 Phone/Fax
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Turning Movement Report (Vehicles)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 25 Mooney / 268
COUNTY Tulare
COLLECTION DATE Tuesday, May 14, 2019

LATITUDE 36.276768
LONGITUDE -119.313383
WEATHER Clear

| Time | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | | Interval Total |
|-------------------|------------|------|-------|--------|--------|------------|------|-------|--------|--------|-----------|------|-------|--------|--------|-----------|------|-------|--------|--------|----------------|
| | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | |
| 7:00 AM - 7:15 AM | 19 | 88 | 3 | 0 | 1 | 0 | 101 | 36 | 5 | 3 | 2 | 0 | 0 | 2 | 1 | 2 | 0 | 2 | 2 | 0 | 253 |
| 7:15 AM - 7:30 AM | 31 | 123 | 1 | 0 | 1 | 2 | 105 | 35 | 3 | 3 | 3 | 0 | 1 | 0 | 1 | 1 | 0 | 6 | 2 | 2 | 308 |
| 7:30 AM - 7:45 AM | 30 | 172 | 1 | 0 | 1 | 8 | 148 | 24 | 1 | 4 | 5 | 0 | 2 | 0 | 1 | 6 | 1 | 7 | 4 | 0 | 404 |
| 7:45 AM - 8:00 AM | 21 | 179 | 4 | 0 | 3 | 12 | 205 | 21 | 2 | 2 | 4 | 0 | 4 | 2 | 1 | 8 | 1 | 8 | 7 | 0 | 467 |
| 8:00 AM - 8:15 AM | 9 | 179 | 6 | 0 | 2 | 8 | 137 | 22 | 1 | 6 | 6 | 1 | 4 | 2 | 1 | 7 | 0 | 6 | 4 | 0 | 385 |
| 8:15 AM - 8:30 AM | 13 | 163 | 2 | 0 | 2 | 13 | 125 | 8 | 1 | 3 | 7 | 0 | 0 | 2 | 1 | 1 | 0 | 4 | 2 | 0 | 336 |
| 8:30 AM - 8:45 AM | 11 | 157 | 3 | 1 | 0 | 16 | 97 | 10 | 1 | 3 | 10 | 0 | 6 | 4 | 1 | 1 | 0 | 1 | 1 | 0 | 312 |
| 8:45 AM - 9:00 AM | 13 | 158 | 5 | 0 | 5 | 10 | 99 | 7 | 0 | 2 | 12 | 0 | 5 | 4 | 1 | 0 | 0 | 9 | 8 | 0 | 318 |

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------|----|-----|---|---|---|----|-----|----|---|---|----|---|----|---|---|---|---|----|---|---|-----|
| 11:00 AM - 11:15 AM | 7 | 157 | 5 | 0 | 3 | 10 | 142 | 8 | 2 | 2 | 14 | 0 | 0 | 3 | 0 | 2 | 0 | 6 | 2 | 1 | 351 |
| 11:15 AM - 11:30 AM | 13 | 147 | 1 | 0 | 1 | 5 | 179 | 11 | 1 | 7 | 17 | 0 | 6 | 2 | 0 | 2 | 0 | 1 | 1 | 0 | 382 |
| 11:30 AM - 11:45 AM | 15 | 200 | 2 | 0 | 2 | 5 | 155 | 8 | 0 | 1 | 24 | 0 | 8 | 6 | 1 | 0 | 0 | 6 | 3 | 0 | 423 |
| 11:45 AM - 12:00 PM | 13 | 201 | 1 | 0 | 1 | 10 | 188 | 6 | 0 | 5 | 27 | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 449 |
| 12:00 PM - 12:15 PM | 16 | 214 | 2 | 0 | 6 | 7 | 178 | 6 | 1 | 2 | 39 | 0 | 9 | 6 | 1 | 1 | 0 | 6 | 4 | 0 | 478 |
| 12:15 PM - 12:30 PM | 16 | 183 | 3 | 0 | 3 | 13 | 213 | 17 | 3 | 2 | 25 | 0 | 10 | 3 | 1 | 0 | 0 | 5 | 2 | 0 | 485 |
| 12:30 PM - 12:45 PM | 17 | 175 | 1 | 0 | 3 | 13 | 200 | 20 | 2 | 4 | 21 | 0 | 5 | 4 | 1 | 0 | 0 | 7 | 2 | 0 | 459 |
| 12:45 PM - 1:00 PM | 19 | 195 | 2 | 0 | 4 | 7 | 197 | 17 | 1 | 5 | 19 | 0 | 5 | 2 | 0 | 1 | 0 | 11 | 5 | 0 | 473 |

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|----|-----|---|---|---|----|-----|----|---|---|----|---|----|----|---|---|---|---|---|-----|-----|
| 2:00 PM - 2:15 PM | 14 | 161 | 1 | 0 | 2 | 8 | 241 | 10 | 0 | 1 | 17 | 0 | 4 | 1 | 2 | 0 | 7 | 5 | 0 | 465 | |
| 2:15 PM - 2:30 PM | 12 | 152 | 3 | 0 | 1 | 6 | 192 | 7 | 0 | 4 | 7 | 0 | 6 | 3 | 0 | 1 | 0 | 4 | 3 | 0 | 390 |
| 2:30 PM - 2:45 PM | 8 | 186 | 2 | 0 | 1 | 7 | 221 | 13 | 0 | 3 | 8 | 0 | 1 | 1 | 1 | 4 | 0 | 2 | 1 | 0 | 452 |
| 2:45 PM - 3:00 PM | 9 | 201 | 2 | 0 | 2 | 10 | 181 | 6 | 0 | 3 | 8 | 0 | 2 | 1 | 0 | 3 | 0 | 6 | 5 | 0 | 428 |
| 3:00 PM - 3:15 PM | 14 | 178 | 5 | 0 | 1 | 8 | 179 | 6 | 0 | 3 | 9 | 0 | 7 | 4 | 1 | 3 | 0 | 7 | 6 | 0 | 416 |
| 3:15 PM - 3:30 PM | 16 | 186 | 3 | 0 | 1 | 9 | 190 | 12 | 0 | 2 | 11 | 0 | 5 | 4 | 1 | 4 | 0 | 3 | 2 | 0 | 439 |
| 3:30 PM - 3:45 PM | 18 | 223 | 4 | 1 | 0 | 15 | 196 | 9 | 0 | 4 | 8 | 1 | 8 | 5 | 2 | 2 | 1 | 4 | 3 | 0 | 489 |
| 3:45 PM - 4:00 PM | 13 | 242 | 9 | 1 | 0 | 11 | 187 | 12 | 0 | 5 | 10 | 0 | 5 | 1 | 1 | 1 | 1 | 5 | 3 | 0 | 496 |
| 4:00 PM - 4:15 PM | 18 | 226 | 7 | 0 | 1 | 16 | 179 | 6 | 1 | 2 | 21 | 0 | 9 | 7 | 0 | 3 | 0 | 4 | 2 | 1 | 489 |
| 4:15 PM - 4:30 PM | 16 | 216 | 3 | 1 | 3 | 9 | 212 | 4 | 1 | 1 | 18 | 0 | 2 | 0 | 1 | 4 | 0 | 7 | 6 | 0 | 491 |
| 4:30 PM - 4:45 PM | 23 | 217 | 1 | 0 | 0 | 19 | 243 | 5 | 1 | 2 | 41 | 0 | 14 | 7 | 2 | 3 | 0 | 4 | 3 | 0 | 570 |
| 4:45 PM - 5:00 PM | 15 | 196 | 1 | 0 | 0 | 13 | 235 | 3 | 0 | 2 | 23 | 0 | 12 | 4 | 2 | 1 | 1 | 4 | 3 | 0 | 504 |
| 5:00 PM - 5:15 PM | 49 | 262 | 2 | 1 | 1 | 20 | 248 | 3 | 0 | 2 | 48 | 0 | 25 | 11 | 1 | 2 | 0 | 3 | 1 | 0 | 662 |
| 5:15 PM - 5:30 PM | 16 | 240 | 6 | 0 | 1 | 12 | 247 | 3 | 0 | 2 | 20 | 0 | 6 | 5 | 2 | 4 | 0 | 6 | 3 | 0 | 560 |
| 5:30 PM - 5:45 PM | 34 | 258 | 4 | 1 | 1 | 13 | 237 | 2 | 0 | 1 | 58 | 1 | 34 | 6 | 0 | 2 | 0 | 5 | 4 | 0 | 648 |
| 5:45 PM - 6:00 PM | 10 | 219 | 2 | 0 | 0 | 6 | 189 | 3 | 0 | 1 | 14 | 0 | 13 | 2 | 3 | 2 | 0 | 7 | 4 | 0 | 465 |

7-9 AM Peak Hour: 7:30 AM - 8:30 AM
 11-1 Mid-Day Peak Hour: 12:00 PM - 1:00 PM
 2-6 PM Peak Hour: 4:45 PM - 5:45 PM
 4-6 PM Peak Hour: 4:45 PM - 5:45 PM



Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report (Bicycles & Pedestrians)

Prepared For:

Peters Engineering Group
 952 Pollasky Avenue
 Clovis, CA 93612

LOCATION 25 Mooney / 268

LATITUDE 36.276768

COUNTY Tulare

LONGITUDE -119.313383

COLLECTION DATE Tuesday, May 14, 2019

WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 7:45 AM - 8:00 AM | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 2 |
| HOURLY TOTAL | 0 | 0 | 1 | 3 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 3 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 1 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 11:00 AM - 11:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 5 | 1 |
| 11:15 AM - 11:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 11:30 AM - 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 11:45 AM - 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 0 | 6 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 12:00 PM - 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 |
| 12:15 PM - 12:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 4 | 1 |
| 12:30 PM - 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 |
| 12:45 PM - 1:00 PM | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 4 | 1 |
| HOURLY TOTAL | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 1 | 12 | 2 |

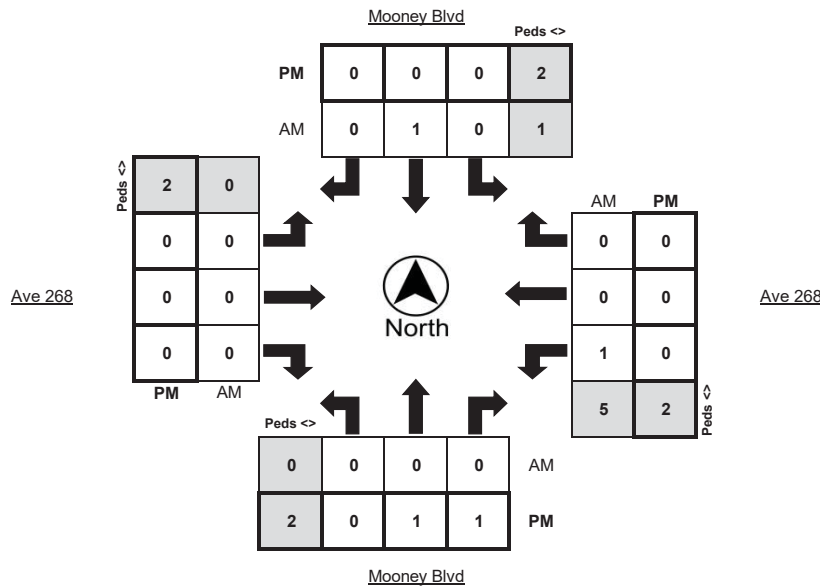
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|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|-----------|----------|
| 2:00 PM - 2:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 2:15 PM - 2:30 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 6 | 2 |
| 2:30 PM - 2:45 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 | 2 |
| 2:45 PM - 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 4 | 1 |
| HOURLY TOTAL | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 12 | 1 | 0 | 0 | 1 | 16 | 5 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 3:00 PM - 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM - 3:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 12 | 0 |
| 3:30 PM - 3:45 PM | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 4 | 3 |
| 3:45 PM - 4:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 4 | 0 |
| HOURLY TOTAL | 0 | 0 | 0 | 2 | 2 | 0 | 1 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 20 | 3 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 4:00 PM - 4:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 0 |
| HOURLY TOTAL | 0 | 0 | 1 | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 11 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 5:00 PM - 5:15 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 2 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds | Total Peds | Total Bikes |
|---------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|------------|-------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | | |
| 11:00 AM - 12:00 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 0 | 6 | 2 |
| 4:45 PM - 5:45 PM | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 8 | 2 |



National Data & Surveying Services

Intersection Turning Movement Count

Location: S West St & W Caldwell Ave
 City: Visalia
 Control: Signalized

Project ID: 20-090139-001
 Date: 8/25/2020

Total

| NS/EW Streets: | S West St | | | | S West St | | | | W Caldwell Ave | | | | W Caldwell Ave | | | | TOTAL |
|-------------------------|---------------------|--------|--------|-------|------------|--------|--------|-------|----------------|--------|-------|-------|----------------|--------|-------|-------|-------|
| | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| AM | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 1 | 0 | 1 | 2 | 1 | 0 | TOTAL |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | |
| 7:00 AM | 8 | 10 | 1 | 0 | 4 | 6 | 8 | 0 | 2 | 46 | 2 | 1 | 4 | 53 | 4 | 1 | 150 |
| 7:15 AM | 6 | 8 | 3 | 0 | 1 | 16 | 8 | 0 | 7 | 58 | 6 | 0 | 9 | 89 | 2 | 0 | 213 |
| 7:30 AM | 6 | 15 | 5 | 0 | 13 | 18 | 10 | 0 | 6 | 68 | 4 | 2 | 7 | 101 | 3 | 1 | 259 |
| 7:45 AM | 6 | 18 | 2 | 0 | 3 | 14 | 8 | 0 | 12 | 88 | 3 | 0 | 6 | 111 | 6 | 0 | 277 |
| 8:00 AM | 6 | 8 | 7 | 0 | 7 | 9 | 6 | 0 | 6 | 68 | 7 | 0 | 5 | 88 | 8 | 1 | 226 |
| 8:15 AM | 7 | 8 | 2 | 0 | 3 | 10 | 6 | 0 | 4 | 71 | 1 | 0 | 5 | 99 | 8 | 2 | 226 |
| 8:30 AM | 2 | 15 | 4 | 0 | 2 | 5 | 15 | 0 | 3 | 63 | 3 | 0 | 2 | 112 | 5 | 0 | 231 |
| 8:45 AM | 6 | 13 | 5 | 0 | 2 | 12 | 10 | 0 | 8 | 63 | 6 | 2 | 2 | 99 | 4 | 2 | 234 |
| TOTAL VOLUMES : | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| APPROACH %'s : | 47 | 95 | 29 | 0 | 35 | 90 | 71 | 0 | 48 | 525 | 32 | 5 | 40 | 752 | 40 | 7 | 1816 |
| | 27.49% | 55.56% | 16.96% | 0.00% | 17.86% | 45.92% | 36.22% | 0.00% | 7.87% | 86.07% | 5.25% | 0.82% | 4.77% | 89.63% | 4.77% | 0.83% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 25 | 49 | 16 | 0 | 26 | 51 | 30 | 0 | 28 | 295 | 15 | 2 | 23 | 399 | 25 | 4 | 988 |
| PEAK HR FACTOR : | 0.893 | 0.681 | 0.571 | 0.000 | 0.500 | 0.708 | 0.750 | 0.000 | 0.583 | 0.838 | 0.536 | 0.250 | 0.821 | 0.899 | 0.781 | 0.500 | 0.892 |
| | 0.865 | | | | 0.652 | | | | 0.825 | | | | 0.917 | | | | |

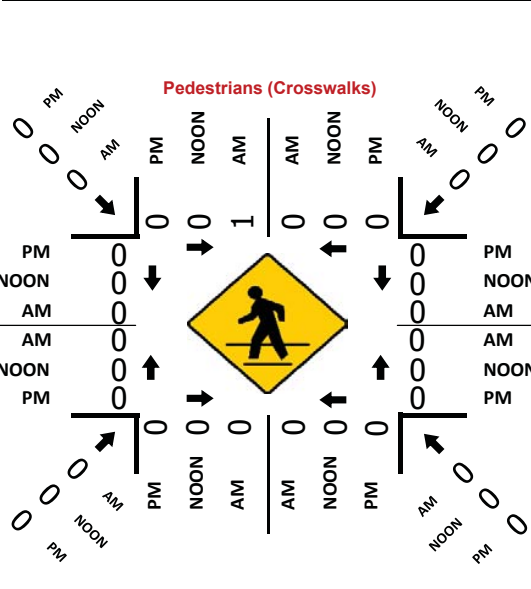
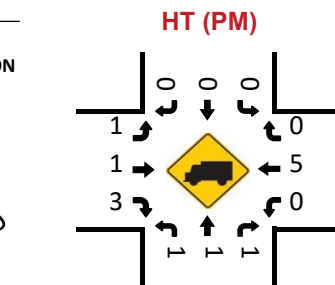
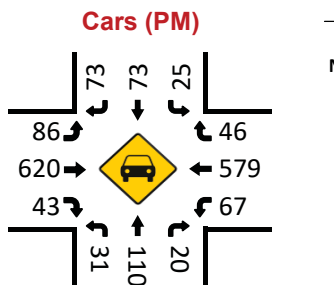
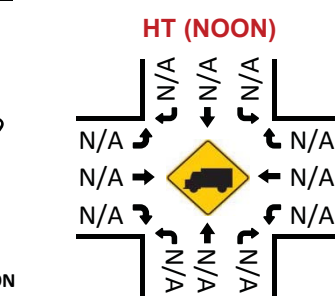
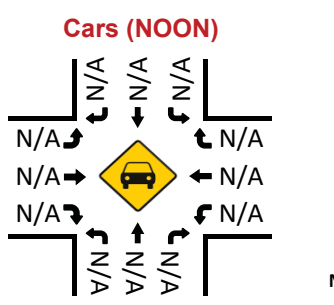
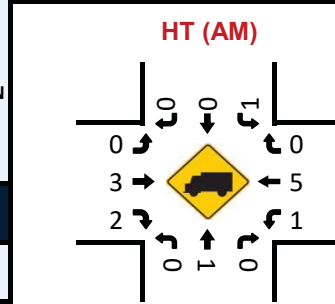
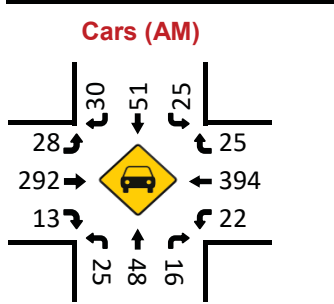
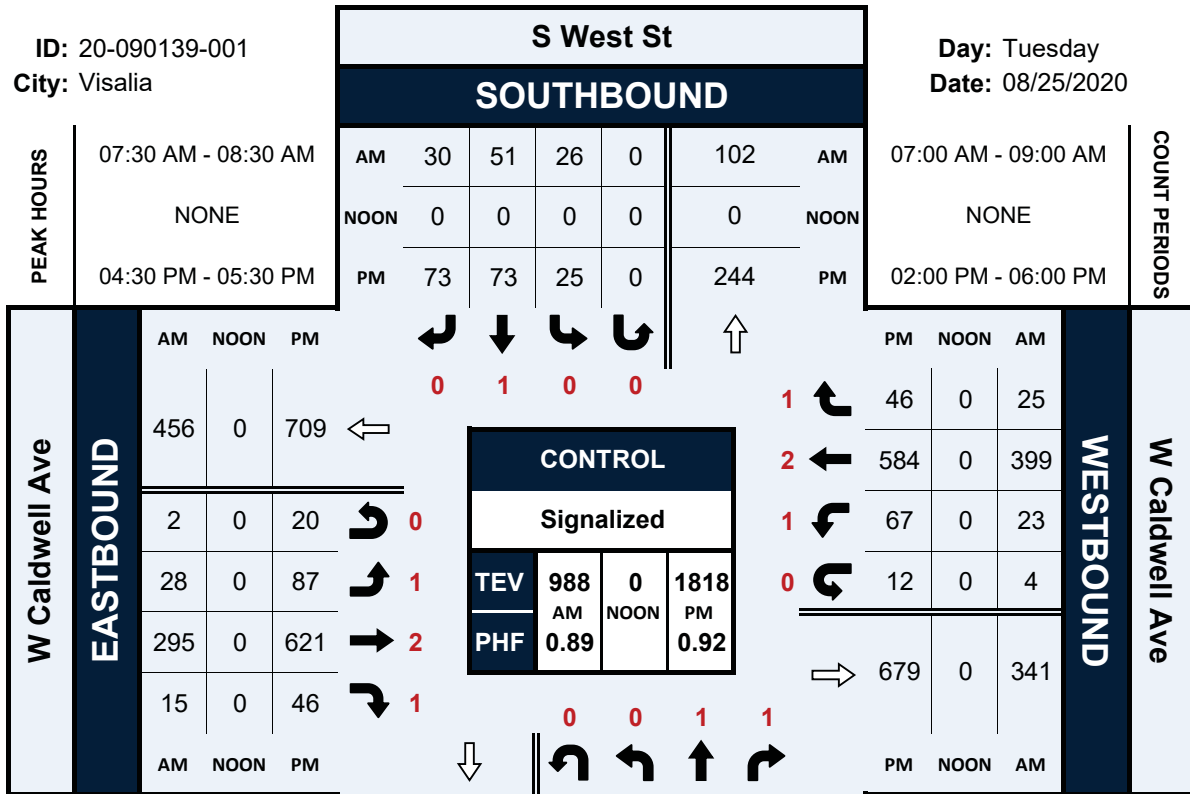
| NS/EW Streets: | S West St | | | | S West St | | | | W Caldwell Ave | | | | W Caldwell Ave | | | | TOTAL |
|-------------------------|---------------------|--------|--------|-------|------------|--------|--------|-------|----------------|--------|-------|-------|----------------|--------|-------|-------|-------|
| | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| PM | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 1 | 0 | 1 | 2 | 1 | 0 | TOTAL |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | |
| 2:00 PM | 12 | 21 | 6 | 0 | 4 | 19 | 8 | 0 | 11 | 122 | 17 | 4 | 6 | 117 | 8 | 5 | 360 |
| 2:15 PM | 6 | 25 | 3 | 0 | 7 | 11 | 10 | 0 | 7 | 129 | 14 | 1 | 11 | 141 | 8 | 3 | 376 |
| 2:30 PM | 15 | 16 | 5 | 0 | 3 | 16 | 10 | 0 | 19 | 126 | 14 | 4 | 8 | 131 | 6 | 3 | 376 |
| 2:45 PM | 9 | 18 | 3 | 0 | 5 | 16 | 14 | 0 | 11 | 134 | 11 | 4 | 19 | 144 | 9 | 3 | 400 |
| 3:00 PM | 4 | 26 | 5 | 0 | 6 | 16 | 11 | 0 | 15 | 145 | 11 | 2 | 12 | 118 | 8 | 3 | 382 |
| 3:15 PM | 7 | 22 | 5 | 0 | 9 | 16 | 14 | 0 | 15 | 123 | 8 | 2 | 10 | 129 | 8 | 4 | 372 |
| 3:30 PM | 15 | 20 | 4 | 0 | 5 | 25 | 19 | 0 | 9 | 132 | 12 | 4 | 15 | 141 | 8 | 4 | 413 |
| 3:45 PM | 7 | 17 | 6 | 0 | 9 | 13 | 9 | 0 | 15 | 112 | 12 | 3 | 14 | 140 | 10 | 3 | 370 |
| 4:00 PM | 12 | 17 | 3 | 0 | 5 | 12 | 19 | 0 | 13 | 135 | 9 | 3 | 13 | 130 | 5 | 2 | 378 |
| 4:15 PM | 12 | 24 | 8 | 0 | 4 | 13 | 12 | 0 | 13 | 134 | 8 | 2 | 15 | 150 | 6 | 4 | 405 |
| 4:30 PM | 8 | 23 | 3 | 0 | 5 | 10 | 14 | 0 | 15 | 161 | 9 | 7 | 9 | 153 | 16 | 1 | 434 |
| 4:45 PM | 3 | 30 | 6 | 0 | 6 | 19 | 20 | 0 | 25 | 148 | 12 | 4 | 16 | 132 | 9 | 3 | 433 |
| 5:00 PM | 6 | 31 | 7 | 0 | 8 | 25 | 16 | 0 | 25 | 177 | 15 | 6 | 20 | 142 | 16 | 2 | 496 |
| 5:15 PM | 15 | 27 | 5 | 0 | 6 | 19 | 23 | 0 | 22 | 135 | 10 | 3 | 22 | 157 | 5 | 6 | 455 |
| 5:30 PM | 11 | 26 | 7 | 0 | 3 | 17 | 12 | 0 | 21 | 140 | 12 | 3 | 12 | 131 | 11 | 4 | 410 |
| 5:45 PM | 6 | 29 | 3 | 0 | 3 | 13 | 14 | 0 | 21 | 126 | 13 | 3 | 12 | 129 | 5 | 5 | 382 |
| TOTAL VOLUMES : | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| APPROACH %'s : | 148 | 372 | 79 | 0 | 88 | 260 | 225 | 0 | 257 | 2179 | 187 | 55 | 214 | 2185 | 138 | 55 | 6442 |
| | 24.71% | 62.10% | 13.19% | 0.00% | 15.36% | 45.38% | 39.27% | 0.00% | 9.60% | 81.37% | 6.98% | 2.05% | 8.26% | 84.30% | 5.32% | 2.12% | |
| PEAK HR : | 04:30 PM - 05:30 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 32 | 111 | 21 | 0 | 25 | 73 | 73 | 0 | 87 | 621 | 46 | 20 | 67 | 584 | 46 | 12 | 1818 |
| PEAK HR FACTOR : | 0.533 | 0.895 | 0.750 | 0.000 | 0.781 | 0.730 | 0.793 | 0.000 | 0.870 | 0.877 | 0.767 | 0.714 | 0.761 | 0.930 | 0.719 | 0.500 | 0.916 |
| | 0.872 | | | | 0.872 | | | | 0.868 | | | | 0.933 | | | | |

S West St & W Caldwell Ave

Peak Hour Turning Movement Count

ID: 20-090139-001
City: Visalia

Day: Tuesday
Date: 08/25/2020



National Data & Surveying Services

Intersection Turning Movement Count

Location: S Giddings St & W Whitendale Ave
 City: Visalia
 Control: Signalized

Project ID: 20-90136-001
 Date: 8/5/2020

Total

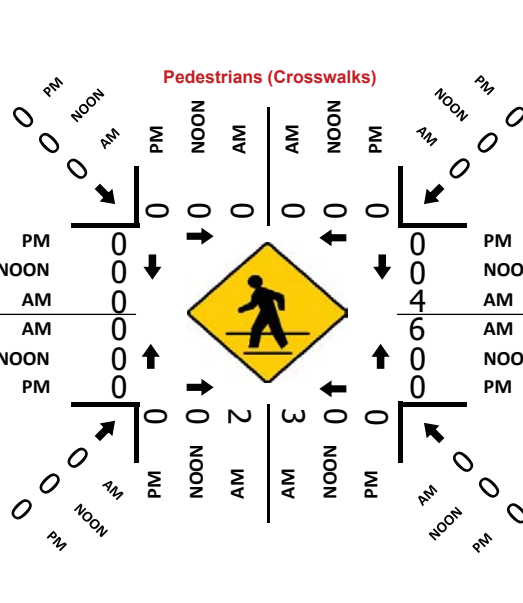
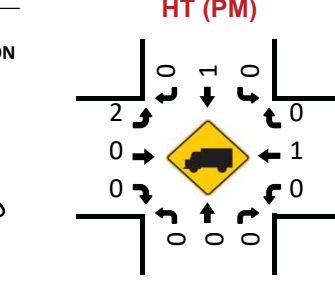
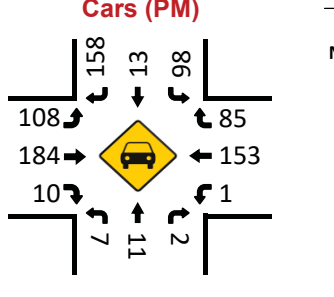
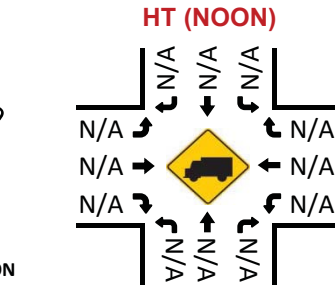
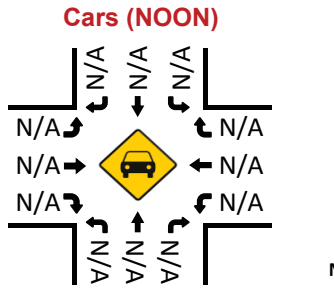
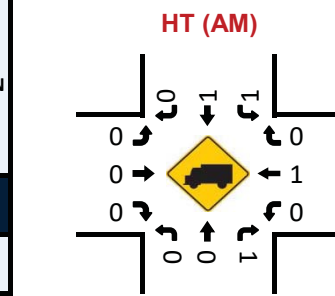
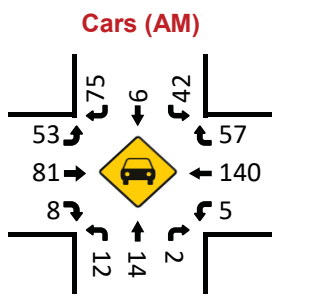
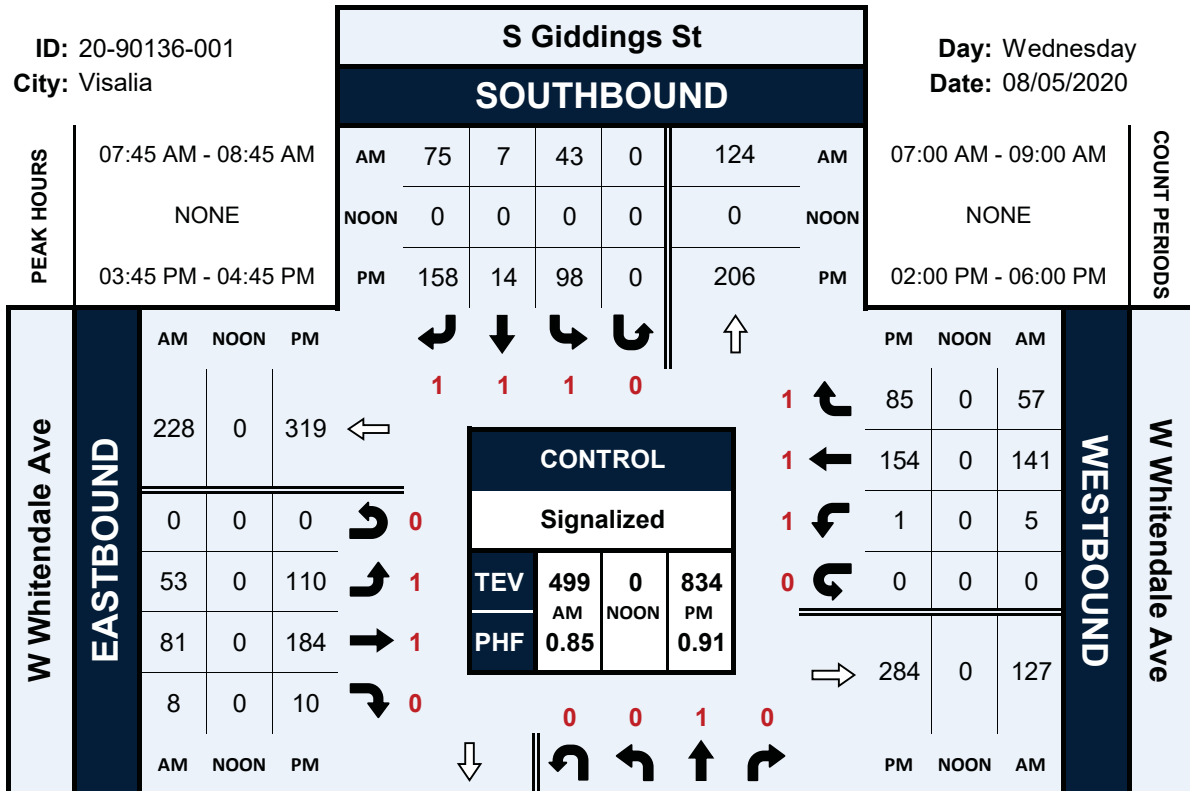
| NS/EW Streets: | S Giddings St | | | | S Giddings St | | | | W Whitendale Ave | | | | W Whitendale Ave | | | | |
|-------------------------|----------------------------|---------|---------|---------|---------------|---------|---------|---------|------------------|---------|---------|---------|------------------|---------|---------|---------|--------------|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | TOTAL |
| | 0 NL | 1 NT | 0 NR | 0 NU | 1 SL | 1 ST | 1 SR | 0 SU | 1 EL | 1 ET | 0 ER | 0 EU | 1 WL | 1 WT | 1 WR | 0 WU | |
| 7:00 AM | 1 | 3 | 0 | 0 | 5 | 3 | 8 | 0 | 11 | 10 | 1 | 0 | 0 | 22 | 10 | 0 | 74 |
| 7:15 AM | 2 | 3 | 0 | 0 | 4 | 3 | 14 | 0 | 5 | 16 | 1 | 0 | 0 | 19 | 13 | 0 | 80 |
| 7:30 AM | 3 | 3 | 1 | 0 | 11 | 2 | 18 | 0 | 11 | 18 | 0 | 0 | 1 | 24 | 18 | 0 | 110 |
| 7:45 AM | 1 | 4 | 1 | 0 | 11 | 3 | 19 | 0 | 22 | 18 | 3 | 0 | 1 | 44 | 20 | 0 | 147 |
| 8:00 AM | 5 | 2 | 1 | 0 | 12 | 3 | 15 | 0 | 9 | 17 | 2 | 0 | 0 | 28 | 13 | 0 | 107 |
| 8:15 AM | 4 | 4 | 0 | 0 | 7 | 1 | 19 | 0 | 10 | 23 | 2 | 0 | 0 | 28 | 12 | 0 | 110 |
| 8:30 AM | 2 | 4 | 1 | 0 | 13 | 0 | 22 | 0 | 12 | 23 | 1 | 0 | 4 | 41 | 12 | 0 | 135 |
| 8:45 AM | 5 | 3 | 1 | 0 | 11 | 3 | 16 | 0 | 11 | 23 | 1 | 0 | 2 | 32 | 17 | 0 | 125 |
| TOTAL VOLUMES : | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| APPROACH %'s : | 42.59% | 48.15% | 9.26% | 0.00% | 33.18% | 8.07% | 58.74% | 0.00% | 36.40% | 59.20% | 4.40% | 0.00% | 2.22% | 65.93% | 31.86% | 0.00% | 888 |
| PEAK HR : | 07:45 AM - 08:45 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 12 | 14 | 3 | 0 | 43 | 7 | 75 | 0 | 53 | 81 | 8 | 0 | 5 | 141 | 57 | 0 | 499 |
| PEAK HR FACTOR : | 0.600 | 0.875 | 0.750 | 0.000 | 0.827 | 0.583 | 0.852 | 0.000 | 0.602 | 0.880 | 0.667 | 0.000 | 0.313 | 0.801 | 0.713 | 0.000 | 0.849 |
| | 0.906 | | | | 0.893 | | | | 0.826 | | | | 0.781 | | | | |
| PM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | TOTAL |
| | 0 NL | 1 NT | 0 NR | 0 NU | 1 SL | 1 ST | 1 SR | 0 SU | 1 EL | 1 ET | 0 ER | 0 EU | 1 WL | 1 WT | 1 WR | 0 WU | |
| 2:00 PM | 1 | 1 | 2 | 0 | 11 | 1 | 37 | 0 | 38 | 42 | 2 | 0 | 0 | 42 | 12 | 0 | 189 |
| 2:15 PM | 1 | 1 | 1 | 0 | 16 | 3 | 32 | 0 | 18 | 34 | 6 | 0 | 0 | 30 | 14 | 0 | 156 |
| 2:30 PM | 2 | 0 | 0 | 0 | 20 | 0 | 36 | 0 | 33 | 46 | 1 | 0 | 0 | 28 | 19 | 0 | 185 |
| 2:45 PM | 0 | 3 | 0 | 0 | 15 | 4 | 42 | 0 | 25 | 50 | 0 | 0 | 0 | 43 | 20 | 0 | 202 |
| 3:00 PM | 0 | 3 | 0 | 0 | 20 | 0 | 29 | 0 | 24 | 47 | 5 | 0 | 0 | 35 | 14 | 0 | 177 |
| 3:15 PM | 1 | 3 | 1 | 0 | 14 | 3 | 41 | 0 | 31 | 47 | 1 | 0 | 0 | 35 | 8 | 0 | 185 |
| 3:30 PM | 2 | 1 | 0 | 0 | 19 | 4 | 40 | 0 | 21 | 44 | 1 | 0 | 0 | 38 | 20 | 0 | 190 |
| 3:45 PM | 2 | 4 | 1 | 0 | 20 | 3 | 45 | 0 | 32 | 57 | 2 | 0 | 0 | 39 | 23 | 0 | 228 |
| 4:00 PM | 2 | 4 | 0 | 0 | 24 | 6 | 37 | 0 | 22 | 31 | 4 | 0 | 0 | 38 | 21 | 0 | 189 |
| 4:15 PM | 3 | 1 | 1 | 0 | 30 | 4 | 40 | 0 | 26 | 48 | 1 | 0 | 0 | 42 | 22 | 0 | 218 |
| 4:30 PM | 0 | 2 | 0 | 0 | 24 | 1 | 36 | 0 | 30 | 48 | 3 | 0 | 1 | 35 | 19 | 0 | 199 |
| 4:45 PM | 2 | 2 | 0 | 0 | 22 | 3 | 32 | 0 | 24 | 52 | 2 | 0 | 0 | 35 | 11 | 0 | 185 |
| 5:00 PM | 1 | 1 | 1 | 0 | 17 | 1 | 49 | 0 | 29 | 64 | 4 | 0 | 2 | 27 | 15 | 0 | 211 |
| 5:15 PM | 1 | 2 | 1 | 0 | 24 | 6 | 37 | 0 | 36 | 45 | 6 | 0 | 0 | 45 | 20 | 0 | 223 |
| 5:30 PM | 1 | 5 | 0 | 0 | 21 | 4 | 35 | 0 | 26 | 56 | 2 | 0 | 0 | 29 | 17 | 0 | 196 |
| 5:45 PM | 1 | 0 | 0 | 0 | 30 | 4 | 34 | 0 | 23 | 35 | 0 | 0 | 1 | 31 | 18 | 0 | 177 |
| TOTAL VOLUMES : | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| APPROACH %'s : | 32.79% | 54.10% | 13.11% | 0.00% | 33.50% | 4.82% | 61.68% | 0.00% | 35.78% | 60.95% | 3.27% | 0.00% | 0.47% | 67.37% | 32.16% | 0.00% | 3110 |
| PEAK HR : | 03:45 PM - 04:45 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 7 | 11 | 2 | 0 | 98 | 14 | 158 | 0 | 110 | 184 | 10 | 0 | 1 | 154 | 85 | 0 | 834 |
| PEAK HR FACTOR : | 0.583 | 0.688 | 0.500 | 0.000 | 0.817 | 0.583 | 0.878 | 0.000 | 0.859 | 0.807 | 0.625 | 0.000 | 0.250 | 0.917 | 0.924 | 0.000 | 0.914 |
| | 0.714 | | | | 0.912 | | | | 0.835 | | | | 0.938 | | | | |

S Giddings St & W Whitendale Ave

Peak Hour Turning Movement Count

ID: 20-90136-001
City: Visalia

Day: Wednesday
Date: 08/05/2020



National Data & Surveying Services

Intersection Turning Movement Count

Location: S Court St & W Cameron Ave
 City: Visalia
 Control: 4-Way Stop

Project ID: 20-90136-003
 Date: 8/5/2020

Total

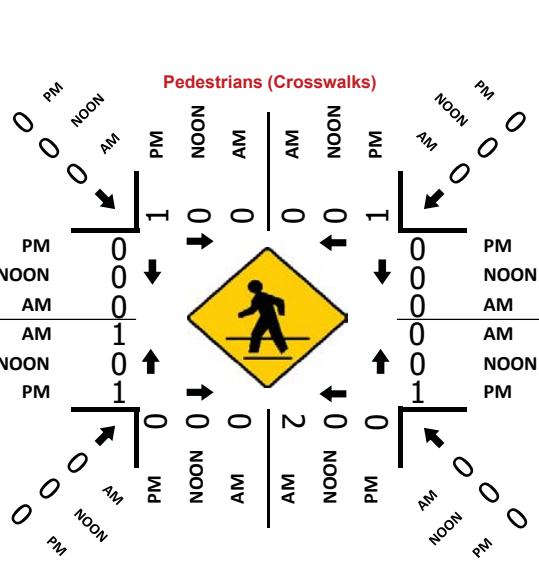
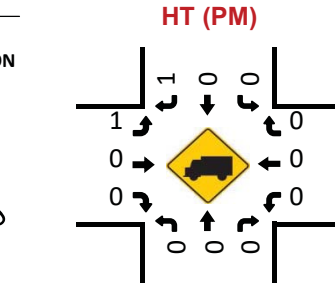
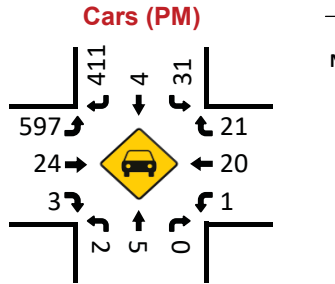
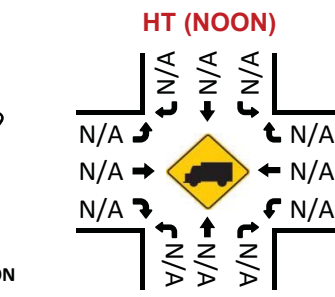
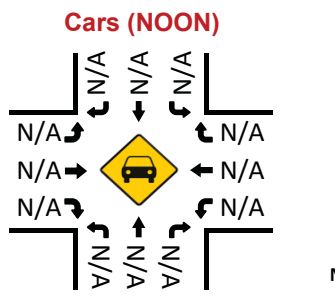
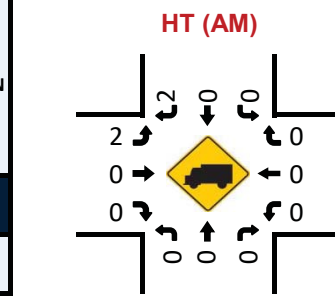
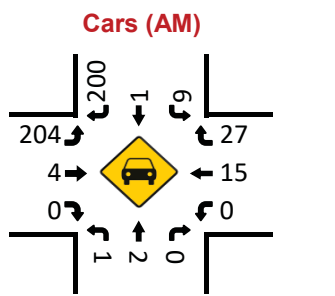
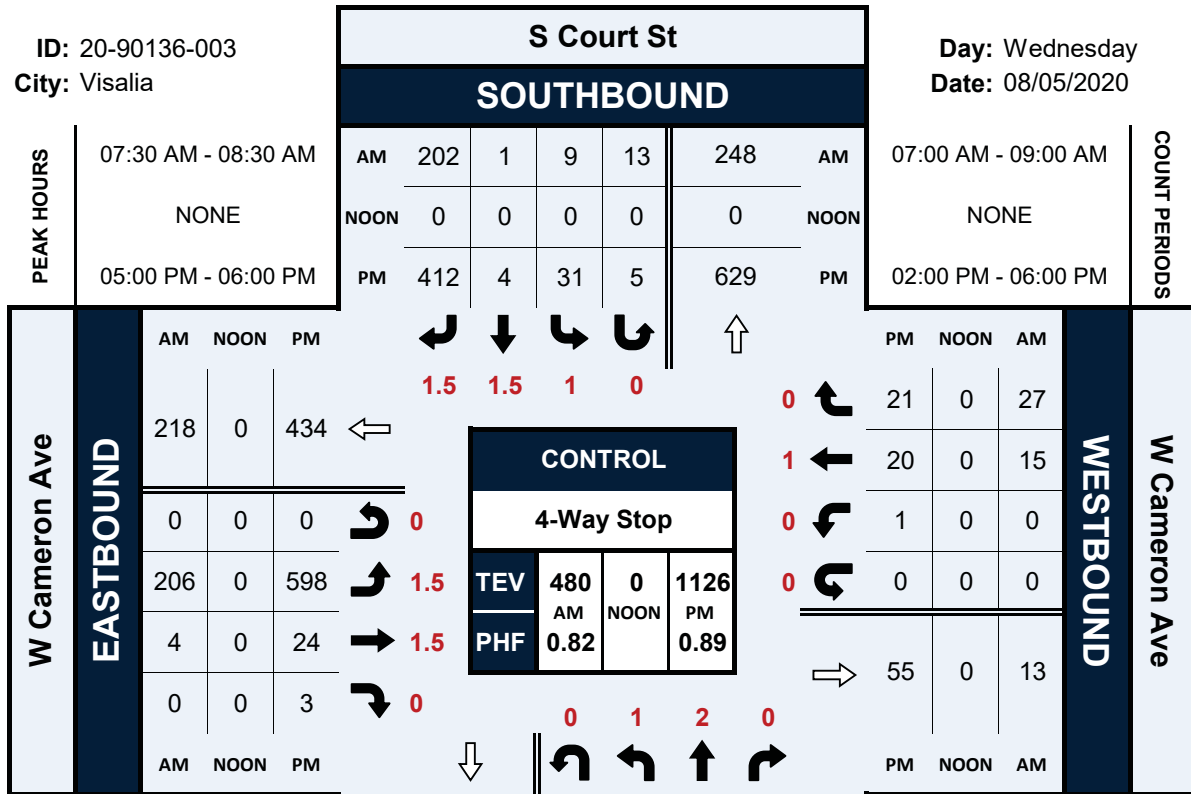
| NS/EW Streets: | S Court St | | | | S Court St | | | | W Cameron Ave | | | | W Cameron Ave | | | | TOTAL |
|-------------------------|----------------------------|---------|---------|---------|------------|-----------|-----------|---------|---------------|-----------|---------|---------|---------------|---------|---------|---------|--------------|
| | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| AM | 1 NL | 2 NT | 0 NR | 0 NU | 1 SL | 1.5 ST | 1.5 SR | 0 SU | 1.5 EL | 1.5 ET | 0 ER | 0 EU | 0 WL | 1 WT | 0 WR | 0 WU | TOTAL |
| 7:00 AM | 1 | 1 | 0 | 0 | 3 | 0 | 30 | 2 | 19 | 1 | 0 | 0 | 0 | 4 | 3 | 0 | 64 |
| 7:15 AM | 1 | 1 | 0 | 0 | 1 | 0 | 30 | 1 | 43 | 0 | 0 | 0 | 0 | 2 | 6 | 0 | 85 |
| 7:30 AM | 0 | 0 | 0 | 0 | 4 | 0 | 46 | 5 | 48 | 0 | 0 | 0 | 0 | 5 | 9 | 0 | 117 |
| 7:45 AM | 1 | 1 | 0 | 0 | 1 | 0 | 52 | 6 | 70 | 1 | 0 | 0 | 0 | 6 | 8 | 0 | 146 |
| 8:00 AM | 0 | 1 | 0 | 0 | 0 | 0 | 44 | 1 | 45 | 1 | 0 | 0 | 0 | 2 | 8 | 0 | 102 |
| 8:15 AM | 0 | 0 | 0 | 0 | 4 | 1 | 60 | 1 | 43 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 115 |
| 8:30 AM | 0 | 0 | 0 | 0 | 2 | 1 | 53 | 0 | 49 | 2 | 0 | 0 | 0 | 4 | 3 | 0 | 114 |
| 8:45 AM | 1 | 0 | 0 | 0 | 3 | 1 | 59 | 3 | 61 | 2 | 0 | 0 | 0 | 5 | 8 | 0 | 143 |
| TOTAL VOLUMES : | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| APPROACH %'s : | 4 | 4 | 0 | 0 | 18 | 3 | 374 | 19 | 378 | 9 | 0 | 0 | 0 | 30 | 47 | 0 | 886 |
| | 50.00% | 50.00% | 0.00% | 0.00% | 4.35% | 0.72% | 90.34% | 4.59% | 97.67% | 2.33% | 0.00% | 0.00% | 0.00% | 38.96% | 61.04% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 1 | 2 | 0 | 0 | 9 | 1 | 202 | 13 | 206 | 4 | 0 | 0 | 0 | 15 | 27 | 0 | 480 |
| PEAK HR FACTOR : | 0.250 | 0.500 | 0.000 | 0.000 | 0.563 | 0.250 | 0.842 | 0.542 | 0.736 | 0.500 | 0.000 | 0.000 | 0.000 | 0.625 | 0.750 | 0.000 | 0.822 |
| | 0.375 | | | | | | | | | | | | | | | | |
| | 0.852 | | | | | | | | | | | | | | | | |
| | 0.739 | | | | | | | | | | | | | | | | |
| | 0.750 | | | | | | | | | | | | | | | | |
| PM | 1 NL | 2 NT | 0 NR | 0 NU | 1 SL | 1.5 ST | 1.5 SR | 0 SU | 1.5 EL | 1.5 ET | 0 ER | 0 EU | 0 WL | 1 WT | 0 WR | 0 WU | TOTAL |
| 2:00 PM | 2 | 0 | 0 | 0 | 7 | 0 | 106 | 3 | 116 | 4 | 0 | 0 | 0 | 4 | 2 | 0 | 244 |
| 2:15 PM | 1 | 1 | 0 | 0 | 3 | 0 | 90 | 2 | 136 | 2 | 0 | 0 | 0 | 1 | 3 | 0 | 239 |
| 2:30 PM | 0 | 0 | 1 | 0 | 7 | 0 | 108 | 1 | 132 | 2 | 1 | 0 | 0 | 3 | 4 | 0 | 259 |
| 2:45 PM | 1 | 0 | 0 | 0 | 7 | 0 | 76 | 2 | 144 | 2 | 0 | 0 | 0 | 7 | 5 | 0 | 244 |
| 3:00 PM | 0 | 0 | 0 | 0 | 4 | 0 | 78 | 4 | 131 | 7 | 1 | 0 | 0 | 6 | 2 | 0 | 233 |
| 3:15 PM | 0 | 0 | 0 | 0 | 10 | 1 | 87 | 1 | 138 | 5 | 0 | 0 | 0 | 2 | 5 | 0 | 249 |
| 3:30 PM | 0 | 0 | 0 | 0 | 7 | 1 | 100 | 2 | 120 | 7 | 1 | 0 | 0 | 3 | 2 | 0 | 243 |
| 3:45 PM | 0 | 1 | 0 | 0 | 7 | 1 | 85 | 2 | 126 | 6 | 0 | 0 | 0 | 4 | 5 | 0 | 237 |
| 4:00 PM | 1 | 1 | 0 | 0 | 6 | 1 | 105 | 1 | 132 | 5 | 0 | 0 | 0 | 4 | 4 | 0 | 260 |
| 4:15 PM | 0 | 1 | 0 | 0 | 6 | 1 | 101 | 1 | 116 | 7 | 2 | 0 | 0 | 2 | 5 | 0 | 242 |
| 4:30 PM | 0 | 0 | 0 | 0 | 7 | 1 | 105 | 2 | 126 | 5 | 0 | 0 | 0 | 6 | 4 | 0 | 256 |
| 4:45 PM | 0 | 0 | 0 | 0 | 8 | 0 | 99 | 1 | 127 | 5 | 1 | 0 | 0 | 3 | 6 | 0 | 250 |
| 5:00 PM | 0 | 1 | 0 | 0 | 4 | 0 | 101 | 0 | 152 | 3 | 0 | 0 | 0 | 9 | 5 | 0 | 275 |
| 5:15 PM | 1 | 1 | 0 | 0 | 7 | 1 | 121 | 2 | 169 | 4 | 1 | 0 | 0 | 6 | 4 | 0 | 317 |
| 5:30 PM | 1 | 1 | 0 | 0 | 11 | 1 | 93 | 2 | 123 | 9 | 2 | 0 | 1 | 1 | 8 | 0 | 253 |
| 5:45 PM | 0 | 2 | 0 | 0 | 9 | 2 | 97 | 1 | 154 | 8 | 0 | 0 | 0 | 4 | 4 | 0 | 281 |
| TOTAL VOLUMES : | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| APPROACH %'s : | 7 | 9 | 1 | 0 | 110 | 10 | 1552 | 27 | 2142 | 81 | 9 | 0 | 1 | 65 | 68 | 0 | 4082 |
| | 41.18% | 52.94% | 5.88% | 0.00% | 6.47% | 0.59% | 91.35% | 1.59% | 95.97% | 3.63% | 0.40% | 0.00% | 0.75% | 48.51% | 50.75% | 0.00% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 2 | 5 | 0 | 0 | 31 | 4 | 412 | 5 | 598 | 24 | 3 | 0 | 1 | 20 | 21 | 0 | 1126 |
| PEAK HR FACTOR : | 0.500 | 0.625 | 0.000 | 0.000 | 0.705 | 0.500 | 0.851 | 0.625 | 0.885 | 0.667 | 0.375 | 0.000 | 0.250 | 0.556 | 0.656 | 0.000 | 0.888 |
| | 0.875 | | | | | | | | | | | | | | | | |
| | 0.863 | | | | | | | | | | | | | | | | |
| | 0.898 | | | | | | | | | | | | | | | | |
| | 0.750 | | | | | | | | | | | | | | | | |

S Court St & W Cameron Ave

Peak Hour Turning Movement Count

ID: 20-90136-003
City: Visalia

Day: Wednesday
Date: 08/05/2020



National Data & Surveying Services

Intersection Turning Movement Count

Location: Rd 122 & Ave 271
 City: Visalia
 Control: No Control

Project ID: 20-90136-004
 Date: 8/5/2020

Total

| NS/EW Streets: | Rd 122 | | | | Rd 122 | | | | Ave 271 | | | | Ave 271 | | | | TOTAL |
|-------------------------|----------------------------|-------|-------|-------|------------|-------|-------|-------|-----------|-------|-------|-------|-----------|-------|-------|-------|-------|
| | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| AM | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | |
| 7:00 AM | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 8 |
| 7:15 AM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 9 |
| 7:30 AM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 10 |
| 7:45 AM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 14 |
| 8:00 AM | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 11 |
| 8:15 AM | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 10 |
| 8:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 8 |
| 8:45 AM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 8 |
| TOTAL VOLUMES : | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| APPROACH %'s : | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 78 |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 0 | 45 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.700 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.705 | 0.000 | 0.804 |
| | | | | | 0.700 | | | | | | | | 0.705 | | | | |

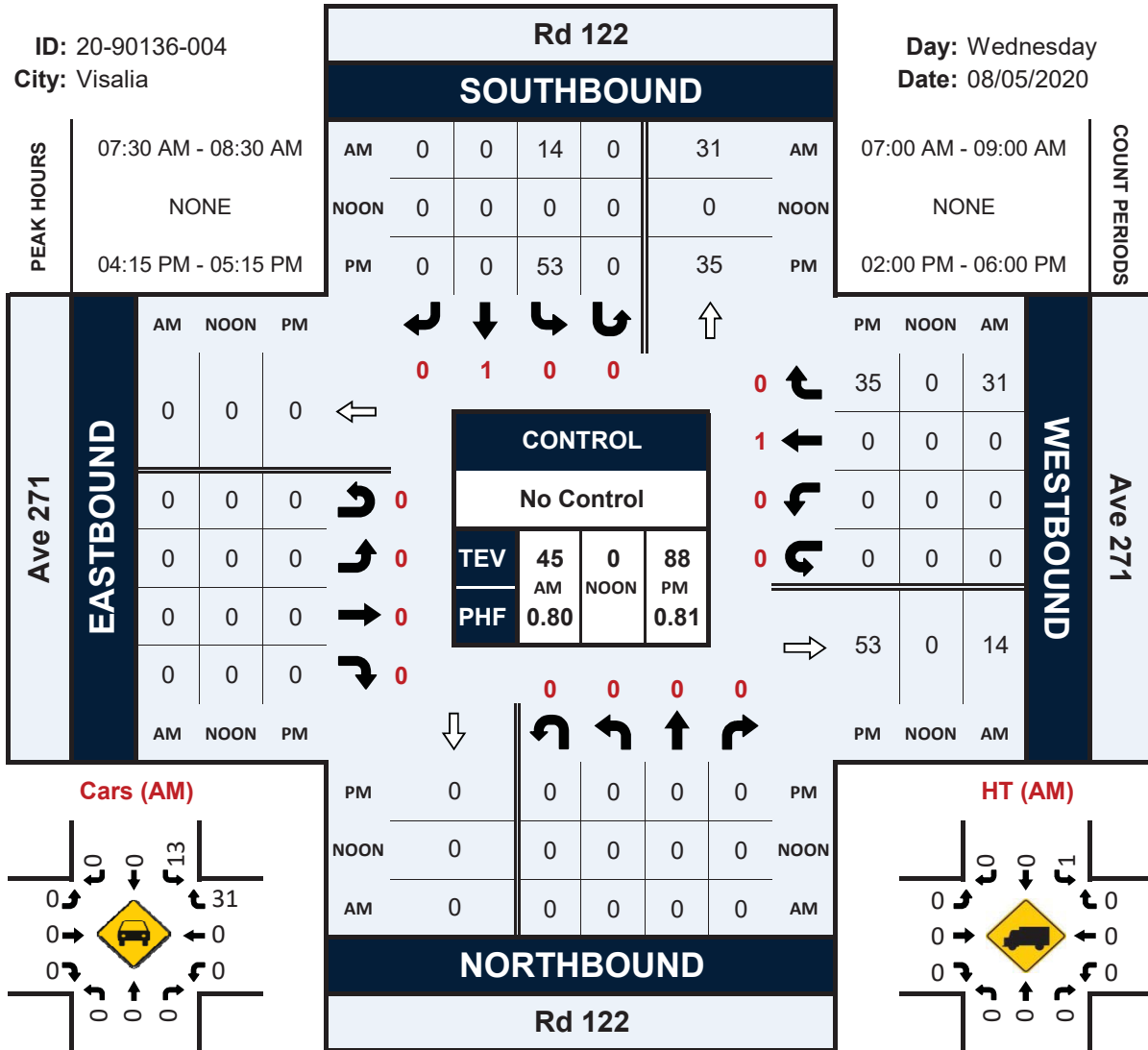
| NS/EW Streets: | Rd 122 | | | | Rd 122 | | | | Ave 271 | | | | Ave 271 | | | | TOTAL |
|-------------------------|----------------------------|-------|-------|-------|------------|-------|-------|-------|-----------|-------|-------|-------|-----------|-------|-------|-------|-------|
| | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| PM | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | |
| 2:00 PM | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 1 | 16 |
| 2:15 PM | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 16 |
| 2:30 PM | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 20 |
| 2:45 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 5 |
| 3:00 PM | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 21 |
| 3:15 PM | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 23 |
| 3:30 PM | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 17 |
| 3:45 PM | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 17 |
| 4:00 PM | 0 | 0 | 0 | 0 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 22 |
| 4:15 PM | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 21 |
| 4:30 PM | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 23 |
| 4:45 PM | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 17 |
| 5:00 PM | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 27 |
| 5:15 PM | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 21 |
| 5:30 PM | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 18 |
| 5:45 PM | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 16 |
| TOTAL VOLUMES : | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| APPROACH %'s : | 0 | 0 | 0 | 0 | 170 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 128 | 1 | 300 |
| PEAK HR : | 04:15 PM - 05:15 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 88 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.663 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.875 | 0.000 | 0.815 |
| | | | | | 0.663 | | | | | | | | 0.875 | | | | |

Rd 122 & Ave 271

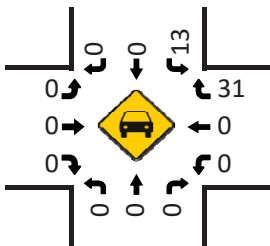
Peak Hour Turning Movement Count

ID: 20-90136-004
City: Visalia

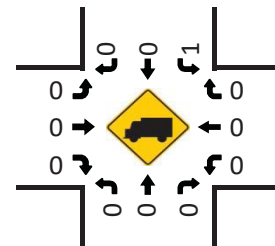
Day: Wednesday
Date: 08/05/2020



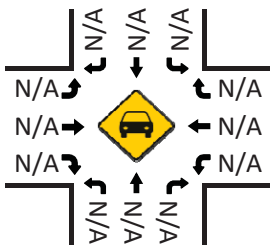
Cars (AM)



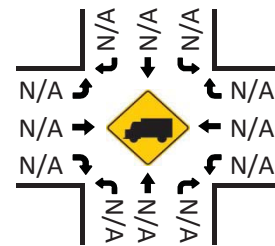
HT (AM)



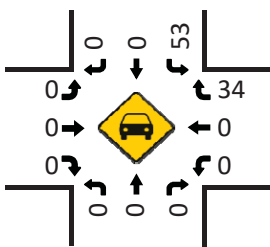
Cars (NOON)



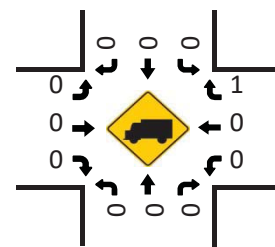
HT (NOON)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Tuesday Morning Dwy & Visalia Pkwy
 City: Visalia
 Control: 1-Way Stop(SB)

Project ID: 20-90136-006
 Date: 8/5/2020

Total

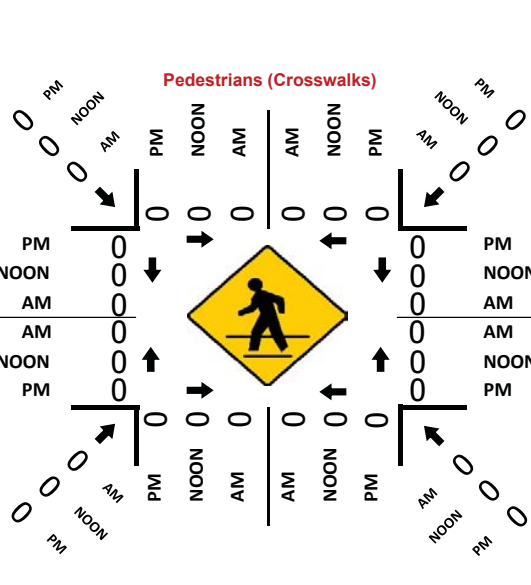
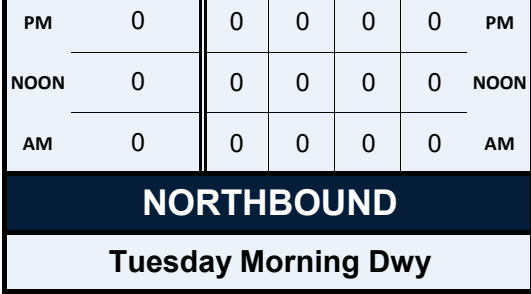
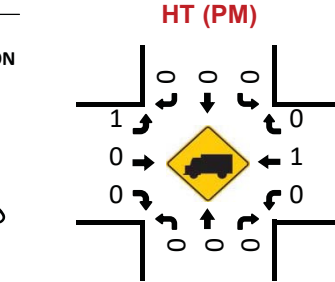
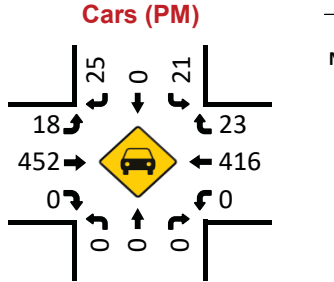
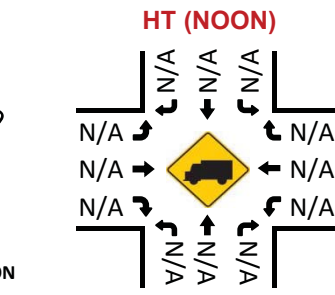
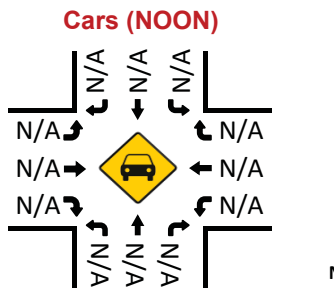
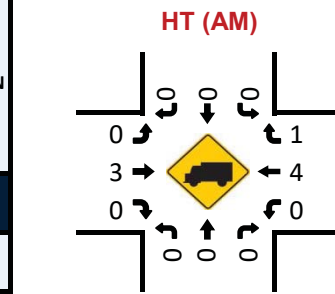
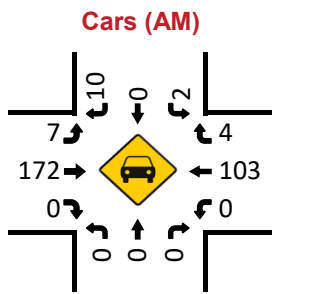
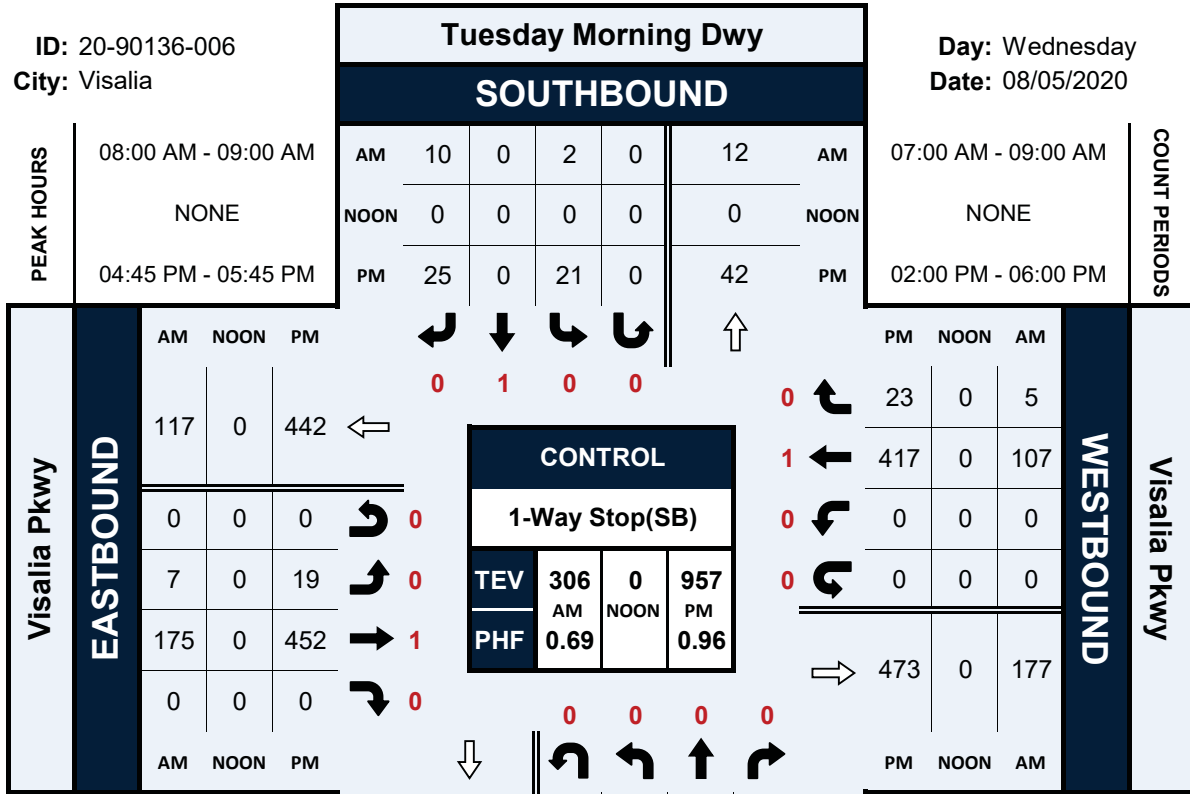
| NS/EW Streets: | Tuesday Morning Dwy | | | | Tuesday Morning Dwy | | | | Visalia Pkwy | | | | Visalia Pkwy | | | | TOTAL |
|-------------------------|----------------------------|-------|-------|-------|---------------------|-------|--------|-------|--------------|--------|-------|-------|--------------|--------|-------|-------|-------|
| | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| AM | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | |
| 7:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 20 | 0 | 0 | 0 | 23 | 0 | 0 | 47 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 22 | 0 | 0 | 0 | 35 | 0 | 0 | 58 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 25 | 0 | 0 | 0 | 44 | 3 | 0 | 76 |
| 7:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 30 | 0 | 0 | 0 | 51 | 1 | 0 | 85 |
| 8:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 30 | 0 | 0 | 0 | 29 | 1 | 0 | 64 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 3 | 24 | 0 | 0 | 0 | 21 | 2 | 0 | 56 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 38 | 0 | 0 | 0 | 31 | 2 | 0 | 75 |
| 8:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 83 | 0 | 0 | 0 | 26 | 0 | 0 | 111 |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 4 | 0 | 16 | 0 | 11 | 272 | 0 | 0 | 0 | 260 | 9 | 0 | 572 |
| APPROACH %'s : | | | | | 20.00% | 0.00% | 80.00% | 0.00% | 3.89% | 96.11% | 0.00% | 0.00% | 0.00% | 96.65% | 3.35% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 2 | 0 | 10 | 0 | 7 | 175 | 0 | 0 | 0 | 107 | 5 | 0 | 306 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.000 | 0.417 | 0.000 | 0.583 | 0.527 | 0.000 | 0.000 | 0.000 | 0.863 | 0.625 | 0.000 | 0.689 |
| | | | | | | 0.500 | | | | 0.548 | | | | 0.848 | | | |
| PM | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | |
| 2:00 PM | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 3 | 84 | 0 | 0 | 0 | 82 | 4 | 0 | 179 |
| 2:15 PM | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 3 | 116 | 0 | 0 | 0 | 99 | 4 | 0 | 227 |
| 2:30 PM | 0 | 0 | 0 | 0 | 5 | 0 | 4 | 0 | 3 | 85 | 0 | 0 | 0 | 127 | 8 | 0 | 232 |
| 2:45 PM | 0 | 0 | 0 | 0 | 2 | 0 | 7 | 0 | 15 | 94 | 0 | 0 | 0 | 110 | 5 | 0 | 233 |
| 3:00 PM | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 0 | 4 | 106 | 0 | 0 | 0 | 94 | 7 | 0 | 218 |
| 3:15 PM | 0 | 0 | 0 | 0 | 8 | 0 | 13 | 0 | 8 | 91 | 0 | 0 | 0 | 107 | 6 | 0 | 233 |
| 3:30 PM | 0 | 0 | 0 | 0 | 2 | 0 | 8 | 0 | 6 | 83 | 0 | 0 | 0 | 91 | 10 | 0 | 200 |
| 3:45 PM | 0 | 0 | 0 | 0 | 4 | 0 | 9 | 0 | 9 | 102 | 0 | 0 | 0 | 113 | 5 | 0 | 242 |
| 4:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 7 | 0 | 12 | 108 | 0 | 0 | 0 | 95 | 6 | 0 | 229 |
| 4:15 PM | 0 | 0 | 0 | 0 | 3 | 0 | 7 | 0 | 5 | 97 | 0 | 0 | 0 | 103 | 5 | 0 | 220 |
| 4:30 PM | 0 | 0 | 0 | 0 | 5 | 0 | 6 | 0 | 8 | 105 | 0 | 0 | 0 | 106 | 5 | 0 | 235 |
| 4:45 PM | 0 | 0 | 0 | 0 | 6 | 0 | 6 | 0 | 5 | 102 | 0 | 0 | 0 | 95 | 2 | 0 | 216 |
| 5:00 PM | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 6 | 118 | 0 | 0 | 0 | 106 | 9 | 0 | 249 |
| 5:15 PM | 0 | 0 | 0 | 0 | 7 | 0 | 11 | 0 | 7 | 122 | 0 | 0 | 0 | 97 | 4 | 0 | 248 |
| 5:30 PM | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 1 | 110 | 0 | 0 | 0 | 119 | 8 | 0 | 244 |
| 5:45 PM | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 7 | 96 | 0 | 0 | 0 | 88 | 6 | 0 | 207 |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 63 | 0 | 102 | 0 | 102 | 1619 | 0 | 0 | 0 | 1632 | 94 | 0 | 3612 |
| APPROACH %'s : | | | | | 38.18% | 0.00% | 61.82% | 0.00% | 5.93% | 94.07% | 0.00% | 0.00% | 0.00% | 94.55% | 5.45% | 0.00% | |
| PEAK HR : | 04:45 PM - 05:45 PM | | | | | | | | | | | | | | | | |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 21 | 0 | 25 | 0 | 19 | 452 | 0 | 0 | 0 | 417 | 23 | 0 | 957 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.750 | 0.000 | 0.568 | 0.000 | 0.679 | 0.926 | 0.000 | 0.000 | 0.000 | 0.876 | 0.639 | 0.000 | 0.961 |
| | | | | | | 0.639 | | | | 0.913 | | | | 0.866 | | | |

Tuesday Morning Dwy & Visalia Pkwy

Peak Hour Turning Movement Count

ID: 20-90136-006
City: Visalia

Day: Wednesday
Date: 08/05/2020



National Data & Surveying Services

Intersection Turning Movement Count

Location: Costco Dwy & Visalia Pkwy
 City: Visalia
 Control: 1-Way Stop(SB)

Project ID: 20-90136-008
 Date: 8/5/2020

Total

| NS/EW Streets: | Costco Dwy | | | | Costco Dwy | | | | Visalia Pkwy | | | | Visalia Pkwy | | | | TOTAL |
|-------------------------|----------------------------|-------|-------|-------|------------|-------|---------|-------|--------------|--------|-------|-------|--------------|--------|-------|-------|-------|
| | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| AM | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 7 | 10 | 0 | 0 | 0 | 19 | 0 | 0 | 40 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 5 | 15 | 0 | 0 | 0 | 27 | 1 | 0 | 57 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 10 | 16 | 0 | 0 | 0 | 36 | 0 | 0 | 71 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 11 | 18 | 0 | 0 | 0 | 39 | 0 | 0 | 78 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 6 | 23 | 0 | 0 | 0 | 25 | 0 | 0 | 61 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 12 | 14 | 0 | 0 | 0 | 17 | 0 | 0 | 50 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 15 | 26 | 0 | 0 | 0 | 19 | 1 | 0 | 74 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 47 | 26 | 0 | 0 | 0 | 12 | 1 | 0 | 98 |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 0 | 0 | 71 | 0 | 113 | 148 | 0 | 0 | 0 | 194 | 3 | 0 | 529 |
| APPROACH %'s : | | | | | 0.00% | 0.00% | 100.00% | 0.00% | 43.30% | 56.70% | 0.00% | 0.00% | 0.00% | 98.48% | 1.52% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 80 | 89 | 0 | 0 | 0 | 73 | 2 | 0 | 283 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.750 | 0.000 | 0.426 | 0.856 | 0.000 | 0.000 | 0.000 | 0.730 | 0.500 | 0.000 | 0.722 |
| | | | | | 0.750 | | | | 0.579 | | | | 0.750 | | | | |

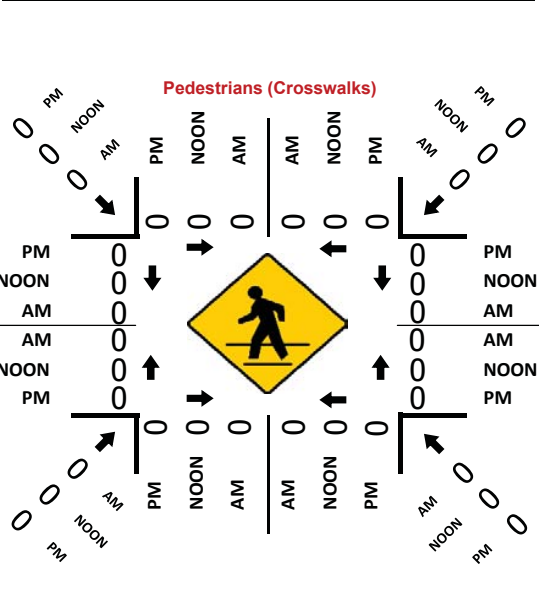
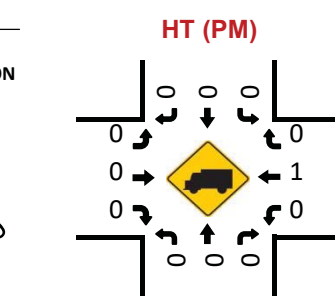
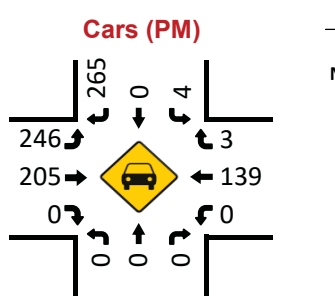
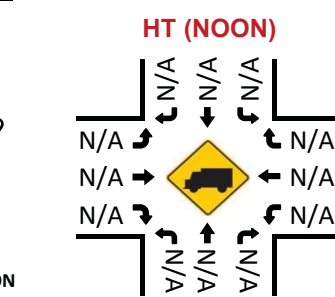
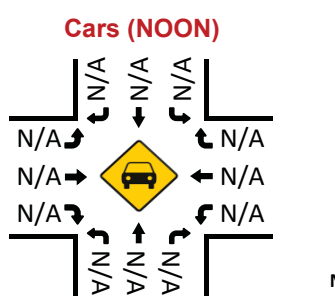
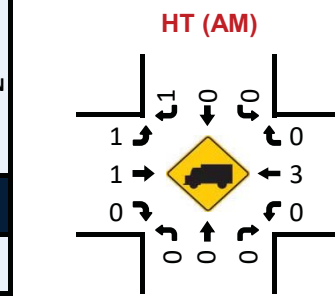
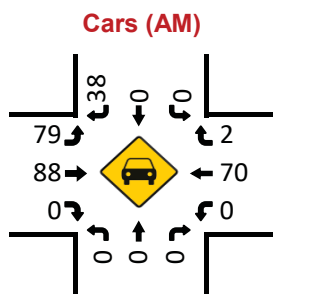
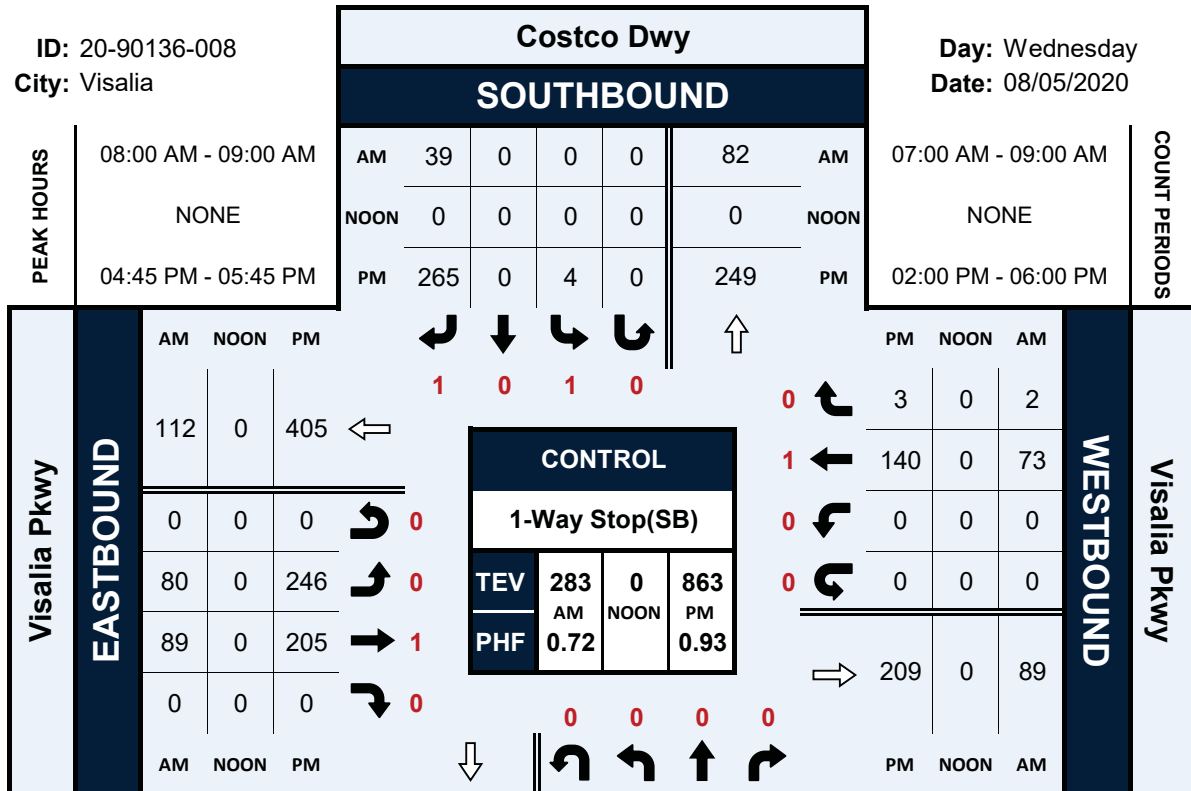
| NS/EW Streets: | Costco Dwy | | | | Costco Dwy | | | | Visalia Pkwy | | | | Visalia Pkwy | | | | TOTAL |
|-------------------------|----------------------------|-------|-------|-------|------------|-------|--------|-------|--------------|--------|-------|-------|--------------|--------|-------|-------|-------|
| | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| PM | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | |
| 2:00 PM | 0 | 0 | 0 | 0 | 2 | 0 | 51 | 0 | 51 | 28 | 0 | 0 | 0 | 30 | 1 | 0 | 163 |
| 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 71 | 0 | 61 | 49 | 0 | 0 | 0 | 29 | 0 | 0 | 210 |
| 2:30 PM | 0 | 0 | 0 | 0 | 2 | 0 | 87 | 0 | 45 | 40 | 0 | 0 | 0 | 42 | 2 | 0 | 218 |
| 2:45 PM | 0 | 0 | 0 | 0 | 5 | 0 | 83 | 0 | 50 | 32 | 0 | 0 | 0 | 22 | 1 | 0 | 193 |
| 3:00 PM | 0 | 0 | 0 | 0 | 2 | 0 | 69 | 0 | 53 | 47 | 0 | 0 | 0 | 24 | 0 | 0 | 195 |
| 3:15 PM | 0 | 0 | 0 | 0 | 2 | 0 | 68 | 0 | 52 | 47 | 0 | 0 | 0 | 40 | 1 | 0 | 210 |
| 3:30 PM | 0 | 0 | 0 | 0 | 3 | 0 | 50 | 0 | 41 | 45 | 0 | 0 | 0 | 44 | 2 | 0 | 185 |
| 3:45 PM | 0 | 0 | 0 | 0 | 1 | 0 | 77 | 0 | 48 | 50 | 0 | 0 | 0 | 33 | 0 | 0 | 209 |
| 4:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 57 | 0 | 56 | 41 | 0 | 0 | 0 | 34 | 2 | 0 | 191 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 72 | 0 | 55 | 47 | 0 | 0 | 0 | 28 | 1 | 0 | 203 |
| 4:30 PM | 0 | 0 | 0 | 0 | 4 | 0 | 67 | 0 | 50 | 47 | 0 | 0 | 0 | 40 | 0 | 0 | 208 |
| 4:45 PM | 0 | 0 | 0 | 0 | 2 | 0 | 60 | 0 | 61 | 46 | 0 | 0 | 0 | 28 | 0 | 0 | 197 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 64 | 0 | 62 | 53 | 0 | 0 | 0 | 42 | 0 | 0 | 221 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 63 | 0 | 68 | 46 | 0 | 0 | 0 | 33 | 2 | 0 | 212 |
| 5:30 PM | 0 | 0 | 0 | 0 | 2 | 0 | 78 | 0 | 55 | 60 | 0 | 0 | 0 | 37 | 1 | 0 | 233 |
| 5:45 PM | 0 | 0 | 0 | 0 | 2 | 0 | 57 | 0 | 46 | 49 | 0 | 0 | 0 | 33 | 3 | 0 | 190 |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 28 | 0 | 1074 | 0 | 854 | 727 | 0 | 0 | 0 | 539 | 16 | 0 | 3238 |
| APPROACH %'s : | | | | | 2.54% | 0.00% | 97.46% | 0.00% | 54.02% | 45.98% | 0.00% | 0.00% | 0.00% | 97.12% | 2.88% | 0.00% | |
| PEAK HR : | 04:45 PM - 05:45 PM | | | | | | | | | | | | | | | | |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 4 | 0 | 265 | 0 | 246 | 205 | 0 | 0 | 0 | 140 | 3 | 0 | 863 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.000 | 0.849 | 0.000 | 0.904 | 0.854 | 0.000 | 0.000 | 0.000 | 0.833 | 0.375 | 0.000 | 0.926 |
| | | | | | 0.841 | | | | 0.980 | | | | 0.851 | | | | |

Costco Dwy & Visalia Pkwy

Peak Hour Turning Movement Count

ID: 20-90136-008
City: Visalia













Day: Wednesday
Date: 08/05/2020



Appendix C – Existing Conditions Intersection Level of Service and Queuing Analysis Work Sheets

























Queues
1: Mooney Blvd & Whitendale Ave

Existing Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 104 | 216 | 121 | 160 | 260 | 62 | 85 | 571 | 122 | 65 | 508 | 45 |
| v/c Ratio | 0.48 | 0.46 | 0.35 | 0.61 | 0.50 | 0.17 | 0.24 | 0.19 | 0.13 | 0.37 | 0.19 | 0.05 |
| Control Delay | 72.7 | 59.6 | 5.0 | 74.6 | 58.9 | 1.0 | 61.7 | 16.3 | 3.9 | 72.4 | 20.4 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 72.7 | 59.6 | 5.0 | 74.6 | 58.9 | 1.0 | 61.7 | 16.3 | 3.9 | 72.4 | 20.4 | 0.1 |
| Queue Length 50th (ft) | 50 | 103 | 0 | 76 | 124 | 0 | 38 | 85 | 0 | 31 | 86 | 0 |
| Queue Length 95th (ft) | 79 | 123 | 21 | 112 | 141 | 0 | 65 | 156 | 39 | 56 | 149 | 0 |
| Internal Link Dist (ft) | 1104 | | | 403 | | | 770 | | | 1028 | | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 284 | 878 | 506 | 355 | 951 | 534 | 355 | 2992 | 969 | 355 | 2642 | 865 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.25 | 0.24 | 0.45 | 0.27 | 0.12 | 0.24 | 0.19 | 0.13 | 0.18 | 0.19 | 0.05 |
| Intersection Summary | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
1: Mooney Blvd & Whitendale Ave

Existing Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 93 | 192 | 108 | 142 | 231 | 55 | 76 | 508 | 109 | 58 | 452 | 40 |
| Future Volume (veh/h) | 93 | 192 | 108 | 142 | 231 | 55 | 76 | 508 | 109 | 58 | 452 | 40 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 104 | 216 | 121 | 160 | 260 | 62 | 85 | 571 | 122 | 65 | 508 | 45 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 203 | 456 | 203 | 207 | 460 | 204 | 900 | 3081 | 947 | 132 | 1922 | 596 |
| Arrive On Green | 0.06 | 0.13 | 0.13 | 0.06 | 0.13 | 0.13 | 0.26 | 0.61 | 0.61 | 0.04 | 0.38 | 0.38 |
| Sat Flow, veh/h | 3442 | 3539 | 1572 | 3442 | 3539 | 1565 | 3442 | 5085 | 1563 | 3442 | 5085 | 1578 |
| Grp Volume(v), veh/h | 104 | 216 | 121 | 160 | 260 | 62 | 85 | 571 | 122 | 65 | 508 | 45 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1572 | 1721 | 1770 | 1565 | 1721 | 1695 | 1563 | 1721 | 1695 | 1578 |
| Q Serve(g_s), s | 4.3 | 8.2 | 10.5 | 6.6 | 10.0 | 4.5 | 2.7 | 7.2 | 3.1 | 2.7 | 10.0 | 2.6 |
| Cycle Q Clear(g_c), s | 4.3 | 8.2 | 10.5 | 6.6 | 10.0 | 4.5 | 2.7 | 7.2 | 3.1 | 2.7 | 10.0 | 2.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 203 | 456 | 203 | 207 | 460 | 204 | 900 | 3081 | 947 | 132 | 1922 | 596 |
| V/C Ratio(X) | 0.51 | 0.47 | 0.60 | 0.77 | 0.56 | 0.30 | 0.09 | 0.19 | 0.13 | 0.49 | 0.26 | 0.08 |
| Avail Cap(c_a), veh/h | 285 | 879 | 390 | 285 | 952 | 421 | 900 | 3081 | 947 | 356 | 1922 | 596 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 66.2 | 58.6 | 59.6 | 67.2 | 59.2 | 42.3 | 40.5 | 12.7 | 4.9 | 68.3 | 31.2 | 28.9 |
| Incr Delay (d2), s/veh | 0.7 | 1.5 | 5.4 | 5.5 | 2.1 | 1.6 | 0.0 | 0.1 | 0.3 | 1.1 | 0.3 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 4.1 | 4.9 | 3.3 | 5.0 | 2.2 | 1.3 | 3.4 | 2.0 | 1.3 | 4.8 | 1.2 |
| LnGrp Delay(d),s/veh | 67.0 | 60.1 | 65.0 | 72.7 | 61.3 | 43.9 | 40.6 | 12.8 | 5.2 | 69.4 | 31.5 | 29.1 |
| LnGrp LOS | E | E | E | E | E | D | D | B | A | E | C | C |
| Approach Vol, veh/h | | 441 | | | 482 | | | 778 | | | 618 | |
| Approach Delay, s/veh | | 63.1 | | | 62.8 | | | 14.7 | | | 35.3 | |
| Approach LOS | | E | | | E | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.3 | 94.2 | 14.4 | 25.1 | 44.3 | 61.2 | 14.2 | 25.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 54.8 | 12.0 | * 36 | 15.0 | * 55 | 12.0 | * 39 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.7 | 9.2 | 8.6 | 12.5 | 4.7 | 12.0 | 6.3 | 12.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.9 | 0.1 | 3.1 | 0.1 | 7.1 | 0.1 | 3.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 39.4 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave

Existing Conditions
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 93 | 156 | 8 | 247 | 100 | 51 | 75 | 12 | 132 |
| v/c Ratio | 0.22 | 0.16 | 0.02 | 0.32 | 0.14 | 0.09 | 0.16 | 0.02 | 0.21 |
| Control Delay | 22.3 | 9.2 | 25.1 | 15.4 | 6.9 | 14.5 | 16.3 | 15.3 | 4.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 22.3 | 9.2 | 25.1 | 15.4 | 6.9 | 14.5 | 16.3 | 15.3 | 4.9 |
| Queue Length 50th (ft) | 20 | 15 | 2 | 48 | 4 | 9 | 15 | 2 | 0 |
| Queue Length 95th (ft) | 74 | 78 | 15 | 140 | 35 | 34 | 49 | 13 | 29 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 844 | 1371 | 844 | 1391 | 1175 | 1071 | 879 | 1233 | 1071 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.11 | 0.11 | 0.01 | 0.18 | 0.09 | 0.05 | 0.09 | 0.01 | 0.12 |

Intersection Summary

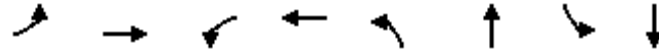
HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

Existing Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 79 | 121 | 12 | 7 | 210 | 85 | 18 | 21 | 4 | 64 | 10 | 112 |
| Future Volume (veh/h) | 79 | 121 | 12 | 7 | 210 | 85 | 18 | 21 | 4 | 64 | 10 | 112 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.98 | 0.98 | | 0.98 | 0.98 | | 0.96 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 93 | 142 | 14 | 8 | 247 | 100 | 21 | 25 | 5 | 75 | 12 | 132 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 178 | 588 | 58 | 23 | 494 | 410 | 251 | 251 | 39 | 545 | 469 | 382 |
| Arrive On Green | 0.10 | 0.35 | 0.35 | 0.01 | 0.27 | 0.27 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1774 | 1668 | 164 | 1774 | 1863 | 1545 | 444 | 996 | 157 | 1349 | 1863 | 1519 |
| Grp Volume(v), veh/h | 93 | 0 | 156 | 8 | 247 | 100 | 51 | 0 | 0 | 75 | 12 | 132 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1832 | 1774 | 1863 | 1545 | 1597 | 0 | 0 | 1349 | 1863 | 1519 |
| Q Serve(g_s), s | 1.8 | 0.0 | 2.2 | 0.2 | 4.1 | 1.9 | 0.0 | 0.0 | 0.0 | 0.6 | 0.2 | 2.6 |
| Cycle Q Clear(g_c), s | 1.8 | 0.0 | 2.2 | 0.2 | 4.1 | 1.9 | 0.8 | 0.0 | 0.0 | 1.4 | 0.2 | 2.6 |
| Prop In Lane | 1.00 | | 0.09 | 1.00 | | 1.00 | 0.41 | | 0.10 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 178 | 0 | 646 | 23 | 494 | 410 | 541 | 0 | 0 | 545 | 469 | 382 |
| V/C Ratio(X) | 0.52 | 0.00 | 0.24 | 0.35 | 0.50 | 0.24 | 0.09 | 0.00 | 0.00 | 0.14 | 0.03 | 0.35 |
| Avail Cap(c_a), veh/h | 727 | 0 | 1503 | 727 | 1528 | 1267 | 1191 | 0 | 0 | 1127 | 1273 | 1038 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 15.6 | 0.0 | 8.4 | 17.9 | 11.4 | 10.6 | 10.5 | 0.0 | 0.0 | 10.7 | 10.3 | 11.2 |
| Incr Delay (d2), s/veh | 0.9 | 0.0 | 0.3 | 3.4 | 1.3 | 0.5 | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 0.0 | 1.1 | 0.1 | 2.2 | 0.8 | 0.4 | 0.0 | 0.0 | 0.6 | 0.1 | 1.2 |
| LnGrp Delay(d),s/veh | 16.5 | 0.0 | 8.7 | 21.3 | 12.7 | 11.1 | 10.7 | 0.0 | 0.0 | 10.9 | 10.3 | 12.1 |
| LnGrp LOS | B | | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 249 | | | 355 | | | 51 | | | 219 | |
| Approach Delay, s/veh | | 11.6 | | | 12.5 | | | 10.7 | | | 11.6 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.5 | 17.9 | | 14.2 | 7.7 | 14.7 | | 14.2 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | | 25.0 | 15.0 | 30.0 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 4.2 | | 2.8 | 3.8 | 6.1 | | 4.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.3 | | 0.3 | 0.1 | 2.9 | | 1.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 11.9 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave






















Existing Conditions
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 44 | 14 | 2 | 33 | 40 | 696 | 89 | 668 |
| v/c Ratio | 0.17 | 0.02 | 0.01 | 0.04 | 0.16 | 0.24 | 0.31 | 0.22 |
| Control Delay | 35.4 | 0.0 | 40.0 | 0.1 | 36.1 | 18.4 | 33.9 | 16.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.4 | 0.0 | 40.0 | 0.1 | 36.1 | 18.4 | 33.9 | 16.2 |
| Queue Length 50th (ft) | 12 | 0 | 1 | 0 | 11 | 56 | 25 | 49 |
| Queue Length 95th (ft) | 66 | 0 | 10 | 0 | 62 | 207 | 110 | 184 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 581 | 1066 | 581 | 1007 | 581 | 2988 | 581 | 2995 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.08 | 0.01 | 0.00 | 0.03 | 0.07 | 0.23 | 0.15 | 0.22 |
| Intersection Summary | | | | | | | | |

HCM 2010 Signalized Intersection Summary
3: Mooney Blvd & Sunnyside Ave

Existing Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 42 | 0 | 13 | 2 | 0 | 31 | 38 | 658 | 3 | 85 | 582 | 52 |
| Future Volume (veh/h) | 42 | 0 | 13 | 2 | 0 | 31 | 38 | 658 | 3 | 85 | 582 | 52 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 44 | 0 | 14 | 2 | 0 | 33 | 40 | 693 | 3 | 89 | 613 | 55 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 98 | 0 | 218 | 6 | 0 | 137 | 91 | 1512 | 7 | 153 | 1541 | 137 |
| Arrive On Green | 0.06 | 0.00 | 0.14 | 0.00 | 0.00 | 0.09 | 0.05 | 0.29 | 0.29 | 0.09 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1774 | 0 | 1578 | 1774 | 0 | 1580 | 1774 | 5226 | 23 | 1774 | 4754 | 423 |
| Grp Volume(v), veh/h | 44 | 0 | 14 | 2 | 0 | 33 | 40 | 449 | 247 | 89 | 436 | 232 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1578 | 1774 | 0 | 1580 | 1774 | 1695 | 1858 | 1774 | 1695 | 1787 |
| Q Serve(g_s), s | 1.2 | 0.0 | 0.4 | 0.1 | 0.0 | 0.9 | 1.1 | 5.3 | 5.3 | 2.3 | 4.9 | 4.9 |
| Cycle Q Clear(g_c), s | 1.2 | 0.0 | 0.4 | 0.1 | 0.0 | 0.9 | 1.1 | 5.3 | 5.3 | 2.3 | 4.9 | 4.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.01 | 1.00 | | 0.24 |
| Lane Grp Cap(c), veh/h | 98 | 0 | 218 | 6 | 0 | 137 | 91 | 981 | 538 | 153 | 1099 | 579 |
| V/C Ratio(X) | 0.45 | 0.00 | 0.06 | 0.34 | 0.00 | 0.24 | 0.44 | 0.46 | 0.46 | 0.58 | 0.40 | 0.40 |
| Avail Cap(c_a), veh/h | 437 | 0 | 648 | 547 | 0 | 649 | 547 | 1741 | 954 | 547 | 1741 | 917 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.3 | 0.0 | 18.2 | 24.2 | 0.0 | 20.7 | 22.4 | 14.2 | 14.2 | 21.4 | 12.8 | 12.8 |
| Incr Delay (d2), s/veh | 1.2 | 0.0 | 0.1 | 12.4 | 0.0 | 0.7 | 1.2 | 0.7 | 1.2 | 1.3 | 0.5 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.0 | 0.2 | 0.0 | 0.0 | 0.4 | 0.6 | 2.5 | 2.8 | 1.2 | 2.3 | 2.5 |
| LnGrp Delay(d),s/veh | 23.5 | 0.0 | 18.3 | 36.6 | 0.0 | 21.4 | 23.6 | 14.8 | 15.4 | 22.7 | 13.2 | 13.7 |
| LnGrp LOS | C | | B | D | | C | C | B | B | C | B | B |
| Approach Vol, veh/h | | 58 | | | 35 | | | 736 | | | 757 | |
| Approach Delay, s/veh | | 22.2 | | | 22.3 | | | 15.5 | | | 14.5 | |
| Approach LOS | | C | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.9 | 20.5 | 5.9 | 12.4 | 8.2 | 22.2 | 8.4 | 9.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | * 5.7 | 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | * 15 | * 20 | * 15 | 25.0 | * 12 | * 20 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.3 | 7.3 | 2.1 | 2.4 | 3.1 | 6.9 | 3.2 | 2.9 | | | | |
| Green Ext Time (p_c), s | 0.1 | 6.6 | 0.0 | 0.0 | 0.0 | 6.4 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 15.4 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave

Existing Conditions
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 3 | 1 | 18 | 23 | 11 | 672 | 27 | 63 | 538 | 5 |
| v/c Ratio | 0.02 | 0.00 | 0.20 | 0.04 | 0.05 | 0.18 | 0.02 | 0.52 | 0.14 | 0.00 |
| Control Delay | 45.7 | 0.0 | 66.3 | 0.1 | 55.7 | 11.2 | 0.0 | 74.6 | 10.7 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.7 | 0.0 | 66.3 | 0.1 | 55.7 | 11.2 | 0.0 | 74.6 | 10.7 | 0.0 |
| Queue Length 50th (ft) | 3 | 0 | 16 | 0 | 4 | 57 | 0 | 54 | 22 | 0 |
| Queue Length 95th (ft) | 10 | 0 | 42 | 0 | 14 | 196 | 0 | 101 | 160 | 0 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 246 | 820 | 170 | 843 | 381 | 3735 | 1159 | 196 | 3951 | 1241 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.01 | 0.00 | 0.11 | 0.03 | 0.03 | 0.18 | 0.02 | 0.32 | 0.14 | 0.00 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

Existing Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 3 | 0 | 1 | 17 | 0 | 22 | 10 | 638 | 26 | 60 | 511 | 5 |
| Future Volume (veh/h) | 3 | 0 | 1 | 17 | 0 | 22 | 10 | 638 | 26 | 60 | 511 | 5 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 3 | 0 | 1 | 18 | 0 | 23 | 11 | 672 | 27 | 63 | 538 | 5 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 23 | 0 | 74 | 39 | 0 | 90 | 1526 | 3599 | 1117 | 81 | 1548 | 482 |
| Arrive On Green | 0.01 | 0.00 | 0.05 | 0.02 | 0.00 | 0.06 | 0.89 | 1.00 | 1.00 | 0.05 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1774 | 0 | 1543 | 1774 | 0 | 1583 | 3442 | 5085 | 1579 | 1774 | 5085 | 1582 |
| Grp Volume(v), veh/h | 3 | 0 | 1 | 18 | 0 | 23 | 11 | 672 | 27 | 63 | 538 | 5 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1543 | 1774 | 0 | 1583 | 1721 | 1695 | 1579 | 1774 | 1695 | 1582 |
| Q Serve(g_s), s | 0.2 | 0.0 | 0.1 | 1.4 | 0.0 | 1.9 | 0.0 | 0.0 | 0.0 | 4.7 | 11.1 | 0.3 |
| Cycle Q Clear(g_c), s | 0.2 | 0.0 | 0.1 | 1.4 | 0.0 | 1.9 | 0.0 | 0.0 | 0.0 | 4.7 | 11.1 | 0.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 23 | 0 | 74 | 39 | 0 | 90 | 1526 | 3599 | 1117 | 81 | 1548 | 482 |
| V/C Ratio(X) | 0.13 | 0.00 | 0.01 | 0.47 | 0.00 | 0.26 | 0.01 | 0.19 | 0.02 | 0.78 | 0.35 | 0.01 |
| Avail Cap(c_a), veh/h | 171 | 0 | 480 | 171 | 0 | 493 | 1526 | 3599 | 1117 | 197 | 1548 | 482 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.97 | 0.97 | 0.97 | 0.98 | 0.98 | 0.98 |
| Uniform Delay (d), s/veh | 65.9 | 0.0 | 61.2 | 65.2 | 0.0 | 60.9 | 4.2 | 0.0 | 0.0 | 63.8 | 36.5 | 32.8 |
| Incr Delay (d2), s/veh | 0.9 | 0.0 | 0.0 | 3.2 | 0.0 | 1.1 | 0.0 | 0.1 | 0.0 | 5.9 | 0.6 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 0.0 | 0.0 | 0.7 | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 2.5 | 5.3 | 0.1 |
| LnGrp Delay(d),s/veh | 66.8 | 0.0 | 61.2 | 68.5 | 0.0 | 62.0 | 4.2 | 0.1 | 0.0 | 69.7 | 37.1 | 32.8 |
| LnGrp LOS | E | | E | E | | E | A | A | A | E | D | C |
| Approach Vol, veh/h | | 4 | | | 41 | | | 710 | | | 606 | |
| Approach Delay, s/veh | | 65.4 | | | 64.8 | | | 0.2 | | | 40.5 | |
| Approach LOS | | E | | | E | | | A | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.8 | 101.9 | 8.6 | 12.6 | 66.3 | 47.5 | 7.4 | 13.8 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 15 | 41.1 | 13.0 | * 42 | 15.0 | * 41 | 13.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.7 | 2.0 | 3.4 | 2.1 | 2.0 | 13.1 | 2.2 | 3.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.2 | 0.0 | 0.0 | 0.0 | 6.4 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 20.3 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 33 | 570 | 67 | 49 | 563 | 28 | 47 | 0 | 78 | 8 | 0 | 17 |
| Future Vol, veh/h | 33 | 570 | 67 | 49 | 563 | 28 | 47 | 0 | 78 | 8 | 0 | 17 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 37 | 640 | 75 | 55 | 633 | 31 | 53 | 0 | 88 | 9 | 0 | 19 |

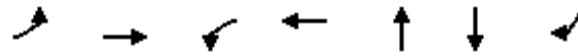
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 669 | 0 | 0 | 715 | 0 | 0 | 1179 | 1531 | 358 | 1158 | 1553 | 337 |
| Stage 1 | - | - | - | - | - | - | 752 | 752 | - | 764 | 764 | - |
| Stage 2 | - | - | - | - | - | - | 427 | 779 | - | 394 | 789 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 917 | - | - | 881 | - | - | 146 | 116 | 638 | 151 | 112 | 659 |
| Stage 1 | - | - | - | - | - | - | 368 | 416 | - | 362 | 411 | - |
| Stage 2 | - | - | - | - | - | - | 576 | 404 | - | 602 | 400 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 913 | - | - | 881 | - | - | 124 | 97 | 638 | 114 | 94 | 656 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 124 | 97 | - | 114 | 94 | - |
| Stage 1 | - | - | - | - | - | - | 343 | 388 | - | 336 | 368 | - |
| Stage 2 | - | - | - | - | - | - | 504 | 362 | - | 484 | 373 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 | | | 1.1 | | | 36.7 | | | 20.5 | | |
| HCM LOS | | | | | | | E | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 249 | 913 | - | - | 881 | - | - | 260 |
| HCM Lane V/C Ratio | 0.564 | 0.041 | - | - | 0.062 | - | - | 0.108 |
| HCM Control Delay (s) | 36.7 | 9.1 | 0.3 | - | 9.4 | 0.4 | - | 20.5 |
| HCM Lane LOS | E | A | A | - | A | A | - | C |
| HCM 95th %tile Q(veh) | 3.1 | 0.1 | - | - | 0.2 | - | - | 0.4 |

Queues
6: Shady St & Caldwell Ave























Existing Conditions
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-----------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 26 | 580 | 17 | 509 | 56 | 4 | 2 |
| v/c Ratio | 0.06 | 0.15 | 0.04 | 0.13 | 0.12 | 0.01 | 0.00 |
| Control Delay | 17.6 | 5.7 | 18.0 | 5.8 | 10.9 | 19.0 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 17.6 | 5.7 | 18.0 | 5.8 | 10.9 | 19.0 | 0.0 |
| Queue Length 50th (ft) | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| Queue Length 95th (ft) | 29 | 81 | 22 | 72 | 35 | 9 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 1386 | 4706 | 1386 | 4713 | 1317 | 1386 | 1263 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.02 | 0.12 | 0.01 | 0.11 | 0.04 | 0.00 | 0.00 |
| Intersection Summary | | | | | | | |

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

Existing Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|--|---|---|--|---|--|--|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | | |   | | |  |  |
| Traffic Volume (veh/h) | 23 | 510 | 12 | 15 | 453 | 5 | 17 | 1 | 32 | 4 | 0 | 2 |
| Future Volume (veh/h) | 23 | 510 | 12 | 15 | 453 | 5 | 17 | 1 | 32 | 4 | 0 | 2 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 26 | 567 | 13 | 17 | 503 | 6 | 19 | 1 | 36 | 4 | 0 | 2 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 67 | 1848 | 42 | 46 | 1809 | 22 | 40 | 2 | 75 | 17 | 0 | 15 |
| Arrive On Green | 0.04 | 0.36 | 0.36 | 0.03 | 0.35 | 0.35 | 0.07 | 0.07 | 0.07 | 0.01 | 0.00 | 0.01 |
| Sat Flow, veh/h | 1774 | 5115 | 117 | 1774 | 5179 | 62 | 559 | 29 | 1059 | 1774 | 0 | 1583 |
| Grp Volume(v), veh/h | 26 | 375 | 205 | 17 | 329 | 180 | 56 | 0 | 0 | 4 | 0 | 2 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1842 | 1774 | 1695 | 1850 | 1648 | 0 | 0 | 1774 | 0 | 1583 |
| Q Serve(g_s), s | 0.5 | 3.0 | 3.0 | 0.4 | 2.6 | 2.6 | 1.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.5 | 3.0 | 3.0 | 0.4 | 2.6 | 2.6 | 1.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.06 | 1.00 | | 0.03 | 0.34 | | 0.64 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 67 | 1225 | 665 | 46 | 1184 | 646 | 116 | 0 | 0 | 17 | 0 | 15 |
| V/C Ratio(X) | 0.39 | 0.31 | 0.31 | 0.37 | 0.28 | 0.28 | 0.48 | 0.00 | 0.00 | 0.23 | 0.00 | 0.13 |
| Avail Cap(c_a), veh/h | 944 | 3610 | 1961 | 944 | 3610 | 1970 | 877 | 0 | 0 | 944 | 0 | 843 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 17.6 | 8.6 | 8.6 | 18.0 | 8.8 | 8.8 | 16.8 | 0.0 | 0.0 | 18.5 | 0.0 | 18.4 |
| Incr Delay (d2), s/veh | 1.3 | 0.4 | 0.7 | 1.8 | 0.3 | 0.6 | 2.3 | 0.0 | 0.0 | 5.0 | 0.0 | 2.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 1.4 | 1.6 | 0.2 | 1.3 | 1.5 | 0.6 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 19.0 | 9.0 | 9.3 | 19.8 | 9.2 | 9.5 | 19.1 | 0.0 | 0.0 | 23.5 | 0.0 | 21.2 |
| LnGrp LOS | B | A | A | B | A | A | B | | | C | | C |
| Approach Vol, veh/h | | 606 | | | 526 | | | 56 | | | | 6 |
| Approach Delay, s/veh | | 9.5 | | | 9.6 | | | 19.1 | | | | 22.7 |
| Approach LOS | | A | | | A | | | B | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.0 | 19.6 | | 5.4 | 5.4 | 19.1 | | 7.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.4 | 5.0 | | 2.1 | 2.5 | 4.6 | | 3.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.5 | | 0.0 | 0.0 | 7.3 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 10.1 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

Existing Conditions
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 148 | 444 | 105 | 459 | 92 | 502 | 89 | 60 | 440 | 75 |
| v/c Ratio | 0.57 | 0.51 | 0.38 | 0.52 | 0.30 | 0.18 | 0.10 | 0.34 | 0.18 | 0.09 |
| Control Delay | 68.9 | 47.0 | 62.3 | 48.9 | 60.6 | 19.2 | 2.4 | 66.6 | 22.3 | 0.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 68.9 | 47.0 | 62.3 | 48.9 | 60.6 | 19.2 | 2.4 | 66.6 | 22.3 | 0.8 |
| Queue Length 50th (ft) | 65 | 123 | 45 | 133 | 39 | 78 | 0 | 26 | 73 | 0 |
| Queue Length 95th (ft) | 100 | 127 | 75 | 136 | 68 | 150 | 20 | 50 | 137 | 5 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 355 | 1595 | 355 | 1596 | 304 | 2722 | 890 | 304 | 2447 | 815 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.42 | 0.28 | 0.30 | 0.29 | 0.30 | 0.18 | 0.10 | 0.20 | 0.18 | 0.09 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
7: Mooney Blvd & Caldwell Ave

Existing Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 141 | 343 | 79 | 100 | 376 | 60 | 87 | 477 | 85 | 57 | 418 | 71 |
| Future Volume (veh/h) | 141 | 343 | 79 | 100 | 376 | 60 | 87 | 477 | 85 | 57 | 418 | 71 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 148 | 361 | 83 | 105 | 396 | 63 | 92 | 502 | 89 | 60 | 440 | 75 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 199 | 636 | 141 | 206 | 688 | 107 | 1004 | 2890 | 899 | 137 | 1582 | 491 |
| Arrive On Green | 0.06 | 0.15 | 0.15 | 0.06 | 0.15 | 0.15 | 0.58 | 1.00 | 1.00 | 0.08 | 0.62 | 0.62 |
| Sat Flow, veh/h | 3442 | 4161 | 922 | 3442 | 4439 | 689 | 3442 | 5085 | 1582 | 3442 | 5085 | 1577 |
| Grp Volume(v), veh/h | 148 | 292 | 152 | 105 | 300 | 159 | 92 | 502 | 89 | 60 | 440 | 75 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1694 | 1721 | 1695 | 1738 | 1721 | 1695 | 1582 | 1721 | 1695 | 1577 |
| Q Serve(g_s), s | 5.7 | 10.8 | 11.3 | 4.0 | 11.1 | 11.5 | 1.6 | 0.0 | 0.0 | 2.2 | 5.3 | 2.7 |
| Cycle Q Clear(g_c), s | 5.7 | 10.8 | 11.3 | 4.0 | 11.1 | 11.5 | 1.6 | 0.0 | 0.0 | 2.2 | 5.3 | 2.7 |
| Prop In Lane | 1.00 | | 0.54 | 1.00 | | 0.40 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 199 | 518 | 259 | 206 | 525 | 269 | 1004 | 2890 | 899 | 137 | 1582 | 491 |
| V/C Ratio(X) | 0.74 | 0.56 | 0.59 | 0.51 | 0.57 | 0.59 | 0.09 | 0.17 | 0.10 | 0.44 | 0.28 | 0.15 |
| Avail Cap(c_a), veh/h | 357 | 1080 | 539 | 357 | 1080 | 554 | 1004 | 2890 | 899 | 306 | 1582 | 491 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.98 | 0.98 | 0.98 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 62.6 | 53.0 | 53.2 | 61.5 | 52.9 | 53.1 | 20.2 | 0.0 | 0.0 | 60.7 | 18.6 | 18.1 |
| Incr Delay (d2), s/veh | 2.1 | 1.9 | 4.1 | 0.7 | 1.9 | 3.9 | 0.0 | 0.1 | 0.2 | 0.8 | 0.4 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.8 | 5.2 | 5.6 | 1.9 | 5.3 | 5.8 | 0.8 | 0.0 | 0.1 | 1.1 | 2.5 | 1.2 |
| LnGrp Delay(d),s/veh | 64.7 | 54.9 | 57.3 | 62.2 | 54.8 | 57.0 | 20.3 | 0.1 | 0.2 | 61.5 | 19.0 | 18.7 |
| LnGrp LOS | E | D | E | E | D | E | C | A | A | E | B | B |
| Approach Vol, veh/h | | 592 | | | 564 | | | 683 | | | 575 | |
| Approach Delay, s/veh | | 58.0 | | | 56.8 | | | 2.9 | | | 23.4 | |
| Approach LOS | | E | | | E | | | A | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.1 | 83.1 | 13.8 | 27.0 | 45.8 | 48.4 | 13.5 | 27.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 12 | 42.0 | 14.0 | * 43 | 12.0 | * 42 | 14.0 | * 43 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.2 | 2.0 | 6.0 | 13.3 | 3.6 | 7.3 | 7.7 | 13.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.2 | 0.1 | 5.1 | 0.1 | 6.8 | 0.1 | 5.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 33.9 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St























Existing Conditions
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 54 | 414 | 78 | 573 | 23 | 52 | 37 | 30 |
| v/c Ratio | 0.14 | 0.14 | 0.20 | 0.20 | 0.04 | 0.08 | 0.06 | 0.04 |
| Control Delay | 30.3 | 15.7 | 29.0 | 14.3 | 12.9 | 10.1 | 13.3 | 8.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 30.3 | 15.7 | 29.0 | 14.3 | 12.9 | 10.1 | 13.3 | 8.9 |
| Queue Length 50th (ft) | 14 | 28 | 20 | 37 | 5 | 2 | 9 | 1 |
| Queue Length 95th (ft) | 69 | 104 | 90 | 132 | 20 | 30 | 28 | 21 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 880 | 3422 | 880 | 3375 | 1014 | 1076 | 989 | 1059 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.12 | 0.09 | 0.17 | 0.02 | 0.05 | 0.04 | 0.03 |
| Intersection Summary | | | | | | | | |

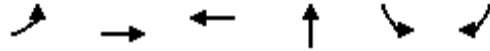
HCM 2010 Signalized Intersection Summary
8: Caldwell Ave & Fairway St

Existing Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|--|---|---|--|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |  |  | |  |  | |
| Traffic Volume (veh/h) | 49 | 340 | 36 | 71 | 420 | 101 | 21 | 10 | 37 | 34 | 4 | 24 |
| Future Volume (veh/h) | 49 | 340 | 36 | 71 | 420 | 101 | 21 | 10 | 37 | 34 | 4 | 24 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 0.99 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 54 | 374 | 40 | 78 | 462 | 111 | 23 | 11 | 41 | 37 | 4 | 26 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 120 | 1413 | 148 | 153 | 1319 | 307 | 399 | 41 | 152 | 386 | 29 | 186 |
| Arrive On Green | 0.07 | 0.30 | 0.30 | 0.09 | 0.32 | 0.32 | 0.03 | 0.12 | 0.12 | 0.05 | 0.13 | 0.13 |
| Sat Flow, veh/h | 1774 | 4673 | 491 | 1774 | 4105 | 955 | 1774 | 345 | 1285 | 1774 | 213 | 1383 |
| Grp Volume(v), veh/h | 54 | 269 | 145 | 78 | 379 | 194 | 23 | 0 | 52 | 37 | 0 | 30 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1774 | 1774 | 1695 | 1670 | 1774 | 0 | 1630 | 1774 | 0 | 1595 |
| Q Serve(g_s), s | 1.2 | 2.4 | 2.5 | 1.7 | 3.5 | 3.6 | 0.5 | 0.0 | 1.2 | 0.7 | 0.0 | 0.7 |
| Cycle Q Clear(g_c), s | 1.2 | 2.4 | 2.5 | 1.7 | 3.5 | 3.6 | 0.5 | 0.0 | 1.2 | 0.7 | 0.0 | 0.7 |
| Prop In Lane | 1.00 | | 0.28 | 1.00 | | 0.57 | 1.00 | | 0.79 | 1.00 | | 0.87 |
| Lane Grp Cap(c), veh/h | 120 | 1025 | 536 | 153 | 1089 | 537 | 399 | 0 | 192 | 386 | 0 | 215 |
| V/C Ratio(X) | 0.45 | 0.26 | 0.27 | 0.51 | 0.35 | 0.36 | 0.06 | 0.00 | 0.27 | 0.10 | 0.00 | 0.14 |
| Avail Cap(c_a), veh/h | 655 | 2503 | 1310 | 655 | 2503 | 1233 | 994 | 0 | 1003 | 951 | 0 | 942 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.2 | 10.7 | 10.8 | 17.7 | 10.5 | 10.6 | 14.8 | 0.0 | 16.3 | 14.4 | 0.0 | 15.5 |
| Incr Delay (d2), s/veh | 1.0 | 0.4 | 0.7 | 1.0 | 0.5 | 1.1 | 0.1 | 0.0 | 2.1 | 0.2 | 0.0 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 1.2 | 1.3 | 0.9 | 1.7 | 1.8 | 0.2 | 0.0 | 0.6 | 0.4 | 0.0 | 0.3 |
| LnGrp Delay(d),s/veh | 19.2 | 11.1 | 11.5 | 18.7 | 11.1 | 11.7 | 14.9 | 0.0 | 18.4 | 14.6 | 0.0 | 16.3 |
| LnGrp LOS | B | B | B | B | B | B | B | | B | B | | B |
| Approach Vol, veh/h | | 468 | | | 651 | | | 75 | | | | 67 |
| Approach Delay, s/veh | | 12.2 | | | 12.2 | | | 17.3 | | | | 15.4 |
| Approach LOS | | B | | | B | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.5 | 18.3 | 5.0 | 9.8 | 6.7 | 19.1 | 4.4 | 10.5 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | 15.0 | 25.0 | 15.0 | 30.0 | 15.0 | 24.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.7 | 4.5 | 2.7 | 3.2 | 3.2 | 5.6 | 2.5 | 2.7 | | | | |
| Green Ext Time (p_c), s | 0.1 | 5.3 | 0.1 | 0.4 | 0.0 | 7.5 | 0.0 | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.6 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave





















Existing Conditions
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBT | NBT | SBL | SBR |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 19 | 401 | 647 | 2 | 51 | 44 |
| v/c Ratio | 0.05 | 0.18 | 0.27 | 0.00 | 0.10 | 0.05 |
| Control Delay | 20.9 | 4.7 | 6.8 | 17.0 | 16.4 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.9 | 4.7 | 6.8 | 17.0 | 16.4 | 0.1 |
| Queue Length 50th (ft) | 4 | 24 | 43 | 0 | 8 | 0 |
| Queue Length 95th (ft) | 24 | 44 | 116 | 6 | 42 | 0 |
| Internal Link Dist (ft) | | 1064 | 2599 | 260 | | |
| Turn Bay Length (ft) | 235 | | | | | 200 |
| Base Capacity (vph) | 1136 | 3227 | 3213 | 937 | 937 | 1183 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.02 | 0.12 | 0.20 | 0.00 | 0.05 | 0.04 |
| Intersection Summary | | | | | | |

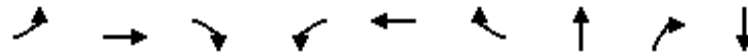
HCM 2010 Signalized Intersection Summary
 9: Stonebrook St & Caldwell Ave

Existing Conditions
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  |  |
| Traffic Volume (veh/h) | 17 | 362 | 3 | 0 | 570 | 19 | 2 | 0 | 0 | 46 | 0 | 40 |
| Future Volume (veh/h) | 17 | 362 | 3 | 0 | 570 | 19 | 2 | 0 | 0 | 46 | 0 | 40 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 19 | 398 | 3 | 0 | 626 | 21 | 2 | 0 | 0 | 51 | 0 | 44 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 51 | 2012 | 15 | 4 | 1503 | 50 | 405 | 0 | 0 | 413 | 308 | 261 |
| Arrive On Green | 0.03 | 0.56 | 0.56 | 0.00 | 0.43 | 0.43 | 0.17 | 0.00 | 0.00 | 0.17 | 0.00 | 0.17 |
| Sat Flow, veh/h | 1774 | 3600 | 27 | 1774 | 3494 | 117 | 1357 | 0 | 0 | 1406 | 1863 | 1583 |
| Grp Volume(v), veh/h | 19 | 196 | 205 | 0 | 317 | 330 | 2 | 0 | 0 | 51 | 0 | 44 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1858 | 1774 | 1770 | 1842 | 1357 | 0 | 0 | 1406 | 1863 | 1583 |
| Q Serve(g_s), s | 0.4 | 2.2 | 2.2 | 0.0 | 5.0 | 5.0 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 1.0 |
| Cycle Q Clear(g_c), s | 0.4 | 2.2 | 2.2 | 0.0 | 5.0 | 5.0 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 1.0 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 0.06 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 51 | 989 | 1038 | 4 | 761 | 792 | 405 | 0 | 0 | 413 | 308 | 261 |
| V/C Ratio(X) | 0.38 | 0.20 | 0.20 | 0.00 | 0.42 | 0.42 | 0.00 | 0.00 | 0.00 | 0.12 | 0.00 | 0.17 |
| Avail Cap(c_a), veh/h | 890 | 1775 | 1864 | 890 | 1775 | 1848 | 861 | 0 | 0 | 886 | 934 | 794 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.0 | 4.4 | 4.4 | 0.0 | 7.9 | 7.9 | 13.9 | 0.0 | 0.0 | 14.4 | 0.0 | 14.3 |
| Incr Delay (d2), s/veh | 1.7 | 0.4 | 0.3 | 0.0 | 1.3 | 1.3 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.2 | 1.1 | 1.2 | 0.0 | 2.7 | 2.8 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.5 |
| LnGrp Delay(d),s/veh | 20.7 | 4.7 | 4.7 | 0.0 | 9.2 | 9.2 | 13.9 | 0.0 | 0.0 | 14.7 | 0.0 | 14.9 |
| LnGrp LOS | C | A | A | | A | A | B | | | B | | B |
| Approach Vol, veh/h | | 420 | | | 647 | | | 2 | | | 95 | |
| Approach Delay, s/veh | | 5.4 | | | 9.2 | | | 13.9 | | | 14.8 | |
| Approach LOS | | A | | | A | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 0.0 | 28.3 | | 11.6 | 5.1 | 23.1 | | 11.6 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 0.0 | 4.2 | | 2.0 | 2.4 | 7.0 | | 3.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.2 | | 0.0 | 0.0 | 10.1 | | 0.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 8.3 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
10: West St & Caldwell Ave

Existing Conditions
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 51 | 494 | 25 | 45 | 669 | 42 | 124 | 27 | 180 |
| v/c Ratio | 0.21 | 0.26 | 0.03 | 0.19 | 0.35 | 0.05 | 0.32 | 0.06 | 0.43 |
| Control Delay | 30.0 | 11.7 | 0.0 | 30.1 | 12.5 | 1.4 | 23.2 | 0.2 | 22.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 30.0 | 11.7 | 0.0 | 30.1 | 12.5 | 1.4 | 23.2 | 0.2 | 22.2 |
| Queue Length 50th (ft) | 17 | 60 | 0 | 15 | 86 | 0 | 36 | 0 | 47 |
| Queue Length 95th (ft) | 55 | 113 | 0 | 50 | 158 | 7 | 95 | 0 | 121 |
| Internal Link Dist (ft) | | 2599 | | | 1240 | | 330 | | 332 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 557 | 2475 | 1107 | 557 | 2475 | 1104 | 654 | 712 | 676 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.09 | 0.20 | 0.02 | 0.08 | 0.27 | 0.04 | 0.19 | 0.04 | 0.27 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
 10: West St & Caldwell Ave

Existing Conditions
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  |  |
| Traffic Volume (veh/h) | 45 | 440 | 22 | 40 | 595 | 37 | 37 | 73 | 24 | 39 | 76 | 45 |
| Future Volume (veh/h) | 45 | 440 | 22 | 40 | 595 | 37 | 37 | 73 | 24 | 39 | 76 | 45 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 51 | 494 | 25 | 45 | 669 | 42 | 42 | 82 | 27 | 44 | 85 | 51 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 111 | 1497 | 656 | 102 | 1478 | 646 | 175 | 238 | 274 | 145 | 155 | 79 |
| Arrive On Green | 0.06 | 0.42 | 0.42 | 0.06 | 0.42 | 0.42 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1774 | 3539 | 1550 | 1774 | 3539 | 1547 | 390 | 1357 | 1562 | 260 | 885 | 453 |
| Grp Volume(v), veh/h | 51 | 494 | 25 | 45 | 669 | 42 | 124 | 0 | 27 | 180 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1550 | 1774 | 1770 | 1547 | 1747 | 0 | 1562 | 1598 | 0 | 0 |
| Q Serve(g_s), s | 1.2 | 4.2 | 0.4 | 1.1 | 6.1 | 0.7 | 0.0 | 0.0 | 0.7 | 2.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 1.2 | 4.2 | 0.4 | 1.1 | 6.1 | 0.7 | 2.7 | 0.0 | 0.7 | 4.7 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.34 | | 1.00 | 0.24 | | 0.28 |
| Lane Grp Cap(c), veh/h | 111 | 1497 | 656 | 102 | 1478 | 646 | 413 | 0 | 274 | 380 | 0 | 0 |
| V/C Ratio(X) | 0.46 | 0.33 | 0.04 | 0.44 | 0.45 | 0.07 | 0.30 | 0.00 | 0.10 | 0.47 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 591 | 2751 | 1205 | 591 | 2751 | 1203 | 843 | 0 | 694 | 811 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 20.4 | 8.7 | 7.6 | 20.5 | 9.4 | 7.8 | 16.4 | 0.0 | 15.6 | 17.2 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 1.1 | 0.5 | 0.1 | 1.1 | 0.8 | 0.2 | 0.9 | 0.0 | 0.3 | 2.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 2.2 | 0.2 | 0.6 | 3.1 | 0.3 | 1.4 | 0.0 | 0.3 | 2.3 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 21.4 | 9.2 | 7.7 | 21.6 | 10.2 | 8.0 | 17.3 | 0.0 | 15.9 | 19.2 | 0.0 | 0.0 |
| LnGrp LOS | C | A | A | C | B | A | B | | B | B | | |
| Approach Vol, veh/h | | 570 | | | 756 | | | 151 | | | 180 | |
| Approach Delay, s/veh | | 10.2 | | | 10.8 | | | 17.0 | | | 19.2 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.6 | 25.5 | | 12.9 | 6.8 | 25.3 | | 12.9 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 35.0 | | 20.0 | 15.0 | 35.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.1 | 6.2 | | 4.7 | 3.2 | 8.1 | | 6.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.8 | | 1.1 | 0.0 | 10.6 | | 1.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.1 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.2 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | ↘ | ↗ | ↑ | ↗ | ↘ | ↑ |
| Traffic Vol, veh/h | 42 | 122 | 106 | 18 | 178 | 152 |
| Future Vol, veh/h | 42 | 122 | 106 | 18 | 178 | 152 |
| Conflicting Peds, #/hr | 0 | 2 | 0 | 3 | 3 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 100 | - | 160 | 145 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 49 | 144 | 125 | 21 | 209 | 179 |

| Major/Minor | Minor1 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|-------|---|
| Conflicting Flow All | 725 | 130 | 0 | 0 | 149 | 0 |
| Stage 1 | 128 | - | - | - | - | - |
| Stage 2 | 597 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 392 | 920 | - | - | 1432 | - |
| Stage 1 | 898 | - | - | - | - | - |
| Stage 2 | 550 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | - | - |
| Mov Cap-1 Maneuver | 334 | 916 | - | - | 1428 | - |
| Mov Cap-2 Maneuver | 405 | - | - | - | - | - |
| Stage 1 | 895 | - | - | - | - | - |
| Stage 2 | 470 | - | - | - | - | - |

| Approach | WB | NB | SB |
|----------------------|------|----|-----|
| HCM Control Delay, s | 11.1 | 0 | 4.3 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | WBLn2 | SBL | SBT |
|-----------------------|-----|----------|-------|-------|-------|
| Capacity (veh/h) | - | - | 405 | 916 | 1428 |
| HCM Lane V/C Ratio | - | - | 0.122 | 0.157 | 0.147 |
| HCM Control Delay (s) | - | - | 15.1 | 9.7 | 8 |
| HCM Lane LOS | - | - | C | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.4 | 0.6 | 0.5 |

Queues
12: Mooney Blvd & Cameron Ave




























Existing Conditions
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 67 | 165 | 96 | 260 | 8 | 541 | 94 | 80 | 395 | 32 |
| v/c Ratio | 0.53 | 0.48 | 0.62 | 0.52 | 0.05 | 0.21 | 0.11 | 0.19 | 0.12 | 0.03 |
| Control Delay | 74.8 | 59.1 | 75.2 | 43.1 | 62.6 | 19.3 | 1.8 | 54.0 | 9.9 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 74.8 | 59.1 | 75.2 | 43.1 | 62.6 | 19.3 | 1.8 | 54.0 | 9.9 | 0.1 |
| Queue Length 50th (ft) | 58 | 69 | 83 | 82 | 3 | 92 | 0 | 32 | 40 | 0 |
| Queue Length 95th (ft) | 106 | 105 | 137 | 124 | 12 | 134 | 16 | 58 | 83 | 0 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 161 | 1143 | 176 | 1139 | 305 | 2589 | 856 | 432 | 3356 | 1068 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.42 | 0.14 | 0.55 | 0.23 | 0.03 | 0.21 | 0.11 | 0.19 | 0.12 | 0.03 |
| Intersection Summary | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

Existing Conditions
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |  |   |  |   |   |  |
| Traffic Volume (veh/h) | 64 | 145 | 13 | 92 | 164 | 85 | 8 | 519 | 90 | 77 | 379 | 31 |
| Future Volume (veh/h) | 64 | 145 | 13 | 92 | 164 | 85 | 8 | 519 | 90 | 77 | 379 | 31 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 67 | 151 | 14 | 96 | 171 | 89 | 8 | 541 | 94 | 80 | 395 | 32 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 85 | 236 | 22 | 159 | 259 | 128 | 40 | 1424 | 443 | 1288 | 3294 | 1024 |
| Arrive On Green | 0.05 | 0.07 | 0.07 | 0.09 | 0.11 | 0.11 | 0.01 | 0.28 | 0.28 | 0.75 | 1.00 | 1.00 |
| Sat Flow, veh/h | 1774 | 3279 | 301 | 1774 | 2283 | 1131 | 3442 | 5085 | 1582 | 3442 | 5085 | 1581 |
| Grp Volume(v), veh/h | 67 | 81 | 84 | 96 | 131 | 129 | 8 | 541 | 94 | 80 | 395 | 32 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1810 | 1774 | 1770 | 1644 | 1721 | 1695 | 1582 | 1721 | 1695 | 1581 |
| Q Serve(g_s), s | 5.0 | 6.0 | 6.1 | 7.0 | 9.5 | 10.2 | 0.3 | 11.6 | 6.1 | 0.8 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 5.0 | 6.0 | 6.1 | 7.0 | 9.5 | 10.2 | 0.3 | 11.6 | 6.1 | 0.8 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.17 | 1.00 | | 0.69 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 85 | 127 | 130 | 159 | 201 | 186 | 40 | 1424 | 443 | 1288 | 3294 | 1024 |
| V/C Ratio(X) | 0.79 | 0.63 | 0.65 | 0.60 | 0.65 | 0.69 | 0.20 | 0.38 | 0.21 | 0.06 | 0.12 | 0.03 |
| Avail Cap(c_a), veh/h | 158 | 577 | 590 | 159 | 577 | 536 | 306 | 1424 | 443 | 1288 | 3294 | 1024 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.77 | 0.77 | 0.77 | 0.98 | 0.98 | 0.98 |
| Uniform Delay (d), s/veh | 63.6 | 60.9 | 61.0 | 59.2 | 57.3 | 57.6 | 66.1 | 39.2 | 37.2 | 10.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.8 | 9.3 | 9.6 | 4.6 | 8.1 | 10.4 | 0.7 | 0.6 | 0.8 | 0.0 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.6 | 3.3 | 3.4 | 3.6 | 5.1 | 5.2 | 0.2 | 5.5 | 2.8 | 0.4 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 69.4 | 70.3 | 70.6 | 63.8 | 65.4 | 68.0 | 66.8 | 39.8 | 38.0 | 10.7 | 0.1 | 0.1 |
| LnGrp LOS | E | E | E | E | E | E | E | D | D | B | A | A |
| Approach Vol, veh/h | | 232 | | | 356 | | | 643 | | | 507 | |
| Approach Delay, s/veh | | 70.1 | | | 65.9 | | | 39.8 | | | 1.8 | |
| Approach LOS | | E | | | E | | | D | | | A | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 56.9 | 44.2 | 17.8 | 16.1 | 7.3 | 93.9 | 12.2 | 21.7 | | | | |
| Change Period (Y+Rc), s | 6.4 | * 6.4 | 5.7 | * 6.4 | * 5.7 | 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | 17.0 | * 38 | 12.0 | * 44 | * 12 | 42.8 | 12.0 | * 44 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.8 | 13.6 | 9.0 | 8.1 | 2.3 | 2.0 | 7.0 | 12.2 | | | | |
| Green Ext Time (p_c), s | 0.1 | 10.7 | 0.0 | 1.6 | 0.0 | 9.0 | 0.0 | 3.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 38.1 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.3 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 236 | 4 | 276 | 356 | 5 | 162 |
| Future Vol, veh/h | 236 | 4 | 276 | 356 | 5 | 162 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 145 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 284 | 5 | 333 | 429 | 6 | 195 |

| Major/Minor | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 289 | 0 | 1382 |
| Stage 1 | - | - | - | - | 287 |
| Stage 2 | - | - | - | - | 1095 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 1273 | - | 159 |
| Stage 1 | - | - | - | - | 762 |
| Stage 2 | - | - | - | - | 321 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1273 | - | 104 |
| Mov Cap-2 Maneuver | - | - | - | - | 179 |
| Stage 1 | - | - | - | - | 762 |
| Stage 2 | - | - | - | - | 211 |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 3.9 | 11.9 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 179 | 752 | - | - | 1273 | - |
| HCM Lane V/C Ratio | 0.034 | 0.26 | - | - | 0.261 | - |
| HCM Control Delay (s) | 25.8 | 11.5 | - | - | 8.8 | 0 |
| HCM Lane LOS | D | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.1 | 1 | - | - | 1.1 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 54 | 305 | 9 | 0 | 315 | 5 | 24 | 6 | 8 | 3 | 3 | 11 |
| Future Vol, veh/h | 54 | 305 | 9 | 0 | 315 | 5 | 24 | 6 | 8 | 3 | 3 | 11 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 66 | 372 | 11 | 0 | 384 | 6 | 29 | 7 | 10 | 4 | 4 | 13 |

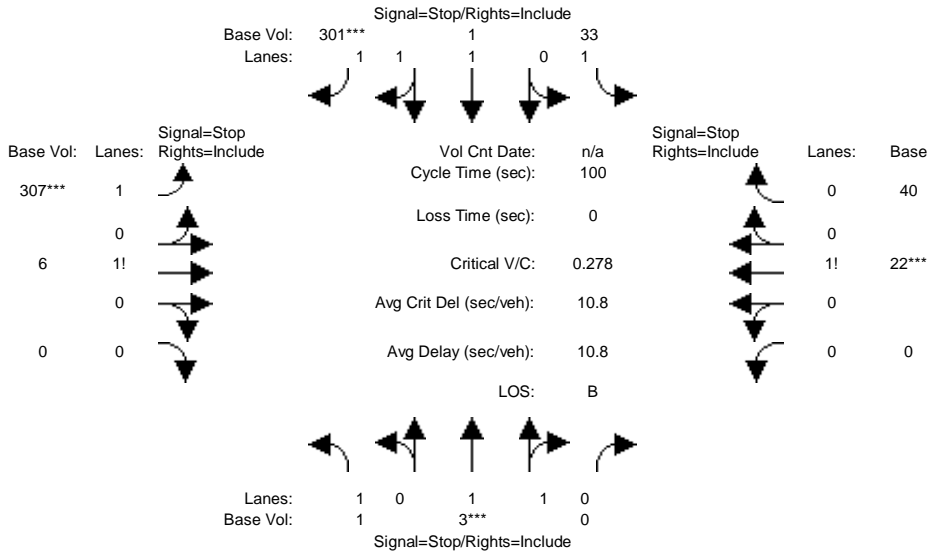
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 390 | 0 | 0 | 383 | 0 | 0 | 906 | 900 | 379 | 906 | 902 | 387 |
| Stage 1 | - | - | - | - | - | - | 510 | 510 | - | 387 | 387 | - |
| Stage 2 | - | - | - | - | - | - | 396 | 390 | - | 519 | 515 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1169 | - | - | 1175 | - | - | 257 | 278 | 668 | 257 | 277 | 661 |
| Stage 1 | - | - | - | - | - | - | 546 | 538 | - | 637 | 610 | - |
| Stage 2 | - | - | - | - | - | - | 629 | 608 | - | 540 | 535 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1169 | - | - | 1175 | - | - | 238 | 262 | 667 | 237 | 261 | 661 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 238 | 262 | - | 237 | 261 | - |
| Stage 1 | - | - | - | - | - | - | 515 | 508 | - | 601 | 610 | - |
| Stage 2 | - | - | - | - | - | - | 613 | 608 | - | 494 | 505 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 1.2 | | | 0 | | | 20.4 | | | 13.9 | | |
| HCM LOS | | | | | | | C | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|-------|
| Capacity (veh/h) | 280 | 1169 | - | - | 1175 | - | - | 237 | 498 |
| HCM Lane V/C Ratio | 0.166 | 0.056 | - | - | - | - | - | 0.015 | 0.034 |
| HCM Control Delay (s) | 20.4 | 8.3 | - | - | 0 | - | - | 20.4 | 12.5 |
| HCM Lane LOS | C | A | - | - | A | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.6 | 0.2 | - | - | 0 | - | - | 0 | 0.1 |

Level Of Service Computation Report
 2000 HCM 4-Way Stop (Base Volume Alternative)
 Existing AM

Intersection #15: Cameron Ave/Court St



| Street Name: | Court St | | | | | | Cameron Ave | | | | | |
|---------------------------|--|------|------|-------------|------|------|-------------|------|------|------------|------|------|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 1 | 3 | 0 | 33 | 1 | 301 | 307 | 6 | 0 | 0 | 22 | 40 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1 | 3 | 0 | 33 | 1 | 301 | 307 | 6 | 0 | 0 | 22 | 40 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| PHF Volume: | 1 | 4 | 0 | 40 | 1 | 367 | 374 | 7 | 0 | 0 | 27 | 49 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 1 | 4 | 0 | 40 | 1 | 367 | 374 | 7 | 0 | 0 | 27 | 49 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 1 | 4 | 0 | 40 | 1 | 367 | 374 | 7 | 0 | 0 | 27 | 49 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 1.96 | 0.04 | 0.00 | 0.00 | 0.35 | 0.65 |
| Final Sat.: | 463 | 991 | 0 | 539 | 583 | 1321 | 1618 | -512 | 0 | 0 | 217 | 395 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | xxxx | 0.07 | 0.00 | 0.28 | 0.23-0.01 | xxxx | xxxx | 0.12 | 0.12 | |
| Crit Moves: | | **** | | | | **** | **** | | | **** | | |
| Delay/Veh: | 9.9 | 9.4 | 0.0 | 9.6 | 8.6 | 9.8 | 12.4 | 12.8 | 0.0 | 0.0 | 9.3 | 9.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 9.9 | 9.4 | 0.0 | 9.6 | 8.6 | 9.8 | 12.4 | 12.8 | 0.0 | 0.0 | 9.3 | 9.3 |
| LOS by Move: | A | A | * | A | A | A | B | B | * | * | A | A |
| ApproachDel: | | 9.5 | | | 9.8 | | | 12.2 | | | 9.3 | |
| Delay Adj: | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | |
| ApprAdjDel: | | 9.5 | | | 9.8 | | | 12.2 | | | 9.3 | |
| LOS by Appr: | | A | | | A | | | B | | | A | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.3 | 0.5 | 0.5 | 0.5 | 0.1 | 0.1 | 0.1 |
| Note: | Queue reported is the number of cars per lane. | | | | | | | | | | | |
| Time Period: | 0.25 hour | | | | | | | | | | | |
| HevVeh: | 0% | | | 0% | | | 0% | | | 0% | | |
| Alpha Value: | 0.01 | | | | | | | | | | | |
| GroupType: | 6 | | | 6 | | | 5 | | | 4B | | |
| P[C1]: | 0.19 | | | 0.39 | | | 0.44 | | | 0.22 | | |

| | | | | |
|-----------|--------|--------|--------|--------|
| P[C2]: | 0.20 | 0.00 | 0.06 | 0.28 |
| P[C3]: | 0.27 | 0.54 | 0.44 | 0.22 |
| P[C4]: | 0.31 | 0.07 | 0.06 | 0.28 |
| P[C5]: | 0.03 | 0.00 | 0.00 | 0.00 |
| Padj[C1]: | 0.018 | 0.013 | 0.011 | 0.016 |
| Padj[C2]: | 0.008 | 0.007 | 0.005 | 0.005 |
| Padj[C3]: | -0.004 | -0.015 | -0.013 | -0.004 |
| Padj[C4]: | -0.018 | -0.004 | -0.004 | -0.017 |
| Padj[C5]: | -0.003 | -0.000 | -0.000 | -0.000 |

| Lanes: | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
|--------------|-------|--------|-------|--------|-------|-------|--------|---------|
| LaneType: | LEFT | RTTHRU | LEFT | RITE | LEFT | LTR | LTR | NOLANE |
| HeadwayAdj: | 0.500 | 0.000 | 0.500 | -0.700 | 0.500 | 0.981 | -0.387 | xx.xxx |
| Volume: | 1 | 2 | 40 | 184 | 191 | 191 | 76 | xxxxxxx |
| Capacity: | 463 | 495 | 539 | 660 | 573 | 533 | 612 | xxxxxx |
| DegOfUtil: | 0.00 | 0.00 | 0.07 | 0.27 | 0.32 | 0.35 | 0.12 | x.xx |
| DepHeadway: | 7.20 | 6.70 | 6.43 | 5.23 | 6.10 | 6.58 | 5.59 | xx.xx |
| ServiceTime: | 4.9 | 4.4 | 4.1 | 2.9 | 3.8 | 4.3 | 3.6 | xx.x |
| Delay: | 9.9 | 9.4 | 9.6 | 9.8 | 11.7 | 12.8 | 9.3 | xxx.x |
| Queue: | 0.0 | 0.0 | 0.1 | 0.3 | 0.5 | 0.5 | 0.1 | xxx.x |

| Lanes: | L3 | L4 | L3 | L4 | L3 | L4 | L3 | L4 |
|--------------|-------|---------|--------|-------|---------|---------|---------|---------|
| LaneType: | THRU | NOLANE | RTTHRU | THRU | NOLANE | NOLANE | NOLANE | NOLANE |
| HeadwayAdj: | 0.000 | xx.xxx | -0.700 | 0.000 | xx.xxx | xx.xxx | xx.xxx | xx.xxx |
| Volume: | 2 | xxxxxxx | 184 | 1 | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| Capacity: | 495 | xxxxxx | 660 | 583 | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| DegOfUtil: | 0.00 | x.xx | 0.27 | 0.00 | x.xx | x.xx | x.xx | x.xx |
| DepHeadway: | 6.70 | xx.xx | 5.23 | 5.93 | xx.xx | xx.xx | xx.xx | xx.xx |
| ServiceTime: | 4.4 | xx.x | 2.9 | 3.6 | xx.x | xx.x | xx.x | xx.x |
| Delay: | 9.4 | xxx.x | 9.8 | 8.6 | xxx.x | xxx.x | xxx.x | xxx.x |
| Queue: | 0.0 | xxx.x | 0.3 | 0.0 | xxx.x | xxx.x | xxx.x | xxx.x |

| Approach: | North Bound | South Bound | East Bound | West Bound |
|--------------|-------------|-------------|------------|------------|
| ApproachDel: | 9.5 | 9.8 | 12.2 | 9.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 |
| AprAdjDel: | 9.5 | 9.8 | 12.2 | 9.3 |
| LOS by Appr: | A | A | B | A |
| OverallDel: | 10.8 | | | |
| OverallLOS: | B | | | |

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #1 Cameron Ave/Court St

Base Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | South Bound | East Bound | West Bound |
|----------------------------------|-------------|-------------|------------|------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Control: | Stop Sign | Stop Sign | Stop Sign | Stop Sign |
| Lanes: | 1 0 1 1 0 | 1 0 1 1 1 | 1 0 1 0 0 | 0 0 0 1 0 |
| Initial Vol: | 1 3 0 | 33 1 301 | 307 6 0 | 0 22 40 |
| Major Street Volume: | 375 | | | |
| Minor Approach Volume: | 335 | | | |
| Minor Approach Volume Threshold: | 796 | | | |

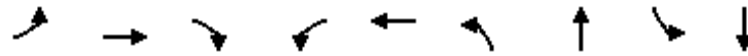
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Queues
16: Demaree St & Visalia Pkwy























Existing Conditions
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 48 | 340 | 91 | 75 | 348 | 69 | 695 | 110 | 566 |
| v/c Ratio | 0.29 | 0.65 | 0.17 | 0.40 | 0.31 | 0.38 | 0.65 | 0.52 | 0.50 |
| Control Delay | 47.3 | 37.5 | 2.8 | 47.7 | 23.6 | 47.6 | 30.1 | 49.3 | 25.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.3 | 37.5 | 2.8 | 47.7 | 23.6 | 47.6 | 30.1 | 49.3 | 25.9 |
| Queue Length 50th (ft) | 24 | 167 | 0 | 38 | 71 | 35 | 163 | 56 | 121 |
| Queue Length 95th (ft) | 66 | 284 | 8 | 92 | 119 | 86 | 267 | 123 | 207 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 775 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 350 | 535 | 541 | 350 | 1139 | 350 | 1587 | 350 | 1598 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.14 | 0.64 | 0.17 | 0.21 | 0.31 | 0.20 | 0.44 | 0.31 | 0.35 |
| Intersection Summary | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

Existing Conditions
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 39 | 275 | 74 | 61 | 214 | 68 | 56 | 504 | 59 | 89 | 403 | 55 |
| Future Volume (veh/h) | 39 | 275 | 74 | 61 | 214 | 68 | 56 | 504 | 59 | 89 | 403 | 55 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 48 | 340 | 91 | 75 | 264 | 84 | 69 | 622 | 73 | 110 | 498 | 68 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 94 | 442 | 375 | 121 | 670 | 208 | 116 | 961 | 113 | 142 | 989 | 134 |
| Arrive On Green | 0.05 | 0.24 | 0.24 | 0.07 | 0.25 | 0.25 | 0.07 | 0.30 | 0.30 | 0.08 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1774 | 1863 | 1581 | 1774 | 2659 | 828 | 1774 | 3184 | 373 | 1774 | 3126 | 425 |
| Grp Volume(v), veh/h | 48 | 340 | 91 | 75 | 174 | 174 | 69 | 345 | 350 | 110 | 281 | 285 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1581 | 1774 | 1770 | 1717 | 1774 | 1770 | 1787 | 1774 | 1770 | 1781 |
| Q Serve(g_s), s | 1.7 | 11.2 | 3.1 | 2.7 | 5.4 | 5.6 | 2.5 | 11.1 | 11.2 | 4.0 | 8.5 | 8.6 |
| Cycle Q Clear(g_c), s | 1.7 | 11.2 | 3.1 | 2.7 | 5.4 | 5.6 | 2.5 | 11.1 | 11.2 | 4.0 | 8.5 | 8.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.48 | 1.00 | | 0.21 | 1.00 | | 0.24 |
| Lane Grp Cap(c), veh/h | 94 | 442 | 375 | 121 | 446 | 432 | 116 | 534 | 539 | 142 | 560 | 563 |
| V/C Ratio(X) | 0.51 | 0.77 | 0.24 | 0.62 | 0.39 | 0.40 | 0.60 | 0.65 | 0.65 | 0.78 | 0.50 | 0.51 |
| Avail Cap(c_a), veh/h | 404 | 566 | 481 | 404 | 538 | 522 | 404 | 928 | 937 | 404 | 928 | 934 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 30.3 | 23.4 | 20.3 | 29.8 | 20.4 | 20.5 | 29.9 | 19.9 | 19.9 | 29.7 | 18.3 | 18.3 |
| Incr Delay (d2), s/veh | 1.6 | 9.2 | 1.0 | 1.9 | 1.7 | 1.9 | 1.8 | 2.6 | 2.6 | 3.4 | 1.4 | 1.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 6.9 | 1.5 | 1.4 | 2.8 | 2.8 | 1.3 | 5.7 | 5.8 | 2.1 | 4.3 | 4.4 |
| LnGrp Delay(d),s/veh | 31.9 | 32.6 | 21.3 | 31.8 | 22.1 | 22.3 | 31.7 | 22.5 | 22.5 | 33.1 | 19.6 | 19.7 |
| LnGrp LOS | C | C | C | C | C | C | C | C | C | C | B | B |
| Approach Vol, veh/h | | 479 | | | 423 | | | 764 | | | 676 | |
| Approach Delay, s/veh | | 30.4 | | | 23.9 | | | 23.3 | | | 21.8 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.5 | 26.9 | 8.7 | 20.8 | 8.5 | 27.8 | 7.7 | 21.8 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 15 | 34.5 | * 15 | 20.0 | * 15 | 34.5 | * 15 | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.0 | 13.2 | 4.7 | 13.2 | 4.5 | 10.6 | 3.7 | 7.6 | | | | |
| Green Ext Time (p_c), s | 0.1 | 6.7 | 0.0 | 2.4 | 0.0 | 5.7 | 0.0 | 3.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 24.4 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 160 | 268 | 3 | 1 | 263 | 96 | 5 | 0 | 3 | 41 | 0 | 124 |
| Future Vol, veh/h | 160 | 268 | 3 | 1 | 263 | 96 | 5 | 0 | 3 | 41 | 0 | 124 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 203 | 339 | 4 | 1 | 333 | 122 | 6 | 0 | 4 | 52 | 0 | 157 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 455 | 0 | 0 | 343 | 0 | 0 | 1222 | 1204 | 341 | 1145 | 1145 | 394 |
| Stage 1 | - | - | - | - | - | - | 747 | 747 | - | 396 | 396 | - |
| Stage 2 | - | - | - | - | - | - | 475 | 457 | - | 749 | 749 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1106 | - | - | 1216 | - | - | 156 | 184 | 701 | 177 | 200 | 655 |
| Stage 1 | - | - | - | - | - | - | 405 | 420 | - | 629 | 604 | - |
| Stage 2 | - | - | - | - | - | - | 570 | 568 | - | 404 | 419 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1106 | - | - | 1216 | - | - | 102 | 150 | 701 | 151 | 163 | 655 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 102 | 150 | - | 151 | 163 | - |
| Stage 1 | - | - | - | - | - | - | 330 | 343 | - | 513 | 603 | - |
| Stage 2 | - | - | - | - | - | - | 433 | 567 | - | 328 | 342 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 3.3 | | | 0 | | | 30.7 | | | 28.2 | | |
| HCM LOS | | | | | | | D | | | D | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 150 | 1106 | - | - | 1216 | - | - | 358 |
| HCM Lane V/C Ratio | 0.068 | 0.183 | - | - | 0.001 | - | - | 0.583 |
| HCM Control Delay (s) | 30.7 | 9 | - | - | 8 | - | - | 28.2 |
| HCM Lane LOS | D | A | - | - | A | - | - | D |
| HCM 95th %tile Q(veh) | 0.2 | 0.7 | - | - | 0 | - | - | 3.5 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.2 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 75 | 248 | 298 | 48 | 60 | 134 |
| Future Vol, veh/h | 75 | 248 | 298 | 48 | 60 | 134 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 93 | 306 | 368 | 59 | 74 | 165 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 427 | 0 | - | 0 | 890 398 |
| Stage 1 | - | - | - | - | 398 - |
| Stage 2 | - | - | - | - | 492 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1132 | - | - | - | 313 652 |
| Stage 1 | - | - | - | - | 678 - |
| Stage 2 | - | - | - | - | 615 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1132 | - | - | - | 287 652 |
| Mov Cap-2 Maneuver | - | - | - | - | 287 - |
| Stage 1 | - | - | - | - | 622 - |
| Stage 2 | - | - | - | - | 615 - |

| Approach | EB | WB | SB |
|----------------------|----|----|------|
| HCM Control Delay, s | 2 | 0 | 15.3 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1132 | - | - | - | 287 | 652 |
| HCM Lane V/C Ratio | 0.082 | - | - | - | 0.258 | 0.254 |
| HCM Control Delay (s) | 8.5 | - | - | - | 21.9 | 12.4 |
| HCM Lane LOS | A | - | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 1 | 1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.8 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 35 | 289 | 289 | 13 | 7 | 15 |
| Future Vol, veh/h | 35 | 289 | 289 | 13 | 7 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 1 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 38 | 314 | 314 | 14 | 8 | 16 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 328 | 0 | - | 0 | 711 322 |
| Stage 1 | - | - | - | - | 321 - |
| Stage 2 | - | - | - | - | 390 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1232 | - | - | - | 400 719 |
| Stage 1 | - | - | - | - | 735 - |
| Stage 2 | - | - | - | - | 684 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1232 | - | - | - | 385 718 |
| Mov Cap-2 Maneuver | - | - | - | - | 385 - |
| Stage 1 | - | - | - | - | 708 - |
| Stage 2 | - | - | - | - | 684 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.9 | 0 | 11.7 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1232 | - | - | - | 563 |
| HCM Lane V/C Ratio | 0.031 | - | - | - | 0.042 |
| HCM Control Delay (s) | 8 | 0 | - | - | 11.7 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.1 |

Queues
20: Mooney Blvd & Visalia Pkwy

Existing Conditions
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 62 | 255 | 215 | 202 | 91 | 763 | 12 | 444 | 47 |
| v/c Ratio | 0.37 | 0.59 | 0.77 | 0.33 | 0.47 | 0.61 | 0.09 | 0.37 | 0.09 |
| Control Delay | 48.4 | 31.3 | 56.6 | 25.7 | 49.0 | 26.8 | 47.4 | 31.3 | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.4 | 31.3 | 56.6 | 25.7 | 49.0 | 26.8 | 47.4 | 31.3 | 0.4 |
| Queue Length 50th (ft) | 32 | 103 | 107 | 81 | 46 | 161 | 6 | 75 | 0 |
| Queue Length 95th (ft) | 85 | 191 | #295 | 164 | 113 | 328 | 28 | 135 | 0 |
| Internal Link Dist (ft) | | 765 | | 339 | | 302 | | 1110 | |
| Turn Bay Length (ft) | 180 | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 326 | 507 | 326 | 619 | 326 | 1288 | 326 | 1560 | 598 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.19 | 0.50 | 0.66 | 0.33 | 0.28 | 0.59 | 0.04 | 0.28 | 0.08 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

Existing Conditions
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 53 | 114 | 105 | 185 | 163 | 10 | 78 | 566 | 90 | 10 | 382 | 40 |
| Future Volume (veh/h) | 53 | 114 | 105 | 185 | 163 | 10 | 78 | 566 | 90 | 10 | 382 | 40 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 62 | 133 | 122 | 215 | 190 | 12 | 91 | 658 | 105 | 12 | 444 | 47 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 105 | 172 | 157 | 258 | 481 | 30 | 125 | 920 | 147 | 32 | 1263 | 393 |
| Arrive On Green | 0.06 | 0.19 | 0.19 | 0.15 | 0.28 | 0.28 | 0.07 | 0.30 | 0.30 | 0.02 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1774 | 896 | 822 | 1774 | 1734 | 109 | 1774 | 3058 | 487 | 1774 | 5085 | 1583 |
| Grp Volume(v), veh/h | 62 | 0 | 255 | 215 | 0 | 202 | 91 | 380 | 383 | 12 | 444 | 47 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1718 | 1774 | 0 | 1843 | 1774 | 1770 | 1776 | 1774 | 1695 | 1583 |
| Q Serve(g_s), s | 2.4 | 0.0 | 10.1 | 8.4 | 0.0 | 6.4 | 3.6 | 13.7 | 13.7 | 0.5 | 5.1 | 1.6 |
| Cycle Q Clear(g_c), s | 2.4 | 0.0 | 10.1 | 8.4 | 0.0 | 6.4 | 3.6 | 13.7 | 13.7 | 0.5 | 5.1 | 1.6 |
| Prop In Lane | 1.00 | | 0.48 | 1.00 | | 0.06 | 1.00 | | 0.27 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 105 | 0 | 329 | 258 | 0 | 512 | 125 | 532 | 534 | 32 | 1263 | 393 |
| V/C Ratio(X) | 0.59 | 0.00 | 0.77 | 0.83 | 0.00 | 0.39 | 0.73 | 0.71 | 0.72 | 0.38 | 0.35 | 0.12 |
| Avail Cap(c_a), veh/h | 372 | 0 | 481 | 372 | 0 | 516 | 372 | 619 | 621 | 372 | 1779 | 554 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 32.7 | 0.0 | 27.4 | 29.7 | 0.0 | 20.9 | 32.6 | 22.3 | 22.3 | 34.7 | 22.1 | 20.8 |
| Incr Delay (d2), s/veh | 1.9 | 0.0 | 11.6 | 7.1 | 0.0 | 1.4 | 3.1 | 7.6 | 7.6 | 2.8 | 0.7 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.2 | 0.0 | 5.8 | 4.6 | 0.0 | 3.4 | 1.9 | 7.8 | 7.8 | 0.3 | 2.5 | 0.8 |
| LnGrp Delay(d),s/veh | 34.7 | 0.0 | 39.0 | 36.7 | 0.0 | 22.4 | 35.6 | 29.8 | 29.9 | 37.5 | 22.8 | 21.4 |
| LnGrp LOS | C | | D | D | | C | D | C | C | D | C | C |
| Approach Vol, veh/h | | 317 | | | 417 | | | 854 | | | 503 | |
| Approach Delay, s/veh | | 38.1 | | | 29.8 | | | 30.5 | | | 23.0 | |
| Approach LOS | | D | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.0 | 28.3 | 16.1 | 20.1 | 10.7 | 24.5 | 9.9 | 26.2 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | * 5.7 | 6.4 | * 5.7 | 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | * 15 | 20.0 | * 15 | 25.0 | * 15 | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.5 | 15.7 | 10.4 | 12.1 | 5.6 | 7.1 | 4.4 | 8.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.8 | 0.1 | 1.6 | 0.1 | 6.1 | 0.0 | 1.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 29.7 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
22: Mooney Blvd & Midvalley Ave





















Existing Conditions
Timing Plan: A.M. Peak



| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 41 | 14 | 21 | 8 | 827 | 8 | 743 | 34 |
| v/c Ratio | 0.16 | 0.04 | 0.06 | 0.04 | 0.33 | 0.04 | 0.29 | 0.03 |
| Control Delay | 21.1 | 0.2 | 0.3 | 22.4 | 7.1 | 22.4 | 6.9 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.1 | 0.2 | 0.3 | 22.4 | 7.1 | 22.4 | 6.9 | 0.0 |
| Queue Length 50th (ft) | 12 | 0 | 0 | 3 | 64 | 3 | 56 | 0 |
| Queue Length 95th (ft) | 35 | 0 | 0 | 13 | 148 | 13 | 131 | 0 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 572 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 1021 | 1195 | 1078 | 568 | 2520 | 568 | 2523 | 1138 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.04 | 0.01 | 0.02 | 0.01 | 0.33 | 0.01 | 0.29 | 0.03 |
| Intersection Summary | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

Existing Conditions
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 35 | 0 | 12 | 6 | 0 | 12 | 7 | 709 | 3 | 7 | 639 | 29 |
| Future Volume (veh/h) | 35 | 0 | 12 | 6 | 0 | 12 | 7 | 709 | 3 | 7 | 639 | 29 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 41 | 0 | 14 | 7 | 0 | 14 | 8 | 824 | 3 | 8 | 743 | 34 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 321 | 0 | 174 | 141 | 26 | 116 | 23 | 1531 | 6 | 23 | 1498 | 669 |
| Arrive On Green | 0.11 | 0.00 | 0.11 | 0.11 | 0.00 | 0.11 | 0.01 | 0.42 | 0.42 | 0.01 | 0.42 | 0.42 |
| Sat Flow, veh/h | 1433 | 0 | 1583 | 293 | 233 | 1052 | 1774 | 3617 | 13 | 1774 | 3539 | 1581 |
| Grp Volume(v), veh/h | 41 | 0 | 14 | 21 | 0 | 0 | 8 | 403 | 424 | 8 | 743 | 34 |
| Grp Sat Flow(s),veh/h/ln | 1433 | 0 | 1583 | 1579 | 0 | 0 | 1774 | 1770 | 1860 | 1774 | 1770 | 1581 |
| Q Serve(g_s), s | 0.5 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.2 | 7.5 | 7.5 | 0.2 | 6.7 | 0.6 |
| Cycle Q Clear(g_c), s | 1.0 | 0.0 | 0.3 | 0.5 | 0.0 | 0.0 | 0.2 | 7.5 | 7.5 | 0.2 | 6.7 | 0.6 |
| Prop In Lane | 1.00 | | 1.00 | 0.33 | | 0.67 | 1.00 | | 0.01 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 321 | 0 | 174 | 283 | 0 | 0 | 23 | 749 | 788 | 23 | 1498 | 669 |
| V/C Ratio(X) | 0.13 | 0.00 | 0.08 | 0.07 | 0.00 | 0.00 | 0.36 | 0.54 | 0.54 | 0.36 | 0.50 | 0.05 |
| Avail Cap(c_a), veh/h | 801 | 0 | 719 | 1251 | 0 | 0 | 604 | 1004 | 1056 | 604 | 2009 | 898 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 17.9 | 0.0 | 17.6 | 17.7 | 0.0 | 0.0 | 21.6 | 9.5 | 9.5 | 21.6 | 9.3 | 7.5 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 3.5 | 2.6 | 2.5 | 3.5 | 1.0 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.2 | 0.2 | 0.0 | 0.0 | 0.1 | 4.1 | 4.3 | 0.1 | 3.5 | 0.3 |
| LnGrp Delay(d),s/veh | 18.0 | 0.0 | 17.7 | 17.7 | 0.0 | 0.0 | 25.1 | 12.1 | 11.9 | 25.1 | 10.3 | 7.6 |
| LnGrp LOS | B | | B | B | | | C | B | B | C | B | A |
| Approach Vol, veh/h | | 55 | | | 21 | | | 835 | | | 785 | |
| Approach Delay, s/veh | | 17.9 | | | 17.7 | | | 12.1 | | | 10.3 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.3 | 25.4 | | 12.3 | 6.3 | 25.4 | | 12.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 20 | * 15 | 25.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 9.5 | | 3.0 | 2.2 | 8.7 | | 2.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.2 | | 0.1 | 0.0 | 8.9 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 11.5 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 11 | 7 | 143 | 29 | 18 | 9 | 48 | 742 | 22 | 3 | 579 | 17 |
| Future Vol, veh/h | 11 | 7 | 143 | 29 | 18 | 9 | 48 | 742 | 22 | 3 | 579 | 17 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 12 | 8 | 155 | 32 | 20 | 10 | 52 | 807 | 24 | 3 | 629 | 18 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|------|--------|------|--------|------|------|--------|---|------|---|---|
| Conflicting Flow All | 1162 | 1579 | 324 | 1248 | 1576 | 416 | 647 | 0 | 0 | 831 | 0 | 0 |
| Stage 1 | 644 | 644 | - | 923 | 923 | - | - | - | - | - | - | - |
| Stage 2 | 518 | 935 | - | 325 | 653 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 150 | 108 | 672 | 130 | 109 | 585 | 934 | - | - | 797 | - | - |
| Stage 1 | 428 | 466 | - | 290 | 347 | - | - | - | - | - | - | - |
| Stage 2 | 509 | 342 | - | 661 | 462 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 120 | 102 | 672 | 90 | 102 | 585 | 934 | - | - | 797 | - | - |
| Mov Cap-2 Maneuver | 120 | 102 | - | 90 | 102 | - | - | - | - | - | - | - |
| Stage 1 | 404 | 464 | - | 274 | 328 | - | - | - | - | - | - | - |
| Stage 2 | 444 | 323 | - | 498 | 460 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|------|--|-----|--|----|--|
| HCM Control Delay, s | 18.9 | | 73.5 | | 0.5 | | 0 | |
| HCM LOS | C | | F | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 934 | - | - | 432 | 109 | 797 | - |
| HCM Lane V/C Ratio | 0.056 | - | - | 0.405 | 0.558 | 0.004 | - |
| HCM Control Delay (s) | 9.1 | - | - | 18.9 | 73.5 | 9.5 | - |
| HCM Lane LOS | A | - | - | C | F | A | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 1.9 | 2.6 | 0 | - |

Queues
25: Mooney Blvd & Ave 268



















Existing Conditions
Timing Plan: A.M. Peak



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 35 | 51 | 77 | 743 | 43 | 726 |
| v/c Ratio | 0.12 | 0.16 | 0.30 | 0.31 | 0.19 | 0.33 |
| Control Delay | 18.1 | 15.2 | 29.1 | 10.6 | 29.3 | 12.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.1 | 15.2 | 29.1 | 10.6 | 29.3 | 12.8 |
| Queue Length 50th (ft) | 7 | 8 | 25 | 53 | 14 | 92 |
| Queue Length 95th (ft) | 29 | 34 | 73 | 206 | 48 | 208 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 615 | 656 | 536 | 2406 | 536 | 2205 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.08 | 0.14 | 0.31 | 0.08 | 0.33 |
| Intersection Summary | | | | | | |

HCM 2010 Signalized Intersection Summary
 25: Mooney Blvd & Ave 268

Existing Conditions
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 22 | 1 | 10 | 22 | 2 | 25 | 73 | 693 | 13 | 41 | 615 | 75 |
| Future Volume (veh/h) | 22 | 1 | 10 | 22 | 2 | 25 | 73 | 693 | 13 | 41 | 615 | 75 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 23 | 1 | 11 | 23 | 2 | 26 | 77 | 729 | 14 | 43 | 647 | 79 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 228 | 30 | 59 | 170 | 39 | 100 | 145 | 1430 | 27 | 98 | 1192 | 145 |
| Arrive On Green | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.08 | 0.40 | 0.40 | 0.06 | 0.38 | 0.38 |
| Sat Flow, veh/h | 794 | 243 | 475 | 456 | 311 | 797 | 1774 | 3552 | 68 | 1774 | 3168 | 386 |
| Grp Volume(v), veh/h | 35 | 0 | 0 | 51 | 0 | 0 | 77 | 363 | 380 | 43 | 361 | 365 |
| Grp Sat Flow(s),veh/h/ln | 1512 | 0 | 0 | 1564 | 0 | 0 | 1774 | 1770 | 1851 | 1774 | 1770 | 1784 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.9 | 7.1 | 7.1 | 1.1 | 7.4 | 7.4 |
| Cycle Q Clear(g_c), s | 0.8 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | 1.9 | 7.1 | 7.1 | 1.1 | 7.4 | 7.4 |
| Prop In Lane | 0.66 | | 0.31 | 0.45 | | 0.51 | 1.00 | | 0.04 | 1.00 | | 0.22 |
| Lane Grp Cap(c), veh/h | 318 | 0 | 0 | 308 | 0 | 0 | 145 | 713 | 745 | 98 | 666 | 671 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 | 0.53 | 0.51 | 0.51 | 0.44 | 0.54 | 0.54 |
| Avail Cap(c_a), veh/h | 823 | 0 | 0 | 833 | 0 | 0 | 575 | 956 | 1000 | 575 | 956 | 964 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.1 | 0.0 | 0.0 | 18.3 | 0.0 | 0.0 | 20.4 | 10.4 | 10.4 | 21.2 | 11.3 | 11.3 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 1.1 | 2.4 | 2.3 | 1.2 | 2.9 | 2.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 1.0 | 3.9 | 4.1 | 0.6 | 4.2 | 4.2 |
| LnGrp Delay(d),s/veh | 18.3 | 0.0 | 0.0 | 18.7 | 0.0 | 0.0 | 21.5 | 12.8 | 12.7 | 22.3 | 14.2 | 14.2 |
| LnGrp LOS | B | | | B | | | C | B | B | C | B | B |
| Approach Vol, veh/h | | 35 | | | 51 | | | 820 | | | 769 | |
| Approach Delay, s/veh | | 18.3 | | | 18.7 | | | 13.6 | | | 14.7 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.2 | 26.5 | | 11.5 | 9.5 | 25.3 | | 11.5 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 22 | * 15 | 25.0 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.1 | 9.1 | | 2.8 | 3.9 | 9.4 | | 3.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.2 | | 0.2 | 0.0 | 8.0 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 14.3 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 280 | 0 | 0 | 192 | 0 | 0 |
| Future Vol, veh/h | 280 | 0 | 0 | 192 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 67 | 67 | 67 | 67 | 67 | 67 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 418 | 0 | 0 | 287 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | - | 418 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 635 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 635 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

HCM 2010 TWSC
 27: Visalia Pkwy & Tuesday Morning Dwy

Existing Conditions
 Timing Plan: A.M. Peak

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.6 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↕ | ↕ | | ↕ | |
| Traffic Vol, veh/h | 10 | 261 | 159 | 7 | 3 | 15 |
| Future Vol, veh/h | 10 | 261 | 159 | 7 | 3 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 69 | 69 | 69 | 69 | 69 | 69 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 14 | 378 | 230 | 10 | 4 | 22 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 240 | 0 | - | 0 | 641 235 |
| Stage 1 | - | - | - | - | 235 - |
| Stage 2 | - | - | - | - | 406 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1327 | - | - | - | 439 804 |
| Stage 1 | - | - | - | - | 804 - |
| Stage 2 | - | - | - | - | 673 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1327 | - | - | - | 433 804 |
| Mov Cap-2 Maneuver | - | - | - | - | 433 - |
| Stage 1 | - | - | - | - | 794 - |
| Stage 2 | - | - | - | - | 673 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.3 | 0 | 10.3 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1327 | - | - | - | 704 |
| HCM Lane V/C Ratio | 0.011 | - | - | - | 0.037 |
| HCM Control Delay (s) | 7.7 | 0 | - | - | 10.3 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 252 | 0 | 0 | 167 | 0 | 0 |
| Future Vol, veh/h | 252 | 0 | 0 | 167 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 274 | 0 | 0 | 182 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | - | 274 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 765 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 765 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.5 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | ↷ |
| Traffic Vol, veh/h | 119 | 133 | 109 | 3 | 0 | 58 |
| Future Vol, veh/h | 119 | 133 | 109 | 3 | 0 | 58 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 72 | 72 | 72 | 72 | 72 | 72 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 165 | 185 | 151 | 4 | 0 | 81 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 155 | 0 | - | 0 | 668 153 |
| Stage 1 | - | - | - | - | 153 - |
| Stage 2 | - | - | - | - | 515 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1425 | - | - | - | 423 893 |
| Stage 1 | - | - | - | - | 875 - |
| Stage 2 | - | - | - | - | 600 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1425 | - | - | - | 368 893 |
| Mov Cap-2 Maneuver | - | - | - | - | 368 - |
| Stage 1 | - | - | - | - | 762 - |
| Stage 2 | - | - | - | - | 600 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 3.7 | 0 | 9.4 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1425 | - | - | - | - | 893 |
| HCM Lane V/C Ratio | 0.116 | - | - | - | - | 0.09 |
| HCM Control Delay (s) | 7.9 | 0 | - | - | 0 | 9.4 |
| HCM Lane LOS | A | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | - | 0.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | | ↑↑ | ↑↑↑ | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 756 | 675 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 756 | 675 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 822 | 734 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | - | 367 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | 7.14 | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | 3.92 | - |
| Pot Cap-1 Maneuver | 0 | 538 | 0 |
| Stage 1 | 0 | - | 0 |
| Stage 2 | 0 | - | 0 |
| Platoon blocked, % | | | - |
| Mov Cap-1 Maneuver | - | 538 | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | SBT | SBR |
|-----------------------|-----|-------|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | - | 0 | - | - |
| HCM Lane LOS | - | A | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | ↖ | ↑↑ | ↑↑ | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 756 | 675 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 756 | 675 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 822 | 734 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | - | 367 | 734 | 0 | - | 0 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 0 | 630 | 867 | - | - | - |
| Stage 1 | 0 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | - | 630 | 867 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|-----|-----|-------|-----|-----|
| Capacity (veh/h) | 867 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 20 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 20 | 0 | - | 0 | 31 |
| Stage 1 | - | - | - | - | 20 |
| Stage 2 | - | - | - | - | 11 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1596 | - | - | - | 983 |
| Stage 1 | - | - | - | - | 1003 |
| Stage 2 | - | - | - | - | 1012 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1596 | - | - | - | 983 |
| Mov Cap-2 Maneuver | - | - | - | - | 983 |
| Stage 1 | - | - | - | - | 1003 |
| Stage 2 | - | - | - | - | 1012 |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1596 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 20 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 20 | 0 | - | 0 | 31 |
| Stage 1 | - | - | - | - | 20 |
| Stage 2 | - | - | - | - | 11 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1596 | - | - | - | 983 |
| Stage 1 | - | - | - | - | 1003 |
| Stage 2 | - | - | - | - | 1012 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1596 | - | - | - | 983 |
| Mov Cap-2 Maneuver | - | - | - | - | 983 |
| Stage 1 | - | - | - | - | 1003 |
| Stage 2 | - | - | - | - | 1012 |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1596 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 20 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 20 | 0 | - | 0 | 31 |
| Stage 1 | - | - | - | - | 20 |
| Stage 2 | - | - | - | - | 11 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1596 | - | - | - | 983 |
| Stage 1 | - | - | - | - | 1003 |
| Stage 2 | - | - | - | - | 1012 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1596 | - | - | - | 983 |
| Mov Cap-2 Maneuver | - | - | - | - | 983 |
| Stage 1 | - | - | - | - | 1003 |
| Stage 2 | - | - | - | - | 1012 |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1596 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 20 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 20 | 0 | - | 0 | 31 |
| Stage 1 | - | - | - | - | 20 |
| Stage 2 | - | - | - | - | 11 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1596 | - | - | - | 983 |
| Stage 1 | - | - | - | - | 1003 |
| Stage 2 | - | - | - | - | 1012 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1596 | - | - | - | 983 |
| Mov Cap-2 Maneuver | - | - | - | - | 983 |
| Stage 1 | - | - | - | - | 1003 |
| Stage 2 | - | - | - | - | 1012 |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1596 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | W | | | W | W | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 0 |













| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

























Queues
1: Mooney Blvd & Whitendale Ave

Existing Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 92 | 232 | 168 | 187 | 221 | 63 | 200 | 982 | 187 | 110 | 1095 | 80 |
| v/c Ratio | 0.32 | 0.48 | 0.47 | 0.66 | 0.45 | 0.18 | 0.56 | 0.35 | 0.20 | 0.52 | 0.42 | 0.09 |
| Control Delay | 65.2 | 59.5 | 10.9 | 75.4 | 59.0 | 1.1 | 66.8 | 20.9 | 11.0 | 74.1 | 24.5 | 1.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 65.2 | 59.5 | 10.9 | 75.4 | 59.0 | 1.1 | 66.8 | 20.9 | 11.0 | 74.1 | 24.5 | 1.6 |
| Queue Length 50th (ft) | 42 | 110 | 0 | 89 | 105 | 0 | 102 | 128 | 20 | 53 | 223 | 0 |
| Queue Length 95th (ft) | 73 | 132 | 60 | 129 | 123 | 0 | 145 | 350 | 92 | 84 | 347 | 12 |
| Internal Link Dist (ft) | | 1104 | | | 403 | | | 770 | | | 1028 | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 306 | 878 | 513 | 355 | 951 | 536 | 355 | 2795 | 917 | 355 | 2585 | 847 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.30 | 0.26 | 0.33 | 0.53 | 0.23 | 0.12 | 0.56 | 0.35 | 0.20 | 0.31 | 0.42 | 0.09 |
| Intersection Summary | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 1: Mooney Blvd & Whitendale Ave

Existing Conditions
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 89 | 225 | 163 | 181 | 214 | 61 | 194 | 953 | 181 | 107 | 1062 | 78 |
| Future Volume (veh/h) | 89 | 225 | 163 | 181 | 214 | 61 | 194 | 953 | 181 | 107 | 1062 | 78 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 92 | 232 | 168 | 187 | 221 | 63 | 200 | 982 | 187 | 110 | 1095 | 80 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 378 | 526 | 231 | 233 | 378 | 169 | 805 | 2905 | 893 | 156 | 1922 | 596 |
| Arrive On Green | 0.11 | 0.15 | 0.15 | 0.07 | 0.11 | 0.11 | 0.47 | 1.00 | 1.00 | 0.05 | 0.38 | 0.38 |
| Sat Flow, veh/h | 3442 | 3539 | 1553 | 3442 | 3539 | 1579 | 3442 | 5085 | 1564 | 3442 | 5085 | 1576 |
| Grp Volume(v), veh/h | 92 | 232 | 168 | 187 | 221 | 63 | 200 | 982 | 187 | 110 | 1095 | 80 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1553 | 1721 | 1770 | 1579 | 1721 | 1695 | 1564 | 1721 | 1695 | 1576 |
| Q Serve(g_s), s | 3.5 | 8.7 | 15.0 | 7.8 | 8.6 | 4.6 | 5.1 | 0.0 | 0.0 | 4.6 | 24.8 | 4.8 |
| Cycle Q Clear(g_c), s | 3.5 | 8.7 | 15.0 | 7.8 | 8.6 | 4.6 | 5.1 | 0.0 | 0.0 | 4.6 | 24.8 | 4.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 378 | 526 | 231 | 233 | 378 | 169 | 805 | 2905 | 893 | 156 | 1922 | 596 |
| V/C Ratio(X) | 0.24 | 0.44 | 0.73 | 0.80 | 0.59 | 0.37 | 0.25 | 0.34 | 0.21 | 0.70 | 0.57 | 0.13 |
| Avail Cap(c_a), veh/h | 378 | 879 | 385 | 285 | 952 | 425 | 805 | 2905 | 893 | 356 | 1922 | 596 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.91 | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 59.0 | 56.2 | 58.9 | 66.6 | 61.7 | 44.1 | 30.9 | 0.0 | 0.0 | 68.2 | 35.8 | 29.6 |
| Incr Delay (d2), s/veh | 0.1 | 1.1 | 8.2 | 10.3 | 2.8 | 2.7 | 0.1 | 0.3 | 0.5 | 2.2 | 1.2 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 4.3 | 6.9 | 4.0 | 4.4 | 2.4 | 2.4 | 0.1 | 0.1 | 2.2 | 11.8 | 2.2 |
| LnGrp Delay(d),s/veh | 59.2 | 57.4 | 67.2 | 76.9 | 64.5 | 46.8 | 31.0 | 0.3 | 0.5 | 70.4 | 37.0 | 30.0 |
| LnGrp LOS | E | E | E | E | E | D | C | A | A | E | D | C |
| Approach Vol, veh/h | | 492 | | | 471 | | | 1369 | | | 1285 | |
| Approach Delay, s/veh | | 61.0 | | | 67.0 | | | 4.8 | | | 39.4 | |
| Approach LOS | | E | | | E | | | A | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.3 | 89.2 | 15.5 | 28.0 | 40.3 | 61.2 | 21.6 | 21.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 54.8 | 12.0 | * 36 | 15.0 | * 55 | 12.0 | * 39 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.6 | 2.0 | 9.8 | 17.0 | 7.1 | 26.8 | 5.5 | 10.6 | | | | |
| Green Ext Time (p_c), s | 0.1 | 18.6 | 0.1 | 3.3 | 0.2 | 14.8 | 0.1 | 2.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 32.9 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave

Existing Conditions
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 121 | 213 | 1 | 169 | 93 | 22 | 108 | 15 | 174 |
| v/c Ratio | 0.27 | 0.20 | 0.00 | 0.23 | 0.14 | 0.04 | 0.23 | 0.02 | 0.26 |
| Control Delay | 19.6 | 8.5 | 21.0 | 15.5 | 5.5 | 14.1 | 16.6 | 14.6 | 4.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.6 | 8.5 | 21.0 | 15.5 | 5.5 | 14.1 | 16.6 | 14.6 | 4.6 |
| Queue Length 50th (ft) | 26 | 23 | 0 | 33 | 1 | 4 | 21 | 3 | 0 |
| Queue Length 95th (ft) | 77 | 92 | 4 | 89 | 29 | 19 | 65 | 15 | 38 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 818 | 1340 | 818 | 1350 | 1147 | 1055 | 882 | 1187 | 1072 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.15 | 0.16 | 0.00 | 0.13 | 0.08 | 0.02 | 0.12 | 0.01 | 0.16 |

Intersection Summary

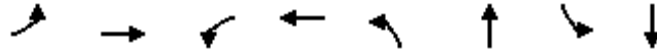
HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

Existing Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 110 | 184 | 10 | 1 | 154 | 85 | 7 | 11 | 2 | 98 | 14 | 158 |
| Future Volume (veh/h) | 110 | 184 | 10 | 1 | 154 | 85 | 7 | 11 | 2 | 98 | 14 | 158 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 121 | 202 | 11 | 1 | 169 | 93 | 8 | 12 | 2 | 108 | 15 | 174 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 210 | 666 | 36 | 5 | 490 | 408 | 216 | 250 | 33 | 514 | 407 | 346 |
| Arrive On Green | 0.12 | 0.38 | 0.38 | 0.00 | 0.26 | 0.26 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1774 | 1751 | 95 | 1774 | 1863 | 1550 | 346 | 1146 | 149 | 1394 | 1863 | 1583 |
| Grp Volume(v), veh/h | 121 | 0 | 213 | 1 | 169 | 93 | 22 | 0 | 0 | 108 | 15 | 174 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1846 | 1774 | 1863 | 1550 | 1641 | 0 | 0 | 1394 | 1863 | 1583 |
| Q Serve(g_s), s | 2.3 | 0.0 | 2.8 | 0.0 | 2.6 | 1.6 | 0.0 | 0.0 | 0.0 | 1.9 | 0.2 | 3.4 |
| Cycle Q Clear(g_c), s | 2.3 | 0.0 | 2.8 | 0.0 | 2.6 | 1.6 | 0.3 | 0.0 | 0.0 | 2.2 | 0.2 | 3.4 |
| Prop In Lane | 1.00 | | 0.05 | 1.00 | | 1.00 | 0.36 | | 0.09 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 210 | 0 | 702 | 5 | 490 | 408 | 498 | 0 | 0 | 514 | 407 | 346 |
| V/C Ratio(X) | 0.58 | 0.00 | 0.30 | 0.20 | 0.34 | 0.23 | 0.04 | 0.00 | 0.00 | 0.21 | 0.04 | 0.50 |
| Avail Cap(c_a), veh/h | 760 | 0 | 1582 | 760 | 1596 | 1328 | 1254 | 0 | 0 | 1205 | 1330 | 1131 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.6 | 0.0 | 7.6 | 17.4 | 10.4 | 10.1 | 10.8 | 0.0 | 0.0 | 11.5 | 10.8 | 12.0 |
| Incr Delay (d2), s/veh | 0.9 | 0.0 | 0.4 | 6.9 | 0.7 | 0.5 | 0.1 | 0.0 | 0.0 | 0.3 | 0.1 | 1.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.2 | 0.0 | 1.5 | 0.0 | 1.4 | 0.8 | 0.2 | 0.0 | 0.0 | 0.9 | 0.1 | 1.7 |
| LnGrp Delay(d),s/veh | 15.5 | 0.0 | 8.0 | 24.3 | 11.2 | 10.6 | 10.9 | 0.0 | 0.0 | 11.9 | 10.8 | 14.0 |
| LnGrp LOS | B | | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 334 | | | 263 | | | 22 | | | 297 | |
| Approach Delay, s/veh | | 10.7 | | | 11.0 | | | 10.9 | | | 13.0 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.1 | 18.3 | | 12.6 | 8.2 | 14.2 | | 12.6 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | | 25.0 | 15.0 | 30.0 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 4.8 | | 2.3 | 4.3 | 4.6 | | 5.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.9 | | 0.1 | 0.1 | 2.1 | | 1.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 11.6 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave






















Existing Conditions
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|-------|------|
| Lane Group Flow (vph) | 119 | 56 | 5 | 124 | 61 | 1192 | 75 | 1445 |
| v/c Ratio | 0.59 | 0.17 | 0.04 | 0.59 | 0.38 | 0.40 | 0.59 | 0.49 |
| Control Delay | 73.1 | 18.3 | 60.0 | 22.6 | 56.2 | 15.4 | 106.9 | 5.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 73.1 | 18.3 | 60.0 | 22.6 | 56.2 | 15.4 | 106.9 | 5.3 |
| Queue Length 50th (ft) | 108 | 4 | 5 | 2 | 44 | 144 | 72 | 116 |
| Queue Length 95th (ft) | 173 | 50 | 17 | 67 | 77 | 229 | 116 | 69 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 201 | 426 | 151 | 475 | 183 | 2999 | 183 | 2967 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.59 | 0.13 | 0.03 | 0.26 | 0.33 | 0.40 | 0.41 | 0.49 |
| Intersection Summary | | | | | | | | |

HCM 2010 Signalized Intersection Summary
3: Mooney Blvd & Sunnyside Ave

Existing Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 111 | 5 | 47 | 5 | 2 | 113 | 57 | 1101 | 7 | 70 | 1277 | 67 |
| Future Volume (veh/h) | 111 | 5 | 47 | 5 | 2 | 113 | 57 | 1101 | 7 | 70 | 1277 | 67 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 119 | 5 | 51 | 5 | 2 | 122 | 61 | 1184 | 8 | 75 | 1373 | 72 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 122 | 8 | 81 | 192 | 2 | 148 | 436 | 3240 | 22 | 93 | 2095 | 110 |
| Arrive On Green | 0.07 | 0.06 | 0.06 | 0.11 | 0.09 | 0.09 | 0.49 | 1.00 | 1.00 | 0.11 | 0.85 | 0.85 |
| Sat Flow, veh/h | 1774 | 143 | 1462 | 1774 | 26 | 1562 | 1774 | 5210 | 35 | 1774 | 4939 | 259 |
| Grp Volume(v), veh/h | 119 | 0 | 56 | 5 | 0 | 124 | 61 | 770 | 422 | 75 | 943 | 502 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1605 | 1774 | 0 | 1587 | 1774 | 1695 | 1855 | 1774 | 1695 | 1807 |
| Q Serve(g_s), s | 9.7 | 0.0 | 5.0 | 0.4 | 0.0 | 11.1 | 2.7 | 0.0 | 0.0 | 6.0 | 13.8 | 13.8 |
| Cycle Q Clear(g_c), s | 9.7 | 0.0 | 5.0 | 0.4 | 0.0 | 11.1 | 2.7 | 0.0 | 0.0 | 6.0 | 13.8 | 13.8 |
| Prop In Lane | 1.00 | | 0.91 | 1.00 | | 0.98 | 1.00 | | 0.02 | 1.00 | | 0.14 |
| Lane Grp Cap(c), veh/h | 122 | 0 | 89 | 192 | 0 | 150 | 436 | 2108 | 1154 | 93 | 1438 | 767 |
| V/C Ratio(X) | 0.97 | 0.00 | 0.63 | 0.03 | 0.00 | 0.83 | 0.14 | 0.37 | 0.37 | 0.80 | 0.66 | 0.66 |
| Avail Cap(c_a), veh/h | 122 | 0 | 387 | 192 | 0 | 383 | 436 | 2108 | 1154 | 184 | 1438 | 767 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.94 | 0.94 | 0.94 | 0.89 | 0.89 | 0.89 |
| Uniform Delay (d), s/veh | 67.4 | 0.0 | 67.1 | 57.8 | 0.0 | 64.5 | 28.5 | 0.0 | 0.0 | 64.1 | 7.4 | 7.4 |
| Incr Delay (d2), s/veh | 72.3 | 0.0 | 5.4 | 0.0 | 0.0 | 8.3 | 0.1 | 0.5 | 0.8 | 5.3 | 2.1 | 3.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.2 | 0.0 | 2.3 | 0.2 | 0.0 | 5.2 | 1.3 | 0.1 | 0.3 | 3.1 | 6.6 | 7.4 |
| LnGrp Delay(d),s/veh | 139.6 | 0.0 | 72.5 | 57.8 | 0.0 | 72.8 | 28.6 | 0.5 | 0.8 | 69.4 | 9.5 | 11.2 |
| LnGrp LOS | F | | E | E | | E | C | A | A | E | A | B |
| Approach Vol, veh/h | | 175 | | | 129 | | | 1253 | | | 1520 | |
| Approach Delay, s/veh | | 118.2 | | | 72.2 | | | 2.0 | | | 13.0 | |
| Approach LOS | | F | | | E | | | A | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.3 | 96.6 | 21.4 | 13.7 | 42.0 | 67.9 | 15.7 | 19.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | 6.4 | * 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 61.5 | * 10 | * 35 | 15.0 | * 62 | * 10 | * 35 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.0 | 2.0 | 2.4 | 7.0 | 4.7 | 15.8 | 11.7 | 13.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 20.8 | 0.0 | 0.2 | 0.0 | 24.8 | 0.0 | 0.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 17.0 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave

Existing Conditions
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|-------|------|------|
| Lane Group Flow (vph) | 19 | 39 | 63 | 88 | 68 | 1032 | 52 | 168 | 1247 | 38 |
| v/c Ratio | 0.17 | 0.20 | 0.55 | 0.34 | 0.22 | 0.36 | 0.06 | 0.77 | 0.40 | 0.04 |
| Control Delay | 66.2 | 17.1 | 82.3 | 16.3 | 50.4 | 15.6 | 1.9 | 105.8 | 5.2 | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 66.2 | 17.1 | 82.3 | 16.3 | 50.4 | 15.6 | 1.9 | 105.8 | 5.2 | 0.4 |
| Queue Length 50th (ft) | 17 | 2 | 59 | 9 | 25 | 106 | 1 | 149 | 33 | 0 |
| Queue Length 95th (ft) | 45 | 31 | 108 | 50 | m43 | 239 | m9 | #294 | 173 | m6 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 158 | 481 | 158 | 516 | 355 | 2847 | 908 | 221 | 3096 | 989 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.12 | 0.08 | 0.40 | 0.17 | 0.19 | 0.36 | 0.06 | 0.76 | 0.40 | 0.04 |

Intersection Summary























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

Existing Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 18 | 2 | 35 | 59 | 9 | 73 | 64 | 970 | 49 | 158 | 1172 | 36 |
| Future Volume (veh/h) | 18 | 2 | 35 | 59 | 9 | 73 | 64 | 970 | 49 | 158 | 1172 | 36 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 19 | 2 | 37 | 63 | 10 | 78 | 68 | 1032 | 52 | 168 | 1247 | 38 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 60 | 8 | 141 | 80 | 19 | 150 | 1164 | 3010 | 915 | 184 | 1792 | 556 |
| Arrive On Green | 0.03 | 0.09 | 0.09 | 0.05 | 0.11 | 0.11 | 0.68 | 1.00 | 1.00 | 0.21 | 0.70 | 0.70 |
| Sat Flow, veh/h | 1774 | 80 | 1486 | 1774 | 182 | 1417 | 3442 | 5085 | 1547 | 1774 | 5085 | 1577 |
| Grp Volume(v), veh/h | 19 | 0 | 39 | 63 | 0 | 88 | 68 | 1032 | 52 | 168 | 1247 | 38 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1567 | 1774 | 0 | 1598 | 1721 | 1695 | 1547 | 1774 | 1695 | 1577 |
| Q Serve(g_s), s | 1.5 | 0.0 | 3.4 | 5.1 | 0.0 | 7.6 | 1.0 | 0.0 | 0.0 | 13.4 | 20.6 | 1.1 |
| Cycle Q Clear(g_c), s | 1.5 | 0.0 | 3.4 | 5.1 | 0.0 | 7.6 | 1.0 | 0.0 | 0.0 | 13.4 | 20.6 | 1.1 |
| Prop In Lane | 1.00 | | 0.95 | 1.00 | | 0.89 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 60 | 0 | 148 | 80 | 0 | 170 | 1164 | 3010 | 915 | 184 | 1792 | 556 |
| V/C Ratio(X) | 0.32 | 0.00 | 0.26 | 0.78 | 0.00 | 0.52 | 0.06 | 0.34 | 0.06 | 0.92 | 0.70 | 0.07 |
| Avail Cap(c_a), veh/h | 159 | 0 | 454 | 159 | 0 | 463 | 1164 | 3010 | 915 | 184 | 1792 | 556 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.91 | 0.91 | 0.91 | 0.87 | 0.87 | 0.87 |
| Uniform Delay (d), s/veh | 68.4 | 0.0 | 60.9 | 68.5 | 0.0 | 61.3 | 15.7 | 0.0 | 0.0 | 56.9 | 16.9 | 14.0 |
| Incr Delay (d2), s/veh | 1.1 | 0.0 | 0.3 | 6.2 | 0.0 | 1.8 | 0.0 | 0.3 | 0.1 | 38.6 | 2.0 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 0.0 | 1.5 | 2.6 | 0.0 | 3.4 | 0.4 | 0.1 | 0.0 | 8.5 | 9.7 | 0.5 |
| LnGrp Delay(d),s/veh | 69.5 | 0.0 | 61.3 | 74.7 | 0.0 | 63.1 | 15.7 | 0.3 | 0.1 | 95.5 | 18.9 | 14.2 |
| LnGrp LOS | E | | E | E | | E | B | A | A | F | B | B |
| Approach Vol, veh/h | | 58 | | | 151 | | | 1152 | | | 1453 | |
| Approach Delay, s/veh | | 64.0 | | | 68.0 | | | 1.2 | | | 27.6 | |
| Approach LOS | | E | | | E | | | A | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 20.7 | 92.2 | 12.3 | 19.8 | 55.4 | 57.5 | 10.6 | 21.5 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 15 | 51.1 | 13.0 | * 42 | 15.0 | * 51 | 13.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 15.4 | 2.0 | 7.1 | 5.4 | 3.0 | 22.6 | 3.5 | 9.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 18.9 | 0.0 | 0.1 | 0.1 | 16.7 | 0.0 | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 19.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 24 | 913 | 42 | 34 | 721 | 20 | 17 | 0 | 32 | 18 | 0 | 35 |
| Future Vol, veh/h | 24 | 913 | 42 | 34 | 721 | 20 | 17 | 0 | 32 | 18 | 0 | 35 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 25 | 951 | 44 | 35 | 751 | 21 | 18 | 0 | 33 | 19 | 0 | 36 |

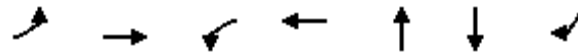
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 777 | 0 | 0 | 995 | 0 | 0 | 1469 | 1870 | 498 | 1363 | 1882 | 391 |
| Stage 1 | - | - | - | - | - | - | 1023 | 1023 | - | 837 | 837 | - |
| Stage 2 | - | - | - | - | - | - | 446 | 847 | - | 526 | 1045 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 835 | - | - | 691 | - | - | 89 | 71 | 518 | 107 | 70 | 608 |
| Stage 1 | - | - | - | - | - | - | 252 | 311 | - | 327 | 380 | - |
| Stage 2 | - | - | - | - | - | - | 561 | 376 | - | 503 | 304 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 831 | - | - | 691 | - | - | 74 | 60 | 518 | 88 | 59 | 605 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 74 | 60 | - | 88 | 59 | - |
| Stage 1 | - | - | - | - | - | - | 235 | 290 | - | 303 | 344 | - |
| Stage 2 | - | - | - | - | - | - | 480 | 341 | - | 439 | 283 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.5 | | | 0.8 | | | 35.5 | | | 29.4 | | |
| HCM LOS | | | | | | | E | | | D | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 168 | 831 | - | - | 691 | - | - | 202 |
| HCM Lane V/C Ratio | 0.304 | 0.03 | - | - | 0.051 | - | - | 0.273 |
| HCM Control Delay (s) | 35.5 | 9.5 | 0.3 | - | 10.5 | 0.4 | - | 29.4 |
| HCM Lane LOS | E | A | A | - | B | A | - | D |
| HCM 95th %tile Q(veh) | 1.2 | 0.1 | - | - | 0.2 | - | - | 1.1 |

Queues
6: Shady St & Caldwell Ave




















Existing Conditions
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 52 | 767 | 69 | 667 | 69 | 16 | 10 |
| v/c Ratio | 0.16 | 0.24 | 0.20 | 0.21 | 0.18 | 0.04 | 0.02 |
| Control Delay | 32.4 | 13.6 | 31.5 | 12.9 | 4.2 | 25.0 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 32.4 | 13.6 | 31.5 | 12.9 | 4.2 | 25.0 | 0.1 |
| Queue Length 50th (ft) | 14 | 50 | 18 | 41 | 0 | 4 | 0 |
| Queue Length 95th (ft) | 72 | 188 | 88 | 158 | 16 | 23 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 989 | 3872 | 989 | 3877 | 989 | 1038 | 956 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.20 | 0.07 | 0.17 | 0.07 | 0.02 | 0.01 |
| Intersection Summary | | | | | | | |

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

Existing Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 49 | 702 | 19 | 65 | 615 | 12 | 28 | 0 | 37 | 14 | 1 | 9 |
| Future Volume (veh/h) | 49 | 702 | 19 | 65 | 615 | 12 | 28 | 0 | 37 | 14 | 1 | 9 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 52 | 747 | 20 | 69 | 654 | 13 | 30 | 0 | 39 | 15 | 1 | 10 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 111 | 1991 | 53 | 134 | 2072 | 41 | 54 | 0 | 71 | 65 | 4 | 61 |
| Arrive On Green | 0.06 | 0.39 | 0.39 | 0.08 | 0.40 | 0.40 | 0.08 | 0.00 | 0.08 | 0.04 | 0.04 | 0.04 |
| Sat Flow, veh/h | 1774 | 5089 | 136 | 1774 | 5130 | 102 | 722 | 0 | 939 | 1668 | 111 | 1558 |
| Grp Volume(v), veh/h | 52 | 497 | 270 | 69 | 432 | 235 | 69 | 0 | 0 | 16 | 0 | 10 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1834 | 1774 | 1695 | 1841 | 1661 | 0 | 0 | 1779 | 0 | 1558 |
| Q Serve(g_s), s | 1.4 | 5.0 | 5.0 | 1.8 | 4.2 | 4.2 | 1.9 | 0.0 | 0.0 | 0.4 | 0.0 | 0.3 |
| Cycle Q Clear(g_c), s | 1.4 | 5.0 | 5.0 | 1.8 | 4.2 | 4.2 | 1.9 | 0.0 | 0.0 | 0.4 | 0.0 | 0.3 |
| Prop In Lane | 1.00 | | 0.07 | 1.00 | | 0.06 | 0.43 | | 0.57 | 0.94 | | 1.00 |
| Lane Grp Cap(c), veh/h | 111 | 1326 | 718 | 134 | 1369 | 744 | 125 | 0 | 0 | 70 | 0 | 61 |
| V/C Ratio(X) | 0.47 | 0.37 | 0.38 | 0.52 | 0.32 | 0.32 | 0.55 | 0.00 | 0.00 | 0.23 | 0.00 | 0.16 |
| Avail Cap(c_a), veh/h | 743 | 2840 | 1537 | 743 | 2840 | 1543 | 696 | 0 | 0 | 745 | 0 | 653 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.6 | 10.4 | 10.4 | 21.2 | 9.7 | 9.7 | 21.3 | 0.0 | 0.0 | 22.2 | 0.0 | 22.2 |
| Incr Delay (d2), s/veh | 1.1 | 0.5 | 0.9 | 1.1 | 0.4 | 0.7 | 2.8 | 0.0 | 0.0 | 1.2 | 0.0 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 2.4 | 2.7 | 0.9 | 2.0 | 2.2 | 1.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.1 |
| LnGrp Delay(d),s/veh | 22.7 | 10.9 | 11.3 | 22.4 | 10.1 | 10.4 | 24.1 | 0.0 | 0.0 | 23.5 | 0.0 | 23.1 |
| LnGrp LOS | C | B | B | C | B | B | C | | | C | | C |
| Approach Vol, veh/h | | 819 | | | 736 | | | 69 | | | | 26 |
| Approach Delay, s/veh | | 11.7 | | | 11.3 | | | 24.1 | | | | 23.3 |
| Approach LOS | | B | | | B | | | C | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.6 | 24.7 | | 6.9 | 7.0 | 25.3 | | 8.6 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.8 | 7.0 | | 2.4 | 3.4 | 6.2 | | 3.9 | | | | |
| Green Ext Time (p_c), s | 0.1 | 11.5 | | 0.0 | 0.0 | 9.9 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 12.3 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

Existing Conditions
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 265 | 639 | 213 | 487 | 242 | 840 | 112 | 171 | 1054 | 105 |
| v/c Ratio | 0.66 | 0.63 | 0.70 | 0.56 | 0.51 | 0.35 | 0.14 | 0.62 | 0.51 | 0.15 |
| Control Delay | 69.5 | 49.9 | 76.6 | 51.1 | 53.4 | 23.1 | 6.4 | 71.4 | 11.3 | 1.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 69.5 | 49.9 | 76.6 | 51.1 | 53.4 | 23.1 | 6.4 | 71.4 | 11.3 | 1.2 |
| Queue Length 50th (ft) | 123 | 187 | 102 | 145 | 122 | 141 | 4 | 69 | 209 | 0 |
| Queue Length 95th (ft) | #178 | 201 | 145 | 153 | m107 | 223 | m21 | 90 | 118 | 1 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 407 | 1486 | 355 | 1489 | 473 | 2371 | 786 | 355 | 2075 | 702 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.65 | 0.43 | 0.60 | 0.33 | 0.51 | 0.35 | 0.14 | 0.48 | 0.51 | 0.15 |

Intersection Summary























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

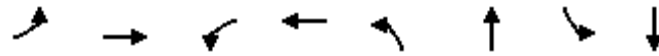
HCM 2010 Signalized Intersection Summary
7: Mooney Blvd & Caldwell Ave

Existing Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 252 | 448 | 159 | 202 | 364 | 99 | 230 | 798 | 106 | 162 | 1001 | 100 |
| Future Volume (veh/h) | 252 | 448 | 159 | 202 | 364 | 99 | 230 | 798 | 106 | 162 | 1001 | 100 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 265 | 472 | 167 | 213 | 383 | 104 | 242 | 840 | 112 | 171 | 1054 | 105 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 374 | 755 | 257 | 261 | 679 | 177 | 879 | 2504 | 778 | 217 | 1501 | 458 |
| Arrive On Green | 0.11 | 0.20 | 0.20 | 0.08 | 0.17 | 0.17 | 0.51 | 0.98 | 0.98 | 0.13 | 0.59 | 0.59 |
| Sat Flow, veh/h | 3442 | 3739 | 1274 | 3442 | 4015 | 1049 | 3442 | 5085 | 1580 | 3442 | 5085 | 1552 |
| Grp Volume(v), veh/h | 265 | 426 | 213 | 213 | 321 | 166 | 242 | 840 | 112 | 171 | 1054 | 105 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1622 | 1721 | 1695 | 1673 | 1721 | 1695 | 1580 | 1721 | 1695 | 1552 |
| Q Serve(g_s), s | 10.8 | 16.6 | 17.5 | 8.8 | 12.6 | 13.3 | 5.8 | 0.5 | 0.1 | 7.0 | 21.0 | 4.6 |
| Cycle Q Clear(g_c), s | 10.8 | 16.6 | 17.5 | 8.8 | 12.6 | 13.3 | 5.8 | 0.5 | 0.1 | 7.0 | 21.0 | 4.6 |
| Prop In Lane | 1.00 | | 0.79 | 1.00 | | 0.63 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 374 | 685 | 328 | 261 | 573 | 283 | 879 | 2504 | 778 | 217 | 1501 | 458 |
| V/C Ratio(X) | 0.71 | 0.62 | 0.65 | 0.82 | 0.56 | 0.59 | 0.28 | 0.34 | 0.14 | 0.79 | 0.70 | 0.23 |
| Avail Cap(c_a), veh/h | 374 | 1005 | 481 | 356 | 1005 | 496 | 879 | 2504 | 778 | 356 | 1501 | 458 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 0.98 | 0.98 | 0.98 | 0.94 | 0.94 | 0.94 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Uniform Delay (d), s/veh | 62.4 | 52.8 | 53.1 | 66.0 | 55.3 | 55.6 | 27.8 | 0.6 | 0.3 | 62.4 | 25.2 | 21.9 |
| Incr Delay (d2), s/veh | 5.1 | 1.8 | 4.1 | 6.9 | 1.6 | 3.5 | 0.1 | 0.3 | 0.4 | 2.2 | 2.5 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.4 | 8.0 | 8.2 | 4.5 | 6.1 | 6.4 | 2.7 | 0.3 | 0.1 | 3.4 | 10.0 | 2.1 |
| LnGrp Delay(d),s/veh | 67.5 | 54.6 | 57.2 | 73.0 | 56.8 | 59.0 | 27.9 | 0.9 | 0.6 | 64.7 | 27.8 | 23.0 |
| LnGrp LOS | E | D | E | E | E | E | C | A | A | E | C | C |
| Approach Vol, veh/h | | 904 | | | 700 | | | 1194 | | | 1330 | |
| Approach Delay, s/veh | | 59.0 | | | 62.3 | | | 6.3 | | | 32.1 | |
| Approach LOS | | E | | | E | | | A | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.8 | 77.8 | 16.7 | 35.7 | 43.4 | 49.2 | 21.5 | 30.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 47.8 | 15.0 | * 43 | 20.0 | * 43 | 15.0 | * 43 | | | | |
| Max Q Clear Time (g_c+I1), s | 9.0 | 2.5 | 10.8 | 19.5 | 7.8 | 23.0 | 12.8 | 15.3 | | | | |
| Green Ext Time (p_c), s | 0.1 | 15.4 | 0.1 | 7.1 | 0.3 | 12.4 | 0.1 | 5.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 35.7 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St

Existing Conditions
Timing Plan: P.M. Peak























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 104 | 707 | 152 | 659 | 82 | 181 | 157 | 87 |
| v/c Ratio | 0.49 | 0.50 | 0.62 | 0.40 | 0.16 | 0.43 | 0.36 | 0.23 |
| Control Delay | 44.1 | 25.2 | 47.0 | 22.0 | 16.7 | 10.8 | 19.1 | 13.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 44.1 | 25.2 | 47.0 | 22.0 | 16.7 | 10.8 | 19.1 | 13.2 |
| Queue Length 50th (ft) | 43 | 89 | 63 | 77 | 23 | 9 | 46 | 9 |
| Queue Length 95th (ft) | 125 | 193 | #176 | 176 | 59 | 64 | 104 | 49 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 358 | 2028 | 358 | 2024 | 611 | 672 | 498 | 620 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.29 | 0.35 | 0.42 | 0.33 | 0.13 | 0.27 | 0.32 | 0.14 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

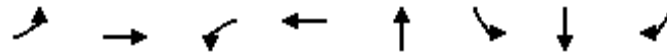
HCM 2010 Signalized Intersection Summary
8: Caldwell Ave & Fairway St

Existing Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 99 | 592 | 80 | 144 | 527 | 99 | 78 | 23 | 149 | 149 | 23 | 60 |
| Future Volume (veh/h) | 99 | 592 | 80 | 144 | 527 | 99 | 78 | 23 | 149 | 149 | 23 | 60 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 1.00 | 0.99 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 104 | 623 | 84 | 152 | 555 | 104 | 82 | 24 | 157 | 157 | 24 | 63 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 151 | 1369 | 182 | 195 | 1412 | 260 | 456 | 36 | 232 | 386 | 87 | 229 |
| Arrive On Green | 0.09 | 0.30 | 0.30 | 0.11 | 0.33 | 0.33 | 0.08 | 0.17 | 0.17 | 0.11 | 0.19 | 0.19 |
| Sat Flow, veh/h | 1774 | 4525 | 602 | 1774 | 4317 | 794 | 1774 | 214 | 1401 | 1774 | 449 | 1179 |
| Grp Volume(v), veh/h | 104 | 465 | 242 | 152 | 434 | 225 | 82 | 0 | 181 | 157 | 0 | 87 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1736 | 1774 | 1695 | 1721 | 1774 | 0 | 1615 | 1774 | 0 | 1628 |
| Q Serve(g_s), s | 3.2 | 6.3 | 6.4 | 4.7 | 5.6 | 5.8 | 2.1 | 0.0 | 6.0 | 4.0 | 0.0 | 2.6 |
| Cycle Q Clear(g_c), s | 3.2 | 6.3 | 6.4 | 4.7 | 5.6 | 5.8 | 2.1 | 0.0 | 6.0 | 4.0 | 0.0 | 2.6 |
| Prop In Lane | 1.00 | | 0.35 | 1.00 | | 0.46 | 1.00 | | 0.87 | 1.00 | | 0.72 |
| Lane Grp Cap(c), veh/h | 151 | 1026 | 525 | 195 | 1109 | 563 | 456 | 0 | 268 | 386 | 0 | 317 |
| V/C Ratio(X) | 0.69 | 0.45 | 0.46 | 0.78 | 0.39 | 0.40 | 0.18 | 0.00 | 0.68 | 0.41 | 0.00 | 0.27 |
| Avail Cap(c_a), veh/h | 468 | 1789 | 916 | 468 | 1789 | 908 | 788 | 0 | 710 | 667 | 0 | 687 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 25.3 | 16.0 | 16.1 | 24.6 | 14.8 | 14.8 | 17.1 | 0.0 | 22.3 | 16.5 | 0.0 | 19.5 |
| Incr Delay (d2), s/veh | 2.1 | 0.9 | 1.7 | 2.6 | 0.6 | 1.3 | 0.4 | 0.0 | 7.9 | 1.5 | 0.0 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 3.0 | 3.3 | 2.5 | 2.7 | 2.9 | 1.1 | 0.0 | 3.3 | 2.0 | 0.0 | 1.3 |
| LnGrp Delay(d),s/veh | 27.4 | 16.9 | 17.8 | 27.2 | 15.4 | 16.1 | 17.5 | 0.0 | 30.2 | 18.0 | 0.0 | 20.8 |
| LnGrp LOS | C | B | B | C | B | B | B | | C | B | | C |
| Approach Vol, veh/h | | 811 | | | 811 | | | 263 | | | 244 | |
| Approach Delay, s/veh | | 18.5 | | | 17.8 | | | 26.3 | | | 19.0 | |
| Approach LOS | | B | | | B | | | C | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.2 | 23.2 | 9.0 | 14.4 | 8.8 | 24.6 | 7.4 | 16.1 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | 15.0 | 25.0 | 15.0 | 30.0 | 15.0 | 24.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.7 | 8.4 | 6.0 | 8.0 | 5.2 | 7.8 | 4.1 | 4.6 | | | | |
| Green Ext Time (p_c), s | 0.1 | 8.7 | 0.6 | 1.9 | 0.1 | 8.2 | 0.3 | 0.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 19.2 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave





















Existing Conditions
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 49 | 934 | 1 | 783 | 15 | 29 | 1 | 29 |
| v/c Ratio | 0.16 | 0.35 | 0.00 | 0.33 | 0.04 | 0.07 | 0.00 | 0.06 |
| Control Delay | 26.5 | 5.5 | 28.0 | 8.6 | 23.3 | 23.9 | 24.0 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 26.5 | 5.5 | 28.0 | 8.6 | 23.3 | 23.9 | 24.0 | 0.2 |
| Queue Length 50th (ft) | 15 | 70 | 0 | 91 | 4 | 8 | 0 | 0 |
| Queue Length 95th (ft) | 50 | 164 | 5 | 145 | 21 | 34 | 5 | 1 |
| Internal Link Dist (ft) | | 1064 | | 2597 | 260 | | 519 | |
| Turn Bay Length (ft) | 235 | | 300 | | | | | 200 |
| Base Capacity (vph) | 959 | 2789 | 959 | 2774 | 793 | 859 | 1009 | 894 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.33 | 0.00 | 0.28 | 0.02 | 0.03 | 0.00 | 0.03 |
| Intersection Summary | | | | | | | | |

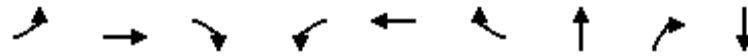
HCM 2010 Signalized Intersection Summary
 9: Stonebrook St & Caldwell Ave

Existing Conditions
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  |  |
| Traffic Volume (veh/h) | 44 | 835 | 5 | 1 | 678 | 27 | 12 | 1 | 1 | 26 | 1 | 26 |
| Future Volume (veh/h) | 44 | 835 | 5 | 1 | 678 | 27 | 12 | 1 | 1 | 26 | 1 | 26 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 49 | 928 | 6 | 1 | 753 | 30 | 13 | 1 | 1 | 29 | 1 | 29 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 108 | 1951 | 13 | 4 | 1672 | 67 | 299 | 23 | 13 | 345 | 247 | 210 |
| Arrive On Green | 0.06 | 0.54 | 0.54 | 0.00 | 0.48 | 0.48 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 |
| Sat Flow, veh/h | 1774 | 3604 | 23 | 1774 | 3466 | 138 | 1161 | 175 | 95 | 1409 | 1863 | 1583 |
| Grp Volume(v), veh/h | 49 | 456 | 478 | 1 | 384 | 399 | 15 | 0 | 0 | 29 | 1 | 29 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1858 | 1774 | 1770 | 1835 | 1431 | 0 | 0 | 1409 | 1863 | 1583 |
| Q Serve(g_s), s | 1.2 | 7.4 | 7.4 | 0.0 | 6.6 | 6.6 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.7 |
| Cycle Q Clear(g_c), s | 1.2 | 7.4 | 7.4 | 0.0 | 6.6 | 6.6 | 0.3 | 0.0 | 0.0 | 0.8 | 0.0 | 0.7 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 0.08 | 0.87 | | 0.07 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 108 | 958 | 1006 | 4 | 853 | 885 | 335 | 0 | 0 | 345 | 247 | 210 |
| V/C Ratio(X) | 0.46 | 0.48 | 0.48 | 0.26 | 0.45 | 0.45 | 0.04 | 0.00 | 0.00 | 0.08 | 0.00 | 0.14 |
| Avail Cap(c_a), veh/h | 767 | 1531 | 1607 | 767 | 1531 | 1587 | 758 | 0 | 0 | 768 | 806 | 685 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.0 | 6.6 | 6.6 | 23.0 | 7.9 | 7.9 | 17.5 | 0.0 | 0.0 | 17.7 | 17.4 | 17.7 |
| Incr Delay (d2), s/veh | 1.1 | 1.3 | 1.3 | 12.8 | 1.4 | 1.3 | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 3.9 | 4.1 | 0.0 | 3.5 | 3.6 | 0.2 | 0.0 | 0.0 | 0.3 | 0.0 | 0.4 |
| LnGrp Delay(d),s/veh | 22.1 | 7.9 | 7.8 | 35.8 | 9.3 | 9.2 | 17.6 | 0.0 | 0.0 | 17.9 | 17.4 | 18.3 |
| LnGrp LOS | C | A | A | D | A | A | B | | | B | B | B |
| Approach Vol, veh/h | | 983 | | | 784 | | | 15 | | | 59 | |
| Approach Delay, s/veh | | 8.6 | | | 9.3 | | | 17.6 | | | 18.1 | |
| Approach LOS | | A | | | A | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.1 | 31.0 | | 11.1 | 6.8 | 28.3 | | 11.1 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 9.4 | | 2.3 | 3.2 | 8.6 | | 2.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 15.6 | | 0.0 | 0.0 | 12.4 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.2 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
10: West St & Caldwell Ave

Existing Conditions
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 116 | 675 | 50 | 86 | 635 | 50 | 156 | 23 | 185 |
| v/c Ratio | 0.37 | 0.37 | 0.06 | 0.30 | 0.35 | 0.06 | 0.37 | 0.05 | 0.42 |
| Control Delay | 30.7 | 13.9 | 1.9 | 30.9 | 14.7 | 2.1 | 26.0 | 0.2 | 21.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 30.7 | 13.9 | 1.9 | 30.9 | 14.7 | 2.1 | 26.0 | 0.2 | 21.6 |
| Queue Length 50th (ft) | 38 | 90 | 0 | 28 | 86 | 0 | 48 | 0 | 44 |
| Queue Length 95th (ft) | 105 | 172 | 11 | 84 | 168 | 11 | 124 | 0 | 124 |
| Internal Link Dist (ft) | | 2597 | | | 1242 | | 378 | | 317 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 582 | 2280 | 1047 | 582 | 2274 | 1023 | 714 | 749 | 736 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | 0.30 | 0.05 | 0.15 | 0.28 | 0.05 | 0.22 | 0.03 | 0.25 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
10: West St & Caldwell Ave

Existing Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  | |
| Traffic Volume (veh/h) | 107 | 621 | 46 | 79 | 584 | 46 | 32 | 111 | 21 | 25 | 73 | 73 |
| Future Volume (veh/h) | 107 | 621 | 46 | 79 | 584 | 46 | 32 | 111 | 21 | 25 | 73 | 73 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 116 | 675 | 50 | 86 | 635 | 50 | 35 | 121 | 23 | 27 | 79 | 79 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 176 | 1449 | 648 | 153 | 1401 | 614 | 137 | 270 | 279 | 111 | 139 | 121 |
| Arrive On Green | 0.10 | 0.41 | 0.41 | 0.09 | 0.40 | 0.40 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1550 | 248 | 1533 | 1583 | 135 | 791 | 690 |
| Grp Volume(v), veh/h | 116 | 675 | 50 | 86 | 635 | 50 | 156 | 0 | 23 | 185 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1550 | 1781 | 0 | 1583 | 1616 | 0 | 0 |
| Q Serve(g_s), s | 3.0 | 6.6 | 0.9 | 2.2 | 6.2 | 0.9 | 0.0 | 0.0 | 0.6 | 1.5 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.0 | 6.6 | 0.9 | 2.2 | 6.2 | 0.9 | 3.6 | 0.0 | 0.6 | 5.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.22 | | 1.00 | 0.15 | | 0.43 |
| Lane Grp Cap(c), veh/h | 176 | 1449 | 648 | 153 | 1401 | 614 | 407 | 0 | 279 | 372 | 0 | 0 |
| V/C Ratio(X) | 0.66 | 0.47 | 0.08 | 0.56 | 0.45 | 0.08 | 0.38 | 0.00 | 0.08 | 0.50 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 564 | 2627 | 1175 | 564 | 2627 | 1151 | 821 | 0 | 672 | 774 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 20.5 | 10.2 | 8.5 | 20.7 | 10.5 | 8.9 | 17.5 | 0.0 | 16.2 | 18.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 1.6 | 0.8 | 0.2 | 1.2 | 0.8 | 0.2 | 1.3 | 0.0 | 0.3 | 2.2 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.5 | 3.4 | 0.4 | 1.1 | 3.2 | 0.4 | 2.0 | 0.0 | 0.3 | 2.4 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 22.0 | 11.0 | 8.7 | 21.9 | 11.3 | 9.1 | 18.7 | 0.0 | 16.5 | 20.2 | 0.0 | 0.0 |
| LnGrp LOS | C | B | A | C | B | A | B | | B | C | | |
| Approach Vol, veh/h | | 841 | | | 771 | | | 179 | | | 185 | |
| Approach Delay, s/veh | | 12.4 | | | 12.4 | | | 18.5 | | | 20.2 | |
| Approach LOS | | B | | | B | | | B | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.1 | 25.8 | | 13.3 | 8.7 | 25.2 | | 13.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 35.0 | | 20.0 | 15.0 | 35.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.2 | 8.6 | | 5.6 | 5.0 | 8.2 | | 7.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 10.7 | | 1.3 | 0.1 | 10.1 | | 1.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 13.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 7.2 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | ↘ | ↗ | ↑ | ↗ | ↘ | ↑ |
| Traffic Vol, veh/h | 52 | 282 | 168 | 28 | 290 | 103 |
| Future Vol, veh/h | 52 | 282 | 168 | 28 | 290 | 103 |
| Conflicting Peds, #/hr | 0 | 1 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 100 | - | 160 | 145 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 56 | 303 | 181 | 30 | 312 | 111 |

| Major/Minor | Minor1 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|-------|---|
| Conflicting Flow All | 916 | 182 | 0 | 0 | 211 | 0 |
| Stage 1 | 181 | - | - | - | - | - |
| Stage 2 | 735 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 302 | 861 | - | - | 1360 | - |
| Stage 1 | 850 | - | - | - | - | - |
| Stage 2 | 474 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | |
| Mov Cap-1 Maneuver | 233 | 860 | - | - | 1360 | - |
| Mov Cap-2 Maneuver | 312 | - | - | - | - | - |
| Stage 1 | 850 | - | - | - | - | - |
| Stage 2 | 365 | - | - | - | - | - |

| Approach | WB | NB | SB |
|----------------------|------|----|-----|
| HCM Control Delay, s | 12.6 | 0 | 6.2 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|-----------------------|-----|-----|-------|-------|-------|-----|
| Capacity (veh/h) | - | - | 312 | 860 | 1360 | - |
| HCM Lane V/C Ratio | - | - | 0.179 | 0.353 | 0.229 | - |
| HCM Control Delay (s) | - | - | 19 | 11.4 | 8.4 | - |
| HCM Lane LOS | - | - | C | B | A | - |
| HCM 95th %tile Q(veh) | - | - | 0.6 | 1.6 | 0.9 | - |

Queues
12: Mooney Blvd & Cameron Ave

Existing Conditions
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 183 | 308 | 136 | 368 | 61 | 740 | 122 | 293 | 857 | 148 |
| v/c Ratio | 0.74 | 0.48 | 0.81 | 0.59 | 0.24 | 0.33 | 0.16 | 0.76 | 0.34 | 0.17 |
| Control Delay | 76.9 | 51.5 | 97.7 | 26.8 | 84.1 | 45.8 | 18.4 | 98.3 | 8.3 | 0.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 76.9 | 51.5 | 97.7 | 26.8 | 84.1 | 45.8 | 18.4 | 98.3 | 8.3 | 0.6 |
| Queue Length 50th (ft) | 165 | 136 | 127 | 74 | 24 | 202 | 23 | 134 | 51 | 0 |
| Queue Length 95th (ft) | #342 | 154 | #230 | 102 | m46 | 289 | m83 | 199 | 92 | 1 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 248 | 1058 | 183 | 1120 | 284 | 2249 | 776 | 449 | 2521 | 856 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.74 | 0.29 | 0.74 | 0.33 | 0.21 | 0.33 | 0.16 | 0.65 | 0.34 | 0.17 |

Intersection Summary





























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

Existing Conditions
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |   |   |  |   |   |  |
| Traffic Volume (veh/h) | 179 | 261 | 41 | 133 | 155 | 206 | 60 | 725 | 120 | 287 | 840 | 145 |
| Future Volume (veh/h) | 179 | 261 | 41 | 133 | 155 | 206 | 60 | 725 | 120 | 287 | 840 | 145 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 183 | 266 | 42 | 136 | 158 | 210 | 61 | 740 | 122 | 293 | 857 | 148 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 184 | 602 | 94 | 158 | 313 | 280 | 686 | 2286 | 710 | 338 | 1747 | 543 |
| Arrive On Green | 0.10 | 0.20 | 0.20 | 0.09 | 0.18 | 0.18 | 0.40 | 0.90 | 0.90 | 0.20 | 0.69 | 0.69 |
| Sat Flow, veh/h | 1774 | 3069 | 479 | 1774 | 1770 | 1578 | 3442 | 5085 | 1580 | 3442 | 5085 | 1581 |
| Grp Volume(v), veh/h | 183 | 152 | 156 | 136 | 158 | 210 | 61 | 740 | 122 | 293 | 857 | 148 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1777 | 1774 | 1770 | 1578 | 1721 | 1695 | 1580 | 1721 | 1695 | 1581 |
| Q Serve(g_s), s | 15.0 | 11.0 | 11.2 | 11.0 | 11.7 | 18.3 | 1.6 | 3.0 | 1.3 | 12.0 | 11.5 | 5.2 |
| Cycle Q Clear(g_c), s | 15.0 | 11.0 | 11.2 | 11.0 | 11.7 | 18.3 | 1.6 | 3.0 | 1.3 | 12.0 | 11.5 | 5.2 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 184 | 347 | 349 | 158 | 313 | 280 | 686 | 2286 | 710 | 338 | 1747 | 543 |
| V/C Ratio(X) | 1.00 | 0.44 | 0.45 | 0.86 | 0.50 | 0.75 | 0.09 | 0.32 | 0.17 | 0.87 | 0.49 | 0.27 |
| Avail Cap(c_a), veh/h | 184 | 537 | 539 | 184 | 537 | 479 | 686 | 2286 | 710 | 451 | 1747 | 543 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.72 | 0.72 | 0.72 | 0.83 | 0.83 | 0.83 |
| Uniform Delay (d), s/veh | 65.0 | 51.2 | 51.4 | 65.1 | 53.9 | 56.6 | 35.4 | 4.2 | 4.1 | 57.4 | 16.7 | 15.7 |
| Incr Delay (d2), s/veh | 65.5 | 1.6 | 1.7 | 25.8 | 2.9 | 9.2 | 0.0 | 0.3 | 0.4 | 9.0 | 0.8 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 10.7 | 5.5 | 5.7 | 6.5 | 6.0 | 8.7 | 0.8 | 1.3 | 0.6 | 6.1 | 5.4 | 2.4 |
| LnGrp Delay(d),s/veh | 130.5 | 52.9 | 53.0 | 90.9 | 56.8 | 65.8 | 35.4 | 4.4 | 4.5 | 66.3 | 17.5 | 16.7 |
| LnGrp LOS | F | D | D | F | E | E | D | A | A | E | B | B |
| Approach Vol, veh/h | | 491 | | | 504 | | | 923 | | | 1298 | |
| Approach Delay, s/veh | | 81.9 | | | 69.8 | | | 6.5 | | | 28.5 | |
| Approach LOS | | F | | | E | | | A | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 19.9 | 71.6 | 18.6 | 34.8 | 35.3 | 56.2 | 21.4 | 32.1 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | 6.4 | 6.4 | * 6.4 | 6.4 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 19 | 42.8 | * 15 | 44.0 | 12.0 | * 50 | 15.0 | * 44 | | | | |
| Max Q Clear Time (g_c+I1), s | 14.0 | 5.0 | 13.0 | 13.2 | 3.6 | 13.5 | 17.0 | 20.3 | | | | |
| Green Ext Time (p_c), s | 0.3 | 18.6 | 0.0 | 3.1 | 0.0 | 21.3 | 0.0 | 4.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 36.8 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.5 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↔ | ↔ | ↔ |
| Traffic Vol, veh/h | 587 | 11 | 167 | 517 | 6 | 255 |
| Future Vol, veh/h | 587 | 11 | 167 | 517 | 6 | 255 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 145 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 605 | 11 | 172 | 533 | 6 | 263 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 0 | 0 | 616 | 0 | 1488 611 |
| Stage 1 | - | - | - | - | 611 - |
| Stage 2 | - | - | - | - | 877 - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | - | - | 964 | - | 137 494 |
| Stage 1 | - | - | - | - | 542 - |
| Stage 2 | - | - | - | - | 407 - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 964 | - | 102 494 |
| Mov Cap-2 Maneuver | - | - | - | - | 219 - |
| Stage 1 | - | - | - | - | 542 - |
| Stage 2 | - | - | - | - | 304 - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 2.3 | 20.3 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 219 | 494 | - | - | 964 | - |
| HCM Lane V/C Ratio | 0.028 | 0.532 | - | - | 0.179 | - |
| HCM Control Delay (s) | 21.9 | 20.3 | - | - | 9.5 | 0 |
| HCM Lane LOS | C | C | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.1 | 3.1 | - | - | 0.6 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | | ↷ | | ↶ | ↷ | |
| Traffic Vol, veh/h | 122 | 625 | 17 | 9 | 478 | 9 | 8 | 6 | 2 | 6 | 7 | 136 |
| Future Vol, veh/h | 122 | 625 | 17 | 9 | 478 | 9 | 8 | 6 | 2 | 6 | 7 | 136 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 126 | 644 | 18 | 9 | 493 | 9 | 8 | 6 | 2 | 6 | 7 | 140 |

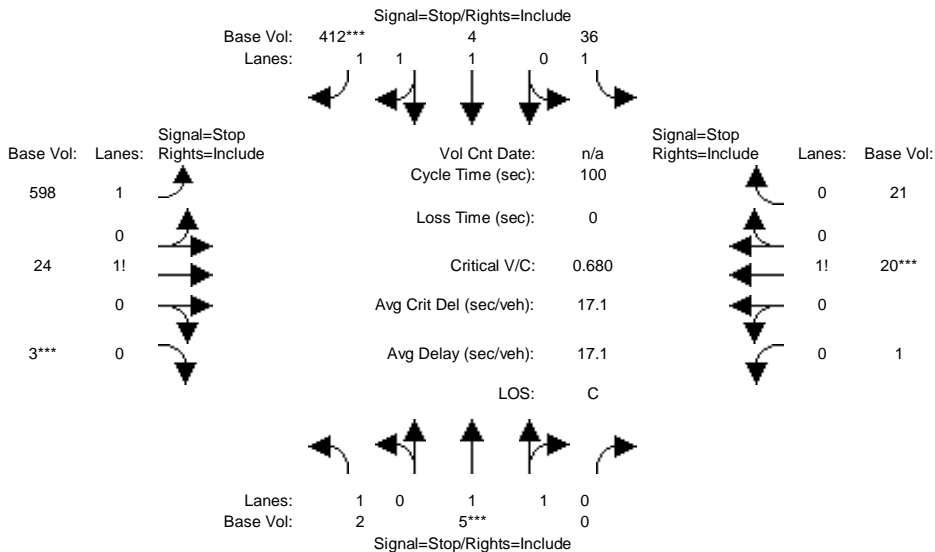
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 502 | 0 | 0 | 662 | 0 | 0 | 1494 | 1425 | 653 | 1425 | 1430 | 498 |
| Stage 1 | - | - | - | - | - | - | 905 | 905 | - | 516 | 516 | - |
| Stage 2 | - | - | - | - | - | - | 589 | 520 | - | 909 | 914 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1062 | - | - | 927 | - | - | 101 | 136 | 467 | 113 | 135 | 572 |
| Stage 1 | - | - | - | - | - | - | 331 | 355 | - | 542 | 534 | - |
| Stage 2 | - | - | - | - | - | - | 494 | 532 | - | 329 | 352 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1062 | - | - | 927 | - | - | 66 | 119 | 467 | 98 | 118 | 572 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 66 | 119 | - | 98 | 118 | - |
| Stage 1 | - | - | - | - | - | - | 292 | 313 | - | 478 | 529 | - |
| Stage 2 | - | - | - | - | - | - | 364 | 527 | - | 283 | 310 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 1.4 | | | 0.2 | | | 53.1 | | | 16.9 | | |
| HCM LOS | | | | | | | F | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | |
|-----------------------|-------|-------|-------|-----|-----|------|-----|-------|-------|-------|
| Capacity (veh/h) | | 91 | 1062 | - | - | 927 | - | - | 98 | 481 |
| HCM Lane V/C Ratio | | 0.181 | 0.118 | - | - | 0.01 | - | - | 0.063 | 0.306 |
| HCM Control Delay (s) | | 53.1 | 8.8 | - | - | 8.9 | - | - | 44.2 | 15.8 |
| HCM Lane LOS | | F | A | - | - | A | - | - | E | C |
| HCM 95th %tile Q(veh) | | 0.6 | 0.4 | - | - | 0 | - | - | 0.2 | 1.3 |

Level Of Service Computation Report
 2000 HCM 4-Way Stop (Base Volume Alternative)
 Existing PM

Intersection #15: Cameron Ave/Court St



| Street Name: | Court St | | | | | | Cameron Ave | | | | | |
|---------------------------|--|------|------|-------------|------|------|-------------|------|------|------------|------|------|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 2 | 5 | 0 | 36 | 4 | 412 | 598 | 24 | 3 | 1 | 20 | 21 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 2 | 5 | 0 | 36 | 4 | 412 | 598 | 24 | 3 | 1 | 20 | 21 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| PHF Volume: | 2 | 6 | 0 | 40 | 4 | 463 | 672 | 27 | 3 | 1 | 22 | 24 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 2 | 6 | 0 | 40 | 4 | 463 | 672 | 27 | 3 | 1 | 22 | 24 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 2 | 6 | 0 | 40 | 4 | 463 | 672 | 27 | 3 | 1 | 22 | 24 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 1.91 | 0.08 | 0.01 | 0.02 | 0.48 | 0.50 |
| Final Sat.: | 405 | 859 | 0 | 482 | 517 | 1155 | 1540 | -476 | 5 | 13 | 259 | 272 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.01 | xxxx | 0.08 | 0.01 | 0.40 | 0.44-0.06 | 0.68 | 0.09 | 0.09 | 0.09 | 0.09 |
| Crit Moves: | | **** | | | | **** | | **** | | **** | | |
| Delay/Veh: | 11.0 | 10.5 | 0.0 | 10.6 | 9.5 | 12.5 | 21.5 | 22.6 | 22.6 | 9.9 | 9.9 | 9.9 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 11.0 | 10.5 | 0.0 | 10.6 | 9.5 | 12.5 | 21.5 | 22.6 | 22.6 | 9.9 | 9.9 | 9.9 |
| LOS by Move: | B | B | * | B | A | B | C | C | C | A | A | A |
| ApproachDel: | | 10.7 | | | 12.3 | | | 21.0 | | | 9.9 | |
| Delay Adj: | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | |
| ApprAdjDel: | | 10.7 | | | 12.3 | | | 21.0 | | | 9.9 | |
| LOS by Appr: | | B | | | B | | | C | | | A | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.6 | 1.9 | 1.9 | 1.9 | 0.1 | 0.1 | 0.1 |
| Note: | Queue reported is the number of cars per lane. | | | | | | | | | | | |
| Time Period: | 0.25 hour | | | | | | | | | | | |
| HevVeh: | 0% | | | 0% | | | 0% | | | 0% | | |
| Alpha Value: | 0.01 | | | | | | | | | | | |
| GroupType: | 6 | | | 6 | | | 5 | | | 4B | | |
| P[C1]: | 0.04 | | | 0.11 | | | 0.31 | | | 0.04 | | |

| | | | | |
|-----------|--------|--------|--------|--------|
| P[C2]: | 0.07 | 0.00 | 0.03 | 0.29 |
| P[C3]: | 0.28 | 0.80 | 0.60 | 0.08 |
| P[C4]: | 0.56 | 0.09 | 0.06 | 0.58 |
| P[C5]: | 0.05 | 0.00 | 0.00 | 0.01 |
| Padj[C1]: | 0.025 | 0.019 | 0.014 | 0.022 |
| Padj[C2]: | 0.015 | 0.010 | 0.007 | 0.010 |
| Padj[C3]: | -0.002 | -0.023 | -0.017 | 0.004 |
| Padj[C4]: | -0.033 | -0.005 | -0.004 | -0.034 |
| Padj[C5]: | -0.005 | -0.000 | -0.000 | -0.001 |

| Lanes: | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
|--------------|-------|--------|-------|--------|-------|-------|--------|---------|
| LaneType: | LEFT | RTTHRU | LEFT | RITE | LEFT | LTR | LTR | NOLANE |
| HeadwayAdj: | 0.500 | 0.000 | 0.500 | -0.700 | 0.500 | 0.950 | -0.295 | xx.xxx |
| Volume: | 2 | 3 | 40 | 231 | 351 | 351 | 47 | xxxxxxx |
| Capacity: | 405 | 429 | 482 | 578 | 552 | 517 | 544 | xxxxxx |
| DegOfUtil: | 0.01 | 0.01 | 0.08 | 0.39 | 0.63 | 0.67 | 0.08 | x.xx |
| DepHeadway: | 8.27 | 7.77 | 7.24 | 6.04 | 6.45 | 6.90 | 6.33 | xx.xx |
| ServiceTime: | 6.0 | 5.5 | 4.9 | 3.7 | 4.1 | 4.6 | 4.3 | xx.x |
| Delay: | 11.0 | 10.5 | 10.6 | 12.5 | 19.4 | 22.6 | 9.9 | xxx.x |
| Queue: | 0.0 | 0.0 | 0.1 | 0.6 | 1.6 | 1.9 | 0.1 | xxx.x |

| Lanes: | L3 | L4 | L3 | L4 | L3 | L4 | L3 | L4 |
|--------------|-------|---------|--------|-------|---------|---------|---------|---------|
| LaneType: | THRU | NOLANE | RTTHRU | THRU | NOLANE | NOLANE | NOLANE | NOLANE |
| HeadwayAdj: | 0.000 | xx.xxx | -0.700 | 0.000 | xx.xxx | xx.xxx | xx.xxx | xx.xxx |
| Volume: | 3 | xxxxxxx | 231 | 4 | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| Capacity: | 429 | xxxxxx | 578 | 517 | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| DegOfUtil: | 0.01 | x.xx | 0.39 | 0.01 | x.xx | x.xx | x.xx | x.xx |
| DepHeadway: | 7.77 | xx.xx | 6.04 | 6.74 | xx.xx | xx.xx | xx.xx | xx.xx |
| ServiceTime: | 5.5 | xx.x | 3.7 | 4.4 | xx.x | xx.x | xx.x | xx.x |
| Delay: | 10.5 | xxx.x | 12.5 | 9.5 | xxx.x | xxx.x | xxx.x | xxx.x |
| Queue: | 0.0 | xxx.x | 0.6 | 0.0 | xxx.x | xxx.x | xxx.x | xxx.x |

| Approach: | North Bound | South Bound | East Bound | West Bound |
|--------------|-------------|-------------|------------|------------|
| ApproachDel: | 10.7 | 12.3 | 21.0 | 9.9 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 |
| AprAdjDel: | 10.7 | 12.3 | 21.0 | 9.9 |
| LOS by Appr: | B | B | C | A |
| OverallDel: | 17.1 | | | |
| OverallLOS: | C | | | |

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #1 Cameron Ave/Court St

Base Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | South Bound | East Bound | West Bound |
|----------------------------------|-------------|-------------|------------|------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Control: | Stop Sign | Stop Sign | Stop Sign | Stop Sign |
| Lanes: | 1 0 1 1 0 | 1 0 1 1 1 | 1 0 1 0 0 | 0 0 1 0 0 |
| Initial Vol: | 2 5 0 | 36 4 412 | 598 24 3 | 1 20 21 |
| Major Street Volume: | 667 | | | |
| Minor Approach Volume: | 452 | | | |
| Minor Approach Volume Threshold: | 548 | | | |

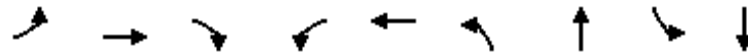
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Queues
16: Demaree St & Visalia Pkwy

Existing Conditions
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 17 | 236 | 52 | 97 | 358 | 59 | 621 | 115 | 565 |
| v/c Ratio | 0.10 | 0.55 | 0.11 | 0.43 | 0.32 | 0.31 | 0.58 | 0.48 | 0.44 |
| Control Delay | 43.0 | 36.5 | 0.5 | 43.1 | 18.5 | 42.9 | 26.0 | 43.5 | 21.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 43.0 | 36.5 | 0.5 | 43.1 | 18.5 | 42.9 | 26.0 | 43.5 | 21.7 |
| Queue Length 50th (ft) | 8 | 105 | 0 | 46 | 46 | 28 | 134 | 55 | 117 |
| Queue Length 95th (ft) | 33 | 226 | 0 | 110 | 118 | 77 | 224 | 126 | 194 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 775 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 397 | 557 | 563 | 397 | 1290 | 397 | 1786 | 397 | 1819 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.04 | 0.42 | 0.09 | 0.24 | 0.28 | 0.15 | 0.35 | 0.29 | 0.31 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

Existing Conditions
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 16 | 224 | 49 | 92 | 222 | 118 | 56 | 475 | 115 | 109 | 487 | 49 |
| Future Volume (veh/h) | 16 | 224 | 49 | 92 | 222 | 118 | 56 | 475 | 115 | 109 | 487 | 49 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 17 | 236 | 52 | 97 | 234 | 124 | 59 | 500 | 121 | 115 | 513 | 52 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 44 | 349 | 296 | 144 | 551 | 281 | 112 | 827 | 199 | 154 | 1025 | 104 |
| Arrive On Green | 0.02 | 0.19 | 0.19 | 0.08 | 0.24 | 0.24 | 0.06 | 0.29 | 0.29 | 0.09 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1774 | 1863 | 1583 | 1774 | 2259 | 1152 | 1774 | 2831 | 681 | 1774 | 3246 | 328 |
| Grp Volume(v), veh/h | 17 | 236 | 52 | 97 | 181 | 177 | 59 | 312 | 309 | 115 | 279 | 286 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1583 | 1774 | 1770 | 1642 | 1774 | 1770 | 1742 | 1774 | 1770 | 1805 |
| Q Serve(g_s), s | 0.6 | 6.9 | 1.6 | 3.1 | 5.0 | 5.3 | 1.9 | 8.8 | 8.9 | 3.7 | 7.5 | 7.5 |
| Cycle Q Clear(g_c), s | 0.6 | 6.9 | 1.6 | 3.1 | 5.0 | 5.3 | 1.9 | 8.8 | 8.9 | 3.7 | 7.5 | 7.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.70 | 1.00 | | 0.39 | 1.00 | | 0.18 |
| Lane Grp Cap(c), veh/h | 44 | 349 | 296 | 144 | 432 | 400 | 112 | 517 | 509 | 154 | 559 | 570 |
| V/C Ratio(X) | 0.39 | 0.68 | 0.18 | 0.67 | 0.42 | 0.44 | 0.53 | 0.60 | 0.61 | 0.75 | 0.50 | 0.50 |
| Avail Cap(c_a), veh/h | 455 | 637 | 542 | 455 | 605 | 562 | 455 | 1044 | 1028 | 455 | 1044 | 1065 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 28.1 | 22.1 | 20.0 | 26.1 | 18.6 | 18.7 | 26.5 | 17.8 | 17.8 | 26.1 | 16.2 | 16.3 |
| Incr Delay (d2), s/veh | 2.1 | 6.9 | 0.9 | 2.0 | 2.0 | 2.3 | 1.4 | 2.2 | 2.3 | 2.7 | 1.3 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 4.2 | 0.8 | 1.6 | 2.7 | 2.7 | 1.0 | 4.6 | 4.6 | 1.9 | 3.9 | 3.9 |
| LnGrp Delay(d),s/veh | 30.1 | 29.0 | 20.8 | 28.1 | 20.6 | 21.1 | 28.0 | 20.0 | 20.1 | 28.8 | 17.6 | 17.6 |
| LnGrp LOS | C | C | C | C | C | C | C | B | C | C | B | B |
| Approach Vol, veh/h | | 305 | | | 455 | | | 680 | | | 680 | |
| Approach Delay, s/veh | | 27.6 | | | 22.4 | | | 20.7 | | | 19.5 | |
| Approach LOS | | C | | | C | | | C | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.3 | 24.1 | 9.0 | 16.1 | 7.9 | 25.5 | 5.6 | 19.5 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 15 | 34.5 | * 15 | 20.0 | * 15 | 34.5 | * 15 | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.7 | 10.9 | 5.1 | 8.9 | 3.9 | 9.5 | 2.6 | 7.3 | | | | |
| Green Ext Time (p_c), s | 0.1 | 6.2 | 0.1 | 2.2 | 0.0 | 5.7 | 0.0 | 3.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 21.7 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 29 | 395 | 4 | 5 | 418 | 17 | 2 | 0 | 1 | 20 | 1 | 40 |
| Future Vol, veh/h | 29 | 395 | 4 | 5 | 418 | 17 | 2 | 0 | 1 | 20 | 1 | 40 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 33 | 444 | 4 | 6 | 470 | 19 | 2 | 0 | 1 | 22 | 1 | 45 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 489 | 0 | 0 | 448 | 0 | 0 | 1027 | 1013 | 446 | 1005 | 1006 | 480 |
| Stage 1 | - | - | - | - | - | - | 512 | 512 | - | 492 | 492 | - |
| Stage 2 | - | - | - | - | - | - | 515 | 501 | - | 513 | 514 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1074 | - | - | 1112 | - | - | 213 | 239 | 612 | 220 | 241 | 586 |
| Stage 1 | - | - | - | - | - | - | 545 | 536 | - | 558 | 548 | - |
| Stage 2 | - | - | - | - | - | - | 543 | 543 | - | 544 | 535 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1074 | - | - | 1112 | - | - | 191 | 230 | 612 | 214 | 232 | 586 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 191 | 230 | - | 214 | 232 | - |
| Stage 1 | - | - | - | - | - | - | 528 | 519 | - | 541 | 545 | - |
| Stage 2 | - | - | - | - | - | - | 498 | 540 | - | 526 | 518 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|----|--|--|
| HCM Control Delay, s | 0.6 | | | 0.1 | | | 19.7 | | | 17 | | |
| HCM LOS | | | | | | | C | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 248 | 1074 | - | - | 1112 | - | - | 367 |
| HCM Lane V/C Ratio | 0.014 | 0.03 | - | - | 0.005 | - | - | 0.187 |
| HCM Control Delay (s) | 19.7 | 8.5 | - | - | 8.3 | - | - | 17 |
| HCM Lane LOS | | C | A | - | - | A | - | C |
| HCM 95th %tile Q(veh) | | 0 | 0.1 | - | - | 0 | - | 0.7 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 85 | 334 | 360 | 110 | 62 | 92 |
| Future Vol, veh/h | 85 | 334 | 360 | 110 | 62 | 92 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 96 | 375 | 404 | 124 | 70 | 103 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 528 | 0 | - | 0 | 1033 466 |
| Stage 1 | - | - | - | - | 466 - |
| Stage 2 | - | - | - | - | 567 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1039 | - | - | - | 258 597 |
| Stage 1 | - | - | - | - | 632 - |
| Stage 2 | - | - | - | - | 568 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1039 | - | - | - | 234 597 |
| Mov Cap-2 Maneuver | - | - | - | - | 234 - |
| Stage 1 | - | - | - | - | 574 - |
| Stage 2 | - | - | - | - | 568 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.8 | 0 | 18.1 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1039 | - | - | - | 234 | 597 |
| HCM Lane V/C Ratio | 0.092 | - | - | - | 0.298 | 0.173 |
| HCM Control Delay (s) | 8.8 | - | - | - | 26.8 | 12.3 |
| HCM Lane LOS | A | - | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 1.2 | 0.6 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.8 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 72 | 338 | 372 | 29 | 43 | 68 |
| Future Vol, veh/h | 72 | 338 | 372 | 29 | 43 | 68 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 1 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 78 | 367 | 404 | 32 | 47 | 74 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 437 | 0 | - | 0 | 944 |
| Stage 1 | - | - | - | - | 421 |
| Stage 2 | - | - | - | - | 523 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1123 | - | - | - | 291 |
| Stage 1 | - | - | - | - | 662 |
| Stage 2 | - | - | - | - | 595 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1122 | - | - | - | 265 |
| Mov Cap-2 Maneuver | - | - | - | - | 265 |
| Stage 1 | - | - | - | - | 604 |
| Stage 2 | - | - | - | - | 594 |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.5 | 0 | 17.4 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1122 | - | - | - | 411 |
| HCM Lane V/C Ratio | 0.07 | - | - | - | 0.294 |
| HCM Control Delay (s) | 8.4 | 0 | - | - | 17.4 |
| HCM Lane LOS | A | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | 1.2 |

Queues
20: Mooney Blvd & Visalia Pkwy

Existing Conditions
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 115 | 321 | 254 | 256 | 122 | 917 | 46 | 753 | 57 |
| v/c Ratio | 0.68 | 0.84 | 0.86 | 0.50 | 0.50 | 0.64 | 0.46 | 0.47 | 0.09 |
| Control Delay | 83.2 | 70.2 | 85.4 | 45.1 | 65.7 | 37.7 | 82.9 | 22.0 | 1.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 83.2 | 70.2 | 85.4 | 45.1 | 65.7 | 37.7 | 82.9 | 22.0 | 1.0 |
| Queue Length 50th (ft) | 107 | 267 | 235 | 189 | 108 | 373 | 36 | 186 | 0 |
| Queue Length 95th (ft) | 170 | #401 | 330 | 280 | 178 | 486 | m0 | 172 | m5 |
| Internal Link Dist (ft) | | 765 | | 337 | | 302 | | 1110 | |
| Turn Bay Length (ft) | 180 | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 244 | 413 | 354 | 540 | 244 | 1426 | 122 | 1612 | 605 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.47 | 0.78 | 0.72 | 0.47 | 0.50 | 0.64 | 0.38 | 0.47 | 0.09 |

Intersection Summary






















95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
20: Mooney Blvd & Visalia Pkwy

Existing Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 107 | 167 | 131 | 236 | 183 | 55 | 113 | 645 | 207 | 43 | 700 | 53 |
| Future Volume (veh/h) | 107 | 167 | 131 | 236 | 183 | 55 | 113 | 645 | 207 | 43 | 700 | 53 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 115 | 180 | 141 | 254 | 197 | 59 | 122 | 694 | 223 | 46 | 753 | 57 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 138 | 198 | 155 | 245 | 372 | 111 | 372 | 1178 | 378 | 62 | 1347 | 410 |
| Arrive On Green | 0.08 | 0.21 | 0.21 | 0.14 | 0.27 | 0.27 | 0.21 | 0.45 | 0.45 | 0.07 | 0.53 | 0.53 |
| Sat Flow, veh/h | 1774 | 963 | 755 | 1774 | 1373 | 411 | 1774 | 2634 | 846 | 1774 | 5085 | 1547 |
| Grp Volume(v), veh/h | 115 | 0 | 321 | 254 | 0 | 256 | 122 | 466 | 451 | 46 | 753 | 57 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1718 | 1774 | 0 | 1784 | 1774 | 1770 | 1711 | 1774 | 1695 | 1547 |
| Q Serve(g_s), s | 9.3 | 0.0 | 26.5 | 20.0 | 0.0 | 17.7 | 8.5 | 28.7 | 28.7 | 3.7 | 14.3 | 2.1 |
| Cycle Q Clear(g_c), s | 9.3 | 0.0 | 26.5 | 20.0 | 0.0 | 17.7 | 8.5 | 28.7 | 28.7 | 3.7 | 14.3 | 2.1 |
| Prop In Lane | 1.00 | | 0.44 | 1.00 | | 0.23 | 1.00 | | 0.49 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 138 | 0 | 353 | 245 | 0 | 483 | 372 | 791 | 765 | 62 | 1347 | 410 |
| V/C Ratio(X) | 0.84 | 0.00 | 0.91 | 1.04 | 0.00 | 0.53 | 0.33 | 0.59 | 0.59 | 0.74 | 0.56 | 0.14 |
| Avail Cap(c_a), veh/h | 245 | 0 | 391 | 245 | 0 | 517 | 372 | 791 | 765 | 122 | 1347 | 410 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 0.92 | 0.92 |
| Uniform Delay (d), s/veh | 66.0 | 0.0 | 56.3 | 62.5 | 0.0 | 45.0 | 48.6 | 30.1 | 30.1 | 66.8 | 28.4 | 15.5 |
| Incr Delay (d2), s/veh | 5.0 | 0.0 | 26.9 | 67.8 | 0.0 | 2.6 | 0.2 | 3.2 | 3.3 | 5.9 | 1.5 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.8 | 0.0 | 15.2 | 14.4 | 0.0 | 9.1 | 4.2 | 14.7 | 14.2 | 1.9 | 6.8 | 1.1 |
| LnGrp Delay(d),s/veh | 71.0 | 0.0 | 83.2 | 130.3 | 0.0 | 47.6 | 48.8 | 33.3 | 33.4 | 72.7 | 30.0 | 16.2 |
| LnGrp LOS | E | | F | F | | D | D | C | C | E | C | B |
| Approach Vol, veh/h | | 436 | | | 510 | | | 1039 | | | 856 | |
| Approach Delay, s/veh | | 80.0 | | | 88.8 | | | 35.2 | | | 31.4 | |
| Approach LOS | | E | | | F | | | D | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.8 | 71.6 | 26.4 | 36.2 | 37.2 | 45.2 | 16.9 | 45.7 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | 6.4 | * 6.4 | 6.8 | * 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 10 | 48.4 | 20.0 | * 33 | 20.0 | * 38 | * 20 | 42.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.7 | 30.7 | 22.0 | 28.5 | 10.5 | 16.3 | 11.3 | 19.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 11.2 | 0.0 | 1.3 | 0.1 | 11.4 | 0.1 | 3.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 50.5 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
22: Mooney Blvd & Midvalley Ave

Existing Conditions
Timing Plan: P.M. Peak























| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 38 | 10 | 21 | 7 | 1008 | 9 | 1005 | 71 |
| v/c Ratio | 0.13 | 0.02 | 0.05 | 0.04 | 0.41 | 0.05 | 0.41 | 0.06 |
| Control Delay | 17.9 | 0.1 | 0.2 | 29.1 | 12.5 | 29.2 | 12.4 | 1.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 17.9 | 0.1 | 0.2 | 29.1 | 12.5 | 29.2 | 12.4 | 1.4 |
| Queue Length 50th (ft) | 12 | 0 | 0 | 2 | 83 | 3 | 83 | 0 |
| Queue Length 95th (ft) | 31 | 0 | 0 | 16 | #403 | 19 | #400 | 10 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 572 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 861 | 1046 | 958 | 490 | 2443 | 490 | 2446 | 1106 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.04 | 0.01 | 0.02 | 0.01 | 0.41 | 0.02 | 0.41 | 0.06 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

Existing Conditions
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 34 | 3 | 10 | 5 | 0 | 16 | 7 | 974 | 4 | 9 | 975 | 69 |
| Future Volume (veh/h) | 34 | 3 | 10 | 5 | 0 | 16 | 7 | 974 | 4 | 9 | 975 | 69 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 35 | 3 | 10 | 5 | 0 | 16 | 7 | 1004 | 4 | 9 | 1005 | 71 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 282 | 18 | 166 | 116 | 19 | 126 | 20 | 1651 | 7 | 25 | 1627 | 712 |
| Arrive On Green | 0.10 | 0.10 | 0.10 | 0.10 | 0.00 | 0.10 | 0.01 | 0.46 | 0.46 | 0.01 | 0.46 | 0.46 |
| Sat Flow, veh/h | 1285 | 175 | 1583 | 200 | 177 | 1204 | 1774 | 3615 | 14 | 1774 | 3539 | 1549 |
| Grp Volume(v), veh/h | 38 | 0 | 10 | 21 | 0 | 0 | 7 | 491 | 517 | 9 | 1005 | 71 |
| Grp Sat Flow(s),veh/h/ln | 1459 | 0 | 1583 | 1581 | 0 | 0 | 1774 | 1770 | 1860 | 1774 | 1770 | 1549 |
| Q Serve(g_s), s | 0.5 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.2 | 9.8 | 9.8 | 0.2 | 10.1 | 1.2 |
| Cycle Q Clear(g_c), s | 1.0 | 0.0 | 0.3 | 0.5 | 0.0 | 0.0 | 0.2 | 9.8 | 9.8 | 0.2 | 10.1 | 1.2 |
| Prop In Lane | 0.92 | | 1.00 | 0.24 | | 0.76 | 1.00 | | 0.01 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 300 | 0 | 166 | 260 | 0 | 0 | 20 | 808 | 849 | 25 | 1627 | 712 |
| V/C Ratio(X) | 0.13 | 0.00 | 0.06 | 0.08 | 0.00 | 0.00 | 0.35 | 0.61 | 0.61 | 0.36 | 0.62 | 0.10 |
| Avail Cap(c_a), veh/h | 752 | 0 | 672 | 1172 | 0 | 0 | 564 | 938 | 986 | 564 | 1877 | 822 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.3 | 0.0 | 19.0 | 19.1 | 0.0 | 0.0 | 23.1 | 9.6 | 9.6 | 23.0 | 9.6 | 7.2 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 3.9 | 3.2 | 3.0 | 3.2 | 1.5 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.1 | 5.5 | 5.7 | 0.1 | 5.2 | 0.6 |
| LnGrp Delay(d),s/veh | 19.4 | 0.0 | 19.1 | 19.2 | 0.0 | 0.0 | 27.1 | 12.8 | 12.7 | 26.2 | 11.1 | 7.4 |
| LnGrp LOS | B | | B | B | | | C | B | B | C | B | A |
| Approach Vol, veh/h | | 48 | | | 21 | | | 1015 | | | 1085 | |
| Approach Delay, s/veh | | 19.3 | | | 19.2 | | | 12.8 | | | 11.0 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.4 | 28.3 | | 12.4 | 6.2 | 28.5 | | 12.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 20 | * 15 | 25.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 11.8 | | 3.0 | 2.2 | 12.1 | | 2.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.4 | | 0.1 | 0.0 | 9.6 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.1 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 9 | 4 | 27 | 2 | 3 | 24 | 137 | 999 | 57 | 17 | 1035 | 32 |
| Future Vol, veh/h | 9 | 4 | 27 | 2 | 3 | 24 | 137 | 999 | 57 | 17 | 1035 | 32 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 9 | 4 | 28 | 2 | 3 | 25 | 144 | 1052 | 60 | 18 | 1089 | 34 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1958 | 2542 | 562 | 1953 | 2529 | 556 | 1123 | 0 | 0 | 1112 | 0 | 0 |
| Stage 1 | 1142 | 1142 | - | 1370 | 1370 | - | - | - | - | - | - | - |
| Stage 2 | 816 | 1400 | - | 583 | 1159 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 38 | 27 | 470 | 38 | 27 | 475 | 618 | - | - | 624 | - | - |
| Stage 1 | 213 | 273 | - | 154 | 212 | - | - | - | - | - | - | - |
| Stage 2 | 337 | 205 | - | 465 | 268 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 26 | 20 | 470 | 24 | 20 | 475 | 618 | - | - | 624 | - | - |
| Mov Cap-2 Maneuver | 26 | 20 | - | 24 | 20 | - | - | - | - | - | - | - |
| Stage 1 | 163 | 265 | - | 118 | 163 | - | - | - | - | - | - | - |
| Stage 2 | 240 | 157 | - | 418 | 260 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|-------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 127.4 | | 54.7 | | 1.4 | | 0.2 | |
| HCM LOS | F | | F | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 618 | - | - | 66 | 102 | 624 | - |
| HCM Lane V/C Ratio | 0.233 | - | - | 0.638 | 0.299 | 0.029 | - |
| HCM Control Delay (s) | 12.6 | - | - | 127.4 | 54.7 | 10.9 | - |
| HCM Lane LOS | B | - | - | F | F | B | - |
| HCM 95th %tile Q(veh) | 0.9 | - | - | 2.8 | 1.1 | 0.1 | - |

Queues
25: Mooney Blvd & Ave 268

Existing Conditions
Timing Plan: P.M. Peak





















| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 253 | 31 | 127 | 1076 | 64 | 1086 |
| v/c Ratio | 0.70 | 0.08 | 0.52 | 0.69 | 0.33 | 0.82 |
| Control Delay | 32.9 | 13.1 | 37.6 | 21.5 | 36.6 | 29.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 32.9 | 13.1 | 37.6 | 21.5 | 36.6 | 29.6 |
| Queue Length 50th (ft) | 89 | 4 | 54 | 216 | 27 | 234 |
| Queue Length 95th (ft) | 178 | 24 | 109 | #347 | 66 | #426 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 475 | 502 | 396 | 1556 | 396 | 1324 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.53 | 0.06 | 0.32 | 0.69 | 0.16 | 0.82 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
25: Mooney Blvd & Ave 268

Existing Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 149 | 1 | 77 | 9 | 1 | 18 | 114 | 956 | 13 | 58 | 967 | 11 |
| Future Volume (veh/h) | 149 | 1 | 77 | 9 | 1 | 18 | 114 | 956 | 13 | 58 | 967 | 11 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 166 | 1 | 86 | 10 | 1 | 20 | 127 | 1062 | 14 | 64 | 1074 | 12 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 297 | 12 | 110 | 159 | 45 | 233 | 163 | 1455 | 19 | 114 | 1360 | 15 |
| Arrive On Green | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.09 | 0.41 | 0.41 | 0.06 | 0.38 | 0.38 |
| Sat Flow, veh/h | 913 | 55 | 498 | 376 | 205 | 1056 | 1774 | 3576 | 47 | 1774 | 3585 | 40 |
| Grp Volume(v), veh/h | 253 | 0 | 0 | 31 | 0 | 0 | 127 | 526 | 550 | 64 | 530 | 556 |
| Grp Sat Flow(s),veh/h/ln | 1466 | 0 | 0 | 1636 | 0 | 0 | 1774 | 1770 | 1853 | 1774 | 1770 | 1856 |
| Q Serve(g_s), s | 9.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.4 | 15.7 | 15.7 | 2.2 | 16.6 | 16.6 |
| Cycle Q Clear(g_c), s | 10.1 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 | 4.4 | 15.7 | 15.7 | 2.2 | 16.6 | 16.6 |
| Prop In Lane | 0.66 | | 0.34 | 0.32 | | 0.65 | 1.00 | | 0.03 | 1.00 | | 0.02 |
| Lane Grp Cap(c), veh/h | 419 | 0 | 0 | 437 | 0 | 0 | 163 | 720 | 754 | 114 | 671 | 704 |
| V/C Ratio(X) | 0.60 | 0.00 | 0.00 | 0.07 | 0.00 | 0.00 | 0.78 | 0.73 | 0.73 | 0.56 | 0.79 | 0.79 |
| Avail Cap(c_a), veh/h | 607 | 0 | 0 | 630 | 0 | 0 | 424 | 720 | 754 | 424 | 705 | 740 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.9 | 0.0 | 0.0 | 19.4 | 0.0 | 0.0 | 27.8 | 15.7 | 15.7 | 28.5 | 17.2 | 17.2 |
| Incr Delay (d2), s/veh | 2.4 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 3.0 | 6.2 | 5.9 | 1.6 | 8.9 | 8.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.4 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 2.3 | 8.8 | 9.2 | 1.1 | 9.8 | 10.2 |
| LnGrp Delay(d),s/veh | 25.3 | 0.0 | 0.0 | 19.5 | 0.0 | 0.0 | 30.9 | 21.9 | 21.6 | 30.1 | 26.1 | 25.8 |
| LnGrp LOS | C | | | B | | | C | C | C | C | C | C |
| Approach Vol, veh/h | | 253 | | | 31 | | | 1203 | | | 1150 | |
| Approach Delay, s/veh | | 25.3 | | | 19.5 | | | 22.7 | | | 26.2 | |
| Approach LOS | | C | | | B | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.7 | 33.4 | | 19.6 | 11.5 | 31.7 | | 19.6 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 22 | * 15 | 25.0 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.2 | 17.7 | | 12.1 | 6.4 | 18.6 | | 2.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.8 | | 1.5 | 0.1 | 5.1 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 24.4 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 482 | 0 | 0 | 497 | 0 | 0 |
| Future Vol, veh/h | 482 | 0 | 0 | 497 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 502 | 0 | 0 | 518 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | - | 502 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 569 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 569 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↕ | ↕ | | ↕ | |
| Traffic Vol, veh/h | 19 | 452 | 417 | 23 | 21 | 25 |
| Future Vol, veh/h | 19 | 452 | 417 | 23 | 21 | 25 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 20 | 471 | 434 | 24 | 22 | 26 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 458 | 0 | - | 0 | 957 |
| Stage 1 | - | - | - | - | 446 |
| Stage 2 | - | - | - | - | 511 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1103 | - | - | - | 286 |
| Stage 1 | - | - | - | - | 645 |
| Stage 2 | - | - | - | - | 602 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1103 | - | - | - | 279 |
| Mov Cap-2 Maneuver | - | - | - | - | 279 |
| Stage 1 | - | - | - | - | 629 |
| Stage 2 | - | - | - | - | 602 |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.3 | 0 | 15.3 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1103 | - | - | - | 396 |
| HCM Lane V/C Ratio | 0.018 | - | - | - | 0.121 |
| HCM Control Delay (s) | 8.3 | 0 | - | - | 15.3 |
| HCM Lane LOS | A | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.4 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 473 | 0 | 0 | 405 | 0 | 0 |
| Future Vol, veh/h | 473 | 0 | 0 | 405 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 514 | 0 | 0 | 440 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | 514 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | 0 | - | 0 | 560 |
| Stage 1 | - | 0 | - | 0 | - |
| Stage 2 | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 560 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.7 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | ↷ |
| Traffic Vol, veh/h | 246 | 205 | 140 | 3 | 4 | 265 |
| Future Vol, veh/h | 246 | 205 | 140 | 3 | 4 | 265 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 265 | 220 | 151 | 3 | 4 | 285 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 154 | 0 | - | 0 | 903 |
| Stage 1 | - | - | - | - | 153 |
| Stage 2 | - | - | - | - | 750 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1426 | - | - | - | 308 |
| Stage 1 | - | - | - | - | 875 |
| Stage 2 | - | - | - | - | 467 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1426 | - | - | - | 243 |
| Mov Cap-2 Maneuver | - | - | - | - | 243 |
| Stage 1 | - | - | - | - | 690 |
| Stage 2 | - | - | - | - | 467 |

| Approach | EB | WB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 4.4 | 0 | 11 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1426 | - | - | - | 243 | 893 |
| HCM Lane V/C Ratio | 0.185 | - | - | - | 0.018 | 0.319 |
| HCM Control Delay (s) | 8.1 | 0 | - | - | 20.1 | 10.9 |
| HCM Lane LOS | A | A | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.7 | - | - | - | 0.1 | 1.4 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | | ↑↑ | ↑↑↑ | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 1024 | 1067 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 1024 | 1067 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 1113 | 1160 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | - | 580 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | 7.14 | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | 3.92 | - |
| Pot Cap-1 Maneuver | 0 | 392 | 0 |
| Stage 1 | 0 | - | 0 |
| Stage 2 | 0 | - | 0 |
| Platoon blocked, % | | | - |
| Mov Cap-1 Maneuver | - | 392 | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | SBT | SBR |
|-----------------------|-----|-------|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | - | 0 | - | - |
| HCM Lane LOS | - | A | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | ↖ | ↑↑ | ↑↑ | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 1024 | 1067 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 1024 | 1067 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 1113 | 1160 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | - | 580 | 1160 | 0 | - | 0 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 0 | 458 | 598 | - | - | - |
| Stage 1 | 0 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | - | 458 | 598 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|-----|-----|-------|-----|-----|
| Capacity (veh/h) | 598 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 17 | 23 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 40 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 17 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 972 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 17 | 23 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 40 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 17 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 972 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 17 | 23 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 40 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 17 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 972 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 17 | 23 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 40 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 17 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 972 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | W | | | W | W | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

Appendix D – Existing and Existing plus Project Signal Warrants

Existing Conditions
Signal Warrants

Peak Hour Warrant (Rural Areas)

(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Caldwell Avenue and Dans Street, Visalia, CA

Scenario: Existing Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 1310 (1754) VPH

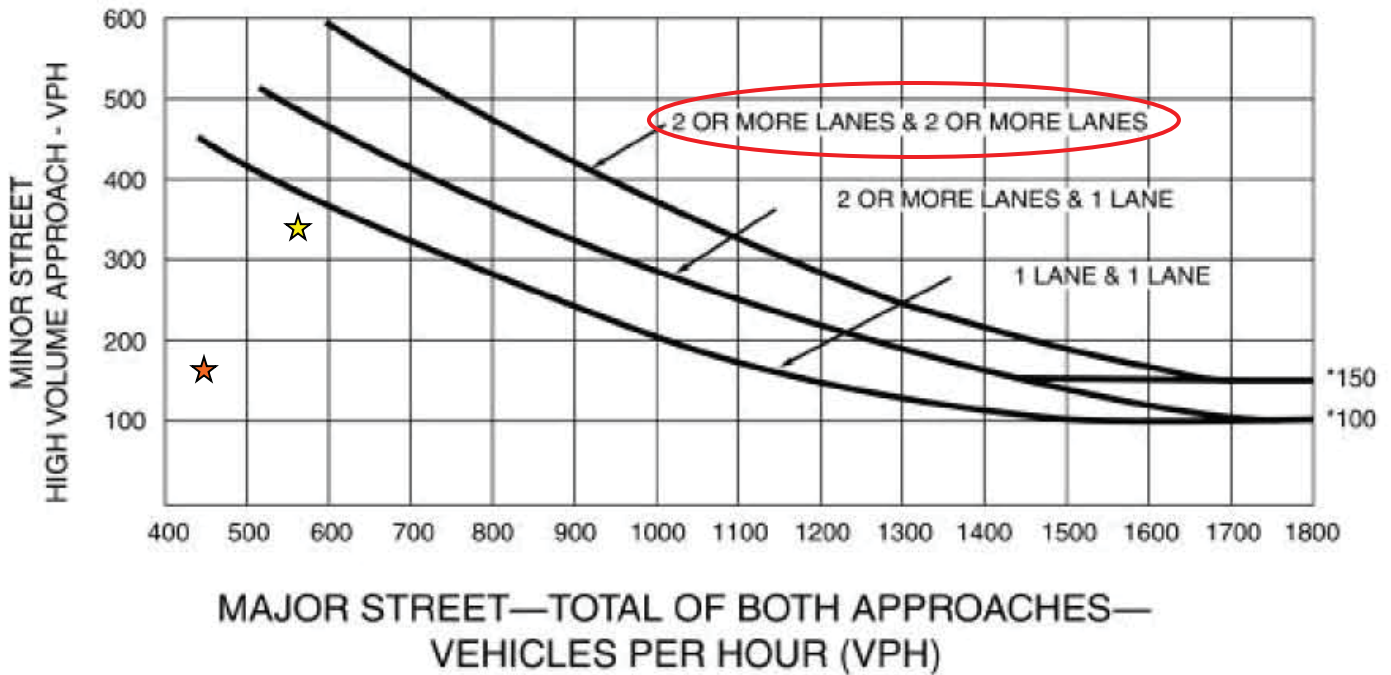
A signal is warranted for the A.M. Peak Hour.

Peak Hour Warrant (Urban Areas)

Intersection: Cameron Avenue and County Center Drive, Visalia, CA
 Scenario: Existing Conditions A.M. & P.M. Peak Hour

Figure 4C-3. Warrant 3, Peak Hour

Minor Street Volume = 164(334) VPH



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

- XX – AM Peak Volume
- (XX) – PM Peak Volume
- ★ – A.M.
- ★ – P.M.

Major Street Volume = 454 (589) VPH

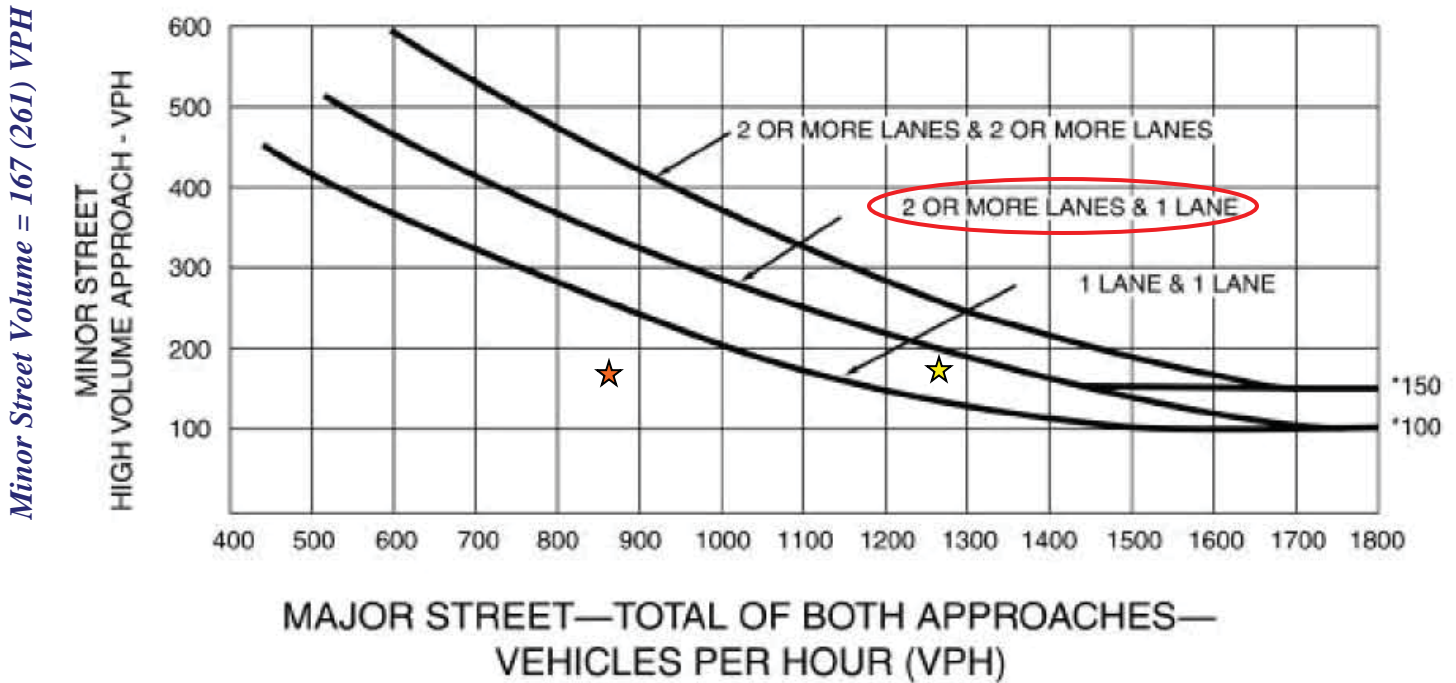
A signal is not warranted for the A.M. or P.M. Peak Hour.

Source: CA MUTCD 2014, Chapter 4C – Traffic Control Signal Needs Studies, Part 4 - Highway Traffic Signals, Figure 4C-3

Peak Hour Warrant (Urban Areas)

Intersection: Cameron Avenue and Stonebrook Street, Visalia, CA
 Scenario: Existing Conditions A.M. & P.M. Peak Hour

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

- XX – AM Peak Volume
- (XX) – PM Peak Volume
- ★ – A.M.
- ★ – P.M.

Major Street Volume = 872 (1282) VPH

***A signal is not warranted for
the A.M. or P.M. Peak Hour.***

Source: CA MUTCD 2014, Chapter 4C – Traffic Control Signal Needs Studies, Part 4 - Highway Traffic Signals, Figure 4C-3

Peak Hour Warrant (Rural Areas)

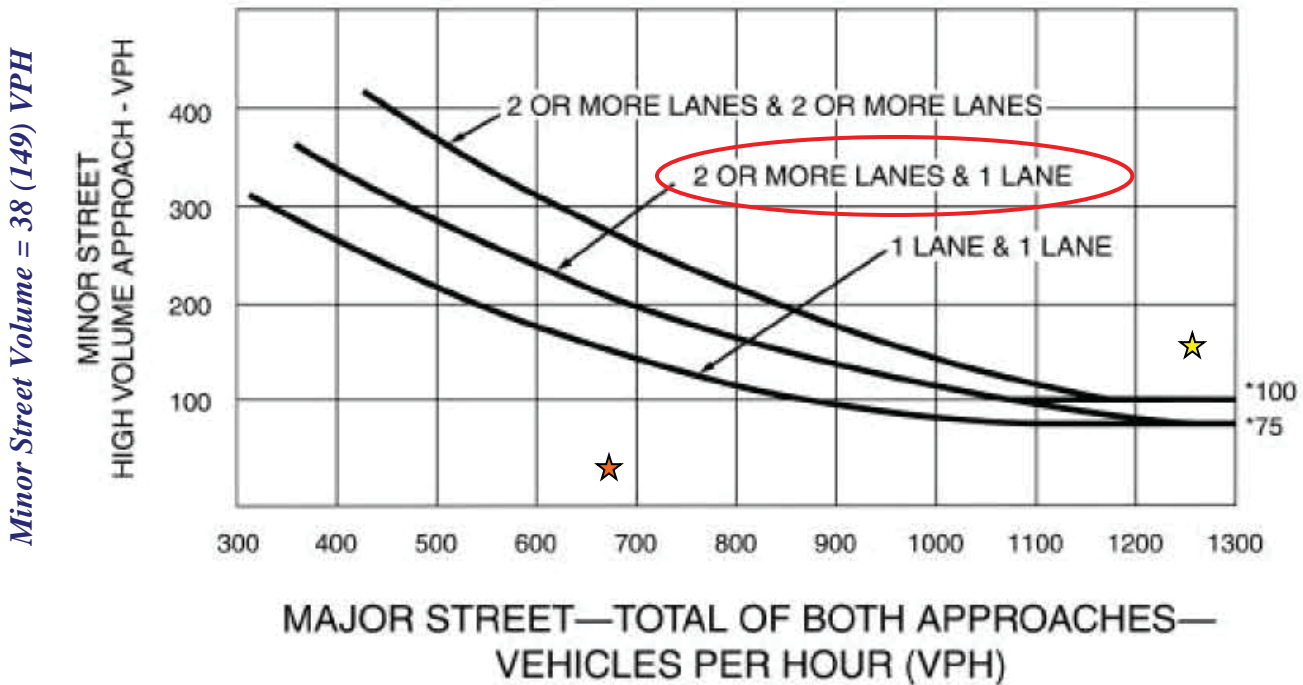
(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Cameron Avenue and West Street, Visalia, CA

Scenario: Existing Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 688 (1260) VPH

A signal is warranted for the P.M. Peak Hour.

Peak Hour Warrant (Rural Areas)

(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Visalia Parkway and Dans Street, Visalia, CA

Scenario: Existing Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

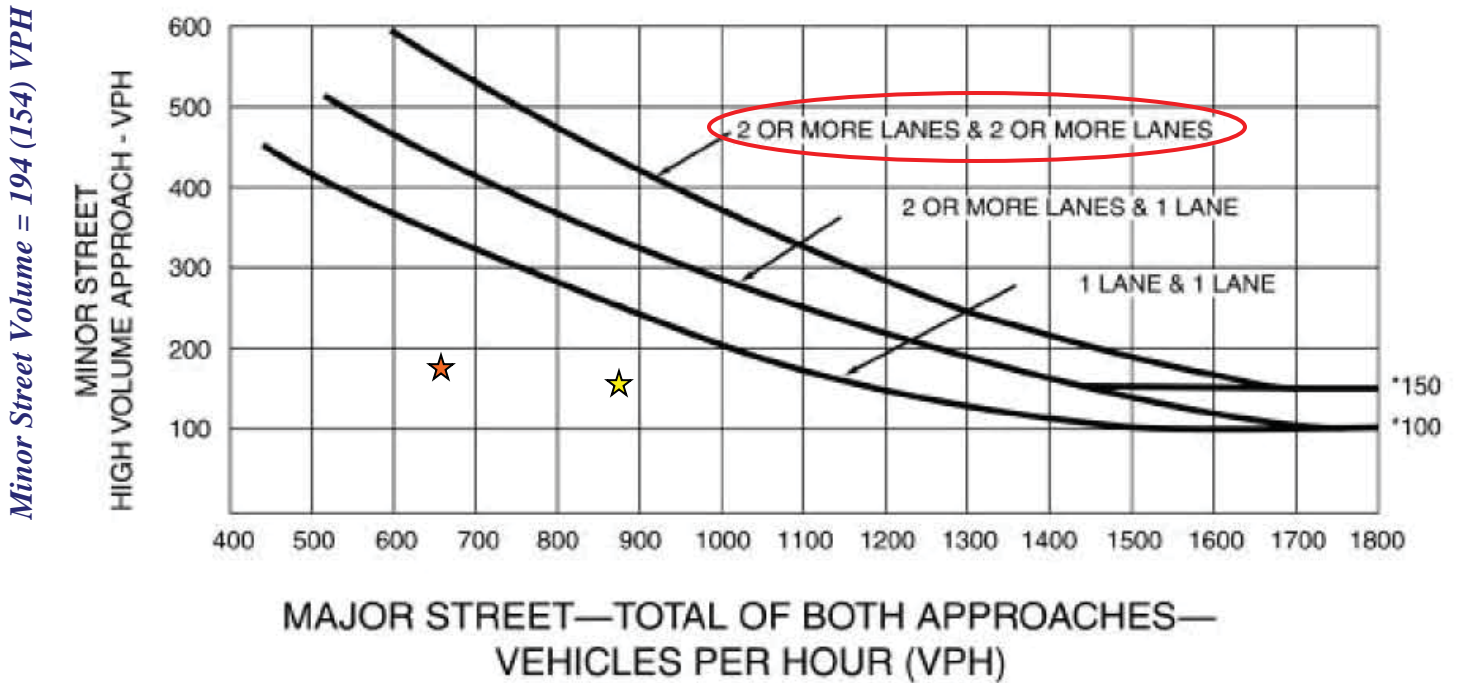
Major Street Volume = 791 (868) VPH

A signal is not warranted for the A.M. or P.M. Peak Hour.

Peak Hour Warrant (Urban Areas)

Intersection: Visalia Parkway and County Center Drive, Visalia, CA
 Scenario: Existing Conditions A.M. & P.M. Peak Hour

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

- XX – AM Peak Volume
- (XX) – PM Peak Volume
- ★ – A.M.
- ★ – P.M.

Major Street Volume = 669 (889) VPH

***A signal is not warranted for
the A.M. or P.M. Peak Hour.***

Source: CA MUTCD 2014, Chapter 4C – Traffic Control Signal Needs Studies, Part 4 - Highway Traffic Signals, Figure 4C-3

Peak Hour Warrant (Rural Areas)

(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Mooney Boulevard and Avenue 272, Visalia, CA

Scenario: Existing Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 1411 (2277) VPH

*A signal is warranted for the
A.M. Peak Hour.*

Peak Hour Warrant (Rural Areas)

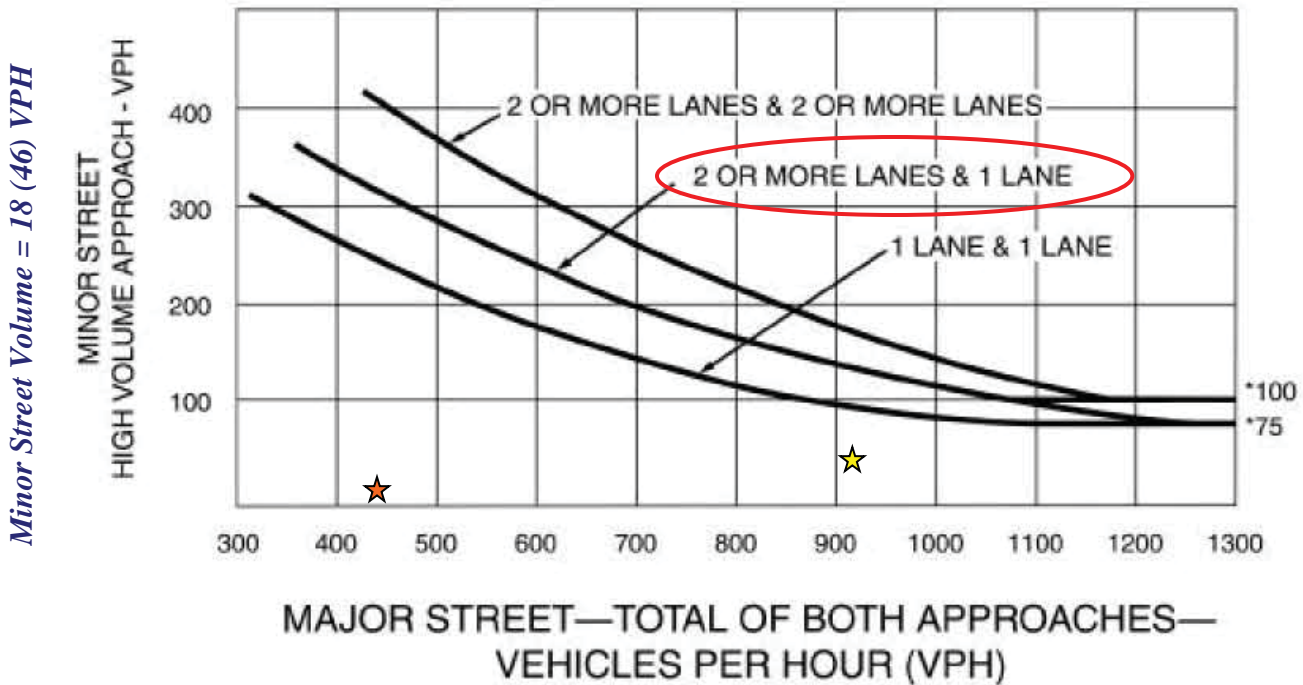
(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Visalia Parkway and Tuesday Morning Driveway, Visalia, CA

Scenario: Existing Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 437 (911) VPH

A signal is not warranted for the A.M. or P.M. Peak Hour.

Peak Hour Warrant (Rural Areas)

(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Visalia Parkway and Costco Driveway, Visalia, CA

Scenario: Existing Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 364 (594) VPH

A signal is not warranted for the A.M. or P.M. Peak Hour.

Existing Conditions 8 Hour Signal
Warrants (from Visalia Parkway
Shopping Center TIS)

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE 5-7-19

CALC JR DATE _____

CHK _____ DATE _____

DIST _____ CO _____ RTE _____ PM _____

Major St: CALDWELL Critical Approach Speed 45 mph

Minor St: DANS Critical Approach Speed 25 mph

Speed limit or critical speed on major street traffic > 40 mph..... }
 or } RURAL (R)
 In built up area of isolated community of < 10,000 population..... }
 URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES NO
 (Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES NO
 80% SATISFIED YES NO

| APPROACH LANES | MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) | | | | Hour |
|-------------------------------|---|--------------|--------------|--------------|--------------------------------------|
| | U | (R) | U | (R) | |
| | 1 | | 2 or More | | |
| Both Approaches Major Street | 500 (400) | 350 (280) | 600 (480) | 420 (336) | 1310 730-100% 830 |
| Highest Approach Minor Street | 150 (120) | 105 (84) | 200 (160) | 140 (112) | 125 700-80% 800-80% 800-80% |

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES NO
 80% SATISFIED YES NO

| APPROACH LANES | MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) | | | | Hour |
|-------------------------------|---|--------------|--------------|--------------|---|
| | U | R | U | R | |
| | 1 | | 2 or More | | |
| Both Approaches Major Street | 750 (600) | 525 (420) | 900 (720) | 630 (504) | 1150 700-100% 800 |
| Highest Approach Minor Street | 75 (60) | 53 (42) | 100 (80) | 70 (56) | 1089 800-100% 900-100% 1215-100% 1315-100% 1515-100% 1615-100% 1715-100% 1815-100% 930-80% 1030-80% 1115-80% 1215-80% 1315-80% 1415-80% |

Combination of Conditions A & B SATISFIED YES NO

| REQUIREMENT | CONDITION | ✓ | FULFILLED |
|--|--|---|---|
| TWO CONDITIONS SATISFIED 80% | A. MINIMUM VEHICULAR VOLUME | | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| | AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC | ✓ | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS | | | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE 5-7-19

CALC JR DATE _____

CHK _____ DATE _____

DIST _____ CO _____ RTE _____ PM _____

Major St: CALDWELL Critical Approach Speed 45 mph

Minor St: DANS Critical Approach Speed 25 mph

Speed limit or critical speed on major street traffic > 40 mph..... }
 or } RURAL (R)
 In built up area of isolated community of < 10,000 population..... }
 URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES NO
 (Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES NO
 80% SATISFIED YES NO

| APPROACH LANES | MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) | | | | Hour |
|-------------------------------|---|--------------|--------------|--------------|--------------------------------------|
| | U | (R) | U | (R) | |
| | 1 | | 2 or More | | |
| Both Approaches Major Street | 500 (400) | 350 (280) | 600 (480) | 420 (336) | 1310 730-100% 830 |
| Highest Approach Minor Street | 150 (120) | 105 (84) | 200 (160) | 140 (112) | 125 700-80% 800-80% 800-80% |

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES NO
 80% SATISFIED YES NO

| APPROACH LANES | MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) | | | | Hour |
|-------------------------------|---|--------------|--------------|--------------|---|
| | U | R | U | R | |
| | 1 | | 2 or More | | |
| Both Approaches Major Street | 750 (600) | 525 (420) | 900 (720) | 630 (504) | 1150 700-100% 800-100% |
| Highest Approach Minor Street | 75 (60) | 53 (42) | 100 (80) | 70 (56) | 1089 800-100% 900-100% 1215-100% 1315-100% 1515-100% 1615-100% 1715-100% 1815-100% 930-80% 1030-80% 1115-80% 1215-80% 1315-80% 1415-80% |

Combination of Conditions A & B SATISFIED YES NO

| REQUIREMENT | CONDITION | ✓ | FULFILLED |
|--|--|---|---|
| TWO CONDITIONS SATISFIED 80% | A. MINIMUM VEHICULAR VOLUME | | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| | AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC | ✓ | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS | | | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE 5-7-19
 CALC _____ DATE _____
 CHK _____ DATE _____

DIST _____ CO _____ RTE _____ PM _____

Major St: CAMERON
 Minor St: STONEBROOK

Critical Approach Speed 40 mph
 Critical Approach Speed 35 mph

Speed limit or critical speed on major street traffic > 40 mph..... }
 or } RURAL (R)
 In built up area of isolated community of < 10,000 population..... } URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES NO
 (Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES NO
 80% SATISFIED YES NO

| APPROACH LANES | MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--|--------------|--------------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-----|-----|-----|-----|-----|
| | 1 | | 2 or More | | | | | | | | | | | | | | | | | |
| Both Approaches Major Street | 500 (400) | 350 (280) | 600 (480) | 420 (336) | 1200' | 1300' | 1300' | 1400' | 1500' | 1600' | 1700' | 1800' | 1915' | 2015' | Hour | | | | | |
| Highest Approach Minor Street | 150 (120) | 105 (84) | 200 (160) | 140 (112) | 1074 | 1018 | 1053 | 1143 | 1203 | 1282 | 1077 | 787 | 227 | 229 | 244 | 253 | 250 | 261 | 209 | 162 |

100%
80%

7 HRS @ 100%
10 HRS @ 80%

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES NO
 80% SATISFIED YES NO

| APPROACH LANES | MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--|--------------|--------------|--------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|-----|-----|-----|-----|-----|
| | 1 | | 2 or More | | | | | | | | | | | | | | | | | |
| Both Approaches Major Street | 750 (600) | 525 (420) | 900 (720) | 630 (504) | 795' | 845' | 1030' | 1130' | 1130' | 1230' | 1330' | 1410' | 1530' | 1670' | Hour | | | | | |
| Highest Approach Minor Street | 75 (60) | 53 (42) | 100 (80) | 70 (56) | 806 | 850 | 973 | 1037 | 1076 | 1077 | 1177 | 1242 | 173 | 161 | 197 | 241 | 222 | 268 | 234 | 251 |

11 HRS @ 100%

Combination of Conditions A & B SATISFIED YES NO

| REQUIREMENT | CONDITION | ✓ | FULFILLED |
|--|--|---|---|
| TWO CONDITIONS SATISFIED 80% | A. MINIMUM VEHICULAR VOLUME | ✓ | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| | AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC | ✓ | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS | | | Yes <input type="checkbox"/> No <input type="checkbox"/> |

NEED TO TRY ALL-WAY STOP.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

MINIMAL NBCT

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE 5-7-19
 CALC _____ DATE _____
 CHK _____ DATE _____

DIST _____ CO _____ RTE _____ PM _____

Major St: CAMERON Critical Approach Speed 45 mph
 Minor St: WEST Critical Approach Speed 25 mph

Speed limit or critical speed on major street traffic > 40 mph..... }
 or } RURAL (R)
 In built up area of isolated community of < 10,000 population..... }
 URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES NO
 (Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES NO
 80% SATISFIED YES NO

| APPROACH LANES | MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) | | | | | | | | | | | | |
|-------------------------------|--|-----------|-----------|-----------|-----|------|------|------|------|------|-----|-----|------|
| | 1 | | 2 or More | | | | | | | | | | |
| | U | R | U | R | | | | | | | | | |
| Both Approaches Major Street | 500 (400) | 350 (280) | 600 (480) | 420 (336) | 671 | 1026 | 1031 | 1185 | 1241 | 1114 | 484 | 733 | Hour |
| Highest Approach Minor Street | 150 (120) | 105 (84) | 200 (160) | 140 (112) | 105 | 105 | 125 | 114 | 136 | 110 | 92 | 85 | |

Handwritten notes: 745, 845, 1245, 1345, 1445, 1545, 1545, 1645, 1745, 1845, 1745, 0645, 0745, 1015, 1115

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES NO
 80% SATISFIED YES NO

| APPROACH LANES | MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) | | | | | | | | | | | | |
|-------------------------------|--|-----------|-----------|-----------|-----|------|------|------|------|------|-----|-----|------|
| | 1 | | 2 or More | | | | | | | | | | |
| | U | R | U | R | | | | | | | | | |
| Both Approaches Major Street | 750 (600) | 525 (420) | 900 (720) | 630 (504) | 671 | 1026 | 1031 | 1185 | 1241 | 1114 | 733 | 717 | Hour |
| Highest Approach Minor Street | 75 (60) | 53 (42) | 100 (80) | 70 (56) | 105 | 105 | 125 | 114 | 136 | 110 | 85 | 62 | |

Handwritten notes: 745, 1245, 1445, 1545, 1645, 1745, 1015, 1945

13 @ 100%

Combination of Conditions A & B SATISFIED YES NO

| REQUIREMENT | CONDITION | ✓ | FULFILLED |
|--|--|---|---|
| TWO CONDITIONS SATISFIED 80% | A. MINIMUM VEHICULAR VOLUME | ✓ | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| | AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC | ✓ | |
| AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS | | | Yes <input type="checkbox"/> No <input type="checkbox"/> |

TRY ALL-WAY STOP.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

MOSTLY SBRT.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE 5-7-19
 CALC _____ DATE _____
 CHK _____ DATE _____
 Major St: VISALIA PKWY Critical Approach Speed 45 mph
 Minor St: DANS Critical Approach Speed 25 mph

Speed limit or critical speed on major street traffic > 40 mph }
 or } RURAL (R)
 In built up area of isolated community of < 10,000 population }
 URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES NO
 (Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES NO
 80% SATISFIED YES NO

| APPROACH LANES | MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) | | | | Hour | | | | | | | | |
|-------------------------------|--|-----------|-----------|-----------|------|-----|--|--|--|--|--|--|--|
| | 1 | | 2 or More | | | | | | | | | | |
| Both Approaches Major Street | 500 (400) | 350 (280) | 600 (480) | 420 (336) | 600 | 810 | | | | | | | |
| Highest Approach Minor Street | 150 (120) | 105 (84) | 200 (160) | 140 (112) | 118 | 100 | | | | | | | |

Handwritten notes: 800, 900, 1415, 1515, 100%, 80%

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES NO
 80% SATISFIED YES NO

| APPROACH LANES | MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) | | | | Hour | | | | | | | | | | | |
|-------------------------------|--|-----------|-----------|-----------|------|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| | 1 | | 2 or More | | | | | | | | | | | | | |
| Both Approaches Major Street | 750 (600) | 525 (420) | 900 (720) | 630 (504) | 532 | 600 | 808 | 837 | 859 | 635 | 683 | 830 | | | | |
| Highest Approach Minor Street | 75 (60) | 53 (42) | 100 (80) | 70 (56) | 75 | 118 | 76 | 76 | 61 | 50 | 52 | 47 | | | | |

Handwritten notes: 700, 800, 800, 900, 1400, 1500, 1500, 1600, 1700, 1800, 1130, 1230, 1245, 1345, 1600, 1700, 5 @ 100%, 3 @ 80%, 100%, 100, 100, 100%, 80%, 80, 80

Combination of Conditions A & B SATISFIED YES NO

| REQUIREMENT | CONDITION | ✓ | FULFILLED |
|--|--|---|---|
| TWO CONDITIONS SATISFIED 80% | A. MINIMUM VEHICULAR VOLUME | | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| | AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC | ✓ | |
| AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS | | | Yes <input type="checkbox"/> No <input type="checkbox"/> |

TRUCK ALL-WAY STOP.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

MOST IS SBRT

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE 5-7-19
 CALC _____ DATE _____
 CHK _____ DATE _____

DIST _____ CO _____ RTE _____ PM _____
 Major St: VISALIA Pkwy Critical Approach Speed 40 mph
 Minor St: COUNTY CENTER Critical Approach Speed 40 mph

Speed limit or critical speed on major street traffic > 40 mph or } RURAL (R)
 In built up area of isolated community of < 10,000 population } URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES NO
 (Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES NO
 80% SATISFIED YES NO

| APPROACH LANES | MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) | | | | | | | | | | | | | | | |
|-------------------------------|--|-----------|-----------|-----------|------------|--------------|--------------|--|--|--|--|--|--|--|--|------|
| | 1 | | 2 or More | | | | | | | | | | | | | |
| | U | R | U | R | | | | | | | | | | | | |
| Both Approaches Major Street | 500 (400) | 350 (280) | 600 (480) | 420 (336) | 745 845 | 1230 1330 | 1415 1515 | | | | | | | | | Hour |
| Highest Approach Minor Street | 150 (120) | 105 (84) | 200 (160) | 140 (112) | 172 | 164 | 167 | | | | | | | | | |
| | | | | | 80% | 80% | 80% | | | | | | | | | |

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES NO
 80% SATISFIED YES NO

| APPROACH LANES | MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) | | | | | | | | | | | | | | | |
|-------------------------------|--|-----------|-----------|-----------|--------------|------|------|------|------|------------|------|------|------|------|------|------|
| | 1 | | 2 or More | | | | | | | | | | | | | |
| | U | R | U | R | | | | | | | | | | | | |
| Both Approaches Major Street | 750 (600) | 525 (420) | 900 (720) | 630 (504) | 1330 1430 | 1430 | 1530 | 1630 | 1730 | 745 845 | 1145 | 1245 | 1345 | 1445 | 1545 | Hour |
| Highest Approach Minor Street | 75 (60) | 53 (42) | 100 (80) | 70 (56) | 166 | 152 | 139 | 151 | 135 | 172 | 133 | 80 | | | | |
| | | | | | 100% | | | | | 80% | | | | | | |

Combination of Conditions A & B SATISFIED YES NO

| REQUIREMENT | CONDITION | ✓ | FULFILLED |
|--|--|---|---|
| TWO CONDITIONS SATISFIED 80% | A. MINIMUM VEHICULAR VOLUME | | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| | AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC | ✓ | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS | | | Yes <input type="checkbox"/> No <input type="checkbox"/> |

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE 5-7-19
 CALC _____ DATE _____
 CHK _____ DATE _____

DIST _____ CO _____ RTE _____ PM _____
 Major St: MOONEY BLVD
 Minor St: AVE 272

Critical Approach Speed 55 mph
 Critical Approach Speed > 40 mph

Speed limit or critical speed on major street traffic > 40 mph..... }
 In built up area of isolated community of < 10,000 population..... } **RURAL (R)**
 } **URBAN (U)**

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES NO
 (Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES NO
 80% SATISFIED YES NO

| APPROACH LANES | MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) | | | | Hour |
|-------------------------------|--|-----------|-----------|-----------|--------------------------|
| | U | R | U | R | |
| Both Approaches Major Street | 500 (400) | 350 (280) | 600 (480) | 420 (336) | 645-745: 105, 1372, 1812 |
| Highest Approach Minor Street | 150 (120) | 105 (84) | 200 (160) | 140 (112) | 745-845: 152, 125, 85 |

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES NO
 80% SATISFIED YES NO

| APPROACH LANES | MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) | | | | Hour |
|-------------------------------|--|-----------|-----------|-----------|---|
| | U | R | U | R | |
| Both Approaches Major Street | 750 (600) | 525 (420) | 900 (720) | 630 (504) | 715-815: 1343, 1194, 1456, 1942, 1721, 1769, 1802, 2202 |
| Highest Approach Minor Street | 75 (60) | 53 (42) | 100 (80) | 70 (56) | 815-915: 172, 79, 57, 89, 79, 54, 70, 55 |

9 HRS @ 100%

Combination of Conditions A & B SATISFIED YES NO

| REQUIREMENT | CONDITION | ✓ | FULFILLED |
|--|--|---|---|
| TWO CONDITIONS SATISFIED 80% | A. MINIMUM VEHICULAR VOLUME | | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| | AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC | ✓ | |
| AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS | | | Yes <input type="checkbox"/> No <input type="checkbox"/> |

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Existing plus Project Conditions
Signal Warrants

Peak Hour Warrant (Rural Areas)

(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Caldwell Avenue and Dans Street, Visalia, CA

Scenario: Existing plus Project Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 1387 (1873) VPH

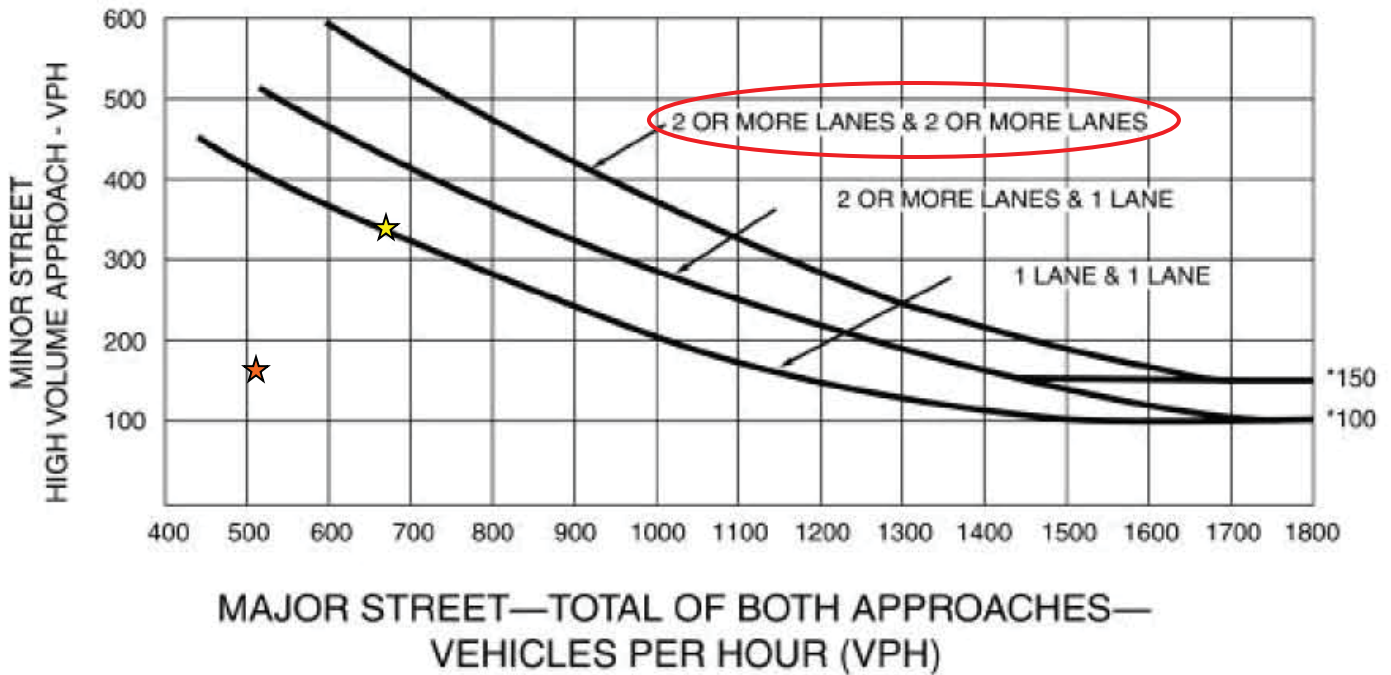
*A signal is warranted for the
A.M. Peak Hour.*

Peak Hour Warrant (Urban Areas)

Intersection: Cameron Avenue and County Center Drive, Visalia, CA
 Scenario: Existing plus Project Conditions A.M. & P.M. Peak Hour

Figure 4C-3. Warrant 3, Peak Hour

Minor Street Volume = 164(334) VPH



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

- XX – AM Peak Volume
- (XX) – PM Peak Volume
- ★ – A.M.
- ★ – P.M.

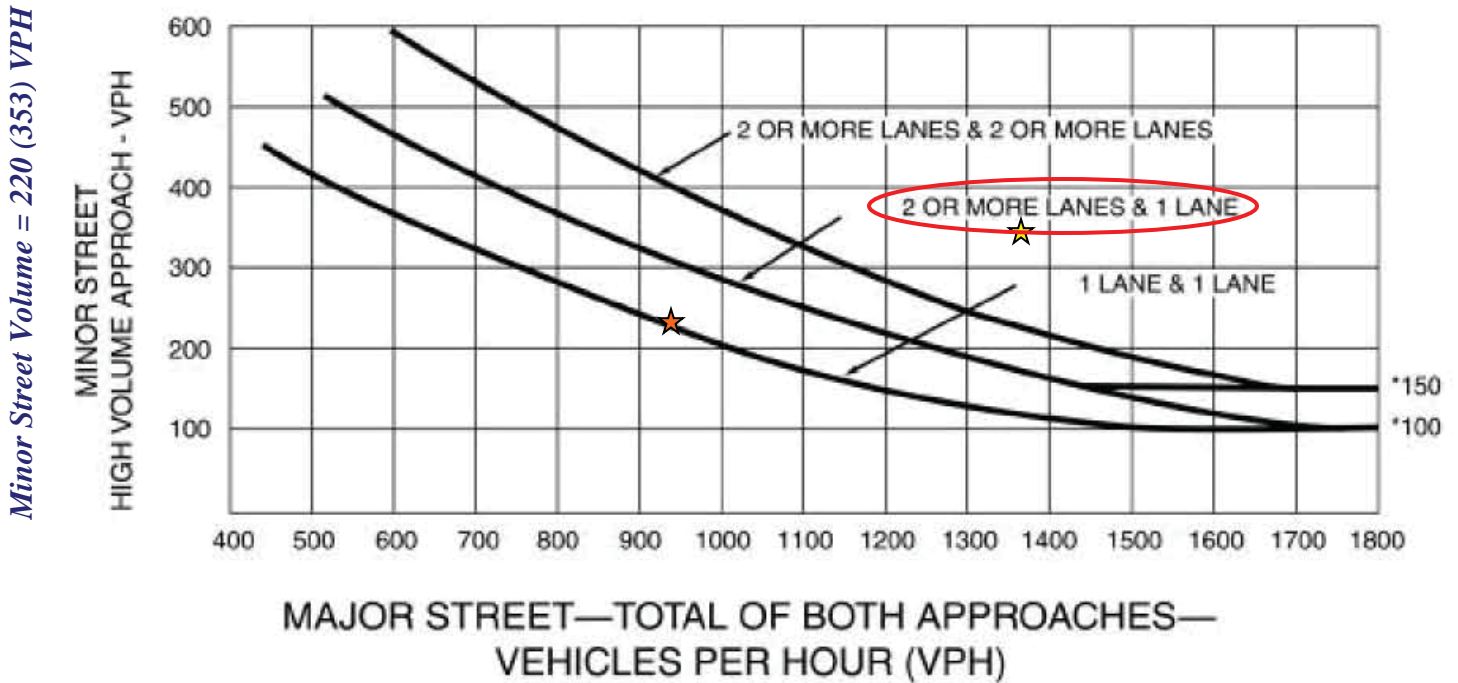
Major Street Volume = 508 (674) VPH

*A signal is not warranted for
the A.M. or P.M. Peak Hour.*

Peak Hour Warrant (Urban Areas)

Intersection: Cameron Avenue and Stonebrook Street, Visalia, CA
 Scenario: Existing plus Project Conditions A.M. & P.M. Peak Hour

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

- XX – AM Peak Volume
- (XX) – PM Peak Volume
- ★ – A.M.
- ★ – P.M.

Major Street Volume = 934 (1372) VPH

***A signal is warranted for the
P.M. Peak Hour.***

Source: CA MUTCD 2014, Chapter 4C – Traffic Control Signal Needs Studies, Part 4 - Highway Traffic Signals, Figure 4C-3

Peak Hour Warrant (Rural Areas)

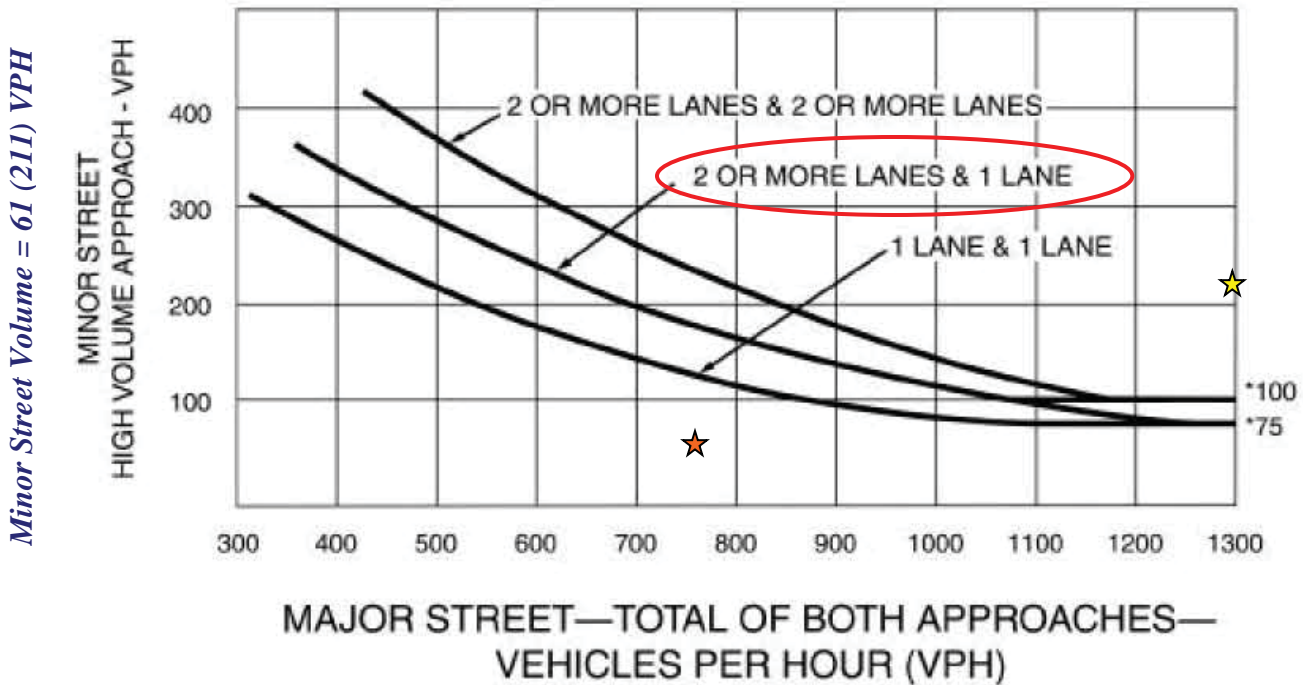
(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Cameron Avenue and West Street, Visalia, CA

Scenario: Existing plus Project Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 759 (1380) VPH

A signal is warranted for the P.M. Peak Hour.

Peak Hour Warrant (Rural Areas)

(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Visalia Parkway and Dans Street, Visalia, CA

Scenario: Existing plus Project Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 887 (1021) VPH

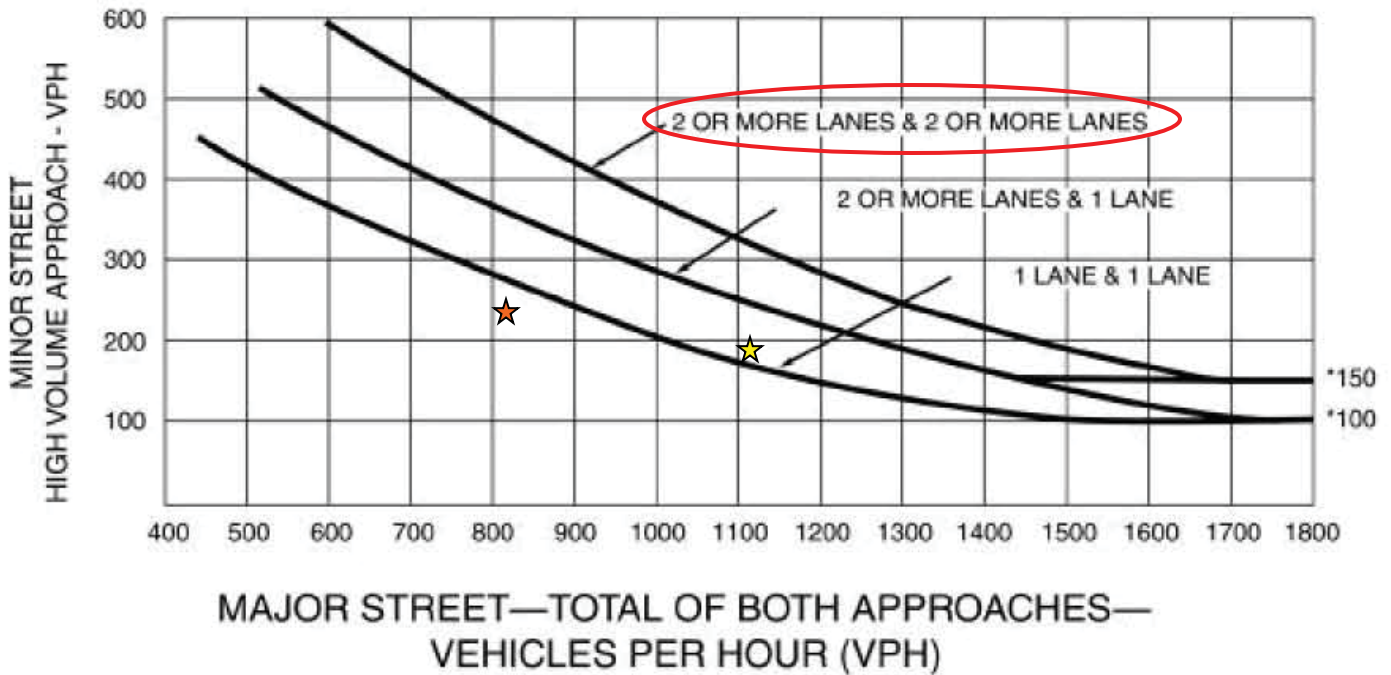
*A signal is warranted for the
A.M. and P.M. Peak Hour.*

Peak Hour Warrant (Urban Areas)

Intersection: Visalia Parkway and County Center Drive, Visalia, CA
 Scenario: Existing plus Project Conditions A.M. & P.M. Peak Hour

Figure 4C-3. Warrant 3, Peak Hour

Minor Street Volume = 223 (196) VPH



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

- XX – AM Peak Volume
- (XX) – PM Peak Volume
- ★ – A.M.
- ★ – P.M.

Major Street Volume = 811 (1115) VPH

***A signal is not warranted for
the A.M. or P.M. Peak Hour.***

Source: CA MUTCD 2014, Chapter 4C – Traffic Control Signal Needs Studies, Part 4 - Highway Traffic Signals, Figure 4C-3

Peak Hour Warrant (Rural Areas)

(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Mooney Boulevard and Avenue 272, Visalia, CA

Scenario: Existing plus Project Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 1589 (2439) VPH

*A signal is warranted for the
A.M. Peak Hour.*

Peak Hour Warrant (Rural Areas)

(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Visalia Parkway and Tuesday Morning Driveway, Visalia, CA

Scenario: Existing plus Project Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 572 (911) VPH

A signal is not warranted for the A.M. or P.M. Peak Hour.

Peak Hour Warrant (Rural Areas)

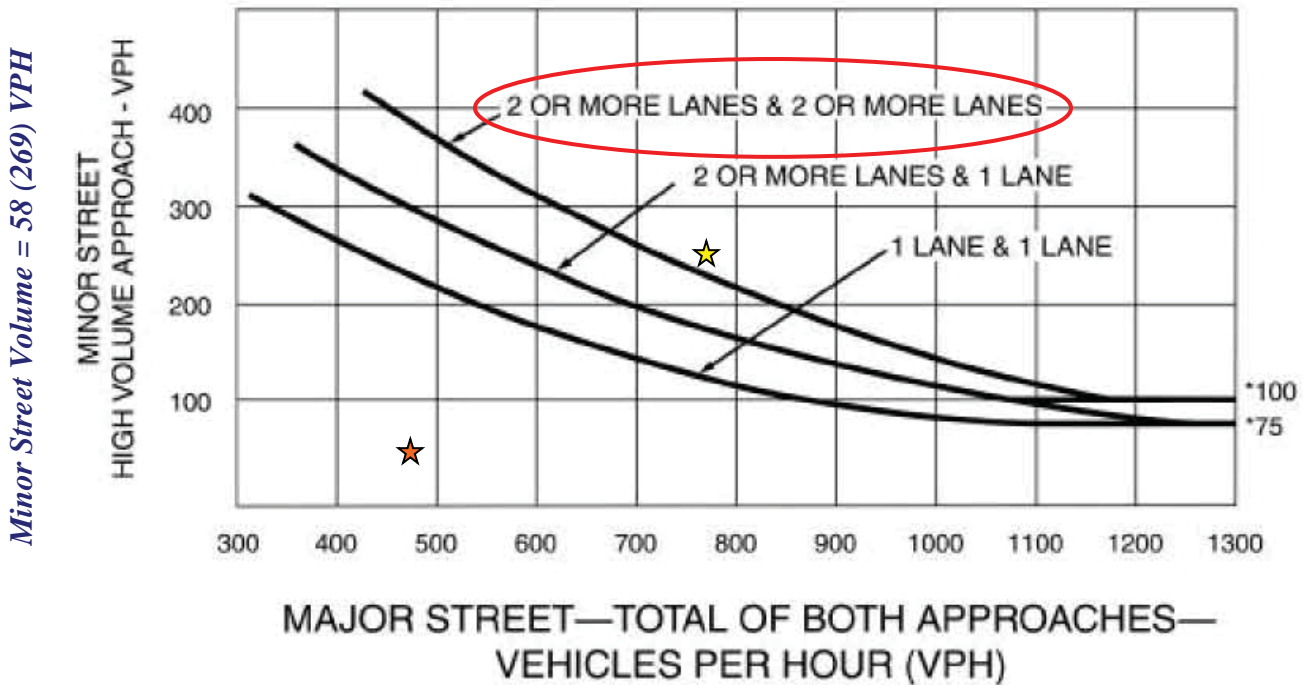
(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Visalia Parkway and Costco Driveway, Visalia, CA

Scenario: Existing plus Project Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.













Major Street Volume = 479 (776) VPH

A signal is warranted for the P.M. Peak Hour.

Appendix E – Existing plus Project Conditions Intersections Level of Service and Queuing Work Sheets

























Queues
1: Mooney Blvd & Whitendale Ave

Existing plus Project Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 104 | 216 | 145 | 192 | 260 | 62 | 106 | 611 | 151 | 65 | 554 | 45 |
| v/c Ratio | 0.43 | 0.46 | 0.42 | 0.67 | 0.50 | 0.17 | 0.30 | 0.21 | 0.16 | 0.37 | 0.21 | 0.05 |
| Control Delay | 69.7 | 59.6 | 8.8 | 75.6 | 58.9 | 1.0 | 62.6 | 16.9 | 3.6 | 72.4 | 21.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 69.7 | 59.6 | 8.8 | 75.6 | 58.9 | 1.0 | 62.6 | 16.9 | 3.6 | 72.4 | 21.2 | 0.1 |
| Queue Length 50th (ft) | 49 | 103 | 0 | 92 | 124 | 0 | 48 | 94 | 0 | 31 | 97 | 0 |
| Queue Length 95th (ft) | 79 | 123 | 43 | 130 | 141 | 0 | 78 | 168 | 42 | 56 | 163 | 0 |
| Internal Link Dist (ft) | 1104 | | | 403 | | | 770 | | | 1028 | | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 284 | 878 | 506 | 355 | 951 | 534 | 355 | 2954 | 970 | 355 | 2604 | 854 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.25 | 0.29 | 0.54 | 0.27 | 0.12 | 0.30 | 0.21 | 0.16 | 0.18 | 0.21 | 0.05 |
| Intersection Summary | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
1: Mooney Blvd & Whitendale Ave

Existing plus Project Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 93 | 192 | 129 | 171 | 231 | 55 | 94 | 544 | 134 | 58 | 493 | 40 |
| Future Volume (veh/h) | 93 | 192 | 129 | 171 | 231 | 55 | 94 | 544 | 134 | 58 | 493 | 40 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 104 | 216 | 145 | 192 | 260 | 62 | 106 | 611 | 151 | 65 | 554 | 45 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 278 | 501 | 223 | 238 | 460 | 204 | 824 | 2969 | 913 | 132 | 1922 | 596 |
| Arrive On Green | 0.08 | 0.14 | 0.14 | 0.07 | 0.13 | 0.13 | 0.24 | 0.58 | 0.58 | 0.04 | 0.38 | 0.38 |
| Sat Flow, veh/h | 3442 | 3539 | 1573 | 3442 | 3539 | 1565 | 3442 | 5085 | 1563 | 3442 | 5085 | 1578 |
| Grp Volume(v), veh/h | 104 | 216 | 145 | 192 | 260 | 62 | 106 | 611 | 151 | 65 | 554 | 45 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1573 | 1721 | 1770 | 1565 | 1721 | 1695 | 1563 | 1721 | 1695 | 1578 |
| Q Serve(g_s), s | 4.2 | 8.1 | 12.6 | 8.0 | 10.0 | 4.5 | 3.5 | 8.2 | 4.1 | 2.7 | 11.0 | 2.6 |
| Cycle Q Clear(g_c), s | 4.2 | 8.1 | 12.6 | 8.0 | 10.0 | 4.5 | 3.5 | 8.2 | 4.1 | 2.7 | 11.0 | 2.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 278 | 501 | 223 | 238 | 460 | 204 | 824 | 2969 | 913 | 132 | 1922 | 596 |
| V/C Ratio(X) | 0.37 | 0.43 | 0.65 | 0.81 | 0.56 | 0.30 | 0.13 | 0.21 | 0.17 | 0.49 | 0.29 | 0.08 |
| Avail Cap(c_a), veh/h | 285 | 879 | 391 | 285 | 952 | 421 | 824 | 2969 | 913 | 356 | 1922 | 596 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 63.2 | 56.9 | 58.8 | 66.5 | 59.2 | 42.3 | 43.3 | 14.3 | 5.6 | 68.3 | 31.5 | 28.9 |
| Incr Delay (d2), s/veh | 0.3 | 1.1 | 6.1 | 11.1 | 2.1 | 1.6 | 0.0 | 0.2 | 0.4 | 1.1 | 0.4 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 4.0 | 5.9 | 4.2 | 5.0 | 2.2 | 1.7 | 3.9 | 2.6 | 1.3 | 5.2 | 1.2 |
| LnGrp Delay(d),s/veh | 63.5 | 58.0 | 65.0 | 77.7 | 61.3 | 43.9 | 43.3 | 14.4 | 6.0 | 69.4 | 31.9 | 29.1 |
| LnGrp LOS | E | E | E | E | E | D | D | B | A | E | C | C |
| Approach Vol, veh/h | | 465 | | | 514 | | | 868 | | | 664 | |
| Approach Delay, s/veh | | 61.4 | | | 65.3 | | | 16.5 | | | 35.4 | |
| Approach LOS | | E | | | E | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.3 | 91.1 | 15.7 | 26.9 | 41.1 | 61.2 | 17.4 | 25.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 54.8 | 12.0 | * 36 | 15.0 | * 55 | 12.0 | * 39 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.7 | 10.2 | 10.0 | 14.6 | 5.5 | 13.0 | 6.2 | 12.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.9 | 0.1 | 3.1 | 0.1 | 7.8 | 0.1 | 3.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 39.8 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave

Existing plus Project Conditions
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 101 | 178 | 8 | 272 | 100 | 51 | 75 | 12 | 141 |
| v/c Ratio | 0.30 | 0.19 | 0.03 | 0.42 | 0.17 | 0.11 | 0.20 | 0.02 | 0.27 |
| Control Delay | 24.3 | 8.9 | 26.3 | 17.3 | 7.1 | 15.6 | 18.0 | 16.1 | 5.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 24.3 | 8.9 | 26.3 | 17.3 | 7.1 | 15.6 | 18.0 | 16.1 | 5.4 |
| Queue Length 50th (ft) | 23 | 18 | 2 | 54 | 4 | 9 | 16 | 2 | 0 |
| Queue Length 95th (ft) | 81 | 88 | 15 | 155 | 35 | 36 | 51 | 14 | 31 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 699 | 1269 | 699 | 1283 | 1090 | 980 | 806 | 1132 | 997 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.14 | 0.14 | 0.01 | 0.21 | 0.09 | 0.05 | 0.09 | 0.01 | 0.14 |

Intersection Summary

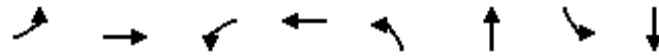
HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

Existing plus Project Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 86 | 139 | 12 | 7 | 231 | 85 | 18 | 21 | 4 | 64 | 10 | 120 |
| Future Volume (veh/h) | 86 | 139 | 12 | 7 | 231 | 85 | 18 | 21 | 4 | 64 | 10 | 120 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.98 | 0.98 | | 0.98 | 0.98 | | 0.96 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 101 | 164 | 14 | 8 | 272 | 100 | 21 | 25 | 5 | 75 | 12 | 141 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 186 | 604 | 52 | 23 | 493 | 409 | 249 | 249 | 39 | 542 | 468 | 381 |
| Arrive On Green | 0.10 | 0.36 | 0.36 | 0.01 | 0.26 | 0.26 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1774 | 1692 | 144 | 1774 | 1863 | 1545 | 444 | 992 | 156 | 1349 | 1863 | 1518 |
| Grp Volume(v), veh/h | 101 | 0 | 178 | 8 | 272 | 100 | 51 | 0 | 0 | 75 | 12 | 141 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1836 | 1774 | 1863 | 1545 | 1592 | 0 | 0 | 1349 | 1863 | 1518 |
| Q Serve(g_s), s | 2.0 | 0.0 | 2.5 | 0.2 | 4.6 | 1.9 | 0.0 | 0.0 | 0.0 | 0.6 | 0.2 | 2.8 |
| Cycle Q Clear(g_c), s | 2.0 | 0.0 | 2.5 | 0.2 | 4.6 | 1.9 | 0.8 | 0.0 | 0.0 | 1.4 | 0.2 | 2.8 |
| Prop In Lane | 1.00 | | 0.08 | 1.00 | | 1.00 | 0.41 | | 0.10 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 186 | 0 | 655 | 23 | 493 | 409 | 538 | 0 | 0 | 542 | 468 | 381 |
| V/C Ratio(X) | 0.54 | 0.00 | 0.27 | 0.35 | 0.55 | 0.24 | 0.09 | 0.00 | 0.00 | 0.14 | 0.03 | 0.37 |
| Avail Cap(c_a), veh/h | 721 | 0 | 1492 | 721 | 1513 | 1255 | 1176 | 0 | 0 | 1117 | 1261 | 1028 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 15.7 | 0.0 | 8.5 | 18.1 | 11.7 | 10.7 | 10.6 | 0.0 | 0.0 | 10.8 | 10.4 | 11.4 |
| Incr Delay (d2), s/veh | 0.9 | 0.0 | 0.4 | 3.4 | 1.6 | 0.5 | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 0.0 | 1.4 | 0.1 | 2.6 | 0.9 | 0.4 | 0.0 | 0.0 | 0.6 | 0.1 | 1.3 |
| LnGrp Delay(d),s/veh | 16.6 | 0.0 | 8.8 | 21.5 | 13.3 | 11.2 | 10.8 | 0.0 | 0.0 | 11.0 | 10.5 | 12.4 |
| LnGrp LOS | B | | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 279 | | | 380 | | | 51 | | | 228 | |
| Approach Delay, s/veh | | 11.6 | | | 12.9 | | | 10.8 | | | 11.9 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.5 | 18.2 | | 14.3 | 7.9 | 14.8 | | 14.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | | 25.0 | 15.0 | 30.0 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 4.5 | | 2.8 | 4.0 | 6.6 | | 4.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.5 | | 0.3 | 0.1 | 3.1 | | 1.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.2 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave





















Existing plus Project Conditions
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 44 | 14 | 11 | 33 | 40 | 787 | 89 | 763 |
| v/c Ratio | 0.17 | 0.02 | 0.05 | 0.04 | 0.17 | 0.26 | 0.32 | 0.25 |
| Control Delay | 36.4 | 0.0 | 39.4 | 0.1 | 37.1 | 18.3 | 34.9 | 16.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.4 | 0.0 | 39.4 | 0.1 | 37.1 | 18.3 | 34.9 | 16.2 |
| Queue Length 50th (ft) | 13 | 0 | 3 | 0 | 12 | 65 | 26 | 57 |
| Queue Length 95th (ft) | 66 | 0 | 27 | 0 | 62 | 235 | 110 | 213 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 561 | 1035 | 561 | 990 | 561 | 2904 | 561 | 2941 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.08 | 0.01 | 0.02 | 0.03 | 0.07 | 0.27 | 0.16 | 0.26 |
| Intersection Summary | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 3: Mooney Blvd & Sunnyside Ave

Existing plus Project Conditions
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 42 | 0 | 13 | 10 | 0 | 31 | 38 | 737 | 10 | 85 | 673 | 52 |
| Future Volume (veh/h) | 42 | 0 | 13 | 10 | 0 | 31 | 38 | 737 | 10 | 85 | 673 | 52 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 44 | 0 | 14 | 11 | 0 | 33 | 40 | 776 | 11 | 89 | 708 | 55 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 97 | 0 | 208 | 30 | 0 | 149 | 90 | 1585 | 22 | 149 | 1638 | 127 |
| Arrive On Green | 0.05 | 0.00 | 0.13 | 0.02 | 0.00 | 0.09 | 0.05 | 0.31 | 0.31 | 0.08 | 0.34 | 0.34 |
| Sat Flow, veh/h | 1774 | 0 | 1577 | 1774 | 0 | 1580 | 1774 | 5164 | 73 | 1774 | 4814 | 372 |
| Grp Volume(v), veh/h | 44 | 0 | 14 | 11 | 0 | 33 | 40 | 509 | 278 | 89 | 497 | 266 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1577 | 1774 | 0 | 1580 | 1774 | 1695 | 1847 | 1774 | 1695 | 1796 |
| Q Serve(g_s), s | 1.2 | 0.0 | 0.4 | 0.3 | 0.0 | 1.0 | 1.1 | 6.3 | 6.3 | 2.5 | 5.8 | 5.9 |
| Cycle Q Clear(g_c), s | 1.2 | 0.0 | 0.4 | 0.3 | 0.0 | 1.0 | 1.1 | 6.3 | 6.3 | 2.5 | 5.8 | 5.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.04 | 1.00 | | 0.21 |
| Lane Grp Cap(c), veh/h | 97 | 0 | 208 | 30 | 0 | 149 | 90 | 1040 | 567 | 149 | 1153 | 611 |
| V/C Ratio(X) | 0.45 | 0.00 | 0.07 | 0.37 | 0.00 | 0.22 | 0.44 | 0.49 | 0.49 | 0.60 | 0.43 | 0.43 |
| Avail Cap(c_a), veh/h | 417 | 0 | 617 | 521 | 0 | 619 | 521 | 1659 | 904 | 521 | 1659 | 879 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.4 | 0.0 | 19.4 | 24.8 | 0.0 | 21.4 | 23.5 | 14.4 | 14.4 | 22.6 | 13.0 | 13.0 |
| Incr Delay (d2), s/veh | 1.2 | 0.0 | 0.1 | 2.7 | 0.0 | 0.5 | 1.3 | 0.7 | 1.3 | 1.4 | 0.5 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.0 | 0.2 | 0.2 | 0.0 | 0.5 | 0.6 | 3.0 | 3.4 | 1.3 | 2.8 | 3.0 |
| LnGrp Delay(d),s/veh | 24.7 | 0.0 | 19.5 | 27.6 | 0.0 | 21.9 | 24.8 | 15.1 | 15.7 | 24.0 | 13.5 | 14.0 |
| LnGrp LOS | C | | B | C | | C | C | B | B | C | B | B |
| Approach Vol, veh/h | | 58 | | | 44 | | | 827 | | | 852 | |
| Approach Delay, s/veh | | 23.4 | | | 23.4 | | | 15.8 | | | 14.8 | |
| Approach LOS | | C | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.0 | 22.1 | 6.6 | 12.4 | 8.3 | 23.8 | 8.5 | 10.5 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | * 5.7 | 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | * 15 | * 20 | * 15 | 25.0 | * 12 | * 20 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.5 | 8.3 | 2.3 | 2.4 | 3.1 | 7.9 | 3.2 | 3.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 7.2 | 0.0 | 0.0 | 0.0 | 7.1 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 15.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave























Existing plus Project Conditions
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 3 | 1 | 18 | 23 | 11 | 762 | 27 | 63 | 642 | 5 |
| v/c Ratio | 0.02 | 0.00 | 0.20 | 0.04 | 0.05 | 0.20 | 0.02 | 0.52 | 0.16 | 0.00 |
| Control Delay | 45.7 | 0.0 | 66.3 | 0.1 | 55.7 | 11.4 | 0.0 | 74.6 | 10.8 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.7 | 0.0 | 66.3 | 0.1 | 55.7 | 11.4 | 0.0 | 74.6 | 10.8 | 0.0 |
| Queue Length 50th (ft) | 3 | 0 | 16 | 0 | 4 | 67 | 0 | 54 | 27 | 0 |
| Queue Length 95th (ft) | 10 | 0 | 42 | 0 | 14 | 224 | 0 | 101 | 191 | 0 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 246 | 804 | 170 | 835 | 381 | 3735 | 1159 | 196 | 3951 | 1241 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.01 | 0.00 | 0.11 | 0.03 | 0.03 | 0.20 | 0.02 | 0.32 | 0.16 | 0.00 |
| Intersection Summary | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

Existing plus Project Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 3 | 0 | 1 | 17 | 0 | 22 | 10 | 724 | 26 | 60 | 610 | 5 |
| Future Volume (veh/h) | 3 | 0 | 1 | 17 | 0 | 22 | 10 | 724 | 26 | 60 | 610 | 5 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 3 | 0 | 1 | 18 | 0 | 23 | 11 | 762 | 27 | 63 | 642 | 5 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 23 | 0 | 74 | 39 | 0 | 90 | 1526 | 3599 | 1117 | 81 | 1548 | 482 |
| Arrive On Green | 0.01 | 0.00 | 0.05 | 0.02 | 0.00 | 0.06 | 0.89 | 1.00 | 1.00 | 0.05 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1774 | 0 | 1543 | 1774 | 0 | 1583 | 3442 | 5085 | 1579 | 1774 | 5085 | 1582 |
| Grp Volume(v), veh/h | 3 | 0 | 1 | 18 | 0 | 23 | 11 | 762 | 27 | 63 | 642 | 5 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1543 | 1774 | 0 | 1583 | 1721 | 1695 | 1579 | 1774 | 1695 | 1582 |
| Q Serve(g_s), s | 0.2 | 0.0 | 0.1 | 1.4 | 0.0 | 1.9 | 0.0 | 0.0 | 0.0 | 4.7 | 13.6 | 0.3 |
| Cycle Q Clear(g_c), s | 0.2 | 0.0 | 0.1 | 1.4 | 0.0 | 1.9 | 0.0 | 0.0 | 0.0 | 4.7 | 13.6 | 0.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 23 | 0 | 74 | 39 | 0 | 90 | 1526 | 3599 | 1117 | 81 | 1548 | 482 |
| V/C Ratio(X) | 0.13 | 0.00 | 0.01 | 0.47 | 0.00 | 0.26 | 0.01 | 0.21 | 0.02 | 0.78 | 0.41 | 0.01 |
| Avail Cap(c_a), veh/h | 171 | 0 | 480 | 171 | 0 | 493 | 1526 | 3599 | 1117 | 197 | 1548 | 482 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.97 | 0.97 | 0.97 | 0.98 | 0.98 | 0.98 |
| Uniform Delay (d), s/veh | 65.9 | 0.0 | 61.2 | 65.2 | 0.0 | 60.9 | 4.2 | 0.0 | 0.0 | 63.8 | 37.4 | 32.8 |
| Incr Delay (d2), s/veh | 0.9 | 0.0 | 0.0 | 3.2 | 0.0 | 1.1 | 0.0 | 0.1 | 0.0 | 5.9 | 0.8 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 0.0 | 0.0 | 0.7 | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 2.5 | 6.5 | 0.1 |
| LnGrp Delay(d),s/veh | 66.8 | 0.0 | 61.2 | 68.5 | 0.0 | 62.0 | 4.2 | 0.1 | 0.0 | 69.7 | 38.2 | 32.8 |
| LnGrp LOS | E | | E | E | | E | A | A | A | E | D | C |
| Approach Vol, veh/h | | 4 | | | 41 | | | 800 | | | 710 | |
| Approach Delay, s/veh | | 65.4 | | | 64.8 | | | 0.2 | | | 40.9 | |
| Approach LOS | | E | | | E | | | A | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.8 | 101.9 | 8.6 | 12.6 | 66.3 | 47.5 | 7.4 | 13.8 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 15 | 41.1 | 13.0 | * 42 | 15.0 | * 41 | 13.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.7 | 2.0 | 3.4 | 2.1 | 2.0 | 15.6 | 2.2 | 3.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 11.8 | 0.0 | 0.0 | 0.0 | 7.6 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 20.7 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 33 | 611 | 67 | 49 | 599 | 28 | 47 | 0 | 78 | 8 | 0 | 17 |
| Future Vol, veh/h | 33 | 611 | 67 | 49 | 599 | 28 | 47 | 0 | 78 | 8 | 0 | 17 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 37 | 687 | 75 | 55 | 673 | 31 | 53 | 0 | 88 | 9 | 0 | 19 |

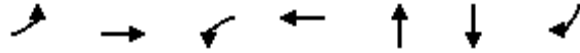
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 709 | 0 | 0 | 762 | 0 | 0 | 1246 | 1618 | 381 | 1222 | 1640 | 357 |
| Stage 1 | - | - | - | - | - | - | 799 | 799 | - | 804 | 804 | - |
| Stage 2 | - | - | - | - | - | - | 447 | 819 | - | 418 | 836 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 886 | - | - | 846 | - | - | 130 | 102 | 617 | 136 | 99 | 639 |
| Stage 1 | - | - | - | - | - | - | 345 | 396 | - | 343 | 394 | - |
| Stage 2 | - | - | - | - | - | - | 560 | 388 | - | 583 | 381 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 882 | - | - | 846 | - | - | 109 | 84 | 617 | 101 | 81 | 636 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 109 | 84 | - | 101 | 81 | - |
| Stage 1 | - | - | - | - | - | - | 319 | 367 | - | 316 | 350 | - |
| Stage 2 | - | - | - | - | - | - | 485 | 345 | - | 463 | 353 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 | | | 1 | | | 44.7 | | | 22.3 | | |
| HCM LOS | | | | | | | E | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 224 | 882 | - | - | 846 | - | - | 236 |
| HCM Lane V/C Ratio | 0.627 | 0.042 | - | - | 0.065 | - | - | 0.119 |
| HCM Control Delay (s) | 44.7 | 9.3 | 0.3 | - | 9.6 | 0.4 | - | 22.3 |
| HCM Lane LOS | E | A | A | - | A | A | - | C |
| HCM 95th %tile Q(veh) | 3.7 | 0.1 | - | - | 0.2 | - | - | 0.4 |

Queues
6: Shady St & Caldwell Ave




















Existing plus Project Conditions
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-----------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 26 | 625 | 17 | 549 | 56 | 4 | 2 |
| v/c Ratio | 0.06 | 0.16 | 0.04 | 0.14 | 0.12 | 0.01 | 0.00 |
| Control Delay | 17.8 | 5.7 | 18.2 | 5.8 | 11.0 | 19.0 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 17.8 | 5.7 | 18.2 | 5.8 | 11.0 | 19.0 | 0.0 |
| Queue Length 50th (ft) | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| Queue Length 95th (ft) | 29 | 87 | 22 | 79 | 35 | 9 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 1382 | 4700 | 1382 | 4707 | 1314 | 1382 | 1260 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.02 | 0.13 | 0.01 | 0.12 | 0.04 | 0.00 | 0.00 |
| Intersection Summary | | | | | | | |

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

Existing plus Project Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 23 | 551 | 12 | 15 | 489 | 5 | 17 | 1 | 32 | 4 | 0 | 2 |
| Future Volume (veh/h) | 23 | 551 | 12 | 15 | 489 | 5 | 17 | 1 | 32 | 4 | 0 | 2 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 26 | 612 | 13 | 17 | 543 | 6 | 19 | 1 | 36 | 4 | 0 | 2 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 67 | 1934 | 41 | 46 | 1895 | 21 | 39 | 2 | 74 | 17 | 0 | 15 |
| Arrive On Green | 0.04 | 0.38 | 0.38 | 0.03 | 0.37 | 0.37 | 0.07 | 0.07 | 0.07 | 0.01 | 0.00 | 0.01 |
| Sat Flow, veh/h | 1774 | 5125 | 109 | 1774 | 5184 | 57 | 559 | 29 | 1059 | 1774 | 0 | 1583 |
| Grp Volume(v), veh/h | 26 | 404 | 221 | 17 | 355 | 194 | 56 | 0 | 0 | 4 | 0 | 2 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1843 | 1774 | 1695 | 1851 | 1648 | 0 | 0 | 1774 | 0 | 1583 |
| Q Serve(g_s), s | 0.6 | 3.3 | 3.3 | 0.4 | 2.9 | 2.9 | 1.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.6 | 3.3 | 3.3 | 0.4 | 2.9 | 2.9 | 1.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.06 | 1.00 | | 0.03 | 0.34 | | 0.64 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 67 | 1279 | 696 | 46 | 1239 | 677 | 116 | 0 | 0 | 17 | 0 | 15 |
| V/C Ratio(X) | 0.39 | 0.32 | 0.32 | 0.37 | 0.29 | 0.29 | 0.48 | 0.00 | 0.00 | 0.23 | 0.00 | 0.13 |
| Avail Cap(c_a), veh/h | 917 | 3505 | 1906 | 917 | 3505 | 1914 | 852 | 0 | 0 | 917 | 0 | 818 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.2 | 8.5 | 8.5 | 18.5 | 8.7 | 8.7 | 17.3 | 0.0 | 0.0 | 19.0 | 0.0 | 19.0 |
| Incr Delay (d2), s/veh | 1.4 | 0.4 | 0.7 | 1.8 | 0.3 | 0.6 | 2.3 | 0.0 | 0.0 | 5.0 | 0.0 | 2.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 1.6 | 1.8 | 0.2 | 1.4 | 1.6 | 0.7 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 19.5 | 8.9 | 9.2 | 20.4 | 9.0 | 9.3 | 19.6 | 0.0 | 0.0 | 24.0 | 0.0 | 21.8 |
| LnGrp LOS | B | A | A | C | A | A | B | | | C | | C |
| Approach Vol, veh/h | | 651 | | | 566 | | | 56 | | | | 6 |
| Approach Delay, s/veh | | 9.4 | | | 9.5 | | | 19.6 | | | | 23.3 |
| Approach LOS | | A | | | A | | | B | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.0 | 20.6 | | 5.4 | 5.5 | 20.1 | | 7.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.4 | 5.3 | | 2.1 | 2.6 | 4.9 | | 3.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.3 | | 0.0 | 0.0 | 8.0 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 10.0 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

Existing plus Project Conditions
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 148 | 487 | 114 | 459 | 129 | 593 | 97 | 60 | 544 | 75 |
| v/c Ratio | 0.57 | 0.54 | 0.44 | 0.52 | 0.42 | 0.22 | 0.11 | 0.34 | 0.22 | 0.09 |
| Control Delay | 68.9 | 44.6 | 64.4 | 48.9 | 63.0 | 19.6 | 3.1 | 66.6 | 22.7 | 0.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 68.9 | 44.6 | 64.4 | 48.9 | 63.0 | 19.6 | 3.1 | 66.6 | 22.7 | 0.8 |
| Queue Length 50th (ft) | 65 | 128 | 50 | 133 | 56 | 94 | 0 | 26 | 93 | 0 |
| Queue Length 95th (ft) | 100 | 134 | 80 | 136 | 90 | 177 | 26 | 50 | 169 | 5 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 355 | 1594 | 355 | 1596 | 304 | 2722 | 890 | 304 | 2447 | 815 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.42 | 0.31 | 0.32 | 0.29 | 0.42 | 0.22 | 0.11 | 0.20 | 0.22 | 0.09 |

Intersection Summary

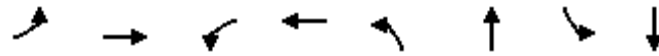
HCM 2010 Signalized Intersection Summary
7: Mooney Blvd & Caldwell Ave

Existing plus Project Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 141 | 343 | 120 | 108 | 376 | 60 | 123 | 563 | 92 | 57 | 517 | 71 |
| Future Volume (veh/h) | 141 | 343 | 120 | 108 | 376 | 60 | 123 | 563 | 92 | 57 | 517 | 71 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 148 | 361 | 126 | 114 | 396 | 63 | 129 | 593 | 97 | 60 | 544 | 75 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 199 | 622 | 207 | 164 | 688 | 107 | 1004 | 2890 | 899 | 137 | 1582 | 491 |
| Arrive On Green | 0.06 | 0.16 | 0.16 | 0.05 | 0.15 | 0.15 | 0.58 | 1.00 | 1.00 | 0.08 | 0.62 | 0.62 |
| Sat Flow, veh/h | 3442 | 3772 | 1252 | 3442 | 4439 | 689 | 3442 | 5085 | 1582 | 3442 | 5085 | 1577 |
| Grp Volume(v), veh/h | 148 | 323 | 164 | 114 | 300 | 159 | 129 | 593 | 97 | 60 | 544 | 75 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1634 | 1721 | 1695 | 1738 | 1721 | 1695 | 1582 | 1721 | 1695 | 1577 |
| Q Serve(g_s), s | 5.7 | 11.9 | 12.6 | 4.4 | 11.1 | 11.5 | 2.3 | 0.0 | 0.0 | 2.2 | 6.9 | 2.7 |
| Cycle Q Clear(g_c), s | 5.7 | 11.9 | 12.6 | 4.4 | 11.1 | 11.5 | 2.3 | 0.0 | 0.0 | 2.2 | 6.9 | 2.7 |
| Prop In Lane | 1.00 | | 0.77 | 1.00 | | 0.40 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 199 | 559 | 270 | 164 | 525 | 269 | 1004 | 2890 | 899 | 137 | 1582 | 491 |
| V/C Ratio(X) | 0.74 | 0.58 | 0.61 | 0.69 | 0.57 | 0.59 | 0.13 | 0.21 | 0.11 | 0.44 | 0.34 | 0.15 |
| Avail Cap(c_a), veh/h | 357 | 1080 | 520 | 357 | 1080 | 554 | 1004 | 2890 | 899 | 306 | 1582 | 491 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.97 | 0.97 | 0.97 | 0.99 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 62.6 | 52.0 | 52.3 | 63.3 | 52.9 | 53.1 | 20.4 | 0.0 | 0.0 | 60.7 | 18.9 | 18.1 |
| Incr Delay (d2), s/veh | 2.1 | 1.8 | 4.3 | 1.9 | 1.9 | 3.9 | 0.0 | 0.2 | 0.2 | 0.8 | 0.6 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.8 | 5.7 | 6.0 | 2.1 | 5.3 | 5.8 | 1.1 | 0.0 | 0.1 | 1.1 | 3.3 | 1.2 |
| LnGrp Delay(d),s/veh | 64.7 | 53.8 | 56.6 | 65.3 | 54.8 | 57.0 | 20.4 | 0.2 | 0.2 | 61.5 | 19.5 | 18.7 |
| LnGrp LOS | E | D | E | E | D | E | C | A | A | E | B | B |
| Approach Vol, veh/h | | 635 | | | 573 | | | 819 | | | 679 | |
| Approach Delay, s/veh | | 57.1 | | | 57.5 | | | 3.4 | | | 23.1 | |
| Approach LOS | | E | | | E | | | A | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.1 | 83.1 | 12.1 | 28.7 | 45.8 | 48.4 | 13.5 | 27.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 12 | 42.0 | 14.0 | * 43 | 12.0 | * 42 | 14.0 | * 43 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.2 | 2.0 | 6.4 | 14.6 | 4.3 | 8.9 | 7.7 | 13.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.9 | 0.1 | 5.6 | 0.1 | 8.3 | 0.1 | 5.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 32.4 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St























Existing plus Project Conditions
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 54 | 421 | 78 | 581 | 23 | 52 | 37 | 30 |
| v/c Ratio | 0.14 | 0.15 | 0.20 | 0.20 | 0.04 | 0.08 | 0.06 | 0.04 |
| Control Delay | 30.4 | 15.8 | 29.1 | 14.3 | 13.0 | 10.1 | 13.4 | 9.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 30.4 | 15.8 | 29.1 | 14.3 | 13.0 | 10.1 | 13.4 | 9.0 |
| Queue Length 50th (ft) | 14 | 29 | 20 | 38 | 5 | 2 | 9 | 1 |
| Queue Length 95th (ft) | 69 | 106 | 90 | 134 | 20 | 30 | 28 | 21 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 878 | 3418 | 878 | 3372 | 1011 | 1075 | 986 | 1057 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.12 | 0.09 | 0.17 | 0.02 | 0.05 | 0.04 | 0.03 |
| Intersection Summary | | | | | | | | |

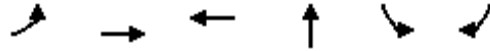
HCM 2010 Signalized Intersection Summary
8: Caldwell Ave & Fairway St

Existing plus Project Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|--|---|---|--|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |  |  | |  |  | |
| Traffic Volume (veh/h) | 49 | 347 | 36 | 71 | 428 | 101 | 21 | 10 | 37 | 34 | 4 | 24 |
| Future Volume (veh/h) | 49 | 347 | 36 | 71 | 428 | 101 | 21 | 10 | 37 | 34 | 4 | 24 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 0.99 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 54 | 381 | 40 | 78 | 470 | 111 | 23 | 11 | 41 | 37 | 4 | 26 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 119 | 1427 | 147 | 153 | 1334 | 305 | 398 | 41 | 151 | 384 | 29 | 186 |
| Arrive On Green | 0.07 | 0.30 | 0.30 | 0.09 | 0.32 | 0.32 | 0.03 | 0.12 | 0.12 | 0.05 | 0.13 | 0.13 |
| Sat Flow, veh/h | 1774 | 4683 | 483 | 1774 | 4119 | 943 | 1774 | 345 | 1285 | 1774 | 213 | 1383 |
| Grp Volume(v), veh/h | 54 | 274 | 147 | 78 | 384 | 197 | 23 | 0 | 52 | 37 | 0 | 30 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1776 | 1774 | 1695 | 1672 | 1774 | 0 | 1630 | 1774 | 0 | 1595 |
| Q Serve(g_s), s | 1.2 | 2.5 | 2.6 | 1.7 | 3.5 | 3.7 | 0.5 | 0.0 | 1.2 | 0.7 | 0.0 | 0.7 |
| Cycle Q Clear(g_c), s | 1.2 | 2.5 | 2.6 | 1.7 | 3.5 | 3.7 | 0.5 | 0.0 | 1.2 | 0.7 | 0.0 | 0.7 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 0.56 | 1.00 | | 0.79 | 1.00 | | 0.87 |
| Lane Grp Cap(c), veh/h | 119 | 1033 | 541 | 153 | 1098 | 541 | 398 | 0 | 192 | 384 | 0 | 214 |
| V/C Ratio(X) | 0.45 | 0.27 | 0.27 | 0.51 | 0.35 | 0.36 | 0.06 | 0.00 | 0.27 | 0.10 | 0.00 | 0.14 |
| Avail Cap(c_a), veh/h | 652 | 2491 | 1304 | 652 | 2491 | 1229 | 989 | 0 | 998 | 947 | 0 | 938 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.3 | 10.7 | 10.8 | 17.8 | 10.5 | 10.6 | 14.9 | 0.0 | 16.4 | 14.4 | 0.0 | 15.6 |
| Incr Delay (d2), s/veh | 1.0 | 0.4 | 0.7 | 1.0 | 0.5 | 1.1 | 0.1 | 0.0 | 2.1 | 0.2 | 0.0 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 1.2 | 1.3 | 0.9 | 1.7 | 1.9 | 0.2 | 0.0 | 0.6 | 0.4 | 0.0 | 0.3 |
| LnGrp Delay(d),s/veh | 19.3 | 11.1 | 11.5 | 18.8 | 11.1 | 11.7 | 15.0 | 0.0 | 18.5 | 14.7 | 0.0 | 16.4 |
| LnGrp LOS | B | B | B | B | B | B | B | | B | B | | B |
| Approach Vol, veh/h | | 475 | | | 659 | | | 75 | | | | 67 |
| Approach Delay, s/veh | | 12.2 | | | 12.2 | | | 17.4 | | | | 15.5 |
| Approach LOS | | B | | | B | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.5 | 18.4 | 5.1 | 9.8 | 6.7 | 19.2 | 4.4 | 10.5 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | 15.0 | 25.0 | 15.0 | 30.0 | 15.0 | 24.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.7 | 4.6 | 2.7 | 3.2 | 3.2 | 5.7 | 2.5 | 2.7 | | | | |
| Green Ext Time (p_c), s | 0.1 | 5.4 | 0.1 | 0.4 | 0.0 | 7.6 | 0.0 | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.6 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave





















Existing plus Project Conditions
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBT | NBT | SBL | SBR |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 26 | 401 | 647 | 2 | 51 | 53 |
| v/c Ratio | 0.07 | 0.18 | 0.27 | 0.00 | 0.10 | 0.06 |
| Control Delay | 21.0 | 4.7 | 6.8 | 17.0 | 16.6 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.0 | 4.7 | 6.8 | 17.0 | 16.6 | 0.1 |
| Queue Length 50th (ft) | 5 | 24 | 43 | 0 | 8 | 0 |
| Queue Length 95th (ft) | 29 | 44 | 118 | 6 | 42 | 0 |
| Internal Link Dist (ft) | | 1064 | 2599 | 260 | | |
| Turn Bay Length (ft) | 235 | | | | | 200 |
| Base Capacity (vph) | 1134 | 3220 | 3205 | 936 | 936 | 1182 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.02 | 0.12 | 0.20 | 0.00 | 0.05 | 0.04 |
| Intersection Summary | | | | | | |

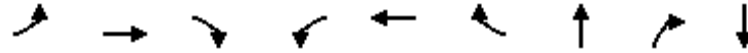
HCM 2010 Signalized Intersection Summary
 9: Stonebrook St & Caldwell Ave

Existing plus Project Conditions
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  |  |
| Traffic Volume (veh/h) | 24 | 362 | 3 | 0 | 570 | 19 | 2 | 0 | 0 | 46 | 0 | 48 |
| Future Volume (veh/h) | 24 | 362 | 3 | 0 | 570 | 19 | 2 | 0 | 0 | 46 | 0 | 48 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 26 | 398 | 3 | 0 | 626 | 21 | 2 | 0 | 0 | 51 | 0 | 53 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 67 | 2014 | 15 | 4 | 1481 | 50 | 407 | 0 | 0 | 418 | 319 | 271 |
| Arrive On Green | 0.04 | 0.56 | 0.56 | 0.00 | 0.42 | 0.42 | 0.17 | 0.00 | 0.00 | 0.17 | 0.00 | 0.17 |
| Sat Flow, veh/h | 1774 | 3600 | 27 | 1774 | 3494 | 117 | 1346 | 0 | 0 | 1406 | 1863 | 1583 |
| Grp Volume(v), veh/h | 26 | 196 | 205 | 0 | 317 | 330 | 2 | 0 | 0 | 51 | 0 | 53 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1858 | 1774 | 1770 | 1842 | 1346 | 0 | 0 | 1406 | 1863 | 1583 |
| Q Serve(g_s), s | 0.6 | 2.2 | 2.2 | 0.0 | 5.1 | 5.1 | 0.1 | 0.0 | 0.0 | 1.2 | 0.0 | 1.2 |
| Cycle Q Clear(g_c), s | 0.6 | 2.2 | 2.2 | 0.0 | 5.1 | 5.1 | 0.1 | 0.0 | 0.0 | 1.3 | 0.0 | 1.2 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 0.06 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 67 | 990 | 1039 | 4 | 750 | 781 | 407 | 0 | 0 | 418 | 319 | 271 |
| V/C Ratio(X) | 0.39 | 0.20 | 0.20 | 0.00 | 0.42 | 0.42 | 0.00 | 0.00 | 0.00 | 0.12 | 0.00 | 0.20 |
| Avail Cap(c_a), veh/h | 869 | 1734 | 1820 | 869 | 1734 | 1804 | 835 | 0 | 0 | 865 | 912 | 776 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.2 | 4.5 | 4.5 | 0.0 | 8.3 | 8.3 | 14.0 | 0.0 | 0.0 | 14.5 | 0.0 | 14.5 |
| Incr Delay (d2), s/veh | 1.4 | 0.4 | 0.3 | 0.0 | 1.4 | 1.3 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 1.2 | 1.2 | 0.0 | 2.8 | 2.9 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.6 |
| LnGrp Delay(d),s/veh | 20.6 | 4.8 | 4.8 | 0.0 | 9.6 | 9.6 | 14.1 | 0.0 | 0.0 | 14.8 | 0.0 | 15.2 |
| LnGrp LOS | C | A | A | | A | A | B | | | B | | B |
| Approach Vol, veh/h | | 427 | | | 647 | | | 2 | | | 104 | |
| Approach Delay, s/veh | | 5.8 | | | 9.6 | | | 14.1 | | | 15.0 | |
| Approach LOS | | A | | | A | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 0.0 | 28.8 | | 12.0 | 5.5 | 23.3 | | 12.0 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 0.0 | 4.2 | | 2.1 | 2.6 | 7.1 | | 3.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.2 | | 0.0 | 0.0 | 10.1 | | 0.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 8.7 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
10: West St & Caldwell Ave

Existing plus Project Conditions
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 49 | 478 | 24 | 60 | 647 | 40 | 147 | 38 | 205 |
| v/c Ratio | 0.21 | 0.33 | 0.03 | 0.25 | 0.45 | 0.06 | 0.35 | 0.08 | 0.47 |
| Control Delay | 29.8 | 13.4 | 0.1 | 29.7 | 14.1 | 1.3 | 22.6 | 0.3 | 22.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 29.8 | 13.4 | 0.1 | 29.7 | 14.1 | 1.3 | 22.6 | 0.3 | 22.8 |
| Queue Length 50th (ft) | 16 | 60 | 0 | 19 | 85 | 0 | 42 | 0 | 55 |
| Queue Length 95th (ft) | 53 | 115 | 0 | 61 | 155 | 6 | 107 | 0 | 138 |
| Internal Link Dist (ft) | | 2599 | | | 1240 | | 330 | | 332 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 529 | 2470 | 1128 | 529 | 2470 | 1128 | 662 | 689 | 663 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.09 | 0.19 | 0.02 | 0.11 | 0.26 | 0.04 | 0.22 | 0.06 | 0.31 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
10: West St & Caldwell Ave

Existing plus Project Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  |  |
| Traffic Volume (veh/h) | 45 | 440 | 22 | 55 | 595 | 37 | 37 | 98 | 35 | 39 | 105 | 45 |
| Future Volume (veh/h) | 45 | 440 | 22 | 55 | 595 | 37 | 37 | 98 | 35 | 39 | 105 | 45 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 49 | 478 | 24 | 60 | 647 | 40 | 40 | 107 | 38 | 42 | 114 | 49 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 108 | 1399 | 626 | 125 | 1432 | 640 | 159 | 280 | 303 | 137 | 197 | 75 |
| Arrive On Green | 0.06 | 0.40 | 0.40 | 0.07 | 0.40 | 0.40 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1583 | 301 | 1463 | 1583 | 213 | 1029 | 390 |
| Grp Volume(v), veh/h | 49 | 478 | 24 | 60 | 647 | 40 | 147 | 0 | 38 | 205 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1583 | 1764 | 0 | 1583 | 1631 | 0 | 0 |
| Q Serve(g_s), s | 1.2 | 4.3 | 0.4 | 1.5 | 6.0 | 0.7 | 0.0 | 0.0 | 0.9 | 2.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 1.2 | 4.3 | 0.4 | 1.5 | 6.0 | 0.7 | 3.1 | 0.0 | 0.9 | 5.2 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.27 | | 1.00 | 0.20 | | 0.24 |
| Lane Grp Cap(c), veh/h | 108 | 1399 | 626 | 125 | 1432 | 640 | 439 | 0 | 303 | 409 | 0 | 0 |
| V/C Ratio(X) | 0.45 | 0.34 | 0.04 | 0.48 | 0.45 | 0.06 | 0.33 | 0.00 | 0.13 | 0.50 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 589 | 2740 | 1226 | 589 | 2740 | 1226 | 848 | 0 | 700 | 816 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 20.5 | 9.6 | 8.4 | 20.2 | 9.8 | 8.2 | 16.0 | 0.0 | 15.1 | 16.8 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 1.1 | 0.5 | 0.1 | 1.1 | 0.8 | 0.1 | 0.9 | 0.0 | 0.4 | 2.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 2.2 | 0.2 | 0.8 | 3.0 | 0.3 | 1.7 | 0.0 | 0.4 | 2.6 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 21.6 | 10.1 | 8.5 | 21.3 | 10.6 | 8.4 | 17.0 | 0.0 | 15.5 | 18.8 | 0.0 | 0.0 |
| LnGrp LOS | C | B | A | C | B | A | B | | B | B | | |
| Approach Vol, veh/h | | 551 | | | 747 | | | 185 | | | 205 | |
| Approach Delay, s/veh | | 11.0 | | | 11.4 | | | 16.7 | | | 18.8 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.2 | 24.4 | | 13.7 | 6.8 | 24.8 | | 13.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 35.0 | | 20.0 | 15.0 | 35.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.5 | 6.3 | | 5.1 | 3.2 | 8.0 | | 7.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.5 | | 1.4 | 0.0 | 10.3 | | 1.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.9 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | ↘ | ↗ | ↑ | ↗ | ↘ | ↑ |
| Traffic Vol, veh/h | 42 | 122 | 131 | 18 | 178 | 181 |
| Future Vol, veh/h | 42 | 122 | 131 | 18 | 178 | 181 |
| Conflicting Peds, #/hr | 0 | 2 | 0 | 3 | 3 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 100 | - | 160 | 145 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 49 | 144 | 154 | 21 | 209 | 213 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 788 | 159 | 0 | 0 | 178 |
| Stage 1 | 157 | - | - | - | - |
| Stage 2 | 631 | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 |
| Pot Cap-1 Maneuver | 360 | 886 | - | - | 1398 |
| Stage 1 | 871 | - | - | - | - |
| Stage 2 | 530 | - | - | - | - |
| Platoon blocked, % | | | - | - | - |
| Mov Cap-1 Maneuver | 305 | 882 | - | - | 1394 |
| Mov Cap-2 Maneuver | 384 | - | - | - | - |
| Stage 1 | 868 | - | - | - | - |
| Stage 2 | 451 | - | - | - | - |

| Approach | WB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 11.4 | 0 | 4 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | WBLn2 | SBL | SBT |
|-----------------------|-----|----------|-------|-------|------|
| Capacity (veh/h) | - | - | 384 | 882 | 1394 |
| HCM Lane V/C Ratio | - | - | 0.129 | 0.163 | 0.15 |
| HCM Control Delay (s) | - | - | 15.8 | 9.9 | 8 |
| HCM Lane LOS | - | - | C | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.4 | 0.6 | 0.5 |

Queues
12: Mooney Blvd & Cameron Ave























Existing plus Project Conditions
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 67 | 165 | 96 | 260 | 8 | 675 | 94 | 80 | 549 | 32 |
| v/c Ratio | 0.53 | 0.48 | 0.62 | 0.52 | 0.05 | 0.26 | 0.11 | 0.19 | 0.16 | 0.03 |
| Control Delay | 74.8 | 59.1 | 75.2 | 43.1 | 62.6 | 19.9 | 1.8 | 54.0 | 10.1 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 74.8 | 59.1 | 75.2 | 43.1 | 62.6 | 19.9 | 1.8 | 54.0 | 10.1 | 0.1 |
| Queue Length 50th (ft) | 58 | 69 | 83 | 82 | 3 | 119 | 0 | 32 | 58 | 0 |
| Queue Length 95th (ft) | 106 | 105 | 137 | 124 | 12 | 168 | 16 | 58 | 114 | 0 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 161 | 1143 | 176 | 1139 | 305 | 2589 | 856 | 432 | 3356 | 1068 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.42 | 0.14 | 0.55 | 0.23 | 0.03 | 0.26 | 0.11 | 0.19 | 0.16 | 0.03 |
| Intersection Summary | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

Existing plus Project Conditions
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 64 | 145 | 13 | 92 | 164 | 85 | 8 | 648 | 90 | 77 | 527 | 31 |
| Future Volume (veh/h) | 64 | 145 | 13 | 92 | 164 | 85 | 8 | 648 | 90 | 77 | 527 | 31 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 67 | 151 | 14 | 96 | 171 | 89 | 8 | 675 | 94 | 80 | 549 | 32 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 85 | 236 | 22 | 159 | 259 | 128 | 40 | 1424 | 443 | 1288 | 3294 | 1024 |
| Arrive On Green | 0.05 | 0.07 | 0.07 | 0.09 | 0.11 | 0.11 | 0.01 | 0.28 | 0.28 | 0.75 | 1.00 | 1.00 |
| Sat Flow, veh/h | 1774 | 3279 | 301 | 1774 | 2283 | 1131 | 3442 | 5085 | 1582 | 3442 | 5085 | 1581 |
| Grp Volume(v), veh/h | 67 | 81 | 84 | 96 | 131 | 129 | 8 | 675 | 94 | 80 | 549 | 32 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1810 | 1774 | 1770 | 1644 | 1721 | 1695 | 1582 | 1721 | 1695 | 1581 |
| Q Serve(g_s), s | 5.0 | 6.0 | 6.1 | 7.0 | 9.5 | 10.2 | 0.3 | 14.9 | 6.1 | 0.8 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 5.0 | 6.0 | 6.1 | 7.0 | 9.5 | 10.2 | 0.3 | 14.9 | 6.1 | 0.8 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.17 | 1.00 | | 0.69 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 85 | 127 | 130 | 159 | 201 | 186 | 40 | 1424 | 443 | 1288 | 3294 | 1024 |
| V/C Ratio(X) | 0.79 | 0.63 | 0.65 | 0.60 | 0.65 | 0.69 | 0.20 | 0.47 | 0.21 | 0.06 | 0.17 | 0.03 |
| Avail Cap(c_a), veh/h | 158 | 577 | 590 | 159 | 577 | 536 | 306 | 1424 | 443 | 1288 | 3294 | 1024 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.31 | 0.31 | 0.31 | 0.98 | 0.98 | 0.98 |
| Uniform Delay (d), s/veh | 63.6 | 60.9 | 61.0 | 59.2 | 57.3 | 57.6 | 66.1 | 40.3 | 37.2 | 10.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.8 | 9.3 | 9.6 | 4.6 | 8.1 | 10.4 | 0.3 | 0.4 | 0.3 | 0.0 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.6 | 3.3 | 3.4 | 3.6 | 5.1 | 5.2 | 0.1 | 7.0 | 2.7 | 0.4 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 69.4 | 70.3 | 70.6 | 63.8 | 65.4 | 68.0 | 66.4 | 40.7 | 37.5 | 10.7 | 0.1 | 0.1 |
| LnGrp LOS | E | E | E | E | E | E | E | D | D | B | A | A |
| Approach Vol, veh/h | | 232 | | | 356 | | | 777 | | | 661 | |
| Approach Delay, s/veh | | 70.1 | | | 65.9 | | | 40.6 | | | 1.4 | |
| Approach LOS | | E | | | E | | | D | | | A | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 56.9 | 44.2 | 17.8 | 16.1 | 7.3 | 93.9 | 12.2 | 21.7 | | | | |
| Change Period (Y+Rc), s | 6.4 | * 6.4 | 5.7 | * 6.4 | * 5.7 | 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | 17.0 | * 38 | 12.0 | * 44 | * 12 | 42.8 | 12.0 | * 44 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.8 | 16.9 | 9.0 | 8.1 | 2.3 | 2.0 | 7.0 | 12.2 | | | | |
| Green Ext Time (p_c), s | 0.1 | 11.7 | 0.0 | 1.6 | 0.0 | 12.8 | 0.0 | 3.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 35.6 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.1 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 236 | 4 | 338 | 356 | 5 | 215 |
| Future Vol, veh/h | 236 | 4 | 338 | 356 | 5 | 215 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 145 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 284 | 5 | 407 | 429 | 6 | 259 |

| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 287 |
| Stage 1 | - | - | 287 |
| Stage 2 | - | - | 1243 |
| Critical Hdwy | - | 4.12 | 6.22 |
| Critical Hdwy Stg 1 | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | 5.42 |
| Follow-up Hdwy | - | 2.218 | 3.318 |
| Pot Cap-1 Maneuver | - | 1273 | 752 |
| Stage 1 | - | - | 762 |
| Stage 2 | - | - | 272 |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | 1273 | 75 |
| Mov Cap-2 Maneuver | - | - | 136 |
| Stage 1 | - | - | 762 |
| Stage 2 | - | - | 158 |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 4.5 | 12.8 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|-----|-----|------|-----|
| Capacity (veh/h) | 136 | 752 | - | - | 1273 | - |
| HCM Lane V/C Ratio | 0.044 | 0.344 | - | - | 0.32 | - |
| HCM Control Delay (s) | 32.7 | 12.3 | - | - | 9.2 | 0 |
| HCM Lane LOS | D | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.1 | 1.5 | - | - | 1.4 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | | ↷ | | ↶ | ↷ | |
| Traffic Vol, veh/h | 90 | 322 | 9 | 0 | 333 | 5 | 24 | 6 | 8 | 3 | 3 | 55 |
| Future Vol, veh/h | 90 | 322 | 9 | 0 | 333 | 5 | 24 | 6 | 8 | 3 | 3 | 55 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 110 | 393 | 11 | 0 | 406 | 6 | 29 | 7 | 10 | 4 | 4 | 67 |

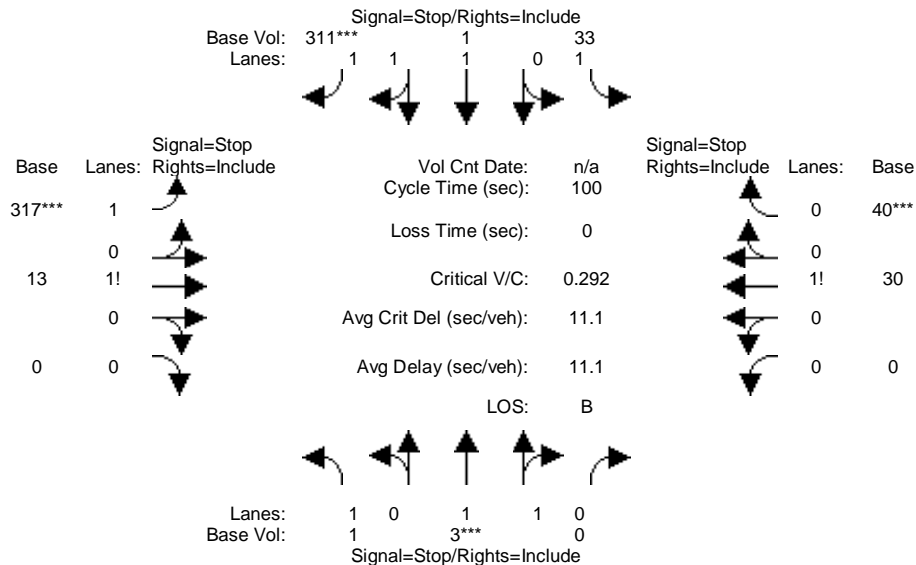
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 412 | 0 | 0 | 404 | 0 | 0 | 1064 | 1031 | 400 | 1037 | 1033 | 409 |
| Stage 1 | - | - | - | - | - | - | 619 | 619 | - | 409 | 409 | - |
| Stage 2 | - | - | - | - | - | - | 445 | 412 | - | 628 | 624 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1147 | - | - | 1155 | - | - | 201 | 233 | 650 | 209 | 232 | 642 |
| Stage 1 | - | - | - | - | - | - | 476 | 480 | - | 619 | 596 | - |
| Stage 2 | - | - | - | - | - | - | 592 | 594 | - | 471 | 478 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1147 | - | - | 1155 | - | - | 165 | 211 | 649 | 186 | 210 | 642 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 165 | 211 | - | 186 | 210 | - |
| Stage 1 | - | - | - | - | - | - | 430 | 434 | - | 560 | 596 | - |
| Stage 2 | - | - | - | - | - | - | 527 | 594 | - | 412 | 432 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 1.8 | | | 0 | | | 27.8 | | | 12.7 | | |
| HCM LOS | | | | | | | D | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|-------|
| Capacity (veh/h) | 204 | 1147 | - | - | 1155 | - | - | 186 | 580 |
| HCM Lane V/C Ratio | 0.227 | 0.096 | - | - | - | - | - | 0.02 | 0.122 |
| HCM Control Delay (s) | 27.8 | 8.5 | - | - | 0 | - | - | 24.7 | 12.1 |
| HCM Lane LOS | D | A | - | - | A | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.8 | 0.3 | - | - | 0 | - | - | 0.1 | 0.4 |

Level Of Service Computation Report
 2000 HCM 4-Way Stop (Base Volume Alternative)
 Existing plus Project AM

Intersection #1: Cameron Ave/Court St



| Street Name: | Court St | | | | | | Cameron Ave | | | | | |
|---------------------------|--|------|------|-------------|------|------|-------------|------|------|------------|------|------|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 1 | 3 | 0 | 33 | 1 | 311 | 317 | 13 | 0 | 0 | 30 | 40 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1 | 3 | 0 | 33 | 1 | 311 | 317 | 13 | 0 | 0 | 30 | 40 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| PHF Volume: | 1 | 4 | 0 | 40 | 1 | 379 | 387 | 16 | 0 | 0 | 37 | 49 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 1 | 4 | 0 | 40 | 1 | 379 | 387 | 16 | 0 | 0 | 37 | 49 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 1 | 4 | 0 | 40 | 1 | 379 | 387 | 16 | 0 | 0 | 37 | 49 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 1.92 | 0.08 | 0.00 | 0.00 | 0.43 | 0.57 |
| Final Sat.: | 454 | 971 | 0 | 532 | 574 | 1299 | 1587 | -488 | 0 | 0 | 258 | 344 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | xxxx | 0.08 | 0.00 | 0.29 | 0.24-0.03 | xxxx | xxxx | 0.14 | 0.14 | 0.14 |
| Crit Moves: | | **** | | | | **** | **** | | | | **** | |
| Delay/Veh: | 10.0 | 9.5 | 0.0 | 9.7 | 8.7 | 10.1 | 12.8 | 13.1 | 0.0 | 0.0 | 9.6 | 9.6 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 10.0 | 9.5 | 0.0 | 9.7 | 8.7 | 10.1 | 12.8 | 13.1 | 0.0 | 0.0 | 9.6 | 9.6 |
| LOS by Move: | B | A | * | A | A | B | B | B | * | * | A | A |
| ApproachDel: | | 9.7 | | | 10.1 | | | 12.6 | | | 9.6 | |
| Delay Adj: | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | |
| ApprAdjDel: | | 9.7 | | | 10.1 | | | 12.6 | | | 9.6 | |
| LOS by Appr: | | A | | | B | | | B | | | A | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.4 | 0.6 | 0.6 | 0.6 | 0.1 | 0.1 | 0.1 |
| Note: | Queue reported is the number of cars per lane. | | | | | | | | | | | |
| Time Period: | 0.25 hour | | | | | | | | | | | |
| HevVeh: | 0% | | | 0% | | | 0% | | | 0% | | |
| Alpha Value: | 0.01 | | | | | | | | | | | |
| GroupType: | 6 | | | 6 | | | 5 | | | 4B | | |

| | | | | |
|-----------|--------|--------|--------|--------|
| P[C1]: | 0.17 | 0.35 | 0.41 | 0.20 |
| P[C2]: | 0.19 | 0.00 | 0.06 | 0.28 |
| P[C3]: | 0.27 | 0.56 | 0.45 | 0.22 |
| P[C4]: | 0.33 | 0.08 | 0.07 | 0.31 |
| P[C5]: | 0.04 | 0.00 | 0.00 | 0.00 |
| Padj[C1]: | 0.019 | 0.014 | 0.012 | 0.016 |
| Padj[C2]: | 0.009 | 0.007 | 0.005 | 0.006 |
| Padj[C3]: | -0.004 | -0.016 | -0.013 | -0.003 |
| Padj[C4]: | -0.019 | -0.005 | -0.004 | -0.018 |
| Padj[C5]: | -0.004 | -0.000 | -0.000 | -0.000 |

| Lanes: | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
|--------------|-------|--------|-------|--------|-------|-------|--------|---------|
| LaneType: | LEFT | RTTHRU | LEFT | RITE | LEFT | LTR | LTR | NOLANE |
| HeadwayAdj: | 0.500 | 0.000 | 0.500 | -0.700 | 0.500 | 0.961 | -0.343 | xx.xxx |
| Volume: | 1 | 2 | 40 | 190 | 201 | 201 | 85 | xxxxxxx |
| Capacity: | 454 | 485 | 532 | 649 | 568 | 530 | 602 | xxxxxx |
| DegOfUtil: | 0.00 | 0.00 | 0.07 | 0.28 | 0.34 | 0.37 | 0.14 | x.xx |
| DepHeadway: | 7.33 | 6.83 | 6.53 | 5.33 | 6.15 | 6.61 | 5.70 | xx.xx |
| ServiceTime: | 5.0 | 4.5 | 4.2 | 3.0 | 3.9 | 4.3 | 3.7 | xx.x |
| Delay: | 10.0 | 9.5 | 9.7 | 10.1 | 12.0 | 13.1 | 9.6 | xxx.x |
| Queue: | 0.0 | 0.0 | 0.1 | 0.4 | 0.5 | 0.6 | 0.1 | xxx.x |

| Lanes: | L3 | L4 | L3 | L4 | L3 | L4 | L3 | L4 |
|--------------|-------|--------|--------|-------|--------|--------|--------|--------|
| LaneType: | THRU | NOLANE | RTTHRU | THRU | NOLANE | NOLANE | NOLANE | NOLANE |
| HeadwayAdj: | 0.000 | xx.xxx | -0.700 | 0.000 | xx.xxx | xx.xxx | xx.xxx | xx.xxx |
| Volume: | 2 | xxxxxx | 190 | 1 | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Capacity: | 485 | xxxxxx | 649 | 574 | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| DegOfUtil: | 0.00 | x.xx | 0.28 | 0.00 | x.xx | x.xx | x.xx | x.xx |
| DepHeadway: | 6.83 | xx.xx | 5.33 | 6.03 | xx.xx | xx.xx | xx.xx | xx.xx |
| ServiceTime: | 4.5 | xx.x | 3.0 | 3.7 | xx.x | xx.x | xx.x | xx.x |
| Delay: | 9.5 | xxx.x | 10.1 | 8.7 | xxx.x | xxx.x | xxx.x | xxx.x |
| Queue: | 0.0 | xxx.x | 0.4 | 0.0 | xxx.x | xxx.x | xxx.x | xxx.x |

| Approach: | North Bound | South Bound | East Bound | West Bound |
|--------------|-------------|-------------|------------|------------|
| ApproachDel: | 9.7 | 10.1 | 12.6 | 9.6 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 |
| ApprAdjDel: | 9.7 | 10.1 | 12.6 | 9.6 |
| LOS by Appr: | A | B | B | A |
| OverallDel: | 11.1 | | | |
| OverallLOS: | B | | | |

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 Cameron Ave/Court St

Base Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | South Bound | East Bound | West Bound |
|----------------------------------|-------------|-------------|------------|------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Control: | Stop Sign | Stop Sign | Stop Sign | Stop Sign |
| Lanes: | 1 0 1 1 0 | 1 0 1 1 1 | 1 0 1! 0 0 | 0 0 0 1 0 |
| Initial Vol: | 1 3 0 | 33 1 311 | 317 13 0 | 0 30 40 |
| Major Street Volume: | 400 | | | |
| Minor Approach Volume: | 345 | | | |
| Minor Approach Volume Threshold: | 768 | | | |

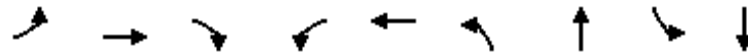
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Queues
16: Demaree St & Visalia Pkwy























Existing plus Project Conditions
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 48 | 365 | 91 | 75 | 392 | 69 | 695 | 136 | 566 |
| v/c Ratio | 0.31 | 0.73 | 0.18 | 0.42 | 0.37 | 0.40 | 0.68 | 0.62 | 0.46 |
| Control Delay | 48.6 | 42.2 | 2.9 | 49.3 | 24.4 | 49.2 | 31.7 | 53.2 | 25.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.6 | 42.2 | 2.9 | 49.3 | 24.4 | 49.2 | 31.7 | 53.2 | 25.0 |
| Queue Length 50th (ft) | 25 | 188 | 0 | 39 | 82 | 36 | 167 | 70 | 121 |
| Queue Length 95th (ft) | 66 | 308 | 8 | 92 | 131 | 86 | 267 | 148 | 207 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 775 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 323 | 497 | 512 | 323 | 1070 | 323 | 1466 | 323 | 1478 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.15 | 0.73 | 0.18 | 0.23 | 0.37 | 0.21 | 0.47 | 0.42 | 0.38 |
| Intersection Summary | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

Existing plus Project Conditions
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 39 | 296 | 74 | 61 | 232 | 86 | 56 | 504 | 59 | 110 | 403 | 55 |
| Future Volume (veh/h) | 39 | 296 | 74 | 61 | 232 | 86 | 56 | 504 | 59 | 110 | 403 | 55 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 48 | 365 | 91 | 75 | 286 | 106 | 69 | 622 | 73 | 136 | 498 | 68 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 93 | 453 | 385 | 117 | 655 | 237 | 113 | 941 | 110 | 173 | 1029 | 140 |
| Arrive On Green | 0.05 | 0.24 | 0.24 | 0.07 | 0.26 | 0.26 | 0.06 | 0.30 | 0.30 | 0.10 | 0.33 | 0.33 |
| Sat Flow, veh/h | 1774 | 1863 | 1581 | 1774 | 2546 | 923 | 1774 | 3184 | 373 | 1774 | 3126 | 425 |
| Grp Volume(v), veh/h | 48 | 365 | 91 | 75 | 197 | 195 | 69 | 345 | 350 | 136 | 281 | 285 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1581 | 1774 | 1770 | 1700 | 1774 | 1770 | 1787 | 1774 | 1770 | 1781 |
| Q Serve(g_s), s | 1.8 | 12.8 | 3.2 | 2.9 | 6.4 | 6.7 | 2.6 | 11.8 | 11.9 | 5.2 | 8.8 | 8.8 |
| Cycle Q Clear(g_c), s | 1.8 | 12.8 | 3.2 | 2.9 | 6.4 | 6.7 | 2.6 | 11.8 | 11.9 | 5.2 | 8.8 | 8.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.54 | 1.00 | | 0.21 | 1.00 | | 0.24 |
| Lane Grp Cap(c), veh/h | 93 | 453 | 385 | 117 | 455 | 437 | 113 | 523 | 528 | 173 | 583 | 586 |
| V/C Ratio(X) | 0.52 | 0.81 | 0.24 | 0.64 | 0.43 | 0.45 | 0.61 | 0.66 | 0.66 | 0.79 | 0.48 | 0.49 |
| Avail Cap(c_a), veh/h | 385 | 539 | 457 | 385 | 512 | 491 | 385 | 882 | 891 | 385 | 882 | 888 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 31.9 | 24.6 | 21.0 | 31.5 | 21.5 | 21.6 | 31.6 | 21.3 | 21.3 | 30.5 | 18.5 | 18.5 |
| Incr Delay (d2), s/veh | 1.7 | 11.4 | 1.0 | 2.1 | 2.0 | 2.2 | 2.0 | 2.8 | 2.8 | 3.0 | 1.2 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 7.9 | 1.5 | 1.5 | 3.4 | 3.4 | 1.3 | 6.2 | 6.2 | 2.7 | 4.5 | 4.6 |
| LnGrp Delay(d),s/veh | 33.6 | 36.1 | 22.0 | 33.6 | 23.5 | 23.8 | 33.5 | 24.1 | 24.1 | 33.5 | 19.7 | 19.7 |
| LnGrp LOS | C | D | C | C | C | C | C | C | C | C | B | B |
| Approach Vol, veh/h | | 504 | | | 467 | | | 764 | | | 702 | |
| Approach Delay, s/veh | | 33.3 | | | 25.2 | | | 25.0 | | | 22.4 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.9 | 27.4 | 8.8 | 22.0 | 8.6 | 29.8 | 7.8 | 23.0 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 15 | 34.5 | * 15 | 20.0 | * 15 | 34.5 | * 15 | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.2 | 13.9 | 4.9 | 14.8 | 4.6 | 10.8 | 3.8 | 8.7 | | | | |
| Green Ext Time (p_c), s | 0.1 | 6.6 | 0.0 | 2.0 | 0.0 | 5.6 | 0.0 | 3.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 26.0 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 13.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 160 | 310 | 3 | 1 | 299 | 114 | 5 | 0 | 3 | 62 | 0 | 124 |
| Future Vol, veh/h | 160 | 310 | 3 | 1 | 299 | 114 | 5 | 0 | 3 | 62 | 0 | 124 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 203 | 392 | 4 | 1 | 378 | 144 | 6 | 0 | 4 | 78 | 0 | 157 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 522 | 0 | 0 | 396 | 0 | 0 | 1331 | 1324 | 394 | 1254 | 1254 | 450 |
| Stage 1 | - | - | - | - | - | - | 800 | 800 | - | 452 | 452 | - |
| Stage 2 | - | - | - | - | - | - | 531 | 524 | - | 802 | 802 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1044 | - | - | 1163 | - | - | 132 | 156 | 655 | 149 | 172 | 609 |
| Stage 1 | - | - | - | - | - | - | 379 | 397 | - | 587 | 570 | - |
| Stage 2 | - | - | - | - | - | - | 532 | 530 | - | 378 | 396 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1044 | - | - | 1163 | - | - | 83 | 126 | 655 | 126 | 138 | 609 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 83 | 126 | - | 126 | 138 | - |
| Stage 1 | - | - | - | - | - | - | 305 | 320 | - | 473 | 569 | - |
| Stage 2 | - | - | - | - | - | - | 395 | 529 | - | 303 | 319 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 3.1 | | | 0 | | | 36.9 | | | 69.7 | | |
| HCM LOS | | | | | | | E | | | F | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 123 | 1044 | - | - | 1163 | - | - | 267 |
| HCM Lane V/C Ratio | 0.082 | 0.194 | - | - | 0.001 | - | - | 0.882 |
| HCM Control Delay (s) | 36.9 | 9.3 | - | - | 8.1 | - | - | 69.7 |
| HCM Lane LOS | E | A | - | - | A | - | - | F |
| HCM 95th %tile Q(veh) | 0.3 | 0.7 | - | - | 0 | - | - | 7.6 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↙ | ↑ | ↗ | | ↙ | ↗ |
| Traffic Vol, veh/h | 75 | 311 | 352 | 73 | 89 | 134 |
| Future Vol, veh/h | 75 | 311 | 352 | 73 | 89 | 134 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 93 | 384 | 435 | 90 | 110 | 165 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 525 | 0 | - | 0 | 1050 480 |
| Stage 1 | - | - | - | - | 480 - |
| Stage 2 | - | - | - | - | 570 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1042 | - | - | - | 252 586 |
| Stage 1 | - | - | - | - | 622 - |
| Stage 2 | - | - | - | - | 566 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1042 | - | - | - | 230 586 |
| Mov Cap-2 Maneuver | - | - | - | - | 230 - |
| Stage 1 | - | - | - | - | 567 - |
| Stage 2 | - | - | - | - | 566 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.7 | 0 | 21.8 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1042 | - | - | - | 230 | 586 |
| HCM Lane V/C Ratio | 0.089 | - | - | - | 0.478 | 0.282 |
| HCM Control Delay (s) | 8.8 | - | - | - | 34.2 | 13.5 |
| HCM Lane LOS | A | - | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 2.4 | 1.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.7 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 35 | 381 | 368 | 13 | 7 | 15 |
| Future Vol, veh/h | 35 | 381 | 368 | 13 | 7 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 1 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 38 | 414 | 400 | 14 | 8 | 16 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 414 | 0 | - | 0 | 897 408 |
| Stage 1 | - | - | - | - | 407 - |
| Stage 2 | - | - | - | - | 490 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1145 | - | - | - | 310 643 |
| Stage 1 | - | - | - | - | 672 - |
| Stage 2 | - | - | - | - | 616 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1145 | - | - | - | 297 642 |
| Mov Cap-2 Maneuver | - | - | - | - | 297 - |
| Stage 1 | - | - | - | - | 643 - |
| Stage 2 | - | - | - | - | 616 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.7 | 0 | 13.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1145 | - | - | - | 469 |
| HCM Lane V/C Ratio | 0.033 | - | - | - | 0.051 |
| HCM Control Delay (s) | 8.3 | 0 | - | - | 13.1 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.2 |

Queues

Existing plus Project Conditions

20: Mooney Blvd & Visalia Pkwy

Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 62 | 362 | 215 | 202 | 183 | 913 | 105 | 523 | 47 |
| v/c Ratio | 0.41 | 0.80 | 0.85 | 0.33 | 0.78 | 0.94 | 0.57 | 0.47 | 0.10 |
| Control Delay | 53.3 | 46.6 | 70.8 | 28.3 | 64.9 | 53.0 | 56.0 | 35.2 | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.3 | 46.6 | 70.8 | 28.3 | 64.9 | 53.0 | 56.0 | 35.2 | 0.4 |
| Queue Length 50th (ft) | 36 | 195 | 125 | 95 | 105 | 283 | 61 | 100 | 0 |
| Queue Length 95th (ft) | 85 | 293 | #296 | 165 | #239 | #540 | 127 | 158 | 0 |
| Internal Link Dist (ft) | | 765 | | 339 | | 250 | | 1110 | |
| Turn Bay Length (ft) | 180 | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 281 | 450 | 281 | 614 | 281 | 975 | 281 | 1347 | 538 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.22 | 0.80 | 0.77 | 0.33 | 0.65 | 0.94 | 0.37 | 0.39 | 0.09 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

Existing plus Project Conditions
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 53 | 176 | 135 | 185 | 163 | 10 | 157 | 695 | 90 | 90 | 450 | 40 |
| Future Volume (veh/h) | 53 | 176 | 135 | 185 | 163 | 10 | 157 | 695 | 90 | 90 | 450 | 40 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 62 | 205 | 157 | 215 | 190 | 12 | 183 | 808 | 105 | 105 | 523 | 47 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 94 | 221 | 169 | 250 | 544 | 34 | 218 | 882 | 115 | 134 | 1181 | 368 |
| Arrive On Green | 0.05 | 0.23 | 0.23 | 0.14 | 0.31 | 0.31 | 0.12 | 0.28 | 0.28 | 0.08 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1774 | 980 | 750 | 1774 | 1734 | 109 | 1774 | 3150 | 409 | 1774 | 5085 | 1583 |
| Grp Volume(v), veh/h | 62 | 0 | 362 | 215 | 0 | 202 | 183 | 454 | 459 | 105 | 523 | 47 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1730 | 1774 | 0 | 1843 | 1774 | 1770 | 1790 | 1774 | 1695 | 1583 |
| Q Serve(g_s), s | 3.0 | 0.0 | 18.1 | 10.5 | 0.0 | 7.5 | 8.9 | 22.0 | 22.0 | 5.2 | 7.8 | 2.1 |
| Cycle Q Clear(g_c), s | 3.0 | 0.0 | 18.1 | 10.5 | 0.0 | 7.5 | 8.9 | 22.0 | 22.0 | 5.2 | 7.8 | 2.1 |
| Prop In Lane | 1.00 | | 0.43 | 1.00 | | 0.06 | 1.00 | | 0.23 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 94 | 0 | 391 | 250 | 0 | 579 | 218 | 496 | 501 | 134 | 1181 | 368 |
| V/C Ratio(X) | 0.66 | 0.00 | 0.93 | 0.86 | 0.00 | 0.35 | 0.84 | 0.92 | 0.92 | 0.79 | 0.44 | 0.13 |
| Avail Cap(c_a), veh/h | 300 | 0 | 391 | 300 | 0 | 579 | 300 | 499 | 505 | 300 | 1435 | 447 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 41.2 | 0.0 | 33.6 | 37.2 | 0.0 | 23.4 | 38.0 | 30.9 | 30.9 | 40.3 | 29.1 | 26.9 |
| Incr Delay (d2), s/veh | 2.9 | 0.0 | 29.3 | 16.5 | 0.0 | 1.0 | 10.5 | 23.9 | 23.7 | 3.8 | 1.1 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 0.0 | 11.8 | 6.3 | 0.0 | 4.0 | 5.0 | 14.0 | 14.1 | 2.7 | 3.8 | 1.0 |
| LnGrp Delay(d),s/veh | 44.1 | 0.0 | 62.9 | 53.7 | 0.0 | 24.5 | 48.5 | 54.8 | 54.6 | 44.1 | 30.2 | 27.6 |
| LnGrp LOS | D | | E | D | | C | D | D | D | D | C | C |
| Approach Vol, veh/h | | 424 | | | 417 | | | 1096 | | | 675 | |
| Approach Delay, s/veh | | 60.1 | | | 39.5 | | | 53.7 | | | 32.2 | |
| Approach LOS | | E | | | D | | | D | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.4 | 31.6 | 18.2 | 26.4 | 16.6 | 27.4 | 10.4 | 34.2 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | * 5.7 | 6.4 | * 5.7 | 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | * 15 | 20.0 | * 15 | 25.0 | * 15 | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.2 | 24.0 | 12.5 | 20.1 | 10.9 | 9.8 | 5.0 | 9.5 | | | | |
| Green Ext Time (p_c), s | 0.1 | 0.8 | 0.1 | 0.0 | 0.1 | 6.5 | 0.0 | 1.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 46.9 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
22: Mooney Blvd & Midvalley Ave






















Existing plus Project Conditions
Timing Plan: A.M. Peak



| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 41 | 14 | 213 | 8 | 957 | 55 | 743 | 34 |
| v/c Ratio | 0.18 | 0.04 | 0.65 | 0.04 | 0.59 | 0.26 | 0.38 | 0.04 |
| Control Delay | 23.0 | 0.2 | 22.2 | 28.0 | 15.6 | 29.1 | 9.5 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.0 | 0.2 | 22.2 | 28.0 | 15.6 | 29.1 | 9.5 | 0.1 |
| Queue Length 50th (ft) | 13 | 0 | 35 | 3 | 135 | 19 | 56 | 0 |
| Queue Length 95th (ft) | 36 | 0 | 91 | 15 | 232 | 50 | 158 | 0 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 634 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 731 | 993 | 857 | 462 | 1612 | 462 | 1941 | 903 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.01 | 0.25 | 0.02 | 0.59 | 0.12 | 0.38 | 0.04 |
| Intersection Summary | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

Existing plus Project Conditions
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 35 | 0 | 12 | 102 | 0 | 81 | 7 | 770 | 53 | 47 | 639 | 29 |
| Future Volume (veh/h) | 35 | 0 | 12 | 102 | 0 | 81 | 7 | 770 | 53 | 47 | 639 | 29 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 41 | 0 | 14 | 119 | 0 | 94 | 8 | 895 | 62 | 55 | 743 | 34 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 361 | 0 | 296 | 231 | 16 | 116 | 22 | 1322 | 92 | 109 | 1566 | 700 |
| Arrive On Green | 0.19 | 0.00 | 0.19 | 0.19 | 0.00 | 0.19 | 0.01 | 0.39 | 0.39 | 0.06 | 0.44 | 0.44 |
| Sat Flow, veh/h | 1245 | 0 | 1583 | 699 | 88 | 621 | 1774 | 3359 | 233 | 1774 | 3539 | 1582 |
| Grp Volume(v), veh/h | 41 | 0 | 14 | 213 | 0 | 0 | 8 | 472 | 485 | 55 | 743 | 34 |
| Grp Sat Flow(s),veh/h/ln | 1245 | 0 | 1583 | 1408 | 0 | 0 | 1774 | 1770 | 1822 | 1774 | 1770 | 1582 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.4 | 6.7 | 0.0 | 0.0 | 0.2 | 12.3 | 12.3 | 1.7 | 8.3 | 0.7 |
| Cycle Q Clear(g_c), s | 1.6 | 0.0 | 0.4 | 8.2 | 0.0 | 0.0 | 0.2 | 12.3 | 12.3 | 1.7 | 8.3 | 0.7 |
| Prop In Lane | 1.00 | | 1.00 | 0.56 | | 0.44 | 1.00 | | 0.13 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 361 | 0 | 296 | 363 | 0 | 0 | 22 | 696 | 717 | 109 | 1566 | 700 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.05 | 0.59 | 0.00 | 0.00 | 0.36 | 0.68 | 0.68 | 0.50 | 0.47 | 0.05 |
| Avail Cap(c_a), veh/h | 583 | 0 | 567 | 958 | 0 | 0 | 476 | 792 | 815 | 476 | 1584 | 708 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.1 | 0.0 | 18.6 | 22.0 | 0.0 | 0.0 | 27.4 | 14.0 | 14.0 | 25.4 | 11.0 | 8.9 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 3.6 | 5.0 | 4.8 | 1.3 | 0.9 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.2 | 3.2 | 0.0 | 0.0 | 0.1 | 6.9 | 7.0 | 0.9 | 4.2 | 0.3 |
| LnGrp Delay(d),s/veh | 19.2 | 0.0 | 18.7 | 22.5 | 0.0 | 0.0 | 31.0 | 19.0 | 18.8 | 26.7 | 11.8 | 9.0 |
| LnGrp LOS | B | | B | C | | | C | B | B | C | B | A |
| Approach Vol, veh/h | | 55 | | | 213 | | | 965 | | | 832 | |
| Approach Delay, s/veh | | 19.0 | | | 22.5 | | | 19.0 | | | 12.7 | |
| Approach LOS | | B | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.1 | 28.8 | | 17.9 | 6.4 | 31.5 | | 17.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 20 | * 15 | 25.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.7 | 14.3 | | 3.6 | 2.2 | 10.3 | | 10.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.7 | | 0.1 | 0.0 | 8.3 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 16.8 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 9.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 32 | 7 | 143 | 29 | 18 | 17 | 48 | 824 | 22 | 10 | 650 | 35 |
| Future Vol, veh/h | 32 | 7 | 143 | 29 | 18 | 17 | 48 | 824 | 22 | 10 | 650 | 35 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 35 | 8 | 155 | 32 | 20 | 18 | 52 | 896 | 24 | 11 | 707 | 38 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1310 | 1772 | 373 | 1392 | 1779 | 460 | 745 | 0 | 0 | 920 | 0 | 0 |
| Stage 1 | 748 | 748 | - | 1012 | 1012 | - | - | - | - | - | - | - |
| Stage 2 | 562 | 1024 | - | 380 | 767 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 117 | 82 | 624 | 101 | 81 | 548 | 859 | - | - | 738 | - | - |
| Stage 1 | 371 | 418 | - | 256 | 315 | - | - | - | - | - | - | - |
| Stage 2 | 479 | 311 | - | 614 | 410 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 85 | 76 | 624 | 66 | 75 | 548 | 859 | - | - | 738 | - | - |
| Mov Cap-2 Maneuver | 85 | 76 | - | 66 | 75 | - | - | - | - | - | - | - |
| Stage 1 | 348 | 412 | - | 240 | 296 | - | - | - | - | - | - | - |
| Stage 2 | 406 | 292 | - | 446 | 404 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|-------|--|-----|--|-----|--|
| HCM Control Delay, s | 51.9 | | 122.5 | | 0.5 | | 0.1 | |
| HCM LOS | F | | F | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 859 | - | - | 261 | 90 | 738 | - |
| HCM Lane V/C Ratio | 0.061 | - | - | 0.758 | 0.773 | 0.015 | - |
| HCM Control Delay (s) | 9.5 | - | - | 51.9 | 122.5 | 10 | - |
| HCM Lane LOS | A | - | - | F | F | A | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 5.5 | 4 | 0 | - |

Queues
25: Mooney Blvd & Ave 268



















Existing plus Project Conditions
Timing Plan: A.M. Peak



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 35 | 51 | 77 | 830 | 43 | 801 |
| v/c Ratio | 0.13 | 0.17 | 0.31 | 0.34 | 0.19 | 0.36 |
| Control Delay | 18.3 | 15.3 | 29.5 | 10.9 | 29.6 | 13.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.3 | 15.3 | 29.5 | 10.9 | 29.6 | 13.1 |
| Queue Length 50th (ft) | 8 | 8 | 26 | 62 | 15 | 104 |
| Queue Length 95th (ft) | 29 | 34 | 73 | 236 | 48 | 235 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 600 | 640 | 523 | 2413 | 523 | 2199 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.08 | 0.15 | 0.34 | 0.08 | 0.36 |
| Intersection Summary | | | | | | |

HCM 2010 Signalized Intersection Summary
25: Mooney Blvd & Ave 268

Existing plus Project Conditions
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 22 | 1 | 10 | 22 | 2 | 25 | 73 | 775 | 13 | 41 | 686 | 75 |
| Future Volume (veh/h) | 22 | 1 | 10 | 22 | 2 | 25 | 73 | 775 | 13 | 41 | 686 | 75 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 23 | 1 | 11 | 23 | 2 | 26 | 77 | 816 | 14 | 43 | 722 | 79 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 223 | 30 | 59 | 165 | 38 | 98 | 143 | 1490 | 26 | 97 | 1260 | 138 |
| Arrive On Green | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.08 | 0.42 | 0.42 | 0.05 | 0.39 | 0.39 |
| Sat Flow, veh/h | 798 | 240 | 476 | 455 | 312 | 797 | 1774 | 3560 | 61 | 1774 | 3210 | 351 |
| Grp Volume(v), veh/h | 35 | 0 | 0 | 51 | 0 | 0 | 77 | 406 | 424 | 43 | 398 | 403 |
| Grp Sat Flow(s),veh/h/ln | 1513 | 0 | 0 | 1564 | 0 | 0 | 1774 | 1770 | 1852 | 1774 | 1770 | 1792 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 8.3 | 8.3 | 1.1 | 8.4 | 8.4 |
| Cycle Q Clear(g_c), s | 0.8 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 2.0 | 8.3 | 8.3 | 1.1 | 8.4 | 8.4 |
| Prop In Lane | 0.66 | | 0.31 | 0.45 | | 0.51 | 1.00 | | 0.03 | 1.00 | | 0.20 |
| Lane Grp Cap(c), veh/h | 311 | 0 | 0 | 302 | 0 | 0 | 143 | 740 | 775 | 97 | 695 | 703 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 | 0.54 | 0.55 | 0.55 | 0.44 | 0.57 | 0.57 |
| Avail Cap(c_a), veh/h | 797 | 0 | 0 | 806 | 0 | 0 | 557 | 926 | 969 | 557 | 926 | 937 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.7 | 0.0 | 0.0 | 18.9 | 0.0 | 0.0 | 21.1 | 10.5 | 10.5 | 21.9 | 11.4 | 11.4 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 1.2 | 2.7 | 2.6 | 1.2 | 3.2 | 3.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 1.0 | 4.5 | 4.7 | 0.6 | 4.7 | 4.8 |
| LnGrp Delay(d),s/veh | 19.0 | 0.0 | 0.0 | 19.4 | 0.0 | 0.0 | 22.3 | 13.2 | 13.1 | 23.1 | 14.6 | 14.5 |
| LnGrp LOS | B | | | B | | | C | B | B | C | B | B |
| Approach Vol, veh/h | | 35 | | | 51 | | | 907 | | | 844 | |
| Approach Delay, s/veh | | 19.0 | | | 19.4 | | | 13.9 | | | 15.0 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.3 | 27.9 | | 11.6 | 9.5 | 26.7 | | 11.6 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 22 | * 15 | 25.0 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.1 | 10.3 | | 2.8 | 4.0 | 10.4 | | 3.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.6 | | 0.2 | 0.0 | 8.3 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 14.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.2 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↔ |
| Traffic Vol, veh/h | 341 | 81 | 0 | 192 | 0 | 12 |
| Future Vol, veh/h | 341 | 81 | 0 | 192 | 0 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 67 | 67 | 67 | 67 | 67 | 67 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 509 | 121 | 0 | 287 | 0 | 18 |

| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|-------------|
| Conflicting Flow All | 0 | 0 | - - - 570 |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |
| Critical Hdwy | - | - | - - - 6.22 |
| Critical Hdwy Stg 1 | - | - | - - - |
| Critical Hdwy Stg 2 | - | - | - - - |
| Follow-up Hdwy | - | - | - - - 3.318 |
| Pot Cap-1 Maneuver | - | - 0 | - 0 521 |
| Stage 1 | - | - 0 | - 0 - |
| Stage 2 | - | - 0 | - 0 - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | - - - 521 |
| Mov Cap-2 Maneuver | - | - | - - - |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 12.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 521 | - | - | - |
| HCM Lane V/C Ratio | 0.034 | - | - | - |
| HCM Control Delay (s) | 12.2 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | | ↖ | | | ↖ |
| Traffic Vol, veh/h | 10 | 273 | 61 | 62 | 159 | 7 | 0 | 0 | 12 | 3 | 0 | 15 |
| Future Vol, veh/h | 10 | 273 | 61 | 62 | 159 | 7 | 0 | 0 | 12 | 3 | 0 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | - | 150 | - | - | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 69 | 69 | 92 | 92 | 69 | 69 | 92 | 92 | 92 | 69 | 92 | 69 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 14 | 396 | 66 | 67 | 230 | 10 | 0 | 0 | 13 | 4 | 0 | 22 |

| Major/Minor | Major1 | | Major2 | | Minor1 | | Minor2 | | | | | |
|----------------------|--------|---|--------|-------|--------|---|--------|---|-------|-------|---|-------|
| Conflicting Flow All | 240 | 0 | 0 | 462 | 0 | 0 | - | - | 429 | 833 | - | 235 |
| Stage 1 | - | - | - | - | - | - | - | - | - | 369 | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | 464 | - | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | - | - | 6.22 | 7.12 | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | 6.12 | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | 6.12 | - | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | - | - | 3.318 | 3.518 | - | 3.318 |
| Pot Cap-1 Maneuver | 1327 | - | - | 1099 | - | - | 0 | 0 | 626 | 288 | 0 | 804 |
| Stage 1 | - | - | - | - | - | - | 0 | 0 | - | 651 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 0 | 0 | - | 578 | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1327 | - | - | 1099 | - | - | - | - | 626 | 267 | - | 804 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | 267 | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | 644 | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | 560 | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|-----|--|-----|--|------|--|-----|--|
| HCM Control Delay, s | 0.2 | | 1.9 | | 10.9 | | 9.6 | |
| HCM LOS | | | | | B | | A | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 626 | 1327 | - | - | 1099 | - | - | 804 |
| HCM Lane V/C Ratio | 0.021 | 0.011 | - | - | 0.061 | - | - | 0.027 |
| HCM Control Delay (s) | 10.9 | 7.7 | - | - | 8.5 | - | - | 9.6 |
| HCM Lane LOS | B | A | - | - | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0.2 | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 276 | 0 | 0 | 229 | 0 | 29 |
| Future Vol, veh/h | 276 | 0 | 0 | 229 | 0 | 29 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 300 | 0 | 0 | 249 | 0 | 32 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | 300 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | 0 | - | 0 | 740 |
| Stage 1 | - | 0 | - | 0 | - |
| Stage 2 | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 740 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 10.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 740 | - | - | - |
| HCM Lane V/C Ratio | 0.043 | - | - | - |
| HCM Control Delay (s) | 10.1 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | ↔ |
| Traffic Vol, veh/h | 119 | 186 | 171 | 3 | 0 | 58 |
| Future Vol, veh/h | 119 | 186 | 171 | 3 | 0 | 58 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 72 | 72 | 72 | 72 | 72 | 72 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 165 | 258 | 238 | 4 | 0 | 81 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 242 | 0 | - | 0 | 828 240 |
| Stage 1 | - | - | - | - | 240 - |
| Stage 2 | - | - | - | - | 588 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1324 | - | - | - | 341 799 |
| Stage 1 | - | - | - | - | 800 - |
| Stage 2 | - | - | - | - | 555 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1324 | - | - | - | 291 799 |
| Mov Cap-2 Maneuver | - | - | - | - | 291 - |
| Stage 1 | - | - | - | - | 683 - |
| Stage 2 | - | - | - | - | 555 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 3.2 | 0 | 10 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1324 | - | - | - | - | 799 |
| HCM Lane V/C Ratio | 0.125 | - | - | - | - | 0.101 |
| HCM Control Delay (s) | 8.1 | 0 | - | - | 0 | 10 |
| HCM Lane LOS | A | A | - | - | A | B |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | - | 0.3 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | | ↕↔ | | | ↕↕↔ | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 76 | 0 | 888 | 30 | 0 | 773 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 76 | 0 | 888 | 30 | 0 | 773 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 83 | 0 | 965 | 33 | 0 | 840 | 0 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|---|--------|---|--------|------|--------|---|---|---|---|---|
| Conflicting Flow All | - | - | 420 | - | - | 499 | - | 0 | 0 | - | - | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 7.14 | - | - | 6.94 | - | - | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.92 | - | - | 3.32 | - | - | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 497 | 0 | 0 | 517 | 0 | - | - | 0 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | 0 | - | - | 0 | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | 0 | - | - | 0 | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 497 | - | - | 517 | - | - | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|----|--|------|--|----|--|----|--|
| HCM Control Delay, s | 0 | | 13.3 | | 0 | | 0 | |
| HCM LOS | A | | B | | | | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1WBLn1 | SBT | SBR |
|-----------------------|-----|-----|------------|------|-----|
| Capacity (veh/h) | - | - | - | 517 | - |
| HCM Lane V/C Ratio | - | - | - | 0.16 | - |
| HCM Control Delay (s) | - | - | 0 | 13.3 | - |
| HCM Lane LOS | - | - | A | B | - |
| HCM 95th %tile Q(veh) | - | - | - | 0.6 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | ↗ | ↕ | | ↗ | ↕ | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 63 | 0 | 855 | 31 | 58 | 715 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 63 | 0 | 855 | 31 | 58 | 715 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 68 | 0 | 929 | 34 | 63 | 777 | 0 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|---|--------|---|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | - | - | 389 | - | - | 482 | 777 | 0 | 0 | 963 | 0 | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 610 | 0 | 0 | 530 | 835 | - | - | 711 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 610 | - | - | 530 | 835 | - | - | 711 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|----|--|------|--|----|--|-----|--|
| HCM Control Delay, s | 0 | | 12.8 | | 0 | | 0.8 | |
| HCM LOS | A | | B | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-----|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 835 | - | - | - | 530 | 711 | - |
| HCM Lane V/C Ratio | - | - | - | - | 0.129 | 0.089 | - |
| HCM Control Delay (s) | 0 | - | - | 0 | 12.8 | 10.6 | - |
| HCM Lane LOS | A | - | - | A | B | B | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.4 | 0.3 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | ↷ |
| Traffic Vol, veh/h | 43 | 57 | 116 | 0 | 0 | 67 |
| Future Vol, veh/h | 43 | 57 | 116 | 0 | 0 | 67 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 47 | 62 | 126 | 0 | 0 | 73 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|-------|-------|
| Conflicting Flow All | 126 | 0 | 0 | 282 | 126 |
| Stage 1 | - | - | - | 126 | - |
| Stage 2 | - | - | - | 156 | - |
| Critical Hdwy | 4.12 | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1460 | - | - | 708 | 924 |
| Stage 1 | - | - | - | 900 | - |
| Stage 2 | - | - | - | 872 | - |
| Platoon blocked, % | | - | - | | |
| Mov Cap-1 Maneuver | 1460 | - | - | 685 | 924 |
| Mov Cap-2 Maneuver | - | - | - | 685 | - |
| Stage 1 | - | - | - | 870 | - |
| Stage 2 | - | - | - | 872 | - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 3.2 | 0 | 9.2 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1460 | - | - | - | 924 |
| HCM Lane V/C Ratio | 0.032 | - | - | - | 0.079 |
| HCM Control Delay (s) | 7.5 | 0 | - | - | 9.2 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 33 | 24 | 65 | 0 | 0 | 51 |
| Future Vol, veh/h | 33 | 24 | 65 | 0 | 0 | 51 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 36 | 26 | 71 | 0 | 0 | 55 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|-------|-------|
| Conflicting Flow All | 71 | 0 | 0 | 169 | 71 |
| Stage 1 | - | - | - | 71 | - |
| Stage 2 | - | - | - | 98 | - |
| Critical Hdwy | 4.12 | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1529 | - | - | 821 | 991 |
| Stage 1 | - | - | - | 952 | - |
| Stage 2 | - | - | - | 926 | - |
| Platoon blocked, % | | - | - | | |
| Mov Cap-1 Maneuver | 1529 | - | - | 801 | 991 |
| Mov Cap-2 Maneuver | - | - | - | 801 | - |
| Stage 1 | - | - | - | 929 | - |
| Stage 2 | - | - | - | 926 | - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 4.3 | 0 | 8.8 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1529 | - | - | - | 991 |
| HCM Lane V/C Ratio | 0.023 | - | - | - | 0.056 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 8.8 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 14 | 10 | 36 | 0 | 0 | 29 |
| Future Vol, veh/h | 14 | 10 | 36 | 0 | 0 | 29 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 15 | 11 | 39 | 0 | 0 | 32 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 39 | 0 | - | 0 | 80 39 |
| Stage 1 | - | - | - | - | 39 - |
| Stage 2 | - | - | - | - | 41 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1571 | - | - | - | 922 1033 |
| Stage 1 | - | - | - | - | 983 - |
| Stage 2 | - | - | - | - | 981 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1571 | - | - | - | 913 1033 |
| Mov Cap-2 Maneuver | - | - | - | - | 913 - |
| Stage 1 | - | - | - | - | 973 - |
| Stage 2 | - | - | - | - | 981 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 4.3 | 0 | 8.6 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1571 | - | - | - | 1033 |
| HCM Lane V/C Ratio | 0.01 | - | - | - | 0.031 |
| HCM Control Delay (s) | 7.3 | 0 | - | - | 8.6 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 18 |
| Future Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 20 | 0 | 0 | 20 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 20 | 0 | - | 0 | 31 20 |
| Stage 1 | - | - | - | - | 20 - |
| Stage 2 | - | - | - | - | 11 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1596 | - | - | - | 983 1058 |
| Stage 1 | - | - | - | - | 1003 - |
| Stage 2 | - | - | - | - | 1012 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1596 | - | - | - | 983 1058 |
| Mov Cap-2 Maneuver | - | - | - | - | 983 - |
| Stage 1 | - | - | - | - | 1003 - |
| Stage 2 | - | - | - | - | 1012 - |

| Approach | EB | WB | SB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0 | 0 | 8.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1596 | - | - | - | 1058 |
| HCM Lane V/C Ratio | - | - | - | - | 0.018 |
| HCM Control Delay (s) | 0 | - | - | - | 8.5 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.4 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | T | | |
| Traffic Vol, veh/h | 29 | 18 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 29 | 18 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 32 | 20 | 0 | 0 | 0 | 0 |













| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 8.6 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | 1045 | - | - |
| HCM Lane V/C Ratio | - | - | 0.049 | - | - |
| HCM Control Delay (s) | 0 | - | 8.6 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

























Queues
1: Mooney Blvd & Whitendale Ave

Existing plus Project Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 92 | 232 | 199 | 230 | 221 | 63 | 232 | 1045 | 231 | 110 | 1158 | 80 |
| v/c Ratio | 0.29 | 0.48 | 0.52 | 0.73 | 0.45 | 0.18 | 0.65 | 0.38 | 0.25 | 0.52 | 0.46 | 0.10 |
| Control Delay | 63.4 | 59.5 | 10.9 | 77.3 | 59.0 | 1.1 | 66.8 | 19.8 | 9.9 | 74.1 | 25.8 | 1.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 63.4 | 59.5 | 10.9 | 77.3 | 59.0 | 1.1 | 66.8 | 19.8 | 9.9 | 74.1 | 25.8 | 1.7 |
| Queue Length 50th (ft) | 41 | 110 | 0 | 110 | 105 | 0 | 118 | 132 | 29 | 53 | 246 | 0 |
| Queue Length 95th (ft) | 73 | 132 | 64 | 156 | 123 | 0 | 165 | 323 | 101 | 84 | 371 | 12 |
| Internal Link Dist (ft) | | 1104 | | | 403 | | | 770 | | | 1028 | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 328 | 878 | 536 | 358 | 951 | 536 | 355 | 2747 | 913 | 355 | 2537 | 833 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.28 | 0.26 | 0.37 | 0.64 | 0.23 | 0.12 | 0.65 | 0.38 | 0.25 | 0.31 | 0.46 | 0.10 |
| Intersection Summary | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
1: Mooney Blvd & Whitendale Ave

Existing plus Project Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 89 | 225 | 193 | 223 | 214 | 61 | 225 | 1014 | 224 | 107 | 1123 | 78 |
| Future Volume (veh/h) | 89 | 225 | 193 | 223 | 214 | 61 | 225 | 1014 | 224 | 107 | 1123 | 78 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 92 | 232 | 199 | 230 | 221 | 63 | 232 | 1045 | 231 | 110 | 1158 | 80 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 480 | 588 | 258 | 275 | 378 | 169 | 703 | 2754 | 847 | 156 | 1922 | 596 |
| Arrive On Green | 0.14 | 0.17 | 0.17 | 0.08 | 0.11 | 0.11 | 0.41 | 1.00 | 1.00 | 0.05 | 0.38 | 0.38 |
| Sat Flow, veh/h | 3442 | 3539 | 1554 | 3442 | 3539 | 1579 | 3442 | 5085 | 1564 | 3442 | 5085 | 1576 |
| Grp Volume(v), veh/h | 92 | 232 | 199 | 230 | 221 | 63 | 232 | 1045 | 231 | 110 | 1158 | 80 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1554 | 1721 | 1770 | 1579 | 1721 | 1695 | 1564 | 1721 | 1695 | 1576 |
| Q Serve(g_s), s | 3.4 | 8.5 | 17.8 | 9.6 | 8.6 | 4.6 | 6.7 | 0.0 | 0.0 | 4.6 | 26.6 | 4.8 |
| Cycle Q Clear(g_c), s | 3.4 | 8.5 | 17.8 | 9.6 | 8.6 | 4.6 | 6.7 | 0.0 | 0.0 | 4.6 | 26.6 | 4.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 480 | 588 | 258 | 275 | 378 | 169 | 703 | 2754 | 847 | 156 | 1922 | 596 |
| V/C Ratio(X) | 0.19 | 0.39 | 0.77 | 0.84 | 0.59 | 0.37 | 0.33 | 0.38 | 0.27 | 0.70 | 0.60 | 0.13 |
| Avail Cap(c_a), veh/h | 480 | 879 | 386 | 285 | 952 | 425 | 703 | 2754 | 847 | 356 | 1922 | 596 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.89 | 0.89 | 0.89 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 55.2 | 53.9 | 57.8 | 65.8 | 61.7 | 44.1 | 36.1 | 0.0 | 0.0 | 68.2 | 36.3 | 29.6 |
| Incr Delay (d2), s/veh | 0.1 | 0.8 | 9.4 | 17.5 | 2.8 | 2.7 | 0.1 | 0.4 | 0.7 | 2.2 | 1.4 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 4.2 | 8.3 | 5.2 | 4.4 | 2.4 | 3.1 | 0.1 | 0.2 | 2.2 | 12.7 | 2.2 |
| LnGrp Delay(d),s/veh | 55.2 | 54.8 | 67.2 | 83.3 | 64.5 | 46.8 | 36.2 | 0.4 | 0.7 | 70.4 | 37.7 | 30.0 |
| LnGrp LOS | E | D | E | F | E | D | D | A | A | E | D | C |
| Approach Vol, veh/h | | 523 | | | 514 | | | 1508 | | | 1348 | |
| Approach Delay, s/veh | | 59.6 | | | 70.8 | | | 5.9 | | | 39.9 | |
| Approach LOS | | E | | | E | | | A | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.3 | 84.9 | 17.3 | 30.5 | 36.0 | 61.2 | 25.9 | 21.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 54.8 | 12.0 | * 36 | 15.0 | * 55 | 12.0 | * 39 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.6 | 2.0 | 11.6 | 19.8 | 8.7 | 28.6 | 5.4 | 10.6 | | | | |
| Green Ext Time (p_c), s | 0.1 | 20.8 | 0.0 | 3.3 | 0.2 | 15.0 | 0.1 | 2.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 33.5 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave






















Existing plus Project Conditions
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 134 | 247 | 1 | 202 | 93 | 22 | 108 | 15 | 187 |
| v/c Ratio | 0.40 | 0.28 | 0.00 | 0.37 | 0.18 | 0.05 | 0.30 | 0.03 | 0.34 |
| Control Delay | 22.7 | 9.3 | 23.0 | 17.5 | 6.9 | 15.0 | 18.5 | 15.5 | 5.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 22.7 | 9.3 | 23.0 | 17.5 | 6.9 | 15.0 | 18.5 | 15.5 | 5.4 |
| Queue Length 50th (ft) | 30 | 28 | 0 | 41 | 3 | 4 | 22 | 3 | 0 |
| Queue Length 95th (ft) | 89 | 110 | 4 | 110 | 33 | 20 | 69 | 16 | 40 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 634 | 1300 | 634 | 1308 | 1111 | 1014 | 826 | 1112 | 1020 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.21 | 0.19 | 0.00 | 0.15 | 0.08 | 0.02 | 0.13 | 0.01 | 0.18 |
| Intersection Summary | | | | | | | | | |

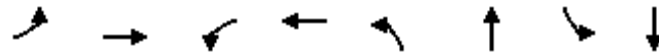
HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

Existing plus Project Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 122 | 215 | 10 | 1 | 184 | 85 | 7 | 11 | 2 | 98 | 14 | 170 |
| Future Volume (veh/h) | 122 | 215 | 10 | 1 | 184 | 85 | 7 | 11 | 2 | 98 | 14 | 170 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 134 | 236 | 11 | 1 | 202 | 93 | 8 | 12 | 2 | 108 | 15 | 187 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 220 | 685 | 32 | 5 | 495 | 412 | 213 | 247 | 32 | 508 | 403 | 343 |
| Arrive On Green | 0.12 | 0.39 | 0.39 | 0.00 | 0.27 | 0.27 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1774 | 1766 | 82 | 1774 | 1863 | 1550 | 345 | 1142 | 149 | 1394 | 1863 | 1583 |
| Grp Volume(v), veh/h | 134 | 0 | 247 | 1 | 202 | 93 | 22 | 0 | 0 | 108 | 15 | 187 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1848 | 1774 | 1863 | 1550 | 1635 | 0 | 0 | 1394 | 1863 | 1583 |
| Q Serve(g_s), s | 2.5 | 0.0 | 3.4 | 0.0 | 3.2 | 1.7 | 0.0 | 0.0 | 0.0 | 1.9 | 0.2 | 3.7 |
| Cycle Q Clear(g_c), s | 2.5 | 0.0 | 3.4 | 0.0 | 3.2 | 1.7 | 0.3 | 0.0 | 0.0 | 2.2 | 0.2 | 3.7 |
| Prop In Lane | 1.00 | | 0.04 | 1.00 | | 1.00 | 0.36 | | 0.09 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 220 | 0 | 717 | 5 | 495 | 412 | 492 | 0 | 0 | 508 | 403 | 343 |
| V/C Ratio(X) | 0.61 | 0.00 | 0.34 | 0.20 | 0.41 | 0.23 | 0.04 | 0.00 | 0.00 | 0.21 | 0.04 | 0.55 |
| Avail Cap(c_a), veh/h | 748 | 0 | 1559 | 748 | 1572 | 1307 | 1230 | 0 | 0 | 1186 | 1310 | 1113 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.8 | 0.0 | 7.7 | 17.7 | 10.7 | 10.2 | 11.0 | 0.0 | 0.0 | 11.8 | 11.0 | 12.4 |
| Incr Delay (d2), s/veh | 1.0 | 0.0 | 0.5 | 7.1 | 0.9 | 0.5 | 0.1 | 0.0 | 0.0 | 0.4 | 0.1 | 2.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.3 | 0.0 | 1.8 | 0.0 | 1.8 | 0.8 | 0.2 | 0.0 | 0.0 | 1.0 | 0.1 | 1.8 |
| LnGrp Delay(d),s/veh | 15.8 | 0.0 | 8.2 | 24.8 | 11.7 | 10.7 | 11.1 | 0.0 | 0.0 | 12.1 | 11.1 | 14.7 |
| LnGrp LOS | B | | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 381 | | | 296 | | | 22 | | | 310 | |
| Approach Delay, s/veh | | 10.8 | | | 11.4 | | | 11.1 | | | 13.6 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.1 | 18.8 | | 12.7 | 8.4 | 14.5 | | 12.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | | 25.0 | 15.0 | 30.0 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 5.4 | | 2.3 | 4.5 | 5.2 | | 5.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.2 | | 0.1 | 0.1 | 2.4 | | 1.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 11.9 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave

Existing plus Project Conditions
Timing Plan: P.M. Peak























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|-------|------|
| Lane Group Flow (vph) | 119 | 56 | 18 | 124 | 61 | 1349 | 75 | 1588 |
| v/c Ratio | 0.59 | 0.25 | 0.11 | 0.59 | 0.38 | 0.45 | 0.59 | 0.54 |
| Control Delay | 73.1 | 22.0 | 57.5 | 22.6 | 61.0 | 19.1 | 104.7 | 5.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 73.1 | 22.0 | 57.5 | 22.6 | 61.0 | 19.1 | 104.7 | 5.7 |
| Queue Length 50th (ft) | 108 | 5 | 16 | 2 | 47 | 147 | 71 | 139 |
| Queue Length 95th (ft) | 173 | 50 | 40 | 67 | 80 | 286 | m115 | 79 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 201 | 426 | 186 | 475 | 183 | 2996 | 183 | 2967 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.59 | 0.13 | 0.10 | 0.26 | 0.33 | 0.45 | 0.41 | 0.54 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
 3: Mooney Blvd & Sunnyside Ave

Existing plus Project Conditions
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 111 | 5 | 47 | 17 | 2 | 113 | 57 | 1236 | 19 | 70 | 1410 | 67 |
| Future Volume (veh/h) | 111 | 5 | 47 | 17 | 2 | 113 | 57 | 1236 | 19 | 70 | 1410 | 67 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 119 | 5 | 51 | 18 | 2 | 122 | 61 | 1329 | 20 | 75 | 1516 | 72 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 122 | 8 | 81 | 192 | 2 | 148 | 436 | 3208 | 48 | 93 | 2107 | 100 |
| Arrive On Green | 0.07 | 0.06 | 0.06 | 0.11 | 0.09 | 0.09 | 0.49 | 1.00 | 1.00 | 0.11 | 0.85 | 0.85 |
| Sat Flow, veh/h | 1774 | 143 | 1462 | 1774 | 26 | 1562 | 1774 | 5159 | 78 | 1774 | 4967 | 236 |
| Grp Volume(v), veh/h | 119 | 0 | 56 | 18 | 0 | 124 | 61 | 873 | 476 | 75 | 1035 | 553 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1605 | 1774 | 0 | 1587 | 1774 | 1695 | 1847 | 1774 | 1695 | 1812 |
| Q Serve(g_s), s | 9.7 | 0.0 | 5.0 | 1.3 | 0.0 | 11.1 | 2.7 | 0.0 | 0.0 | 6.0 | 17.2 | 17.2 |
| Cycle Q Clear(g_c), s | 9.7 | 0.0 | 5.0 | 1.3 | 0.0 | 11.1 | 2.7 | 0.0 | 0.0 | 6.0 | 17.2 | 17.2 |
| Prop In Lane | 1.00 | | 0.91 | 1.00 | | 0.98 | 1.00 | | 0.04 | 1.00 | | 0.13 |
| Lane Grp Cap(c), veh/h | 122 | 0 | 89 | 192 | 0 | 150 | 436 | 2108 | 1148 | 93 | 1438 | 769 |
| V/C Ratio(X) | 0.97 | 0.00 | 0.63 | 0.09 | 0.00 | 0.83 | 0.14 | 0.41 | 0.41 | 0.80 | 0.72 | 0.72 |
| Avail Cap(c_a), veh/h | 122 | 0 | 387 | 192 | 0 | 383 | 436 | 2108 | 1148 | 184 | 1438 | 769 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.91 | 0.91 | 0.91 | 0.86 | 0.86 | 0.86 |
| Uniform Delay (d), s/veh | 67.4 | 0.0 | 67.1 | 58.2 | 0.0 | 64.5 | 28.5 | 0.0 | 0.0 | 64.1 | 7.6 | 7.6 |
| Incr Delay (d2), s/veh | 72.3 | 0.0 | 5.4 | 0.1 | 0.0 | 8.3 | 0.0 | 0.6 | 1.0 | 5.1 | 2.7 | 5.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.2 | 0.0 | 2.3 | 0.7 | 0.0 | 5.2 | 1.3 | 0.2 | 0.3 | 3.1 | 8.2 | 9.2 |
| LnGrp Delay(d),s/veh | 139.6 | 0.0 | 72.5 | 58.3 | 0.0 | 72.8 | 28.6 | 0.6 | 1.0 | 69.2 | 10.3 | 12.6 |
| LnGrp LOS | F | | E | E | | E | C | A | A | E | B | B |
| Approach Vol, veh/h | | 175 | | | 142 | | | 1410 | | | 1663 | |
| Approach Delay, s/veh | | 118.2 | | | 71.0 | | | 1.9 | | | 13.7 | |
| Approach LOS | | F | | | E | | | A | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.3 | 96.6 | 21.4 | 13.7 | 42.0 | 67.9 | 15.7 | 19.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | 6.4 | * 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 61.5 | * 10 | * 35 | 15.0 | * 62 | * 10 | * 35 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.0 | 2.0 | 3.3 | 7.0 | 4.7 | 19.2 | 11.7 | 13.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 25.2 | 0.0 | 0.2 | 0.0 | 26.6 | 0.0 | 0.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 16.6 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave

Existing plus Project Conditions
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|-------|------|------|
| Lane Group Flow (vph) | 19 | 39 | 63 | 88 | 68 | 1188 | 52 | 168 | 1401 | 38 |
| v/c Ratio | 0.17 | 0.20 | 0.55 | 0.34 | 0.22 | 0.42 | 0.06 | 0.77 | 0.45 | 0.04 |
| Control Delay | 66.2 | 17.1 | 82.3 | 16.3 | 51.4 | 17.9 | 1.7 | 104.7 | 5.6 | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 66.2 | 17.1 | 82.3 | 16.3 | 51.4 | 17.9 | 1.7 | 104.7 | 5.6 | 0.4 |
| Queue Length 50th (ft) | 17 | 2 | 59 | 9 | 26 | 213 | 1 | 151 | 41 | 0 |
| Queue Length 95th (ft) | 45 | 31 | 108 | 50 | m40 | 243 | m7 | #296 | 206 | m2 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 158 | 481 | 158 | 516 | 355 | 2847 | 908 | 221 | 3096 | 989 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.12 | 0.08 | 0.40 | 0.17 | 0.19 | 0.42 | 0.06 | 0.76 | 0.45 | 0.04 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

Existing plus Project Conditions
Timing Plan: P.M. Peak

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 18 | 2 | 35 | 59 | 9 | 73 | 64 | 1117 | 49 | 158 | 1317 | 36 |
| Future Volume (veh/h) | 18 | 2 | 35 | 59 | 9 | 73 | 64 | 1117 | 49 | 158 | 1317 | 36 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 19 | 2 | 37 | 63 | 10 | 78 | 68 | 1188 | 52 | 168 | 1401 | 38 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 60 | 8 | 141 | 80 | 19 | 150 | 1164 | 3010 | 915 | 184 | 1792 | 556 |
| Arrive On Green | 0.03 | 0.09 | 0.09 | 0.05 | 0.11 | 0.11 | 0.68 | 1.00 | 1.00 | 0.21 | 0.70 | 0.70 |
| Sat Flow, veh/h | 1774 | 80 | 1486 | 1774 | 182 | 1417 | 3442 | 5085 | 1547 | 1774 | 5085 | 1577 |
| Grp Volume(v), veh/h | 19 | 0 | 39 | 63 | 0 | 88 | 68 | 1188 | 52 | 168 | 1401 | 38 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1567 | 1774 | 0 | 1598 | 1721 | 1695 | 1547 | 1774 | 1695 | 1577 |
| Q Serve(g_s), s | 1.5 | 0.0 | 3.4 | 5.1 | 0.0 | 7.6 | 1.0 | 0.0 | 0.0 | 13.4 | 26.3 | 1.1 |
| Cycle Q Clear(g_c), s | 1.5 | 0.0 | 3.4 | 5.1 | 0.0 | 7.6 | 1.0 | 0.0 | 0.0 | 13.4 | 26.3 | 1.1 |
| Prop In Lane | 1.00 | | 0.95 | 1.00 | | 0.89 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 60 | 0 | 148 | 80 | 0 | 170 | 1164 | 3010 | 915 | 184 | 1792 | 556 |
| V/C Ratio(X) | 0.32 | 0.00 | 0.26 | 0.78 | 0.00 | 0.52 | 0.06 | 0.39 | 0.06 | 0.92 | 0.78 | 0.07 |
| Avail Cap(c_a), veh/h | 159 | 0 | 454 | 159 | 0 | 463 | 1164 | 3010 | 915 | 184 | 1792 | 556 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.88 | 0.88 | 0.88 | 0.83 | 0.83 | 0.83 |
| Uniform Delay (d), s/veh | 68.4 | 0.0 | 60.9 | 68.5 | 0.0 | 61.3 | 15.7 | 0.0 | 0.0 | 56.9 | 17.7 | 14.0 |
| Incr Delay (d2), s/veh | 1.1 | 0.0 | 0.3 | 6.2 | 0.0 | 1.8 | 0.0 | 0.3 | 0.1 | 37.6 | 2.9 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 0.0 | 1.5 | 2.6 | 0.0 | 3.4 | 0.4 | 0.1 | 0.0 | 8.5 | 12.3 | 0.5 |
| LnGrp Delay(d),s/veh | 69.5 | 0.0 | 61.3 | 74.7 | 0.0 | 63.1 | 15.7 | 0.3 | 0.1 | 94.5 | 20.6 | 14.2 |
| LnGrp LOS | E | | E | E | | E | B | A | A | F | C | B |
| Approach Vol, veh/h | | 58 | | | 151 | | | 1308 | | | 1607 | |
| Approach Delay, s/veh | | 64.0 | | | 68.0 | | | 1.1 | | | 28.2 | |
| Approach LOS | | E | | | E | | | A | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 20.7 | 92.2 | 12.3 | 19.8 | 55.4 | 57.5 | 10.6 | 21.5 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 15 | 51.1 | 13.0 | * 42 | 15.0 | * 51 | 13.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 15.4 | 2.0 | 7.1 | 5.4 | 3.0 | 28.3 | 3.5 | 9.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 22.8 | 0.0 | 0.1 | 0.1 | 15.9 | 0.0 | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 19.5 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 24 | 974 | 42 | 34 | 782 | 20 | 17 | 0 | 32 | 18 | 0 | 35 |
| Future Vol, veh/h | 24 | 974 | 42 | 34 | 782 | 20 | 17 | 0 | 32 | 18 | 0 | 35 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 25 | 1015 | 44 | 35 | 815 | 21 | 18 | 0 | 33 | 19 | 0 | 36 |

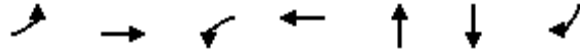
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 841 | 0 | 0 | 1059 | 0 | 0 | 1565 | 1998 | 530 | 1459 | 2010 | 423 |
| Stage 1 | - | - | - | - | - | - | 1087 | 1087 | - | 901 | 901 | - |
| Stage 2 | - | - | - | - | - | - | 478 | 911 | - | 558 | 1109 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 790 | - | - | 653 | - | - | 75 | 59 | 493 | 90 | 58 | 579 |
| Stage 1 | - | - | - | - | - | - | 231 | 290 | - | 299 | 355 | - |
| Stage 2 | - | - | - | - | - | - | 537 | 351 | - | 482 | 283 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 786 | - | - | 653 | - | - | 61 | 49 | 493 | 73 | 48 | 576 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 61 | 49 | - | 73 | 48 | - |
| Stage 1 | - | - | - | - | - | - | 213 | 267 | - | 274 | 318 | - |
| Stage 2 | - | - | - | - | - | - | 453 | 314 | - | 414 | 261 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.6 | | | 0.9 | | | 43.5 | | | 35.5 | | |
| HCM LOS | | | | | | | E | | | E | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 143 | 786 | - | - | 653 | - | - | 172 |
| HCM Lane V/C Ratio | 0.357 | 0.032 | - | - | 0.054 | - | - | 0.321 |
| HCM Control Delay (s) | 43.5 | 9.7 | 0.4 | - | 10.8 | 0.5 | - | 35.5 |
| HCM Lane LOS | E | A | A | - | B | A | - | E |
| HCM 95th %tile Q(veh) | 1.5 | 0.1 | - | - | 0.2 | - | - | 1.3 |

Queues
6: Shady St & Caldwell Ave




















Existing plus Project Conditions
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 52 | 832 | 69 | 732 | 69 | 16 | 10 |
| v/c Ratio | 0.16 | 0.26 | 0.20 | 0.22 | 0.18 | 0.04 | 0.02 |
| Control Delay | 33.8 | 13.4 | 32.7 | 12.6 | 4.2 | 26.4 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 33.8 | 13.4 | 32.7 | 12.6 | 4.2 | 26.4 | 0.1 |
| Queue Length 50th (ft) | 14 | 55 | 19 | 46 | 0 | 4 | 0 |
| Queue Length 95th (ft) | 74 | 205 | 90 | 174 | 16 | 25 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 958 | 3807 | 958 | 3811 | 962 | 1005 | 929 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.22 | 0.07 | 0.19 | 0.07 | 0.02 | 0.01 |
| Intersection Summary | | | | | | | |

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

Existing plus Project Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 49 | 763 | 19 | 65 | 676 | 12 | 28 | 0 | 37 | 14 | 1 | 9 |
| Future Volume (veh/h) | 49 | 763 | 19 | 65 | 676 | 12 | 28 | 0 | 37 | 14 | 1 | 9 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 52 | 812 | 20 | 69 | 719 | 13 | 30 | 0 | 39 | 15 | 1 | 10 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 110 | 2084 | 51 | 132 | 2163 | 39 | 54 | 0 | 70 | 65 | 4 | 61 |
| Arrive On Green | 0.06 | 0.41 | 0.41 | 0.07 | 0.42 | 0.42 | 0.07 | 0.00 | 0.07 | 0.04 | 0.04 | 0.04 |
| Sat Flow, veh/h | 1774 | 5101 | 125 | 1774 | 5141 | 93 | 722 | 0 | 939 | 1668 | 111 | 1558 |
| Grp Volume(v), veh/h | 52 | 539 | 293 | 69 | 474 | 258 | 69 | 0 | 0 | 16 | 0 | 10 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1837 | 1774 | 1695 | 1843 | 1661 | 0 | 0 | 1779 | 0 | 1558 |
| Q Serve(g_s), s | 1.4 | 5.5 | 5.6 | 1.9 | 4.7 | 4.7 | 2.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.3 |
| Cycle Q Clear(g_c), s | 1.4 | 5.5 | 5.6 | 1.9 | 4.7 | 4.7 | 2.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.3 |
| Prop In Lane | 1.00 | | 0.07 | 1.00 | | 0.05 | 0.43 | | 0.57 | 0.94 | | 1.00 |
| Lane Grp Cap(c), veh/h | 110 | 1385 | 750 | 132 | 1427 | 776 | 123 | 0 | 0 | 69 | 0 | 61 |
| V/C Ratio(X) | 0.47 | 0.39 | 0.39 | 0.52 | 0.33 | 0.33 | 0.56 | 0.00 | 0.00 | 0.23 | 0.00 | 0.16 |
| Avail Cap(c_a), veh/h | 717 | 2739 | 1484 | 717 | 2739 | 1490 | 671 | 0 | 0 | 719 | 0 | 629 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.4 | 10.3 | 10.3 | 22.1 | 9.7 | 9.7 | 22.1 | 0.0 | 0.0 | 23.1 | 0.0 | 23.0 |
| Incr Delay (d2), s/veh | 1.2 | 0.5 | 0.9 | 1.2 | 0.4 | 0.7 | 2.9 | 0.0 | 0.0 | 1.2 | 0.0 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 2.6 | 3.0 | 0.9 | 2.2 | 2.5 | 1.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.1 |
| LnGrp Delay(d),s/veh | 23.6 | 10.8 | 11.2 | 23.3 | 10.0 | 10.3 | 25.1 | 0.0 | 0.0 | 24.3 | 0.0 | 23.9 |
| LnGrp LOS | C | B | B | C | B | B | C | | | C | | C |
| Approach Vol, veh/h | | 884 | | | 801 | | | 69 | | | | 26 |
| Approach Delay, s/veh | | 11.7 | | | 11.3 | | | 25.1 | | | | 24.2 |
| Approach LOS | | B | | | B | | | C | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.7 | 26.2 | | 6.9 | 7.1 | 26.8 | | 8.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.9 | 7.6 | | 2.4 | 3.4 | 6.7 | | 4.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 12.6 | | 0.0 | 0.0 | 11.0 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.2 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

Existing plus Project Conditions
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 265 | 704 | 225 | 487 | 306 | 995 | 124 | 171 | 1206 | 105 |
| v/c Ratio | 0.59 | 0.65 | 0.72 | 0.56 | 0.65 | 0.43 | 0.16 | 0.62 | 0.60 | 0.15 |
| Control Delay | 65.1 | 48.1 | 77.2 | 51.1 | 51.4 | 21.1 | 8.5 | 72.1 | 13.5 | 1.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 65.1 | 48.1 | 77.2 | 51.1 | 51.4 | 21.1 | 8.5 | 72.1 | 13.5 | 1.3 |
| Queue Length 50th (ft) | 121 | 201 | 108 | 145 | 156 | 121 | 4 | 70 | 316 | 8 |
| Queue Length 95th (ft) | #178 | 217 | 153 | 153 | 147 | 283 | m50 | 95 | 130 | 0 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 451 | 1486 | 357 | 1489 | 473 | 2300 | 766 | 355 | 2004 | 682 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.59 | 0.47 | 0.63 | 0.33 | 0.65 | 0.43 | 0.16 | 0.48 | 0.60 | 0.15 |

Intersection Summary























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

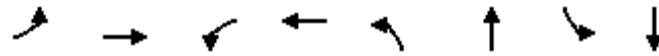
HCM 2010 Signalized Intersection Summary
7: Mooney Blvd & Caldwell Ave

Existing plus Project Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 252 | 448 | 220 | 214 | 364 | 99 | 291 | 945 | 118 | 162 | 1146 | 100 |
| Future Volume (veh/h) | 252 | 448 | 220 | 214 | 364 | 99 | 291 | 945 | 118 | 162 | 1146 | 100 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 265 | 472 | 232 | 225 | 383 | 104 | 306 | 995 | 124 | 171 | 1206 | 105 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 439 | 738 | 341 | 272 | 679 | 177 | 813 | 2407 | 748 | 217 | 1501 | 458 |
| Arrive On Green | 0.13 | 0.22 | 0.22 | 0.08 | 0.17 | 0.17 | 0.47 | 0.95 | 0.95 | 0.13 | 0.59 | 0.59 |
| Sat Flow, veh/h | 3442 | 3390 | 1568 | 3442 | 4015 | 1049 | 3442 | 5085 | 1580 | 3442 | 5085 | 1552 |
| Grp Volume(v), veh/h | 265 | 472 | 232 | 225 | 321 | 166 | 306 | 995 | 124 | 171 | 1206 | 105 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1568 | 1721 | 1695 | 1673 | 1721 | 1695 | 1580 | 1721 | 1695 | 1552 |
| Q Serve(g_s), s | 10.6 | 18.3 | 19.7 | 9.3 | 12.6 | 13.3 | 8.3 | 2.5 | 0.5 | 7.0 | 26.8 | 4.6 |
| Cycle Q Clear(g_c), s | 10.6 | 18.3 | 19.7 | 9.3 | 12.6 | 13.3 | 8.3 | 2.5 | 0.5 | 7.0 | 26.8 | 4.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.63 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 439 | 738 | 341 | 272 | 573 | 283 | 813 | 2407 | 748 | 217 | 1501 | 458 |
| V/C Ratio(X) | 0.60 | 0.64 | 0.68 | 0.83 | 0.56 | 0.59 | 0.38 | 0.41 | 0.17 | 0.79 | 0.80 | 0.23 |
| Avail Cap(c_a), veh/h | 439 | 1005 | 465 | 356 | 1005 | 496 | 813 | 2407 | 748 | 356 | 1501 | 458 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 0.98 | 0.98 | 0.98 | 0.94 | 0.94 | 0.94 | 0.87 | 0.87 | 0.87 | 0.89 | 0.89 | 0.89 |
| Uniform Delay (d), s/veh | 59.8 | 51.6 | 52.1 | 65.8 | 55.3 | 55.6 | 31.4 | 2.1 | 1.0 | 62.4 | 26.4 | 21.9 |
| Incr Delay (d2), s/veh | 1.6 | 1.8 | 4.5 | 8.5 | 1.6 | 3.5 | 0.1 | 0.5 | 0.4 | 2.2 | 4.2 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.1 | 8.8 | 9.0 | 4.8 | 6.1 | 6.4 | 3.9 | 1.1 | 0.3 | 3.4 | 13.0 | 2.1 |
| LnGrp Delay(d),s/veh | 61.4 | 53.3 | 56.6 | 74.3 | 56.8 | 59.0 | 31.5 | 2.6 | 1.4 | 64.6 | 30.6 | 22.9 |
| LnGrp LOS | E | D | E | E | E | E | C | A | A | E | C | C |
| Approach Vol, veh/h | | 969 | | | 712 | | | 1425 | | | 1482 | |
| Approach Delay, s/veh | | 56.3 | | | 62.9 | | | 8.7 | | | 34.0 | |
| Approach LOS | | E | | | E | | | A | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.8 | 75.0 | 17.2 | 38.0 | 40.7 | 49.2 | 24.2 | 30.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 47.8 | 15.0 | * 43 | 20.0 | * 43 | 15.0 | * 43 | | | | |
| Max Q Clear Time (g_c+I1), s | 9.0 | 4.5 | 11.3 | 21.7 | 10.3 | 28.8 | 12.6 | 15.3 | | | | |
| Green Ext Time (p_c), s | 0.1 | 18.7 | 0.1 | 7.5 | 0.4 | 10.5 | 0.1 | 5.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 35.3 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St

Existing plus Project Conditions
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 104 | 720 | 152 | 671 | 82 | 181 | 157 | 87 |
| v/c Ratio | 0.49 | 0.50 | 0.62 | 0.40 | 0.16 | 0.43 | 0.37 | 0.23 |
| Control Delay | 44.4 | 25.2 | 47.2 | 22.1 | 16.8 | 10.8 | 19.3 | 13.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 44.4 | 25.2 | 47.2 | 22.1 | 16.8 | 10.8 | 19.3 | 13.3 |
| Queue Length 50th (ft) | 44 | 92 | 65 | 79 | 24 | 10 | 48 | 9 |
| Queue Length 95th (ft) | 125 | 197 | #176 | 179 | 59 | 64 | 104 | 49 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 356 | 2014 | 356 | 2012 | 607 | 669 | 495 | 617 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.29 | 0.36 | 0.43 | 0.33 | 0.14 | 0.27 | 0.32 | 0.14 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

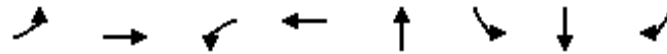
HCM 2010 Signalized Intersection Summary
8: Caldwell Ave & Fairway St

Existing plus Project Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|--|---|---|--|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |  |  | |  |  | |
| Traffic Volume (veh/h) | 99 | 604 | 80 | 144 | 539 | 99 | 78 | 23 | 149 | 149 | 23 | 60 |
| Future Volume (veh/h) | 99 | 604 | 80 | 144 | 539 | 99 | 78 | 23 | 149 | 149 | 23 | 60 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 1.00 | 0.99 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 104 | 636 | 84 | 152 | 567 | 104 | 82 | 24 | 157 | 157 | 24 | 63 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 150 | 1386 | 181 | 194 | 1431 | 258 | 454 | 35 | 231 | 384 | 87 | 228 |
| Arrive On Green | 0.08 | 0.31 | 0.31 | 0.11 | 0.33 | 0.33 | 0.08 | 0.16 | 0.16 | 0.11 | 0.19 | 0.19 |
| Sat Flow, veh/h | 1774 | 4537 | 592 | 1774 | 4333 | 781 | 1774 | 214 | 1401 | 1774 | 449 | 1179 |
| Grp Volume(v), veh/h | 104 | 473 | 247 | 152 | 442 | 229 | 82 | 0 | 181 | 157 | 0 | 87 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1739 | 1774 | 1695 | 1724 | 1774 | 0 | 1615 | 1774 | 0 | 1628 |
| Q Serve(g_s), s | 3.3 | 6.4 | 6.6 | 4.8 | 5.7 | 5.9 | 2.1 | 0.0 | 6.0 | 4.0 | 0.0 | 2.6 |
| Cycle Q Clear(g_c), s | 3.3 | 6.4 | 6.6 | 4.8 | 5.7 | 5.9 | 2.1 | 0.0 | 6.0 | 4.0 | 0.0 | 2.6 |
| Prop In Lane | 1.00 | | 0.34 | 1.00 | | 0.45 | 1.00 | | 0.87 | 1.00 | | 0.72 |
| Lane Grp Cap(c), veh/h | 150 | 1036 | 531 | 194 | 1120 | 569 | 454 | 0 | 267 | 384 | 0 | 316 |
| V/C Ratio(X) | 0.69 | 0.46 | 0.46 | 0.78 | 0.39 | 0.40 | 0.18 | 0.00 | 0.68 | 0.41 | 0.00 | 0.28 |
| Avail Cap(c_a), veh/h | 465 | 1778 | 912 | 465 | 1778 | 904 | 783 | 0 | 706 | 663 | 0 | 683 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 25.4 | 16.0 | 16.1 | 24.8 | 14.7 | 14.8 | 17.3 | 0.0 | 22.5 | 16.6 | 0.0 | 19.6 |
| Incr Delay (d2), s/veh | 2.1 | 0.9 | 1.7 | 2.6 | 0.6 | 1.3 | 0.4 | 0.0 | 8.1 | 1.5 | 0.0 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 3.1 | 3.4 | 2.5 | 2.8 | 3.0 | 1.1 | 0.0 | 3.3 | 2.1 | 0.0 | 1.3 |
| LnGrp Delay(d),s/veh | 27.6 | 16.9 | 17.8 | 27.4 | 15.4 | 16.1 | 17.7 | 0.0 | 30.5 | 18.1 | 0.0 | 20.9 |
| LnGrp LOS | C | B | B | C | B | B | B | | C | B | | C |
| Approach Vol, veh/h | | 824 | | | 823 | | | 263 | | | 244 | |
| Approach Delay, s/veh | | 18.5 | | | 17.8 | | | 26.5 | | | 19.1 | |
| Approach LOS | | B | | | B | | | C | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.3 | 23.5 | 9.0 | 14.4 | 8.9 | 24.9 | 7.4 | 16.1 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | 15.0 | 25.0 | 15.0 | 30.0 | 15.0 | 24.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.8 | 8.6 | 6.0 | 8.0 | 5.3 | 7.9 | 4.1 | 4.6 | | | | |
| Green Ext Time (p_c), s | 0.1 | 8.8 | 0.6 | 1.9 | 0.1 | 8.4 | 0.3 | 0.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 19.3 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave





















Existing plus Project Conditions
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 62 | 934 | 1 | 783 | 15 | 29 | 1 | 42 |
| v/c Ratio | 0.20 | 0.34 | 0.00 | 0.33 | 0.05 | 0.07 | 0.00 | 0.09 |
| Control Delay | 26.5 | 5.5 | 28.0 | 8.9 | 23.4 | 24.2 | 24.0 | 2.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 26.5 | 5.5 | 28.0 | 8.9 | 23.4 | 24.2 | 24.0 | 2.9 |
| Queue Length 50th (ft) | 19 | 70 | 0 | 93 | 4 | 8 | 0 | 0 |
| Queue Length 95th (ft) | 59 | 164 | 5 | 151 | 21 | 34 | 5 | 10 |
| Internal Link Dist (ft) | | 1064 | | 2597 | 260 | | 519 | |
| Turn Bay Length (ft) | 235 | | 300 | | | | | 200 |
| Base Capacity (vph) | 912 | 2775 | 912 | 2760 | 740 | 799 | 960 | 854 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.34 | 0.00 | 0.28 | 0.02 | 0.04 | 0.00 | 0.05 |
| Intersection Summary | | | | | | | | |

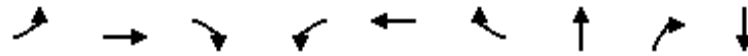
HCM 2010 Signalized Intersection Summary
 9: Stonebrook St & Caldwell Ave

Existing plus Project Conditions
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  |  |
| Traffic Volume (veh/h) | 56 | 835 | 5 | 1 | 678 | 27 | 12 | 1 | 1 | 26 | 1 | 38 |
| Future Volume (veh/h) | 56 | 835 | 5 | 1 | 678 | 27 | 12 | 1 | 1 | 26 | 1 | 38 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 62 | 928 | 6 | 1 | 753 | 30 | 13 | 1 | 1 | 29 | 1 | 42 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 126 | 1929 | 12 | 4 | 1615 | 64 | 309 | 24 | 14 | 359 | 269 | 229 |
| Arrive On Green | 0.07 | 0.54 | 0.54 | 0.00 | 0.47 | 0.47 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 |
| Sat Flow, veh/h | 1774 | 3604 | 23 | 1774 | 3466 | 138 | 1155 | 166 | 94 | 1409 | 1863 | 1583 |
| Grp Volume(v), veh/h | 62 | 456 | 478 | 1 | 384 | 399 | 15 | 0 | 0 | 29 | 1 | 42 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1858 | 1774 | 1770 | 1835 | 1415 | 0 | 0 | 1409 | 1863 | 1583 |
| Q Serve(g_s), s | 1.6 | 7.6 | 7.6 | 0.0 | 7.0 | 7.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 1.1 |
| Cycle Q Clear(g_c), s | 1.6 | 7.6 | 7.6 | 0.0 | 7.0 | 7.0 | 0.3 | 0.0 | 0.0 | 0.8 | 0.0 | 1.1 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 0.08 | 0.87 | | 0.07 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 126 | 947 | 994 | 4 | 825 | 855 | 347 | 0 | 0 | 359 | 269 | 229 |
| V/C Ratio(X) | 0.49 | 0.48 | 0.48 | 0.27 | 0.47 | 0.47 | 0.04 | 0.00 | 0.00 | 0.08 | 0.00 | 0.18 |
| Avail Cap(c_a), veh/h | 754 | 1504 | 1579 | 754 | 1504 | 1560 | 739 | 0 | 0 | 755 | 792 | 673 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.0 | 6.8 | 6.8 | 23.5 | 8.6 | 8.6 | 17.4 | 0.0 | 0.0 | 17.5 | 17.2 | 17.7 |
| Incr Delay (d2), s/veh | 1.1 | 1.4 | 1.3 | 13.3 | 1.5 | 1.4 | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 4.0 | 4.2 | 0.0 | 3.7 | 3.8 | 0.2 | 0.0 | 0.0 | 0.4 | 0.0 | 0.5 |
| LnGrp Delay(d),s/veh | 22.2 | 8.2 | 8.2 | 36.7 | 10.1 | 10.0 | 17.5 | 0.0 | 0.0 | 17.7 | 17.2 | 18.5 |
| LnGrp LOS | C | A | A | D | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 996 | | | 784 | | | 15 | | | 72 | |
| Approach Delay, s/veh | | 9.1 | | | 10.1 | | | 17.5 | | | 18.2 | |
| Approach LOS | | A | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.1 | 31.2 | | 11.8 | 7.3 | 27.9 | | 11.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 9.6 | | 2.3 | 3.6 | 9.0 | | 3.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 15.6 | | 0.0 | 0.0 | 12.3 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.9 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
10: West St & Caldwell Ave






















Existing plus Project Conditions
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 116 | 675 | 50 | 108 | 635 | 50 | 202 | 42 | 231 |
| v/c Ratio | 0.44 | 0.48 | 0.07 | 0.42 | 0.46 | 0.08 | 0.49 | 0.09 | 0.54 |
| Control Delay | 33.8 | 16.5 | 2.0 | 33.8 | 16.5 | 2.1 | 28.0 | 0.4 | 26.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 33.8 | 16.5 | 2.0 | 33.8 | 16.5 | 2.1 | 28.0 | 0.4 | 26.1 |
| Queue Length 50th (ft) | 41 | 100 | 0 | 39 | 93 | 0 | 66 | 0 | 67 |
| Queue Length 95th (ft) | 105 | 177 | 11 | 100 | 168 | 11 | 158 | 2 | 166 |
| Internal Link Dist (ft) | | 2597 | | | 1242 | | 378 | | 317 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 468 | 2185 | 1007 | 468 | 2185 | 1007 | 604 | 620 | 610 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.25 | 0.31 | 0.05 | 0.23 | 0.29 | 0.05 | 0.33 | 0.07 | 0.38 |
| Intersection Summary | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 10: West St & Caldwell Ave

Existing plus Project Conditions
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  | |
| Traffic Volume (veh/h) | 107 | 621 | 46 | 99 | 584 | 46 | 32 | 154 | 39 | 25 | 115 | 73 |
| Future Volume (veh/h) | 107 | 621 | 46 | 99 | 584 | 46 | 32 | 154 | 39 | 25 | 115 | 73 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 116 | 675 | 50 | 108 | 635 | 50 | 35 | 167 | 42 | 27 | 125 | 79 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 170 | 1394 | 624 | 165 | 1384 | 619 | 122 | 330 | 324 | 101 | 198 | 114 |
| Arrive On Green | 0.10 | 0.39 | 0.39 | 0.09 | 0.39 | 0.39 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1583 | 184 | 1614 | 1583 | 101 | 970 | 557 |
| Grp Volume(v), veh/h | 116 | 675 | 50 | 108 | 635 | 50 | 202 | 0 | 42 | 231 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1583 | 1798 | 0 | 1583 | 1627 | 0 | 0 |
| Q Serve(g_s), s | 3.2 | 7.2 | 1.0 | 3.0 | 6.7 | 1.0 | 0.0 | 0.0 | 1.1 | 1.8 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.2 | 7.2 | 1.0 | 3.0 | 6.7 | 1.0 | 4.9 | 0.0 | 1.1 | 6.7 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.17 | | 1.00 | 0.12 | | 0.34 |
| Lane Grp Cap(c), veh/h | 170 | 1394 | 624 | 165 | 1384 | 619 | 452 | 0 | 324 | 413 | 0 | 0 |
| V/C Ratio(X) | 0.68 | 0.48 | 0.08 | 0.65 | 0.46 | 0.08 | 0.45 | 0.00 | 0.13 | 0.56 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 530 | 2467 | 1104 | 530 | 2467 | 1104 | 780 | 0 | 631 | 732 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 22.0 | 11.4 | 9.5 | 22.0 | 11.3 | 9.6 | 17.8 | 0.0 | 16.3 | 18.4 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 1.8 | 0.9 | 0.2 | 1.6 | 0.9 | 0.2 | 1.5 | 0.0 | 0.4 | 2.5 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 3.7 | 0.5 | 1.5 | 3.4 | 0.5 | 2.7 | 0.0 | 0.5 | 3.2 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 23.8 | 12.3 | 9.7 | 23.6 | 12.2 | 9.8 | 19.3 | 0.0 | 16.7 | 21.0 | 0.0 | 0.0 |
| LnGrp LOS | C | B | A | C | B | A | B | | B | C | | |
| Approach Vol, veh/h | | 841 | | | 793 | | | 244 | | | 231 | |
| Approach Delay, s/veh | | 13.8 | | | 13.6 | | | 18.9 | | | 21.0 | |
| Approach LOS | | B | | | B | | | B | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.7 | 26.3 | | 15.3 | 8.8 | 26.1 | | 15.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 35.0 | | 20.0 | 15.0 | 35.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.0 | 9.2 | | 6.9 | 5.2 | 8.7 | | 8.7 | | | | |
| Green Ext Time (p_c), s | 0.1 | 10.6 | | 1.8 | 0.1 | 10.1 | | 1.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 15.1 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.9 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | ↘ | ↗ | ↑ | ↗ | ↘ | ↑ |
| Traffic Vol, veh/h | 52 | 282 | 211 | 28 | 290 | 145 |
| Future Vol, veh/h | 52 | 282 | 211 | 28 | 290 | 145 |
| Conflicting Peds, #/hr | 0 | 1 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 100 | - | 160 | 145 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 56 | 303 | 227 | 30 | 312 | 156 |

| Major/Minor | Minor1 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|-------|---|
| Conflicting Flow All | 1007 | 228 | 0 | 0 | 257 | 0 |
| Stage 1 | 227 | - | - | - | - | - |
| Stage 2 | 780 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 267 | 811 | - | - | 1308 | - |
| Stage 1 | 811 | - | - | - | - | - |
| Stage 2 | 452 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 203 | 810 | - | - | 1308 | - |
| Mov Cap-2 Maneuver | 290 | - | - | - | - | - |
| Stage 1 | 811 | - | - | - | - | - |
| Stage 2 | 344 | - | - | - | - | - |

| Approach | WB | NB | SB |
|----------------------|------|----|-----|
| HCM Control Delay, s | 13.4 | 0 | 5.7 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | WBLn2 | SBL | SBT |
|-----------------------|-----|----------|-------|-------|-------|
| Capacity (veh/h) | - | - | 290 | 810 | 1308 |
| HCM Lane V/C Ratio | - | - | 0.193 | 0.374 | 0.238 |
| HCM Control Delay (s) | - | - | 20.4 | 12.1 | 8.6 |
| HCM Lane LOS | - | - | C | B | A |
| HCM 95th %tile Q(veh) | - | - | 0.7 | 1.7 | 0.9 |

Queues
12: Mooney Blvd & Cameron Ave

Existing plus Project Conditions
Timing Plan: P.M. Peak

































| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 183 | 308 | 136 | 368 | 61 | 964 | 122 | 293 | 1080 | 148 |
| v/c Ratio | 0.74 | 0.48 | 0.81 | 0.59 | 0.24 | 0.43 | 0.16 | 0.76 | 0.43 | 0.17 |
| Control Delay | 77.1 | 51.7 | 97.7 | 26.8 | 95.9 | 59.4 | 22.1 | 95.8 | 10.7 | 1.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 77.1 | 51.7 | 97.7 | 26.8 | 95.9 | 59.4 | 22.1 | 95.8 | 10.7 | 1.1 |
| Queue Length 50th (ft) | 165 | 136 | 127 | 74 | 28 | 317 | 40 | 131 | 72 | 0 |
| Queue Length 95th (ft) | m#337 | m155 | #230 | 102 | m32 | m331 | m49 | 198 | 186 | 15 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 248 | 1058 | 183 | 1120 | 284 | 2249 | 776 | 449 | 2521 | 856 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.74 | 0.29 | 0.74 | 0.33 | 0.21 | 0.43 | 0.16 | 0.65 | 0.43 | 0.17 |

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

Existing plus Project Conditions
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |   |   |   |   |   |   |
| Traffic Volume (veh/h) | 179 | 261 | 41 | 133 | 155 | 206 | 60 | 945 | 120 | 287 | 1058 | 145 |
| Future Volume (veh/h) | 179 | 261 | 41 | 133 | 155 | 206 | 60 | 945 | 120 | 287 | 1058 | 145 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 183 | 266 | 42 | 136 | 158 | 210 | 61 | 964 | 122 | 293 | 1080 | 148 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 184 | 602 | 94 | 158 | 313 | 280 | 686 | 2286 | 710 | 338 | 1747 | 543 |
| Arrive On Green | 0.10 | 0.20 | 0.20 | 0.09 | 0.18 | 0.18 | 0.40 | 0.90 | 0.90 | 0.20 | 0.69 | 0.69 |
| Sat Flow, veh/h | 1774 | 3069 | 479 | 1774 | 1770 | 1578 | 3442 | 5085 | 1580 | 3442 | 5085 | 1581 |
| Grp Volume(v), veh/h | 183 | 152 | 156 | 136 | 158 | 210 | 61 | 964 | 122 | 293 | 1080 | 148 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1777 | 1774 | 1770 | 1578 | 1721 | 1695 | 1580 | 1721 | 1695 | 1581 |
| Q Serve(g_s), s | 15.0 | 11.0 | 11.2 | 11.0 | 11.7 | 18.3 | 1.6 | 4.5 | 1.3 | 12.0 | 16.8 | 5.2 |
| Cycle Q Clear(g_c), s | 15.0 | 11.0 | 11.2 | 11.0 | 11.7 | 18.3 | 1.6 | 4.5 | 1.3 | 12.0 | 16.8 | 5.2 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 184 | 347 | 349 | 158 | 313 | 280 | 686 | 2286 | 710 | 338 | 1747 | 543 |
| V/C Ratio(X) | 1.00 | 0.44 | 0.45 | 0.86 | 0.50 | 0.75 | 0.09 | 0.42 | 0.17 | 0.87 | 0.62 | 0.27 |
| Avail Cap(c_a), veh/h | 184 | 537 | 539 | 184 | 537 | 479 | 686 | 2286 | 710 | 451 | 1747 | 543 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.16 | 0.16 | 0.16 | 0.75 | 0.75 | 0.75 |
| Uniform Delay (d), s/veh | 65.0 | 51.2 | 51.4 | 65.1 | 53.9 | 56.6 | 35.4 | 4.2 | 4.1 | 57.4 | 17.5 | 15.7 |
| Incr Delay (d2), s/veh | 65.5 | 1.6 | 1.7 | 25.8 | 2.9 | 9.2 | 0.0 | 0.1 | 0.1 | 8.2 | 1.2 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 10.7 | 5.5 | 5.7 | 6.5 | 6.0 | 8.7 | 0.8 | 1.9 | 0.6 | 6.0 | 7.9 | 2.4 |
| LnGrp Delay(d),s/veh | 130.5 | 52.9 | 53.0 | 90.9 | 56.8 | 65.8 | 35.4 | 4.3 | 4.2 | 65.6 | 18.8 | 16.6 |
| LnGrp LOS | F | D | D | F | E | E | D | A | A | E | B | B |
| Approach Vol, veh/h | | 491 | | | 504 | | | 1147 | | | 1521 | |
| Approach Delay, s/veh | | 81.9 | | | 69.8 | | | 6.0 | | | 27.6 | |
| Approach LOS | | F | | | E | | | A | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 19.9 | 71.6 | 18.6 | 34.8 | 35.3 | 56.2 | 21.4 | 32.1 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | 6.4 | 6.4 | * 6.4 | 6.4 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 19 | 42.8 | * 15 | 44.0 | 12.0 | * 50 | 15.0 | * 44 | | | | |
| Max Q Clear Time (g_c+I1), s | 14.0 | 6.5 | 13.0 | 13.2 | 3.6 | 18.8 | 17.0 | 20.3 | | | | |
| Green Ext Time (p_c), s | 0.3 | 23.1 | 0.0 | 3.1 | 0.0 | 22.9 | 0.0 | 4.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 33.9 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 7.5 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↔ | ↔ | ↔ |
| Traffic Vol, veh/h | 587 | 11 | 257 | 517 | 6 | 347 |
| Future Vol, veh/h | 587 | 11 | 257 | 517 | 6 | 347 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 145 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 605 | 11 | 265 | 533 | 6 | 358 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|-------|-------|
| Conflicting Flow All | 0 | 0 | 616 | 0 | 1674 | 611 |
| Stage 1 | - | - | - | - | 611 | - |
| Stage 2 | - | - | - | - | 1063 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 964 | - | 105 | 494 |
| Stage 1 | - | - | - | - | 542 | - |
| Stage 2 | - | - | - | - | 332 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 964 | - | 64 | 494 |
| Mov Cap-2 Maneuver | - | - | - | - | 156 | - |
| Stage 1 | - | - | - | - | 542 | - |
| Stage 2 | - | - | - | - | 202 | - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 3.4 | 29.1 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 156 | 494 | - | - | 964 | - |
| HCM Lane V/C Ratio | 0.04 | 0.724 | - | - | 0.275 | - |
| HCM Control Delay (s) | 29 | 29.1 | - | - | 10.1 | 0 |
| HCM Lane LOS | D | D | - | - | B | A |
| HCM 95th %tile Q(veh) | 0.1 | 5.9 | - | - | 1.1 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | | ↷ | | ↶ | ↷ | |
| Traffic Vol, veh/h | 183 | 656 | 17 | 9 | 506 | 9 | 8 | 6 | 2 | 6 | 7 | 198 |
| Future Vol, veh/h | 183 | 656 | 17 | 9 | 506 | 9 | 8 | 6 | 2 | 6 | 7 | 198 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 189 | 676 | 18 | 9 | 522 | 9 | 8 | 6 | 2 | 6 | 7 | 204 |

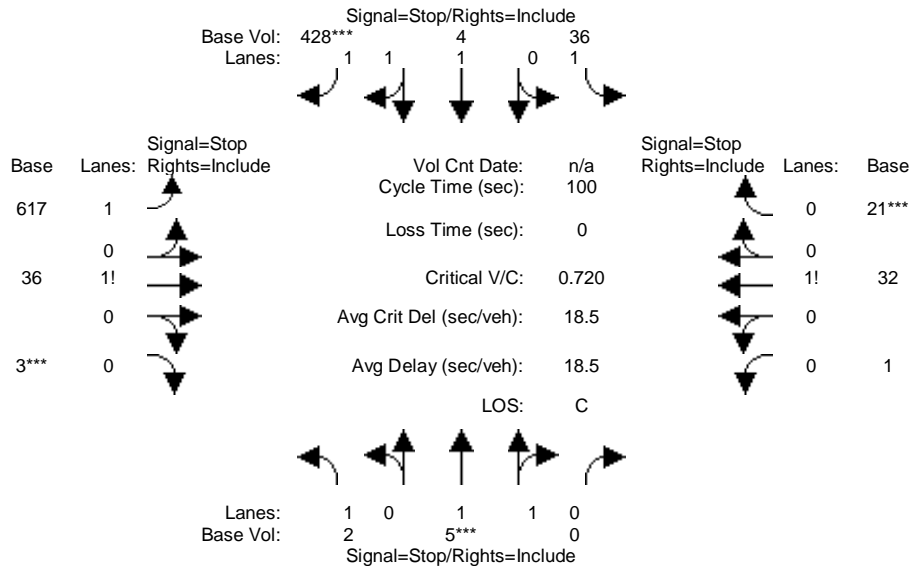
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 531 | 0 | 0 | 694 | 0 | 0 | 1713 | 1612 | 685 | 1612 | 1617 | 527 |
| Stage 1 | - | - | - | - | - | - | 1063 | 1063 | - | 545 | 545 | - |
| Stage 2 | - | - | - | - | - | - | 650 | 549 | - | 1067 | 1072 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1036 | - | - | 901 | - | - | 71 | 104 | 448 | 84 | 103 | 551 |
| Stage 1 | - | - | - | - | - | - | 270 | 300 | - | 523 | 519 | - |
| Stage 2 | - | - | - | - | - | - | 458 | 516 | - | 269 | 297 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1036 | - | - | 901 | - | - | 36 | 84 | 448 | 67 | 83 | 551 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 36 | 84 | - | 67 | 83 | - |
| Stage 1 | - | - | - | - | - | - | 221 | 245 | - | 428 | 514 | - |
| Stage 2 | - | - | - | - | - | - | 281 | 511 | - | 213 | 243 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 2 | | | 0.2 | | | 98.7 | | | 20.5 | | |
| HCM LOS | | | | | | | F | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|-------|
| Capacity (veh/h) | 54 | 1036 | - | - | 901 | - | - | 67 | 462 |
| HCM Lane V/C Ratio | 0.305 | 0.182 | - | - | 0.01 | - | - | 0.092 | 0.457 |
| HCM Control Delay (s) | 98.7 | 9.2 | - | - | 9 | - | - | 64.1 | 19.2 |
| HCM Lane LOS | F | A | - | - | A | - | - | F | C |
| HCM 95th %tile Q(veh) | 1.1 | 0.7 | - | - | 0 | - | - | 0.3 | 2.4 |

Level Of Service Computation Report
 2000 HCM 4-Way Stop (Base Volume Alternative)
 Existing plus Project PM

Intersection #1: Cameron Ave/Court St



| Street Name: | Court St | | | | | | Cameron Ave | | | | | |
|--|-------------|------|------|-------------|------|------|-------------|------|------|------------|------|------|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 2 | 5 | 0 | 36 | 4 | 428 | 617 | 36 | 3 | 1 | 32 | 21 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 2 | 5 | 0 | 36 | 4 | 428 | 617 | 36 | 3 | 1 | 32 | 21 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| PHF Volume: | 2 | 6 | 0 | 40 | 4 | 481 | 693 | 40 | 3 | 1 | 36 | 24 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 2 | 6 | 0 | 40 | 4 | 481 | 693 | 40 | 3 | 1 | 36 | 24 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 2 | 6 | 0 | 40 | 4 | 481 | 693 | 40 | 3 | 1 | 36 | 24 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 1.88 | 0.11 | 0.01 | 0.02 | 0.59 | 0.39 |
| Final Sat.: | 395 | 836 | 0 | 475 | 507 | 1133 | 1509 | -455 | 5 | 10 | 316 | 207 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.01 | xxxx | 0.09 | 0.01 | 0.42 | 0.46-0.09 | 0.72 | 0.11 | 0.11 | 0.11 | 0.11 |
| Crit Moves: | **** | | | | | **** | | **** | | | **** | |
| Delay/Veh: | 11.2 | 10.7 | 0.0 | 10.7 | 9.6 | 13.1 | 23.9 | 25.1 | 25.1 | 10.3 | 10.3 | 10.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 11.2 | 10.7 | 0.0 | 10.7 | 9.6 | 13.1 | 23.9 | 25.1 | 25.1 | 10.3 | 10.3 | 10.3 |
| LOS by Move: | B | B | * | B | A | B | C | D | D | B | B | B |
| ApproachDel: | 10.8 | | | 12.9 | | | 23.3 | | | 10.3 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 10.8 | | | 12.9 | | | 23.3 | | | 10.3 | | |
| LOS by Appr: | B | | | B | | | C | | | B | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.7 | 2.2 | 2.2 | 2.2 | 0.1 | 0.1 | 0.1 |
| Note: Queue reported is the number of cars per lane. | | | | | | | | | | | | |
| Time Period: | 0.25 hour | | | | | | | | | | | |
| HevVeh: | 0% | | | 0% | | | 0% | | | 0% | | |
| Alpha Value: | 0.01 | | | | | | | | | | | |
| GroupType: | 6 | | | 6 | | | 5 | | | 4B | | |

| | | | | |
|-----------|--------|--------|--------|--------|
| P[C1]: | 0.03 | 0.08 | 0.28 | 0.03 |
| P[C2]: | 0.06 | 0.00 | 0.03 | 0.28 |
| P[C3]: | 0.26 | 0.80 | 0.60 | 0.06 |
| P[C4]: | 0.59 | 0.11 | 0.08 | 0.62 |
| P[C5]: | 0.07 | 0.00 | 0.00 | 0.01 |
| Padj[C1]: | 0.026 | 0.019 | 0.015 | 0.023 |
| Padj[C2]: | 0.016 | 0.010 | 0.007 | 0.010 |
| Padj[C3]: | -0.000 | -0.023 | -0.017 | 0.004 |
| Padj[C4]: | -0.035 | -0.007 | -0.005 | -0.037 |
| Padj[C5]: | -0.007 | -0.000 | -0.000 | -0.001 |

| Lanes: | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
|--------------|-------|--------|-------|--------|-------|-------|--------|---------|
| LaneType: | LEFT | RTTHRU | LEFT | RITE | LEFT | LTR | LTR | NOLANE |
| HeadwayAdj: | 0.500 | 0.000 | 0.500 | -0.700 | 0.500 | 0.934 | -0.230 | xx.xxx |
| Volume: | 2 | 3 | 40 | 240 | 369 | 369 | 61 | xxxxxxx |
| Capacity: | 395 | 418 | 475 | 566 | 545 | 512 | 533 | xxxxxx |
| DegOfUtil: | 0.01 | 0.01 | 0.08 | 0.41 | 0.67 | 0.71 | 0.11 | x.xx |
| DepHeadway: | 8.45 | 7.95 | 7.37 | 6.17 | 6.53 | 6.97 | 6.48 | xx.xx |
| ServiceTime: | 6.2 | 5.7 | 5.1 | 3.9 | 4.2 | 4.7 | 4.5 | xx.x |
| Delay: | 11.2 | 10.7 | 10.7 | 13.1 | 21.4 | 25.1 | 10.3 | xxx.x |
| Queue: | 0.0 | 0.0 | 0.1 | 0.7 | 1.8 | 2.2 | 0.1 | xxx.x |

| Lanes: | L3 | L4 | L3 | L4 | L3 | L4 | L3 | L4 |
|--------------|-------|--------|--------|-------|--------|--------|--------|--------|
| LaneType: | THRU | NOLANE | RTTHRU | THRU | NOLANE | NOLANE | NOLANE | NOLANE |
| HeadwayAdj: | 0.000 | xx.xxx | -0.700 | 0.000 | xx.xxx | xx.xxx | xx.xxx | xx.xxx |
| Volume: | 3 | xxxxxx | 240 | 4 | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Capacity: | 418 | xxxxxx | 566 | 507 | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| DegOfUtil: | 0.01 | x.xx | 0.41 | 0.01 | x.xx | x.xx | x.xx | x.xx |
| DepHeadway: | 7.95 | xx.xx | 6.17 | 6.87 | xx.xx | xx.xx | xx.xx | xx.xx |
| ServiceTime: | 5.7 | xx.x | 3.9 | 4.6 | xx.x | xx.x | xx.x | xx.x |
| Delay: | 10.7 | xxx.x | 13.1 | 9.6 | xxx.x | xxx.x | xxx.x | xxx.x |
| Queue: | 0.0 | xxx.x | 0.7 | 0.0 | xxx.x | xxx.x | xxx.x | xxx.x |

| Approach: | North Bound | South Bound | East Bound | West Bound |
|--------------|-------------|-------------|------------|------------|
| ApproachDel: | 10.8 | 12.9 | 23.3 | 10.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 |
| ApprAdjDel: | 10.8 | 12.9 | 23.3 | 10.3 |
| LOS by Appr: | B | B | C | B |
| OverallDel: | 18.5 | | | |
| OverallLOS: | C | | | |

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #1 Cameron Ave/Court St

Base Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | South Bound | East Bound | West Bound |
|----------------------------------|-------------|-------------|------------|------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Control: | Stop Sign | Stop Sign | Stop Sign | Stop Sign |
| Lanes: | 1 0 1 1 0 | 1 0 1 1 1 | 1 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 2 5 0 | 36 4 428 | 617 36 3 | 1 32 21 |
| Major Street Volume: | 710 | | | |
| Minor Approach Volume: | 468 | | | |
| Minor Approach Volume Threshold: | 521 | | | |

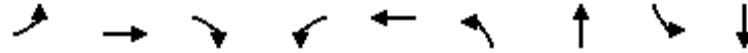
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Queues
16: Demaree St & Visalia Pkwy

Existing plus Project Conditions
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 17 | 267 | 52 | 97 | 423 | 59 | 621 | 146 | 565 |
| v/c Ratio | 0.12 | 0.63 | 0.11 | 0.47 | 0.38 | 0.34 | 0.62 | 0.61 | 0.44 |
| Control Delay | 44.0 | 39.7 | 0.5 | 45.6 | 19.2 | 44.9 | 27.9 | 48.0 | 22.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 44.0 | 39.7 | 0.5 | 45.6 | 19.2 | 44.9 | 27.9 | 48.0 | 22.7 |
| Queue Length 50th (ft) | 9 | 126 | 0 | 49 | 58 | 30 | 144 | 74 | 123 |
| Queue Length 95th (ft) | 33 | #276 | 0 | 110 | 138 | 77 | 224 | 156 | 194 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 775 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 353 | 495 | 515 | 353 | 1216 | 353 | 1593 | 353 | 1622 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.54 | 0.10 | 0.27 | 0.35 | 0.17 | 0.39 | 0.41 | 0.35 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

Existing plus Project Conditions
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 16 | 254 | 49 | 92 | 253 | 149 | 56 | 475 | 115 | 139 | 487 | 49 |
| Future Volume (veh/h) | 16 | 254 | 49 | 92 | 253 | 149 | 56 | 475 | 115 | 139 | 487 | 49 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 17 | 267 | 52 | 97 | 266 | 157 | 59 | 500 | 121 | 146 | 513 | 52 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 44 | 374 | 318 | 139 | 551 | 314 | 109 | 805 | 194 | 186 | 1064 | 108 |
| Arrive On Green | 0.02 | 0.20 | 0.20 | 0.08 | 0.25 | 0.25 | 0.06 | 0.28 | 0.28 | 0.10 | 0.33 | 0.33 |
| Sat Flow, veh/h | 1774 | 1863 | 1583 | 1774 | 2162 | 1234 | 1774 | 2831 | 681 | 1774 | 3246 | 328 |
| Grp Volume(v), veh/h | 17 | 267 | 52 | 97 | 216 | 207 | 59 | 312 | 309 | 146 | 279 | 286 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1583 | 1774 | 1770 | 1626 | 1774 | 1770 | 1742 | 1774 | 1770 | 1805 |
| Q Serve(g_s), s | 0.6 | 8.3 | 1.7 | 3.3 | 6.4 | 6.8 | 2.0 | 9.5 | 9.6 | 5.0 | 7.8 | 7.9 |
| Cycle Q Clear(g_c), s | 0.6 | 8.3 | 1.7 | 3.3 | 6.4 | 6.8 | 2.0 | 9.5 | 9.6 | 5.0 | 7.8 | 7.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.76 | 1.00 | | 0.39 | 1.00 | | 0.18 |
| Lane Grp Cap(c), veh/h | 44 | 374 | 318 | 139 | 451 | 414 | 109 | 503 | 496 | 186 | 580 | 591 |
| V/C Ratio(X) | 0.39 | 0.71 | 0.16 | 0.70 | 0.48 | 0.50 | 0.54 | 0.62 | 0.62 | 0.78 | 0.48 | 0.48 |
| Avail Cap(c_a), veh/h | 428 | 599 | 509 | 428 | 569 | 523 | 428 | 982 | 967 | 428 | 982 | 1002 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 29.9 | 23.2 | 20.5 | 27.9 | 19.7 | 19.8 | 28.3 | 19.3 | 19.4 | 27.1 | 16.7 | 16.7 |
| Incr Delay (d2), s/veh | 2.1 | 7.5 | 0.7 | 2.3 | 2.4 | 2.8 | 1.5 | 2.4 | 2.5 | 2.8 | 1.2 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 5.0 | 0.8 | 1.7 | 3.4 | 3.4 | 1.0 | 4.9 | 4.9 | 2.6 | 4.0 | 4.1 |
| LnGrp Delay(d),s/veh | 32.0 | 30.7 | 21.3 | 30.3 | 22.1 | 22.6 | 29.8 | 21.7 | 21.9 | 29.9 | 17.9 | 17.9 |
| LnGrp LOS | C | C | C | C | C | C | C | C | C | C | B | B |
| Approach Vol, veh/h | | 336 | | | 520 | | | 680 | | | 711 | |
| Approach Delay, s/veh | | 29.3 | | | 23.8 | | | 22.5 | | | 20.4 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.7 | 24.7 | 9.1 | 17.7 | 8.0 | 27.4 | 5.7 | 21.0 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 15 | 34.5 | * 15 | 20.0 | * 15 | 34.5 | * 15 | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.0 | 11.6 | 5.3 | 10.3 | 4.0 | 9.9 | 2.6 | 8.8 | | | | |
| Green Ext Time (p_c), s | 0.1 | 6.1 | 0.1 | 2.2 | 0.0 | 5.7 | 0.0 | 3.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 23.1 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.9 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↵ | ↵ | | ↵ | ↵ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 29 | 455 | 4 | 5 | 480 | 48 | 2 | 0 | 1 | 50 | 1 | 40 |
| Future Vol, veh/h | 29 | 455 | 4 | 5 | 480 | 48 | 2 | 0 | 1 | 50 | 1 | 40 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 33 | 511 | 4 | 6 | 539 | 54 | 2 | 0 | 1 | 56 | 1 | 45 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 593 | 0 | 0 | 515 | 0 | 0 | 1180 | 1184 | 513 | 1158 | 1159 | 566 |
| Stage 1 | - | - | - | - | - | - | 579 | 579 | - | 578 | 578 | - |
| Stage 2 | - | - | - | - | - | - | 601 | 605 | - | 580 | 581 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 983 | - | - | 1051 | - | - | 167 | 189 | 561 | 173 | 196 | 524 |
| Stage 1 | - | - | - | - | - | - | 501 | 501 | - | 501 | 501 | - |
| Stage 2 | - | - | - | - | - | - | 487 | 487 | - | 500 | 500 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 983 | - | - | 1051 | - | - | 147 | 181 | 561 | 167 | 188 | 524 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 147 | 181 | - | 167 | 188 | - |
| Stage 1 | - | - | - | - | - | - | 484 | 484 | - | 484 | 498 | - |
| Stage 2 | - | - | - | - | - | - | 442 | 484 | - | 482 | 483 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.5 | | | 0.1 | | | 23.8 | | | 30.9 | | |
| HCM LOS | | | | | | | C | | | D | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 195 | 983 | - | - | 1051 | - | - | 239 |
| HCM Lane V/C Ratio | 0.017 | 0.033 | - | - | 0.005 | - | - | 0.428 |
| HCM Control Delay (s) | 23.8 | 8.8 | - | - | 8.4 | - | - | 30.9 |
| HCM Lane LOS | C | A | - | - | A | - | - | D |
| HCM 95th %tile Q(veh) | 0.1 | 0.1 | - | - | 0 | - | - | 2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.8 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↙ | ↑ | ↗ | | ↙ | ↗ |
| Traffic Vol, veh/h | 85 | 424 | 453 | 153 | 104 | 92 |
| Future Vol, veh/h | 85 | 424 | 453 | 153 | 104 | 92 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 96 | 476 | 509 | 172 | 117 | 103 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 681 | 0 | - | 0 | 1263 595 |
| Stage 1 | - | - | - | - | 595 - |
| Stage 2 | - | - | - | - | 668 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 912 | - | - | - | 187 504 |
| Stage 1 | - | - | - | - | 551 - |
| Stage 2 | - | - | - | - | 510 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 912 | - | - | - | 167 504 |
| Mov Cap-2 Maneuver | - | - | - | - | 167 - |
| Stage 1 | - | - | - | - | 493 - |
| Stage 2 | - | - | - | - | 510 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.6 | 0 | 41.3 |
| HCM LOS | | | E |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 912 | - | - | - | 167 | 504 |
| HCM Lane V/C Ratio | 0.105 | - | - | - | 0.7 | 0.205 |
| HCM Control Delay (s) | 9.4 | - | - | - | 65.5 | 14 |
| HCM Lane LOS | A | - | - | - | F | B |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 4.2 | 0.8 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 72 | 470 | 508 | 29 | 43 | 68 |
| Future Vol, veh/h | 72 | 470 | 508 | 29 | 43 | 68 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 1 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 78 | 511 | 552 | 32 | 47 | 74 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|-------|-------|
| Conflicting Flow All | 585 | 0 | 0 | 1236 | 569 |
| Stage 1 | - | - | - | 569 | - |
| Stage 2 | - | - | - | 667 | - |
| Critical Hdwy | 4.12 | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 990 | - | - | 195 | 522 |
| Stage 1 | - | - | - | 566 | - |
| Stage 2 | - | - | - | 510 | - |
| Platoon blocked, % | | - | - | | |
| Mov Cap-1 Maneuver | 989 | - | - | 173 | 522 |
| Mov Cap-2 Maneuver | - | - | - | 173 | - |
| Stage 1 | - | - | - | 503 | - |
| Stage 2 | - | - | - | 509 | - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.2 | 0 | 25.6 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 989 | - | - | - | 293 |
| HCM Lane V/C Ratio | 0.079 | - | - | - | 0.412 |
| HCM Control Delay (s) | 9 | 0 | - | - | 25.6 |
| HCM Lane LOS | A | A | - | - | D |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 1.9 |

Queues
20: Mooney Blvd & Visalia Pkwy

Existing plus Project Conditions
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|-------|------|------|-------|------|-------|------|------|
| Lane Group Flow (vph) | 115 | 462 | 254 | 256 | 268 | 1153 | 175 | 858 | 57 |
| v/c Ratio | 0.68 | 1.12 | 0.86 | 0.47 | 1.10 | 1.00 | 0.97 | 0.57 | 0.10 |
| Control Delay | 83.2 | 129.2 | 85.4 | 43.1 | 142.5 | 73.0 | 112.0 | 21.9 | 0.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 83.2 | 129.2 | 85.4 | 43.1 | 142.5 | 73.0 | 112.0 | 21.9 | 0.8 |
| Queue Length 50th (ft) | 107 | -485 | 235 | 189 | -286 | 564 | -155 | 193 | 0 |
| Queue Length 95th (ft) | 170 | #707 | 330 | 280 | #470 | #726 | m#373 | 210 | m4 |
| Internal Link Dist (ft) | | 765 | | 337 | | 302 | | 1110 | |
| Turn Bay Length (ft) | 180 | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 244 | 412 | 354 | 543 | 244 | 1155 | 181 | 1517 | 579 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.47 | 1.12 | 0.72 | 0.47 | 1.10 | 1.00 | 0.97 | 0.57 | 0.10 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

Existing plus Project Conditions
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 107 | 255 | 175 | 236 | 183 | 55 | 249 | 865 | 207 | 163 | 798 | 53 |
| Future Volume (veh/h) | 107 | 255 | 175 | 236 | 183 | 55 | 249 | 865 | 207 | 163 | 798 | 53 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 115 | 274 | 188 | 254 | 197 | 59 | 268 | 930 | 223 | 175 | 858 | 57 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 138 | 233 | 160 | 245 | 402 | 120 | 333 | 1108 | 265 | 122 | 1347 | 410 |
| Arrive On Green | 0.08 | 0.23 | 0.23 | 0.14 | 0.29 | 0.29 | 0.19 | 0.39 | 0.39 | 0.14 | 0.53 | 0.53 |
| Sat Flow, veh/h | 1774 | 1025 | 703 | 1774 | 1373 | 411 | 1774 | 2832 | 678 | 1774 | 5085 | 1547 |
| Grp Volume(v), veh/h | 115 | 0 | 462 | 254 | 0 | 256 | 268 | 581 | 572 | 175 | 858 | 57 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1728 | 1774 | 0 | 1784 | 1774 | 1770 | 1741 | 1774 | 1695 | 1547 |
| Q Serve(g_s), s | 9.3 | 0.0 | 33.0 | 20.0 | 0.0 | 17.2 | 21.0 | 43.1 | 43.3 | 10.0 | 17.4 | 2.1 |
| Cycle Q Clear(g_c), s | 9.3 | 0.0 | 33.0 | 20.0 | 0.0 | 17.2 | 21.0 | 43.1 | 43.3 | 10.0 | 17.4 | 2.1 |
| Prop In Lane | 1.00 | | 0.41 | 1.00 | | 0.23 | 1.00 | | 0.39 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 138 | 0 | 393 | 245 | 0 | 522 | 333 | 692 | 681 | 122 | 1347 | 410 |
| V/C Ratio(X) | 0.84 | 0.00 | 1.17 | 1.04 | 0.00 | 0.49 | 0.81 | 0.84 | 0.84 | 1.43 | 0.64 | 0.14 |
| Avail Cap(c_a), veh/h | 245 | 0 | 393 | 245 | 0 | 522 | 333 | 692 | 681 | 122 | 1347 | 410 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 0.88 | 0.88 |
| Uniform Delay (d), s/veh | 66.0 | 0.0 | 56.0 | 62.5 | 0.0 | 42.3 | 56.4 | 40.0 | 40.1 | 62.5 | 29.2 | 15.5 |
| Incr Delay (d2), s/veh | 5.0 | 0.0 | 102.4 | 67.8 | 0.0 | 2.1 | 12.6 | 11.7 | 12.0 | 229.9 | 2.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.8 | 0.0 | 26.9 | 14.4 | 0.0 | 8.8 | 11.4 | 23.2 | 23.1 | 12.7 | 8.3 | 1.1 |
| LnGrp Delay(d),s/veh | 71.0 | 0.0 | 158.4 | 130.3 | 0.0 | 44.4 | 68.9 | 51.7 | 52.0 | 292.4 | 31.2 | 16.2 |
| LnGrp LOS | E | | F | F | | D | E | D | D | F | C | B |
| Approach Vol, veh/h | | 577 | | | 510 | | | 1421 | | | 1090 | |
| Approach Delay, s/veh | | 140.9 | | | 87.2 | | | 55.1 | | | 72.3 | |
| Approach LOS | | F | | | F | | | E | | | E | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.7 | 63.5 | 26.4 | 39.4 | 34.0 | 45.2 | 16.9 | 48.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | 6.4 | * 6.4 | 6.8 | * 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 10 | 48.4 | 20.0 | * 33 | 20.0 | * 38 | * 20 | 42.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 12.0 | 45.3 | 22.0 | 35.0 | 23.0 | 19.4 | 11.3 | 19.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.8 | 0.0 | 0.0 | 0.0 | 11.6 | 0.1 | 3.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 78.6 | | | | | | | | | |
| HCM 2010 LOS | | | E | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
22: Mooney Blvd & Midvalley Ave

Existing plus Project Conditions
Timing Plan: P.M. Peak























| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 38 | 10 | 317 | 7 | 1176 | 75 | 1005 | 71 |
| v/c Ratio | 0.12 | 0.02 | 0.77 | 0.04 | 0.86 | 0.36 | 0.55 | 0.08 |
| Control Delay | 20.2 | 0.1 | 28.6 | 35.4 | 31.0 | 36.5 | 15.2 | 1.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.2 | 0.1 | 28.6 | 35.4 | 31.0 | 36.5 | 15.2 | 1.3 |
| Queue Length 50th (ft) | 12 | 0 | 79 | 3 | 225 | 29 | 114 | 0 |
| Queue Length 95th (ft) | 34 | 0 | 171 | 18 | #561 | 81 | 353 | 9 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 631 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 639 | 898 | 774 | 412 | 1363 | 412 | 1835 | 860 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.01 | 0.41 | 0.02 | 0.86 | 0.18 | 0.55 | 0.08 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

Existing plus Project Conditions
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 34 | 3 | 10 | 170 | 0 | 138 | 7 | 1065 | 76 | 73 | 975 | 69 |
| Future Volume (veh/h) | 34 | 3 | 10 | 170 | 0 | 138 | 7 | 1065 | 76 | 73 | 975 | 69 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 35 | 3 | 10 | 175 | 0 | 142 | 7 | 1098 | 78 | 75 | 1005 | 71 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 371 | 28 | 407 | 274 | 12 | 163 | 19 | 1248 | 89 | 120 | 1521 | 666 |
| Arrive On Green | 0.26 | 0.26 | 0.26 | 0.26 | 0.00 | 0.26 | 0.01 | 0.37 | 0.37 | 0.07 | 0.43 | 0.43 |
| Sat Flow, veh/h | 1037 | 108 | 1583 | 736 | 46 | 635 | 1774 | 3346 | 238 | 1774 | 3539 | 1549 |
| Grp Volume(v), veh/h | 38 | 0 | 10 | 317 | 0 | 0 | 7 | 580 | 596 | 75 | 1005 | 71 |
| Grp Sat Flow(s),veh/h/ln | 1144 | 0 | 1583 | 1417 | 0 | 0 | 1774 | 1770 | 1814 | 1774 | 1770 | 1549 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.3 | 12.7 | 0.0 | 0.0 | 0.3 | 20.3 | 20.3 | 2.7 | 15.0 | 1.8 |
| Cycle Q Clear(g_c), s | 1.6 | 0.0 | 0.3 | 14.3 | 0.0 | 0.0 | 0.3 | 20.3 | 20.3 | 2.7 | 15.0 | 1.8 |
| Prop In Lane | 0.92 | | 1.00 | 0.55 | | 0.45 | 1.00 | | 0.13 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 399 | 0 | 407 | 449 | 0 | 0 | 19 | 660 | 677 | 120 | 1521 | 666 |
| V/C Ratio(X) | 0.10 | 0.00 | 0.02 | 0.71 | 0.00 | 0.00 | 0.36 | 0.88 | 0.88 | 0.62 | 0.66 | 0.11 |
| Avail Cap(c_a), veh/h | 456 | 0 | 478 | 804 | 0 | 0 | 402 | 668 | 685 | 402 | 1521 | 666 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.8 | 0.0 | 18.4 | 23.8 | 0.0 | 0.0 | 32.5 | 19.4 | 19.4 | 30.0 | 15.0 | 11.3 |
| Incr Delay (d2), s/veh | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 4.1 | 15.2 | 15.0 | 2.0 | 2.0 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.1 | 5.6 | 0.0 | 0.0 | 0.1 | 12.6 | 12.9 | 1.4 | 7.7 | 0.8 |
| LnGrp Delay(d),s/veh | 18.9 | 0.0 | 18.4 | 24.6 | 0.0 | 0.0 | 36.6 | 34.6 | 34.4 | 32.0 | 17.0 | 11.5 |
| LnGrp LOS | B | | B | C | | | D | C | C | C | B | B |
| Approach Vol, veh/h | | 48 | | | 317 | | | 1183 | | | 1151 | |
| Approach Delay, s/veh | | 18.8 | | | 24.6 | | | 34.5 | | | 17.7 | |
| Approach LOS | | B | | | C | | | C | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.2 | 31.5 | | 24.5 | 6.4 | 35.3 | | 24.5 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 20 | * 15 | 25.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.7 | 22.3 | | 3.6 | 2.3 | 17.0 | | 16.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.4 | | 0.1 | 0.0 | 6.3 | | 0.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 25.9 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 39.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 39 | 4 | 27 | 2 | 3 | 36 | 137 | 1120 | 57 | 29 | 1157 | 63 |
| Future Vol, veh/h | 39 | 4 | 27 | 2 | 3 | 36 | 137 | 1120 | 57 | 29 | 1157 | 63 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 41 | 4 | 28 | 2 | 3 | 38 | 144 | 1179 | 60 | 31 | 1218 | 66 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 2192 | 2840 | 642 | 2170 | 2843 | 620 | 1284 | 0 | 0 | 1239 | 0 | 0 |
| Stage 1 | 1313 | 1313 | - | 1497 | 1497 | - | - | - | - | - | - | - |
| Stage 2 | 879 | 1527 | - | 673 | 1346 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | ~ 25 | 17 | 417 | 26 | 17 | 431 | 536 | - | - | 558 | - | - |
| Stage 1 | 167 | 226 | - | 128 | 184 | - | - | - | - | - | - | - |
| Stage 2 | 309 | 178 | - | 411 | 218 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | ~ 14 | 12 | 417 | 14 | 12 | 431 | 536 | - | - | 558 | - | - |
| Mov Cap-2 Maneuver | ~ 14 | 12 | - | 14 | 12 | - | - | - | - | - | - | - |
| Stage 1 | 122 | 213 | - | 94 | 135 | - | - | - | - | - | - | - |
| Stage 2 | 201 | 130 | - | 355 | 206 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|-----------------------|--------|--|------|--|-----|--|-----|--|
| HCM Control Delay, \$ | 1422.5 | | 83.2 | | 1.5 | | 0.3 | |
| HCM LOS | F | | F | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 536 | - | - | 22 | 86 | 558 | - |
| HCM Lane V/C Ratio | 0.269 | - | - | 3.349 | 0.502 | 0.055 | - |
| HCM Control Delay (s) | 14.2 | - | - | \$ 1422.5 | 83.2 | 11.8 | - |
| HCM Lane LOS | B | - | - | F | F | B | - |
| HCM 95th %tile Q(veh) | 1.1 | - | - | 9.4 | 2.2 | 0.2 | - |

| Notes | | | |
|----------------------------|------------------------|----------------------------|--------------------------------|
| -: Volume exceeds capacity | \$: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

Queues
25: Mooney Blvd & Ave 268

Existing plus Project Conditions
Timing Plan: P.M. Peak





















| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 253 | 31 | 127 | 1211 | 64 | 1222 |
| v/c Ratio | 0.70 | 0.08 | 0.52 | 0.78 | 0.33 | 0.92 |
| Control Delay | 32.9 | 13.1 | 37.6 | 24.5 | 36.6 | 37.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 32.9 | 13.1 | 37.6 | 24.5 | 36.6 | 37.5 |
| Queue Length 50th (ft) | 89 | 4 | 54 | 258 | 27 | 279 |
| Queue Length 95th (ft) | 178 | 24 | 109 | #449 | 66 | #508 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 475 | 502 | 396 | 1555 | 396 | 1325 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.53 | 0.06 | 0.32 | 0.78 | 0.16 | 0.92 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
25: Mooney Blvd & Ave 268

Existing plus Project Conditions
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 149 | 1 | 77 | 9 | 1 | 18 | 114 | 1077 | 13 | 58 | 1089 | 11 |
| Future Volume (veh/h) | 149 | 1 | 77 | 9 | 1 | 18 | 114 | 1077 | 13 | 58 | 1089 | 11 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 166 | 1 | 86 | 10 | 1 | 20 | 127 | 1197 | 14 | 64 | 1210 | 12 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 295 | 12 | 110 | 157 | 45 | 232 | 163 | 1484 | 17 | 113 | 1386 | 14 |
| Arrive On Green | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.09 | 0.41 | 0.41 | 0.06 | 0.39 | 0.39 |
| Sat Flow, veh/h | 915 | 53 | 499 | 377 | 203 | 1054 | 1774 | 3582 | 42 | 1774 | 3590 | 36 |
| Grp Volume(v), veh/h | 253 | 0 | 0 | 31 | 0 | 0 | 127 | 591 | 620 | 64 | 596 | 626 |
| Grp Sat Flow(s),veh/h/ln | 1467 | 0 | 0 | 1634 | 0 | 0 | 1774 | 1770 | 1854 | 1774 | 1770 | 1856 |
| Q Serve(g_s), s | 9.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.5 | 18.8 | 18.8 | 2.2 | 19.9 | 19.9 |
| Cycle Q Clear(g_c), s | 10.3 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 | 4.5 | 18.8 | 18.8 | 2.2 | 19.9 | 19.9 |
| Prop In Lane | 0.66 | | 0.34 | 0.32 | | 0.65 | 1.00 | | 0.02 | 1.00 | | 0.02 |
| Lane Grp Cap(c), veh/h | 416 | 0 | 0 | 434 | 0 | 0 | 163 | 733 | 768 | 113 | 683 | 717 |
| V/C Ratio(X) | 0.61 | 0.00 | 0.00 | 0.07 | 0.00 | 0.00 | 0.78 | 0.81 | 0.81 | 0.57 | 0.87 | 0.87 |
| Avail Cap(c_a), veh/h | 596 | 0 | 0 | 619 | 0 | 0 | 417 | 733 | 768 | 417 | 693 | 727 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.4 | 0.0 | 0.0 | 19.8 | 0.0 | 0.0 | 28.4 | 16.5 | 16.5 | 29.0 | 18.1 | 18.2 |
| Incr Delay (d2), s/veh | 2.5 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 3.0 | 9.0 | 8.7 | 1.6 | 14.2 | 13.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.5 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 2.3 | 10.9 | 11.3 | 1.2 | 12.3 | 12.8 |
| LnGrp Delay(d),s/veh | 25.8 | 0.0 | 0.0 | 19.9 | 0.0 | 0.0 | 31.4 | 25.5 | 25.1 | 30.7 | 32.4 | 31.8 |
| LnGrp LOS | C | | | B | | | C | C | C | C | C | C |
| Approach Vol, veh/h | | 253 | | | 31 | | | 1338 | | | 1286 | |
| Approach Delay, s/veh | | 25.8 | | | 19.9 | | | 25.9 | | | 32.0 | |
| Approach LOS | | C | | | B | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.8 | 34.3 | | 19.7 | 11.6 | 32.6 | | 19.7 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 22 | * 15 | 25.0 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.2 | 20.8 | | 12.3 | 6.5 | 21.9 | | 2.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 3.7 | | 1.5 | 0.1 | 2.7 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 28.5 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.3 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 566 | 124 | 0 | 497 | 0 | 25 |
| Future Vol, veh/h | 566 | 124 | 0 | 497 | 0 | 25 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 590 | 129 | 0 | 518 | 0 | 26 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | 655 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | 0 | - | 0 | 466 |
| Stage 1 | - | 0 | - | 0 | - |
| Stage 2 | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 466 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 13.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 466 | - | - | - |
| HCM Lane V/C Ratio | 0.056 | - | - | - |
| HCM Control Delay (s) | 13.2 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | | ↖ | | | ↖ |
| Traffic Vol, veh/h | 19 | 477 | 84 | 90 | 417 | 23 | 0 | 0 | 25 | 21 | 0 | 25 |
| Future Vol, veh/h | 19 | 477 | 84 | 90 | 417 | 23 | 0 | 0 | 25 | 21 | 0 | 25 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | - | 150 | - | - | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 92 | 92 | 96 | 96 | 92 | 92 | 92 | 96 | 92 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 20 | 497 | 91 | 98 | 434 | 24 | 0 | 0 | 27 | 22 | 0 | 26 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|---|-------|--------|---|-------|
| Conflicting Flow All | 458 | 0 | 0 | 588 | 0 | 0 | - | - | 543 | 1238 | - | 446 |
| Stage 1 | - | - | - | - | - | - | - | - | - | 642 | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | 596 | - | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | - | - | 6.22 | 7.12 | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | 6.12 | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | 6.12 | - | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | - | - | 3.318 | 3.518 | - | 3.318 |
| Pot Cap-1 Maneuver | 1103 | - | - | 987 | - | - | 0 | 0 | 540 | 152 | 0 | 612 |
| Stage 1 | - | - | - | - | - | - | 0 | 0 | - | 463 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 0 | 0 | - | 490 | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1103 | - | - | 987 | - | - | - | - | 540 | 132 | - | 612 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | 132 | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | 455 | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | 457 | - | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|----|--|--|------|--|--|
| HCM Control Delay, s | 0.3 | | | 1.6 | | | 12 | | | 11.1 | | |
| HCM LOS | | | | | | | B | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 540 | 1103 | - | - | 987 | - | - | 612 |
| HCM Lane V/C Ratio | 0.05 | 0.018 | - | - | 0.099 | - | - | 0.043 |
| HCM Control Delay (s) | 12 | 8.3 | - | - | 9 | - | - | 11.1 |
| HCM Lane LOS | B | A | - | - | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.2 | 0.1 | - | - | 0.3 | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 523 | 0 | 0 | 495 | 0 | 42 |
| Future Vol, veh/h | 523 | 0 | 0 | 495 | 0 | 42 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 568 | 0 | 0 | 538 | 0 | 46 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | 568 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | 0 | - | 0 | 522 |
| Stage 1 | - | 0 | - | 0 | - |
| Stage 2 | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 522 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 12.6 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 522 | - | - | - |
| HCM Lane V/C Ratio | 0.087 | - | - | - |
| HCM Control Delay (s) | 12.6 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.1 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | ↔ |
| Traffic Vol, veh/h | 246 | 297 | 230 | 3 | 4 | 265 |
| Future Vol, veh/h | 246 | 297 | 230 | 3 | 4 | 265 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 265 | 319 | 247 | 3 | 4 | 285 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 250 | 0 | - | 0 | 1098 249 |
| Stage 1 | - | - | - | - | 249 - |
| Stage 2 | - | - | - | - | 849 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1316 | - | - | - | 235 790 |
| Stage 1 | - | - | - | - | 792 - |
| Stage 2 | - | - | - | - | 419 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1316 | - | - | - | 177 790 |
| Mov Cap-2 Maneuver | - | - | - | - | 177 - |
| Stage 1 | - | - | - | - | 598 - |
| Stage 2 | - | - | - | - | 419 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 3.8 | 0 | 12.3 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1316 | - | - | - | 177 | 790 |
| HCM Lane V/C Ratio | 0.201 | - | - | - | 0.024 | 0.361 |
| HCM Control Delay (s) | 8.4 | 0 | - | - | 25.8 | 12.1 |
| HCM Lane LOS | A | A | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.8 | - | - | - | 0.1 | 1.6 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | | ↕↔ | | | ↕↕↔ | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 128 | 0 | 1252 | 46 | 0 | 1209 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 128 | 0 | 1252 | 46 | 0 | 1209 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 139 | 0 | 1361 | 50 | 0 | 1314 | 0 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | |
|----------------------|--------|---|--------|---|--------|------|--------|---|
| Conflicting Flow All | - | - | 657 | - | - | 706 | - | 0 |
| Stage 1 | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 7.14 | - | - | 6.94 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.92 | - | - | 3.32 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 349 | 0 | 0 | 378 | 0 | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | 0 | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 349 | - | - | 378 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|----|----|----|----|
| HCM Control Delay, s | 0 | 20 | 0 | 0 |
| HCM LOS | A | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1WBLn1 | SBT | SBR |
|-----------------------|-----|-----|------------|-------|-----|
| Capacity (veh/h) | - | - | - | 378 | - |
| HCM Lane V/C Ratio | - | - | - | 0.368 | - |
| HCM Control Delay (s) | - | - | 0 | 20 | - |
| HCM Lane LOS | - | - | A | C | - |
| HCM 95th %tile Q(veh) | - | - | - | 1.7 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | ↗ | ↕ | | ↗ | ↕ | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 106 | 0 | 1192 | 45 | 78 | 1131 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 106 | 0 | 1192 | 45 | 78 | 1131 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 115 | 0 | 1296 | 49 | 85 | 1229 | 0 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|---|--------|---|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | - | - | 615 | - | - | 673 | 1229 | 0 | 0 | 1345 | 0 | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 434 | 0 | 0 | 398 | 563 | - | - | 508 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 434 | - | - | 398 | 563 | - | - | 508 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|----|--|------|--|----|--|-----|--|
| HCM Control Delay, s | 0 | | 17.7 | | 0 | | 0.9 | |
| HCM LOS | A | | C | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-----|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 563 | - | - | - | 398 | 508 | - | - |
| HCM Lane V/C Ratio | - | - | - | - | 0.289 | 0.167 | - | - |
| HCM Control Delay (s) | 0 | - | - | 0 | 17.7 | 13.5 | - | - |
| HCM Lane LOS | A | - | - | A | C | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 1.2 | 0.6 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.7 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 65 | 87 | 190 | 0 | 0 | 118 |
| Future Vol, veh/h | 65 | 87 | 190 | 0 | 0 | 118 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 71 | 95 | 207 | 0 | 0 | 128 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|-------|-------|
| Conflicting Flow All | 207 | 0 | 0 | 444 | 207 |
| Stage 1 | - | - | - | 207 | - |
| Stage 2 | - | - | - | 237 | - |
| Critical Hdwy | 4.12 | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1364 | - | - | 571 | 833 |
| Stage 1 | - | - | - | 828 | - |
| Stage 2 | - | - | - | 802 | - |
| Platoon blocked, % | | - | - | | |
| Mov Cap-1 Maneuver | 1364 | - | - | 540 | 833 |
| Mov Cap-2 Maneuver | - | - | - | 540 | - |
| Stage 1 | - | - | - | 782 | - |
| Stage 2 | - | - | - | 802 | - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 3.3 | 0 | 10.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1364 | - | - | - | 833 |
| HCM Lane V/C Ratio | 0.052 | - | - | - | 0.154 |
| HCM Control Delay (s) | 7.8 | 0 | - | - | 10.1 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | 0.5 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | ↷ |
| Traffic Vol, veh/h | 51 | 36 | 103 | 0 | 0 | 87 |
| Future Vol, veh/h | 51 | 36 | 103 | 0 | 0 | 87 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 55 | 39 | 112 | 0 | 0 | 95 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 112 | 0 | - | 0 | 261 |
| Stage 1 | - | - | - | - | 112 |
| Stage 2 | - | - | - | - | 149 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1478 | - | - | - | 728 |
| Stage 1 | - | - | - | - | 913 |
| Stage 2 | - | - | - | - | 879 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1478 | - | - | - | 700 |
| Mov Cap-2 Maneuver | - | - | - | - | 700 |
| Stage 1 | - | - | - | - | 878 |
| Stage 2 | - | - | - | - | 879 |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 4.4 | 0 | 9.3 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1478 | - | - | - | 941 |
| HCM Lane V/C Ratio | 0.038 | - | - | - | 0.1 |
| HCM Control Delay (s) | 7.5 | 0 | - | - | 9.3 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 20 | 16 | 52 | 0 | 0 | 51 |
| Future Vol, veh/h | 20 | 16 | 52 | 0 | 0 | 51 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 22 | 17 | 57 | 0 | 0 | 55 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 57 | 0 | - | 0 | 118 |
| Stage 1 | - | - | - | - | 57 |
| Stage 2 | - | - | - | - | 61 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1547 | - | - | - | 878 |
| Stage 1 | - | - | - | - | 966 |
| Stage 2 | - | - | - | - | 962 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1547 | - | - | - | 866 |
| Mov Cap-2 Maneuver | - | - | - | - | 866 |
| Stage 1 | - | - | - | - | 952 |
| Stage 2 | - | - | - | - | 962 |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 4.1 | 0 | 8.8 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1547 | - | - | - | 1009 |
| HCM Lane V/C Ratio | 0.014 | - | - | - | 0.055 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 8.8 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 31 |
| Future Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 31 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 17 | 23 | 0 | 0 | 34 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 40 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 17 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 972 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |

| Approach | EB | WB | SB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0 | 0 | 8.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | 1054 |
| HCM Lane V/C Ratio | - | - | - | - | 0.032 |
| HCM Control Delay (s) | 0 | - | - | - | 8.5 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.6 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | T | | |
| Traffic Vol, veh/h | 42 | 31 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 42 | 31 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 46 | 34 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |













| Approach | EB | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 8.7 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | 1047 | - | - |
| HCM Lane V/C Ratio | - | - | 0.076 | - | - |
| HCM Control Delay (s) | 0 | - | 8.7 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

Appendix F – Five-Year Cumulative Conditions Level of Service and Queuing Work Sheets

























Queues
1: Mooney Blvd & Whitendale Ave

5 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 105 | 218 | 137 | 187 | 262 | 60 | 95 | 654 | 136 | 63 | 635 | 46 |
| v/c Ratio | 0.44 | 0.46 | 0.40 | 0.66 | 0.50 | 0.16 | 0.27 | 0.22 | 0.14 | 0.37 | 0.24 | 0.05 |
| Control Delay | 70.2 | 59.6 | 7.4 | 75.4 | 58.9 | 1.0 | 62.1 | 17.0 | 3.8 | 72.2 | 21.6 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 70.2 | 59.6 | 7.4 | 75.4 | 58.9 | 1.0 | 62.1 | 17.0 | 3.8 | 72.2 | 21.6 | 0.1 |
| Queue Length 50th (ft) | 50 | 104 | 0 | 89 | 125 | 0 | 43 | 102 | 0 | 30 | 113 | 0 |
| Queue Length 95th (ft) | 81 | 125 | 38 | 129 | 144 | 0 | 73 | 183 | 42 | 55 | 190 | 0 |
| Internal Link Dist (ft) | | 1104 | | | 403 | | | 770 | | | 1028 | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 284 | 878 | 506 | 355 | 951 | 534 | 355 | 2959 | 965 | 355 | 2607 | 855 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.25 | 0.27 | 0.53 | 0.28 | 0.11 | 0.27 | 0.22 | 0.14 | 0.18 | 0.24 | 0.05 |
| Intersection Summary | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 1: Mooney Blvd & Whitendale Ave

5 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 97 | 201 | 126 | 172 | 241 | 55 | 87 | 602 | 125 | 58 | 584 | 42 |
| Future Volume (veh/h) | 97 | 201 | 126 | 172 | 241 | 55 | 87 | 602 | 125 | 58 | 584 | 42 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 105 | 218 | 137 | 187 | 262 | 60 | 95 | 654 | 136 | 63 | 635 | 46 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 257 | 487 | 216 | 233 | 462 | 204 | 843 | 2999 | 922 | 131 | 1922 | 596 |
| Arrive On Green | 0.07 | 0.14 | 0.14 | 0.07 | 0.13 | 0.13 | 0.25 | 0.59 | 0.59 | 0.04 | 0.38 | 0.38 |
| Sat Flow, veh/h | 3442 | 3539 | 1573 | 3442 | 3539 | 1565 | 3442 | 5085 | 1563 | 3442 | 5085 | 1578 |
| Grp Volume(v), veh/h | 105 | 218 | 137 | 187 | 262 | 60 | 95 | 654 | 136 | 63 | 635 | 46 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1573 | 1721 | 1770 | 1565 | 1721 | 1695 | 1563 | 1721 | 1695 | 1578 |
| Q Serve(g_s), s | 4.2 | 8.2 | 11.9 | 7.8 | 10.1 | 4.3 | 3.1 | 8.8 | 3.6 | 2.6 | 12.9 | 2.7 |
| Cycle Q Clear(g_c), s | 4.2 | 8.2 | 11.9 | 7.8 | 10.1 | 4.3 | 3.1 | 8.8 | 3.6 | 2.6 | 12.9 | 2.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 257 | 487 | 216 | 233 | 462 | 204 | 843 | 2999 | 922 | 131 | 1922 | 596 |
| V/C Ratio(X) | 0.41 | 0.45 | 0.63 | 0.80 | 0.57 | 0.29 | 0.11 | 0.22 | 0.15 | 0.48 | 0.33 | 0.08 |
| Avail Cap(c_a), veh/h | 285 | 879 | 391 | 285 | 952 | 421 | 843 | 2999 | 922 | 356 | 1922 | 596 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 0.96 | 0.96 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 64.0 | 57.5 | 59.1 | 66.6 | 59.2 | 42.2 | 42.5 | 14.0 | 5.3 | 68.3 | 32.1 | 28.9 |
| Incr Delay (d2), s/veh | 0.4 | 1.3 | 5.9 | 10.3 | 2.1 | 1.5 | 0.0 | 0.2 | 0.3 | 1.0 | 0.5 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 4.1 | 5.5 | 4.0 | 5.1 | 2.2 | 1.5 | 4.2 | 2.3 | 1.3 | 6.1 | 1.2 |
| LnGrp Delay(d),s/veh | 64.4 | 58.7 | 64.9 | 76.9 | 61.3 | 43.7 | 42.5 | 14.2 | 5.7 | 69.3 | 32.5 | 29.1 |
| LnGrp LOS | E | E | E | E | E | D | D | B | A | E | C | C |
| Approach Vol, veh/h | | 460 | | | 509 | | | 885 | | | 744 | |
| Approach Delay, s/veh | | 61.9 | | | 65.0 | | | 15.9 | | | 35.4 | |
| Approach LOS | | E | | | E | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.2 | 91.9 | 15.5 | 26.3 | 41.9 | 61.2 | 16.5 | 25.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 54.8 | 12.0 | * 36 | 15.0 | * 55 | 12.0 | * 39 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.6 | 10.8 | 9.8 | 13.9 | 5.1 | 14.9 | 6.2 | 12.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.4 | 0.1 | 3.1 | 0.1 | 9.0 | 0.1 | 3.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 39.2 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave

5 Year Cumulative
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 89 | 149 | 8 | 236 | 96 | 49 | 72 | 11 | 126 |
| v/c Ratio | 0.22 | 0.15 | 0.02 | 0.31 | 0.14 | 0.10 | 0.17 | 0.02 | 0.22 |
| Control Delay | 19.4 | 7.8 | 21.0 | 13.5 | 5.7 | 15.2 | 16.8 | 15.7 | 5.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.4 | 7.8 | 21.0 | 13.5 | 5.7 | 15.2 | 16.8 | 15.7 | 5.4 |
| Queue Length 50th (ft) | 19 | 14 | 2 | 45 | 3 | 9 | 14 | 2 | 0 |
| Queue Length 95th (ft) | 62 | 62 | 13 | 111 | 30 | 35 | 49 | 13 | 34 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 870 | 1424 | 870 | 1441 | 1242 | 1092 | 926 | 1278 | 1126 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.10 | 0.10 | 0.01 | 0.16 | 0.08 | 0.04 | 0.08 | 0.01 | 0.11 |

Intersection Summary

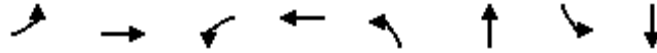
HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

5 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 82 | 125 | 12 | 7 | 217 | 88 | 19 | 22 | 4 | 66 | 10 | 116 |
| Future Volume (veh/h) | 82 | 125 | 12 | 7 | 217 | 88 | 19 | 22 | 4 | 66 | 10 | 116 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 89 | 136 | 13 | 8 | 236 | 96 | 21 | 24 | 4 | 72 | 11 | 126 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 177 | 613 | 59 | 23 | 520 | 442 | 245 | 222 | 28 | 512 | 397 | 337 |
| Arrive On Green | 0.10 | 0.37 | 0.37 | 0.01 | 0.28 | 0.28 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| Sat Flow, veh/h | 1774 | 1674 | 160 | 1774 | 1863 | 1583 | 444 | 1043 | 132 | 1377 | 1863 | 1583 |
| Grp Volume(v), veh/h | 89 | 0 | 149 | 8 | 236 | 96 | 49 | 0 | 0 | 72 | 11 | 126 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1834 | 1774 | 1863 | 1583 | 1620 | 0 | 0 | 1377 | 1863 | 1583 |
| Q Serve(g_s), s | 1.6 | 0.0 | 1.9 | 0.2 | 3.6 | 1.6 | 0.0 | 0.0 | 0.0 | 0.5 | 0.2 | 2.3 |
| Cycle Q Clear(g_c), s | 1.6 | 0.0 | 1.9 | 0.2 | 3.6 | 1.6 | 0.7 | 0.0 | 0.0 | 1.3 | 0.2 | 2.3 |
| Prop In Lane | 1.00 | | 0.09 | 1.00 | | 1.00 | 0.43 | | 0.08 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 177 | 0 | 672 | 23 | 520 | 442 | 495 | 0 | 0 | 512 | 397 | 337 |
| V/C Ratio(X) | 0.50 | 0.00 | 0.22 | 0.35 | 0.45 | 0.22 | 0.10 | 0.00 | 0.00 | 0.14 | 0.03 | 0.37 |
| Avail Cap(c_a), veh/h | 775 | 0 | 1603 | 775 | 1628 | 1384 | 1278 | 0 | 0 | 1221 | 1357 | 1153 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.6 | 0.0 | 7.5 | 16.8 | 10.2 | 9.5 | 10.9 | 0.0 | 0.0 | 11.1 | 10.7 | 11.5 |
| Incr Delay (d2), s/veh | 0.8 | 0.0 | 0.3 | 3.4 | 1.1 | 0.4 | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 0.0 | 1.0 | 0.1 | 2.0 | 0.7 | 0.4 | 0.0 | 0.0 | 0.6 | 0.1 | 1.1 |
| LnGrp Delay(d),s/veh | 15.5 | 0.0 | 7.8 | 20.2 | 11.3 | 9.9 | 11.1 | 0.0 | 0.0 | 11.3 | 10.7 | 12.7 |
| LnGrp LOS | B | | A | C | B | A | B | | | B | B | B |
| Approach Vol, veh/h | | 238 | | | 340 | | | 49 | | | 209 | |
| Approach Delay, s/veh | | 10.7 | | | 11.1 | | | 11.1 | | | 12.1 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.4 | 17.6 | | 12.3 | 7.4 | 14.6 | | 12.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | | 25.0 | 15.0 | 30.0 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 3.9 | | 2.7 | 3.6 | 5.6 | | 4.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.2 | | 0.3 | 0.1 | 2.7 | | 1.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 11.2 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave






















5 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 64 | 35 | 4 | 4 | 105 | 788 | 89 | 838 |
| v/c Ratio | 0.24 | 0.09 | 0.02 | 0.01 | 0.37 | 0.31 | 0.32 | 0.34 |
| Control Delay | 33.8 | 9.1 | 38.0 | 17.5 | 33.6 | 17.9 | 33.6 | 17.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 33.8 | 9.1 | 38.0 | 17.5 | 33.6 | 17.9 | 33.6 | 17.7 |
| Queue Length 50th (ft) | 18 | 0 | 1 | 0 | 31 | 64 | 26 | 67 |
| Queue Length 95th (ft) | 89 | 21 | 15 | 9 | 129 | 242 | 112 | 251 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 551 | 737 | 551 | 733 | 551 | 2863 | 551 | 2803 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.12 | 0.05 | 0.01 | 0.01 | 0.19 | 0.28 | 0.16 | 0.30 |
| Intersection Summary | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 3: Mooney Blvd & Sunnyside Ave

5 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 61 | 1 | 32 | 4 | 1 | 3 | 100 | 745 | 4 | 85 | 675 | 121 |
| Future Volume (veh/h) | 61 | 1 | 32 | 4 | 1 | 3 | 100 | 745 | 4 | 85 | 675 | 121 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 64 | 1 | 34 | 4 | 1 | 3 | 105 | 784 | 4 | 89 | 711 | 127 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 123 | 6 | 216 | 11 | 32 | 96 | 159 | 1691 | 9 | 147 | 1379 | 244 |
| Arrive On Green | 0.07 | 0.14 | 0.14 | 0.01 | 0.08 | 0.08 | 0.09 | 0.32 | 0.32 | 0.08 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1774 | 45 | 1539 | 1774 | 411 | 1232 | 1774 | 5221 | 27 | 1774 | 4346 | 768 |
| Grp Volume(v), veh/h | 64 | 0 | 35 | 4 | 0 | 4 | 105 | 509 | 279 | 89 | 553 | 285 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1584 | 1774 | 0 | 1642 | 1774 | 1695 | 1857 | 1774 | 1695 | 1724 |
| Q Serve(g_s), s | 1.8 | 0.0 | 1.0 | 0.1 | 0.0 | 0.1 | 3.0 | 6.3 | 6.3 | 2.6 | 7.0 | 7.1 |
| Cycle Q Clear(g_c), s | 1.8 | 0.0 | 1.0 | 0.1 | 0.0 | 0.1 | 3.0 | 6.3 | 6.3 | 2.6 | 7.0 | 7.1 |
| Prop In Lane | 1.00 | | 0.97 | 1.00 | | 0.75 | 1.00 | | 0.01 | 1.00 | | 0.45 |
| Lane Grp Cap(c), veh/h | 123 | 0 | 223 | 11 | 0 | 128 | 159 | 1098 | 601 | 147 | 1076 | 547 |
| V/C Ratio(X) | 0.52 | 0.00 | 0.16 | 0.35 | 0.00 | 0.03 | 0.66 | 0.46 | 0.46 | 0.60 | 0.51 | 0.52 |
| Avail Cap(c_a), veh/h | 404 | 0 | 602 | 505 | 0 | 624 | 505 | 1609 | 882 | 505 | 1609 | 819 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.7 | 0.0 | 19.9 | 26.1 | 0.0 | 22.5 | 23.2 | 14.2 | 14.2 | 23.3 | 14.7 | 14.7 |
| Incr Delay (d2), s/veh | 1.3 | 0.0 | 0.2 | 6.6 | 0.0 | 0.1 | 1.8 | 0.6 | 1.1 | 1.5 | 0.7 | 1.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 0.0 | 0.5 | 0.1 | 0.0 | 0.1 | 1.5 | 3.0 | 3.4 | 1.3 | 3.3 | 3.6 |
| LnGrp Delay(d),s/veh | 24.9 | 0.0 | 20.1 | 32.6 | 0.0 | 22.5 | 25.0 | 14.8 | 15.3 | 24.8 | 15.4 | 16.2 |
| LnGrp LOS | C | | C | C | | C | C | B | B | C | B | B |
| Approach Vol, veh/h | | 99 | | | 8 | | | 893 | | | 927 | |
| Approach Delay, s/veh | | 23.2 | | | 27.6 | | | 16.1 | | | 16.6 | |
| Approach LOS | | C | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.1 | 23.5 | 6.0 | 13.1 | 10.4 | 23.1 | 9.3 | 9.8 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | * 5.7 | 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | * 15 | * 20 | * 15 | 25.0 | * 12 | * 20 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.6 | 8.3 | 2.1 | 3.0 | 5.0 | 9.1 | 3.8 | 2.1 | | | | |
| Green Ext Time (p_c), s | 0.1 | 7.2 | 0.0 | 0.1 | 0.1 | 7.5 | 0.0 | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 16.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave























5 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 3 | 6 | 22 | 27 | 14 | 826 | 31 | 64 | 655 | 5 |
| v/c Ratio | 0.02 | 0.03 | 0.23 | 0.23 | 0.06 | 0.22 | 0.03 | 0.52 | 0.17 | 0.00 |
| Control Delay | 45.3 | 27.0 | 66.2 | 26.3 | 56.1 | 11.6 | 0.0 | 74.9 | 10.9 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.3 | 27.0 | 66.2 | 26.3 | 56.1 | 11.6 | 0.0 | 74.9 | 10.9 | 0.0 |
| Queue Length 50th (ft) | 3 | 1 | 19 | 1 | 6 | 73 | 0 | 55 | 27 | 0 |
| Queue Length 95th (ft) | 10 | 12 | 48 | 33 | 17 | 246 | 0 | 103 | 196 | 0 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 247 | 504 | 170 | 514 | 381 | 3729 | 1157 | 196 | 3947 | 1240 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.01 | 0.01 | 0.13 | 0.05 | 0.04 | 0.22 | 0.03 | 0.33 | 0.17 | 0.00 |
| Intersection Summary | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

5 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 3 | 1 | 5 | 21 | 1 | 25 | 13 | 785 | 29 | 61 | 622 | 5 |
| Future Volume (veh/h) | 3 | 1 | 5 | 21 | 1 | 25 | 13 | 785 | 29 | 61 | 622 | 5 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 3 | 1 | 5 | 22 | 1 | 26 | 14 | 826 | 31 | 64 | 655 | 5 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 31 | 14 | 71 | 44 | 4 | 94 | 1495 | 3549 | 1102 | 82 | 1548 | 482 |
| Arrive On Green | 0.02 | 0.05 | 0.05 | 0.02 | 0.06 | 0.06 | 0.87 | 1.00 | 1.00 | 0.05 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1774 | 265 | 1324 | 1774 | 59 | 1533 | 3442 | 5085 | 1579 | 1774 | 5085 | 1582 |
| Grp Volume(v), veh/h | 3 | 0 | 6 | 22 | 0 | 27 | 14 | 826 | 31 | 64 | 655 | 5 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1588 | 1774 | 0 | 1592 | 1721 | 1695 | 1579 | 1774 | 1695 | 1582 |
| Q Serve(g_s), s | 0.2 | 0.0 | 0.5 | 1.7 | 0.0 | 2.2 | 0.1 | 0.0 | 0.0 | 4.8 | 13.9 | 0.3 |
| Cycle Q Clear(g_c), s | 0.2 | 0.0 | 0.5 | 1.7 | 0.0 | 2.2 | 0.1 | 0.0 | 0.0 | 4.8 | 13.9 | 0.3 |
| Prop In Lane | 1.00 | | 0.83 | 1.00 | | 0.96 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 31 | 0 | 86 | 44 | 0 | 98 | 1495 | 3549 | 1102 | 82 | 1548 | 482 |
| V/C Ratio(X) | 0.10 | 0.00 | 0.07 | 0.50 | 0.00 | 0.28 | 0.01 | 0.23 | 0.03 | 0.78 | 0.42 | 0.01 |
| Avail Cap(c_a), veh/h | 171 | 0 | 494 | 171 | 0 | 495 | 1495 | 3549 | 1102 | 197 | 1548 | 482 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.96 | 0.96 | 0.96 | 0.95 | 0.95 | 0.95 |
| Uniform Delay (d), s/veh | 65.3 | 0.0 | 60.6 | 65.0 | 0.0 | 60.5 | 5.0 | 0.0 | 0.0 | 63.7 | 37.5 | 32.8 |
| Incr Delay (d2), s/veh | 0.5 | 0.0 | 0.1 | 3.2 | 0.0 | 1.1 | 0.0 | 0.1 | 0.0 | 5.7 | 0.8 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 0.0 | 0.2 | 0.9 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 2.5 | 6.6 | 0.1 |
| LnGrp Delay(d),s/veh | 65.8 | 0.0 | 60.8 | 68.2 | 0.0 | 61.6 | 5.0 | 0.1 | 0.0 | 69.4 | 38.3 | 32.8 |
| LnGrp LOS | E | | E | E | | E | A | A | A | E | D | C |
| Approach Vol, veh/h | | 9 | | | 49 | | | 871 | | | 724 | |
| Approach Delay, s/veh | | 62.4 | | | 64.5 | | | 0.2 | | | 41.0 | |
| Approach LOS | | E | | | E | | | A | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.9 | 100.6 | 9.1 | 13.4 | 65.0 | 47.5 | 8.1 | 14.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 15 | 41.1 | 13.0 | * 42 | 15.0 | * 41 | 13.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.8 | 2.0 | 3.7 | 2.5 | 2.1 | 15.9 | 2.2 | 4.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 13.0 | 0.0 | 0.0 | 0.0 | 7.7 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 20.3 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 33 | 645 | 67 | 49 | 630 | 28 | 47 | 0 | 78 | 8 | 0 | 17 |
| Future Vol, veh/h | 33 | 645 | 67 | 49 | 630 | 28 | 47 | 0 | 78 | 8 | 0 | 17 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 36 | 701 | 73 | 53 | 685 | 30 | 51 | 0 | 85 | 9 | 0 | 18 |

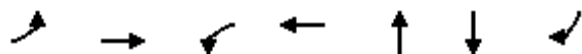
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 720 | 0 | 0 | 774 | 0 | 0 | 1259 | 1636 | 387 | 1234 | 1657 | 363 |
| Stage 1 | - | - | - | - | - | - | 810 | 810 | - | 811 | 811 | - |
| Stage 2 | - | - | - | - | - | - | 449 | 826 | - | 423 | 846 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 877 | - | - | 837 | - | - | 127 | 100 | 611 | 133 | 97 | 634 |
| Stage 1 | - | - | - | - | - | - | 340 | 391 | - | 339 | 391 | - |
| Stage 2 | - | - | - | - | - | - | 559 | 385 | - | 579 | 377 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 873 | - | - | 837 | - | - | 107 | 83 | 611 | 99 | 80 | 631 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 107 | 83 | - | 99 | 80 | - |
| Stage 1 | - | - | - | - | - | - | 315 | 362 | - | 313 | 348 | - |
| Stage 2 | - | - | - | - | - | - | 485 | 343 | - | 462 | 349 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 | | | 1 | | | 44.6 | | | 22.6 | | |
| HCM LOS | | | | | | | E | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 220 | 873 | - | - | 837 | - | - | 232 |
| HCM Lane V/C Ratio | 0.618 | 0.041 | - | - | 0.064 | - | - | 0.117 |
| HCM Control Delay (s) | 44.6 | 9.3 | 0.3 | - | 9.6 | 0.4 | - | 22.6 |
| HCM Lane LOS | E | A | A | - | A | A | - | C |
| HCM 95th %tile Q(veh) | 3.6 | 0.1 | - | - | 0.2 | - | - | 0.4 |

Queues
6: Shady St & Caldwell Ave




















5 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-----------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 25 | 651 | 16 | 567 | 54 | 5 | 2 |
| v/c Ratio | 0.06 | 0.17 | 0.04 | 0.14 | 0.12 | 0.01 | 0.00 |
| Control Delay | 18.2 | 5.6 | 18.7 | 5.7 | 11.3 | 19.4 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.2 | 5.6 | 18.7 | 5.7 | 11.3 | 19.4 | 0.0 |
| Queue Length 50th (ft) | 2 | 0 | 1 | 0 | 1 | 1 | 0 |
| Queue Length 95th (ft) | 28 | 91 | 22 | 80 | 35 | 11 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 1361 | 4698 | 1361 | 4709 | 1294 | 1378 | 1243 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.02 | 0.14 | 0.01 | 0.12 | 0.04 | 0.00 | 0.00 |
| Intersection Summary | | | | | | | |

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

5 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 23 | 587 | 12 | 15 | 517 | 5 | 17 | 1 | 32 | 4 | 1 | 2 |
| Future Volume (veh/h) | 23 | 587 | 12 | 15 | 517 | 5 | 17 | 1 | 32 | 4 | 1 | 2 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 25 | 638 | 13 | 16 | 562 | 5 | 18 | 1 | 35 | 4 | 1 | 2 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 65 | 1984 | 40 | 43 | 1948 | 17 | 37 | 2 | 73 | 16 | 4 | 18 |
| Arrive On Green | 0.04 | 0.39 | 0.39 | 0.02 | 0.37 | 0.37 | 0.07 | 0.07 | 0.07 | 0.01 | 0.01 | 0.01 |
| Sat Flow, veh/h | 1774 | 5130 | 104 | 1774 | 5197 | 46 | 549 | 31 | 1067 | 1433 | 358 | 1583 |
| Grp Volume(v), veh/h | 25 | 421 | 230 | 16 | 366 | 201 | 54 | 0 | 0 | 5 | 0 | 2 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1844 | 1774 | 1695 | 1853 | 1647 | 0 | 0 | 1791 | 0 | 1583 |
| Q Serve(g_s), s | 0.5 | 3.4 | 3.4 | 0.3 | 3.0 | 3.0 | 1.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.5 | 3.4 | 3.4 | 0.3 | 3.0 | 3.0 | 1.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.06 | 1.00 | | 0.02 | 0.33 | | 0.65 | 0.80 | | 1.00 |
| Lane Grp Cap(c), veh/h | 65 | 1311 | 713 | 43 | 1271 | 695 | 112 | 0 | 0 | 20 | 0 | 18 |
| V/C Ratio(X) | 0.39 | 0.32 | 0.32 | 0.37 | 0.29 | 0.29 | 0.48 | 0.00 | 0.00 | 0.25 | 0.00 | 0.11 |
| Avail Cap(c_a), veh/h | 904 | 3454 | 1879 | 904 | 3454 | 1888 | 839 | 0 | 0 | 912 | 0 | 807 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.5 | 8.4 | 8.4 | 18.9 | 8.6 | 8.6 | 17.6 | 0.0 | 0.0 | 19.2 | 0.0 | 19.2 |
| Incr Delay (d2), s/veh | 1.4 | 0.4 | 0.7 | 1.9 | 0.3 | 0.6 | 2.4 | 0.0 | 0.0 | 4.7 | 0.0 | 2.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 1.6 | 1.9 | 0.2 | 1.4 | 1.6 | 0.6 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 19.9 | 8.8 | 9.1 | 20.8 | 8.9 | 9.2 | 20.0 | 0.0 | 0.0 | 23.9 | 0.0 | 21.3 |
| LnGrp LOS | B | A | A | C | A | A | C | | | C | | C |
| Approach Vol, veh/h | | 676 | | | 583 | | | 54 | | | | 7 |
| Approach Delay, s/veh | | 9.3 | | | 9.4 | | | 20.0 | | | | 23.2 |
| Approach LOS | | A | | | A | | | C | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.0 | 21.2 | | 5.4 | 5.4 | 20.7 | | 7.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.3 | 5.4 | | 2.1 | 2.5 | 5.0 | | 3.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.7 | | 0.0 | 0.0 | 8.3 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.9 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

5 Year Cumulative
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 163 | 508 | 144 | 484 | 127 | 665 | 121 | 66 | 577 | 82 |
| v/c Ratio | 0.60 | 0.55 | 0.53 | 0.53 | 0.42 | 0.25 | 0.14 | 0.36 | 0.24 | 0.10 |
| Control Delay | 69.0 | 45.2 | 66.4 | 48.3 | 62.8 | 20.5 | 5.0 | 66.9 | 23.4 | 1.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 69.0 | 45.2 | 66.4 | 48.3 | 62.8 | 20.5 | 5.0 | 66.9 | 23.4 | 1.6 |
| Queue Length 50th (ft) | 72 | 135 | 63 | 138 | 55 | 109 | 0 | 29 | 101 | 0 |
| Queue Length 95th (ft) | 108 | 141 | 97 | 142 | 89 | 202 | 44 | 54 | 180 | 11 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 355 | 1595 | 355 | 1595 | 304 | 2678 | 879 | 304 | 2411 | 804 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.46 | 0.32 | 0.41 | 0.30 | 0.42 | 0.25 | 0.14 | 0.22 | 0.24 | 0.10 |

Intersection Summary

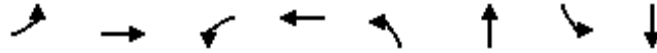
HCM 2010 Signalized Intersection Summary
7: Mooney Blvd & Caldwell Ave

5 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 155 | 365 | 118 | 137 | 387 | 73 | 121 | 632 | 115 | 63 | 548 | 78 |
| Future Volume (veh/h) | 155 | 365 | 118 | 137 | 387 | 73 | 121 | 632 | 115 | 63 | 548 | 78 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 163 | 384 | 124 | 144 | 407 | 77 | 127 | 665 | 121 | 66 | 577 | 82 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 223 | 652 | 201 | 195 | 697 | 128 | 958 | 2817 | 876 | 140 | 1582 | 491 |
| Arrive On Green | 0.06 | 0.17 | 0.17 | 0.06 | 0.16 | 0.16 | 0.56 | 1.00 | 1.00 | 0.08 | 0.62 | 0.62 |
| Sat Flow, veh/h | 3442 | 3848 | 1188 | 3442 | 4315 | 794 | 3442 | 5085 | 1582 | 3442 | 5085 | 1577 |
| Grp Volume(v), veh/h | 163 | 336 | 172 | 144 | 317 | 167 | 127 | 665 | 121 | 66 | 577 | 82 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1646 | 1721 | 1695 | 1719 | 1721 | 1695 | 1582 | 1721 | 1695 | 1577 |
| Q Serve(g_s), s | 6.3 | 12.3 | 13.1 | 5.6 | 11.7 | 12.2 | 2.4 | 0.0 | 0.0 | 2.5 | 7.5 | 3.0 |
| Cycle Q Clear(g_c), s | 6.3 | 12.3 | 13.1 | 5.6 | 11.7 | 12.2 | 2.4 | 0.0 | 0.0 | 2.5 | 7.5 | 3.0 |
| Prop In Lane | 1.00 | | 0.72 | 1.00 | | 0.46 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 223 | 575 | 279 | 195 | 547 | 278 | 958 | 2817 | 876 | 140 | 1582 | 491 |
| V/C Ratio(X) | 0.73 | 0.58 | 0.62 | 0.74 | 0.58 | 0.60 | 0.13 | 0.24 | 0.14 | 0.47 | 0.36 | 0.17 |
| Avail Cap(c_a), veh/h | 357 | 1080 | 524 | 357 | 1080 | 548 | 958 | 2817 | 876 | 306 | 1582 | 491 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.96 | 0.96 | 0.96 | 0.99 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 62.0 | 51.7 | 52.0 | 62.7 | 52.4 | 52.6 | 22.1 | 0.0 | 0.0 | 60.6 | 19.0 | 18.1 |
| Incr Delay (d2), s/veh | 1.7 | 1.8 | 4.2 | 2.0 | 1.9 | 4.0 | 0.0 | 0.2 | 0.3 | 0.9 | 0.6 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.0 | 5.9 | 6.3 | 2.7 | 5.6 | 6.1 | 1.1 | 0.0 | 0.1 | 1.2 | 3.6 | 1.4 |
| LnGrp Delay(d),s/veh | 63.7 | 53.5 | 56.2 | 64.7 | 54.2 | 56.5 | 22.2 | 0.2 | 0.3 | 61.5 | 19.6 | 18.9 |
| LnGrp LOS | E | D | E | E | D | E | C | A | A | E | B | B |
| Approach Vol, veh/h | | 671 | | | 628 | | | 913 | | | 725 | |
| Approach Delay, s/veh | | 56.7 | | | 57.3 | | | 3.3 | | | 23.4 | |
| Approach LOS | | E | | | E | | | A | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.2 | 81.2 | 13.3 | 29.3 | 44.0 | 48.4 | 14.4 | 28.2 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 12 | 42.0 | 14.0 | * 43 | 12.0 | * 42 | 14.0 | * 43 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.5 | 2.0 | 7.6 | 15.1 | 4.4 | 9.5 | 8.3 | 14.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 11.5 | 0.1 | 5.8 | 0.1 | 8.9 | 0.1 | 5.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 32.0 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St























5 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 57 | 455 | 77 | 627 | 23 | 51 | 38 | 34 |
| v/c Ratio | 0.15 | 0.16 | 0.20 | 0.22 | 0.04 | 0.08 | 0.06 | 0.05 |
| Control Delay | 31.0 | 15.6 | 29.8 | 14.5 | 13.7 | 10.6 | 14.1 | 8.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 31.0 | 15.6 | 29.8 | 14.5 | 13.7 | 10.6 | 14.1 | 8.9 |
| Queue Length 50th (ft) | 15 | 32 | 20 | 42 | 5 | 3 | 9 | 1 |
| Queue Length 95th (ft) | 74 | 115 | 92 | 149 | 21 | 31 | 30 | 22 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 870 | 3395 | 870 | 3352 | 1000 | 1067 | 975 | 1049 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.13 | 0.09 | 0.19 | 0.02 | 0.05 | 0.04 | 0.03 |
| Intersection Summary | | | | | | | | |

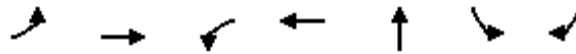
HCM 2010 Signalized Intersection Summary
 8: Caldwell Ave & Fairway St

5 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|--|---|---|--|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |  |  | |  |  | |
| Traffic Volume (veh/h) | 52 | 383 | 36 | 71 | 475 | 102 | 21 | 10 | 37 | 35 | 4 | 28 |
| Future Volume (veh/h) | 52 | 383 | 36 | 71 | 475 | 102 | 21 | 10 | 37 | 35 | 4 | 28 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 0.99 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 57 | 416 | 39 | 77 | 516 | 111 | 23 | 11 | 40 | 38 | 4 | 30 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 123 | 1521 | 141 | 150 | 1412 | 296 | 386 | 41 | 148 | 378 | 25 | 187 |
| Arrive On Green | 0.07 | 0.32 | 0.32 | 0.08 | 0.34 | 0.34 | 0.03 | 0.12 | 0.12 | 0.05 | 0.13 | 0.13 |
| Sat Flow, veh/h | 1774 | 4736 | 438 | 1774 | 4195 | 880 | 1774 | 352 | 1279 | 1774 | 187 | 1404 |
| Grp Volume(v), veh/h | 57 | 296 | 159 | 77 | 414 | 213 | 23 | 0 | 51 | 38 | 0 | 34 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1784 | 1774 | 1695 | 1685 | 1774 | 0 | 1631 | 1774 | 0 | 1591 |
| Q Serve(g_s), s | 1.3 | 2.7 | 2.8 | 1.7 | 3.9 | 4.0 | 0.5 | 0.0 | 1.2 | 0.8 | 0.0 | 0.8 |
| Cycle Q Clear(g_c), s | 1.3 | 2.7 | 2.8 | 1.7 | 3.9 | 4.0 | 0.5 | 0.0 | 1.2 | 0.8 | 0.0 | 0.8 |
| Prop In Lane | 1.00 | | 0.25 | 1.00 | | 0.52 | 1.00 | | 0.78 | 1.00 | | 0.88 |
| Lane Grp Cap(c), veh/h | 123 | 1089 | 573 | 150 | 1141 | 567 | 386 | 0 | 188 | 378 | 0 | 211 |
| V/C Ratio(X) | 0.46 | 0.27 | 0.28 | 0.51 | 0.36 | 0.37 | 0.06 | 0.00 | 0.27 | 0.10 | 0.00 | 0.16 |
| Avail Cap(c_a), veh/h | 632 | 2417 | 1272 | 632 | 2417 | 1201 | 959 | 0 | 969 | 920 | 0 | 907 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.8 | 10.6 | 10.6 | 18.4 | 10.6 | 10.6 | 15.4 | 0.0 | 17.0 | 15.0 | 0.0 | 16.2 |
| Incr Delay (d2), s/veh | 1.0 | 0.4 | 0.7 | 1.0 | 0.5 | 1.1 | 0.1 | 0.0 | 2.1 | 0.2 | 0.0 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 1.3 | 1.5 | 0.9 | 1.9 | 2.0 | 0.2 | 0.0 | 0.6 | 0.4 | 0.0 | 0.4 |
| LnGrp Delay(d),s/veh | 19.8 | 11.0 | 11.4 | 19.4 | 11.1 | 11.7 | 15.6 | 0.0 | 19.1 | 15.2 | 0.0 | 17.1 |
| LnGrp LOS | B | B | B | B | B | B | B | | B | B | | B |
| Approach Vol, veh/h | | 512 | | | 704 | | | 74 | | | | 72 |
| Approach Delay, s/veh | | 12.1 | | | 12.2 | | | 18.0 | | | | 16.1 |
| Approach LOS | | B | | | B | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.6 | 19.5 | 5.2 | 9.9 | 6.9 | 20.2 | 4.4 | 10.6 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | 15.0 | 25.0 | 15.0 | 30.0 | 15.0 | 24.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.7 | 4.8 | 2.8 | 3.2 | 3.3 | 6.0 | 2.5 | 2.8 | | | | |
| Green Ext Time (p_c), s | 0.1 | 5.8 | 0.1 | 0.4 | 0.0 | 8.1 | 0.0 | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave





















5 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBL | SBR |
|-----------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 22 | 443 | 7 | 693 | 17 | 50 | 48 |
| v/c Ratio | 0.06 | 0.21 | 0.02 | 0.28 | 0.04 | 0.10 | 0.06 |
| Control Delay | 21.9 | 6.4 | 22.3 | 6.8 | 0.1 | 17.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.9 | 6.4 | 22.3 | 6.8 | 0.1 | 17.2 | 0.1 |
| Queue Length 50th (ft) | 4 | 27 | 1 | 47 | 0 | 8 | 0 |
| Queue Length 95th (ft) | 27 | 77 | 13 | 127 | 0 | 42 | 0 |
| Internal Link Dist (ft) | | 1064 | | 2598 | 260 | | |
| Turn Bay Length (ft) | 235 | | 300 | | | | 200 |
| Base Capacity (vph) | 1116 | 3169 | 1116 | 3166 | 938 | 921 | 1165 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.02 | 0.14 | 0.01 | 0.22 | 0.02 | 0.05 | 0.04 |
| Intersection Summary | | | | | | | |

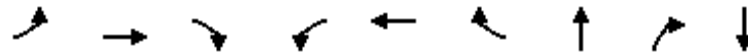
HCM 2010 Signalized Intersection Summary
9: Stonebrook St & Caldwell Ave

5 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  |  |
| Traffic Volume (veh/h) | 20 | 397 | 10 | 6 | 618 | 19 | 9 | 0 | 6 | 46 | 0 | 44 |
| Future Volume (veh/h) | 20 | 397 | 10 | 6 | 618 | 19 | 9 | 0 | 6 | 46 | 0 | 44 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 22 | 432 | 11 | 7 | 672 | 21 | 10 | 0 | 7 | 50 | 0 | 48 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 57 | 1622 | 41 | 20 | 1537 | 48 | 256 | 32 | 108 | 418 | 326 | 277 |
| Arrive On Green | 0.03 | 0.46 | 0.46 | 0.01 | 0.44 | 0.44 | 0.17 | 0.00 | 0.17 | 0.17 | 0.00 | 0.17 |
| Sat Flow, veh/h | 1774 | 3527 | 90 | 1774 | 3503 | 109 | 692 | 186 | 615 | 1403 | 1863 | 1583 |
| Grp Volume(v), veh/h | 22 | 216 | 227 | 7 | 339 | 354 | 17 | 0 | 0 | 50 | 0 | 48 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1847 | 1774 | 1770 | 1843 | 1493 | 0 | 0 | 1403 | 1863 | 1583 |
| Q Serve(g_s), s | 0.5 | 3.2 | 3.2 | 0.2 | 5.6 | 5.6 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 1.1 |
| Cycle Q Clear(g_c), s | 0.5 | 3.2 | 3.2 | 0.2 | 5.6 | 5.6 | 0.3 | 0.0 | 0.0 | 1.2 | 0.0 | 1.1 |
| Prop In Lane | 1.00 | | 0.05 | 1.00 | | 0.06 | 0.59 | | 0.41 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 57 | 814 | 849 | 20 | 777 | 809 | 396 | 0 | 0 | 418 | 326 | 277 |
| V/C Ratio(X) | 0.38 | 0.27 | 0.27 | 0.35 | 0.44 | 0.44 | 0.04 | 0.00 | 0.00 | 0.12 | 0.00 | 0.17 |
| Avail Cap(c_a), veh/h | 837 | 1670 | 1743 | 837 | 1670 | 1739 | 823 | 0 | 0 | 835 | 879 | 747 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.1 | 7.0 | 7.0 | 20.8 | 8.3 | 8.3 | 14.6 | 0.0 | 0.0 | 14.9 | 0.0 | 14.9 |
| Incr Delay (d2), s/veh | 1.6 | 0.6 | 0.6 | 3.9 | 1.4 | 1.4 | 0.1 | 0.0 | 0.0 | 0.3 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 1.6 | 1.7 | 0.1 | 3.0 | 3.2 | 0.2 | 0.0 | 0.0 | 0.5 | 0.0 | 0.5 |
| LnGrp Delay(d),s/veh | 21.7 | 7.7 | 7.7 | 24.7 | 9.7 | 9.6 | 14.7 | 0.0 | 0.0 | 15.2 | 0.0 | 15.5 |
| LnGrp LOS | C | A | A | C | A | A | B | | | B | | B |
| Approach Vol, veh/h | | 465 | | | 700 | | | 17 | | | 98 | |
| Approach Delay, s/veh | | 8.3 | | | 9.8 | | | 14.7 | | | 15.3 | |
| Approach LOS | | A | | | A | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.5 | 25.5 | | 12.4 | 5.4 | 24.6 | | 12.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 5.2 | | 2.3 | 2.5 | 7.6 | | 3.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.9 | | 0.1 | 0.0 | 10.9 | | 0.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.7 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
10: West St/West & Caldwell Ave























5 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 52 | 515 | 26 | 47 | 697 | 43 | 129 | 28 | 187 |
| v/c Ratio | 0.21 | 0.27 | 0.03 | 0.19 | 0.36 | 0.05 | 0.33 | 0.06 | 0.44 |
| Control Delay | 30.5 | 11.8 | 0.0 | 30.6 | 12.7 | 1.4 | 23.8 | 0.2 | 22.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 30.5 | 11.8 | 0.0 | 30.6 | 12.7 | 1.4 | 23.8 | 0.2 | 22.9 |
| Queue Length 50th (ft) | 17 | 63 | 0 | 16 | 92 | 0 | 38 | 0 | 50 |
| Queue Length 95th (ft) | 57 | 120 | 0 | 53 | 168 | 7 | 101 | 0 | 130 |
| Internal Link Dist (ft) | | 2598 | | | 1241 | | 361 | | 363 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 561 | 2432 | 1112 | 561 | 2429 | 1110 | 652 | 724 | 678 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.09 | 0.21 | 0.02 | 0.08 | 0.29 | 0.04 | 0.20 | 0.04 | 0.28 |
| Intersection Summary | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 10: West St/West & Caldwell Ave

5 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  |  |
| Traffic Volume (veh/h) | 48 | 474 | 24 | 43 | 641 | 40 | 40 | 79 | 26 | 42 | 82 | 48 |
| Future Volume (veh/h) | 48 | 474 | 24 | 43 | 641 | 40 | 40 | 79 | 26 | 42 | 82 | 48 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 52 | 515 | 26 | 47 | 697 | 43 | 43 | 86 | 28 | 46 | 89 | 52 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 112 | 1511 | 676 | 104 | 1495 | 669 | 173 | 246 | 285 | 144 | 160 | 79 |
| Arrive On Green | 0.06 | 0.43 | 0.43 | 0.06 | 0.42 | 0.42 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1583 | 384 | 1367 | 1583 | 260 | 887 | 442 |
| Grp Volume(v), veh/h | 52 | 515 | 26 | 47 | 697 | 43 | 129 | 0 | 28 | 187 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1583 | 1751 | 0 | 1583 | 1589 | 0 | 0 |
| Q Serve(g_s), s | 1.3 | 4.5 | 0.4 | 1.2 | 6.6 | 0.7 | 0.0 | 0.0 | 0.7 | 2.3 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 1.3 | 4.5 | 0.4 | 1.2 | 6.6 | 0.7 | 2.8 | 0.0 | 0.7 | 5.1 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.33 | | 1.00 | 0.25 | | 0.28 |
| Lane Grp Cap(c), veh/h | 112 | 1511 | 676 | 104 | 1495 | 669 | 419 | 0 | 285 | 383 | 0 | 0 |
| V/C Ratio(X) | 0.46 | 0.34 | 0.04 | 0.45 | 0.47 | 0.06 | 0.31 | 0.00 | 0.10 | 0.49 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 574 | 2673 | 1196 | 574 | 2673 | 1196 | 820 | 0 | 683 | 786 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 21.0 | 8.9 | 7.7 | 21.1 | 9.6 | 7.9 | 16.7 | 0.0 | 15.9 | 17.6 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 1.1 | 0.5 | 0.1 | 1.1 | 0.8 | 0.1 | 0.9 | 0.0 | 0.3 | 2.1 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 2.2 | 0.2 | 0.6 | 3.4 | 0.3 | 1.5 | 0.0 | 0.3 | 2.5 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 22.1 | 9.4 | 7.8 | 22.2 | 10.4 | 8.1 | 17.6 | 0.0 | 16.2 | 19.7 | 0.0 | 0.0 |
| LnGrp LOS | C | A | A | C | B | A | B | | B | B | | |
| Approach Vol, veh/h | | 593 | | | 787 | | | 157 | | | 187 | |
| Approach Delay, s/veh | | 10.4 | | | 11.0 | | | 17.4 | | | 19.7 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.7 | 26.3 | | 13.3 | 6.9 | 26.1 | | 13.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 35.0 | | 20.0 | 15.0 | 35.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.2 | 6.5 | | 4.8 | 3.3 | 8.6 | | 7.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.1 | | 1.2 | 0.0 | 11.0 | | 1.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.3 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.8 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | ↘ | ↗ | ↑ | ↗ | ↘ | ↑ |
| Traffic Vol, veh/h | 44 | 133 | 147 | 22 | 184 | 198 |
| Future Vol, veh/h | 44 | 133 | 147 | 22 | 184 | 198 |
| Conflicting Peds, #/hr | 0 | 2 | 0 | 3 | 3 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 100 | - | 160 | 145 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 48 | 145 | 160 | 24 | 200 | 215 |

| Major/Minor | Minor1 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|-------|---|
| Conflicting Flow All | 778 | 165 | 0 | 0 | 187 | 0 |
| Stage 1 | 163 | - | - | - | - | - |
| Stage 2 | 615 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 365 | 879 | - | - | 1387 | - |
| Stage 1 | 866 | - | - | - | - | - |
| Stage 2 | 539 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 311 | 875 | - | - | 1383 | - |
| Mov Cap-2 Maneuver | 392 | - | - | - | - | - |
| Stage 1 | 863 | - | - | - | - | - |
| Stage 2 | 461 | - | - | - | - | - |

| Approach | WB | NB | SB |
|----------------------|------|----|-----|
| HCM Control Delay, s | 11.3 | 0 | 3.9 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | WBLn2 | SBL | SBT |
|-----------------------|-----|----------|-------|-------|-------|
| Capacity (veh/h) | - | - | 392 | 875 | 1383 |
| HCM Lane V/C Ratio | - | - | 0.122 | 0.165 | 0.145 |
| HCM Control Delay (s) | - | - | 15.5 | 9.9 | 8 |
| HCM Lane LOS | - | - | C | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.4 | 0.6 | 0.5 |

Queues
12: Mooney Blvd & Cameron Ave























5 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 71 | 189 | 122 | 310 | 20 | 744 | 117 | 96 | 593 | 36 |
| v/c Ratio | 0.46 | 0.51 | 0.66 | 0.55 | 0.13 | 0.30 | 0.14 | 0.22 | 0.19 | 0.04 |
| Control Delay | 67.3 | 57.7 | 73.9 | 37.5 | 63.8 | 22.1 | 3.6 | 54.6 | 13.8 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 67.3 | 57.7 | 73.9 | 37.5 | 63.8 | 22.1 | 3.6 | 54.6 | 13.8 | 0.1 |
| Queue Length 50th (ft) | 60 | 77 | 104 | 84 | 8 | 140 | 0 | 39 | 89 | 0 |
| Queue Length 95th (ft) | 110 | 115 | 166 | 130 | 23 | 193 | 33 | 67 | 130 | 0 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 172 | 1138 | 194 | 1159 | 305 | 2475 | 824 | 432 | 3063 | 985 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.41 | 0.17 | 0.63 | 0.27 | 0.07 | 0.30 | 0.14 | 0.22 | 0.19 | 0.04 |
| Intersection Summary | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

5 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 68 | 156 | 25 | 117 | 180 | 117 | 19 | 714 | 112 | 92 | 569 | 35 |
| Future Volume (veh/h) | 68 | 156 | 25 | 117 | 180 | 117 | 19 | 714 | 112 | 92 | 569 | 35 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 71 | 162 | 26 | 122 | 188 | 122 | 20 | 744 | 117 | 96 | 593 | 36 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 90 | 248 | 39 | 182 | 278 | 171 | 81 | 1424 | 443 | 1211 | 3121 | 970 |
| Arrive On Green | 0.05 | 0.08 | 0.08 | 0.10 | 0.13 | 0.13 | 0.02 | 0.28 | 0.28 | 0.70 | 1.00 | 1.00 |
| Sat Flow, veh/h | 1774 | 3064 | 483 | 1774 | 2095 | 1289 | 3442 | 5085 | 1582 | 3442 | 5085 | 1581 |
| Grp Volume(v), veh/h | 71 | 92 | 96 | 122 | 157 | 153 | 20 | 744 | 117 | 96 | 593 | 36 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1777 | 1774 | 1770 | 1614 | 1721 | 1695 | 1582 | 1721 | 1695 | 1581 |
| Q Serve(g_s), s | 5.3 | 6.8 | 7.1 | 8.9 | 11.4 | 12.2 | 0.8 | 16.7 | 7.8 | 1.2 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 5.3 | 6.8 | 7.1 | 8.9 | 11.4 | 12.2 | 0.8 | 16.7 | 7.8 | 1.2 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 0.80 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 90 | 143 | 144 | 182 | 235 | 214 | 81 | 1424 | 443 | 1211 | 3121 | 970 |
| V/C Ratio(X) | 0.79 | 0.65 | 0.67 | 0.67 | 0.67 | 0.71 | 0.25 | 0.52 | 0.26 | 0.08 | 0.19 | 0.04 |
| Avail Cap(c_a), veh/h | 158 | 577 | 579 | 182 | 577 | 526 | 306 | 1424 | 443 | 1211 | 3121 | 970 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.62 | 0.62 | 0.62 | 0.96 | 0.96 | 0.96 |
| Uniform Delay (d), s/veh | 63.4 | 60.2 | 60.3 | 58.3 | 55.7 | 56.1 | 64.7 | 41.0 | 37.8 | 13.1 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.6 | 8.8 | 9.5 | 7.4 | 7.5 | 9.9 | 0.4 | 0.9 | 0.9 | 0.0 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.8 | 3.7 | 3.9 | 4.8 | 6.1 | 6.1 | 0.4 | 7.9 | 3.5 | 0.5 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 69.0 | 69.0 | 69.8 | 65.8 | 63.2 | 65.9 | 65.1 | 41.8 | 38.7 | 13.1 | 0.1 | 0.1 |
| LnGrp LOS | E | E | E | E | E | E | E | D | D | B | A | A |
| Approach Vol, veh/h | | 259 | | | 432 | | | 881 | | | 725 | |
| Approach Delay, s/veh | | 69.3 | | | 64.9 | | | 42.0 | | | 1.8 | |
| Approach LOS | | E | | | E | | | D | | | A | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 53.9 | 44.2 | 19.6 | 17.3 | 8.9 | 89.2 | 12.6 | 24.3 | | | | |
| Change Period (Y+Rc), s | 6.4 | * 6.4 | 5.7 | * 6.4 | * 5.7 | 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | 17.0 | * 38 | 12.0 | * 44 | * 12 | 42.8 | 12.0 | * 44 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.2 | 18.7 | 10.9 | 9.1 | 2.8 | 2.0 | 7.3 | 14.2 | | | | |
| Green Ext Time (p_c), s | 0.1 | 12.0 | 0.0 | 1.9 | 0.0 | 14.0 | 0.0 | 3.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 36.7 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.9 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 274 | 12 | 300 | 407 | 33 | 191 |
| Future Vol, veh/h | 274 | 12 | 300 | 407 | 33 | 191 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 145 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 298 | 13 | 326 | 442 | 36 | 208 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 0 | 0 | 311 | 0 | 1399 305 |
| Stage 1 | - | - | - | - | 305 - |
| Stage 2 | - | - | - | - | 1094 - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | - | - | 1249 | - | 155 735 |
| Stage 1 | - | - | - | - | 748 - |
| Stage 2 | - | - | - | - | 321 - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1249 | - | 101 735 |
| Mov Cap-2 Maneuver | - | - | - | - | 177 - |
| Stage 1 | - | - | - | - | 748 - |
| Stage 2 | - | - | - | - | 210 - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 3.8 | 14.5 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 177 | 735 | - | - | 1249 | - |
| HCM Lane V/C Ratio | 0.203 | 0.282 | - | - | 0.261 | - |
| HCM Control Delay (s) | 30.4 | 11.8 | - | - | 8.9 | 0 |
| HCM Lane LOS | D | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.7 | 1.2 | - | - | 1.1 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.9 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | | ↷ | | ↶ | ↷ | |
| Traffic Vol, veh/h | 74 | 361 | 11 | 0 | 385 | 6 | 27 | 7 | 8 | 3 | 3 | 1 |
| Future Vol, veh/h | 74 | 361 | 11 | 0 | 385 | 6 | 27 | 7 | 8 | 3 | 3 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 80 | 392 | 12 | 0 | 418 | 7 | 29 | 8 | 9 | 3 | 3 | 1 |

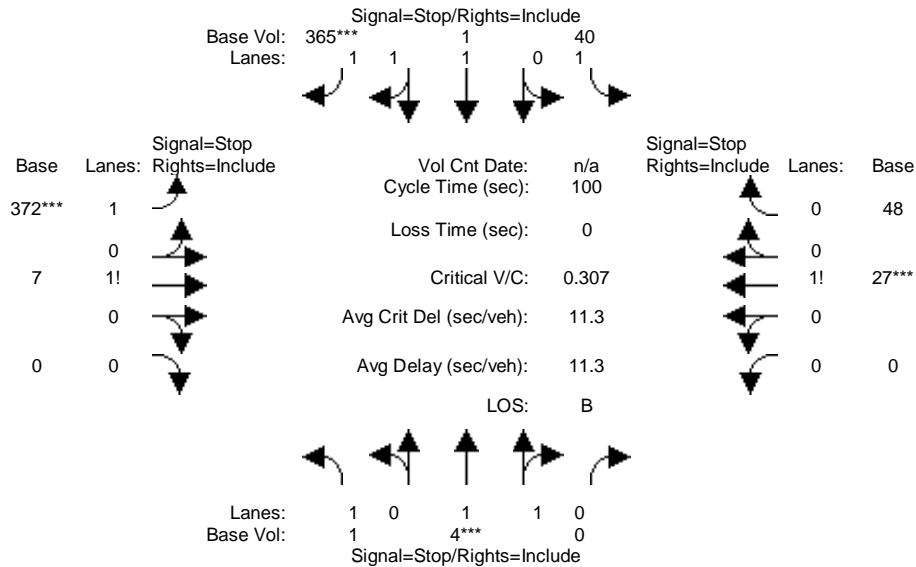
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 425 | 0 | 0 | 404 | 0 | 0 | 982 | 983 | 399 | 990 | 986 | 422 |
| Stage 1 | - | - | - | - | - | - | 558 | 558 | - | 422 | 422 | - |
| Stage 2 | - | - | - | - | - | - | 424 | 425 | - | 568 | 564 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1134 | - | - | 1155 | - | - | 228 | 249 | 651 | 225 | 248 | 632 |
| Stage 1 | - | - | - | - | - | - | 514 | 512 | - | 609 | 588 | - |
| Stage 2 | - | - | - | - | - | - | 608 | 586 | - | 508 | 508 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1134 | - | - | 1155 | - | - | 213 | 231 | 650 | 205 | 230 | 632 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 213 | 231 | - | 205 | 230 | - |
| Stage 1 | - | - | - | - | - | - | 478 | 476 | - | 566 | 588 | - |
| Stage 2 | - | - | - | - | - | - | 604 | 586 | - | 458 | 472 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 1.4 | | | 0 | | | 22.8 | | | 20.3 | | |
| HCM LOS | | | | | | | C | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|-------|
| Capacity (veh/h) | 248 | 1134 | - | - | 1155 | - | - | 205 | 273 |
| HCM Lane V/C Ratio | 0.184 | 0.071 | - | - | - | - | - | 0.016 | 0.016 |
| HCM Control Delay (s) | 22.8 | 8.4 | - | - | 0 | - | - | 22.8 | 18.4 |
| HCM Lane LOS | C | A | - | - | A | - | - | C | C |
| HCM 95th %tile Q(veh) | 0.7 | 0.2 | - | - | 0 | - | - | 0 | 0 |

Level Of Service Computation Report
 2000 HCM 4-Way Stop (Base Volume Alternative)
 5 Year Cumulative AM

Intersection #1: Cameron Ave/Court St



| Street Name: | Court St | | | | | | Cameron Ave | | | | | |
|---------------------------|--|------|------|-------------|------|------|-------------|------|------|------------|------|------|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 1 | 4 | 0 | 40 | 1 | 365 | 372 | 7 | 0 | 0 | 27 | 48 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1 | 4 | 0 | 40 | 1 | 365 | 372 | 7 | 0 | 0 | 27 | 48 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| PHF Volume: | 1 | 4 | 0 | 43 | 1 | 397 | 404 | 8 | 0 | 0 | 29 | 52 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 1 | 4 | 0 | 43 | 1 | 397 | 404 | 8 | 0 | 0 | 29 | 52 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 1 | 4 | 0 | 43 | 1 | 397 | 404 | 8 | 0 | 0 | 29 | 52 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 1.96 | 0.04 | 0.00 | 0.00 | 0.36 | 0.64 |
| Final Sat.: | 450 | 962 | 0 | 531 | 572 | 1293 | 1594 | -504 | 0 | 0 | 216 | 383 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | xxxx | 0.08 | 0.00 | 0.31 | 0.25-0.02 | xxxx | xxxx | 0.14 | 0.14 | |
| Crit Moves: | | **** | | | | **** | **** | | | **** | | |
| Delay/Veh: | 10.1 | 9.6 | 0.0 | 9.8 | 8.8 | 10.3 | 13.1 | 13.5 | 0.0 | 0.0 | 9.6 | 9.6 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 10.1 | 9.6 | 0.0 | 9.8 | 8.8 | 10.3 | 13.1 | 13.5 | 0.0 | 0.0 | 9.6 | 9.6 |
| LOS by Move: | B | A | * | A | A | B | B | B | * | * | A | A |
| ApproachDel: | | 9.7 | | | 10.2 | | | 12.9 | | | 9.6 | |
| Delay Adj: | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | |
| ApprAdjDel: | | 9.7 | | | 10.2 | | | 12.9 | | | 9.6 | |
| LOS by Appr: | | A | | | B | | | B | | | A | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.4 | 0.6 | 0.6 | 0.6 | 0.1 | 0.1 | 0.1 |
| Note: | Queue reported is the number of cars per lane. | | | | | | | | | | | |
| Time Period: | 0.25 hour | | | | | | | | | | | |
| HevVeh: | 0% | | | | | | | | | | | |
| Alpha Value: | 0.01 | | | | | | | | | | | |
| GroupType: | 6 | | | 6 | | | 5 | | | 4B | | |

| | | | | |
|-----------|--------|--------|--------|--------|
| P[C1]: | 0.16 | 0.34 | 0.39 | 0.18 |
| P[C2]: | 0.19 | 0.00 | 0.06 | 0.27 |
| P[C3]: | 0.26 | 0.57 | 0.47 | 0.22 |
| P[C4]: | 0.35 | 0.08 | 0.08 | 0.33 |
| P[C5]: | 0.04 | 0.00 | 0.00 | 0.00 |
| Padj[C1]: | 0.019 | 0.014 | 0.012 | 0.017 |
| Padj[C2]: | 0.009 | 0.007 | 0.006 | 0.006 |
| Padj[C3]: | -0.004 | -0.016 | -0.013 | -0.003 |
| Padj[C4]: | -0.020 | -0.005 | -0.004 | -0.020 |
| Padj[C5]: | -0.004 | -0.000 | -0.000 | -0.000 |

| Lanes: | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
|--------------|-------|--------|-------|--------|-------|-------|--------|---------|
| LaneType: | LEFT | RTTHRU | LEFT | RITE | LEFT | LTR | LTR | NOLANE |
| HeadwayAdj: | 0.500 | 0.000 | 0.500 | -0.700 | 0.500 | 0.982 | -0.384 | xx.xxx |
| Volume: | 1 | 2 | 43 | 198 | 206 | 206 | 82 | xxxxxxx |
| Capacity: | 450 | 481 | 531 | 647 | 564 | 524 | 599 | xxxxxx |
| DegOfUtil: | 0.00 | 0.00 | 0.08 | 0.29 | 0.35 | 0.38 | 0.13 | x.xx |
| DepHeadway: | 7.39 | 6.89 | 6.55 | 5.35 | 6.20 | 6.68 | 5.72 | xx.xx |
| ServiceTime: | 5.1 | 4.6 | 4.3 | 3.1 | 3.9 | 4.4 | 3.7 | xx.x |
| Delay: | 10.1 | 9.6 | 9.8 | 10.3 | 12.3 | 13.5 | 9.6 | xxx.x |
| Queue: | 0.0 | 0.0 | 0.1 | 0.4 | 0.5 | 0.6 | 0.1 | xxx.x |

| Lanes: | L3 | L4 | L3 | L4 | L3 | L4 | L3 | L4 |
|--------------|-------|--------|--------|-------|--------|--------|--------|--------|
| LaneType: | THRU | NOLANE | RTTHRU | THRU | NOLANE | NOLANE | NOLANE | NOLANE |
| HeadwayAdj: | 0.000 | xx.xxx | -0.700 | 0.000 | xx.xxx | xx.xxx | xx.xxx | xx.xxx |
| Volume: | 2 | xxxxxx | 198 | 1 | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Capacity: | 481 | xxxxxx | 647 | 572 | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| DegOfUtil: | 0.00 | x.xx | 0.29 | 0.00 | x.xx | x.xx | x.xx | x.xx |
| DepHeadway: | 6.89 | xx.xx | 5.35 | 6.05 | xx.xx | xx.xx | xx.xx | xx.xx |
| ServiceTime: | 4.6 | xx.x | 3.1 | 3.8 | xx.x | xx.x | xx.x | xx.x |
| Delay: | 9.6 | xxx.x | 10.3 | 8.8 | xxx.x | xxx.x | xxx.x | xxx.x |
| Queue: | 0.0 | xxx.x | 0.4 | 0.0 | xxx.x | xxx.x | xxx.x | xxx.x |

| Approach: | North Bound | South Bound | East Bound | West Bound |
|--------------|-------------|-------------|------------|------------|
| ApproachDel: | 9.7 | 10.2 | 12.9 | 9.6 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 |
| ApprAdjDel: | 9.7 | 10.2 | 12.9 | 9.6 |
| LOS by Appr: | A | B | B | A |
| OverallDel: | 11.3 | | | |
| OverallLOS: | B | | | |

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #1 Cameron Ave/Court St

Base Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | South Bound | East Bound | West Bound |
|----------------------------------|-------------|-------------|------------|------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Control: | Stop Sign | Stop Sign | Stop Sign | Stop Sign |
| Lanes: | 1 0 1 1 0 | 1 0 1 1 1 | 1 0 1! 0 0 | 0 0 0 1 0 |
| Initial Vol: | 1 4 0 | 40 1 365 | 372 7 0 | 0 27 48 |
| Major Street Volume: | 454 | | | |
| Minor Approach Volume: | 406 | | | |
| Minor Approach Volume Threshold: | 714 | | | |

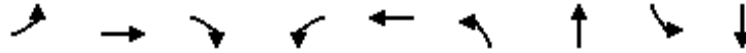
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Queues
16: Demaree St & Visalia Pkwy

5 Year Cumulative
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 46 | 349 | 85 | 74 | 390 | 72 | 667 | 128 | 530 |
| v/c Ratio | 0.28 | 0.65 | 0.16 | 0.40 | 0.34 | 0.39 | 0.64 | 0.57 | 0.47 |
| Control Delay | 47.2 | 37.7 | 2.2 | 47.7 | 23.2 | 47.7 | 30.1 | 50.7 | 25.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.2 | 37.7 | 2.2 | 47.7 | 23.2 | 47.7 | 30.1 | 50.7 | 25.6 |
| Queue Length 50th (ft) | 23 | 170 | 0 | 37 | 77 | 36 | 155 | 64 | 111 |
| Queue Length 95th (ft) | 72 | 336 | 13 | 101 | 148 | 99 | 292 | 158 | 221 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 775 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 348 | 533 | 539 | 348 | 1137 | 348 | 1575 | 348 | 1589 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.13 | 0.65 | 0.16 | 0.21 | 0.34 | 0.21 | 0.42 | 0.37 | 0.33 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

5 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 42 | 321 | 78 | 68 | 258 | 101 | 66 | 531 | 83 | 118 | 429 | 59 |
| Future Volume (veh/h) | 42 | 321 | 78 | 68 | 258 | 101 | 66 | 531 | 83 | 118 | 429 | 59 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 46 | 349 | 85 | 74 | 280 | 110 | 72 | 577 | 90 | 128 | 466 | 64 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 92 | 446 | 379 | 119 | 639 | 245 | 118 | 892 | 139 | 164 | 992 | 136 |
| Arrive On Green | 0.05 | 0.24 | 0.24 | 0.07 | 0.26 | 0.26 | 0.07 | 0.29 | 0.29 | 0.09 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1774 | 1863 | 1581 | 1774 | 2502 | 960 | 1774 | 3060 | 476 | 1774 | 3123 | 427 |
| Grp Volume(v), veh/h | 46 | 349 | 85 | 74 | 196 | 194 | 72 | 333 | 334 | 128 | 263 | 267 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1581 | 1774 | 1770 | 1693 | 1774 | 1770 | 1766 | 1774 | 1770 | 1781 |
| Q Serve(g_s), s | 1.7 | 11.7 | 2.9 | 2.7 | 6.2 | 6.4 | 2.6 | 10.9 | 11.0 | 4.7 | 7.9 | 8.0 |
| Cycle Q Clear(g_c), s | 1.7 | 11.7 | 2.9 | 2.7 | 6.2 | 6.4 | 2.6 | 10.9 | 11.0 | 4.7 | 7.9 | 8.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.57 | 1.00 | | 0.27 | 1.00 | | 0.24 |
| Lane Grp Cap(c), veh/h | 92 | 446 | 379 | 119 | 452 | 432 | 118 | 516 | 515 | 164 | 562 | 565 |
| V/C Ratio(X) | 0.50 | 0.78 | 0.22 | 0.62 | 0.43 | 0.45 | 0.61 | 0.65 | 0.65 | 0.78 | 0.47 | 0.47 |
| Avail Cap(c_a), veh/h | 400 | 559 | 475 | 400 | 531 | 508 | 400 | 917 | 915 | 400 | 917 | 922 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 30.7 | 23.7 | 20.3 | 30.2 | 20.8 | 20.9 | 30.3 | 20.6 | 20.6 | 29.6 | 18.2 | 18.2 |
| Incr Delay (d2), s/veh | 1.6 | 9.8 | 0.9 | 2.0 | 2.0 | 2.2 | 1.9 | 2.6 | 2.7 | 3.1 | 1.2 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 7.2 | 1.3 | 1.4 | 3.2 | 3.2 | 1.3 | 5.6 | 5.7 | 2.5 | 4.1 | 4.1 |
| LnGrp Delay(d),s/veh | 32.3 | 33.5 | 21.3 | 32.2 | 22.8 | 23.1 | 32.2 | 23.2 | 23.3 | 32.6 | 19.4 | 19.4 |
| LnGrp LOS | C | C | C | C | C | C | C | C | C | C | B | B |
| Approach Vol, veh/h | | 480 | | | 464 | | | 739 | | | 658 | |
| Approach Delay, s/veh | | 31.2 | | | 24.4 | | | 24.1 | | | 22.0 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.4 | 26.4 | 8.7 | 21.2 | 8.6 | 28.2 | 7.6 | 22.2 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 15 | 34.5 | * 15 | 20.0 | * 15 | 34.5 | * 15 | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.7 | 13.0 | 4.7 | 13.7 | 4.6 | 10.0 | 3.7 | 8.4 | | | | |
| Green Ext Time (p_c), s | 0.1 | 6.4 | 0.0 | 2.3 | 0.0 | 5.3 | 0.0 | 3.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 25.0 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 160 | 345 | 3 | 2 | 345 | 99 | 5 | 0 | 4 | 45 | 0 | 124 |
| Future Vol, veh/h | 160 | 345 | 3 | 2 | 345 | 99 | 5 | 0 | 4 | 45 | 0 | 124 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 174 | 375 | 3 | 2 | 375 | 108 | 5 | 0 | 4 | 49 | 0 | 135 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 483 | 0 | 0 | 378 | 0 | 0 | 1226 | 1212 | 377 | 1160 | 1159 | 429 |
| Stage 1 | - | - | - | - | - | - | 725 | 725 | - | 433 | 433 | - |
| Stage 2 | - | - | - | - | - | - | 501 | 487 | - | 727 | 726 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1080 | - | - | 1180 | - | - | 155 | 182 | 670 | 172 | 196 | 626 |
| Stage 1 | - | - | - | - | - | - | 416 | 430 | - | 601 | 582 | - |
| Stage 2 | - | - | - | - | - | - | 552 | 550 | - | 415 | 430 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1080 | - | - | 1180 | - | - | 106 | 152 | 670 | 150 | 164 | 626 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 106 | 152 | - | 150 | 164 | - |
| Stage 1 | - | - | - | - | - | - | 349 | 361 | - | 504 | 581 | - |
| Stage 2 | - | - | - | - | - | - | 432 | 549 | - | 346 | 361 | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|----|------|------|
| HCM Control Delay, s | 2.8 | 0 | 27.6 | 27.5 |
| HCM LOS | | | D | D |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 169 | 1080 | - | - | 1180 | - | - | 339 |
| HCM Lane V/C Ratio | 0.058 | 0.161 | - | - | 0.002 | - | - | 0.542 |
| HCM Control Delay (s) | 27.6 | 9 | - | - | 8.1 | - | - | 27.5 |
| HCM Lane LOS | D | A | - | - | A | - | - | D |
| HCM 95th %tile Q(veh) | 0.2 | 0.6 | - | - | 0 | - | - | 3.1 |

HCM 2010 TWSC
 18: Visalia Pkwy & County Center Dr

5 Year Cumulative
 Timing Plan: A.M. Peak

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 90 | 314 | 368 | 82 | 92 | 150 |
| Future Vol, veh/h | 90 | 314 | 368 | 82 | 92 | 150 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 98 | 341 | 400 | 89 | 100 | 163 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 489 | 0 | - | 0 | 982 445 |
| Stage 1 | - | - | - | - | 445 - |
| Stage 2 | - | - | - | - | 537 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1074 | - | - | - | 276 613 |
| Stage 1 | - | - | - | - | 646 - |
| Stage 2 | - | - | - | - | 586 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1074 | - | - | - | 251 613 |
| Mov Cap-2 Maneuver | - | - | - | - | 251 - |
| Stage 1 | - | - | - | - | 587 - |
| Stage 2 | - | - | - | - | 586 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.9 | 0 | 18.9 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1074 | - | - | - | 251 | 613 |
| HCM Lane V/C Ratio | 0.091 | - | - | - | 0.398 | 0.266 |
| HCM Control Delay (s) | 8.7 | - | - | - | 28.5 | 13 |
| HCM Lane LOS | A | - | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 1.8 | 1.1 |

HCM 2010 TWSC
 19: Main Site Access/Target Dwy & Visalia Pkwy

5 Year Cumulative
 Timing Plan: A.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 24.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 67 | 301 | 62 | 119 | 304 | 13 | 90 | 0 | 244 | 7 | 0 | 15 |
| Future Vol, veh/h | 67 | 301 | 62 | 119 | 304 | 13 | 90 | 0 | 244 | 7 | 0 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 73 | 327 | 67 | 129 | 330 | 14 | 98 | 0 | 265 | 8 | 0 | 16 |

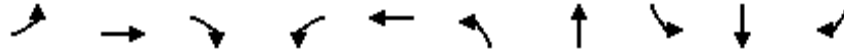
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 344 | 0 | 0 | 394 | 0 | 0 | 1111 | 1109 | 361 | 1234 | 1135 | 338 |
| Stage 1 | - | - | - | - | - | - | 507 | 507 | - | 595 | 595 | - |
| Stage 2 | - | - | - | - | - | - | 604 | 602 | - | 639 | 540 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1215 | - | - | 1165 | - | - | 186 | 210 | 684 | 153 | 202 | 704 |
| Stage 1 | - | - | - | - | - | - | 548 | 539 | - | 491 | 492 | - |
| Stage 2 | - | - | - | - | - | - | 485 | 489 | - | 464 | 521 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1215 | - | - | 1165 | - | - | 159 | 176 | 684 | 82 | 169 | 703 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 159 | 176 | - | 82 | 169 | - |
| Stage 1 | - | - | - | - | - | - | 515 | 507 | - | 462 | 437 | - |
| Stage 2 | - | - | - | - | - | - | 421 | 435 | - | 267 | 490 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 1.3 | | | 2.3 | | | 82.6 | | | 24.8 | | |
| HCM LOS | | | | | | | F | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 362 | 1215 | - | - | 1165 | - | - | 206 |
| HCM Lane V/C Ratio | 1.003 | 0.06 | - | - | 0.111 | - | - | 0.116 |
| HCM Control Delay (s) | 82.6 | 8.2 | - | - | 8.5 | - | - | 24.8 |
| HCM Lane LOS | F | A | - | - | A | - | - | C |
| HCM 95th %tile Q(veh) | 11.7 | 0.2 | - | - | 0.4 | - | - | 0.4 |

Queues
20: Mooney Blvd & Visalia Pkwy

5 Year Cumulative
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 313 | 164 | 152 | 253 | 238 | 114 | 726 | 13 | 596 | 113 |
| v/c Ratio | 1.05 | 0.38 | 0.31 | 0.87 | 0.57 | 0.58 | 0.56 | 0.11 | 0.46 | 0.22 |
| Control Delay | 107.9 | 33.7 | 5.4 | 69.8 | 37.5 | 55.3 | 26.2 | 50.0 | 32.9 | 2.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 107.9 | 33.7 | 5.4 | 69.8 | 37.5 | 55.3 | 26.2 | 50.0 | 32.9 | 2.7 |
| Queue Length 50th (ft) | ~209 | 84 | 0 | 147 | 126 | 64 | 153 | 7 | 108 | 0 |
| Queue Length 95th (ft) | #510 | 148 | 38 | #398 | 210 | 146 | 340 | 31 | 195 | 16 |
| Internal Link Dist (ft) | | 765 | | | 339 | | 249 | | 1110 | |
| Turn Bay Length (ft) | 180 | | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 297 | 483 | 533 | 297 | 481 | 297 | 1337 | 297 | 1426 | 560 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.05 | 0.34 | 0.29 | 0.85 | 0.49 | 0.38 | 0.54 | 0.04 | 0.42 | 0.20 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
20: Mooney Blvd & Visalia Pkwy

5 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 288 | 151 | 140 | 233 | 207 | 12 | 105 | 561 | 107 | 12 | 548 | 104 |
| Future Volume (veh/h) | 288 | 151 | 140 | 233 | 207 | 12 | 105 | 561 | 107 | 12 | 548 | 104 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 313 | 164 | 152 | 253 | 225 | 13 | 114 | 610 | 116 | 13 | 596 | 113 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 348 | 375 | 319 | 293 | 298 | 17 | 146 | 869 | 165 | 34 | 1167 | 363 |
| Arrive On Green | 0.20 | 0.20 | 0.20 | 0.17 | 0.17 | 0.17 | 0.08 | 0.29 | 0.29 | 0.02 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1774 | 1863 | 1583 | 1774 | 1744 | 101 | 1774 | 2968 | 563 | 1774 | 5085 | 1583 |
| Grp Volume(v), veh/h | 313 | 164 | 152 | 253 | 0 | 238 | 114 | 363 | 363 | 13 | 596 | 113 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1583 | 1774 | 0 | 1845 | 1774 | 1770 | 1762 | 1774 | 1695 | 1583 |
| Q Serve(g_s), s | 13.2 | 5.9 | 6.5 | 10.6 | 0.0 | 9.4 | 4.8 | 14.0 | 14.0 | 0.6 | 7.8 | 4.5 |
| Cycle Q Clear(g_c), s | 13.2 | 5.9 | 6.5 | 10.6 | 0.0 | 9.4 | 4.8 | 14.0 | 14.0 | 0.6 | 7.8 | 4.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.05 | 1.00 | | 0.32 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 348 | 375 | 319 | 293 | 0 | 315 | 146 | 518 | 516 | 34 | 1167 | 363 |
| V/C Ratio(X) | 0.90 | 0.44 | 0.48 | 0.86 | 0.00 | 0.76 | 0.78 | 0.70 | 0.70 | 0.39 | 0.51 | 0.31 |
| Avail Cap(c_a), veh/h | 348 | 487 | 414 | 348 | 0 | 482 | 348 | 578 | 576 | 348 | 1662 | 517 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 30.0 | 26.8 | 27.0 | 31.1 | 0.0 | 30.2 | 34.4 | 24.1 | 24.1 | 37.1 | 25.7 | 24.5 |
| Incr Delay (d2), s/veh | 24.6 | 2.5 | 3.4 | 15.3 | 0.0 | 10.2 | 3.4 | 7.3 | 7.4 | 2.7 | 1.5 | 2.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.8 | 3.3 | 3.1 | 6.5 | 0.0 | 5.7 | 2.5 | 7.8 | 7.8 | 0.3 | 3.8 | 2.2 |
| LnGrp Delay(d),s/veh | 54.6 | 29.2 | 30.4 | 46.4 | 0.0 | 40.4 | 37.9 | 31.4 | 31.5 | 39.8 | 27.2 | 26.5 |
| LnGrp LOS | D | C | C | D | | D | D | C | C | D | C | C |
| Approach Vol, veh/h | | 629 | | | 491 | | | 840 | | | 722 | |
| Approach Delay, s/veh | | 42.1 | | | 43.5 | | | 32.3 | | | 27.3 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.1 | 29.2 | 18.4 | 21.8 | 12.0 | 24.4 | 20.7 | 19.5 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | * 5.7 | 6.4 | * 5.7 | 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | * 15 | 20.0 | * 15 | 25.0 | * 15 | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.6 | 16.0 | 12.6 | 8.5 | 6.8 | 9.8 | 15.2 | 11.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.4 | 0.1 | 2.3 | 0.1 | 7.7 | 0.0 | 1.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 35.3 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.6 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↙ | ↑ | ↘ | | ↙ | |
| Traffic Vol, veh/h | 191 | 6 | 20 | 0 | 0 | 307 |
| Future Vol, veh/h | 191 | 6 | 20 | 0 | 0 | 307 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 208 | 7 | 22 | 0 | 0 | 334 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 22 | 0 | - | 0 | 445 22 |
| Stage 1 | - | - | - | - | 22 - |
| Stage 2 | - | - | - | - | 423 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1593 | - | - | - | 571 1055 |
| Stage 1 | - | - | - | - | 1001 - |
| Stage 2 | - | - | - | - | 661 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1593 | - | - | - | 496 1055 |
| Mov Cap-2 Maneuver | - | - | - | - | 496 - |
| Stage 1 | - | - | - | - | 870 - |
| Stage 2 | - | - | - | - | 661 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 7.4 | 0 | 10 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1593 | - | - | - | 1055 |
| HCM Lane V/C Ratio | 0.13 | - | - | - | 0.316 |
| HCM Control Delay (s) | 7.6 | - | - | - | 10 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 1.4 |

Queues
22: Mooney Blvd & Midvalley Ave





















5 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 46 | 13 | 20 | 8 | 987 | 8 | 878 | 38 |
| v/c Ratio | 0.19 | 0.04 | 0.06 | 0.04 | 0.39 | 0.04 | 0.35 | 0.03 |
| Control Delay | 21.6 | 0.2 | 0.4 | 22.4 | 7.6 | 22.4 | 7.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.6 | 0.2 | 0.4 | 22.4 | 7.6 | 22.4 | 7.2 | 0.1 |
| Queue Length 50th (ft) | 14 | 0 | 0 | 3 | 81 | 3 | 70 | 0 |
| Queue Length 95th (ft) | 40 | 0 | 0 | 13 | 198 | 13 | 171 | 0 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 636 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 939 | 1108 | 993 | 523 | 2518 | 523 | 2518 | 1136 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.01 | 0.02 | 0.02 | 0.39 | 0.02 | 0.35 | 0.03 |
| Intersection Summary | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

5 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 42 | 0 | 12 | 6 | 0 | 12 | 7 | 905 | 3 | 7 | 808 | 35 |
| Future Volume (veh/h) | 42 | 0 | 12 | 6 | 0 | 12 | 7 | 905 | 3 | 7 | 808 | 35 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 46 | 0 | 13 | 7 | 0 | 13 | 8 | 984 | 3 | 8 | 878 | 38 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 311 | 0 | 174 | 137 | 28 | 113 | 22 | 1629 | 5 | 22 | 1593 | 712 |
| Arrive On Green | 0.11 | 0.00 | 0.11 | 0.11 | 0.00 | 0.11 | 0.01 | 0.45 | 0.45 | 0.01 | 0.45 | 0.45 |
| Sat Flow, veh/h | 1433 | 0 | 1583 | 298 | 256 | 1028 | 1774 | 3619 | 11 | 1774 | 3539 | 1582 |
| Grp Volume(v), veh/h | 46 | 0 | 13 | 20 | 0 | 0 | 8 | 481 | 506 | 8 | 878 | 38 |
| Grp Sat Flow(s),veh/h/ln | 1433 | 0 | 1583 | 1582 | 0 | 0 | 1774 | 1770 | 1861 | 1774 | 1770 | 1582 |
| Q Serve(g_s), s | 0.8 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.2 | 9.6 | 9.6 | 0.2 | 8.5 | 0.6 |
| Cycle Q Clear(g_c), s | 1.3 | 0.0 | 0.3 | 0.5 | 0.0 | 0.0 | 0.2 | 9.6 | 9.6 | 0.2 | 8.5 | 0.6 |
| Prop In Lane | 1.00 | | 1.00 | 0.35 | | 0.65 | 1.00 | | 0.01 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 311 | 0 | 174 | 277 | 0 | 0 | 22 | 796 | 837 | 22 | 1593 | 712 |
| V/C Ratio(X) | 0.15 | 0.00 | 0.07 | 0.07 | 0.00 | 0.00 | 0.36 | 0.60 | 0.60 | 0.36 | 0.55 | 0.05 |
| Avail Cap(c_a), veh/h | 755 | 0 | 677 | 1178 | 0 | 0 | 569 | 946 | 995 | 569 | 1892 | 845 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.1 | 0.0 | 18.7 | 18.8 | 0.0 | 0.0 | 22.9 | 9.7 | 9.7 | 22.9 | 9.4 | 7.2 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 3.5 | 3.2 | 3.0 | 3.5 | 1.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.2 | 0.2 | 0.0 | 0.0 | 0.1 | 5.4 | 5.6 | 0.1 | 4.3 | 0.3 |
| LnGrp Delay(d),s/veh | 19.2 | 0.0 | 18.8 | 18.8 | 0.0 | 0.0 | 26.4 | 12.9 | 12.7 | 26.4 | 10.6 | 7.4 |
| LnGrp LOS | B | | B | B | | | C | B | B | C | B | A |
| Approach Vol, veh/h | | 59 | | | 20 | | | 995 | | | 924 | |
| Approach Delay, s/veh | | 19.1 | | | 18.8 | | | 12.9 | | | 10.6 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.3 | 27.8 | | 12.6 | 6.3 | 27.8 | | 12.6 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 20 | * 15 | 25.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 11.6 | | 3.3 | 2.2 | 10.5 | | 2.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.4 | | 0.1 | 0.0 | 9.4 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.1 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 11.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 16 | 7 | 149 | 30 | 19 | 9 | 50 | 935 | 23 | 3 | 742 | 21 |
| Future Vol, veh/h | 16 | 7 | 149 | 30 | 19 | 9 | 50 | 935 | 23 | 3 | 742 | 21 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 17 | 8 | 162 | 33 | 21 | 10 | 54 | 1016 | 25 | 3 | 807 | 23 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1452 | 1974 | 415 | 1551 | 1973 | 521 | 830 | 0 | 0 | 1041 | 0 | 0 |
| Stage 1 | 825 | 825 | - | 1137 | 1137 | - | - | - | - | - | - | - |
| Stage 2 | 627 | 1149 | - | 414 | 836 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 92 | 61 | 586 | 77 | 62 | 500 | 798 | - | - | 664 | - | - |
| Stage 1 | 333 | 385 | - | 215 | 275 | - | - | - | - | - | - | - |
| Stage 2 | 438 | 271 | - | 586 | 381 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 61 | 57 | 586 | 47 | 57 | 500 | 798 | - | - | 664 | - | - |
| Mov Cap-2 Maneuver | 61 | 57 | - | 47 | 57 | - | - | - | - | - | - | - |
| Stage 1 | 310 | 383 | - | 200 | 256 | - | - | - | - | - | - | - |
| Stage 2 | 368 | 253 | - | 414 | 379 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|-------|--|-----|--|----|--|
| HCM Control Delay, s | 44.1 | | 253.4 | | 0.5 | | 0 | |
| HCM LOS | E | | F | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 798 | - | - | 269 | 59 | 664 | - |
| HCM Lane V/C Ratio | 0.068 | - | - | 0.695 | 1.069 | 0.005 | - |
| HCM Control Delay (s) | 9.8 | - | - | 44.1 | 253.4 | 10.4 | - |
| HCM Lane LOS | A | - | - | E | F | B | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 4.7 | 5.1 | 0 | - |

Queues
25: Mooney Blvd & Ave 268



















5 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 35 | 52 | 79 | 945 | 44 | 902 |
| v/c Ratio | 0.13 | 0.17 | 0.32 | 0.39 | 0.20 | 0.41 |
| Control Delay | 18.4 | 15.1 | 29.8 | 11.4 | 29.8 | 13.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.4 | 15.1 | 29.8 | 11.4 | 29.8 | 13.9 |
| Queue Length 50th (ft) | 8 | 8 | 27 | 73 | 15 | 123 |
| Queue Length 95th (ft) | 29 | 34 | 74 | 278 | 49 | 274 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 582 | 625 | 508 | 2416 | 508 | 2202 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.08 | 0.16 | 0.39 | 0.09 | 0.41 |
| Intersection Summary | | | | | | |

HCM 2010 Signalized Intersection Summary
25: Mooney Blvd & Ave 268

5 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 22 | 1 | 10 | 22 | 2 | 26 | 75 | 884 | 13 | 42 | 780 | 77 |
| Future Volume (veh/h) | 22 | 1 | 10 | 22 | 2 | 26 | 75 | 884 | 13 | 42 | 780 | 77 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 23 | 1 | 11 | 23 | 2 | 27 | 79 | 931 | 14 | 44 | 821 | 81 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 218 | 29 | 58 | 159 | 37 | 99 | 142 | 1555 | 23 | 97 | 1332 | 131 |
| Arrive On Green | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.08 | 0.44 | 0.44 | 0.05 | 0.41 | 0.41 |
| Sat Flow, veh/h | 804 | 235 | 476 | 445 | 307 | 812 | 1774 | 3569 | 54 | 1774 | 3247 | 320 |
| Grp Volume(v), veh/h | 35 | 0 | 0 | 52 | 0 | 0 | 79 | 462 | 483 | 44 | 447 | 455 |
| Grp Sat Flow(s),veh/h/ln | 1516 | 0 | 0 | 1565 | 0 | 0 | 1774 | 1770 | 1853 | 1774 | 1770 | 1798 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.1 | 9.9 | 9.9 | 1.2 | 9.9 | 9.9 |
| Cycle Q Clear(g_c), s | 0.9 | 0.0 | 0.0 | 1.4 | 0.0 | 0.0 | 2.1 | 9.9 | 9.9 | 1.2 | 9.9 | 9.9 |
| Prop In Lane | 0.66 | | 0.31 | 0.44 | | 0.52 | 1.00 | | 0.03 | 1.00 | | 0.18 |
| Lane Grp Cap(c), veh/h | 304 | 0 | 0 | 295 | 0 | 0 | 142 | 771 | 807 | 97 | 726 | 738 |
| V/C Ratio(X) | 0.12 | 0.00 | 0.00 | 0.18 | 0.00 | 0.00 | 0.56 | 0.60 | 0.60 | 0.45 | 0.62 | 0.62 |
| Avail Cap(c_a), veh/h | 766 | 0 | 0 | 774 | 0 | 0 | 535 | 889 | 931 | 535 | 889 | 903 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.6 | 0.0 | 0.0 | 19.8 | 0.0 | 0.0 | 22.0 | 10.7 | 10.7 | 22.8 | 11.6 | 11.6 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 1.3 | 3.2 | 3.1 | 1.2 | 3.6 | 3.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 1.1 | 5.4 | 5.7 | 0.6 | 5.6 | 5.7 |
| LnGrp Delay(d),s/veh | 19.9 | 0.0 | 0.0 | 20.3 | 0.0 | 0.0 | 23.3 | 13.9 | 13.8 | 24.0 | 15.2 | 15.2 |
| LnGrp LOS | B | | | C | | | C | B | B | C | B | B |
| Approach Vol, veh/h | | 35 | | | 52 | | | 1024 | | | 946 | |
| Approach Delay, s/veh | | 19.9 | | | 20.3 | | | 14.6 | | | 15.6 | |
| Approach LOS | | B | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.4 | 29.6 | | 11.8 | 9.7 | 28.3 | | 11.8 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 22 | * 15 | 25.0 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.2 | 11.9 | | 2.9 | 4.1 | 11.9 | | 3.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.8 | | 0.2 | 0.0 | 8.5 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 15.3 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 270 | 0 | 0 | 452 | 0 | 0 |
| Future Vol, veh/h | 270 | 0 | 0 | 452 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 293 | 0 | 0 | 491 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | - | 293 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 746 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 746 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

HCM 2010 TWSC
27: Visalia Pkwy & Tuesday Morning Dwy

5 Year Cumulative
Timing Plan: A.M. Peak

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↕ | ↕ | | ↕ | |
| Traffic Vol, veh/h | 10 | 260 | 437 | 7 | 3 | 15 |
| Future Vol, veh/h | 10 | 260 | 437 | 7 | 3 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 11 | 283 | 475 | 8 | 3 | 16 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 483 | 0 | - | 0 | 784 479 |
| Stage 1 | - | - | - | - | 479 - |
| Stage 2 | - | - | - | - | 305 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1080 | - | - | - | 362 587 |
| Stage 1 | - | - | - | - | 623 - |
| Stage 2 | - | - | - | - | 748 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1080 | - | - | - | 358 587 |
| Mov Cap-2 Maneuver | - | - | - | - | 358 - |
| Stage 1 | - | - | - | - | 616 - |
| Stage 2 | - | - | - | - | 748 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.3 | 0 | 12.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1080 | - | - | - | 530 |
| HCM Lane V/C Ratio | 0.01 | - | - | - | 0.037 |
| HCM Control Delay (s) | 8.4 | 0 | - | - | 12.1 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 263 | 0 | 0 | 444 | 0 | 0 |
| Future Vol, veh/h | 263 | 0 | 0 | 444 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 286 | 0 | 0 | 483 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | 286 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | 0 | - | 0 | 753 |
| Stage 1 | - | 0 | - | 0 | - |
| Stage 2 | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 753 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.5 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↖ | ↗ | | ↖ | ↗ |
| Traffic Vol, veh/h | 119 | 144 | 327 | 3 | 0 | 58 |
| Future Vol, veh/h | 119 | 144 | 327 | 3 | 0 | 58 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 129 | 157 | 355 | 3 | 0 | 63 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|-------|-------|
| Conflicting Flow All | 358 | 0 | 0 | 772 | 357 |
| Stage 1 | - | - | - | 357 | - |
| Stage 2 | - | - | - | 415 | - |
| Critical Hdwy | 4.12 | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1201 | - | - | 368 | 687 |
| Stage 1 | - | - | - | 708 | - |
| Stage 2 | - | - | - | 666 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1201 | - | - | 325 | 687 |
| Mov Cap-2 Maneuver | - | - | - | 325 | - |
| Stage 1 | - | - | - | 624 | - |
| Stage 2 | - | - | - | 666 | - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 3.8 | 0 | 10.8 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1201 | - | - | - | - | 687 |
| HCM Lane V/C Ratio | 0.108 | - | - | - | - | 0.092 |
| HCM Control Delay (s) | 8.4 | 0 | - | - | 0 | 10.8 |
| HCM Lane LOS | A | A | - | - | A | B |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | - | 0.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | | ↕↕ | ↕↕ | ↗ |
| Traffic Vol, veh/h | 0 | 66 | 0 | 767 | 779 | 126 |
| Future Vol, veh/h | 0 | 66 | 0 | 767 | 779 | 126 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 72 | 0 | 834 | 847 | 137 |

| Major/Minor | Minor2 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | - | 424 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | 6.94 | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | 3.32 | - |
| Pot Cap-1 Maneuver | 0 | 579 | 0 |
| Stage 1 | 0 | - | 0 |
| Stage 2 | 0 | - | 0 |
| Platoon blocked, % | | | |
| Mov Cap-1 Maneuver | - | 579 | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 12.1 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT EBLn1 | SBT | SBR |
|-----------------------|-----------|-------|-----|
| Capacity (veh/h) | - | 579 | - |
| HCM Lane V/C Ratio | - | 0.124 | - |
| HCM Control Delay (s) | - | 12.1 | - |
| HCM Lane LOS | - | B | - |
| HCM 95th %tile Q(veh) | - | 0.4 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.6 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | ↘ | ↕ | ↕ | ↗ |
| Traffic Vol, veh/h | 0 | 87 | 171 | 767 | 754 | 98 |
| Future Vol, veh/h | 0 | 87 | 171 | 767 | 754 | 98 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | 150 | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 95 | 186 | 834 | 820 | 107 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | - | 410 | 927 | 0 | - | 0 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 0 | 591 | 733 | - | - | - |
| Stage 1 | 0 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | - | 591 | 733 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 12.2 | 2.1 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 733 | - | 591 | - | - |
| HCM Lane V/C Ratio | 0.254 | - | 0.16 | - | - |
| HCM Control Delay (s) | 11.6 | - | 12.2 | - | - |
| HCM Lane LOS | B | - | B | - | - |
| HCM 95th %tile Q(veh) | 1 | - | 0.6 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 20 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 20 | 0 | - | 0 | 31 20 |
| Stage 1 | - | - | - | - | 20 - |
| Stage 2 | - | - | - | - | 11 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1596 | - | - | - | 983 1058 |
| Stage 1 | - | - | - | - | 1003 - |
| Stage 2 | - | - | - | - | 1012 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1596 | - | - | - | 983 1058 |
| Mov Cap-2 Maneuver | - | - | - | - | 983 - |
| Stage 1 | - | - | - | - | 1003 - |
| Stage 2 | - | - | - | - | 1012 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1596 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 20 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 20 | 0 | - | 0 | 31 |
| Stage 1 | - | - | - | - | 20 |
| Stage 2 | - | - | - | - | 11 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1596 | - | - | - | 983 |
| Stage 1 | - | - | - | - | 1003 |
| Stage 2 | - | - | - | - | 1012 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1596 | - | - | - | 983 |
| Mov Cap-2 Maneuver | - | - | - | - | 983 |
| Stage 1 | - | - | - | - | 1003 |
| Stage 2 | - | - | - | - | 1012 |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1596 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 20 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 20 | 0 | - | 0 | 31 |
| Stage 1 | - | - | - | - | 20 |
| Stage 2 | - | - | - | - | 11 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1596 | - | - | - | 983 |
| Stage 1 | - | - | - | - | 1003 |
| Stage 2 | - | - | - | - | 1012 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1596 | - | - | - | 983 |
| Mov Cap-2 Maneuver | - | - | - | - | 983 |
| Stage 1 | - | - | - | - | 1003 |
| Stage 2 | - | - | - | - | 1012 |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1596 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 20 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 20 | 0 | - | 0 | 31 |
| Stage 1 | - | - | - | - | 20 |
| Stage 2 | - | - | - | - | 11 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1596 | - | - | - | 983 |
| Stage 1 | - | - | - | - | 1003 |
| Stage 2 | - | - | - | - | 1012 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1596 | - | - | - | 983 |
| Mov Cap-2 Maneuver | - | - | - | - | 983 |
| Stage 1 | - | - | - | - | 1003 |
| Stage 2 | - | - | - | - | 1012 |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1596 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | T | | T |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 0 |













| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |
























Queues
1: Mooney Blvd & Whitendale Ave

5 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 93 | 233 | 188 | 210 | 231 | 63 | 222 | 1142 | 215 | 110 | 1259 | 84 |
| v/c Ratio | 0.31 | 0.48 | 0.50 | 0.70 | 0.47 | 0.18 | 0.63 | 0.41 | 0.24 | 0.52 | 0.49 | 0.10 |
| Control Delay | 64.6 | 59.5 | 10.9 | 76.4 | 59.1 | 1.1 | 58.7 | 17.3 | 9.1 | 74.1 | 26.1 | 2.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 64.6 | 59.5 | 10.9 | 76.4 | 59.1 | 1.1 | 58.7 | 17.3 | 9.1 | 74.1 | 26.1 | 2.0 |
| Queue Length 50th (ft) | 42 | 110 | 0 | 100 | 110 | 0 | 111 | 121 | 12 | 53 | 272 | 0 |
| Queue Length 95th (ft) | 73 | 133 | 62 | 143 | 128 | 0 | 159 | 254 | 100 | 84 | 412 | 16 |
| Internal Link Dist (ft) | | 1104 | | | 403 | | | 770 | | | 1028 | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 312 | 878 | 528 | 355 | 951 | 536 | 355 | 2769 | 909 | 355 | 2559 | 839 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.30 | 0.27 | 0.36 | 0.59 | 0.24 | 0.12 | 0.63 | 0.41 | 0.24 | 0.31 | 0.49 | 0.10 |
| Intersection Summary | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 1: Mooney Blvd & Whitendale Ave

5 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  | |
| Traffic Volume (veh/h) | 90 | 226 | 182 | 204 | 224 | 61 | 215 | 1108 | 209 | 107 | 1221 | 81 |
| Future Volume (veh/h) | 90 | 226 | 182 | 204 | 224 | 61 | 215 | 1108 | 209 | 107 | 1221 | 81 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 93 | 233 | 188 | 210 | 231 | 63 | 222 | 1142 | 215 | 110 | 1259 | 84 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 429 | 567 | 249 | 256 | 389 | 173 | 743 | 2814 | 865 | 156 | 1922 | 596 |
| Arrive On Green | 0.12 | 0.16 | 0.16 | 0.07 | 0.11 | 0.11 | 0.43 | 1.00 | 1.00 | 0.05 | 0.38 | 0.38 |
| Sat Flow, veh/h | 3442 | 3539 | 1553 | 3442 | 3539 | 1579 | 3442 | 5085 | 1564 | 3442 | 5085 | 1576 |
| Grp Volume(v), veh/h | 93 | 233 | 188 | 210 | 231 | 63 | 222 | 1142 | 215 | 110 | 1259 | 84 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1553 | 1721 | 1770 | 1579 | 1721 | 1695 | 1564 | 1721 | 1695 | 1576 |
| Q Serve(g_s), s | 3.5 | 8.6 | 16.8 | 8.7 | 9.0 | 4.6 | 6.1 | 0.0 | 0.0 | 4.6 | 29.7 | 5.1 |
| Cycle Q Clear(g_c), s | 3.5 | 8.6 | 16.8 | 8.7 | 9.0 | 4.6 | 6.1 | 0.0 | 0.0 | 4.6 | 29.7 | 5.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 429 | 567 | 249 | 256 | 389 | 173 | 743 | 2814 | 865 | 156 | 1922 | 596 |
| V/C Ratio(X) | 0.22 | 0.41 | 0.76 | 0.82 | 0.59 | 0.36 | 0.30 | 0.41 | 0.25 | 0.70 | 0.66 | 0.14 |
| Avail Cap(c_a), veh/h | 429 | 879 | 386 | 285 | 952 | 425 | 743 | 2814 | 865 | 356 | 1922 | 596 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 | 0.83 | 0.83 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.1 | 54.7 | 58.2 | 66.2 | 61.5 | 43.8 | 34.0 | 0.0 | 0.0 | 68.2 | 37.3 | 29.6 |
| Incr Delay (d2), s/veh | 0.1 | 0.9 | 8.7 | 14.2 | 2.8 | 2.5 | 0.1 | 0.4 | 0.6 | 2.2 | 1.8 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 4.3 | 7.8 | 4.6 | 4.6 | 2.4 | 2.9 | 0.1 | 0.1 | 2.2 | 14.2 | 2.3 |
| LnGrp Delay(d),s/veh | 57.2 | 55.7 | 66.9 | 80.4 | 64.3 | 46.2 | 34.1 | 0.4 | 0.6 | 70.4 | 39.0 | 30.1 |
| LnGrp LOS | E | E | E | F | E | D | C | A | A | E | D | C |
| Approach Vol, veh/h | | 514 | | | 504 | | | 1579 | | | 1453 | |
| Approach Delay, s/veh | | 60.1 | | | 68.7 | | | 5.1 | | | 40.9 | |
| Approach LOS | | E | | | E | | | A | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.3 | 86.6 | 16.5 | 29.6 | 37.7 | 61.2 | 23.8 | 22.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 54.8 | 12.0 | * 36 | 15.0 | * 55 | 12.0 | * 39 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.6 | 2.0 | 10.7 | 18.8 | 8.1 | 31.7 | 5.5 | 11.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 23.0 | 0.1 | 3.4 | 0.2 | 14.9 | 0.1 | 2.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 32.9 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave






















5 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 124 | 218 | 1 | 173 | 96 | 22 | 110 | 15 | 177 |
| v/c Ratio | 0.27 | 0.20 | 0.00 | 0.23 | 0.14 | 0.04 | 0.23 | 0.02 | 0.26 |
| Control Delay | 19.7 | 8.6 | 21.0 | 15.6 | 5.6 | 14.2 | 16.7 | 14.6 | 4.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.7 | 8.6 | 21.0 | 15.6 | 5.6 | 14.2 | 16.7 | 14.6 | 4.6 |
| Queue Length 50th (ft) | 27 | 24 | 0 | 34 | 1 | 4 | 22 | 3 | 0 |
| Queue Length 95th (ft) | 79 | 94 | 4 | 92 | 30 | 19 | 67 | 15 | 38 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 815 | 1333 | 815 | 1343 | 1166 | 1050 | 877 | 1181 | 1068 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.15 | 0.16 | 0.00 | 0.13 | 0.08 | 0.02 | 0.13 | 0.01 | 0.17 |
| Intersection Summary | | | | | | | | | |

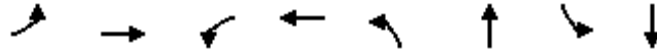
HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

5 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 114 | 190 | 10 | 1 | 159 | 88 | 7 | 11 | 2 | 101 | 14 | 163 |
| Future Volume (veh/h) | 114 | 190 | 10 | 1 | 159 | 88 | 7 | 11 | 2 | 101 | 14 | 163 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 124 | 207 | 11 | 1 | 173 | 96 | 8 | 12 | 2 | 110 | 15 | 177 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 213 | 670 | 36 | 5 | 492 | 418 | 215 | 250 | 32 | 512 | 406 | 345 |
| Arrive On Green | 0.12 | 0.38 | 0.38 | 0.00 | 0.26 | 0.26 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1774 | 1753 | 93 | 1774 | 1863 | 1583 | 346 | 1145 | 149 | 1394 | 1863 | 1583 |
| Grp Volume(v), veh/h | 124 | 0 | 218 | 1 | 173 | 96 | 22 | 0 | 0 | 110 | 15 | 177 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1846 | 1774 | 1863 | 1583 | 1639 | 0 | 0 | 1394 | 1863 | 1583 |
| Q Serve(g_s), s | 2.3 | 0.0 | 2.9 | 0.0 | 2.6 | 1.7 | 0.0 | 0.0 | 0.0 | 1.9 | 0.2 | 3.5 |
| Cycle Q Clear(g_c), s | 2.3 | 0.0 | 2.9 | 0.0 | 2.6 | 1.7 | 0.3 | 0.0 | 0.0 | 2.3 | 0.2 | 3.5 |
| Prop In Lane | 1.00 | | 0.05 | 1.00 | | 1.00 | 0.36 | | 0.09 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 213 | 0 | 705 | 5 | 492 | 418 | 497 | 0 | 0 | 512 | 406 | 345 |
| V/C Ratio(X) | 0.58 | 0.00 | 0.31 | 0.20 | 0.35 | 0.23 | 0.04 | 0.00 | 0.00 | 0.21 | 0.04 | 0.51 |
| Avail Cap(c_a), veh/h | 757 | 0 | 1576 | 757 | 1590 | 1351 | 1248 | 0 | 0 | 1200 | 1325 | 1126 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.6 | 0.0 | 7.6 | 17.5 | 10.5 | 10.1 | 10.9 | 0.0 | 0.0 | 11.6 | 10.8 | 12.1 |
| Incr Delay (d2), s/veh | 0.9 | 0.0 | 0.4 | 6.9 | 0.7 | 0.5 | 0.1 | 0.0 | 0.0 | 0.4 | 0.1 | 2.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.2 | 0.0 | 1.5 | 0.0 | 1.4 | 0.8 | 0.2 | 0.0 | 0.0 | 0.9 | 0.1 | 1.7 |
| LnGrp Delay(d),s/veh | 15.6 | 0.0 | 8.0 | 24.4 | 11.2 | 10.6 | 10.9 | 0.0 | 0.0 | 12.0 | 10.9 | 14.1 |
| LnGrp LOS | B | | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 342 | | | 270 | | | 22 | | | 302 | |
| Approach Delay, s/veh | | 10.8 | | | 11.1 | | | 10.9 | | | 13.2 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.1 | 18.4 | | 12.7 | 8.2 | 14.3 | | 12.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | | 25.0 | 15.0 | 30.0 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 4.9 | | 2.3 | 4.3 | 4.6 | | 5.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.9 | | 0.1 | 0.1 | 2.1 | | 1.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 11.6 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave

5 Year Cumulative
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 204 | 136 | 11 | 124 | 92 | 1334 | 75 | 1625 |
| v/c Ratio | 0.55 | 0.26 | 0.09 | 0.59 | 0.50 | 0.53 | 0.59 | 0.70 |
| Control Delay | 58.4 | 10.9 | 59.6 | 22.6 | 64.9 | 24.5 | 92.8 | 15.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.4 | 10.9 | 59.6 | 22.6 | 64.9 | 24.5 | 92.8 | 15.2 |
| Queue Length 50th (ft) | 177 | 3 | 10 | 2 | 77 | 160 | 59 | 450 |
| Queue Length 95th (ft) | 267 | 72 | 27 | 67 | 120 | 289 | m123 | 115 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 373 | 565 | 163 | 475 | 183 | 2505 | 183 | 2328 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.55 | 0.24 | 0.07 | 0.26 | 0.50 | 0.53 | 0.41 | 0.70 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
3: Mooney Blvd & Sunnyside Ave

5 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 190 | 5 | 122 | 10 | 2 | 113 | 86 | 1231 | 9 | 70 | 1417 | 94 |
| Future Volume (veh/h) | 190 | 5 | 122 | 10 | 2 | 113 | 86 | 1231 | 9 | 70 | 1417 | 94 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 204 | 5 | 131 | 11 | 2 | 122 | 92 | 1324 | 10 | 75 | 1524 | 101 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 122 | 6 | 156 | 109 | 2 | 148 | 435 | 3237 | 24 | 93 | 2062 | 137 |
| Arrive On Green | 0.07 | 0.10 | 0.10 | 0.06 | 0.09 | 0.09 | 0.49 | 1.00 | 1.00 | 0.11 | 0.85 | 0.85 |
| Sat Flow, veh/h | 1774 | 59 | 1534 | 1774 | 26 | 1562 | 1774 | 5205 | 39 | 1774 | 4862 | 322 |
| Grp Volume(v), veh/h | 204 | 0 | 136 | 11 | 0 | 124 | 92 | 862 | 472 | 75 | 1063 | 562 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1592 | 1774 | 0 | 1587 | 1774 | 1695 | 1855 | 1774 | 1695 | 1794 |
| Q Serve(g_s), s | 10.0 | 0.0 | 12.2 | 0.8 | 0.0 | 11.1 | 4.3 | 0.0 | 0.0 | 6.0 | 18.5 | 18.5 |
| Cycle Q Clear(g_c), s | 10.0 | 0.0 | 12.2 | 0.8 | 0.0 | 11.1 | 4.3 | 0.0 | 0.0 | 6.0 | 18.5 | 18.5 |
| Prop In Lane | 1.00 | | 0.96 | 1.00 | | 0.98 | 1.00 | | 0.02 | 1.00 | | 0.18 |
| Lane Grp Cap(c), veh/h | 122 | 0 | 162 | 109 | 0 | 150 | 435 | 2108 | 1153 | 93 | 1438 | 761 |
| V/C Ratio(X) | 1.67 | 0.00 | 0.84 | 0.10 | 0.00 | 0.83 | 0.21 | 0.41 | 0.41 | 0.80 | 0.74 | 0.74 |
| Avail Cap(c_a), veh/h | 122 | 0 | 384 | 122 | 0 | 383 | 435 | 2108 | 1153 | 184 | 1438 | 761 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.91 | 0.91 | 0.91 | 0.84 | 0.84 | 0.84 |
| Uniform Delay (d), s/veh | 67.5 | 0.0 | 63.9 | 64.3 | 0.0 | 64.5 | 28.9 | 0.0 | 0.0 | 64.1 | 7.7 | 7.7 |
| Incr Delay (d2), s/veh | 333.4 | 0.0 | 8.2 | 0.1 | 0.0 | 8.3 | 0.1 | 0.5 | 1.0 | 5.0 | 2.9 | 5.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 16.2 | 0.0 | 5.7 | 0.4 | 0.0 | 5.2 | 2.1 | 0.2 | 0.3 | 3.1 | 8.7 | 9.7 |
| LnGrp Delay(d),s/veh | 400.9 | 0.0 | 72.1 | 64.4 | 0.0 | 72.8 | 29.0 | 0.5 | 1.0 | 69.2 | 10.7 | 13.1 |
| LnGrp LOS | F | | E | E | | E | C | A | A | E | B | B |
| Approach Vol, veh/h | | 340 | | | 135 | | | 1426 | | | 1700 | |
| Approach Delay, s/veh | | 269.4 | | | 72.1 | | | 2.5 | | | 14.1 | |
| Approach LOS | | F | | | E | | | A | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.3 | 96.6 | 14.6 | 20.5 | 42.0 | 67.9 | 15.7 | 19.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | 6.4 | * 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 61.5 | * 10 | * 35 | 15.0 | * 62 | * 10 | * 35 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.0 | 2.0 | 2.8 | 14.2 | 6.3 | 20.5 | 12.0 | 13.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 24.7 | 0.0 | 0.6 | 0.1 | 26.8 | 0.0 | 0.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 35.8 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave

5 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|-------|------|------|
| Lane Group Flow (vph) | 19 | 45 | 68 | 89 | 73 | 1200 | 57 | 172 | 1469 | 38 |
| v/c Ratio | 0.17 | 0.23 | 0.57 | 0.34 | 0.21 | 0.43 | 0.06 | 0.76 | 0.50 | 0.04 |
| Control Delay | 65.9 | 16.6 | 83.4 | 16.2 | 53.6 | 20.2 | 2.3 | 103.5 | 6.1 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 65.9 | 16.6 | 83.4 | 16.2 | 53.6 | 20.2 | 2.3 | 103.5 | 6.1 | 0.1 |
| Queue Length 50th (ft) | 17 | 2 | 63 | 9 | 30 | 238 | 2 | 172 | 46 | 0 |
| Queue Length 95th (ft) | 45 | 33 | 115 | 49 | 42 | 252 | m7 | m#299 | 206 | m0 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 158 | 485 | 158 | 517 | 355 | 2818 | 900 | 226 | 2940 | 945 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.12 | 0.09 | 0.43 | 0.17 | 0.21 | 0.43 | 0.06 | 0.76 | 0.50 | 0.04 |

Intersection Summary























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

5 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 18 | 2 | 40 | 64 | 9 | 74 | 69 | 1128 | 54 | 162 | 1381 | 36 |
| Future Volume (veh/h) | 18 | 2 | 40 | 64 | 9 | 74 | 69 | 1128 | 54 | 162 | 1381 | 36 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 19 | 2 | 43 | 68 | 10 | 79 | 73 | 1200 | 57 | 172 | 1469 | 38 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 65 | 7 | 142 | 86 | 19 | 151 | 1152 | 2993 | 910 | 184 | 1792 | 556 |
| Arrive On Green | 0.04 | 0.09 | 0.09 | 0.05 | 0.11 | 0.11 | 0.67 | 1.00 | 1.00 | 0.21 | 0.70 | 0.70 |
| Sat Flow, veh/h | 1774 | 70 | 1495 | 1774 | 180 | 1419 | 3442 | 5085 | 1547 | 1774 | 5085 | 1577 |
| Grp Volume(v), veh/h | 19 | 0 | 45 | 68 | 0 | 89 | 73 | 1200 | 57 | 172 | 1469 | 38 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1565 | 1774 | 0 | 1598 | 1721 | 1695 | 1547 | 1774 | 1695 | 1577 |
| Q Serve(g_s), s | 1.5 | 0.0 | 3.9 | 5.5 | 0.0 | 7.6 | 1.1 | 0.0 | 0.0 | 13.8 | 29.3 | 1.1 |
| Cycle Q Clear(g_c), s | 1.5 | 0.0 | 3.9 | 5.5 | 0.0 | 7.6 | 1.1 | 0.0 | 0.0 | 13.8 | 29.3 | 1.1 |
| Prop In Lane | 1.00 | | 0.96 | 1.00 | | 0.89 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 65 | 0 | 148 | 86 | 0 | 170 | 1152 | 2993 | 910 | 184 | 1792 | 556 |
| V/C Ratio(X) | 0.29 | 0.00 | 0.30 | 0.79 | 0.00 | 0.52 | 0.06 | 0.40 | 0.06 | 0.94 | 0.82 | 0.07 |
| Avail Cap(c_a), veh/h | 159 | 0 | 453 | 159 | 0 | 463 | 1152 | 2993 | 910 | 184 | 1792 | 556 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.87 | 0.87 | 0.87 | 0.66 | 0.66 | 0.66 |
| Uniform Delay (d), s/veh | 68.0 | 0.0 | 61.2 | 68.2 | 0.0 | 61.3 | 16.1 | 0.0 | 0.0 | 57.0 | 18.2 | 14.0 |
| Incr Delay (d2), s/veh | 0.9 | 0.0 | 0.4 | 5.9 | 0.0 | 1.8 | 0.0 | 0.3 | 0.1 | 36.9 | 2.9 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 0.0 | 1.7 | 2.8 | 0.0 | 3.5 | 0.5 | 0.1 | 0.0 | 8.6 | 13.7 | 0.5 |
| LnGrp Delay(d),s/veh | 69.0 | 0.0 | 61.6 | 74.2 | 0.0 | 63.1 | 16.1 | 0.3 | 0.1 | 94.0 | 21.1 | 14.2 |
| LnGrp LOS | E | | E | E | | E | B | A | A | F | C | B |
| Approach Vol, veh/h | | 64 | | | 157 | | | 1330 | | | 1679 | |
| Approach Delay, s/veh | | 63.8 | | | 67.9 | | | 1.2 | | | 28.4 | |
| Approach LOS | | E | | | E | | | A | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 20.7 | 91.7 | 12.7 | 19.8 | 54.9 | 57.5 | 11.0 | 21.6 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 15 | 51.1 | 13.0 | * 42 | 15.0 | * 51 | 13.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 15.8 | 2.0 | 7.5 | 5.9 | 3.1 | 31.3 | 3.5 | 9.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 23.2 | 0.0 | 0.2 | 0.1 | 14.8 | 0.0 | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 19.8 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 24 | 1024 | 42 | 34 | 824 | 20 | 17 | 0 | 32 | 18 | 0 | 35 |
| Future Vol, veh/h | 24 | 1024 | 42 | 34 | 824 | 20 | 17 | 0 | 32 | 18 | 0 | 35 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 25 | 1067 | 44 | 35 | 858 | 21 | 18 | 0 | 33 | 19 | 0 | 36 |

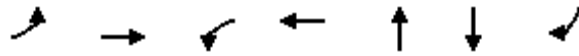
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 884 | 0 | 0 | 1111 | 0 | 0 | 1638 | 2093 | 556 | 1528 | 2105 | 445 |
| Stage 1 | - | - | - | - | - | - | 1139 | 1139 | - | 944 | 944 | - |
| Stage 2 | - | - | - | - | - | - | 499 | 954 | - | 584 | 1161 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 761 | - | - | 624 | - | - | 66 | 52 | 475 | 80 | 51 | 561 |
| Stage 1 | - | - | - | - | - | - | 214 | 274 | - | 282 | 339 | - |
| Stage 2 | - | - | - | - | - | - | 522 | 335 | - | 465 | 268 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 757 | - | - | 624 | - | - | 53 | 42 | 475 | 63 | 41 | 558 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 53 | 42 | - | 63 | 41 | - |
| Stage 1 | - | - | - | - | - | - | 195 | 250 | - | 256 | 300 | - |
| Stage 2 | - | - | - | - | - | - | 434 | 297 | - | 395 | 245 | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|----|------|------|
| HCM Control Delay, s | 0.6 | 1 | 51.8 | 41.6 |
| HCM LOS | | | F | E |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 126 | 757 | - | - | 624 | - | - | 152 |
| HCM Lane V/C Ratio | 0.405 | 0.033 | - | - | 0.057 | - | - | 0.363 |
| HCM Control Delay (s) | 51.8 | 9.9 | 0.4 | - | 11.1 | 0.6 | - | 41.6 |
| HCM Lane LOS | F | A | A | - | B | A | - | E |
| HCM 95th %tile Q(veh) | 1.7 | 0.1 | - | - | 0.2 | - | - | 1.5 |

Queues
6: Shady St & Caldwell Ave




















5 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-----------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 52 | 879 | 69 | 777 | 70 | 16 | 10 |
| v/c Ratio | 0.18 | 0.32 | 0.23 | 0.28 | 0.23 | 0.05 | 0.03 |
| Control Delay | 36.8 | 15.1 | 35.9 | 14.2 | 23.2 | 29.0 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.8 | 15.1 | 35.9 | 14.2 | 23.2 | 29.0 | 0.1 |
| Queue Length 50th (ft) | 15 | 60 | 20 | 50 | 9 | 5 | 0 |
| Queue Length 95th (ft) | 78 | 233 | 97 | 200 | 67 | 27 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 842 | 3718 | 842 | 3733 | 823 | 887 | 832 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.24 | 0.08 | 0.21 | 0.09 | 0.02 | 0.01 |
| Intersection Summary | | | | | | | |

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

5 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 49 | 807 | 19 | 65 | 718 | 12 | 28 | 1 | 37 | 14 | 1 | 9 |
| Future Volume (veh/h) | 49 | 807 | 19 | 65 | 718 | 12 | 28 | 1 | 37 | 14 | 1 | 9 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 52 | 859 | 20 | 69 | 764 | 13 | 30 | 1 | 39 | 15 | 1 | 10 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 109 | 2145 | 50 | 130 | 2224 | 38 | 53 | 2 | 69 | 65 | 4 | 60 |
| Arrive On Green | 0.06 | 0.42 | 0.42 | 0.07 | 0.43 | 0.43 | 0.07 | 0.07 | 0.07 | 0.04 | 0.04 | 0.04 |
| Sat Flow, veh/h | 1774 | 5109 | 119 | 1774 | 5147 | 87 | 713 | 24 | 927 | 1668 | 111 | 1557 |
| Grp Volume(v), veh/h | 52 | 570 | 309 | 69 | 503 | 274 | 70 | 0 | 0 | 16 | 0 | 10 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1838 | 1774 | 1695 | 1845 | 1664 | 0 | 0 | 1779 | 0 | 1557 |
| Q Serve(g_s), s | 1.4 | 6.0 | 6.0 | 1.9 | 5.0 | 5.0 | 2.1 | 0.0 | 0.0 | 0.4 | 0.0 | 0.3 |
| Cycle Q Clear(g_c), s | 1.4 | 6.0 | 6.0 | 1.9 | 5.0 | 5.0 | 2.1 | 0.0 | 0.0 | 0.4 | 0.0 | 0.3 |
| Prop In Lane | 1.00 | | 0.06 | 1.00 | | 0.05 | 0.43 | | 0.56 | 0.94 | | 1.00 |
| Lane Grp Cap(c), veh/h | 109 | 1424 | 772 | 130 | 1465 | 797 | 123 | 0 | 0 | 69 | 0 | 60 |
| V/C Ratio(X) | 0.48 | 0.40 | 0.40 | 0.53 | 0.34 | 0.34 | 0.57 | 0.00 | 0.00 | 0.23 | 0.00 | 0.17 |
| Avail Cap(c_a), veh/h | 698 | 2669 | 1447 | 698 | 2669 | 1452 | 655 | 0 | 0 | 700 | 0 | 613 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.1 | 10.3 | 10.3 | 22.7 | 9.6 | 9.6 | 22.7 | 0.0 | 0.0 | 23.7 | 0.0 | 23.6 |
| Incr Delay (d2), s/veh | 1.2 | 0.5 | 0.9 | 1.2 | 0.4 | 0.7 | 3.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 2.9 | 3.2 | 1.0 | 2.4 | 2.7 | 1.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.2 |
| LnGrp Delay(d),s/veh | 24.3 | 10.8 | 11.2 | 23.9 | 10.0 | 10.3 | 25.8 | 0.0 | 0.0 | 24.9 | 0.0 | 24.6 |
| LnGrp LOS | C | B | B | C | B | B | C | | | C | | C |
| Approach Vol, veh/h | | 931 | | | 846 | | | 70 | | | | 26 |
| Approach Delay, s/veh | | 11.7 | | | 11.2 | | | 25.8 | | | | 24.8 |
| Approach LOS | | B | | | B | | | C | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.7 | 27.3 | | 7.0 | 7.1 | 27.9 | | 8.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.9 | 8.0 | | 2.4 | 3.4 | 7.0 | | 4.1 | | | | |
| Green Ext Time (p_c), s | 0.1 | 13.3 | | 0.0 | 0.0 | 11.7 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.2 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

5 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 284 | 737 | 269 | 511 | 305 | 1020 | 172 | 192 | 1269 | 122 |
| v/c Ratio | 0.56 | 0.66 | 0.77 | 0.57 | 0.64 | 0.47 | 0.23 | 0.66 | 0.67 | 0.19 |
| Control Delay | 62.2 | 48.6 | 78.1 | 51.3 | 53.0 | 25.3 | 10.0 | 84.8 | 11.6 | 1.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 62.2 | 48.6 | 78.1 | 51.3 | 53.0 | 25.3 | 10.0 | 84.8 | 11.6 | 1.1 |
| Queue Length 50th (ft) | 126 | 213 | 128 | 153 | 136 | 130 | 6 | 76 | 190 | 0 |
| Queue Length 95th (ft) | #204 | 232 | #187 | 160 | 150 | 294 | m85 | 110 | 153 | 0 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 504 | 1485 | 371 | 1489 | 473 | 2177 | 741 | 355 | 1905 | 654 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.56 | 0.50 | 0.73 | 0.34 | 0.64 | 0.47 | 0.23 | 0.54 | 0.67 | 0.19 |

Intersection Summary























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

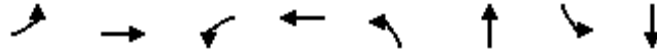
HCM 2010 Signalized Intersection Summary
7: Mooney Blvd & Caldwell Ave

5 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 270 | 489 | 211 | 256 | 383 | 103 | 290 | 969 | 163 | 182 | 1206 | 116 |
| Future Volume (veh/h) | 270 | 489 | 211 | 256 | 383 | 103 | 290 | 969 | 163 | 182 | 1206 | 116 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 284 | 515 | 222 | 269 | 403 | 108 | 305 | 1020 | 172 | 192 | 1269 | 122 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 479 | 780 | 325 | 315 | 701 | 181 | 756 | 2292 | 712 | 237 | 1501 | 458 |
| Arrive On Green | 0.14 | 0.22 | 0.22 | 0.09 | 0.17 | 0.17 | 0.44 | 0.90 | 0.90 | 0.14 | 0.59 | 0.59 |
| Sat Flow, veh/h | 3442 | 3516 | 1463 | 3442 | 4025 | 1040 | 3442 | 5085 | 1580 | 3442 | 5085 | 1552 |
| Grp Volume(v), veh/h | 284 | 496 | 241 | 269 | 337 | 174 | 305 | 1020 | 172 | 192 | 1269 | 122 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1588 | 1721 | 1695 | 1675 | 1721 | 1695 | 1580 | 1721 | 1695 | 1552 |
| Q Serve(g_s), s | 11.2 | 19.3 | 20.2 | 11.2 | 13.2 | 13.9 | 8.8 | 4.8 | 1.4 | 7.9 | 29.6 | 5.5 |
| Cycle Q Clear(g_c), s | 11.2 | 19.3 | 20.2 | 11.2 | 13.2 | 13.9 | 8.8 | 4.8 | 1.4 | 7.9 | 29.6 | 5.5 |
| Prop In Lane | 1.00 | | 0.92 | 1.00 | | 0.62 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 479 | 752 | 352 | 315 | 590 | 292 | 756 | 2292 | 712 | 237 | 1501 | 458 |
| V/C Ratio(X) | 0.59 | 0.66 | 0.68 | 0.85 | 0.57 | 0.60 | 0.40 | 0.45 | 0.24 | 0.81 | 0.85 | 0.27 |
| Avail Cap(c_a), veh/h | 479 | 1005 | 471 | 356 | 1005 | 497 | 756 | 2292 | 712 | 356 | 1501 | 458 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 0.96 | 0.96 | 0.96 | 0.92 | 0.92 | 0.92 | 0.85 | 0.85 | 0.85 | 0.86 | 0.86 | 0.86 |
| Uniform Delay (d), s/veh | 58.5 | 51.4 | 51.7 | 64.9 | 54.9 | 55.2 | 34.2 | 4.2 | 1.9 | 61.6 | 27.0 | 22.1 |
| Incr Delay (d2), s/veh | 1.3 | 1.8 | 4.5 | 14.0 | 1.6 | 3.5 | 0.1 | 0.5 | 0.7 | 4.0 | 5.2 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.5 | 9.3 | 9.3 | 5.9 | 6.3 | 6.7 | 4.1 | 2.1 | 0.8 | 3.8 | 14.2 | 2.5 |
| LnGrp Delay(d),s/veh | 59.8 | 53.3 | 56.2 | 78.9 | 56.5 | 58.7 | 34.3 | 4.7 | 2.5 | 65.6 | 32.2 | 23.3 |
| LnGrp LOS | E | D | E | E | E | E | C | A | A | E | C | C |
| Approach Vol, veh/h | | 1021 | | | 780 | | | 1497 | | | 1583 | |
| Approach Delay, s/veh | | 55.8 | | | 64.7 | | | 10.5 | | | 35.6 | |
| Approach LOS | | E | | | E | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.7 | 71.8 | 19.0 | 38.6 | 38.2 | 49.2 | 25.9 | 31.7 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 47.8 | 15.0 | * 43 | 20.0 | * 43 | 15.0 | * 43 | | | | |
| Max Q Clear Time (g_c+I1), s | 9.9 | 6.8 | 13.2 | 22.2 | 10.8 | 31.6 | 13.2 | 15.9 | | | | |
| Green Ext Time (p_c), s | 0.1 | 19.4 | 0.1 | 7.8 | 0.4 | 9.0 | 0.1 | 5.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 36.8 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St

5 Year Cumulative
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 109 | 788 | 152 | 733 | 82 | 181 | 158 | 104 |
| v/c Ratio | 0.51 | 0.52 | 0.63 | 0.42 | 0.17 | 0.44 | 0.37 | 0.27 |
| Control Delay | 45.9 | 25.6 | 48.5 | 22.5 | 17.5 | 11.0 | 20.2 | 12.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.9 | 25.6 | 48.5 | 22.5 | 17.5 | 11.0 | 20.2 | 12.5 |
| Queue Length 50th (ft) | 49 | 104 | 67 | 90 | 25 | 10 | 51 | 10 |
| Queue Length 95th (ft) | 131 | 218 | #176 | 198 | 59 | 64 | 104 | 52 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 345 | 1960 | 345 | 1959 | 589 | 655 | 481 | 608 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.32 | 0.40 | 0.44 | 0.37 | 0.14 | 0.28 | 0.33 | 0.17 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

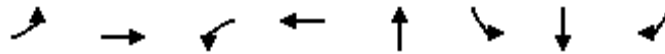
HCM 2010 Signalized Intersection Summary
 8: Caldwell Ave & Fairway St

5 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|--|---|---|--|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |  |  | |  |  | |
| Traffic Volume (veh/h) | 104 | 669 | 80 | 144 | 597 | 100 | 78 | 23 | 149 | 150 | 23 | 76 |
| Future Volume (veh/h) | 104 | 669 | 80 | 144 | 597 | 100 | 78 | 23 | 149 | 150 | 23 | 76 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 1.00 | 0.99 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 109 | 704 | 84 | 152 | 628 | 105 | 82 | 24 | 157 | 158 | 24 | 80 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 150 | 1464 | 173 | 194 | 1511 | 249 | 430 | 35 | 228 | 377 | 72 | 240 |
| Arrive On Green | 0.08 | 0.32 | 0.32 | 0.11 | 0.34 | 0.34 | 0.08 | 0.16 | 0.16 | 0.11 | 0.19 | 0.19 |
| Sat Flow, veh/h | 1774 | 4596 | 543 | 1774 | 4398 | 726 | 1774 | 214 | 1401 | 1774 | 373 | 1242 |
| Grp Volume(v), veh/h | 109 | 518 | 270 | 152 | 482 | 251 | 82 | 0 | 181 | 158 | 0 | 104 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1749 | 1774 | 1695 | 1733 | 1774 | 0 | 1615 | 1774 | 0 | 1615 |
| Q Serve(g_s), s | 3.5 | 7.3 | 7.4 | 4.9 | 6.4 | 6.6 | 2.2 | 0.0 | 6.3 | 4.2 | 0.0 | 3.3 |
| Cycle Q Clear(g_c), s | 3.5 | 7.3 | 7.4 | 4.9 | 6.4 | 6.6 | 2.2 | 0.0 | 6.3 | 4.2 | 0.0 | 3.3 |
| Prop In Lane | 1.00 | | 0.31 | 1.00 | | 0.42 | 1.00 | | 0.87 | 1.00 | | 0.77 |
| Lane Grp Cap(c), veh/h | 150 | 1080 | 557 | 194 | 1165 | 595 | 430 | 0 | 263 | 377 | 0 | 312 |
| V/C Ratio(X) | 0.73 | 0.48 | 0.49 | 0.78 | 0.41 | 0.42 | 0.19 | 0.00 | 0.69 | 0.42 | 0.00 | 0.33 |
| Avail Cap(c_a), veh/h | 450 | 1718 | 886 | 450 | 1718 | 878 | 747 | 0 | 682 | 640 | 0 | 655 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.4 | 16.2 | 16.3 | 25.7 | 14.9 | 14.9 | 18.1 | 0.0 | 23.4 | 17.3 | 0.0 | 20.6 |
| Incr Delay (d2), s/veh | 2.5 | 0.9 | 1.8 | 2.6 | 0.6 | 1.3 | 0.5 | 0.0 | 8.5 | 1.6 | 0.0 | 1.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.8 | 3.5 | 3.8 | 2.5 | 3.1 | 3.4 | 1.1 | 0.0 | 3.4 | 2.2 | 0.0 | 1.6 |
| LnGrp Delay(d),s/veh | 29.0 | 17.1 | 18.1 | 28.3 | 15.5 | 16.2 | 18.5 | 0.0 | 31.9 | 18.9 | 0.0 | 22.3 |
| LnGrp LOS | C | B | B | C | B | B | B | | C | B | | C |
| Approach Vol, veh/h | | 897 | | | 885 | | | 263 | | | 262 | |
| Approach Delay, s/veh | | 18.8 | | | 17.9 | | | 27.7 | | | 20.2 | |
| Approach LOS | | B | | | B | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.5 | 24.9 | 9.2 | 14.6 | 9.0 | 26.3 | 7.4 | 16.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | 15.0 | 25.0 | 15.0 | 30.0 | 15.0 | 24.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.9 | 9.4 | 6.2 | 8.3 | 5.5 | 8.6 | 4.2 | 5.3 | | | | |
| Green Ext Time (p_c), s | 0.1 | 9.5 | 0.6 | 1.9 | 0.1 | 9.0 | 0.3 | 1.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 19.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave





















5 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 53 | 998 | 4 | 839 | 22 | 28 | 1 | 34 |
| v/c Ratio | 0.18 | 0.37 | 0.01 | 0.35 | 0.07 | 0.07 | 0.00 | 0.07 |
| Control Delay | 27.1 | 5.6 | 28.5 | 8.7 | 22.6 | 24.5 | 25.0 | 1.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 27.1 | 5.6 | 28.5 | 8.7 | 22.6 | 24.5 | 25.0 | 1.3 |
| Queue Length 50th (ft) | 17 | 76 | 1 | 101 | 5 | 8 | 0 | 0 |
| Queue Length 95th (ft) | 53 | 178 | 10 | 159 | 26 | 32 | 5 | 5 |
| Internal Link Dist (ft) | | 1064 | | 2597 | 260 | | 519 | |
| Turn Bay Length (ft) | 235 | | 300 | | | | | 200 |
| Base Capacity (vph) | 907 | 2767 | 907 | 2738 | 721 | 812 | 955 | 850 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.36 | 0.00 | 0.31 | 0.03 | 0.03 | 0.00 | 0.04 |
| Intersection Summary | | | | | | | | |

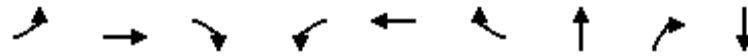
HCM 2010 Signalized Intersection Summary
 9: Stonebrook St & Caldwell Ave

5 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  |  |
| Traffic Volume (veh/h) | 49 | 909 | 9 | 4 | 745 | 27 | 16 | 1 | 4 | 26 | 1 | 31 |
| Future Volume (veh/h) | 49 | 909 | 9 | 4 | 745 | 27 | 16 | 1 | 4 | 26 | 1 | 31 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 53 | 988 | 10 | 4 | 810 | 29 | 17 | 1 | 4 | 28 | 1 | 34 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 112 | 1968 | 20 | 12 | 1713 | 61 | 270 | 26 | 37 | 347 | 260 | 221 |
| Arrive On Green | 0.06 | 0.55 | 0.55 | 0.01 | 0.49 | 0.49 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 |
| Sat Flow, veh/h | 1774 | 3589 | 36 | 1774 | 3482 | 125 | 1002 | 184 | 264 | 1405 | 1863 | 1583 |
| Grp Volume(v), veh/h | 53 | 487 | 511 | 4 | 412 | 427 | 22 | 0 | 0 | 28 | 1 | 34 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1855 | 1774 | 1770 | 1837 | 1450 | 0 | 0 | 1405 | 1863 | 1583 |
| Q Serve(g_s), s | 1.4 | 8.4 | 8.4 | 0.1 | 7.6 | 7.6 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.9 |
| Cycle Q Clear(g_c), s | 1.4 | 8.4 | 8.4 | 0.1 | 7.6 | 7.6 | 0.5 | 0.0 | 0.0 | 0.7 | 0.0 | 0.9 |
| Prop In Lane | 1.00 | | 0.02 | 1.00 | | 0.07 | 0.77 | | 0.18 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 112 | 970 | 1017 | 12 | 870 | 904 | 333 | 0 | 0 | 347 | 260 | 221 |
| V/C Ratio(X) | 0.48 | 0.50 | 0.50 | 0.35 | 0.47 | 0.47 | 0.07 | 0.00 | 0.00 | 0.08 | 0.00 | 0.15 |
| Avail Cap(c_a), veh/h | 723 | 1441 | 1511 | 723 | 1441 | 1497 | 712 | 0 | 0 | 723 | 759 | 645 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.2 | 6.9 | 6.9 | 24.3 | 8.3 | 8.3 | 18.4 | 0.0 | 0.0 | 18.5 | 18.2 | 18.6 |
| Incr Delay (d2), s/veh | 1.2 | 1.5 | 1.4 | 6.5 | 1.4 | 1.4 | 0.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 4.5 | 4.7 | 0.1 | 4.0 | 4.2 | 0.3 | 0.0 | 0.0 | 0.4 | 0.0 | 0.4 |
| LnGrp Delay(d),s/veh | 23.4 | 8.4 | 8.3 | 30.8 | 9.7 | 9.7 | 18.6 | 0.0 | 0.0 | 18.7 | 18.2 | 19.2 |
| LnGrp LOS | C | A | A | C | A | A | B | | | B | B | B |
| Approach Vol, veh/h | | 1051 | | | 843 | | | 22 | | | 63 | |
| Approach Delay, s/veh | | 9.1 | | | 9.8 | | | 18.6 | | | 19.0 | |
| Approach LOS | | A | | | A | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.3 | 32.9 | | 11.9 | 7.1 | 30.2 | | 11.9 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.1 | 10.4 | | 2.5 | 3.4 | 9.6 | | 2.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 16.5 | | 0.1 | 0.0 | 13.3 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.8 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
10: West St/West & Caldwell Ave






















5 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 125 | 727 | 54 | 92 | 684 | 54 | 167 | 25 | 201 |
| v/c Ratio | 0.45 | 0.50 | 0.08 | 0.38 | 0.49 | 0.08 | 0.43 | 0.06 | 0.50 |
| Control Delay | 33.7 | 15.6 | 2.3 | 33.7 | 16.5 | 2.5 | 28.1 | 0.3 | 24.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 33.7 | 15.6 | 2.3 | 33.7 | 16.5 | 2.5 | 28.1 | 0.3 | 24.2 |
| Queue Length 50th (ft) | 44 | 103 | 0 | 33 | 99 | 0 | 55 | 0 | 52 |
| Queue Length 95th (ft) | 113 | 189 | 13 | 90 | 186 | 14 | 135 | 0 | 139 |
| Internal Link Dist (ft) | | 2597 | | | 1242 | | 359 | | 327 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 471 | 2216 | 1020 | 471 | 2198 | 1012 | 598 | 623 | 608 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.27 | 0.33 | 0.05 | 0.20 | 0.31 | 0.05 | 0.28 | 0.04 | 0.33 |
| Intersection Summary | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 10: West St/West & Caldwell Ave

5 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  | |
| Traffic Volume (veh/h) | 115 | 669 | 50 | 85 | 629 | 50 | 34 | 120 | 23 | 27 | 79 | 79 |
| Future Volume (veh/h) | 115 | 669 | 50 | 85 | 629 | 50 | 34 | 120 | 23 | 27 | 79 | 79 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 125 | 727 | 54 | 92 | 684 | 54 | 37 | 130 | 25 | 29 | 86 | 86 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 175 | 1481 | 663 | 154 | 1437 | 643 | 133 | 284 | 293 | 107 | 146 | 127 |
| Arrive On Green | 0.10 | 0.42 | 0.42 | 0.09 | 0.41 | 0.41 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1583 | 246 | 1538 | 1583 | 132 | 787 | 687 |
| Grp Volume(v), veh/h | 125 | 727 | 54 | 92 | 684 | 54 | 167 | 0 | 25 | 201 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1583 | 1784 | 0 | 1583 | 1606 | 0 | 0 |
| Q Serve(g_s), s | 3.4 | 7.5 | 1.0 | 2.5 | 7.1 | 1.0 | 0.0 | 0.0 | 0.7 | 1.8 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.4 | 7.5 | 1.0 | 2.5 | 7.1 | 1.0 | 4.0 | 0.0 | 0.7 | 5.9 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.22 | | 1.00 | 0.14 | | 0.43 |
| Lane Grp Cap(c), veh/h | 175 | 1481 | 663 | 154 | 1437 | 643 | 418 | 0 | 293 | 379 | 0 | 0 |
| V/C Ratio(X) | 0.71 | 0.49 | 0.08 | 0.60 | 0.48 | 0.08 | 0.40 | 0.00 | 0.09 | 0.53 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 532 | 2478 | 1109 | 532 | 2478 | 1109 | 776 | 0 | 634 | 728 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 21.8 | 10.6 | 8.8 | 22.0 | 10.9 | 9.1 | 18.2 | 0.0 | 16.9 | 18.9 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 2.0 | 0.9 | 0.2 | 1.4 | 0.9 | 0.2 | 1.3 | 0.0 | 0.3 | 2.4 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.8 | 3.8 | 0.5 | 1.3 | 3.6 | 0.5 | 2.2 | 0.0 | 0.3 | 2.8 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 23.8 | 11.6 | 8.9 | 23.4 | 11.8 | 9.3 | 19.6 | 0.0 | 17.1 | 21.3 | 0.0 | 0.0 |
| LnGrp LOS | C | B | A | C | B | A | B | | B | C | | |
| Approach Vol, veh/h | | 906 | | | 830 | | | 192 | | | 201 | |
| Approach Delay, s/veh | | 13.1 | | | 12.9 | | | 19.2 | | | 21.3 | |
| Approach LOS | | B | | | B | | | B | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.3 | 27.4 | | 14.2 | 8.9 | 26.8 | | 14.2 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 35.0 | | 20.0 | 15.0 | 35.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.5 | 9.5 | | 6.0 | 5.4 | 9.1 | | 7.9 | | | | |
| Green Ext Time (p_c), s | 0.1 | 11.4 | | 1.4 | 0.1 | 10.8 | | 1.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 14.4 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 7.1 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | ↘ | ↗ | ↑ | ↗ | ↘ | ↑ |
| Traffic Vol, veh/h | 61 | 289 | 232 | 35 | 304 | 165 |
| Future Vol, veh/h | 61 | 289 | 232 | 35 | 304 | 165 |
| Conflicting Peds, #/hr | 0 | 1 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 100 | - | 160 | 145 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 66 | 311 | 249 | 38 | 327 | 177 |

| Major/Minor | Minor1 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|-------|---|
| Conflicting Flow All | 1080 | 250 | 0 | 0 | 287 | 0 |
| Stage 1 | 249 | - | - | - | - | - |
| Stage 2 | 831 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 241 | 789 | - | - | 1275 | - |
| Stage 1 | 792 | - | - | - | - | - |
| Stage 2 | 428 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 179 | 788 | - | - | 1275 | - |
| Mov Cap-2 Maneuver | 267 | - | - | - | - | - |
| Stage 1 | 792 | - | - | - | - | - |
| Stage 2 | 318 | - | - | - | - | - |

| Approach | WB | NB | SB |
|----------------------|------|----|-----|
| HCM Control Delay, s | 14.3 | 0 | 5.7 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|-----------------------|-----|-----|-------|-------|-------|-----|
| Capacity (veh/h) | - | - | 267 | 788 | 1275 | - |
| HCM Lane V/C Ratio | - | - | 0.246 | 0.394 | 0.256 | - |
| HCM Control Delay (s) | - | - | 22.8 | 12.5 | 8.8 | - |
| HCM Lane LOS | - | - | C | B | A | - |
| HCM 95th %tile Q(veh) | - | - | 0.9 | 1.9 | 1 | - |

Queues
12: Mooney Blvd & Cameron Ave

5 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|-------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 187 | 350 | 176 | 394 | 81 | 1021 | 160 | 332 | 1137 | 153 |
| v/c Ratio | 0.73 | 0.54 | 0.96 | 0.61 | 0.29 | 0.47 | 0.21 | 0.80 | 0.48 | 0.19 |
| Control Delay | 75.5 | 52.8 | 120.9 | 27.1 | 82.1 | 47.5 | 19.6 | 92.9 | 11.7 | 1.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 75.5 | 52.8 | 120.9 | 27.1 | 82.1 | 47.5 | 19.6 | 92.9 | 11.7 | 1.3 |
| Queue Length 50th (ft) | 169 | 154 | 168 | 81 | 36 | 328 | 50 | 147 | 72 | 0 |
| Queue Length 95th (ft) | #348 | 174 | #324 | 108 | m42 | m311 | m72 | 221 | 209 | m23 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 257 | 1055 | 183 | 1131 | 284 | 2164 | 753 | 455 | 2356 | 810 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.73 | 0.33 | 0.96 | 0.35 | 0.29 | 0.47 | 0.21 | 0.73 | 0.48 | 0.19 |

Intersection Summary























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

5 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 183 | 284 | 59 | 172 | 167 | 220 | 79 | 1001 | 157 | 325 | 1114 | 150 |
| Future Volume (veh/h) | 183 | 284 | 59 | 172 | 167 | 220 | 79 | 1001 | 157 | 325 | 1114 | 150 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 187 | 290 | 60 | 176 | 170 | 224 | 81 | 1021 | 160 | 332 | 1137 | 153 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 184 | 560 | 114 | 184 | 330 | 294 | 654 | 2184 | 679 | 375 | 1747 | 543 |
| Arrive On Green | 0.10 | 0.19 | 0.19 | 0.10 | 0.19 | 0.19 | 0.38 | 0.86 | 0.86 | 0.22 | 0.69 | 0.69 |
| Sat Flow, veh/h | 1774 | 2929 | 597 | 1774 | 1770 | 1578 | 3442 | 5085 | 1580 | 3442 | 5085 | 1581 |
| Grp Volume(v), veh/h | 187 | 174 | 176 | 176 | 170 | 224 | 81 | 1021 | 160 | 332 | 1137 | 153 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1756 | 1774 | 1770 | 1578 | 1721 | 1695 | 1580 | 1721 | 1695 | 1581 |
| Q Serve(g_s), s | 15.0 | 12.8 | 13.1 | 14.3 | 12.5 | 19.5 | 2.2 | 6.9 | 2.6 | 13.6 | 18.4 | 5.4 |
| Cycle Q Clear(g_c), s | 15.0 | 12.8 | 13.1 | 14.3 | 12.5 | 19.5 | 2.2 | 6.9 | 2.6 | 13.6 | 18.4 | 5.4 |
| Prop In Lane | 1.00 | | 0.34 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 184 | 338 | 336 | 184 | 330 | 294 | 654 | 2184 | 679 | 375 | 1747 | 543 |
| V/C Ratio(X) | 1.02 | 0.51 | 0.53 | 0.96 | 0.52 | 0.76 | 0.12 | 0.47 | 0.24 | 0.89 | 0.65 | 0.28 |
| Avail Cap(c_a), veh/h | 184 | 537 | 533 | 184 | 537 | 479 | 654 | 2184 | 679 | 451 | 1747 | 543 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.09 | 0.09 | 0.09 | 0.67 | 0.67 | 0.67 |
| Uniform Delay (d), s/veh | 65.0 | 52.6 | 52.7 | 64.7 | 53.1 | 55.9 | 37.1 | 6.3 | 6.0 | 55.8 | 17.8 | 15.8 |
| Incr Delay (d2), s/veh | 71.5 | 2.2 | 2.4 | 54.0 | 2.9 | 9.2 | 0.0 | 0.1 | 0.1 | 10.7 | 1.3 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 11.0 | 6.4 | 6.6 | 9.8 | 6.4 | 9.3 | 1.0 | 2.9 | 1.1 | 7.0 | 8.5 | 2.5 |
| LnGrp Delay(d),s/veh | 136.6 | 54.8 | 55.1 | 118.7 | 56.0 | 65.1 | 37.1 | 6.4 | 6.1 | 66.5 | 19.1 | 16.6 |
| LnGrp LOS | F | D | E | F | E | E | D | A | A | E | B | B |
| Approach Vol, veh/h | | 537 | | | 570 | | | 1262 | | | 1622 | |
| Approach Delay, s/veh | | 83.4 | | | 78.9 | | | 8.3 | | | 28.5 | |
| Approach LOS | | F | | | E | | | A | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 21.5 | 68.7 | 20.7 | 34.1 | 34.0 | 56.2 | 21.4 | 33.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | 6.4 | 6.4 | * 6.4 | 6.4 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 19 | 42.8 | * 15 | 44.0 | 12.0 | * 50 | 15.0 | * 44 | | | | |
| Max Q Clear Time (g_c+I1), s | 15.6 | 8.9 | 16.3 | 15.1 | 4.2 | 20.4 | 17.0 | 21.5 | | | | |
| Green Ext Time (p_c), s | 0.2 | 23.6 | 0.0 | 3.6 | 0.1 | 22.7 | 0.0 | 4.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 36.7 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.8 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↔ | ↔ | ↔ |
| Traffic Vol, veh/h | 649 | 39 | 206 | 577 | 12 | 285 |
| Future Vol, veh/h | 649 | 39 | 206 | 577 | 12 | 285 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 145 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 669 | 40 | 212 | 595 | 12 | 294 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 0 | 0 | 709 | 0 | 1708 689 |
| Stage 1 | - | - | - | - | 689 - |
| Stage 2 | - | - | - | - | 1019 - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | - | - | 890 | - | 100 446 |
| Stage 1 | - | - | - | - | 498 - |
| Stage 2 | - | - | - | - | 348 - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 890 | - | 64 446 |
| Mov Cap-2 Maneuver | - | - | - | - | 165 - |
| Stage 1 | - | - | - | - | 498 - |
| Stage 2 | - | - | - | - | 224 - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 2.7 | 27.4 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 165 | 446 | - | - | 890 | - |
| HCM Lane V/C Ratio | 0.075 | 0.659 | - | - | 0.239 | - |
| HCM Control Delay (s) | 28.6 | 27.3 | - | - | 10.3 | 0 |
| HCM Lane LOS | D | D | - | - | B | A |
| HCM 95th %tile Q(veh) | 0.2 | 4.7 | - | - | 0.9 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 140 | 712 | 20 | 10 | 555 | 9 | 11 | 6 | 3 | 6 | 7 | 156 |
| Future Vol, veh/h | 140 | 712 | 20 | 10 | 555 | 9 | 11 | 6 | 3 | 6 | 7 | 156 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 144 | 734 | 21 | 10 | 572 | 9 | 11 | 6 | 3 | 6 | 7 | 161 |

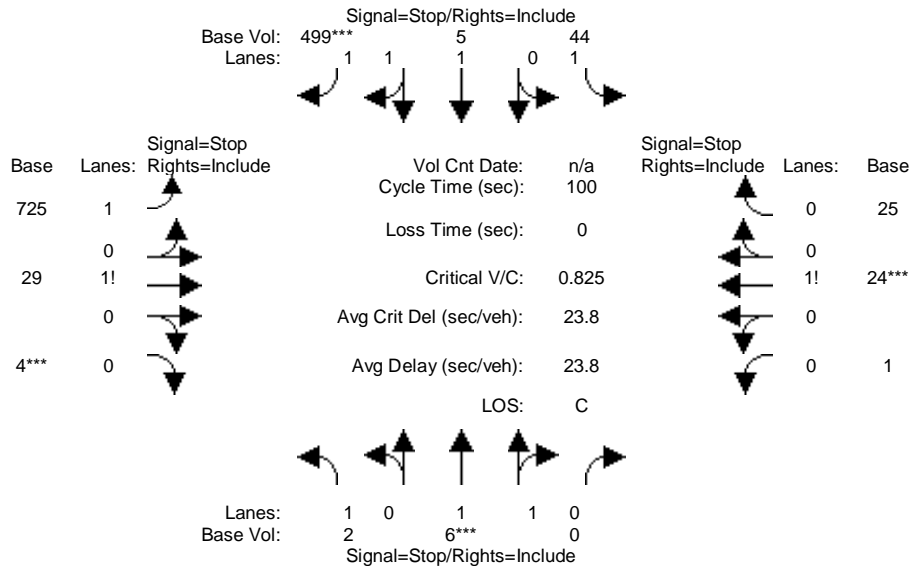
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 581 | 0 | 0 | 755 | 0 | 0 | 1714 | 1634 | 745 | 1634 | 1640 | 577 |
| Stage 1 | - | - | - | - | - | - | 1033 | 1033 | - | 597 | 597 | - |
| Stage 2 | - | - | - | - | - | - | 681 | 601 | - | 1037 | 1043 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 993 | - | - | 855 | - | - | 71 | 101 | 414 | 81 | 100 | 516 |
| Stage 1 | - | - | - | - | - | - | 281 | 310 | - | 490 | 491 | - |
| Stage 2 | - | - | - | - | - | - | 440 | 489 | - | 279 | 306 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 993 | - | - | 855 | - | - | 40 | 85 | 414 | 67 | 85 | 516 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 40 | 85 | - | 67 | 85 | - |
| Stage 1 | - | - | - | - | - | - | 240 | 265 | - | 419 | 485 | - |
| Stage 2 | - | - | - | - | - | - | 295 | 483 | - | 231 | 262 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|-------|--|--|------|--|--|
| HCM Control Delay, s | 1.5 | | | 0.2 | | | 100.3 | | | 20.6 | | |
| HCM LOS | | | | | | | F | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|-------|
| Capacity (veh/h) | 57 | 993 | - | - | 855 | - | - | 67 | 424 |
| HCM Lane V/C Ratio | 0.362 | 0.145 | - | - | 0.012 | - | - | 0.092 | 0.396 |
| HCM Control Delay (s) | 100.3 | 9.2 | - | - | 9.3 | - | - | 64.1 | 19 |
| HCM Lane LOS | F | A | - | - | A | - | - | F | C |
| HCM 95th %tile Q(veh) | 1.3 | 0.5 | - | - | 0 | - | - | 0.3 | 1.9 |

Level Of Service Computation Report
 2000 HCM 4-Way Stop (Base Volume Alternative)
 5 Year Cumulative PM

Intersection #1: Cameron Ave/Court St



| Street Name: | Court St | | | | | | Cameron Ave | | | | | |
|---------------------------|--|------|------|-------------|------|------|-------------|------|------|------------|------|------|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 2 | 6 | 0 | 44 | 5 | 499 | 725 | 29 | 4 | 1 | 24 | 25 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 2 | 6 | 0 | 44 | 5 | 499 | 725 | 29 | 4 | 1 | 24 | 25 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| PHF Volume: | 2 | 7 | 0 | 48 | 5 | 542 | 788 | 32 | 4 | 1 | 26 | 27 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 2 | 7 | 0 | 48 | 5 | 542 | 788 | 32 | 4 | 1 | 26 | 27 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 2 | 7 | 0 | 48 | 5 | 542 | 788 | 32 | 4 | 1 | 26 | 27 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 1.91 | 0.08 | 0.01 | 0.02 | 0.48 | 0.50 |
| Final Sat.: | 379 | 800 | 0 | 464 | 496 | 1105 | 1487 | -461 | 5 | 10 | 251 | 262 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.01 | xxxx | 0.10 | 0.01 | 0.49 | 0.53-0.07 | 0.83 | 0.10 | 0.10 | 0.10 | 0.10 |
| Crit Moves: | | **** | | | | **** | | **** | | **** | | |
| Delay/Veh: | 11.6 | 11.1 | 0.0 | 11.1 | 9.8 | 14.8 | 32.7 | 34.9 | 34.9 | 10.4 | 10.4 | 10.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 11.6 | 11.1 | 0.0 | 11.1 | 9.8 | 14.8 | 32.7 | 34.9 | 34.9 | 10.4 | 10.4 | 10.4 |
| LOS by Move: | B | B | * | B | A | B | D | D | D | B | B | B |
| ApproachDel: | | 11.2 | | | 14.5 | | | 31.6 | | | 10.4 | |
| Delay Adj: | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | |
| ApprAdjDel: | | 11.2 | | | 14.5 | | | 31.6 | | | 10.4 | |
| LOS by Appr: | | B | | | B | | | D | | | B | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.9 | 3.5 | 3.5 | 3.5 | 0.1 | 0.1 | 0.1 |
| Note: | Queue reported is the number of cars per lane. | | | | | | | | | | | |
| Time Period: | 0.25 hour | | | | | | | | | | | |
| HevVeh: | 0% | | | | | | | | | | | |
| Alpha Value: | 0.01 | | | | | | | | | | | |
| GroupType: | 6 | | | 6 | | | 5 | | | 4B | | |

| | | | | |
|-----------|--------|--------|--------|--------|
| P[C1]: | 0.01 | 0.04 | 0.21 | 0.01 |
| P[C2]: | 0.03 | 0.00 | 0.02 | 0.23 |
| P[C3]: | 0.21 | 0.85 | 0.67 | 0.03 |
| P[C4]: | 0.68 | 0.11 | 0.09 | 0.72 |
| P[C5]: | 0.07 | 0.00 | 0.00 | 0.01 |
| Padj[C1]: | 0.028 | 0.020 | 0.016 | 0.025 |
| Padj[C2]: | 0.018 | 0.011 | 0.008 | 0.013 |
| Padj[C3]: | 0.002 | -0.024 | -0.019 | 0.007 |
| Padj[C4]: | -0.040 | -0.007 | -0.005 | -0.043 |
| Padj[C5]: | -0.007 | -0.000 | -0.000 | -0.001 |

| Lanes: | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
|--------------|-------|--------|-------|--------|-------|-------|--------|---------|
| LaneType: | LEFT | RTTHRU | LEFT | RITE | LEFT | LTR | LTR | NOLANE |
| HeadwayAdj: | 0.500 | 0.000 | 0.500 | -0.700 | 0.500 | 0.949 | -0.296 | xx.xxx |
| Volume: | 2 | 3 | 48 | 271 | 412 | 412 | 54 | xxxxxxx |
| Capacity: | 379 | 400 | 464 | 553 | 532 | 499 | 523 | xxxxxx |
| DegOfUtil: | 0.01 | 0.01 | 0.10 | 0.48 | 0.77 | 0.82 | 0.10 | x.xx |
| DepHeadway: | 8.82 | 8.32 | 7.57 | 6.37 | 6.72 | 7.17 | 6.64 | xx.xx |
| ServiceTime: | 6.5 | 6.0 | 5.3 | 4.1 | 4.4 | 4.9 | 4.6 | xx.x |
| Delay: | 11.6 | 11.1 | 11.1 | 14.8 | 28.4 | 34.9 | 10.4 | xxx.x |
| Queue: | 0.0 | 0.0 | 0.1 | 0.9 | 2.8 | 3.5 | 0.1 | xxx.x |

| Lanes: | L3 | L4 | L3 | L4 | L3 | L4 | L3 | L4 |
|--------------|-------|--------|--------|-------|---------|---------|---------|---------|
| LaneType: | THRU | NOLANE | RTTHRU | THRU | NOLANE | NOLANE | NOLANE | NOLANE |
| HeadwayAdj: | 0.000 | xx.xxx | -0.700 | 0.000 | xx.xxx | xx.xxx | xx.xxx | xx.xxx |
| Volume: | 3 | xxxxxx | 271 | 5 | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| Capacity: | 400 | xxxxxx | 553 | 496 | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| DegOfUtil: | 0.01 | x.xx | 0.48 | 0.01 | x.xx | x.xx | x.xx | x.xx |
| DepHeadway: | 8.32 | xx.xx | 6.37 | 7.07 | xx.xx | xx.xx | xx.xx | xx.xx |
| ServiceTime: | 6.0 | xx.x | 4.1 | 4.8 | xx.x | xx.x | xx.x | xx.x |
| Delay: | 11.1 | xxx.x | 14.8 | 9.8 | xxx.x | xxx.x | xxx.x | xxx.x |
| Queue: | 0.0 | xxx.x | 0.9 | 0.0 | xxx.x | xxx.x | xxx.x | xxx.x |

| Approach: | North Bound | South Bound | East Bound | West Bound |
|--------------|-------------|-------------|------------|------------|
| ApproachDel: | 11.2 | 14.5 | 31.6 | 10.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 |
| ApprAdjDel: | 11.2 | 14.5 | 31.6 | 10.4 |
| LOS by Appr: | B | B | D | B |
| OverallDel: | 23.8 | | | |
| OverallLOS: | C | | | |

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #1 Cameron Ave/Court St

Base Volume Alternative: Peak Hour Warrant Met

| Approach: | North Bound | South Bound | East Bound | West Bound |
|----------------------------------|-------------|-------------|------------|------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Control: | Stop Sign | Stop Sign | Stop Sign | Stop Sign |
| Lanes: | 1 0 1 1 0 | 1 0 1 1 1 | 1 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 2 6 0 | 44 5 499 | 725 29 4 | 1 24 25 |
| Major Street Volume: | 808 | | | |
| Minor Approach Volume: | 548 | | | |
| Minor Approach Volume Threshold: | 466 | | | |

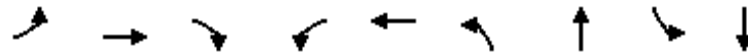
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Queues
16: Demaree St & Visalia Pkwy

5 Year Cumulative
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 20 | 304 | 59 | 83 | 451 | 71 | 692 | 159 | 601 |
| v/c Ratio | 0.14 | 0.70 | 0.13 | 0.44 | 0.41 | 0.40 | 0.66 | 0.65 | 0.45 |
| Control Delay | 45.1 | 43.6 | 0.6 | 47.1 | 19.9 | 47.0 | 28.3 | 50.6 | 22.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.1 | 43.6 | 0.6 | 47.1 | 19.9 | 47.0 | 28.3 | 50.6 | 22.8 |
| Queue Length 50th (ft) | 11 | 156 | 0 | 44 | 65 | 38 | 165 | 84 | 133 |
| Queue Length 95th (ft) | 37 | #338 | 0 | 99 | 147 | 88 | 246 | 169 | 207 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 775 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 334 | 469 | 495 | 334 | 1171 | 334 | 1509 | 334 | 1545 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.65 | 0.12 | 0.25 | 0.39 | 0.21 | 0.46 | 0.48 | 0.39 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

5 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 19 | 289 | 56 | 79 | 262 | 166 | 67 | 506 | 151 | 151 | 518 | 53 |
| Future Volume (veh/h) | 19 | 289 | 56 | 79 | 262 | 166 | 67 | 506 | 151 | 151 | 518 | 53 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 20 | 304 | 59 | 83 | 276 | 175 | 71 | 533 | 159 | 159 | 545 | 56 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 49 | 399 | 339 | 124 | 538 | 330 | 116 | 809 | 240 | 199 | 1127 | 116 |
| Arrive On Green | 0.03 | 0.21 | 0.21 | 0.07 | 0.26 | 0.26 | 0.07 | 0.30 | 0.30 | 0.11 | 0.35 | 0.35 |
| Sat Flow, veh/h | 1774 | 1863 | 1583 | 1774 | 2098 | 1287 | 1774 | 2692 | 800 | 1774 | 3241 | 332 |
| Grp Volume(v), veh/h | 20 | 304 | 59 | 83 | 231 | 220 | 71 | 350 | 342 | 159 | 297 | 304 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1583 | 1774 | 1770 | 1616 | 1774 | 1770 | 1722 | 1774 | 1770 | 1804 |
| Q Serve(g_s), s | 0.8 | 10.4 | 2.1 | 3.1 | 7.6 | 8.0 | 2.6 | 11.7 | 11.8 | 5.9 | 8.9 | 9.0 |
| Cycle Q Clear(g_c), s | 0.8 | 10.4 | 2.1 | 3.1 | 7.6 | 8.0 | 2.6 | 11.7 | 11.8 | 5.9 | 8.9 | 9.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.80 | 1.00 | | 0.46 | 1.00 | | 0.18 |
| Lane Grp Cap(c), veh/h | 49 | 399 | 339 | 124 | 453 | 414 | 116 | 532 | 517 | 199 | 615 | 627 |
| V/C Ratio(X) | 0.41 | 0.76 | 0.17 | 0.67 | 0.51 | 0.53 | 0.61 | 0.66 | 0.66 | 0.80 | 0.48 | 0.48 |
| Avail Cap(c_a), veh/h | 392 | 548 | 466 | 392 | 521 | 475 | 392 | 898 | 874 | 392 | 898 | 916 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 32.5 | 25.1 | 21.8 | 30.8 | 21.6 | 21.8 | 30.9 | 20.7 | 20.8 | 29.4 | 17.4 | 17.4 |
| Incr Delay (d2), s/veh | 2.0 | 9.3 | 0.7 | 2.3 | 2.7 | 3.2 | 2.0 | 2.7 | 2.8 | 2.8 | 1.1 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 6.4 | 1.0 | 1.6 | 4.1 | 3.9 | 1.4 | 6.1 | 6.0 | 3.1 | 4.6 | 4.7 |
| LnGrp Delay(d),s/veh | 34.5 | 34.4 | 22.5 | 33.2 | 24.3 | 25.0 | 32.9 | 23.4 | 23.6 | 32.2 | 18.5 | 18.5 |
| LnGrp LOS | C | C | C | C | C | C | C | C | C | C | B | B |
| Approach Vol, veh/h | | 383 | | | 534 | | | 763 | | | 760 | |
| Approach Delay, s/veh | | 32.6 | | | 26.0 | | | 24.4 | | | 21.4 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.8 | 27.4 | 8.9 | 19.8 | 8.6 | 30.6 | 6.1 | 22.6 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 15 | 34.5 | * 15 | 20.0 | * 15 | 34.5 | * 15 | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.9 | 13.8 | 5.1 | 12.4 | 4.6 | 11.0 | 2.8 | 10.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 6.6 | 0.1 | 2.2 | 0.0 | 6.0 | 0.0 | 3.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 25.1 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 29 | 507 | 4 | 6 | 519 | 22 | 2 | 0 | 1 | 25 | 1 | 40 |
| Future Vol, veh/h | 29 | 507 | 4 | 6 | 519 | 22 | 2 | 0 | 1 | 25 | 1 | 40 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 32 | 551 | 4 | 7 | 564 | 24 | 2 | 0 | 1 | 27 | 1 | 43 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 588 | 0 | 0 | 555 | 0 | 0 | 1229 | 1219 | 553 | 1208 | 1209 | 576 |
| Stage 1 | - | - | - | - | - | - | 617 | 617 | - | 590 | 590 | - |
| Stage 2 | - | - | - | - | - | - | 612 | 602 | - | 618 | 619 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 987 | - | - | 1015 | - | - | 155 | 180 | 533 | 160 | 183 | 517 |
| Stage 1 | - | - | - | - | - | - | 477 | 481 | - | 494 | 495 | - |
| Stage 2 | - | - | - | - | - | - | 480 | 489 | - | 477 | 480 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 987 | - | - | 1015 | - | - | 137 | 173 | 533 | 155 | 176 | 517 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 137 | 173 | - | 155 | 176 | - |
| Stage 1 | - | - | - | - | - | - | 462 | 466 | - | 478 | 492 | - |
| Stage 2 | - | - | - | - | - | - | 436 | 486 | - | 461 | 465 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.5 | | | 0.1 | | | 25.1 | | | 23.1 | | |
| HCM LOS | | | | | | | D | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 182 | 987 | - | - | 1015 | - | - | 270 |
| HCM Lane V/C Ratio | 0.018 | 0.032 | - | - | 0.006 | - | - | 0.266 |
| HCM Control Delay (s) | 25.1 | 8.8 | - | - | 8.6 | - | - | 23.1 |
| HCM Lane LOS | D | A | - | - | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.1 | 0.1 | - | - | 0 | - | - | 1 |

HCM 2010 TWSC
 18: Visalia Pkwy & County Center Dr

5 Year Cumulative
 Timing Plan: P.M. Peak

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 7.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 105 | 429 | 444 | 168 | 112 | 112 |
| Future Vol, veh/h | 105 | 429 | 444 | 168 | 112 | 112 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 114 | 466 | 483 | 183 | 122 | 122 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 666 | 0 | - | 0 | 1269 575 |
| Stage 1 | - | - | - | - | 575 - |
| Stage 2 | - | - | - | - | 694 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 923 | - | - | - | 186 518 |
| Stage 1 | - | - | - | - | 563 - |
| Stage 2 | - | - | - | - | 496 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 923 | - | - | - | 163 518 |
| Mov Cap-2 Maneuver | - | - | - | - | 163 - |
| Stage 1 | - | - | - | - | 493 - |
| Stage 2 | - | - | - | - | 496 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.9 | 0 | 43.8 |
| HCM LOS | | | E |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 923 | - | - | - | 163 | 518 |
| HCM Lane V/C Ratio | 0.124 | - | - | - | 0.747 | 0.235 |
| HCM Control Delay (s) | 9.4 | - | - | - | 73.4 | 14.1 |
| HCM Lane LOS | A | - | - | - | F | B |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 4.7 | 0.9 |

HCM 2010 TWSC
 19: Main Site Access/Target Dwy & Visalia Pkwy

5 Year Cumulative
 Timing Plan: P.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 366.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 107 | 397 | 74 | 161 | 377 | 29 | 131 | 0 | 260 | 135 | 0 | 68 |
| Future Vol, veh/h | 107 | 397 | 74 | 161 | 377 | 29 | 131 | 0 | 260 | 135 | 0 | 68 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 116 | 432 | 80 | 175 | 410 | 32 | 142 | 0 | 283 | 147 | 0 | 74 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 443 | 0 | 0 | 512 | 0 | 0 | 1517 | 1497 | 472 | 1623 | 1521 | 427 |
| Stage 1 | - | - | - | - | - | - | 704 | 704 | - | 777 | 777 | - |
| Stage 2 | - | - | - | - | - | - | 813 | 793 | - | 846 | 744 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1117 | - | - | 1053 | - | - | ~ 98 | 123 | 592 | ~ 82 | 118 | 628 |
| Stage 1 | - | - | - | - | - | - | 428 | 440 | - | 390 | 407 | - |
| Stage 2 | - | - | - | - | - | - | 372 | 400 | - | 357 | 421 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1116 | - | - | 1053 | - | - | ~ 70 | 92 | 592 | ~ 34 | 88 | 627 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 70 | 92 | - | ~ 34 | 88 | - |
| Stage 1 | - | - | - | - | - | - | 383 | 394 | - | 349 | 339 | - |
| Stage 2 | - | - | - | - | - | - | 274 | 333 | - | 167 | 377 | - |

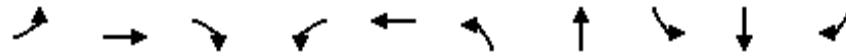
| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|----------|--|--|-----------|--|--|
| HCM Control Delay, s | 1.6 | | | 2.6 | | | \$ 741.7 | | | \$ 1700.9 | | |
| HCM LOS | | | | | | | F | | | F | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|----------|-------|-----|-----|-------|-----|-----|-----------|
| Capacity (veh/h) | 169 | 1116 | - | - | 1053 | - | - | 50 |
| HCM Lane V/C Ratio | 2.515 | 0.104 | - | - | 0.166 | - | - | 4.413 |
| HCM Control Delay (s) | \$ 741.7 | 8.6 | - | - | 9.1 | - | - | \$ 1700.9 |
| HCM Lane LOS | F | A | - | - | A | - | - | F |
| HCM 95th %tile Q(veh) | 36.4 | 0.3 | - | - | 0.6 | - | - | 24.7 |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Queues
20: Mooney Blvd & Visalia Pkwy

5 Year Cumulative
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 492 | 247 | 199 | 280 | 293 | 160 | 928 | 49 | 1004 | 155 |
| v/c Ratio | 2.02 | 0.71 | 0.44 | 0.86 | 0.68 | 0.66 | 0.65 | 0.49 | 0.62 | 0.25 |
| Control Delay | 501.9 | 66.1 | 8.9 | 81.1 | 56.4 | 73.0 | 37.3 | 87.1 | 21.4 | 3.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 501.9 | 66.1 | 8.9 | 81.1 | 56.4 | 73.0 | 37.3 | 87.1 | 21.4 | 3.1 |
| Queue Length 50th (ft) | ~725 | 220 | 0 | 258 | 244 | 145 | 365 | 47 | 182 | 21 |
| Queue Length 95th (ft) | #950 | 304 | 66 | #388 | 327 | 227 | 491 | m71 | m284 | m13 |
| Internal Link Dist (ft) | | 765 | | | 337 | | 245 | | 1110 | |
| Turn Bay Length (ft) | 180 | | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 244 | 423 | 509 | 358 | 527 | 244 | 1429 | 122 | 1629 | 609 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 2.02 | 0.58 | 0.39 | 0.78 | 0.56 | 0.66 | 0.65 | 0.40 | 0.62 | 0.25 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

5 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 458 | 230 | 185 | 260 | 212 | 60 | 149 | 623 | 240 | 46 | 934 | 144 |
| Future Volume (veh/h) | 458 | 230 | 185 | 260 | 212 | 60 | 149 | 623 | 240 | 46 | 934 | 144 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 492 | 247 | 199 | 280 | 228 | 65 | 160 | 670 | 258 | 49 | 1004 | 155 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 245 | 310 | 260 | 284 | 269 | 77 | 402 | 1158 | 446 | 63 | 1347 | 410 |
| Arrive On Green | 0.14 | 0.17 | 0.17 | 0.16 | 0.19 | 0.19 | 0.23 | 0.46 | 0.46 | 0.07 | 0.53 | 0.53 |
| Sat Flow, veh/h | 1774 | 1863 | 1562 | 1774 | 1390 | 396 | 1774 | 2498 | 962 | 1774 | 5085 | 1547 |
| Grp Volume(v), veh/h | 492 | 247 | 199 | 280 | 0 | 293 | 160 | 475 | 453 | 49 | 1004 | 155 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1562 | 1774 | 0 | 1787 | 1774 | 1770 | 1691 | 1774 | 1695 | 1547 |
| Q Serve(g_s), s | 20.0 | 18.5 | 17.6 | 22.8 | 0.0 | 22.9 | 11.1 | 28.5 | 28.5 | 3.9 | 22.3 | 5.9 |
| Cycle Q Clear(g_c), s | 20.0 | 18.5 | 17.6 | 22.8 | 0.0 | 22.9 | 11.1 | 28.5 | 28.5 | 3.9 | 22.3 | 5.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.22 | 1.00 | | 0.57 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 245 | 310 | 260 | 284 | 0 | 345 | 402 | 820 | 783 | 63 | 1347 | 410 |
| V/C Ratio(X) | 2.01 | 0.80 | 0.77 | 0.98 | 0.00 | 0.85 | 0.40 | 0.58 | 0.58 | 0.78 | 0.75 | 0.38 |
| Avail Cap(c_a), veh/h | 245 | 424 | 356 | 284 | 0 | 517 | 402 | 820 | 783 | 122 | 1347 | 410 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.82 | 0.82 | 0.82 |
| Uniform Delay (d), s/veh | 62.5 | 58.1 | 57.8 | 60.7 | 0.0 | 56.4 | 47.7 | 28.5 | 28.5 | 66.8 | 30.3 | 13.1 |
| Incr Delay (d2), s/veh | 469.0 | 14.3 | 14.1 | 48.9 | 0.0 | 16.0 | 0.2 | 3.0 | 3.1 | 6.1 | 3.1 | 2.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 41.7 | 10.8 | 8.6 | 15.1 | 0.0 | 12.8 | 5.5 | 14.6 | 14.0 | 2.0 | 10.7 | 3.1 |
| LnGrp Delay(d),s/veh | 531.5 | 72.4 | 71.9 | 109.6 | 0.0 | 72.4 | 47.9 | 31.5 | 31.6 | 72.9 | 33.4 | 15.3 |
| LnGrp LOS | F | E | E | F | | E | D | C | C | E | C | B |
| Approach Vol, veh/h | | 938 | | | 573 | | | 1088 | | | 1208 | |
| Approach Delay, s/veh | | 313.1 | | | 90.6 | | | 34.0 | | | 32.7 | |
| Approach LOS | | F | | | F | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.9 | 74.0 | 29.6 | 30.5 | 39.7 | 45.2 | 25.7 | 34.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | 6.4 | * 6.4 | 6.8 | * 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 10 | 48.4 | 20.0 | * 33 | 20.0 | * 38 | * 20 | 42.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.9 | 30.5 | 24.8 | 20.5 | 13.1 | 24.3 | 22.0 | 24.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 11.4 | 0.0 | 3.6 | 0.1 | 10.7 | 0.0 | 3.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 110.9 | | | | | | | | | |
| HCM 2010 LOS | | | F | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 7.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 284 | 20 | 5 | 0 | 0 | 211 |
| Future Vol, veh/h | 284 | 20 | 5 | 0 | 0 | 211 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 309 | 22 | 5 | 0 | 0 | 229 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 5 | 0 | - | 0 | 645 |
| Stage 1 | - | - | - | - | 5 |
| Stage 2 | - | - | - | - | 640 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1616 | - | - | - | 437 |
| Stage 1 | - | - | - | - | 1018 |
| Stage 2 | - | - | - | - | 525 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1616 | - | - | - | 354 |
| Mov Cap-2 Maneuver | - | - | - | - | 354 |
| Stage 1 | - | - | - | - | 824 |
| Stage 2 | - | - | - | - | 525 |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 7.2 | 0 | 9.2 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1616 | - | - | - | 1078 |
| HCM Lane V/C Ratio | 0.191 | - | - | - | 0.213 |
| HCM Control Delay (s) | 7.8 | - | - | - | 9.2 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0.7 | - | - | - | 0.8 |

Queues
22: Mooney Blvd & Midvalley Ave

5 Year Cumulative
Timing Plan: P.M. Peak























| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 49 | 10 | 21 | 7 | 1268 | 9 | 1266 | 82 |
| v/c Ratio | 0.16 | 0.02 | 0.05 | 0.04 | 0.52 | 0.05 | 0.52 | 0.07 |
| Control Delay | 18.0 | 0.1 | 0.2 | 28.9 | 14.1 | 28.9 | 14.1 | 2.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.0 | 0.1 | 0.2 | 28.9 | 14.1 | 28.9 | 14.1 | 2.2 |
| Queue Length 50th (ft) | 14 | 0 | 0 | 2 | 117 | 3 | 117 | 0 |
| Queue Length 95th (ft) | 37 | 0 | 0 | 16 | #561 | 19 | #560 | 16 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 640 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 868 | 1058 | 964 | 496 | 2428 | 496 | 2428 | 1099 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.01 | 0.02 | 0.01 | 0.52 | 0.02 | 0.52 | 0.07 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

5 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 45 | 3 | 10 | 5 | 0 | 16 | 7 | 1226 | 4 | 9 | 1228 | 80 |
| Future Volume (veh/h) | 45 | 3 | 10 | 5 | 0 | 16 | 7 | 1226 | 4 | 9 | 1228 | 80 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 46 | 3 | 10 | 5 | 0 | 16 | 7 | 1264 | 4 | 9 | 1266 | 82 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 286 | 14 | 176 | 110 | 21 | 134 | 20 | 1720 | 5 | 25 | 1693 | 741 |
| Arrive On Green | 0.11 | 0.11 | 0.11 | 0.11 | 0.00 | 0.11 | 0.01 | 0.48 | 0.48 | 0.01 | 0.48 | 0.48 |
| Sat Flow, veh/h | 1320 | 130 | 1583 | 185 | 192 | 1208 | 1774 | 3619 | 11 | 1774 | 3539 | 1549 |
| Grp Volume(v), veh/h | 49 | 0 | 10 | 21 | 0 | 0 | 7 | 618 | 650 | 9 | 1266 | 82 |
| Grp Sat Flow(s),veh/h/ln | 1450 | 0 | 1583 | 1585 | 0 | 0 | 1774 | 1770 | 1860 | 1774 | 1770 | 1549 |
| Q Serve(g_s), s | 0.9 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.2 | 14.1 | 14.1 | 0.3 | 14.5 | 1.5 |
| Cycle Q Clear(g_c), s | 1.4 | 0.0 | 0.3 | 0.6 | 0.0 | 0.0 | 0.2 | 14.1 | 14.1 | 0.3 | 14.5 | 1.5 |
| Prop In Lane | 0.94 | | 1.00 | 0.24 | | 0.76 | 1.00 | | 0.01 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 301 | 0 | 176 | 265 | 0 | 0 | 20 | 841 | 884 | 25 | 1693 | 741 |
| V/C Ratio(X) | 0.16 | 0.00 | 0.06 | 0.08 | 0.00 | 0.00 | 0.35 | 0.73 | 0.73 | 0.36 | 0.75 | 0.11 |
| Avail Cap(c_a), veh/h | 707 | 0 | 632 | 1104 | 0 | 0 | 531 | 883 | 929 | 531 | 1767 | 773 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.4 | 0.0 | 19.9 | 20.0 | 0.0 | 0.0 | 24.6 | 10.6 | 10.6 | 24.5 | 10.6 | 7.2 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 5.4 | 5.2 | 3.2 | 2.8 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.0 | 0.1 | 0.3 | 0.0 | 0.0 | 0.1 | 8.0 | 8.3 | 0.1 | 7.7 | 0.7 |
| LnGrp Delay(d),s/veh | 20.5 | 0.0 | 20.0 | 20.1 | 0.0 | 0.0 | 28.6 | 16.0 | 15.8 | 27.7 | 13.4 | 7.4 |
| LnGrp LOS | C | | B | C | | | C | B | B | C | B | A |
| Approach Vol, veh/h | | 59 | | | 21 | | | 1275 | | | 1357 | |
| Approach Delay, s/veh | | 20.4 | | | 20.1 | | | 16.0 | | | 13.1 | |
| Approach LOS | | C | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.4 | 30.6 | | 13.1 | 6.3 | 30.8 | | 13.1 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 20 | * 15 | 25.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.3 | 16.1 | | 3.4 | 2.2 | 16.5 | | 2.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.7 | | 0.1 | 0.0 | 7.4 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 14.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 17.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 14 | 4 | 28 | 2 | 3 | 25 | 143 | 1248 | 60 | 18 | 1286 | 38 |
| Future Vol, veh/h | 14 | 4 | 28 | 2 | 3 | 25 | 143 | 1248 | 60 | 18 | 1286 | 38 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 15 | 4 | 29 | 2 | 3 | 26 | 151 | 1314 | 63 | 19 | 1354 | 40 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 2373 | 3091 | 697 | 2365 | 3080 | 689 | 1394 | 0 | 0 | 1377 | 0 | 0 |
| Stage 1 | 1412 | 1412 | - | 1648 | 1648 | - | - | - | - | - | - | - |
| Stage 2 | 961 | 1679 | - | 717 | 1432 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 18 | 12 | 383 | 19 | 12 | 388 | 487 | - | - | 494 | - | - |
| Stage 1 | 145 | 203 | - | 103 | 155 | - | - | - | - | - | - | - |
| Stage 2 | 275 | 150 | - | 387 | 198 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | ~ 9 | 8 | 383 | 8 | 8 | 388 | 487 | - | - | 494 | - | - |
| Mov Cap-2 Maneuver | ~ 9 | 8 | - | 8 | 8 | - | - | - | - | - | - | - |
| Stage 1 | 100 | 195 | - | 71 | 107 | - | - | - | - | - | - | - |
| Stage 2 | 172 | 103 | - | 336 | 190 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|------------------------|-------|-------|-----|-----|
| HCM Control Delay, s\$ | 923.7 | 197.8 | 1.5 | 0.2 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 487 | - | - | 22 | 44 | 494 | - |
| HCM Lane V/C Ratio | 0.309 | - | - | 2.201 | 0.718 | 0.038 | - |
| HCM Control Delay (s) | 15.7 | - | - | \$ 923.7 | 197.8 | 12.6 | - |
| HCM Lane LOS | C | - | - | F | F | B | - |
| HCM 95th %tile Q(veh) | 1.3 | - | - | 6.2 | 2.8 | 0.1 | - |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Queues
25: Mooney Blvd & Ave 268

5 Year Cumulative
Timing Plan: P.M. Peak





















| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 252 | 31 | 127 | 1322 | 64 | 1333 |
| v/c Ratio | 0.69 | 0.08 | 0.51 | 0.85 | 0.33 | 1.01 |
| Control Delay | 32.8 | 13.1 | 37.6 | 27.9 | 36.5 | 53.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 32.8 | 13.1 | 37.6 | 27.9 | 36.5 | 53.0 |
| Queue Length 50th (ft) | 88 | 4 | 54 | 295 | 27 | ~356 |
| Queue Length 95th (ft) | 176 | 24 | 109 | #515 | 66 | #574 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 476 | 503 | 396 | 1556 | 396 | 1326 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.53 | 0.06 | 0.32 | 0.85 | 0.16 | 1.01 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
25: Mooney Blvd & Ave 268

5 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 152 | 1 | 79 | 9 | 1 | 18 | 117 | 1203 | 13 | 59 | 1215 | 11 |
| Future Volume (veh/h) | 152 | 1 | 79 | 9 | 1 | 18 | 117 | 1203 | 13 | 59 | 1215 | 11 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 165 | 1 | 86 | 10 | 1 | 20 | 127 | 1308 | 14 | 64 | 1321 | 12 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 293 | 12 | 110 | 156 | 44 | 231 | 163 | 1496 | 16 | 113 | 1398 | 13 |
| Arrive On Green | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.09 | 0.42 | 0.42 | 0.06 | 0.39 | 0.39 |
| Sat Flow, veh/h | 913 | 53 | 501 | 377 | 203 | 1054 | 1774 | 3586 | 38 | 1774 | 3594 | 33 |
| Grp Volume(v), veh/h | 252 | 0 | 0 | 31 | 0 | 0 | 127 | 645 | 677 | 64 | 650 | 683 |
| Grp Sat Flow(s),veh/h/ln | 1467 | 0 | 0 | 1634 | 0 | 0 | 1774 | 1770 | 1855 | 1774 | 1770 | 1857 |
| Q Serve(g_s), s | 9.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.5 | 21.5 | 21.5 | 2.3 | 22.8 | 22.8 |
| Cycle Q Clear(g_c), s | 10.3 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 | 4.5 | 21.5 | 21.5 | 2.3 | 22.8 | 22.8 |
| Prop In Lane | 0.65 | | 0.34 | 0.32 | | 0.65 | 1.00 | | 0.02 | 1.00 | | 0.02 |
| Lane Grp Cap(c), veh/h | 414 | 0 | 0 | 432 | 0 | 0 | 163 | 738 | 774 | 113 | 688 | 722 |
| V/C Ratio(X) | 0.61 | 0.00 | 0.00 | 0.07 | 0.00 | 0.00 | 0.78 | 0.87 | 0.87 | 0.57 | 0.94 | 0.95 |
| Avail Cap(c_a), veh/h | 592 | 0 | 0 | 615 | 0 | 0 | 414 | 738 | 774 | 414 | 689 | 723 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.6 | 0.0 | 0.0 | 20.0 | 0.0 | 0.0 | 28.5 | 17.2 | 17.2 | 29.2 | 19.0 | 19.0 |
| Incr Delay (d2), s/veh | 2.5 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 3.0 | 13.4 | 13.0 | 1.7 | 23.0 | 22.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.5 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 2.3 | 13.2 | 13.7 | 1.2 | 15.4 | 16.1 |
| LnGrp Delay(d),s/veh | 26.0 | 0.0 | 0.0 | 20.1 | 0.0 | 0.0 | 31.6 | 30.6 | 30.1 | 30.9 | 42.0 | 41.3 |
| LnGrp LOS | C | | | C | | | C | C | C | C | D | D |
| Approach Vol, veh/h | | 252 | | | 31 | | | 1449 | | | 1397 | |
| Approach Delay, s/veh | | 26.0 | | | 20.1 | | | 30.5 | | | 41.2 | |
| Approach LOS | | C | | | C | | | C | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.8 | 34.7 | | 19.8 | 11.6 | 32.9 | | 19.8 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 22 | * 15 | 25.0 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.3 | 23.5 | | 12.3 | 6.5 | 24.8 | | 2.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.4 | | 1.5 | 0.1 | 0.2 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 34.8 | | | | | | | | |
| HCM 2010 LOS | | | | C | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 516 | 0 | 0 | 532 | 0 | 0 |
| Future Vol, veh/h | 516 | 0 | 0 | 532 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 538 | 0 | 0 | 554 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | 538 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 543 |
| Stage 1 | - | - | 0 | - | - |
| Stage 2 | - | - | 0 | - | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 543 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

HCM 2010 TWSC
 27: Visalia Pkwy & Tuesday Morning Dwy

5 Year Cumulative
 Timing Plan: P.M. Peak

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | ↷ |
| Traffic Vol, veh/h | 19 | 497 | 507 | 23 | 21 | 25 |
| Future Vol, veh/h | 19 | 497 | 507 | 23 | 21 | 25 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 20 | 518 | 528 | 24 | 22 | 26 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 552 | 0 | - | 0 | 1098 540 |
| Stage 1 | - | - | - | - | 540 - |
| Stage 2 | - | - | - | - | 558 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1018 | - | - | - | 235 542 |
| Stage 1 | - | - | - | - | 584 - |
| Stage 2 | - | - | - | - | 573 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1018 | - | - | - | 228 542 |
| Mov Cap-2 Maneuver | - | - | - | - | 228 - |
| Stage 1 | - | - | - | - | 568 - |
| Stage 2 | - | - | - | - | 573 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.3 | 0 | 17.6 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1018 | - | - | - | 333 |
| HCM Lane V/C Ratio | 0.019 | - | - | - | 0.144 |
| HCM Control Delay (s) | 8.6 | 0 | - | - | 17.6 |
| HCM Lane LOS | A | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.5 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 518 | 0 | 0 | 478 | 0 | 0 |
| Future Vol, veh/h | 518 | 0 | 0 | 478 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 563 | 0 | 0 | 520 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | 563 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | 0 | - | 0 | 526 |
| Stage 1 | - | 0 | - | 0 | - |
| Stage 2 | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 526 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | ↔ |
| Traffic Vol, veh/h | 246 | 272 | 213 | 3 | 4 | 265 |
| Future Vol, veh/h | 246 | 272 | 213 | 3 | 4 | 265 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 265 | 292 | 229 | 3 | 4 | 285 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|-------|-------|
| Conflicting Flow All | 232 | 0 | 0 | 1053 | 231 |
| Stage 1 | - | - | - | 231 | - |
| Stage 2 | - | - | - | 822 | - |
| Critical Hdwy | 4.12 | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1336 | - | - | 251 | 808 |
| Stage 1 | - | - | - | 807 | - |
| Stage 2 | - | - | - | 432 | - |
| Platoon blocked, % | | - | - | | |
| Mov Cap-1 Maneuver | 1336 | - | - | 192 | 808 |
| Mov Cap-2 Maneuver | - | - | - | 192 | - |
| Stage 1 | - | - | - | 616 | - |
| Stage 2 | - | - | - | 432 | - |

| Approach | EB | WB | SB |
|----------------------|----|----|------|
| HCM Control Delay, s | 4 | 0 | 12.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1336 | - | - | - | 192 | 808 |
| HCM Lane V/C Ratio | 0.198 | - | - | - | 0.022 | 0.353 |
| HCM Control Delay (s) | 8.4 | 0 | - | - | 24.2 | 11.9 |
| HCM Lane LOS | A | A | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.7 | - | - | - | 0.1 | 1.6 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.6 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | | ↕↕ | ↕↕ | ↗ |
| Traffic Vol, veh/h | 0 | 93 | 0 | 999 | 1233 | 166 |
| Future Vol, veh/h | 0 | 93 | 0 | 999 | 1233 | 166 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 101 | 0 | 1086 | 1340 | 180 |

| Major/Minor | Minor2 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | - | 670 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | 6.94 | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | 3.32 | - |
| Pot Cap-1 Maneuver | 0 | 399 | 0 |
| Stage 1 | 0 | - | 0 |
| Stage 2 | 0 | - | 0 |
| Platoon blocked, % | | | - |
| Mov Cap-1 Maneuver | - | 399 | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 17.1 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT EBLn1 | SBT | SBR |
|-----------------------|-----------|-------|-----|
| Capacity (veh/h) | - | 399 | - |
| HCM Lane V/C Ratio | - | 0.253 | - |
| HCM Control Delay (s) | - | 17.1 | - |
| HCM Lane LOS | - | C | - |
| HCM 95th %tile Q(veh) | - | 1 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.7 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | ↘ | ↕ | ↕ | ↗ |
| Traffic Vol, veh/h | 0 | 122 | 229 | 999 | 1210 | 123 |
| Future Vol, veh/h | 0 | 122 | 229 | 999 | 1210 | 123 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | 150 | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 133 | 249 | 1086 | 1315 | 134 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | - | 658 | 1449 | 0 | - | 0 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 0 | 407 | 463 | - | - | - |
| Stage 1 | 0 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | - | 407 | 463 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 18.1 | 4 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 463 | - | 407 | - | - |
| HCM Lane V/C Ratio | 0.538 | - | 0.326 | - | - |
| HCM Control Delay (s) | 21.5 | - | 18.1 | - | - |
| HCM Lane LOS | C | - | C | - | - |
| HCM 95th %tile Q(veh) | 3.1 | - | 1.4 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 17 | 23 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 40 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 17 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 972 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 17 | 23 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 40 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 17 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 972 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 17 | 23 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 40 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 17 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 972 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 17 | 23 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 40 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 17 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 972 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | W | | | W | W | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

Appendix G – Five-Year Cumulative and Five-Year Cumulative Plus Project Conditions Signal Warrants

Five-Year Cumulative Signal Warrant Sheets

Peak Hour Warrant (Rural Areas)

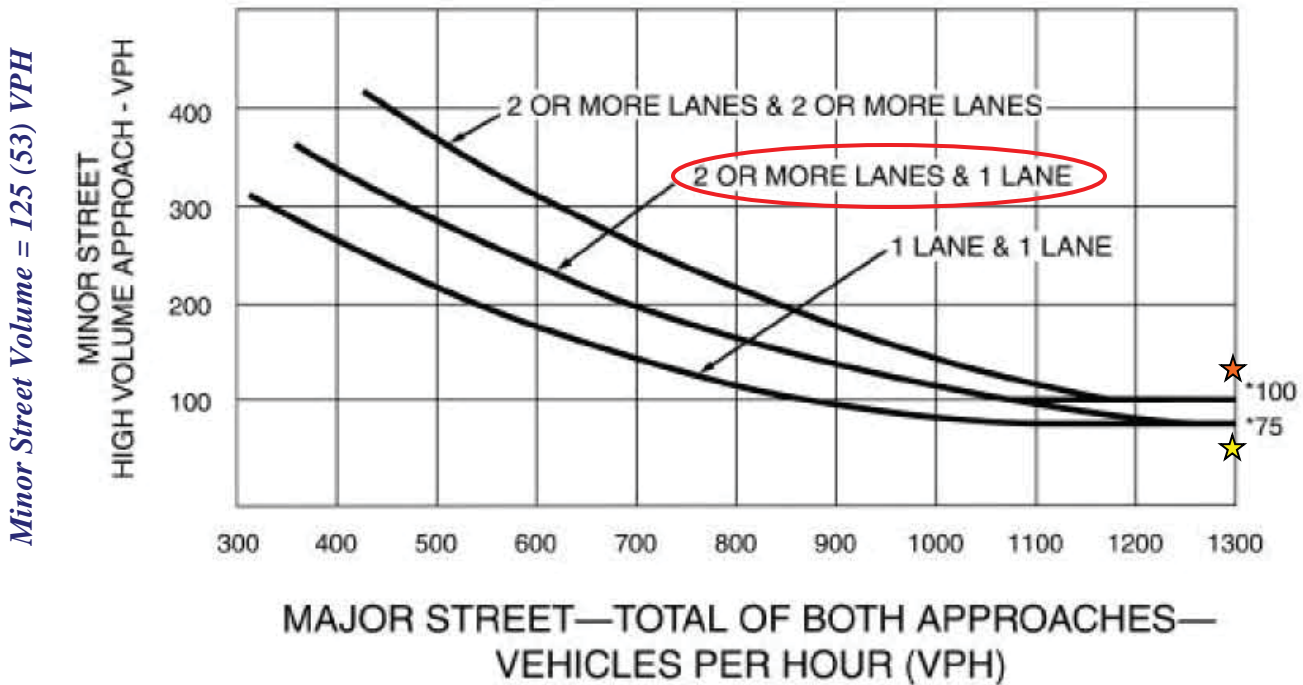
(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Caldwell Avenue and Dans Street, Visalia, CA

Scenario: Five Year Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

- XX – AM Peak Volume
- (XX) – PM Peak Volume
- ★ – A.M.
- ★ – P.M.

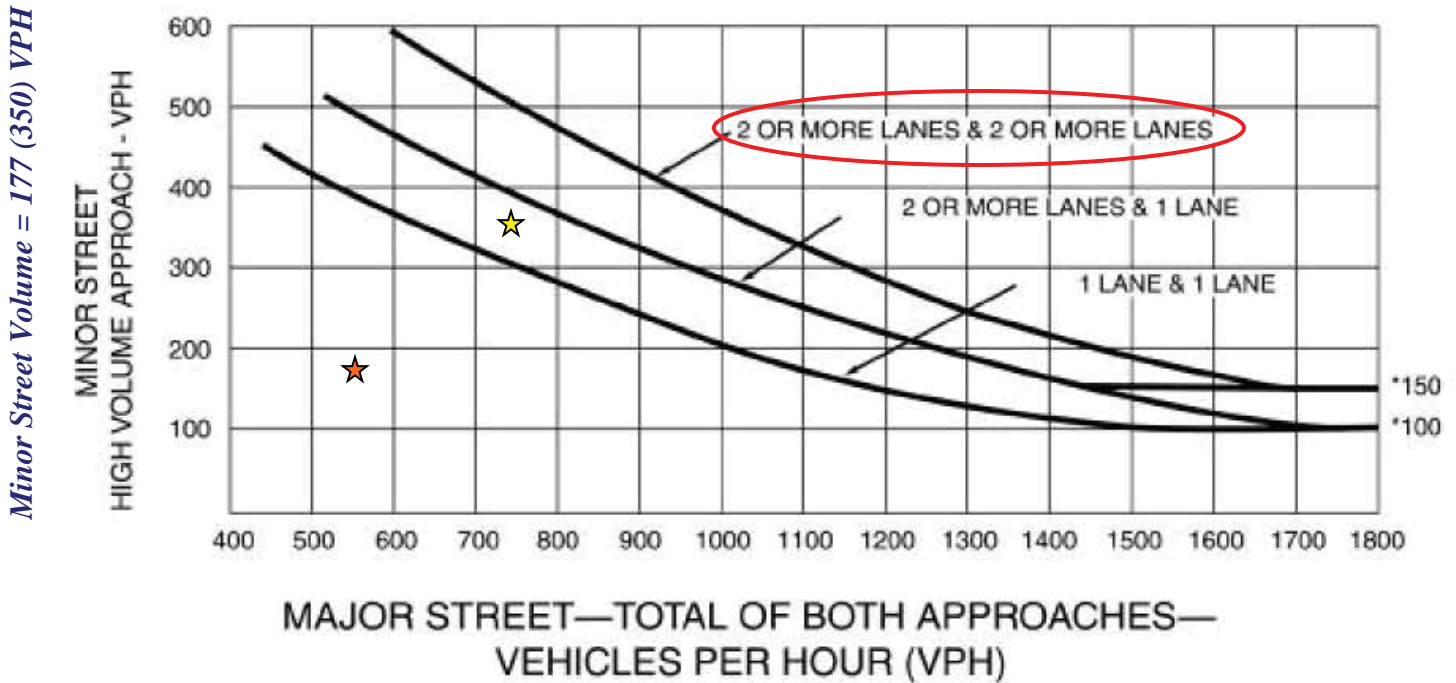
Major Street Volume = 1452 (1968) VPH

A signal is warranted for the A.M. Peak Hour.

Peak Hour Warrant (Urban Areas)

Intersection: Cameron Avenue and County Center Drive, Visalia, CA
 Scenario: Five Year Conditions A.M. & P.M. Peak Hour

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

- XX – AM Peak Volume
- (XX) – PM Peak Volume
- ★ – A.M.
- ★ – P.M.

Major Street Volume = 551 (736) VPH

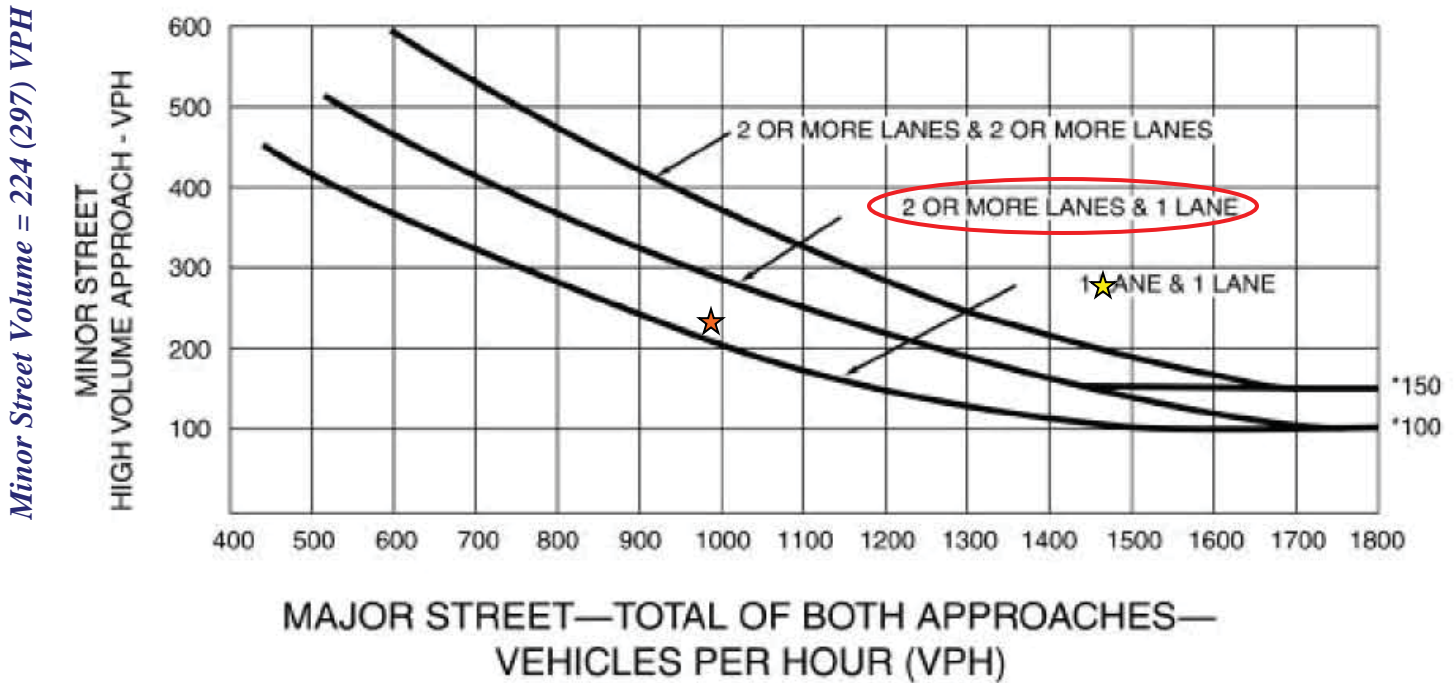
***A signal is not warranted for
the A.M. or P.M. Peak Hour.***

*Source: CA MUTCD 2014, Chapter 4C – Traffic Control Signal Needs
 Studies, Part 4 - Highway Traffic Signals, Figure 4C-3*

Peak Hour Warrant (Urban Areas)

Intersection: Cameron Avenue and Stonebrook Street, Visalia, CA
 Scenario: Five Year Conditions A.M. & P.M. Peak Hour

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

- XX – AM Peak Volume
- (XX) – PM Peak Volume
- ★ – A.M.
- ★ – P.M.

Major Street Volume = 993 (1471) VPH

***A signal is warranted for the
P.M. Peak Hour.***

Source: CA MUTCD 2014, Chapter 4C – Traffic Control Signal Needs Studies, Part 4 - Highway Traffic Signals, Figure 4C-3

Peak Hour Warrant (Rural Areas)

(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Cameron Avenue and West Street, Visalia, CA

Scenario: Five Year Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 837 (1446) VPH

A signal is warranted for the P.M. Peak Hour.

Peak Hour Warrant (Rural Areas)

(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Visalia Parkway and Dans Street, Visalia, CA

Scenario: Five Year Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

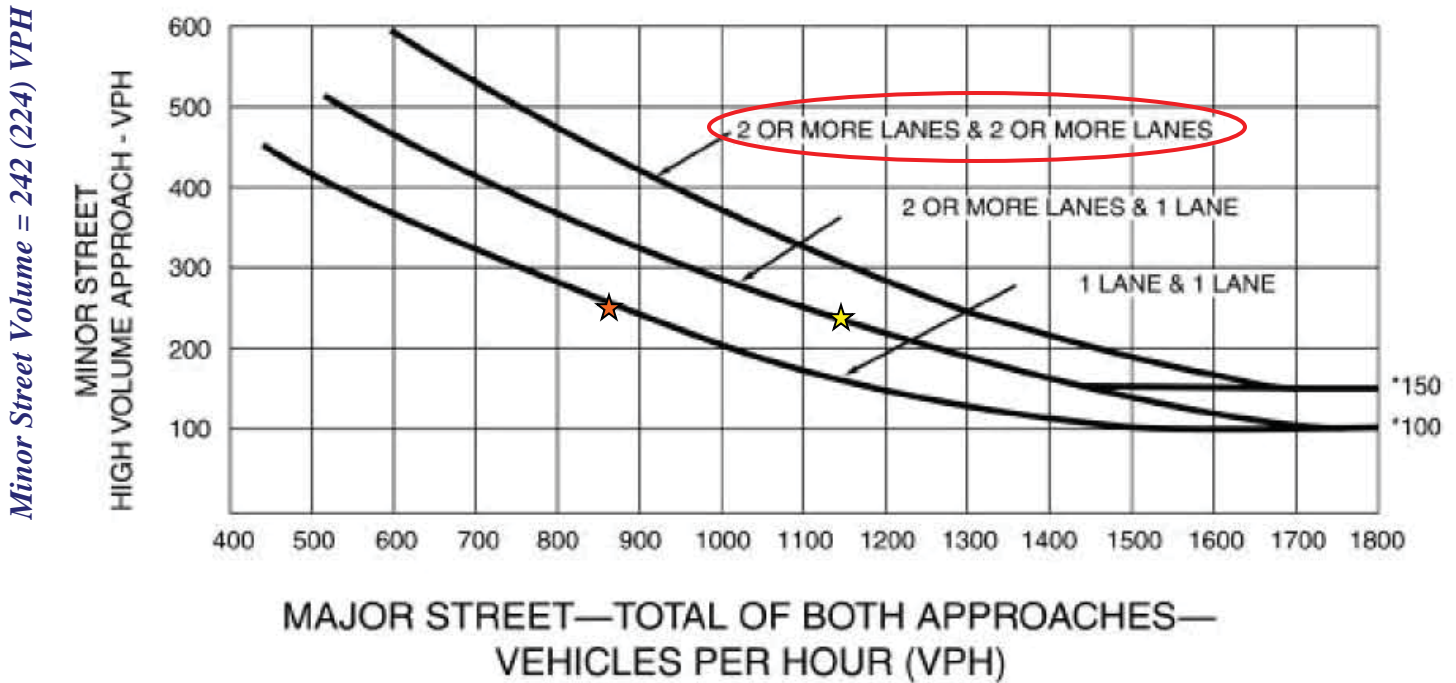
Major Street Volume = 954 (1087) VPH

*A signal is warranted for the
A.M.*

Peak Hour Warrant (Urban Areas)

Intersection: Visalia Parkway and County Center Drive, Visalia, CA
 Scenario: Five Year Conditions A.M. & P.M. Peak Hour

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

- XX – AM Peak Volume
- (XX) – PM Peak Volume
- ★ – A.M.
- ★ – P.M.

Major Street Volume = 854 (1146) VPH

***A signal is not warranted for
the A.M. or P.M. Peak Hour.***

*Source: CA MUTCD 2014, Chapter 4C – Traffic Control Signal Needs
 Studies, Part 4 - Highway Traffic Signals, Figure 4C-3*

Peak Hour Warrant (Rural Areas)

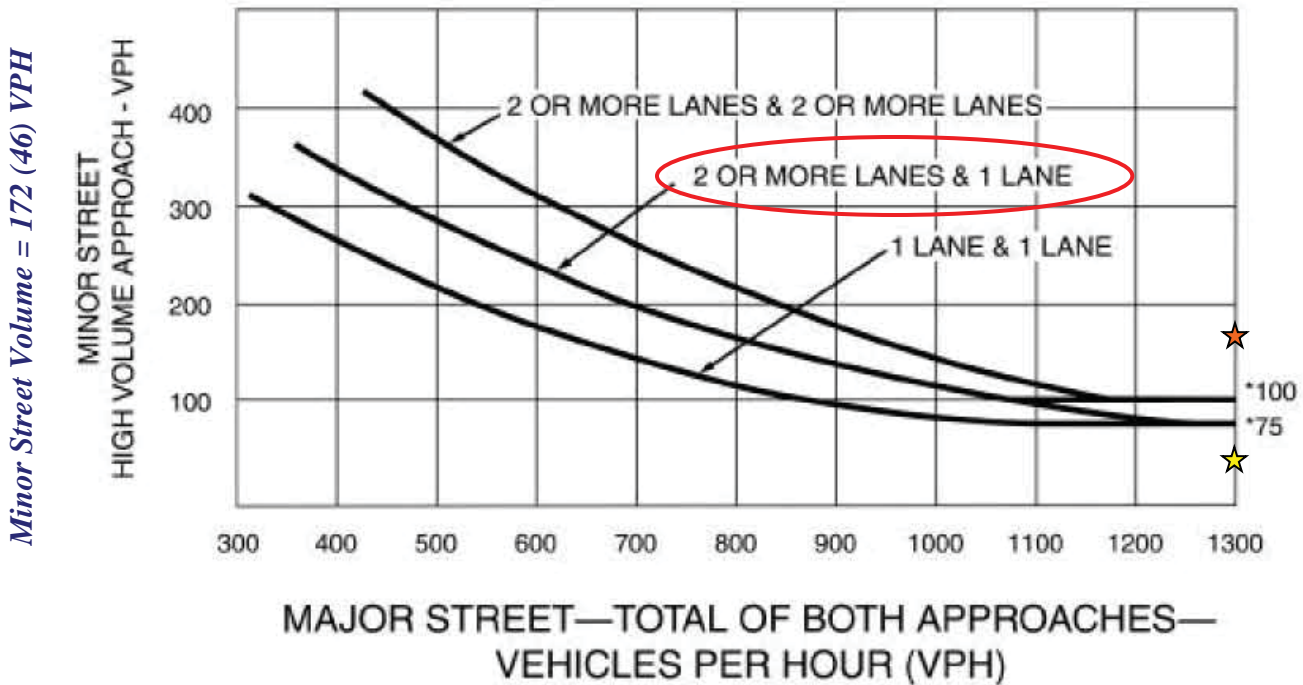
(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Mooney Boulevard and Avenue 272, Visalia, CA

Scenario: Five Year Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 1774 (2793) VPH

*A signal is warranted for the
A.M. Peak Hour.*

Peak Hour Warrant (Rural Areas)

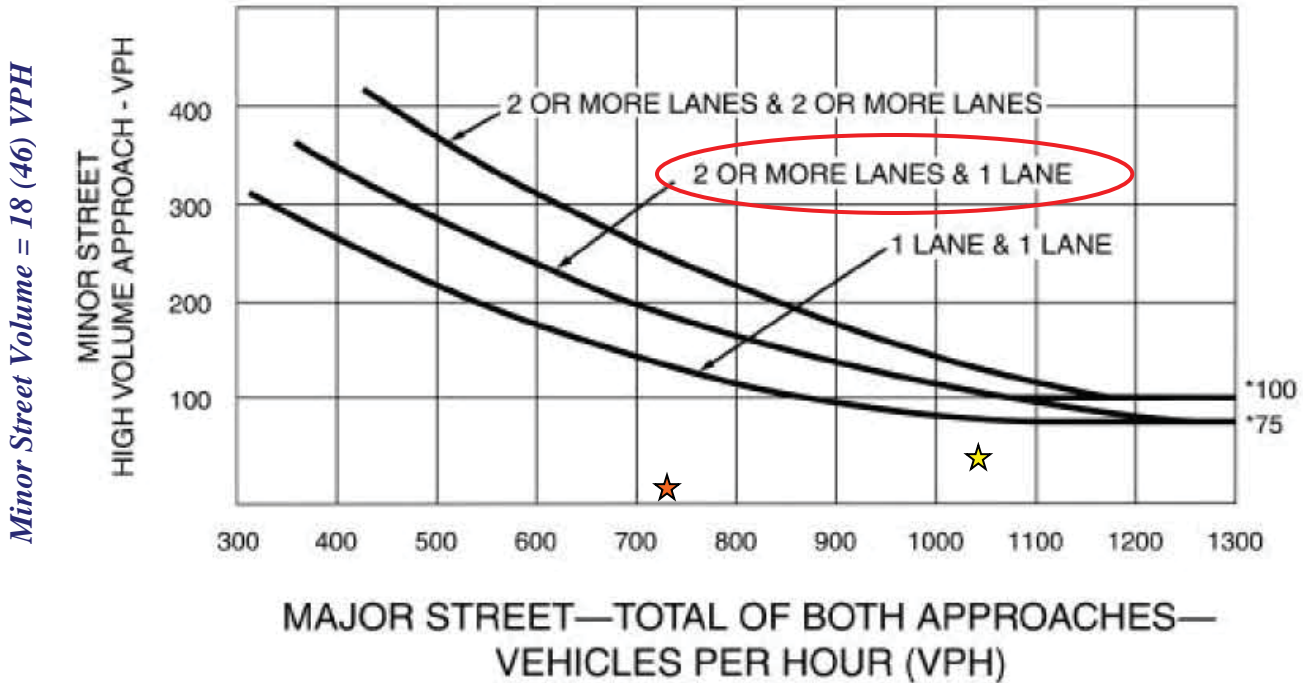
(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Visalia Parkway and Tuesday Morning Driveway, Visalia, CA

Scenario: Five Year Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 714 (1046) VPH

*A signal is not warranted for
the A.M. or P.M. Peak Hour.*

Peak Hour Warrant (Rural Areas)

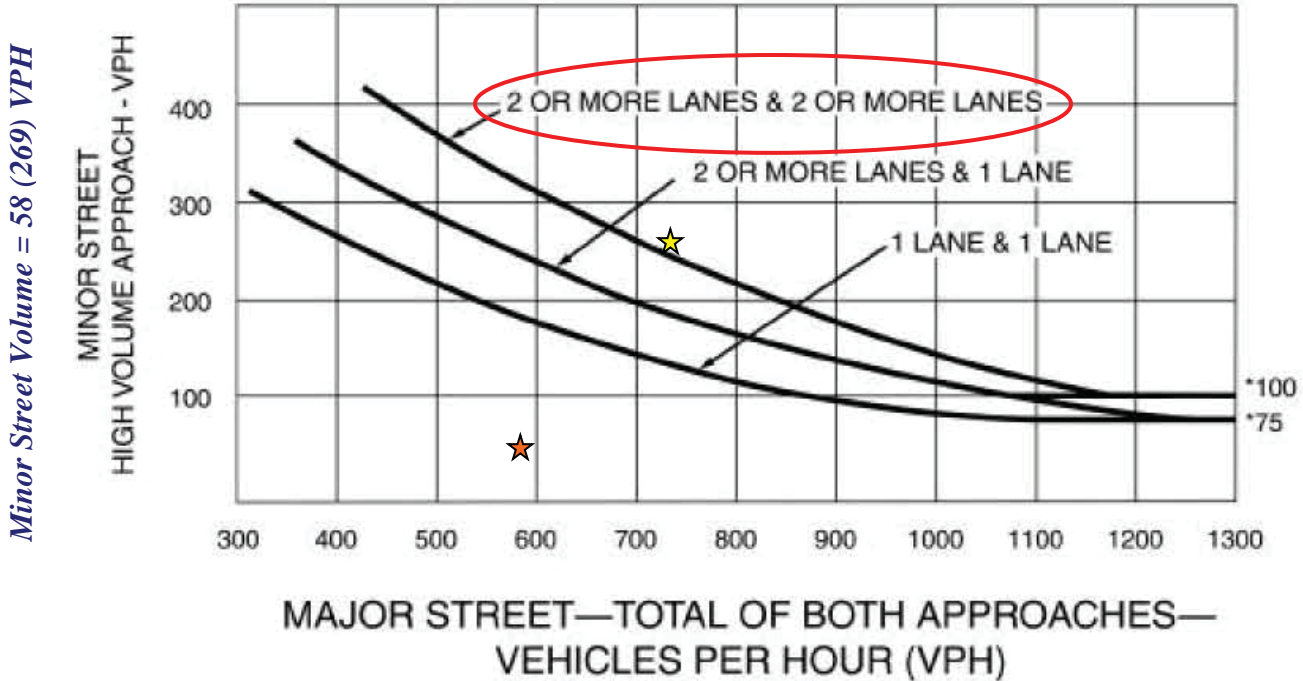
(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Visalia Parkway and Costco Driveway, Visalia, CA

Scenario: Five Year Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 593 (734) VPH

***A signal is warranted for the
P.M. Peak Hour.***

Five-Year Cumulative plus
Phase 1 Signal Warrant
Sheets

Peak Hour Warrant (Rural Areas)

(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Caldwell Avenue and Dans Street, Visalia, CA

Scenario: Five Year plus Phase 1 Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

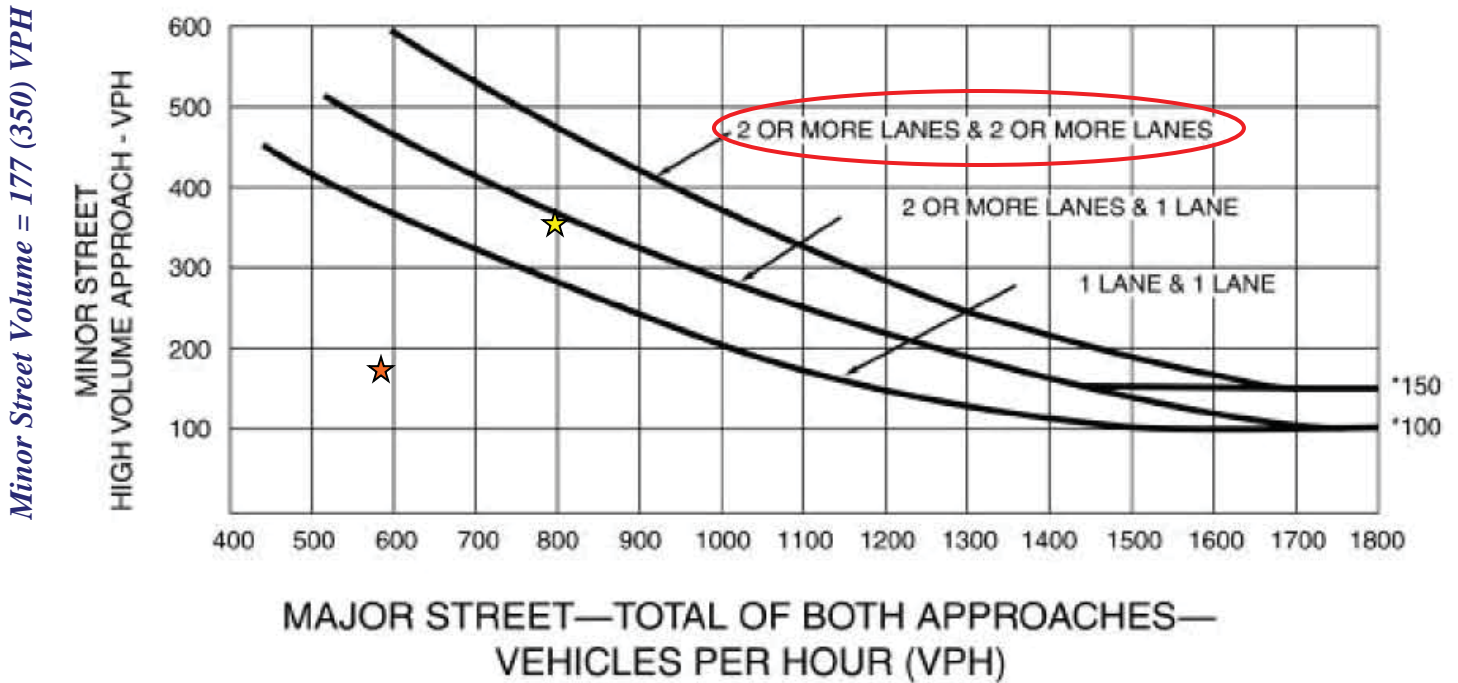
Major Street Volume = 1516 (2058) VPH

*A signal is warranted for the
A.M. Peak Hour.*

Peak Hour Warrant (Urban Areas)

Intersection: Cameron Avenue and County Center Drive, Visalia, CA
 Scenario: Five Year plus Phase 1 Conditions A.M. & P.M. Peak Hour

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

- XX – AM Peak Volume
- (XX) – PM Peak Volume
- ★ – A.M.
- ★ – P.M.

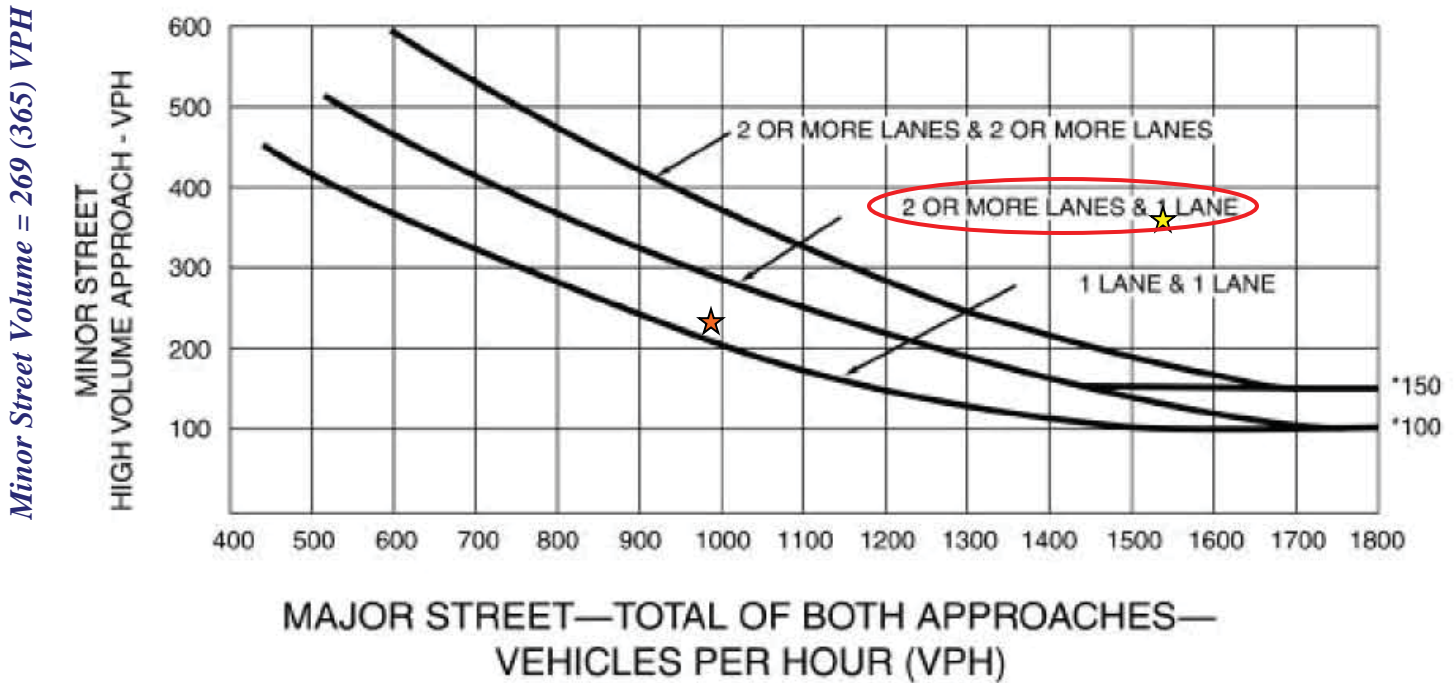
Major Street Volume = 596 (800) VPH

***A signal is not warranted for
the A.M. or P.M. Peak Hour.***

Peak Hour Warrant (Urban Areas)

Intersection: Cameron Avenue and Stonebrook Street, Visalia, CA
 Scenario: Five Year plus Phase 1 Conditions A.M. & P.M. Peak Hour

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

- XX – AM Peak Volume
- (XX) – PM Peak Volume
- ★ – A.M.
- ★ – P.M.

Major Street Volume = 1045 (1539) VPH

*A signal is warranted for the
P.M. Peak Hour.*

Source: CA MUTCD 2014, Chapter 4C – Traffic Control Signal Needs Studies, Part 4 - Highway Traffic Signals, Figure 4C-3

Peak Hour Warrant (Rural Areas)

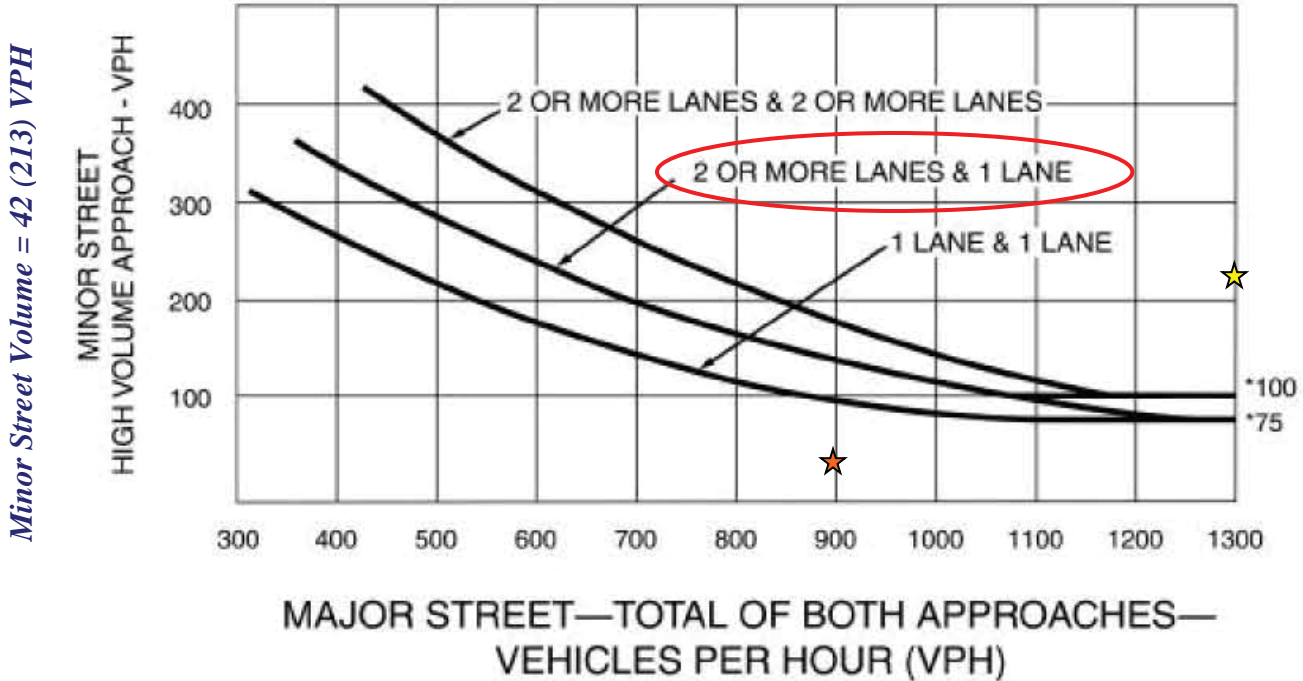
(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Cameron Avenue and West Street, Visalia, CA

Scenario: Five Year plus Phase 1 Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 900 (1538) VPH

A signal is warranted for the P.M. Peak Hour.

Peak Hour Warrant (Rural Areas)

(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Visalia Parkway and Dans Street, Visalia, CA

Scenario: Five Year plus Phase 1 Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

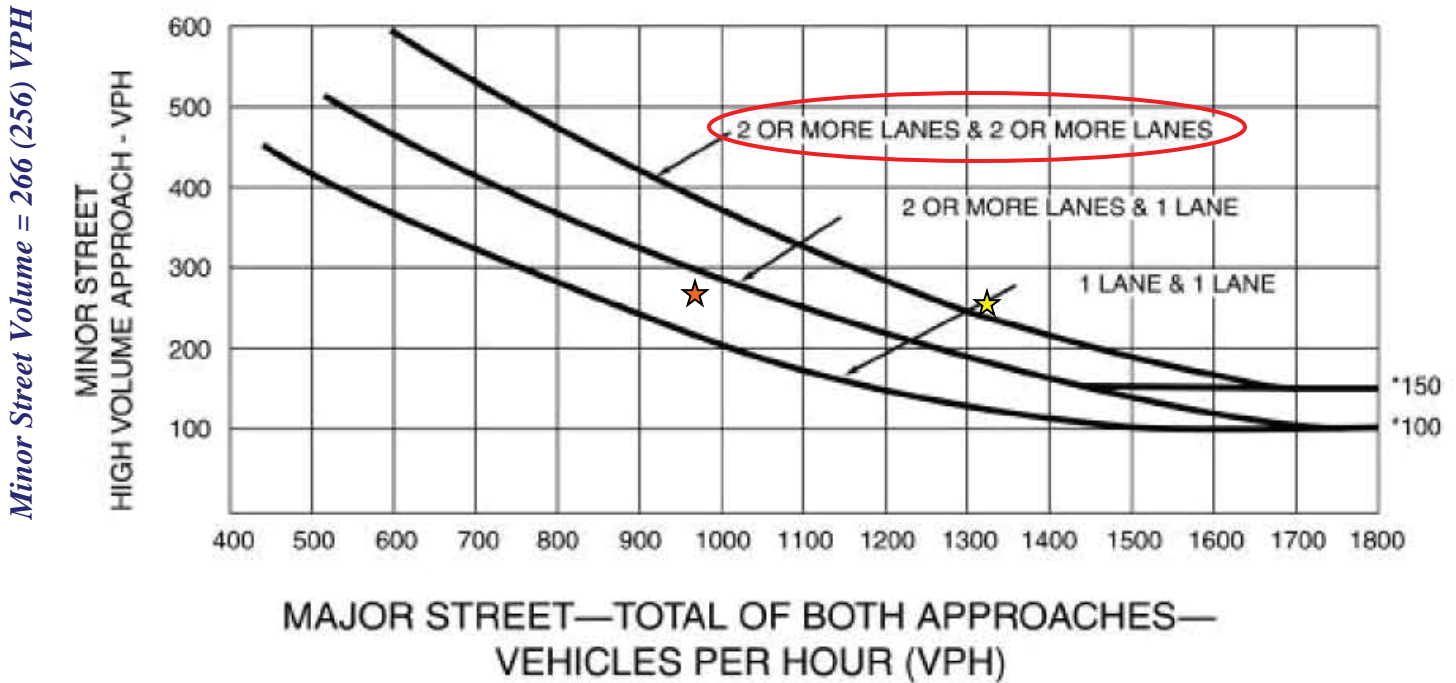
Major Street Volume = 1033 (1202) VPH

A signal is warranted for the A.M. and P.M. peak hours.

Peak Hour Warrant (Urban Areas)

Intersection: Visalia Parkway and County Center Drive, Visalia, CA
 Scenario: Five Year plus Phase 1 Conditions A.M. & P.M. Peak Hour

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

- XX – AM Peak Volume
- (XX) – PM Peak Volume
- ★ – A.M.
- ★ – P.M.

Major Street Volume = 971 (1316) VPH

***A signal is warranted for the
P.M. Peak Hour.***

Source: CA MUTCD 2014, Chapter 4C – Traffic Control Signal Needs Studies, Part 4 - Highway Traffic Signals, Figure 4C-3

Peak Hour Warrant (Rural Areas)

(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Mooney Boulevard and Avenue 272, Visalia, CA

Scenario: Five Year plus Phase 1 Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 1923 (3005) VPH

*A signal is warranted for the
A.M. Peak Hour.*

Peak Hour Warrant (Rural Areas)

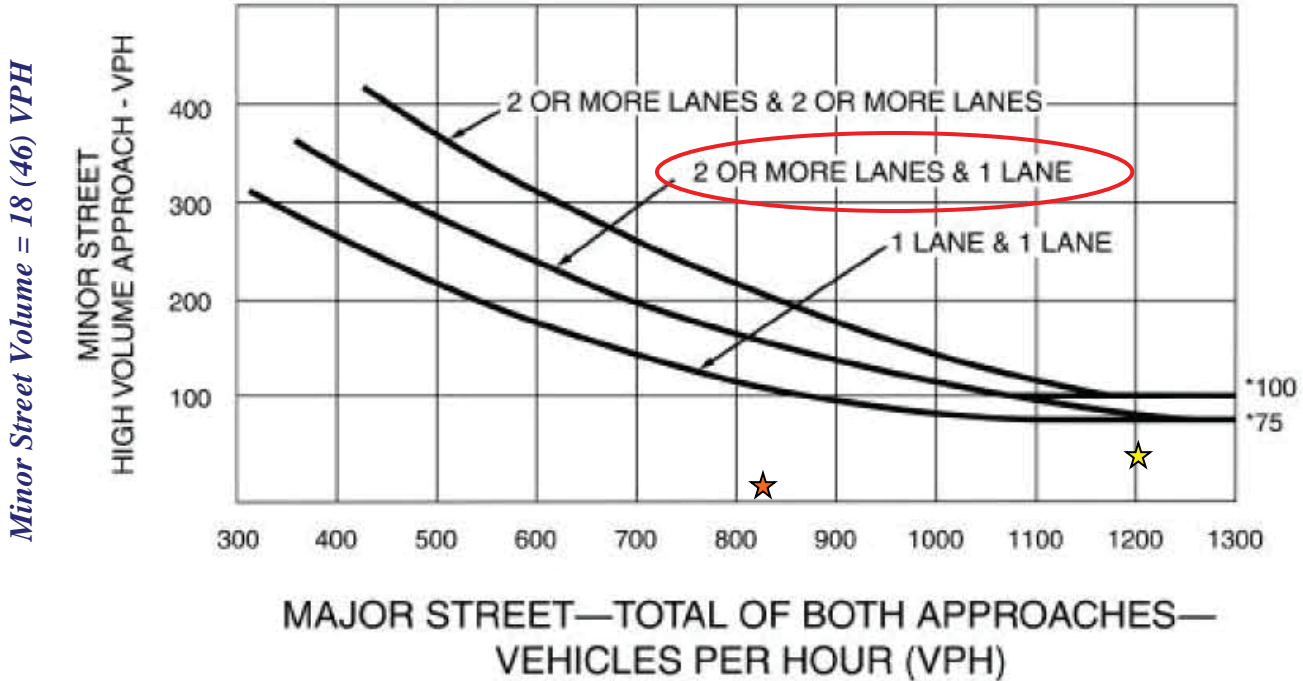
(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Visalia Parkway and Tuesday Morning Driveway, Visalia, CA

Scenario: Five Year plus Phase 1 Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 826 (1203) VPH

A signal is not warranted for the A.M. or P.M. Peak Hour.

Peak Hour Warrant (Rural Areas)

(Community less than 10,000 population or above 70 km/h (40 mph) on Major Street)

Intersection: Visalia Parkway and Costco Driveway, Visalia, CA

Scenario: Five Year plus Phase 1 Conditions A.M. & P.M. Peak Hour

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Minor Street Volume = 58 (269) VPH



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

XX – AM Peak Volume

(XX) – PM Peak Volume

★ – A.M.

★ – P.M.

Major Street Volume = 690 (870) VPH

A signal is warranted for the P.M. Peak Hour.

Appendix H – Five-Year Cumulative Plus Project Conditions Level
of Service and Queuing Work Sheets

Queues
1: Mooney Blvd & Whitendale Ave

5 Year plus Phase 1
Timing Plan: A.M. Peak



























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 105 | 218 | 155 | 213 | 262 | 60 | 111 | 687 | 159 | 63 | 672 | 46 |
| v/c Ratio | 0.41 | 0.46 | 0.45 | 0.70 | 0.50 | 0.16 | 0.31 | 0.23 | 0.16 | 0.37 | 0.26 | 0.05 |
| Control Delay | 68.4 | 59.6 | 10.5 | 76.6 | 58.9 | 1.0 | 62.9 | 17.5 | 3.9 | 72.2 | 22.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 68.4 | 59.6 | 10.5 | 76.6 | 58.9 | 1.0 | 62.9 | 17.5 | 3.9 | 72.2 | 22.2 | 0.1 |
| Queue Length 50th (ft) | 49 | 104 | 0 | 102 | 125 | 0 | 51 | 110 | 1 | 30 | 123 | 0 |
| Queue Length 95th (ft) | 81 | 125 | 54 | 145 | 144 | 0 | 82 | 192 | 46 | 55 | 202 | 0 |
| Internal Link Dist (ft) | | 1104 | | | 403 | | | 770 | | | 1028 | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 289 | 878 | 506 | 355 | 951 | 534 | 355 | 2929 | 966 | 355 | 2577 | 847 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.36 | 0.25 | 0.31 | 0.60 | 0.28 | 0.11 | 0.31 | 0.23 | 0.16 | 0.18 | 0.26 | 0.05 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
 1: Mooney Blvd & Whitendale Ave

5 Year plus Phase 1
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 97 | 201 | 143 | 196 | 241 | 55 | 102 | 632 | 146 | 58 | 618 | 42 |
| Future Volume (veh/h) | 97 | 201 | 143 | 196 | 241 | 55 | 102 | 632 | 146 | 58 | 618 | 42 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 105 | 218 | 155 | 213 | 262 | 60 | 111 | 687 | 159 | 63 | 672 | 46 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 315 | 520 | 231 | 259 | 462 | 204 | 785 | 2913 | 895 | 131 | 1922 | 596 |
| Arrive On Green | 0.09 | 0.15 | 0.15 | 0.08 | 0.13 | 0.13 | 0.23 | 0.57 | 0.57 | 0.04 | 0.38 | 0.38 |
| Sat Flow, veh/h | 3442 | 3539 | 1574 | 3442 | 3539 | 1565 | 3442 | 5085 | 1563 | 3442 | 5085 | 1578 |
| Grp Volume(v), veh/h | 105 | 218 | 155 | 213 | 262 | 60 | 111 | 687 | 159 | 63 | 672 | 46 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1574 | 1721 | 1770 | 1565 | 1721 | 1695 | 1563 | 1721 | 1695 | 1578 |
| Q Serve(g_s), s | 4.1 | 8.1 | 13.5 | 8.8 | 10.1 | 4.3 | 3.7 | 9.7 | 4.4 | 2.6 | 13.7 | 2.7 |
| Cycle Q Clear(g_c), s | 4.1 | 8.1 | 13.5 | 8.8 | 10.1 | 4.3 | 3.7 | 9.7 | 4.4 | 2.6 | 13.7 | 2.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 315 | 520 | 231 | 259 | 462 | 204 | 785 | 2913 | 895 | 131 | 1922 | 596 |
| V/C Ratio(X) | 0.33 | 0.42 | 0.67 | 0.82 | 0.57 | 0.29 | 0.14 | 0.24 | 0.18 | 0.48 | 0.35 | 0.08 |
| Avail Cap(c_a), veh/h | 315 | 879 | 391 | 285 | 952 | 421 | 785 | 2913 | 895 | 356 | 1922 | 596 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 61.7 | 56.2 | 58.5 | 66.1 | 59.2 | 42.2 | 44.6 | 15.3 | 5.8 | 68.3 | 32.3 | 28.9 |
| Incr Delay (d2), s/veh | 0.2 | 1.0 | 6.4 | 14.7 | 2.1 | 1.5 | 0.0 | 0.2 | 0.4 | 1.0 | 0.5 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 4.0 | 6.3 | 4.7 | 5.1 | 2.2 | 1.8 | 4.6 | 2.8 | 1.3 | 6.5 | 1.2 |
| LnGrp Delay(d),s/veh | 61.9 | 57.3 | 64.9 | 80.8 | 61.3 | 43.7 | 44.7 | 15.5 | 6.2 | 69.3 | 32.8 | 29.1 |
| LnGrp LOS | E | E | E | F | E | D | D | B | A | E | C | C |
| Approach Vol, veh/h | | 478 | | | 535 | | | 957 | | | 781 | |
| Approach Delay, s/veh | | 60.8 | | | 67.1 | | | 17.3 | | | 35.6 | |
| Approach LOS | | E | | | E | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.2 | 89.5 | 16.6 | 27.7 | 39.5 | 61.2 | 19.0 | 25.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 54.8 | 12.0 | * 36 | 15.0 | * 55 | 12.0 | * 39 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.6 | 11.7 | 10.8 | 15.5 | 5.7 | 15.7 | 6.1 | 12.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 11.2 | 0.0 | 3.2 | 0.1 | 9.5 | 0.1 | 3.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 39.7 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave

5 Year plus Phase 1
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 96 | 165 | 8 | 254 | 96 | 49 | 72 | 11 | 134 |
| v/c Ratio | 0.22 | 0.16 | 0.02 | 0.31 | 0.13 | 0.09 | 0.16 | 0.02 | 0.22 |
| Control Delay | 19.8 | 7.6 | 21.7 | 13.5 | 5.6 | 15.6 | 17.2 | 16.2 | 5.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.8 | 7.6 | 21.7 | 13.5 | 5.6 | 15.6 | 17.2 | 16.2 | 5.4 |
| Queue Length 50th (ft) | 21 | 16 | 2 | 50 | 3 | 9 | 15 | 2 | 0 |
| Queue Length 95th (ft) | 67 | 68 | 14 | 121 | 30 | 36 | 51 | 13 | 36 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 860 | 1408 | 860 | 1424 | 1228 | 1076 | 913 | 1260 | 1114 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.11 | 0.12 | 0.01 | 0.18 | 0.08 | 0.05 | 0.08 | 0.01 | 0.12 |

Intersection Summary

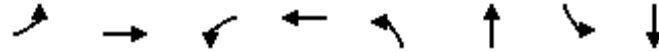
HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

5 Year plus Phase 1
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 88 | 140 | 12 | 7 | 234 | 88 | 19 | 22 | 4 | 66 | 10 | 123 |
| Future Volume (veh/h) | 88 | 140 | 12 | 7 | 234 | 88 | 19 | 22 | 4 | 66 | 10 | 123 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 96 | 152 | 13 | 8 | 254 | 96 | 21 | 24 | 4 | 72 | 11 | 134 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 185 | 627 | 54 | 23 | 519 | 441 | 243 | 221 | 28 | 510 | 397 | 337 |
| Arrive On Green | 0.10 | 0.37 | 0.37 | 0.01 | 0.28 | 0.28 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| Sat Flow, veh/h | 1774 | 1692 | 145 | 1774 | 1863 | 1583 | 444 | 1039 | 132 | 1377 | 1863 | 1583 |
| Grp Volume(v), veh/h | 96 | 0 | 165 | 8 | 254 | 96 | 49 | 0 | 0 | 72 | 11 | 134 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1837 | 1774 | 1863 | 1583 | 1615 | 0 | 0 | 1377 | 1863 | 1583 |
| Q Serve(g_s), s | 1.8 | 0.0 | 2.2 | 0.2 | 3.9 | 1.6 | 0.0 | 0.0 | 0.0 | 0.5 | 0.2 | 2.5 |
| Cycle Q Clear(g_c), s | 1.8 | 0.0 | 2.2 | 0.2 | 3.9 | 1.6 | 0.7 | 0.0 | 0.0 | 1.3 | 0.2 | 2.5 |
| Prop In Lane | 1.00 | | 0.08 | 1.00 | | 1.00 | 0.43 | | 0.08 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 185 | 0 | 680 | 23 | 519 | 441 | 492 | 0 | 0 | 510 | 397 | 337 |
| V/C Ratio(X) | 0.52 | 0.00 | 0.24 | 0.35 | 0.49 | 0.22 | 0.10 | 0.00 | 0.00 | 0.14 | 0.03 | 0.40 |
| Avail Cap(c_a), veh/h | 768 | 0 | 1590 | 768 | 1612 | 1371 | 1262 | 0 | 0 | 1209 | 1344 | 1142 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.7 | 0.0 | 7.6 | 17.0 | 10.4 | 9.6 | 11.0 | 0.0 | 0.0 | 11.2 | 10.8 | 11.7 |
| Incr Delay (d2), s/veh | 0.8 | 0.0 | 0.3 | 3.4 | 1.2 | 0.4 | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 0.0 | 1.1 | 0.1 | 2.2 | 0.7 | 0.4 | 0.0 | 0.0 | 0.6 | 0.1 | 1.2 |
| LnGrp Delay(d),s/veh | 15.5 | 0.0 | 7.9 | 20.4 | 11.7 | 10.0 | 11.2 | 0.0 | 0.0 | 11.4 | 10.8 | 13.0 |
| LnGrp LOS | B | | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 261 | | | 358 | | | 49 | | | 217 | |
| Approach Delay, s/veh | | 10.7 | | | 11.4 | | | 11.2 | | | 12.4 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.4 | 17.8 | | 12.4 | 7.6 | 14.7 | | 12.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | | 25.0 | 15.0 | 30.0 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 4.2 | | 2.7 | 3.8 | 5.9 | | 4.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.4 | | 0.3 | 0.1 | 2.9 | | 1.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 11.4 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave























5 Year plus Phase 1
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 64 | 35 | 12 | 4 | 105 | 865 | 89 | 916 |
| v/c Ratio | 0.25 | 0.09 | 0.06 | 0.01 | 0.38 | 0.33 | 0.34 | 0.36 |
| Control Delay | 34.6 | 9.4 | 37.7 | 17.8 | 34.7 | 17.9 | 34.6 | 17.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.6 | 9.4 | 37.7 | 17.8 | 34.7 | 17.9 | 34.6 | 17.9 |
| Queue Length 50th (ft) | 19 | 0 | 4 | 0 | 32 | 71 | 27 | 75 |
| Queue Length 95th (ft) | 89 | 22 | 29 | 9 | 129 | 267 | 112 | 279 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 531 | 711 | 531 | 708 | 531 | 2802 | 531 | 2741 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.12 | 0.05 | 0.02 | 0.01 | 0.20 | 0.31 | 0.17 | 0.33 |
| Intersection Summary | | | | | | | | |

HCM 2010 Signalized Intersection Summary
3: Mooney Blvd & Sunnyside Ave

5 Year plus Phase 1
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 61 | 1 | 32 | 11 | 1 | 3 | 100 | 811 | 10 | 85 | 750 | 121 |
| Future Volume (veh/h) | 61 | 1 | 32 | 11 | 1 | 3 | 100 | 811 | 10 | 85 | 750 | 121 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 64 | 1 | 34 | 12 | 1 | 3 | 105 | 854 | 11 | 89 | 789 | 127 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 121 | 6 | 208 | 32 | 35 | 105 | 155 | 1732 | 22 | 144 | 1453 | 232 |
| Arrive On Green | 0.07 | 0.14 | 0.14 | 0.02 | 0.09 | 0.09 | 0.09 | 0.33 | 0.33 | 0.08 | 0.33 | 0.33 |
| Sat Flow, veh/h | 1774 | 45 | 1539 | 1774 | 411 | 1232 | 1774 | 5172 | 67 | 1774 | 4420 | 706 |
| Grp Volume(v), veh/h | 64 | 0 | 35 | 12 | 0 | 4 | 105 | 560 | 305 | 89 | 604 | 312 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1584 | 1774 | 0 | 1642 | 1774 | 1695 | 1849 | 1774 | 1695 | 1736 |
| Q Serve(g_s), s | 1.9 | 0.0 | 1.1 | 0.4 | 0.0 | 0.1 | 3.1 | 7.2 | 7.2 | 2.7 | 8.0 | 8.0 |
| Cycle Q Clear(g_c), s | 1.9 | 0.0 | 1.1 | 0.4 | 0.0 | 0.1 | 3.1 | 7.2 | 7.2 | 2.7 | 8.0 | 8.0 |
| Prop In Lane | 1.00 | | 0.97 | 1.00 | | 0.75 | 1.00 | | 0.04 | 1.00 | | 0.41 |
| Lane Grp Cap(c), veh/h | 121 | 0 | 215 | 32 | 0 | 140 | 155 | 1135 | 619 | 144 | 1114 | 571 |
| V/C Ratio(X) | 0.53 | 0.00 | 0.16 | 0.37 | 0.00 | 0.03 | 0.68 | 0.49 | 0.49 | 0.62 | 0.54 | 0.55 |
| Avail Cap(c_a), veh/h | 390 | 0 | 580 | 487 | 0 | 601 | 487 | 1551 | 846 | 487 | 1551 | 794 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 24.6 | 0.0 | 20.9 | 26.5 | 0.0 | 22.9 | 24.2 | 14.5 | 14.5 | 24.3 | 15.0 | 15.0 |
| Incr Delay (d2), s/veh | 1.3 | 0.0 | 0.3 | 2.6 | 0.0 | 0.1 | 1.9 | 0.6 | 1.2 | 1.6 | 0.8 | 1.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 0.0 | 0.5 | 0.2 | 0.0 | 0.1 | 1.6 | 3.4 | 3.9 | 1.3 | 3.8 | 4.1 |
| LnGrp Delay(d),s/veh | 25.9 | 0.0 | 21.1 | 29.1 | 0.0 | 23.0 | 26.1 | 15.1 | 15.7 | 25.9 | 15.8 | 16.6 |
| LnGrp LOS | C | | C | C | | C | C | B | B | C | B | B |
| Approach Vol, veh/h | | 99 | | | 16 | | | 970 | | | 1005 | |
| Approach Delay, s/veh | | 24.2 | | | 27.6 | | | 16.5 | | | 16.9 | |
| Approach LOS | | C | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.1 | 24.7 | 6.7 | 13.1 | 10.5 | 24.4 | 9.4 | 10.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | * 5.7 | 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | * 15 | * 20 | * 15 | 25.0 | * 12 | * 20 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.7 | 9.2 | 2.4 | 3.1 | 5.1 | 10.0 | 3.9 | 2.1 | | | | |
| Green Ext Time (p_c), s | 0.1 | 7.6 | 0.0 | 0.1 | 0.1 | 7.9 | 0.0 | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 17.2 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave























5 Year plus Phase 1
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 3 | 6 | 22 | 27 | 14 | 902 | 31 | 64 | 741 | 5 |
| v/c Ratio | 0.02 | 0.03 | 0.23 | 0.23 | 0.06 | 0.24 | 0.03 | 0.52 | 0.19 | 0.00 |
| Control Delay | 45.3 | 27.0 | 66.2 | 26.3 | 56.1 | 11.8 | 0.0 | 74.9 | 11.1 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.3 | 27.0 | 66.2 | 26.3 | 56.1 | 11.8 | 0.0 | 74.9 | 11.1 | 0.0 |
| Queue Length 50th (ft) | 3 | 1 | 19 | 1 | 6 | 82 | 0 | 55 | 31 | 0 |
| Queue Length 95th (ft) | 10 | 12 | 48 | 33 | 17 | 271 | 0 | 103 | 224 | 0 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 247 | 504 | 170 | 514 | 381 | 3729 | 1157 | 196 | 3947 | 1240 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.01 | 0.01 | 0.13 | 0.05 | 0.04 | 0.24 | 0.03 | 0.33 | 0.19 | 0.00 |
| Intersection Summary | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

5 Year plus Phase 1
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 3 | 1 | 5 | 21 | 1 | 25 | 13 | 857 | 29 | 61 | 704 | 5 |
| Future Volume (veh/h) | 3 | 1 | 5 | 21 | 1 | 25 | 13 | 857 | 29 | 61 | 704 | 5 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 3 | 1 | 5 | 22 | 1 | 26 | 14 | 902 | 31 | 64 | 741 | 5 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 31 | 14 | 71 | 44 | 4 | 94 | 1495 | 3549 | 1102 | 82 | 1548 | 482 |
| Arrive On Green | 0.02 | 0.05 | 0.05 | 0.02 | 0.06 | 0.06 | 0.87 | 1.00 | 1.00 | 0.05 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1774 | 265 | 1324 | 1774 | 59 | 1533 | 3442 | 5085 | 1579 | 1774 | 5085 | 1582 |
| Grp Volume(v), veh/h | 3 | 0 | 6 | 22 | 0 | 27 | 14 | 902 | 31 | 64 | 741 | 5 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1588 | 1774 | 0 | 1592 | 1721 | 1695 | 1579 | 1774 | 1695 | 1582 |
| Q Serve(g_s), s | 0.2 | 0.0 | 0.5 | 1.7 | 0.0 | 2.2 | 0.1 | 0.0 | 0.0 | 4.8 | 16.0 | 0.3 |
| Cycle Q Clear(g_c), s | 0.2 | 0.0 | 0.5 | 1.7 | 0.0 | 2.2 | 0.1 | 0.0 | 0.0 | 4.8 | 16.0 | 0.3 |
| Prop In Lane | 1.00 | | 0.83 | 1.00 | | 0.96 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 31 | 0 | 86 | 44 | 0 | 98 | 1495 | 3549 | 1102 | 82 | 1548 | 482 |
| V/C Ratio(X) | 0.10 | 0.00 | 0.07 | 0.50 | 0.00 | 0.28 | 0.01 | 0.25 | 0.03 | 0.78 | 0.48 | 0.01 |
| Avail Cap(c_a), veh/h | 171 | 0 | 494 | 171 | 0 | 495 | 1495 | 3549 | 1102 | 197 | 1548 | 482 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.94 | 0.94 | 0.94 |
| Uniform Delay (d), s/veh | 65.3 | 0.0 | 60.6 | 65.0 | 0.0 | 60.5 | 5.0 | 0.0 | 0.0 | 63.7 | 38.2 | 32.8 |
| Incr Delay (d2), s/veh | 0.5 | 0.0 | 0.1 | 3.2 | 0.0 | 1.1 | 0.0 | 0.2 | 0.0 | 5.6 | 1.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 0.0 | 0.2 | 0.9 | 0.0 | 1.0 | 0.0 | 0.1 | 0.0 | 2.5 | 7.6 | 0.1 |
| LnGrp Delay(d),s/veh | 65.8 | 0.0 | 60.8 | 68.2 | 0.0 | 61.6 | 5.0 | 0.2 | 0.0 | 69.3 | 39.2 | 32.8 |
| LnGrp LOS | E | | E | E | | E | A | A | A | E | D | C |
| Approach Vol, veh/h | | 9 | | | 49 | | | 947 | | | 810 | |
| Approach Delay, s/veh | | 62.4 | | | 64.5 | | | 0.2 | | | 41.6 | |
| Approach LOS | | E | | | E | | | A | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.9 | 100.6 | 9.1 | 13.4 | 65.0 | 47.5 | 8.1 | 14.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 15 | 41.1 | 13.0 | * 42 | 15.0 | * 41 | 13.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.8 | 2.0 | 3.7 | 2.5 | 2.1 | 18.0 | 2.2 | 4.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 14.5 | 0.0 | 0.0 | 0.0 | 8.4 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 20.7 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 33 | 679 | 67 | 49 | 660 | 28 | 47 | 0 | 78 | 8 | 0 | 17 |
| Future Vol, veh/h | 33 | 679 | 67 | 49 | 660 | 28 | 47 | 0 | 78 | 8 | 0 | 17 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 36 | 738 | 73 | 53 | 717 | 30 | 51 | 0 | 85 | 9 | 0 | 18 |

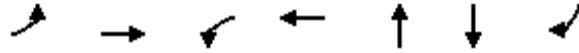
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 752 | 0 | 0 | 811 | 0 | 0 | 1312 | 1705 | 406 | 1284 | 1726 | 379 |
| Stage 1 | - | - | - | - | - | - | 847 | 847 | - | 843 | 843 | - |
| Stage 2 | - | - | - | - | - | - | 465 | 858 | - | 441 | 883 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 853 | - | - | 811 | - | - | 116 | 90 | 594 | 122 | 88 | 619 |
| Stage 1 | - | - | - | - | - | - | 323 | 376 | - | 325 | 378 | - |
| Stage 2 | - | - | - | - | - | - | 547 | 372 | - | 565 | 362 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 849 | - | - | 811 | - | - | 97 | 73 | 594 | 90 | 72 | 616 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 97 | 73 | - | 90 | 72 | - |
| Stage 1 | - | - | - | - | - | - | 298 | 347 | - | 298 | 334 | - |
| Stage 2 | - | - | - | - | - | - | 471 | 329 | - | 447 | 334 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 | | | 1.1 | | | 52.6 | | | 24.2 | | |
| HCM LOS | | | | | | | F | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 203 | 849 | - | - | 811 | - | - | 215 |
| HCM Lane V/C Ratio | 0.669 | 0.042 | - | - | 0.066 | - | - | 0.126 |
| HCM Control Delay (s) | 52.6 | 9.4 | 0.3 | - | 9.8 | 0.5 | - | 24.2 |
| HCM Lane LOS | F | A | A | - | A | A | - | C |
| HCM 95th %tile Q(veh) | 4.1 | 0.1 | - | - | 0.2 | - | - | 0.4 |

Queues
6: Shady St & Caldwell Ave




















5 Year plus Phase 1
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-----------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 25 | 688 | 16 | 600 | 54 | 5 | 2 |
| v/c Ratio | 0.06 | 0.17 | 0.04 | 0.15 | 0.12 | 0.01 | 0.00 |
| Control Delay | 18.7 | 5.6 | 19.1 | 5.7 | 11.5 | 19.8 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.7 | 5.6 | 19.1 | 5.7 | 11.5 | 19.8 | 0.0 |
| Queue Length 50th (ft) | 2 | 0 | 1 | 0 | 1 | 1 | 0 |
| Queue Length 95th (ft) | 29 | 95 | 22 | 85 | 35 | 11 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 1353 | 4682 | 1353 | 4692 | 1287 | 1370 | 1236 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.02 | 0.15 | 0.01 | 0.13 | 0.04 | 0.00 | 0.00 |
| Intersection Summary | | | | | | | |

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

5 Year plus Phase 1
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 23 | 621 | 12 | 15 | 547 | 5 | 17 | 1 | 32 | 4 | 1 | 2 |
| Future Volume (veh/h) | 23 | 621 | 12 | 15 | 547 | 5 | 17 | 1 | 32 | 4 | 1 | 2 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 25 | 675 | 13 | 16 | 595 | 5 | 18 | 1 | 35 | 4 | 1 | 2 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 64 | 2050 | 39 | 43 | 2013 | 17 | 37 | 2 | 72 | 16 | 4 | 18 |
| Arrive On Green | 0.04 | 0.40 | 0.40 | 0.02 | 0.39 | 0.39 | 0.07 | 0.07 | 0.07 | 0.01 | 0.01 | 0.01 |
| Sat Flow, veh/h | 1774 | 5136 | 99 | 1774 | 5200 | 44 | 549 | 31 | 1067 | 1433 | 358 | 1583 |
| Grp Volume(v), veh/h | 25 | 445 | 243 | 16 | 388 | 212 | 54 | 0 | 0 | 5 | 0 | 2 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1845 | 1774 | 1695 | 1854 | 1647 | 0 | 0 | 1791 | 0 | 1583 |
| Q Serve(g_s), s | 0.6 | 3.6 | 3.7 | 0.4 | 3.2 | 3.2 | 1.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 |
| Cycle Q Clear(g_c), s | 0.6 | 3.6 | 3.7 | 0.4 | 3.2 | 3.2 | 1.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 |
| Prop In Lane | 1.00 | | 0.05 | 1.00 | | 0.02 | 0.33 | | 0.65 | 0.80 | | 1.00 |
| Lane Grp Cap(c), veh/h | 64 | 1353 | 736 | 43 | 1313 | 718 | 111 | 0 | 0 | 20 | 0 | 18 |
| V/C Ratio(X) | 0.39 | 0.33 | 0.33 | 0.37 | 0.30 | 0.30 | 0.49 | 0.00 | 0.00 | 0.25 | 0.00 | 0.11 |
| Avail Cap(c_a), veh/h | 883 | 3374 | 1836 | 883 | 3374 | 1845 | 820 | 0 | 0 | 891 | 0 | 788 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.9 | 8.4 | 8.4 | 19.3 | 8.5 | 8.5 | 18.1 | 0.0 | 0.0 | 19.7 | 0.0 | 19.7 |
| Incr Delay (d2), s/veh | 1.4 | 0.4 | 0.7 | 1.9 | 0.3 | 0.6 | 2.4 | 0.0 | 0.0 | 4.7 | 0.0 | 2.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 1.7 | 2.0 | 0.2 | 1.5 | 1.7 | 0.6 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 20.3 | 8.7 | 9.1 | 21.2 | 8.9 | 9.2 | 20.5 | 0.0 | 0.0 | 24.4 | 0.0 | 21.7 |
| LnGrp LOS | C | A | A | C | A | A | C | | | C | | C |
| Approach Vol, veh/h | | 713 | | | 616 | | | 54 | | | | 7 |
| Approach Delay, s/veh | | 9.3 | | | 9.3 | | | 20.5 | | | | 23.6 |
| Approach LOS | | A | | | A | | | C | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.0 | 22.0 | | 5.5 | 5.5 | 21.6 | | 7.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.4 | 5.7 | | 2.1 | 2.6 | 5.2 | | 3.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.3 | | 0.0 | 0.0 | 8.8 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.8 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

5 Year plus Phase 1
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 163 | 544 | 152 | 484 | 159 | 741 | 127 | 66 | 663 | 82 |
| v/c Ratio | 0.57 | 0.57 | 0.57 | 0.53 | 0.52 | 0.28 | 0.14 | 0.36 | 0.28 | 0.10 |
| Control Delay | 67.3 | 43.7 | 68.5 | 48.3 | 65.5 | 21.1 | 4.9 | 66.9 | 24.1 | 1.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 67.3 | 43.7 | 68.5 | 48.3 | 65.5 | 21.1 | 4.9 | 66.9 | 24.1 | 1.6 |
| Queue Length 50th (ft) | 71 | 140 | 67 | 138 | 70 | 127 | 0 | 29 | 121 | 0 |
| Queue Length 95th (ft) | 108 | 147 | 102 | 142 | 107 | 226 | 46 | 54 | 208 | 11 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 355 | 1595 | 355 | 1595 | 304 | 2658 | 876 | 304 | 2391 | 798 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.46 | 0.34 | 0.43 | 0.30 | 0.52 | 0.28 | 0.14 | 0.22 | 0.28 | 0.10 |

Intersection Summary

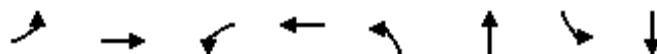
HCM 2010 Signalized Intersection Summary
7: Mooney Blvd & Caldwell Ave

5 Year plus Phase 1
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 155 | 365 | 152 | 144 | 387 | 73 | 151 | 704 | 121 | 63 | 630 | 78 |
| Future Volume (veh/h) | 155 | 365 | 152 | 144 | 387 | 73 | 151 | 704 | 121 | 63 | 630 | 78 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 163 | 384 | 160 | 152 | 407 | 77 | 159 | 741 | 127 | 66 | 663 | 82 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 265 | 643 | 254 | 203 | 697 | 128 | 915 | 2754 | 857 | 140 | 1582 | 491 |
| Arrive On Green | 0.08 | 0.18 | 0.18 | 0.06 | 0.16 | 0.16 | 0.53 | 1.00 | 1.00 | 0.08 | 0.62 | 0.62 |
| Sat Flow, veh/h | 3442 | 3580 | 1415 | 3442 | 4315 | 794 | 3442 | 5085 | 1582 | 3442 | 5085 | 1577 |
| Grp Volume(v), veh/h | 163 | 363 | 181 | 152 | 317 | 167 | 159 | 741 | 127 | 66 | 663 | 82 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1605 | 1721 | 1695 | 1719 | 1721 | 1695 | 1582 | 1721 | 1695 | 1577 |
| Q Serve(g_s), s | 6.2 | 13.3 | 14.1 | 5.9 | 11.7 | 12.2 | 3.2 | 0.0 | 0.0 | 2.5 | 9.0 | 3.0 |
| Cycle Q Clear(g_c), s | 6.2 | 13.3 | 14.1 | 5.9 | 11.7 | 12.2 | 3.2 | 0.0 | 0.0 | 2.5 | 9.0 | 3.0 |
| Prop In Lane | 1.00 | | 0.88 | 1.00 | | 0.46 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 265 | 609 | 288 | 203 | 547 | 278 | 915 | 2754 | 857 | 140 | 1582 | 491 |
| V/C Ratio(X) | 0.61 | 0.60 | 0.63 | 0.75 | 0.58 | 0.60 | 0.17 | 0.27 | 0.15 | 0.47 | 0.42 | 0.17 |
| Avail Cap(c_a), veh/h | 357 | 1080 | 511 | 357 | 1080 | 548 | 915 | 2754 | 857 | 306 | 1582 | 491 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.94 | 0.94 | 0.94 | 0.99 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 60.4 | 50.9 | 51.2 | 62.5 | 52.4 | 52.6 | 23.9 | 0.0 | 0.0 | 60.6 | 19.3 | 18.1 |
| Incr Delay (d2), s/veh | 0.9 | 1.8 | 4.3 | 2.1 | 1.9 | 4.0 | 0.0 | 0.2 | 0.3 | 0.9 | 0.8 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.0 | 6.3 | 6.6 | 2.8 | 5.6 | 6.1 | 1.5 | 0.1 | 0.1 | 1.2 | 4.2 | 1.4 |
| LnGrp Delay(d),s/veh | 61.2 | 52.7 | 55.6 | 64.6 | 54.2 | 56.5 | 24.0 | 0.2 | 0.3 | 61.5 | 20.1 | 18.9 |
| LnGrp LOS | E | D | E | E | D | E | C | A | A | E | C | B |
| Approach Vol, veh/h | | 707 | | | 636 | | | 1027 | | | 811 | |
| Approach Delay, s/veh | | 55.4 | | | 57.3 | | | 3.9 | | | 23.3 | |
| Approach LOS | | E | | | E | | | A | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.2 | 79.5 | 13.7 | 30.6 | 42.3 | 48.4 | 16.1 | 28.2 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 12 | 42.0 | 14.0 | * 43 | 12.0 | * 42 | 14.0 | * 43 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.5 | 2.0 | 7.9 | 16.1 | 5.2 | 11.0 | 8.2 | 14.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 13.0 | 0.1 | 6.2 | 0.1 | 10.1 | 0.1 | 5.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 31.0 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St























5 Year plus Phase 1
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 57 | 462 | 77 | 635 | 23 | 51 | 38 | 34 |
| v/c Ratio | 0.15 | 0.16 | 0.20 | 0.22 | 0.04 | 0.08 | 0.06 | 0.05 |
| Control Delay | 31.1 | 15.5 | 29.9 | 14.5 | 13.8 | 10.7 | 14.1 | 8.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 31.1 | 15.5 | 29.9 | 14.5 | 13.8 | 10.7 | 14.1 | 8.9 |
| Queue Length 50th (ft) | 15 | 32 | 20 | 43 | 5 | 3 | 9 | 1 |
| Queue Length 95th (ft) | 74 | 117 | 92 | 151 | 21 | 31 | 30 | 23 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 869 | 3391 | 869 | 3351 | 999 | 1066 | 974 | 1048 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.14 | 0.09 | 0.19 | 0.02 | 0.05 | 0.04 | 0.03 |
| Intersection Summary | | | | | | | | |

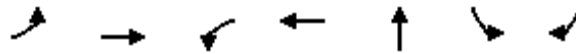
HCM 2010 Signalized Intersection Summary
8: Caldwell Ave & Fairway St

5 Year plus Phase 1
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|--|---|---|--|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |  |  | |  |  | |
| Traffic Volume (veh/h) | 52 | 389 | 36 | 71 | 482 | 102 | 21 | 10 | 37 | 35 | 4 | 28 |
| Future Volume (veh/h) | 52 | 389 | 36 | 71 | 482 | 102 | 21 | 10 | 37 | 35 | 4 | 28 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 0.99 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 57 | 423 | 39 | 77 | 524 | 111 | 23 | 11 | 40 | 38 | 4 | 30 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 123 | 1535 | 140 | 150 | 1425 | 295 | 385 | 41 | 147 | 377 | 25 | 186 |
| Arrive On Green | 0.07 | 0.32 | 0.32 | 0.08 | 0.34 | 0.34 | 0.03 | 0.12 | 0.12 | 0.05 | 0.13 | 0.13 |
| Sat Flow, veh/h | 1774 | 4744 | 431 | 1774 | 4208 | 870 | 1774 | 352 | 1279 | 1774 | 187 | 1404 |
| Grp Volume(v), veh/h | 57 | 301 | 161 | 77 | 420 | 215 | 23 | 0 | 51 | 38 | 0 | 34 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1785 | 1774 | 1695 | 1687 | 1774 | 0 | 1631 | 1774 | 0 | 1591 |
| Q Serve(g_s), s | 1.3 | 2.8 | 2.8 | 1.8 | 3.9 | 4.1 | 0.5 | 0.0 | 1.2 | 0.8 | 0.0 | 0.8 |
| Cycle Q Clear(g_c), s | 1.3 | 2.8 | 2.8 | 1.8 | 3.9 | 4.1 | 0.5 | 0.0 | 1.2 | 0.8 | 0.0 | 0.8 |
| Prop In Lane | 1.00 | | 0.24 | 1.00 | | 0.52 | 1.00 | | 0.78 | 1.00 | | 0.88 |
| Lane Grp Cap(c), veh/h | 123 | 1097 | 577 | 150 | 1148 | 571 | 385 | 0 | 188 | 377 | 0 | 211 |
| V/C Ratio(X) | 0.46 | 0.27 | 0.28 | 0.51 | 0.37 | 0.38 | 0.06 | 0.00 | 0.27 | 0.10 | 0.00 | 0.16 |
| Avail Cap(c_a), veh/h | 629 | 2406 | 1267 | 629 | 2406 | 1197 | 955 | 0 | 965 | 916 | 0 | 903 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.9 | 10.6 | 10.6 | 18.5 | 10.6 | 10.6 | 15.5 | 0.0 | 17.1 | 15.0 | 0.0 | 16.2 |
| Incr Delay (d2), s/veh | 1.0 | 0.4 | 0.7 | 1.0 | 0.5 | 1.1 | 0.1 | 0.0 | 2.1 | 0.2 | 0.0 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 1.4 | 1.5 | 0.9 | 1.9 | 2.0 | 0.2 | 0.0 | 0.6 | 0.4 | 0.0 | 0.4 |
| LnGrp Delay(d),s/veh | 19.9 | 11.0 | 11.4 | 19.5 | 11.1 | 11.7 | 15.7 | 0.0 | 19.2 | 15.3 | 0.0 | 17.2 |
| LnGrp LOS | B | B | B | B | B | B | B | | B | B | | B |
| Approach Vol, veh/h | | 519 | | | 712 | | | 74 | | | | 72 |
| Approach Delay, s/veh | | 12.1 | | | 12.2 | | | 18.1 | | | | 16.2 |
| Approach LOS | | B | | | B | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.6 | 19.7 | 5.2 | 9.9 | 6.9 | 20.3 | 4.4 | 10.6 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | 15.0 | 25.0 | 15.0 | 30.0 | 15.0 | 24.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.8 | 4.8 | 2.8 | 3.2 | 3.3 | 6.1 | 2.5 | 2.8 | | | | |
| Green Ext Time (p_c), s | 0.1 | 5.9 | 0.1 | 0.4 | 0.0 | 8.2 | 0.0 | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave





















5 Year plus Phase 1
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBL | SBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 28 | 443 | 7 | 693 | 17 | 50 | 55 |
| v/c Ratio | 0.08 | 0.20 | 0.02 | 0.29 | 0.04 | 0.10 | 0.07 |
| Control Delay | 23.5 | 6.1 | 24.2 | 8.0 | 0.1 | 18.9 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.5 | 6.1 | 24.2 | 8.0 | 0.1 | 18.9 | 0.2 |
| Queue Length 50th (ft) | 5 | 27 | 1 | 47 | 0 | 8 | 0 |
| Queue Length 95th (ft) | 31 | 76 | 13 | 128 | 0 | 43 | 0 |
| Internal Link Dist (ft) | | 1064 | | 2598 | 260 | | |
| Turn Bay Length (ft) | 235 | | 300 | | | | 200 |
| Base Capacity (vph) | 1087 | 3054 | 1087 | 3051 | 915 | 897 | 1147 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.03 | 0.15 | 0.01 | 0.23 | 0.02 | 0.06 | 0.05 |
| Intersection Summary | | | | | | | |

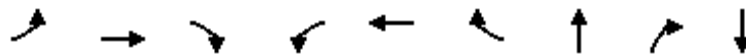
HCM 2010 Signalized Intersection Summary
 9: Stonebrook St & Caldwell Ave

5 Year plus Phase 1
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  |  |
| Traffic Volume (veh/h) | 26 | 397 | 10 | 6 | 618 | 19 | 9 | 0 | 6 | 46 | 0 | 51 |
| Future Volume (veh/h) | 26 | 397 | 10 | 6 | 618 | 19 | 9 | 0 | 6 | 46 | 0 | 51 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 28 | 432 | 11 | 7 | 672 | 21 | 10 | 0 | 7 | 50 | 0 | 55 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 70 | 1632 | 42 | 20 | 1522 | 48 | 256 | 32 | 109 | 420 | 332 | 282 |
| Arrive On Green | 0.04 | 0.46 | 0.46 | 0.01 | 0.43 | 0.43 | 0.18 | 0.00 | 0.18 | 0.18 | 0.00 | 0.18 |
| Sat Flow, veh/h | 1774 | 3527 | 90 | 1774 | 3503 | 109 | 694 | 180 | 612 | 1403 | 1863 | 1583 |
| Grp Volume(v), veh/h | 28 | 216 | 227 | 7 | 339 | 354 | 17 | 0 | 0 | 50 | 0 | 55 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1847 | 1774 | 1770 | 1843 | 1486 | 0 | 0 | 1403 | 1863 | 1583 |
| Q Serve(g_s), s | 0.7 | 3.2 | 3.2 | 0.2 | 5.8 | 5.8 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 1.3 |
| Cycle Q Clear(g_c), s | 0.7 | 3.2 | 3.2 | 0.2 | 5.8 | 5.8 | 0.4 | 0.0 | 0.0 | 1.2 | 0.0 | 1.3 |
| Prop In Lane | 1.00 | | 0.05 | 1.00 | | 0.06 | 0.59 | | 0.41 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 70 | 819 | 855 | 20 | 769 | 801 | 397 | 0 | 0 | 420 | 332 | 282 |
| V/C Ratio(X) | 0.40 | 0.26 | 0.27 | 0.35 | 0.44 | 0.44 | 0.04 | 0.00 | 0.00 | 0.12 | 0.00 | 0.20 |
| Avail Cap(c_a), veh/h | 823 | 1642 | 1713 | 823 | 1642 | 1710 | 807 | 0 | 0 | 821 | 864 | 734 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.2 | 7.1 | 7.1 | 21.2 | 8.5 | 8.5 | 14.7 | 0.0 | 0.0 | 15.0 | 0.0 | 15.1 |
| Incr Delay (d2), s/veh | 1.4 | 0.6 | 0.6 | 3.9 | 1.4 | 1.4 | 0.1 | 0.0 | 0.0 | 0.3 | 0.0 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 1.7 | 1.8 | 0.1 | 3.0 | 3.2 | 0.2 | 0.0 | 0.0 | 0.5 | 0.0 | 0.6 |
| LnGrp Delay(d),s/veh | 21.6 | 7.7 | 7.7 | 25.1 | 10.0 | 9.9 | 14.8 | 0.0 | 0.0 | 15.3 | 0.0 | 15.8 |
| LnGrp LOS | C | A | A | C | A | A | B | | | B | | B |
| Approach Vol, veh/h | | 471 | | | 700 | | | 17 | | | 105 | |
| Approach Delay, s/veh | | 8.5 | | | 10.1 | | | 14.8 | | | 15.6 | |
| Approach LOS | | A | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.5 | 26.0 | | 12.7 | 5.7 | 24.7 | | 12.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 5.2 | | 2.4 | 2.7 | 7.8 | | 3.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.9 | | 0.1 | 0.0 | 10.8 | | 0.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 10.0 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
10: West St/West & Caldwell Ave

5 Year plus Phase 1
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 52 | 515 | 26 | 58 | 697 | 43 | 152 | 38 | 213 |
| v/c Ratio | 0.23 | 0.35 | 0.04 | 0.25 | 0.47 | 0.06 | 0.36 | 0.08 | 0.50 |
| Control Delay | 31.3 | 13.3 | 0.1 | 31.3 | 14.2 | 1.4 | 24.1 | 0.3 | 24.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 31.3 | 13.3 | 0.1 | 31.3 | 14.2 | 1.4 | 24.1 | 0.3 | 24.4 |
| Queue Length 50th (ft) | 18 | 67 | 0 | 20 | 96 | 0 | 46 | 0 | 61 |
| Queue Length 95th (ft) | 57 | 123 | 0 | 61 | 168 | 7 | 115 | 0 | 150 |
| Internal Link Dist (ft) | | 2598 | | | 1241 | | 361 | | 363 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 510 | 2383 | 1090 | 510 | 2383 | 1090 | 631 | 668 | 634 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.10 | 0.22 | 0.02 | 0.11 | 0.29 | 0.04 | 0.24 | 0.06 | 0.34 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
 10: West St/West & Caldwell Ave

5 Year plus Phase 1
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  | |
| Traffic Volume (veh/h) | 48 | 474 | 24 | 53 | 641 | 40 | 40 | 100 | 35 | 42 | 106 | 48 |
| Future Volume (veh/h) | 48 | 474 | 24 | 53 | 641 | 40 | 40 | 100 | 35 | 42 | 106 | 48 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 52 | 515 | 26 | 58 | 697 | 43 | 43 | 109 | 38 | 46 | 115 | 52 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 111 | 1453 | 650 | 120 | 1470 | 658 | 160 | 285 | 312 | 136 | 194 | 77 |
| Arrive On Green | 0.06 | 0.41 | 0.41 | 0.07 | 0.42 | 0.42 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1583 | 319 | 1446 | 1583 | 222 | 987 | 391 |
| Grp Volume(v), veh/h | 52 | 515 | 26 | 58 | 697 | 43 | 152 | 0 | 38 | 213 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1583 | 1765 | 0 | 1583 | 1600 | 0 | 0 |
| Q Serve(g_s), s | 1.3 | 4.8 | 0.5 | 1.5 | 6.8 | 0.8 | 0.0 | 0.0 | 0.9 | 2.5 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 1.3 | 4.8 | 0.5 | 1.5 | 6.8 | 0.8 | 3.4 | 0.0 | 0.9 | 5.9 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.28 | | 1.00 | 0.22 | | 0.24 |
| Lane Grp Cap(c), veh/h | 111 | 1453 | 650 | 120 | 1470 | 658 | 444 | 0 | 312 | 407 | 0 | 0 |
| V/C Ratio(X) | 0.47 | 0.35 | 0.04 | 0.48 | 0.47 | 0.07 | 0.34 | 0.00 | 0.12 | 0.52 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 558 | 2599 | 1163 | 558 | 2599 | 1163 | 805 | 0 | 664 | 767 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 21.6 | 9.7 | 8.4 | 21.4 | 10.1 | 8.4 | 16.7 | 0.0 | 15.8 | 17.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 1.1 | 0.5 | 0.1 | 1.1 | 0.9 | 0.2 | 1.0 | 0.0 | 0.4 | 2.2 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 2.4 | 0.2 | 0.8 | 3.5 | 0.4 | 1.9 | 0.0 | 0.4 | 2.9 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 22.7 | 10.2 | 8.5 | 22.6 | 11.0 | 8.5 | 17.7 | 0.0 | 16.1 | 19.9 | 0.0 | 0.0 |
| LnGrp LOS | C | B | A | C | B | A | B | | B | B | | |
| Approach Vol, veh/h | | 593 | | | 798 | | | 190 | | | 213 | |
| Approach Delay, s/veh | | 11.2 | | | 11.7 | | | 17.4 | | | 19.9 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.2 | 26.1 | | 14.4 | 7.0 | 26.3 | | 14.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 35.0 | | 20.0 | 15.0 | 35.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.5 | 6.8 | | 5.4 | 3.3 | 8.8 | | 7.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.1 | | 1.4 | 0.0 | 11.0 | | 1.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 13.1 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.6 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | ↙ | ↗ | ↑ | ↗ | ↙ | ↑ |
| Traffic Vol, veh/h | 44 | 133 | 168 | 22 | 184 | 222 |
| Future Vol, veh/h | 44 | 133 | 168 | 22 | 184 | 222 |
| Conflicting Peds, #/hr | 0 | 2 | 0 | 3 | 3 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 100 | - | 160 | 145 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 48 | 145 | 183 | 24 | 200 | 241 |

| Major/Minor | Minor1 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|-------|---|
| Conflicting Flow All | 827 | 188 | 0 | 0 | 210 | 0 |
| Stage 1 | 186 | - | - | - | - | - |
| Stage 2 | 641 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 341 | 854 | - | - | 1361 | - |
| Stage 1 | 846 | - | - | - | - | - |
| Stage 2 | 525 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | - | - |
| Mov Cap-1 Maneuver | 290 | 850 | - | - | 1357 | - |
| Mov Cap-2 Maneuver | 377 | - | - | - | - | - |
| Stage 1 | 843 | - | - | - | - | - |
| Stage 2 | 448 | - | - | - | - | - |

| Approach | WB | NB | SB |
|----------------------|------|----|-----|
| HCM Control Delay, s | 11.5 | 0 | 3.7 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | WBLn2 | SBL | SBT |
|-----------------------|-----|----------|-------|------|-------|
| Capacity (veh/h) | - | - | 377 | 850 | 1357 |
| HCM Lane V/C Ratio | - | - | 0.127 | 0.17 | 0.147 |
| HCM Control Delay (s) | - | - | 15.9 | 10.1 | 8.1 |
| HCM Lane LOS | - | - | C | B | A |
| HCM 95th %tile Q(veh) | - | - | 0.4 | 0.6 | 0.5 |

Queues
12: Mooney Blvd & Cameron Ave





























5 Year plus Phase 1
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 71 | 189 | 122 | 310 | 20 | 856 | 117 | 96 | 721 | 36 |
| v/c Ratio | 0.46 | 0.51 | 0.66 | 0.55 | 0.13 | 0.35 | 0.14 | 0.22 | 0.24 | 0.04 |
| Control Delay | 67.3 | 57.7 | 73.9 | 37.5 | 63.8 | 22.7 | 3.6 | 54.6 | 14.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 67.3 | 57.7 | 73.9 | 37.5 | 63.8 | 22.7 | 3.6 | 54.6 | 14.2 | 0.1 |
| Queue Length 50th (ft) | 60 | 77 | 104 | 84 | 8 | 165 | 0 | 39 | 112 | 0 |
| Queue Length 95th (ft) | 110 | 115 | 166 | 130 | 23 | 225 | 33 | 67 | 159 | 0 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 172 | 1138 | 194 | 1159 | 305 | 2475 | 824 | 432 | 3063 | 985 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.41 | 0.17 | 0.63 | 0.27 | 0.07 | 0.35 | 0.14 | 0.22 | 0.24 | 0.04 |
| Intersection Summary | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

5 Year plus Phase 1
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |   |   |  |   |   |  |
| Traffic Volume (veh/h) | 68 | 156 | 25 | 117 | 180 | 117 | 19 | 822 | 112 | 92 | 692 | 35 |
| Future Volume (veh/h) | 68 | 156 | 25 | 117 | 180 | 117 | 19 | 822 | 112 | 92 | 692 | 35 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 71 | 162 | 26 | 122 | 188 | 122 | 20 | 856 | 117 | 96 | 721 | 36 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 90 | 248 | 39 | 182 | 278 | 171 | 81 | 1424 | 443 | 1211 | 3121 | 970 |
| Arrive On Green | 0.05 | 0.08 | 0.08 | 0.10 | 0.13 | 0.13 | 0.02 | 0.28 | 0.28 | 0.70 | 1.00 | 1.00 |
| Sat Flow, veh/h | 1774 | 3064 | 483 | 1774 | 2095 | 1289 | 3442 | 5085 | 1582 | 3442 | 5085 | 1581 |
| Grp Volume(v), veh/h | 71 | 92 | 96 | 122 | 157 | 153 | 20 | 856 | 117 | 96 | 721 | 36 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1777 | 1774 | 1770 | 1614 | 1721 | 1695 | 1582 | 1721 | 1695 | 1581 |
| Q Serve(g_s), s | 5.3 | 6.8 | 7.1 | 8.9 | 11.4 | 12.2 | 0.8 | 19.7 | 7.8 | 1.2 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 5.3 | 6.8 | 7.1 | 8.9 | 11.4 | 12.2 | 0.8 | 19.7 | 7.8 | 1.2 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 0.80 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 90 | 143 | 144 | 182 | 235 | 214 | 81 | 1424 | 443 | 1211 | 3121 | 970 |
| V/C Ratio(X) | 0.79 | 0.65 | 0.67 | 0.67 | 0.67 | 0.71 | 0.25 | 0.60 | 0.26 | 0.08 | 0.23 | 0.04 |
| Avail Cap(c_a), veh/h | 158 | 577 | 579 | 182 | 577 | 526 | 306 | 1424 | 443 | 1211 | 3121 | 970 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 0.95 | 0.95 | 0.95 |
| Uniform Delay (d), s/veh | 63.4 | 60.2 | 60.3 | 58.3 | 55.7 | 56.1 | 64.7 | 42.1 | 37.8 | 13.1 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.6 | 8.8 | 9.5 | 7.4 | 7.5 | 9.9 | 0.2 | 0.6 | 0.5 | 0.0 | 0.2 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.8 | 3.7 | 3.9 | 4.8 | 6.1 | 6.1 | 0.4 | 9.3 | 3.4 | 0.5 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 69.0 | 69.0 | 69.8 | 65.8 | 63.2 | 65.9 | 64.9 | 42.7 | 38.3 | 13.1 | 0.2 | 0.1 |
| LnGrp LOS | E | E | E | E | E | E | E | D | D | B | A | A |
| Approach Vol, veh/h | | 259 | | | 432 | | | 993 | | | 853 | |
| Approach Delay, s/veh | | 69.3 | | | 64.9 | | | 42.6 | | | 1.6 | |
| Approach LOS | | E | | | E | | | D | | | A | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 53.9 | 44.2 | 19.6 | 17.3 | 8.9 | 89.2 | 12.6 | 24.3 | | | | |
| Change Period (Y+Rc), s | 6.4 | * 6.4 | 5.7 | * 6.4 | * 5.7 | 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | 17.0 | * 38 | 12.0 | * 44 | * 12 | 42.8 | 12.0 | * 44 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.2 | 21.7 | 10.9 | 9.1 | 2.8 | 2.0 | 7.3 | 14.2 | | | | |
| Green Ext Time (p_c), s | 0.1 | 11.5 | 0.0 | 1.9 | 0.0 | 17.3 | 0.0 | 3.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 35.4 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.6 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 274 | 12 | 352 | 407 | 33 | 236 |
| Future Vol, veh/h | 274 | 12 | 352 | 407 | 33 | 236 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 145 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 298 | 13 | 383 | 442 | 36 | 257 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 0 | 0 | 311 | 0 | 1513 305 |
| Stage 1 | - | - | - | - | 305 - |
| Stage 2 | - | - | - | - | 1208 - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | - | - | 1249 | - | 132 735 |
| Stage 1 | - | - | - | - | 748 - |
| Stage 2 | - | - | - | - | 283 - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1249 | - | 78 735 |
| Mov Cap-2 Maneuver | - | - | - | - | 144 - |
| Stage 1 | - | - | - | - | 748 - |
| Stage 2 | - | - | - | - | 168 - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 4.2 | 15.6 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 144 | 735 | - | - | 1249 | - |
| HCM Lane V/C Ratio | 0.249 | 0.349 | - | - | 0.306 | - |
| HCM Control Delay (s) | 38.1 | 12.5 | - | - | 9.2 | 0 |
| HCM Lane LOS | E | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.9 | 1.6 | - | - | 1.3 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↔ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 104 | 376 | 11 | 0 | 403 | 6 | 27 | 7 | 8 | 3 | 3 | 35 |
| Future Vol, veh/h | 104 | 376 | 11 | 0 | 403 | 6 | 27 | 7 | 8 | 3 | 3 | 35 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 113 | 409 | 12 | 0 | 438 | 7 | 29 | 8 | 9 | 3 | 3 | 38 |

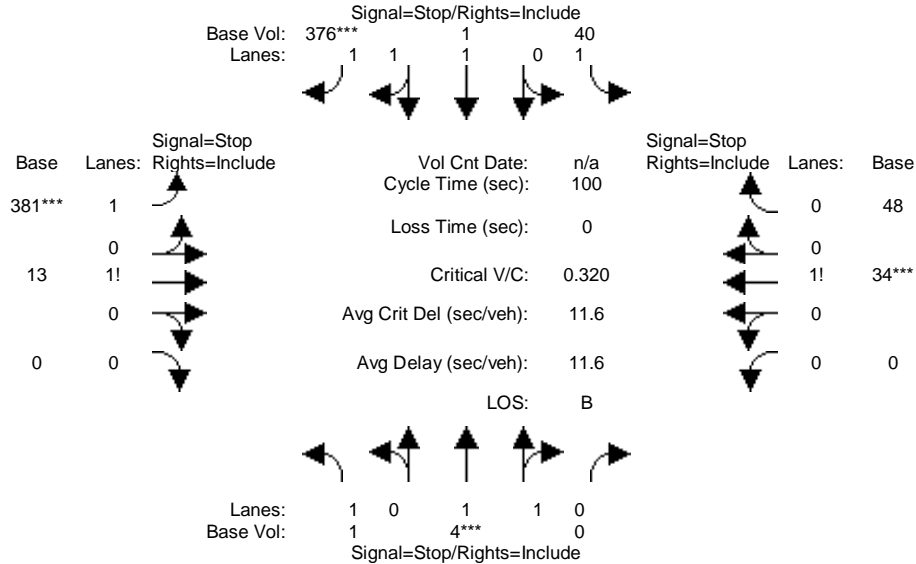
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 445 | 0 | 0 | 421 | 0 | 0 | 1103 | 1086 | 416 | 1093 | 1089 | 442 |
| Stage 1 | - | - | - | - | - | - | 641 | 641 | - | 442 | 442 | - |
| Stage 2 | - | - | - | - | - | - | 462 | 445 | - | 651 | 647 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1115 | - | - | 1138 | - | - | 189 | 216 | 637 | 192 | 215 | 615 |
| Stage 1 | - | - | - | - | - | - | 463 | 469 | - | 594 | 576 | - |
| Stage 2 | - | - | - | - | - | - | 580 | 575 | - | 457 | 467 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1115 | - | - | 1138 | - | - | 161 | 194 | 636 | 169 | 193 | 615 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 161 | 194 | - | 169 | 193 | - |
| Stage 1 | - | - | - | - | - | - | 416 | 422 | - | 534 | 576 | - |
| Stage 2 | - | - | - | - | - | - | 541 | 575 | - | 397 | 420 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 1.8 | | | 0 | | | 29.2 | | | 13.5 | | |
| HCM LOS | | | | | | | D | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|-------|
| Capacity (veh/h) | 194 | 1115 | - | - | 1138 | - | - | 169 | 524 |
| HCM Lane V/C Ratio | 0.235 | 0.101 | - | - | - | - | - | 0.019 | 0.079 |
| HCM Control Delay (s) | 29.2 | 8.6 | - | - | 0 | - | - | 26.7 | 12.5 |
| HCM Lane LOS | D | A | - | - | A | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.9 | 0.3 | - | - | 0 | - | - | 0.1 | 0.3 |

Level Of Service Computation Report
 2000 HCM 4-Way Stop (Base Volume Alternative)
 5 Year plus Phase 1 AM

Intersection #1: Cameron Ave/Court St



| Street Name: | Court St | | | | | | Cameron Ave | | | | | |
|--|-------------|------|------|-------------|------|------|-------------|------|------|------------|------|------|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 1 | 4 | 0 | 40 | 1 | 376 | 381 | 13 | 0 | 0 | 34 | 48 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1 | 4 | 0 | 40 | 1 | 376 | 381 | 13 | 0 | 0 | 34 | 48 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| PHF Volume: | 1 | 4 | 0 | 43 | 1 | 409 | 414 | 14 | 0 | 0 | 37 | 52 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 1 | 4 | 0 | 43 | 1 | 409 | 414 | 14 | 0 | 0 | 37 | 52 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 1 | 4 | 0 | 43 | 1 | 409 | 414 | 14 | 0 | 0 | 37 | 52 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 1.93 | 0.07 | 0.00 | 0.00 | 0.41 | 0.59 |
| Final Sat.: | 443 | 945 | 0 | 525 | 565 | 1277 | 1570 | -487 | 0 | 0 | 245 | 345 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | xxxx | 0.08 | 0.00 | 0.32 | 0.26-0.03 | xxxx | xxxx | 0.15 | 0.15 | |
| Crit Moves: | **** | | | | | **** | **** | | | **** | | |
| Delay/Veh: | 10.2 | 9.7 | 0.0 | 9.9 | 8.8 | 10.5 | 13.4 | 13.8 | 0.0 | 0.0 | 9.8 | 9.8 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 10.2 | 9.7 | 0.0 | 9.9 | 8.8 | 10.5 | 13.4 | 13.8 | 0.0 | 0.0 | 9.8 | 9.8 |
| LOS by Move: | B | A | * | A | A | B | B | B | * | * | A | A |
| ApproachDel: | | 9.8 | | | 10.5 | | | 13.2 | | | 9.8 | |
| Delay Adj: | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | |
| ApprAdjDel: | | 9.8 | | | 10.5 | | | 13.2 | | | 9.8 | |
| LOS by Appr: | | A | | | B | | | B | | | A | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.4 | 0.6 | 0.6 | 0.6 | 0.2 | 0.2 | 0.2 |
| Note: Queue reported is the number of cars per lane. | | | | | | | | | | | | |
| Time Period: | 0.25 hour | | | | | | | | | | | |
| HevVeh: | 0% | | | 0% | | | 0% | | | 0% | | |
| Alpha Value: | 0.01 | | | | | | | | | | | |
| GroupType: | 6 | | | 6 | | | 5 | | | 4B | | |

| | | | | |
|-----------|--------|--------|--------|--------|
| P[C1]: | 0.14 | 0.32 | 0.37 | 0.16 |
| P[C2]: | 0.18 | 0.00 | 0.06 | 0.27 |
| P[C3]: | 0.26 | 0.58 | 0.48 | 0.21 |
| P[C4]: | 0.37 | 0.09 | 0.09 | 0.35 |
| P[C5]: | 0.05 | 0.00 | 0.00 | 0.00 |
| Padj[C1]: | 0.020 | 0.015 | 0.013 | 0.018 |
| Padj[C2]: | 0.010 | 0.008 | 0.006 | 0.007 |
| Padj[C3]: | -0.003 | -0.016 | -0.013 | -0.003 |
| Padj[C4]: | -0.022 | -0.006 | -0.005 | -0.021 |
| Padj[C5]: | -0.005 | -0.000 | -0.000 | -0.000 |

| Lanes: | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
|--------------|-------|--------|-------|--------|-------|-------|--------|---------|
| LaneType: | LEFT | RTTHRU | LEFT | RITE | LEFT | LTR | LTR | NOLANE |
| HeadwayAdj: | 0.500 | 0.000 | 0.500 | -0.700 | 0.500 | 0.967 | -0.351 | xx.xxx |
| Volume: | 1 | 2 | 43 | 204 | 214 | 214 | 89 | xxxxxxx |
| Capacity: | 443 | 473 | 525 | 638 | 560 | 522 | 590 | xxxxxx |
| DegOfUtil: | 0.00 | 0.00 | 0.08 | 0.31 | 0.37 | 0.40 | 0.14 | x.xx |
| DepHeadway: | 7.50 | 7.00 | 6.63 | 5.43 | 6.25 | 6.72 | 5.81 | xx.xx |
| ServiceTime: | 5.2 | 4.7 | 4.3 | 3.1 | 4.0 | 4.4 | 3.8 | xx.x |
| Delay: | 10.2 | 9.7 | 9.9 | 10.5 | 12.6 | 13.8 | 9.8 | xxx.x |
| Queue: | 0.0 | 0.0 | 0.1 | 0.4 | 0.6 | 0.6 | 0.2 | xxx.x |

| Lanes: | L3 | L4 | L3 | L4 | L3 | L4 | L3 | L4 |
|--------------|-------|--------|--------|-------|--------|--------|--------|--------|
| LaneType: | THRU | NOLANE | RTTHRU | THRU | NOLANE | NOLANE | NOLANE | NOLANE |
| HeadwayAdj: | 0.000 | xx.xxx | -0.700 | 0.000 | xx.xxx | xx.xxx | xx.xxx | xx.xxx |
| Volume: | 2 | xxxxxx | 204 | 1 | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Capacity: | 473 | xxxxxx | 638 | 565 | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| DegOfUtil: | 0.00 | x.xx | 0.31 | 0.00 | x.xx | x.xx | x.xx | x.xx |
| DepHeadway: | 7.00 | xx.xx | 5.43 | 6.13 | xx.xx | xx.xx | xx.xx | xx.xx |
| ServiceTime: | 4.7 | xx.x | 3.1 | 3.8 | xx.x | xx.x | xx.x | xx.x |
| Delay: | 9.7 | xxx.x | 10.5 | 8.8 | xxx.x | xxx.x | xxx.x | xxx.x |
| Queue: | 0.0 | xxx.x | 0.4 | 0.0 | xxx.x | xxx.x | xxx.x | xxx.x |

| Approach: | North Bound | South Bound | East Bound | West Bound |
|--------------|-------------|-------------|------------|------------|
| ApproachDel: | 9.8 | 10.5 | 13.2 | 9.8 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 |
| ApprAdjDel: | 9.8 | 10.5 | 13.2 | 9.8 |
| LOS by Appr: | A | B | B | A |
| OverallDel: | 11.6 | | | |
| OverallLOS: | B | | | |

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #1 Cameron Ave/Court St

Base Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | South Bound | East Bound | West Bound |
|----------------------------------|-------------|-------------|------------|------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Control: | Stop Sign | Stop Sign | Stop Sign | Stop Sign |
| Lanes: | 1 0 1 1 0 | 1 0 1 1 1 | 1 0 1 0 0 | 0 0 0 1 0 |
| Initial Vol: | 1 4 0 | 40 1 376 | 381 13 0 | 0 34 48 |
| Major Street Volume: | 476 | | | |
| Minor Approach Volume: | 417 | | | |
| Minor Approach Volume Threshold: | 693 | | | |

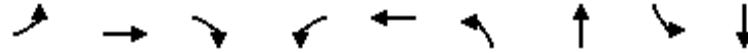
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Queues
16: Demaree St & Visalia Pkwy

5 Year plus Phase 1
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 46 | 367 | 85 | 74 | 423 | 72 | 667 | 147 | 530 |
| v/c Ratio | 0.30 | 0.73 | 0.17 | 0.42 | 0.39 | 0.41 | 0.67 | 0.64 | 0.43 |
| Control Delay | 48.2 | 42.0 | 2.3 | 49.1 | 24.0 | 49.0 | 31.5 | 53.4 | 24.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.2 | 42.0 | 2.3 | 49.1 | 24.0 | 49.0 | 31.5 | 53.4 | 24.8 |
| Queue Length 50th (ft) | 23 | 185 | 0 | 38 | 86 | 37 | 158 | 74 | 111 |
| Queue Length 95th (ft) | 72 | 355 | 13 | 101 | 160 | 99 | 292 | #186 | 221 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 775 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 324 | 500 | 514 | 324 | 1078 | 324 | 1470 | 324 | 1483 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.14 | 0.73 | 0.17 | 0.23 | 0.39 | 0.22 | 0.45 | 0.45 | 0.36 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

5 Year plus Phase 1
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 42 | 338 | 78 | 68 | 273 | 116 | 66 | 531 | 83 | 135 | 429 | 59 |
| Future Volume (veh/h) | 42 | 338 | 78 | 68 | 273 | 116 | 66 | 531 | 83 | 135 | 429 | 59 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 46 | 367 | 85 | 74 | 297 | 126 | 72 | 577 | 90 | 147 | 466 | 64 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 90 | 454 | 386 | 117 | 632 | 262 | 115 | 879 | 137 | 186 | 1021 | 139 |
| Arrive On Green | 0.05 | 0.24 | 0.24 | 0.07 | 0.26 | 0.26 | 0.07 | 0.29 | 0.29 | 0.10 | 0.33 | 0.33 |
| Sat Flow, veh/h | 1774 | 1863 | 1581 | 1774 | 2441 | 1013 | 1774 | 3060 | 476 | 1774 | 3123 | 427 |
| Grp Volume(v), veh/h | 46 | 367 | 85 | 74 | 213 | 210 | 72 | 333 | 334 | 147 | 263 | 267 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1581 | 1774 | 1770 | 1684 | 1774 | 1770 | 1766 | 1774 | 1770 | 1781 |
| Q Serve(g_s), s | 1.7 | 12.8 | 3.0 | 2.8 | 7.0 | 7.3 | 2.7 | 11.4 | 11.5 | 5.6 | 8.1 | 8.2 |
| Cycle Q Clear(g_c), s | 1.7 | 12.8 | 3.0 | 2.8 | 7.0 | 7.3 | 2.7 | 11.4 | 11.5 | 5.6 | 8.1 | 8.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.60 | 1.00 | | 0.27 | 1.00 | | 0.24 |
| Lane Grp Cap(c), veh/h | 90 | 454 | 386 | 117 | 458 | 436 | 115 | 508 | 507 | 186 | 578 | 582 |
| V/C Ratio(X) | 0.51 | 0.81 | 0.22 | 0.63 | 0.47 | 0.48 | 0.62 | 0.66 | 0.66 | 0.79 | 0.45 | 0.46 |
| Avail Cap(c_a), veh/h | 385 | 540 | 458 | 385 | 513 | 488 | 385 | 884 | 882 | 385 | 884 | 890 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 31.9 | 24.6 | 20.9 | 31.4 | 21.6 | 21.7 | 31.5 | 21.6 | 21.6 | 30.2 | 18.4 | 18.4 |
| Incr Delay (d2), s/veh | 1.6 | 11.5 | 0.9 | 2.1 | 2.3 | 2.5 | 2.1 | 2.8 | 2.8 | 2.9 | 1.1 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 8.0 | 1.4 | 1.4 | 3.7 | 3.7 | 1.4 | 5.9 | 6.0 | 2.9 | 4.1 | 4.2 |
| LnGrp Delay(d),s/veh | 33.6 | 36.1 | 21.7 | 33.5 | 23.8 | 24.2 | 33.5 | 24.4 | 24.5 | 33.1 | 19.5 | 19.5 |
| LnGrp LOS | C | D | C | C | C | C | C | C | C | C | B | B |
| Approach Vol, veh/h | | 498 | | | 497 | | | 739 | | | 677 | |
| Approach Delay, s/veh | | 33.4 | | | 25.4 | | | 25.3 | | | 22.4 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.4 | 26.8 | 8.7 | 22.0 | 8.7 | 29.6 | 7.7 | 23.1 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 15 | 34.5 | * 15 | 20.0 | * 15 | 34.5 | * 15 | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.6 | 13.5 | 4.8 | 14.8 | 4.7 | 10.2 | 3.7 | 9.3 | | | | |
| Green Ext Time (p_c), s | 0.1 | 6.3 | 0.0 | 2.0 | 0.0 | 5.3 | 0.0 | 3.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 26.2 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 160 | 379 | 3 | 2 | 375 | 114 | 5 | 0 | 4 | 62 | 0 | 124 |
| Future Vol, veh/h | 160 | 379 | 3 | 2 | 375 | 114 | 5 | 0 | 4 | 62 | 0 | 124 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 174 | 412 | 3 | 2 | 408 | 124 | 5 | 0 | 4 | 67 | 0 | 135 |

| Major/Minor | Major1 | | Major2 | | Minor1 | | Minor2 | | | | | |
|----------------------|--------|---|--------|-------|--------|---|--------|-------|-------|-------|-------|-------|
| Conflicting Flow All | 532 | 0 | 0 | 415 | 0 | 0 | 1304 | 1298 | 414 | 1238 | 1237 | 470 |
| Stage 1 | - | - | - | - | - | - | 762 | 762 | - | 474 | 474 | - |
| Stage 2 | - | - | - | - | - | - | 542 | 536 | - | 764 | 763 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1036 | - | - | 1144 | - | - | 137 | 162 | 638 | 152 | 176 | 594 |
| Stage 1 | - | - | - | - | - | - | 397 | 414 | - | 571 | 558 | - |
| Stage 2 | - | - | - | - | - | - | 525 | 523 | - | 396 | 413 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1036 | - | - | 1144 | - | - | 92 | 134 | 638 | 131 | 146 | 594 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 92 | 134 | - | 131 | 146 | - |
| Stage 1 | - | - | - | - | - | - | 330 | 344 | - | 475 | 557 | - |
| Stage 2 | - | - | - | - | - | - | 405 | 522 | - | 327 | 344 | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|-----|--|----|--|----|--|------|--|
| HCM Control Delay, s | 2.7 | | 0 | | 31 | | 48.1 | |
| HCM LOS | | | | | D | | E | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 148 | 1036 | - | - | 1144 | - | - | 273 |
| HCM Lane V/C Ratio | 0.066 | 0.168 | - | - | 0.002 | - | - | 0.741 |
| HCM Control Delay (s) | 31 | 9.2 | - | - | 8.2 | - | - | 48.1 |
| HCM Lane LOS | D | A | - | - | A | - | - | E |
| HCM 95th %tile Q(veh) | 0.2 | 0.6 | - | - | 0 | - | - | 5.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.5 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↖ | ↑ | ↗ | | ↖ | ↗ |
| Traffic Vol, veh/h | 90 | 365 | 413 | 103 | 116 | 150 |
| Future Vol, veh/h | 90 | 365 | 413 | 103 | 116 | 150 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 98 | 397 | 449 | 112 | 126 | 163 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 561 | 0 | - | 0 | 1098 |
| Stage 1 | - | - | - | - | 505 |
| Stage 2 | - | - | - | - | 593 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1010 | - | - | - | 235 |
| Stage 1 | - | - | - | - | 606 |
| Stage 2 | - | - | - | - | 552 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1010 | - | - | - | 212 |
| Mov Cap-2 Maneuver | - | - | - | - | 212 |
| Stage 1 | - | - | - | - | 547 |
| Stage 2 | - | - | - | - | 552 |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.8 | 0 | 27.1 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1010 | - | - | - | 212 | 567 |
| HCM Lane V/C Ratio | 0.097 | - | - | - | 0.595 | 0.288 |
| HCM Control Delay (s) | 8.9 | - | - | - | 44.2 | 13.9 |
| HCM Lane LOS | A | - | - | - | E | B |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 3.4 | 1.2 |

HCM 2010 TWSC
 19: Main Site Access/Target Dwy & Visalia Pkwy

5 Year plus Phase 1
 Timing Plan: A.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 42 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 67 | 376 | 62 | 119 | 370 | 13 | 90 | 0 | 244 | 7 | 0 | 15 |
| Future Vol, veh/h | 67 | 376 | 62 | 119 | 370 | 13 | 90 | 0 | 244 | 7 | 0 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 73 | 409 | 67 | 129 | 402 | 14 | 98 | 0 | 265 | 8 | 0 | 16 |

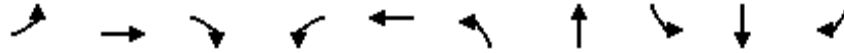
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 416 | 0 | 0 | 476 | 0 | 0 | 1265 | 1263 | 443 | 1388 | 1289 | 410 |
| Stage 1 | - | - | - | - | - | - | 589 | 589 | - | 667 | 667 | - |
| Stage 2 | - | - | - | - | - | - | 676 | 674 | - | 721 | 622 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1143 | - | - | 1086 | - | - | 146 | 170 | 615 | 120 | 164 | 642 |
| Stage 1 | - | - | - | - | - | - | 494 | 495 | - | 448 | 457 | - |
| Stage 2 | - | - | - | - | - | - | 443 | 454 | - | 419 | 479 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1143 | - | - | 1086 | - | - | 123 | 140 | 615 | 59 | 135 | 641 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 123 | 140 | - | 59 | 135 | - |
| Stage 1 | - | - | - | - | - | - | 462 | 463 | - | 419 | 403 | - |
| Stage 2 | - | - | - | - | - | - | 380 | 400 | - | 223 | 448 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|-------|--|--|------|--|--|
| HCM Control Delay, s | 1.1 | | | 2.1 | | | 164.6 | | | 32.4 | | |
| HCM LOS | | | | | | | F | | | D | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 296 | 1143 | - | - | 1086 | - | - | 155 |
| HCM Lane V/C Ratio | 1.226 | 0.064 | - | - | 0.119 | - | - | 0.154 |
| HCM Control Delay (s) | 164.6 | 8.4 | - | - | 8.8 | - | - | 32.4 |
| HCM Lane LOS | F | A | - | - | A | - | - | D |
| HCM 95th %tile Q(veh) | 16.6 | 0.2 | - | - | 0.4 | - | - | 0.5 |

Queues
20: Mooney Blvd & Visalia Pkwy

5 Year plus Phase 1
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 313 | 221 | 177 | 253 | 238 | 186 | 843 | 86 | 657 | 113 |
| v/c Ratio | 1.13 | 0.54 | 0.36 | 0.92 | 0.59 | 0.79 | 0.80 | 0.50 | 0.55 | 0.23 |
| Control Delay | 133.8 | 38.9 | 6.7 | 82.3 | 40.0 | 66.9 | 40.2 | 55.2 | 36.1 | 2.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 133.8 | 38.9 | 6.7 | 82.3 | 40.0 | 66.9 | 40.2 | 55.2 | 36.1 | 2.8 |
| Queue Length 50th (ft) | ~239 | 128 | 0 | 161 | 138 | 114 | 250 | 53 | 131 | 0 |
| Queue Length 95th (ft) | #510 | 198 | 49 | #398 | 210 | #272 | #534 | 115 | 215 | 16 |
| Internal Link Dist (ft) | | 765 | | | 339 | | 249 | | 1110 | |
| Turn Bay Length (ft) | 180 | | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 277 | 454 | 519 | 277 | 452 | 277 | 1051 | 277 | 1329 | 533 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.13 | 0.49 | 0.34 | 0.91 | 0.53 | 0.67 | 0.80 | 0.31 | 0.49 | 0.21 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

5 Year plus Phase 1
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 288 | 203 | 163 | 233 | 207 | 12 | 171 | 669 | 107 | 79 | 604 | 104 |
| Future Volume (veh/h) | 288 | 203 | 163 | 233 | 207 | 12 | 171 | 669 | 107 | 79 | 604 | 104 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 313 | 221 | 177 | 253 | 225 | 13 | 186 | 727 | 116 | 86 | 657 | 113 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 321 | 342 | 291 | 290 | 290 | 17 | 223 | 899 | 143 | 111 | 1173 | 365 |
| Arrive On Green | 0.18 | 0.18 | 0.18 | 0.16 | 0.17 | 0.17 | 0.13 | 0.29 | 0.29 | 0.06 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1774 | 1863 | 1583 | 1774 | 1744 | 101 | 1774 | 3058 | 488 | 1774 | 5085 | 1583 |
| Grp Volume(v), veh/h | 313 | 221 | 177 | 253 | 0 | 238 | 186 | 421 | 422 | 86 | 657 | 113 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1583 | 1774 | 0 | 1845 | 1774 | 1770 | 1776 | 1774 | 1695 | 1583 |
| Q Serve(g_s), s | 14.6 | 9.1 | 8.5 | 11.5 | 0.0 | 10.2 | 8.5 | 18.3 | 18.3 | 4.0 | 9.5 | 4.9 |
| Cycle Q Clear(g_c), s | 14.6 | 9.1 | 8.5 | 11.5 | 0.0 | 10.2 | 8.5 | 18.3 | 18.3 | 4.0 | 9.5 | 4.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.05 | 1.00 | | 0.27 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 321 | 342 | 291 | 290 | 0 | 307 | 223 | 520 | 522 | 111 | 1173 | 365 |
| V/C Ratio(X) | 0.98 | 0.65 | 0.61 | 0.87 | 0.00 | 0.78 | 0.83 | 0.81 | 0.81 | 0.78 | 0.56 | 0.31 |
| Avail Cap(c_a), veh/h | 321 | 449 | 382 | 321 | 0 | 445 | 321 | 533 | 535 | 321 | 1532 | 477 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 33.8 | 31.4 | 31.1 | 33.9 | 0.0 | 33.1 | 35.4 | 27.1 | 27.1 | 38.3 | 28.2 | 26.4 |
| Incr Delay (d2), s/veh | 43.5 | 6.2 | 6.2 | 19.4 | 0.0 | 11.9 | 8.2 | 12.4 | 12.4 | 4.3 | 1.8 | 2.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 11.0 | 5.3 | 4.2 | 7.2 | 0.0 | 6.2 | 4.6 | 10.7 | 10.7 | 2.1 | 4.6 | 2.3 |
| LnGrp Delay(d),s/veh | 77.3 | 37.6 | 37.3 | 53.2 | 0.0 | 45.1 | 43.6 | 39.5 | 39.5 | 42.6 | 30.0 | 28.5 |
| LnGrp LOS | E | D | D | D | | D | D | D | D | D | C | C |
| Approach Vol, veh/h | | 711 | | | 491 | | | 1029 | | | 856 | |
| Approach Delay, s/veh | | 55.0 | | | 49.3 | | | 40.3 | | | 31.1 | |
| Approach LOS | | D | | | D | | | D | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.9 | 31.2 | 19.3 | 21.6 | 16.1 | 25.9 | 20.7 | 20.2 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | * 5.7 | 6.4 | * 5.7 | 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | * 15 | 20.0 | * 15 | 25.0 | * 15 | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.0 | 20.3 | 13.5 | 11.1 | 10.5 | 11.5 | 16.6 | 12.2 | | | | |
| Green Ext Time (p_c), s | 0.1 | 3.4 | 0.1 | 2.5 | 0.1 | 7.7 | 0.0 | 1.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 42.5 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 236 | 6 | 20 | 0 | 0 | 359 |
| Future Vol, veh/h | 236 | 6 | 20 | 0 | 0 | 359 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 257 | 7 | 22 | 0 | 0 | 390 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 22 | 0 | - | 0 | 543 22 |
| Stage 1 | - | - | - | - | 22 - |
| Stage 2 | - | - | - | - | 521 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1593 | - | - | - | 501 1055 |
| Stage 1 | - | - | - | - | 1001 - |
| Stage 2 | - | - | - | - | 596 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1593 | - | - | - | 420 1055 |
| Mov Cap-2 Maneuver | - | - | - | - | 420 - |
| Stage 1 | - | - | - | - | 840 - |
| Stage 2 | - | - | - | - | 596 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 7.5 | 0 | 10.4 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1593 | - | - | - | 1055 |
| HCM Lane V/C Ratio | 0.161 | - | - | - | 0.37 |
| HCM Control Delay (s) | 7.7 | - | - | - | 10.4 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0.6 | - | - | - | 1.7 |

Queues
22: Mooney Blvd & Midvalley Ave

5 Year plus Phase 1
Timing Plan: A.M. Peak























| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 46 | 13 | 169 | 8 | 1090 | 35 | 878 | 38 |
| v/c Ratio | 0.19 | 0.03 | 0.54 | 0.04 | 0.62 | 0.17 | 0.45 | 0.04 |
| Control Delay | 22.2 | 0.2 | 16.5 | 25.1 | 13.7 | 25.8 | 9.6 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 22.2 | 0.2 | 16.5 | 25.1 | 13.7 | 25.8 | 9.6 | 0.1 |
| Queue Length 50th (ft) | 11 | 0 | 14 | 2 | 93 | 9 | 70 | 0 |
| Queue Length 95th (ft) | 40 | 0 | 70 | 14 | 260 | 36 | 187 | 0 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 636 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 845 | 1031 | 887 | 482 | 1769 | 482 | 1937 | 901 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.01 | 0.19 | 0.02 | 0.62 | 0.07 | 0.45 | 0.04 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

5 Year plus Phase 1
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 42 | 0 | 12 | 86 | 0 | 70 | 7 | 957 | 46 | 32 | 808 | 35 |
| Future Volume (veh/h) | 42 | 0 | 12 | 86 | 0 | 70 | 7 | 957 | 46 | 32 | 808 | 35 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 46 | 0 | 13 | 93 | 0 | 76 | 8 | 1040 | 50 | 35 | 878 | 38 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 344 | 0 | 249 | 207 | 17 | 98 | 22 | 1467 | 71 | 81 | 1626 | 727 |
| Arrive On Green | 0.16 | 0.00 | 0.16 | 0.16 | 0.00 | 0.16 | 0.01 | 0.43 | 0.43 | 0.05 | 0.46 | 0.46 |
| Sat Flow, veh/h | 1339 | 0 | 1583 | 657 | 105 | 623 | 1774 | 3438 | 165 | 1774 | 3539 | 1582 |
| Grp Volume(v), veh/h | 46 | 0 | 13 | 169 | 0 | 0 | 8 | 535 | 555 | 35 | 878 | 38 |
| Grp Sat Flow(s),veh/h/ln | 1339 | 0 | 1583 | 1385 | 0 | 0 | 1774 | 1770 | 1834 | 1774 | 1770 | 1582 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.4 | 4.9 | 0.0 | 0.0 | 0.2 | 13.4 | 13.4 | 1.0 | 9.6 | 0.7 |
| Cycle Q Clear(g_c), s | 1.6 | 0.0 | 0.4 | 6.5 | 0.0 | 0.0 | 0.2 | 13.4 | 13.4 | 1.0 | 9.6 | 0.7 |
| Prop In Lane | 1.00 | | 1.00 | 0.55 | | 0.45 | 1.00 | | 0.09 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 344 | 0 | 249 | 321 | 0 | 0 | 22 | 755 | 782 | 81 | 1626 | 727 |
| V/C Ratio(X) | 0.13 | 0.00 | 0.05 | 0.53 | 0.00 | 0.00 | 0.36 | 0.71 | 0.71 | 0.43 | 0.54 | 0.05 |
| Avail Cap(c_a), veh/h | 626 | 0 | 587 | 992 | 0 | 0 | 493 | 820 | 850 | 493 | 1641 | 733 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.8 | 0.0 | 19.3 | 22.0 | 0.0 | 0.0 | 26.4 | 12.7 | 12.7 | 25.1 | 10.5 | 8.1 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 3.6 | 5.3 | 5.1 | 1.4 | 1.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.0 | 0.2 | 2.4 | 0.0 | 0.0 | 0.1 | 7.7 | 7.9 | 0.5 | 4.9 | 0.3 |
| LnGrp Delay(d),s/veh | 19.9 | 0.0 | 19.3 | 22.5 | 0.0 | 0.0 | 30.0 | 18.0 | 17.9 | 26.4 | 11.6 | 8.2 |
| LnGrp LOS | B | | B | C | | | C | B | B | C | B | A |
| Approach Vol, veh/h | | 59 | | | 169 | | | 1098 | | | 951 | |
| Approach Delay, s/veh | | 19.8 | | | 22.5 | | | 18.0 | | | 12.0 | |
| Approach LOS | | B | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.1 | 29.8 | | 16.0 | 6.4 | 31.6 | | 16.0 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 20 | * 15 | 25.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.0 | 15.4 | | 3.6 | 2.2 | 11.6 | | 8.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.6 | | 0.1 | 0.0 | 8.8 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 15.9 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 32.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 33 | 7 | 149 | 30 | 19 | 16 | 50 | 1004 | 23 | 9 | 801 | 36 |
| Future Vol, veh/h | 33 | 7 | 149 | 30 | 19 | 16 | 50 | 1004 | 23 | 9 | 801 | 36 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 36 | 8 | 162 | 33 | 21 | 17 | 54 | 1091 | 25 | 10 | 871 | 39 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1575 | 2135 | 455 | 1672 | 2142 | 558 | 910 | 0 | 0 | 1116 | 0 | 0 |
| Stage 1 | 911 | 911 | - | 1212 | 1212 | - | - | - | - | - | - | - |
| Stage 2 | 664 | 1224 | - | 460 | 930 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 74 | 49 | 552 | 63 | 48 | 473 | 744 | - | - | 622 | - | - |
| Stage 1 | 295 | 351 | - | 193 | 253 | - | - | - | - | - | - | - |
| Stage 2 | 416 | 250 | - | 551 | 344 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 42 | 45 | 552 | 36 | 44 | 473 | 744 | - | - | 622 | - | - |
| Mov Cap-2 Maneuver | 42 | 45 | - | 36 | 44 | - | - | - | - | - | - | - |
| Stage 1 | 273 | 345 | - | 179 | 235 | - | - | - | - | - | - | - |
| Stage 2 | 339 | 232 | - | 375 | 338 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|-------|--|----------|--|-----|--|-----|--|
| HCM Control Delay, s | 236.3 | | \$ 403.2 | | 0.5 | | 0.1 | |
| HCM LOS | F | | F | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|----------|-------|-----|
| Capacity (veh/h) | 744 | - | - | 156 | 50 | 622 | - |
| HCM Lane V/C Ratio | 0.073 | - | - | 1.317 | 1.413 | 0.016 | - |
| HCM Control Delay (s) | 10.2 | - | - | 236.3 | \$ 403.2 | 10.9 | - |
| HCM Lane LOS | B | - | - | F | F | B | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 12.4 | 6.6 | 0 | - |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Queues
25: Mooney Blvd & Ave 268

5 Year plus Phase 1
Timing Plan: A.M. Peak





















| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 35 | 52 | 79 | 1017 | 44 | 964 |
| v/c Ratio | 0.13 | 0.18 | 0.33 | 0.42 | 0.21 | 0.44 |
| Control Delay | 18.3 | 15.2 | 30.1 | 11.9 | 30.0 | 14.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.3 | 15.2 | 30.1 | 11.9 | 30.0 | 14.5 |
| Queue Length 50th (ft) | 8 | 8 | 27 | 81 | 15 | 135 |
| Queue Length 95th (ft) | 29 | 34 | 74 | 306 | 49 | #327 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 563 | 605 | 491 | 2416 | 491 | 2202 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.09 | 0.16 | 0.42 | 0.09 | 0.44 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
25: Mooney Blvd & Ave 268

5 Year plus Phase 1
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 22 | 1 | 10 | 22 | 2 | 26 | 75 | 953 | 13 | 42 | 839 | 77 |
| Future Volume (veh/h) | 22 | 1 | 10 | 22 | 2 | 26 | 75 | 953 | 13 | 42 | 839 | 77 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 23 | 1 | 11 | 23 | 2 | 27 | 79 | 1003 | 14 | 44 | 883 | 81 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 215 | 28 | 57 | 156 | 37 | 98 | 141 | 1588 | 22 | 97 | 1373 | 126 |
| Arrive On Green | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.08 | 0.44 | 0.44 | 0.05 | 0.42 | 0.42 |
| Sat Flow, veh/h | 806 | 233 | 477 | 445 | 307 | 812 | 1774 | 3574 | 50 | 1774 | 3271 | 300 |
| Grp Volume(v), veh/h | 35 | 0 | 0 | 52 | 0 | 0 | 79 | 497 | 520 | 44 | 478 | 486 |
| Grp Sat Flow(s),veh/h/ln | 1516 | 0 | 0 | 1564 | 0 | 0 | 1774 | 1770 | 1854 | 1774 | 1770 | 1802 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 11.0 | 11.0 | 1.2 | 10.9 | 10.9 |
| Cycle Q Clear(g_c), s | 0.9 | 0.0 | 0.0 | 1.4 | 0.0 | 0.0 | 2.2 | 11.0 | 11.0 | 1.2 | 10.9 | 10.9 |
| Prop In Lane | 0.66 | | 0.31 | 0.44 | | 0.52 | 1.00 | | 0.03 | 1.00 | | 0.17 |
| Lane Grp Cap(c), veh/h | 300 | 0 | 0 | 291 | 0 | 0 | 141 | 787 | 824 | 97 | 743 | 756 |
| V/C Ratio(X) | 0.12 | 0.00 | 0.00 | 0.18 | 0.00 | 0.00 | 0.56 | 0.63 | 0.63 | 0.45 | 0.64 | 0.64 |
| Avail Cap(c_a), veh/h | 751 | 0 | 0 | 760 | 0 | 0 | 524 | 872 | 913 | 524 | 872 | 888 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.0 | 0.0 | 0.0 | 20.2 | 0.0 | 0.0 | 22.5 | 10.9 | 10.9 | 23.3 | 11.7 | 11.7 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 1.3 | 3.6 | 3.5 | 1.2 | 4.0 | 3.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 1.1 | 6.0 | 6.3 | 0.6 | 6.1 | 6.2 |
| LnGrp Delay(d),s/veh | 20.3 | 0.0 | 0.0 | 20.7 | 0.0 | 0.0 | 23.8 | 14.5 | 14.3 | 24.5 | 15.7 | 15.6 |
| LnGrp LOS | C | | | C | | | C | B | B | C | B | B |
| Approach Vol, veh/h | | 35 | | | 52 | | | 1096 | | | 1008 | |
| Approach Delay, s/veh | | 20.3 | | | 20.7 | | | 15.1 | | | 16.1 | |
| Approach LOS | | C | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.5 | 30.5 | | 11.8 | 9.7 | 29.2 | | 11.8 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 22 | * 15 | 25.0 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.2 | 13.0 | | 2.9 | 4.2 | 12.9 | | 3.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.7 | | 0.2 | 0.0 | 8.4 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 15.8 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 320 | 69 | 0 | 452 | 0 | 10 |
| Future Vol, veh/h | 320 | 69 | 0 | 452 | 0 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 348 | 75 | 0 | 491 | 0 | 11 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | 386 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | 0 | - | 0 | 662 |
| Stage 1 | - | 0 | - | 0 | - |
| Stage 2 | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 662 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 10.5 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 662 | - | - | - |
| HCM Lane V/C Ratio | 0.016 | - | - | - |
| HCM Control Delay (s) | 10.5 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - |

HCM 2010 TWSC
 27: North Access Dwy 2/Tuesday Morning Dwy & Visalia Pkwy

5 Year plus Phase 1
 Timing Plan: A.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | | ↖ | | | ↖ |
| Traffic Vol, veh/h | 10 | 270 | 50 | 52 | 437 | 7 | 0 | 0 | 9 | 0 | 0 | 18 |
| Future Vol, veh/h | 10 | 270 | 50 | 52 | 437 | 7 | 0 | 0 | 9 | 0 | 0 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | - | 150 | - | - | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 11 | 293 | 54 | 57 | 475 | 8 | 0 | 0 | 10 | 0 | 0 | 20 |

| Major/Minor | Major1 | | Major2 | | Minor1 | | Minor2 | | | | | |
|----------------------|--------|---|--------|-------|--------|---|--------|---|-------|---|---|-------|
| Conflicting Flow All | 483 | 0 | 0 | 347 | 0 | 0 | - | - | 320 | - | - | 479 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | - | - | 6.22 | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | - | - | 3.318 | - | - | 3.318 |
| Pot Cap-1 Maneuver | 1080 | - | - | 1212 | - | - | 0 | 0 | 721 | 0 | 0 | 587 |
| Stage 1 | - | - | - | - | - | - | 0 | 0 | - | 0 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 0 | 0 | - | 0 | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1080 | - | - | 1212 | - | - | - | - | 721 | - | - | 587 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|-----|--|-----|--|------|--|------|--|
| HCM Control Delay, s | 0.3 | | 0.9 | | 10.1 | | 11.3 | |
| HCM LOS | | | | | B | | B | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 721 | 1080 | - | - | 1212 | - | - | 587 |
| HCM Lane V/C Ratio | 0.014 | 0.01 | - | - | 0.047 | - | - | 0.033 |
| HCM Control Delay (s) | 10.1 | 8.4 | - | - | 8.1 | - | - | 11.3 |
| HCM Lane LOS | B | A | - | - | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | 0 | - | - | 0.1 | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.3 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 282 | 0 | 0 | 496 | 0 | 26 |
| Future Vol, veh/h | 282 | 0 | 0 | 496 | 0 | 26 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 307 | 0 | 0 | 539 | 0 | 28 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | - | 307 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 733 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 733 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 10.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 733 | - | - | - |
| HCM Lane V/C Ratio | 0.039 | - | - | - |
| HCM Control Delay (s) | 10.1 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.2 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | ↔ |
| Traffic Vol, veh/h | 119 | 189 | 379 | 3 | 0 | 58 |
| Future Vol, veh/h | 119 | 189 | 379 | 3 | 0 | 58 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 129 | 205 | 412 | 3 | 0 | 63 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 415 | 0 | - | 0 | 877 |
| Stage 1 | - | - | - | - | 414 |
| Stage 2 | - | - | - | - | 463 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1144 | - | - | - | 638 |
| Stage 1 | - | - | - | - | 667 |
| Stage 2 | - | - | - | - | 634 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1144 | - | - | - | 638 |
| Mov Cap-2 Maneuver | - | - | - | - | 278 |
| Stage 1 | - | - | - | - | 582 |
| Stage 2 | - | - | - | - | 634 |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 3.3 | 0 | 11.3 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1144 | - | - | - | - | 638 |
| HCM Lane V/C Ratio | 0.113 | - | - | - | - | 0.099 |
| HCM Control Delay (s) | 8.5 | 0 | - | - | 0 | 11.3 |
| HCM Lane LOS | A | A | - | - | A | B |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | - | 0.3 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | | ↕ | | | ↕ | ↗ |
| Traffic Vol, veh/h | 0 | 0 | 66 | 0 | 0 | 63 | 0 | 878 | 25 | 0 | 858 | 126 |
| Future Vol, veh/h | 0 | 0 | 66 | 0 | 0 | 63 | 0 | 878 | 25 | 0 | 858 | 126 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | - | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 72 | 0 | 0 | 68 | 0 | 954 | 27 | 0 | 933 | 137 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | |
|----------------------|--------|---|--------|---|--------|------|--------|---|
| Conflicting Flow All | - | - | 467 | - | - | 491 | - | 0 |
| Stage 1 | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 542 | 0 | 0 | 523 | 0 | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | 0 | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 542 | - | - | 523 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|------|--|----|--|----|--|
| HCM Control Delay, s | 12.7 | | 12.9 | | 0 | | 0 | |
| HCM LOS | B | | B | | | | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1WBLn1 | SBT | SBR |
|-----------------------|-----|-----|------------|-------|-----|
| Capacity (veh/h) | - | - | 542 | 523 | - |
| HCM Lane V/C Ratio | - | - | 0.132 | 0.131 | - |
| HCM Control Delay (s) | - | - | 12.7 | 12.9 | - |
| HCM Lane LOS | - | - | B | B | - |
| HCM 95th %tile Q(veh) | - | - | 0.5 | 0.4 | - |

HCM 2010 TWSC
 31: Mooney Blvd & Visalia Commons Dwy 2/West Access Dwy 2

5 Year plus Phase 1
 Timing Plan: A.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | ↗ | ↕ | | ↗ | ↕ | ↗ |
| Traffic Vol, veh/h | 0 | 0 | 87 | 0 | 0 | 53 | 171 | 850 | 27 | 54 | 779 | 98 |
| Future Vol, veh/h | 0 | 0 | 87 | 0 | 0 | 53 | 171 | 850 | 27 | 54 | 779 | 98 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | 150 | - | - | 150 | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 95 | 0 | 0 | 58 | 186 | 924 | 29 | 59 | 847 | 107 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|---|--------|---|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | - | - | 424 | - | - | 477 | 954 | 0 | 0 | 953 | 0 | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 579 | 0 | 0 | 534 | 716 | - | - | 717 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 579 | - | - | 534 | 716 | - | - | 717 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 12.4 | | 12.6 | | 1.9 | | 0.6 | |
| HCM LOS | B | | B | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 716 | - | - | 579 | 534 | 717 | - | - |
| HCM Lane V/C Ratio | 0.26 | - | - | 0.163 | 0.108 | 0.082 | - | - |
| HCM Control Delay (s) | 11.8 | - | - | 12.4 | 12.6 | 10.5 | - | - |
| HCM Lane LOS | B | - | - | B | B | B | - | - |
| HCM 95th %tile Q(veh) | 1 | - | - | 0.6 | 0.4 | 0.3 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | ↷ |
| Traffic Vol, veh/h | 26 | 52 | 100 | 0 | 0 | 56 |
| Future Vol, veh/h | 26 | 52 | 100 | 0 | 0 | 56 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 28 | 57 | 109 | 0 | 0 | 61 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 109 | 0 | - | 0 | 222 109 |
| Stage 1 | - | - | - | - | 109 - |
| Stage 2 | - | - | - | - | 113 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1481 | - | - | - | 766 945 |
| Stage 1 | - | - | - | - | 916 - |
| Stage 2 | - | - | - | - | 912 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1481 | - | - | - | 751 945 |
| Mov Cap-2 Maneuver | - | - | - | - | 751 - |
| Stage 1 | - | - | - | - | 898 - |
| Stage 2 | - | - | - | - | 912 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 2.5 | 0 | 9.1 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1481 | - | - | - | 945 |
| HCM Lane V/C Ratio | 0.019 | - | - | - | 0.064 |
| HCM Control Delay (s) | 7.5 | 0 | - | - | 9.1 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 30 | 22 | 58 | 0 | 0 | 42 |
| Future Vol, veh/h | 30 | 22 | 58 | 0 | 0 | 42 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 33 | 24 | 63 | 0 | 0 | 46 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 63 | 0 | - | 0 | 153 63 |
| Stage 1 | - | - | - | - | 63 - |
| Stage 2 | - | - | - | - | 90 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1540 | - | - | - | 839 1002 |
| Stage 1 | - | - | - | - | 960 - |
| Stage 2 | - | - | - | - | 934 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1540 | - | - | - | 821 1002 |
| Mov Cap-2 Maneuver | - | - | - | - | 821 - |
| Stage 1 | - | - | - | - | 939 - |
| Stage 2 | - | - | - | - | 934 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 4.3 | 0 | 8.8 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1540 | - | - | - | 1002 |
| HCM Lane V/C Ratio | 0.021 | - | - | - | 0.046 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 8.8 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.1 |

Intersection

Int Delay, s/veh 3.8

Movement EBL EBT WBT WBR SBL SBR

| | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 12 | 10 | 33 | 0 | 0 | 25 |
| Future Vol, veh/h | 12 | 10 | 33 | 0 | 0 | 25 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 13 | 11 | 36 | 0 | 0 | 27 |

Major/Minor Major1 Major2 Minor2

| | | | | | | |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 36 | 0 | - | 0 | 73 | 36 |
| Stage 1 | - | - | - | - | 36 | - |
| Stage 2 | - | - | - | - | 37 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1575 | - | - | - | 931 | 1037 |
| Stage 1 | - | - | - | - | 986 | - |
| Stage 2 | - | - | - | - | 985 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1575 | - | - | - | 924 | 1037 |
| Mov Cap-2 Maneuver | - | - | - | - | 924 | - |
| Stage 1 | - | - | - | - | 978 | - |
| Stage 2 | - | - | - | - | 985 | - |

Approach EB WB SB

HCM Control Delay, s 4 0 8.6
 HCM LOS A

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

| | | | | | |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h) | 1575 | - | - | - | 1037 |
| HCM Lane V/C Ratio | 0.008 | - | - | - | 0.026 |
| HCM Control Delay (s) | 7.3 | 0 | - | - | 8.6 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 15 |
| Future Vol, veh/h | 0 | 10 | 18 | 0 | 0 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 20 | 0 | 0 | 16 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 20 | 0 | - | 0 | 31 20 |
| Stage 1 | - | - | - | - | 20 - |
| Stage 2 | - | - | - | - | 11 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1596 | - | - | - | 983 1058 |
| Stage 1 | - | - | - | - | 1003 - |
| Stage 2 | - | - | - | - | 1012 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1596 | - | - | - | 983 1058 |
| Mov Cap-2 Maneuver | - | - | - | - | 983 - |
| Stage 1 | - | - | - | - | 1003 - |
| Stage 2 | - | - | - | - | 1012 - |

| Approach | EB | WB | SB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0 | 0 | 8.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1596 | - | - | - | 1058 |
| HCM Lane V/C Ratio | - | - | - | - | 0.015 |
| HCM Control Delay (s) | 0 | - | - | - | 8.5 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.4 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 26 | 15 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 26 | 15 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 28 | 16 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 8.6 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | 1044 | - | - |
| HCM Lane V/C Ratio | - | - | 0.043 | - | - |
| HCM Control Delay (s) | 0 | - | 8.6 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

Queues
1: Mooney Blvd & Whitendale Ave

5 Year plus Phase 1
Timing Plan: P.M. Peak



























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 93 | 233 | 211 | 243 | 231 | 63 | 245 | 1189 | 248 | 110 | 1305 | 84 |
| v/c Ratio | 0.28 | 0.47 | 0.53 | 0.74 | 0.47 | 0.18 | 0.69 | 0.44 | 0.27 | 0.52 | 0.52 | 0.10 |
| Control Delay | 63.1 | 59.2 | 10.8 | 78.0 | 59.1 | 1.1 | 58.0 | 16.3 | 8.4 | 74.1 | 27.3 | 2.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 63.1 | 59.2 | 10.8 | 78.0 | 59.1 | 1.1 | 58.0 | 16.3 | 8.4 | 74.1 | 27.3 | 2.0 |
| Queue Length 50th (ft) | 42 | 110 | 0 | 116 | 110 | 0 | 119 | 109 | 9 | 53 | 291 | 0 |
| Queue Length 95th (ft) | 73 | 133 | 65 | 164 | 128 | 0 | 173 | 248 | 103 | 84 | 430 | 16 |
| Internal Link Dist (ft) | | 1104 | | | 403 | | | 770 | | | 1028 | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 334 | 878 | 545 | 361 | 951 | 536 | 355 | 2726 | 903 | 355 | 2516 | 827 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.28 | 0.27 | 0.39 | 0.67 | 0.24 | 0.12 | 0.69 | 0.44 | 0.27 | 0.31 | 0.52 | 0.10 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
 1: Mooney Blvd & Whitendale Ave

5 Year plus Phase 1
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 90 | 226 | 205 | 236 | 224 | 61 | 238 | 1153 | 241 | 107 | 1266 | 81 |
| Future Volume (veh/h) | 90 | 226 | 205 | 236 | 224 | 61 | 238 | 1153 | 241 | 107 | 1266 | 81 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 93 | 233 | 211 | 243 | 231 | 63 | 245 | 1189 | 248 | 110 | 1305 | 84 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 502 | 612 | 269 | 285 | 389 | 173 | 670 | 2705 | 832 | 156 | 1922 | 596 |
| Arrive On Green | 0.15 | 0.17 | 0.17 | 0.08 | 0.11 | 0.11 | 0.39 | 1.00 | 1.00 | 0.05 | 0.38 | 0.38 |
| Sat Flow, veh/h | 3442 | 3539 | 1554 | 3442 | 3539 | 1579 | 3442 | 5085 | 1564 | 3442 | 5085 | 1576 |
| Grp Volume(v), veh/h | 93 | 233 | 211 | 243 | 231 | 63 | 245 | 1189 | 248 | 110 | 1305 | 84 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1554 | 1721 | 1770 | 1579 | 1721 | 1695 | 1564 | 1721 | 1695 | 1576 |
| Q Serve(g_s), s | 3.4 | 8.5 | 18.8 | 10.1 | 9.0 | 4.6 | 7.4 | 0.0 | 0.0 | 4.6 | 31.1 | 5.1 |
| Cycle Q Clear(g_c), s | 3.4 | 8.5 | 18.8 | 10.1 | 9.0 | 4.6 | 7.4 | 0.0 | 0.0 | 4.6 | 31.1 | 5.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 502 | 612 | 269 | 285 | 389 | 173 | 670 | 2705 | 832 | 156 | 1922 | 596 |
| V/C Ratio(X) | 0.19 | 0.38 | 0.78 | 0.85 | 0.59 | 0.36 | 0.37 | 0.44 | 0.30 | 0.70 | 0.68 | 0.14 |
| Avail Cap(c_a), veh/h | 502 | 879 | 386 | 285 | 952 | 425 | 670 | 2705 | 832 | 356 | 1922 | 596 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.79 | 0.79 | 0.79 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.4 | 53.1 | 57.4 | 65.6 | 61.5 | 43.8 | 37.9 | 0.0 | 0.0 | 68.2 | 37.7 | 29.6 |
| Incr Delay (d2), s/veh | 0.1 | 0.8 | 10.5 | 20.5 | 2.8 | 2.5 | 0.1 | 0.4 | 0.7 | 2.2 | 2.0 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 4.2 | 8.9 | 5.6 | 4.6 | 2.4 | 3.4 | 0.1 | 0.2 | 2.2 | 14.8 | 2.3 |
| LnGrp Delay(d),s/veh | 54.4 | 53.8 | 67.9 | 86.1 | 64.3 | 46.2 | 38.0 | 0.4 | 0.7 | 70.4 | 39.7 | 30.1 |
| LnGrp LOS | D | D | E | F | E | D | D | A | A | E | D | C |
| Approach Vol, veh/h | | 537 | | | 537 | | | 1682 | | | 1499 | |
| Approach Delay, s/veh | | 59.4 | | | 72.0 | | | 5.9 | | | 41.4 | |
| Approach LOS | | E | | | E | | | A | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.3 | 83.5 | 17.7 | 31.5 | 34.6 | 61.2 | 26.9 | 22.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 54.8 | 12.0 | * 36 | 15.0 | * 55 | 12.0 | * 39 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.6 | 2.0 | 12.1 | 20.8 | 9.4 | 33.1 | 5.4 | 11.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 24.8 | 0.0 | 3.3 | 0.2 | 14.7 | 0.1 | 2.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 33.5 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave

5 Year plus Phase 1
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 134 | 243 | 1 | 198 | 96 | 22 | 110 | 15 | 187 |
| v/c Ratio | 0.40 | 0.28 | 0.00 | 0.37 | 0.19 | 0.05 | 0.31 | 0.03 | 0.34 |
| Control Delay | 22.7 | 9.3 | 23.0 | 17.5 | 7.1 | 14.8 | 18.5 | 15.4 | 5.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 22.7 | 9.3 | 23.0 | 17.5 | 7.1 | 14.8 | 18.5 | 15.4 | 5.3 |
| Queue Length 50th (ft) | 30 | 28 | 0 | 41 | 3 | 4 | 23 | 3 | 0 |
| Queue Length 95th (ft) | 89 | 109 | 4 | 109 | 34 | 20 | 70 | 16 | 40 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 634 | 1302 | 634 | 1310 | 1136 | 1015 | 827 | 1114 | 1021 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.21 | 0.19 | 0.00 | 0.15 | 0.08 | 0.02 | 0.13 | 0.01 | 0.18 |

Intersection Summary

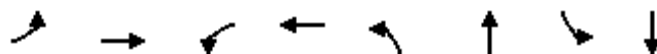
HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

5 Year plus Phase 1
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 123 | 213 | 10 | 1 | 182 | 88 | 7 | 11 | 2 | 101 | 14 | 172 |
| Future Volume (veh/h) | 123 | 213 | 10 | 1 | 182 | 88 | 7 | 11 | 2 | 101 | 14 | 172 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 134 | 232 | 11 | 1 | 198 | 96 | 8 | 12 | 2 | 110 | 15 | 187 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 220 | 685 | 32 | 5 | 495 | 421 | 213 | 247 | 32 | 508 | 404 | 343 |
| Arrive On Green | 0.12 | 0.39 | 0.39 | 0.00 | 0.27 | 0.27 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1774 | 1764 | 84 | 1774 | 1863 | 1583 | 345 | 1142 | 149 | 1394 | 1863 | 1583 |
| Grp Volume(v), veh/h | 134 | 0 | 243 | 1 | 198 | 96 | 22 | 0 | 0 | 110 | 15 | 187 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1848 | 1774 | 1863 | 1583 | 1635 | 0 | 0 | 1394 | 1863 | 1583 |
| Q Serve(g_s), s | 2.5 | 0.0 | 3.3 | 0.0 | 3.1 | 1.7 | 0.0 | 0.0 | 0.0 | 1.9 | 0.2 | 3.7 |
| Cycle Q Clear(g_c), s | 2.5 | 0.0 | 3.3 | 0.0 | 3.1 | 1.7 | 0.3 | 0.0 | 0.0 | 2.3 | 0.2 | 3.7 |
| Prop In Lane | 1.00 | | 0.05 | 1.00 | | 1.00 | 0.36 | | 0.09 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 220 | 0 | 717 | 5 | 495 | 421 | 492 | 0 | 0 | 508 | 404 | 343 |
| V/C Ratio(X) | 0.61 | 0.00 | 0.34 | 0.20 | 0.40 | 0.23 | 0.04 | 0.00 | 0.00 | 0.22 | 0.04 | 0.55 |
| Avail Cap(c_a), veh/h | 748 | 0 | 1559 | 748 | 1572 | 1336 | 1230 | 0 | 0 | 1186 | 1310 | 1113 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.8 | 0.0 | 7.7 | 17.7 | 10.7 | 10.2 | 11.0 | 0.0 | 0.0 | 11.8 | 11.0 | 12.4 |
| Incr Delay (d2), s/veh | 1.0 | 0.0 | 0.5 | 7.1 | 0.9 | 0.5 | 0.1 | 0.0 | 0.0 | 0.4 | 0.1 | 2.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.3 | 0.0 | 1.7 | 0.0 | 1.7 | 0.8 | 0.2 | 0.0 | 0.0 | 1.0 | 0.1 | 1.8 |
| LnGrp Delay(d),s/veh | 15.8 | 0.0 | 8.1 | 24.8 | 11.6 | 10.7 | 11.1 | 0.0 | 0.0 | 12.1 | 11.1 | 14.7 |
| LnGrp LOS | B | | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 377 | | | 295 | | | 22 | | | 312 | |
| Approach Delay, s/veh | | 10.9 | | | 11.4 | | | 11.1 | | | 13.6 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.1 | 18.8 | | 12.7 | 8.4 | 14.5 | | 12.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | | 25.0 | 15.0 | 30.0 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 5.3 | | 2.3 | 4.5 | 5.1 | | 5.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.2 | | 0.1 | 0.1 | 2.3 | | 1.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 11.9 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave

5 Year plus Phase 1
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 204 | 136 | 20 | 124 | 92 | 1450 | 75 | 1732 |
| v/c Ratio | 0.55 | 0.30 | 0.11 | 0.59 | 0.50 | 0.58 | 0.59 | 0.74 |
| Control Delay | 58.4 | 12.8 | 55.3 | 22.6 | 68.6 | 27.8 | 94.3 | 16.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.4 | 12.8 | 55.3 | 22.6 | 68.6 | 27.8 | 94.3 | 16.1 |
| Queue Length 50th (ft) | 177 | 3 | 19 | 2 | 81 | 173 | 62 | 496 |
| Queue Length 95th (ft) | 267 | 72 | 41 | 67 | 120 | 332 | m118 | 133 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 373 | 554 | 204 | 475 | 183 | 2502 | 183 | 2328 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.55 | 0.25 | 0.10 | 0.26 | 0.50 | 0.58 | 0.41 | 0.74 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
 3: Mooney Blvd & Sunnyside Ave

5 Year plus Phase 1
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 190 | 5 | 122 | 19 | 2 | 113 | 86 | 1331 | 18 | 70 | 1517 | 94 |
| Future Volume (veh/h) | 190 | 5 | 122 | 19 | 2 | 113 | 86 | 1331 | 18 | 70 | 1517 | 94 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 204 | 5 | 131 | 20 | 2 | 122 | 92 | 1431 | 19 | 75 | 1631 | 101 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 122 | 6 | 156 | 109 | 2 | 148 | 435 | 3215 | 43 | 93 | 2072 | 128 |
| Arrive On Green | 0.07 | 0.10 | 0.10 | 0.06 | 0.09 | 0.09 | 0.49 | 1.00 | 1.00 | 0.11 | 0.85 | 0.85 |
| Sat Flow, veh/h | 1774 | 59 | 1534 | 1774 | 26 | 1562 | 1774 | 5170 | 69 | 1774 | 4886 | 302 |
| Grp Volume(v), veh/h | 204 | 0 | 136 | 20 | 0 | 124 | 92 | 938 | 512 | 75 | 1131 | 601 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1592 | 1774 | 0 | 1587 | 1774 | 1695 | 1849 | 1774 | 1695 | 1798 |
| Q Serve(g_s), s | 10.0 | 0.0 | 12.2 | 1.6 | 0.0 | 11.1 | 4.3 | 0.0 | 0.0 | 6.0 | 22.1 | 22.2 |
| Cycle Q Clear(g_c), s | 10.0 | 0.0 | 12.2 | 1.6 | 0.0 | 11.1 | 4.3 | 0.0 | 0.0 | 6.0 | 22.1 | 22.2 |
| Prop In Lane | 1.00 | | 0.96 | 1.00 | | 0.98 | 1.00 | | 0.04 | 1.00 | | 0.17 |
| Lane Grp Cap(c), veh/h | 122 | 0 | 162 | 109 | 0 | 150 | 435 | 2108 | 1149 | 93 | 1438 | 763 |
| V/C Ratio(X) | 1.67 | 0.00 | 0.84 | 0.18 | 0.00 | 0.83 | 0.21 | 0.45 | 0.45 | 0.80 | 0.79 | 0.79 |
| Avail Cap(c_a), veh/h | 122 | 0 | 384 | 122 | 0 | 383 | 435 | 2108 | 1149 | 184 | 1438 | 763 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.88 | 0.88 | 0.88 | 0.82 | 0.82 | 0.82 |
| Uniform Delay (d), s/veh | 67.5 | 0.0 | 63.9 | 64.6 | 0.0 | 64.5 | 28.9 | 0.0 | 0.0 | 64.1 | 8.0 | 8.0 |
| Incr Delay (d2), s/veh | 333.4 | 0.0 | 8.2 | 0.3 | 0.0 | 8.3 | 0.1 | 0.6 | 1.1 | 4.9 | 3.6 | 6.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 16.2 | 0.0 | 5.7 | 0.8 | 0.0 | 5.2 | 2.1 | 0.2 | 0.4 | 3.1 | 10.3 | 11.6 |
| LnGrp Delay(d),s/veh | 400.9 | 0.0 | 72.1 | 64.9 | 0.0 | 72.8 | 29.0 | 0.6 | 1.1 | 69.0 | 11.6 | 14.7 |
| LnGrp LOS | F | | E | E | | E | C | A | A | E | B | B |
| Approach Vol, veh/h | | 340 | | | 144 | | | 1542 | | | 1807 | |
| Approach Delay, s/veh | | 269.4 | | | 71.7 | | | 2.5 | | | 15.0 | |
| Approach LOS | | F | | | E | | | A | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.3 | 96.6 | 14.6 | 20.5 | 42.0 | 67.9 | 15.7 | 19.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | 6.4 | * 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 61.5 | * 10 | * 35 | 15.0 | * 62 | * 10 | * 35 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.0 | 2.0 | 3.6 | 14.2 | 6.3 | 24.2 | 12.0 | 13.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 28.2 | 0.0 | 0.6 | 0.1 | 26.8 | 0.0 | 0.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 34.7 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave

5 Year plus Phase 1
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|-------|------|------|
| Lane Group Flow (vph) | 19 | 45 | 68 | 89 | 73 | 1316 | 57 | 172 | 1585 | 38 |
| v/c Ratio | 0.17 | 0.23 | 0.57 | 0.34 | 0.21 | 0.47 | 0.06 | 0.76 | 0.54 | 0.04 |
| Control Delay | 65.9 | 16.6 | 83.4 | 16.2 | 56.8 | 23.3 | 2.2 | 101.3 | 6.6 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 65.9 | 16.6 | 83.4 | 16.2 | 56.8 | 23.3 | 2.2 | 101.3 | 6.6 | 0.1 |
| Queue Length 50th (ft) | 17 | 2 | 63 | 9 | 30 | 287 | 3 | 172 | 53 | 0 |
| Queue Length 95th (ft) | 45 | 33 | 115 | 49 | 44 | 292 | 9 | m#272 | 302 | m1 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 158 | 485 | 158 | 517 | 355 | 2818 | 900 | 226 | 2940 | 945 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.12 | 0.09 | 0.43 | 0.17 | 0.21 | 0.47 | 0.06 | 0.76 | 0.54 | 0.04 |

Intersection Summary























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

5 Year plus Phase 1
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 18 | 2 | 40 | 64 | 9 | 74 | 69 | 1237 | 54 | 162 | 1490 | 36 |
| Future Volume (veh/h) | 18 | 2 | 40 | 64 | 9 | 74 | 69 | 1237 | 54 | 162 | 1490 | 36 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 19 | 2 | 43 | 68 | 10 | 79 | 73 | 1316 | 57 | 172 | 1585 | 38 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 65 | 7 | 142 | 86 | 19 | 151 | 1152 | 2993 | 910 | 184 | 1792 | 556 |
| Arrive On Green | 0.04 | 0.09 | 0.09 | 0.05 | 0.11 | 0.11 | 0.67 | 1.00 | 1.00 | 0.21 | 0.70 | 0.70 |
| Sat Flow, veh/h | 1774 | 70 | 1495 | 1774 | 180 | 1419 | 3442 | 5085 | 1547 | 1774 | 5085 | 1577 |
| Grp Volume(v), veh/h | 19 | 0 | 45 | 68 | 0 | 89 | 73 | 1316 | 57 | 172 | 1585 | 38 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1565 | 1774 | 0 | 1598 | 1721 | 1695 | 1547 | 1774 | 1695 | 1577 |
| Q Serve(g_s), s | 1.5 | 0.0 | 3.9 | 5.5 | 0.0 | 7.6 | 1.1 | 0.0 | 0.0 | 13.8 | 35.4 | 1.1 |
| Cycle Q Clear(g_c), s | 1.5 | 0.0 | 3.9 | 5.5 | 0.0 | 7.6 | 1.1 | 0.0 | 0.0 | 13.8 | 35.4 | 1.1 |
| Prop In Lane | 1.00 | | 0.96 | 1.00 | | 0.89 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 65 | 0 | 148 | 86 | 0 | 170 | 1152 | 2993 | 910 | 184 | 1792 | 556 |
| V/C Ratio(X) | 0.29 | 0.00 | 0.30 | 0.79 | 0.00 | 0.52 | 0.06 | 0.44 | 0.06 | 0.94 | 0.88 | 0.07 |
| Avail Cap(c_a), veh/h | 159 | 0 | 453 | 159 | 0 | 463 | 1152 | 2993 | 910 | 184 | 1792 | 556 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.83 | 0.83 | 0.83 | 0.60 | 0.60 | 0.60 |
| Uniform Delay (d), s/veh | 68.0 | 0.0 | 61.2 | 68.2 | 0.0 | 61.3 | 16.1 | 0.0 | 0.0 | 57.0 | 19.1 | 14.0 |
| Incr Delay (d2), s/veh | 0.9 | 0.0 | 0.4 | 5.9 | 0.0 | 1.8 | 0.0 | 0.4 | 0.1 | 34.8 | 4.3 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 0.0 | 1.7 | 2.8 | 0.0 | 3.5 | 0.5 | 0.1 | 0.0 | 8.5 | 16.7 | 0.5 |
| LnGrp Delay(d),s/veh | 69.0 | 0.0 | 61.6 | 74.2 | 0.0 | 63.1 | 16.1 | 0.4 | 0.1 | 91.8 | 23.3 | 14.2 |
| LnGrp LOS | E | | E | E | | E | B | A | A | F | C | B |
| Approach Vol, veh/h | | 64 | | | 157 | | | 1446 | | | 1795 | |
| Approach Delay, s/veh | | 63.8 | | | 67.9 | | | 1.2 | | | 29.7 | |
| Approach LOS | | E | | | E | | | A | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 20.7 | 91.7 | 12.7 | 19.8 | 54.9 | 57.5 | 11.0 | 21.6 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 15 | 51.1 | 13.0 | * 42 | 15.0 | * 51 | 13.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 15.8 | 2.0 | 7.5 | 5.9 | 3.1 | 37.4 | 3.5 | 9.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 26.1 | 0.0 | 0.2 | 0.1 | 11.4 | 0.0 | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 20.2 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 24 | 1069 | 42 | 34 | 869 | 20 | 17 | 0 | 32 | 18 | 0 | 35 |
| Future Vol, veh/h | 24 | 1069 | 42 | 34 | 869 | 20 | 17 | 0 | 32 | 18 | 0 | 35 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 25 | 1114 | 44 | 35 | 905 | 21 | 18 | 0 | 33 | 19 | 0 | 36 |

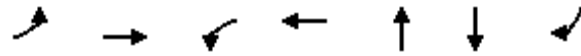
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 931 | 0 | 0 | 1158 | 0 | 0 | 1709 | 2187 | 579 | 1598 | 2199 | 468 |
| Stage 1 | - | - | - | - | - | - | 1186 | 1186 | - | 991 | 991 | - |
| Stage 2 | - | - | - | - | - | - | 523 | 1001 | - | 607 | 1208 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 731 | - | - | 599 | - | - | 59 | 45 | 458 | 71 | 44 | 542 |
| Stage 1 | - | - | - | - | - | - | 200 | 260 | - | 264 | 322 | - |
| Stage 2 | - | - | - | - | - | - | 505 | 319 | - | 450 | 254 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 728 | - | - | 599 | - | - | 46 | 36 | 458 | 55 | 35 | 539 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 46 | 36 | - | 55 | 35 | - |
| Stage 1 | - | - | - | - | - | - | 180 | 235 | - | 237 | 282 | - |
| Stage 2 | - | - | - | - | - | - | 414 | 279 | - | 376 | 229 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|----|--|--|
| HCM Control Delay, s | 0.7 | | | 1 | | | 61.6 | | | 49 | | |
| HCM LOS | F | | | F | | | F | | | E | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 112 | 728 | - | - | 599 | - | - | 135 |
| HCM Lane V/C Ratio | 0.456 | 0.034 | - | - | 0.059 | - | - | 0.409 |
| HCM Control Delay (s) | 61.6 | 10.1 | 0.5 | - | 11.4 | 0.6 | - | 49 |
| HCM Lane LOS | F | B | A | - | B | A | - | E |
| HCM 95th %tile Q(veh) | 2 | 0.1 | - | - | 0.2 | - | - | 1.8 |

Queues
6: Shady St & Caldwell Ave




















5 Year plus Phase 1
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 52 | 926 | 69 | 825 | 70 | 16 | 10 |
| v/c Ratio | 0.19 | 0.33 | 0.23 | 0.29 | 0.23 | 0.05 | 0.03 |
| Control Delay | 37.2 | 15.1 | 36.3 | 14.2 | 23.5 | 29.5 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 37.2 | 15.1 | 36.3 | 14.2 | 23.5 | 29.5 | 0.1 |
| Queue Length 50th (ft) | 16 | 64 | 21 | 54 | 9 | 5 | 0 |
| Queue Length 95th (ft) | 78 | 247 | 97 | 213 | 67 | 27 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 833 | 3678 | 833 | 3697 | 815 | 877 | 825 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.25 | 0.08 | 0.22 | 0.09 | 0.02 | 0.01 |
| Intersection Summary | | | | | | | |

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

5 Year plus Phase 1
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 49 | 852 | 19 | 65 | 763 | 12 | 28 | 1 | 37 | 14 | 1 | 9 |
| Future Volume (veh/h) | 49 | 852 | 19 | 65 | 763 | 12 | 28 | 1 | 37 | 14 | 1 | 9 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 52 | 906 | 20 | 69 | 812 | 13 | 30 | 1 | 39 | 15 | 1 | 10 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 108 | 2206 | 49 | 129 | 2283 | 37 | 52 | 2 | 68 | 65 | 4 | 60 |
| Arrive On Green | 0.06 | 0.43 | 0.43 | 0.07 | 0.44 | 0.44 | 0.07 | 0.07 | 0.07 | 0.04 | 0.04 | 0.04 |
| Sat Flow, veh/h | 1774 | 5117 | 113 | 1774 | 5153 | 82 | 713 | 24 | 927 | 1668 | 111 | 1557 |
| Grp Volume(v), veh/h | 52 | 600 | 326 | 69 | 534 | 291 | 70 | 0 | 0 | 16 | 0 | 10 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1839 | 1774 | 1695 | 1846 | 1664 | 0 | 0 | 1779 | 0 | 1557 |
| Q Serve(g_s), s | 1.5 | 6.4 | 6.4 | 2.0 | 5.4 | 5.4 | 2.1 | 0.0 | 0.0 | 0.5 | 0.0 | 0.3 |
| Cycle Q Clear(g_c), s | 1.5 | 6.4 | 6.4 | 2.0 | 5.4 | 5.4 | 2.1 | 0.0 | 0.0 | 0.5 | 0.0 | 0.3 |
| Prop In Lane | 1.00 | | 0.06 | 1.00 | | 0.04 | 0.43 | | 0.56 | 0.94 | | 1.00 |
| Lane Grp Cap(c), veh/h | 108 | 1462 | 793 | 129 | 1502 | 818 | 122 | 0 | 0 | 69 | 0 | 60 |
| V/C Ratio(X) | 0.48 | 0.41 | 0.41 | 0.53 | 0.36 | 0.36 | 0.57 | 0.00 | 0.00 | 0.23 | 0.00 | 0.17 |
| Avail Cap(c_a), veh/h | 681 | 2604 | 1413 | 681 | 2604 | 1418 | 639 | 0 | 0 | 683 | 0 | 598 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.7 | 10.2 | 10.2 | 23.3 | 9.6 | 9.6 | 23.3 | 0.0 | 0.0 | 24.3 | 0.0 | 24.2 |
| Incr Delay (d2), s/veh | 1.2 | 0.5 | 0.9 | 1.3 | 0.4 | 0.7 | 3.1 | 0.0 | 0.0 | 1.3 | 0.0 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 3.0 | 3.4 | 1.0 | 2.6 | 2.9 | 1.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.2 |
| LnGrp Delay(d),s/veh | 24.9 | 10.7 | 11.2 | 24.6 | 10.0 | 10.3 | 26.5 | 0.0 | 0.0 | 25.5 | 0.0 | 25.2 |
| LnGrp LOS | C | B | B | C | A | B | C | | | C | | C |
| Approach Vol, veh/h | | 978 | | | 894 | | | 70 | | | | 26 |
| Approach Delay, s/veh | | 11.6 | | | 11.2 | | | 26.5 | | | | 25.4 |
| Approach LOS | | B | | | B | | | C | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.8 | 28.5 | | 7.0 | 7.2 | 29.1 | | 8.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.0 | 8.4 | | 2.5 | 3.5 | 7.4 | | 4.1 | | | | |
| Green Ext Time (p_c), s | 0.1 | 14.1 | | 0.0 | 0.0 | 12.5 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 12.2 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

5 Year plus Phase 1
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 284 | 784 | 279 | 511 | 353 | 1135 | 181 | 192 | 1384 | 122 |
| v/c Ratio | 0.53 | 0.68 | 0.78 | 0.57 | 0.75 | 0.53 | 0.25 | 0.66 | 0.74 | 0.19 |
| Control Delay | 60.4 | 47.9 | 77.9 | 51.3 | 54.9 | 25.5 | 12.0 | 84.4 | 15.1 | 1.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 60.4 | 47.9 | 77.9 | 51.3 | 54.9 | 25.5 | 12.0 | 84.4 | 15.1 | 1.3 |
| Queue Length 50th (ft) | 124 | 224 | 133 | 153 | 139 | 122 | 6 | 78 | 272 | 1 |
| Queue Length 95th (ft) | #204 | 245 | #198 | 160 | 191 | 338 | m105 | 111 | #324 | 0 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 535 | 1486 | 377 | 1489 | 473 | 2132 | 724 | 355 | 1860 | 641 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.53 | 0.53 | 0.74 | 0.34 | 0.75 | 0.53 | 0.25 | 0.54 | 0.74 | 0.19 |

Intersection Summary























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

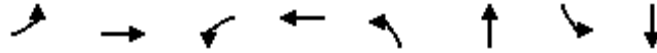
HCM 2010 Signalized Intersection Summary
 7: Mooney Blvd & Caldwell Ave

5 Year plus Phase 1
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 270 | 489 | 256 | 265 | 383 | 103 | 335 | 1078 | 172 | 182 | 1315 | 116 |
| Future Volume (veh/h) | 270 | 489 | 256 | 265 | 383 | 103 | 335 | 1078 | 172 | 182 | 1315 | 116 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 284 | 515 | 269 | 279 | 403 | 108 | 353 | 1135 | 181 | 192 | 1384 | 122 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 541 | 804 | 372 | 324 | 701 | 181 | 695 | 2201 | 684 | 237 | 1501 | 458 |
| Arrive On Green | 0.16 | 0.24 | 0.24 | 0.09 | 0.17 | 0.17 | 0.40 | 0.87 | 0.87 | 0.14 | 0.59 | 0.59 |
| Sat Flow, veh/h | 3442 | 3390 | 1569 | 3442 | 4025 | 1040 | 3442 | 5085 | 1580 | 3442 | 5085 | 1552 |
| Grp Volume(v), veh/h | 284 | 515 | 269 | 279 | 337 | 174 | 353 | 1135 | 181 | 192 | 1384 | 122 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1569 | 1721 | 1695 | 1675 | 1721 | 1695 | 1580 | 1721 | 1695 | 1552 |
| Q Serve(g_s), s | 11.0 | 19.8 | 22.9 | 11.6 | 13.2 | 13.9 | 11.2 | 7.8 | 2.0 | 7.9 | 35.5 | 5.5 |
| Cycle Q Clear(g_c), s | 11.0 | 19.8 | 22.9 | 11.6 | 13.2 | 13.9 | 11.2 | 7.8 | 2.0 | 7.9 | 35.5 | 5.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.62 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 541 | 804 | 372 | 324 | 590 | 292 | 695 | 2201 | 684 | 237 | 1501 | 458 |
| V/C Ratio(X) | 0.53 | 0.64 | 0.72 | 0.86 | 0.57 | 0.60 | 0.51 | 0.52 | 0.26 | 0.81 | 0.92 | 0.27 |
| Avail Cap(c_a), veh/h | 541 | 1005 | 465 | 356 | 1005 | 497 | 695 | 2201 | 684 | 356 | 1501 | 458 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 0.92 | 0.80 | 0.80 | 0.80 | 0.83 | 0.83 | 0.83 |
| Uniform Delay (d), s/veh | 56.1 | 49.8 | 50.9 | 64.7 | 54.9 | 55.2 | 37.8 | 6.0 | 2.7 | 61.6 | 28.2 | 22.1 |
| Incr Delay (d2), s/veh | 0.4 | 1.6 | 5.9 | 15.2 | 1.6 | 3.5 | 0.2 | 0.7 | 0.8 | 3.9 | 9.3 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.3 | 9.5 | 10.5 | 6.2 | 6.3 | 6.7 | 5.3 | 3.6 | 1.1 | 3.8 | 17.6 | 2.5 |
| LnGrp Delay(d),s/veh | 56.6 | 51.4 | 56.8 | 79.9 | 56.5 | 58.7 | 38.0 | 6.7 | 3.4 | 65.5 | 37.5 | 23.2 |
| LnGrp LOS | E | D | E | E | E | E | D | A | A | E | D | C |
| Approach Vol, veh/h | | 1068 | | | 790 | | | 1669 | | | 1698 | |
| Approach Delay, s/veh | | 54.1 | | | 65.2 | | | 13.0 | | | 39.6 | |
| Approach LOS | | D | | | E | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.7 | 69.2 | 19.4 | 40.8 | 35.7 | 49.2 | 28.5 | 31.7 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 15 | 47.8 | 15.0 | * 43 | 20.0 | * 43 | 15.0 | * 43 | | | | |
| Max Q Clear Time (g_c+I1), s | 9.9 | 9.8 | 13.6 | 24.9 | 13.2 | 37.5 | 13.0 | 15.9 | | | | |
| Green Ext Time (p_c), s | 0.1 | 21.1 | 0.1 | 7.7 | 0.4 | 4.7 | 0.1 | 5.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 38.0 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St

5 Year plus Phase 1
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 109 | 798 | 152 | 743 | 82 | 181 | 158 | 104 |
| v/c Ratio | 0.52 | 0.53 | 0.63 | 0.42 | 0.17 | 0.44 | 0.38 | 0.27 |
| Control Delay | 46.0 | 25.6 | 48.6 | 22.5 | 17.6 | 11.0 | 20.3 | 12.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 46.0 | 25.6 | 48.6 | 22.5 | 17.6 | 11.0 | 20.3 | 12.5 |
| Queue Length 50th (ft) | 49 | 106 | 68 | 92 | 25 | 10 | 51 | 10 |
| Queue Length 95th (ft) | 131 | 221 | #176 | 202 | 59 | 64 | 104 | 52 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 344 | 1955 | 344 | 1957 | 588 | 654 | 479 | 607 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.32 | 0.41 | 0.44 | 0.38 | 0.14 | 0.28 | 0.33 | 0.17 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

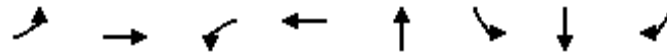
HCM 2010 Signalized Intersection Summary
 8: Caldwell Ave & Fairway St

5 Year plus Phase 1
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 104 | 678 | 80 | 144 | 606 | 100 | 78 | 23 | 149 | 150 | 23 | 76 |
| Future Volume (veh/h) | 104 | 678 | 80 | 144 | 606 | 100 | 78 | 23 | 149 | 150 | 23 | 76 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 1.00 | 0.99 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 109 | 714 | 84 | 152 | 638 | 105 | 82 | 24 | 157 | 158 | 24 | 80 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 149 | 1475 | 172 | 194 | 1524 | 248 | 429 | 35 | 228 | 376 | 72 | 240 |
| Arrive On Green | 0.08 | 0.32 | 0.32 | 0.11 | 0.35 | 0.35 | 0.07 | 0.16 | 0.16 | 0.11 | 0.19 | 0.19 |
| Sat Flow, veh/h | 1774 | 4604 | 537 | 1774 | 4409 | 716 | 1774 | 214 | 1401 | 1774 | 373 | 1242 |
| Grp Volume(v), veh/h | 109 | 524 | 274 | 152 | 489 | 254 | 82 | 0 | 181 | 158 | 0 | 104 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1750 | 1774 | 1695 | 1735 | 1774 | 0 | 1615 | 1774 | 0 | 1615 |
| Q Serve(g_s), s | 3.6 | 7.4 | 7.5 | 5.0 | 6.6 | 6.7 | 2.2 | 0.0 | 6.3 | 4.2 | 0.0 | 3.3 |
| Cycle Q Clear(g_c), s | 3.6 | 7.4 | 7.5 | 5.0 | 6.6 | 6.7 | 2.2 | 0.0 | 6.3 | 4.2 | 0.0 | 3.3 |
| Prop In Lane | 1.00 | | 0.31 | 1.00 | | 0.41 | 1.00 | | 0.87 | 1.00 | | 0.77 |
| Lane Grp Cap(c), veh/h | 149 | 1086 | 561 | 194 | 1172 | 600 | 429 | 0 | 263 | 376 | 0 | 311 |
| V/C Ratio(X) | 0.73 | 0.48 | 0.49 | 0.78 | 0.42 | 0.42 | 0.19 | 0.00 | 0.69 | 0.42 | 0.00 | 0.33 |
| Avail Cap(c_a), veh/h | 447 | 1709 | 883 | 447 | 1709 | 875 | 744 | 0 | 679 | 636 | 0 | 651 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.6 | 16.2 | 16.3 | 25.8 | 14.9 | 14.9 | 18.2 | 0.0 | 23.5 | 17.4 | 0.0 | 20.7 |
| Incr Delay (d2), s/veh | 2.6 | 0.9 | 1.8 | 2.6 | 0.7 | 1.3 | 0.5 | 0.0 | 8.6 | 1.6 | 0.0 | 1.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.9 | 3.6 | 3.9 | 2.5 | 3.2 | 3.4 | 1.1 | 0.0 | 3.4 | 2.2 | 0.0 | 1.6 |
| LnGrp Delay(d),s/veh | 29.1 | 17.2 | 18.1 | 28.4 | 15.5 | 16.2 | 18.6 | 0.0 | 32.1 | 19.0 | 0.0 | 22.4 |
| LnGrp LOS | C | B | B | C | B | B | B | | C | B | | C |
| Approach Vol, veh/h | | 907 | | | 895 | | | 263 | | | 262 | |
| Approach Delay, s/veh | | 18.9 | | | 17.9 | | | 27.9 | | | 20.3 | |
| Approach LOS | | B | | | B | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.5 | 25.1 | 9.3 | 14.7 | 9.0 | 26.6 | 7.5 | 16.5 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 30.0 | 15.0 | 25.0 | 15.0 | 30.0 | 15.0 | 24.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.0 | 9.5 | 6.2 | 8.3 | 5.6 | 8.7 | 4.2 | 5.3 | | | | |
| Green Ext Time (p_c), s | 0.1 | 9.6 | 0.6 | 1.9 | 0.1 | 9.1 | 0.3 | 1.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 19.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave





















5 Year plus Phase 1
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 63 | 998 | 4 | 839 | 22 | 28 | 1 | 43 |
| v/c Ratio | 0.22 | 0.37 | 0.02 | 0.35 | 0.07 | 0.07 | 0.00 | 0.10 |
| Control Delay | 27.6 | 5.5 | 29.0 | 8.8 | 23.1 | 25.1 | 25.0 | 3.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 27.6 | 5.5 | 29.0 | 8.8 | 23.1 | 25.1 | 25.0 | 3.0 |
| Queue Length 50th (ft) | 21 | 76 | 1 | 102 | 5 | 8 | 0 | 0 |
| Queue Length 95th (ft) | 61 | 178 | 10 | 163 | 26 | 33 | 5 | 11 |
| Internal Link Dist (ft) | | 1064 | | 2597 | 260 | | 519 | |
| Turn Bay Length (ft) | 235 | | 300 | | | | | 200 |
| Base Capacity (vph) | 863 | 2769 | 863 | 2722 | 687 | 757 | 909 | 813 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.36 | 0.00 | 0.31 | 0.03 | 0.04 | 0.00 | 0.05 |
| Intersection Summary | | | | | | | | |

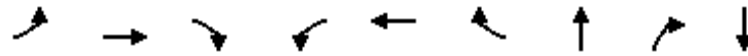
HCM 2010 Signalized Intersection Summary
 9: Stonebrook St & Caldwell Ave

5 Year plus Phase 1
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  |  |
| Traffic Volume (veh/h) | 58 | 909 | 9 | 4 | 745 | 27 | 16 | 1 | 4 | 26 | 1 | 40 |
| Future Volume (veh/h) | 58 | 909 | 9 | 4 | 745 | 27 | 16 | 1 | 4 | 26 | 1 | 40 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 63 | 988 | 10 | 4 | 810 | 29 | 17 | 1 | 4 | 28 | 1 | 43 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 125 | 1955 | 20 | 12 | 1675 | 60 | 275 | 26 | 38 | 355 | 273 | 232 |
| Arrive On Green | 0.07 | 0.54 | 0.54 | 0.01 | 0.48 | 0.48 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| Sat Flow, veh/h | 1774 | 3589 | 36 | 1774 | 3482 | 125 | 1000 | 178 | 262 | 1405 | 1863 | 1583 |
| Grp Volume(v), veh/h | 63 | 487 | 511 | 4 | 412 | 427 | 22 | 0 | 0 | 28 | 1 | 43 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1855 | 1774 | 1770 | 1837 | 1439 | 0 | 0 | 1405 | 1863 | 1583 |
| Q Serve(g_s), s | 1.7 | 8.6 | 8.6 | 0.1 | 7.8 | 7.8 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 1.2 |
| Cycle Q Clear(g_c), s | 1.7 | 8.6 | 8.6 | 0.1 | 7.8 | 7.8 | 0.5 | 0.0 | 0.0 | 0.7 | 0.0 | 1.2 |
| Prop In Lane | 1.00 | | 0.02 | 1.00 | | 0.07 | 0.77 | | 0.18 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 125 | 964 | 1011 | 12 | 851 | 884 | 339 | 0 | 0 | 355 | 273 | 232 |
| V/C Ratio(X) | 0.51 | 0.51 | 0.51 | 0.35 | 0.48 | 0.48 | 0.06 | 0.00 | 0.00 | 0.08 | 0.00 | 0.19 |
| Avail Cap(c_a), veh/h | 715 | 1427 | 1496 | 715 | 1427 | 1482 | 701 | 0 | 0 | 716 | 751 | 638 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.2 | 7.1 | 7.1 | 24.5 | 8.7 | 8.7 | 18.3 | 0.0 | 0.0 | 18.4 | 18.1 | 18.6 |
| Incr Delay (d2), s/veh | 1.2 | 1.5 | 1.4 | 6.5 | 1.5 | 1.5 | 0.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 4.5 | 4.7 | 0.1 | 4.1 | 4.3 | 0.3 | 0.0 | 0.0 | 0.4 | 0.0 | 0.6 |
| LnGrp Delay(d),s/veh | 23.4 | 8.6 | 8.5 | 31.1 | 10.3 | 10.2 | 18.5 | 0.0 | 0.0 | 18.6 | 18.1 | 19.4 |
| LnGrp LOS | C | A | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 1061 | | | 843 | | | 22 | | | 72 | |
| Approach Delay, s/veh | | 9.4 | | | 10.3 | | | 18.5 | | | 19.1 | |
| Approach LOS | | A | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.3 | 33.0 | | 12.3 | 7.5 | 29.9 | | 12.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 40.0 | | 20.0 | 20.0 | 40.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.1 | 10.6 | | 2.5 | 3.7 | 9.8 | | 3.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 16.4 | | 0.1 | 0.0 | 13.2 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 10.3 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
10: West St/West & Caldwell Ave






















5 Year plus Phase 1
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 125 | 727 | 54 | 105 | 684 | 54 | 202 | 39 | 236 |
| v/c Ratio | 0.46 | 0.51 | 0.08 | 0.42 | 0.49 | 0.08 | 0.50 | 0.09 | 0.56 |
| Control Delay | 34.9 | 16.6 | 2.4 | 34.9 | 17.0 | 2.5 | 29.2 | 0.4 | 27.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.9 | 16.6 | 2.4 | 34.9 | 17.0 | 2.5 | 29.2 | 0.4 | 27.0 |
| Queue Length 50th (ft) | 47 | 111 | 0 | 39 | 105 | 0 | 70 | 0 | 71 |
| Queue Length 95th (ft) | 113 | 193 | 13 | 100 | 186 | 14 | 162 | 0 | 170 |
| Internal Link Dist (ft) | | 2597 | | | 1242 | | 359 | | 327 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 457 | 2144 | 989 | 457 | 2133 | 985 | 583 | 608 | 594 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.27 | 0.34 | 0.05 | 0.23 | 0.32 | 0.05 | 0.35 | 0.06 | 0.40 |
| Intersection Summary | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 10: West St/West & Caldwell Ave

5 Year plus Phase 1
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  | |
| Traffic Volume (veh/h) | 115 | 669 | 50 | 97 | 629 | 50 | 34 | 152 | 36 | 27 | 111 | 79 |
| Future Volume (veh/h) | 115 | 669 | 50 | 97 | 629 | 50 | 34 | 152 | 36 | 27 | 111 | 79 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 125 | 727 | 54 | 105 | 684 | 54 | 37 | 165 | 39 | 29 | 121 | 86 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 170 | 1441 | 645 | 159 | 1419 | 635 | 122 | 330 | 327 | 99 | 189 | 121 |
| Arrive On Green | 0.10 | 0.41 | 0.41 | 0.09 | 0.40 | 0.40 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1583 | 198 | 1599 | 1583 | 107 | 916 | 587 |
| Grp Volume(v), veh/h | 125 | 727 | 54 | 105 | 684 | 54 | 202 | 0 | 39 | 236 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1583 | 1797 | 0 | 1583 | 1610 | 0 | 0 |
| Q Serve(g_s), s | 3.6 | 8.0 | 1.1 | 3.0 | 7.5 | 1.1 | 0.0 | 0.0 | 1.0 | 2.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.6 | 8.0 | 1.1 | 3.0 | 7.5 | 1.1 | 5.1 | 0.0 | 1.0 | 7.2 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.18 | | 1.00 | 0.12 | | 0.36 |
| Lane Grp Cap(c), veh/h | 170 | 1441 | 645 | 159 | 1419 | 635 | 453 | 0 | 327 | 410 | 0 | 0 |
| V/C Ratio(X) | 0.73 | 0.50 | 0.08 | 0.66 | 0.48 | 0.09 | 0.45 | 0.00 | 0.12 | 0.58 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 509 | 2369 | 1060 | 509 | 2369 | 1060 | 748 | 0 | 606 | 698 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 23.0 | 11.6 | 9.5 | 23.0 | 11.6 | 9.7 | 18.5 | 0.0 | 16.9 | 19.2 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 2.3 | 1.0 | 0.2 | 1.7 | 0.9 | 0.2 | 1.5 | 0.0 | 0.3 | 2.7 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.8 | 4.0 | 0.5 | 1.5 | 3.8 | 0.5 | 2.8 | 0.0 | 0.5 | 3.5 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 25.3 | 12.6 | 9.7 | 24.8 | 12.6 | 9.9 | 19.9 | 0.0 | 17.2 | 21.9 | 0.0 | 0.0 |
| LnGrp LOS | C | B | A | C | B | A | B | | B | C | | |
| Approach Vol, veh/h | | 906 | | | 843 | | | 241 | | | 236 | |
| Approach Delay, s/veh | | 14.1 | | | 13.9 | | | 19.5 | | | 21.9 | |
| Approach LOS | | B | | | B | | | B | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.7 | 27.8 | | 15.8 | 9.0 | 27.5 | | 15.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 35.0 | | 20.0 | 15.0 | 35.0 | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.0 | 10.0 | | 7.1 | 5.6 | 9.5 | | 9.2 | | | | |
| Green Ext Time (p_c), s | 0.1 | 11.3 | | 1.8 | 0.1 | 10.7 | | 1.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 15.5 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.9 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | ↘ | ↗ | ↑ | ↗ | ↘ | ↑ |
| Traffic Vol, veh/h | 61 | 289 | 264 | 35 | 304 | 197 |
| Future Vol, veh/h | 61 | 289 | 264 | 35 | 304 | 197 |
| Conflicting Peds, #/hr | 0 | 1 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 100 | - | 160 | 145 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 66 | 311 | 284 | 38 | 327 | 212 |

| Major/Minor | Minor1 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|-------|---|
| Conflicting Flow All | 1150 | 285 | 0 | 0 | 322 | 0 |
| Stage 1 | 284 | - | - | - | - | - |
| Stage 2 | 866 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 219 | 754 | - | - | 1238 | - |
| Stage 1 | 764 | - | - | - | - | - |
| Stage 2 | 412 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 161 | 753 | - | - | 1238 | - |
| Mov Cap-2 Maneuver | 252 | - | - | - | - | - |
| Stage 1 | 764 | - | - | - | - | - |
| Stage 2 | 303 | - | - | - | - | - |

| Approach | WB | NB | SB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 15 | 0 | 5.4 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | WBLn2 | SBL | SBT |
|-----------------------|-----|----------|-------|-------|-------|
| Capacity (veh/h) | - | - | 252 | 753 | 1238 |
| HCM Lane V/C Ratio | - | - | 0.26 | 0.413 | 0.264 |
| HCM Control Delay (s) | - | - | 24.2 | 13.1 | 8.9 |
| HCM Lane LOS | - | - | C | B | A |
| HCM 95th %tile Q(veh) | - | - | 1 | 2 | 1.1 |

Queues
12: Mooney Blvd & Cameron Ave

5 Year plus Phase 1
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|------|-------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 187 | 350 | 176 | 394 | 81 | 1188 | 160 | 332 | 1303 | 153 |
| v/c Ratio | 0.73 | 0.54 | 0.96 | 0.61 | 0.29 | 0.55 | 0.21 | 0.80 | 0.55 | 0.19 |
| Control Delay | 75.7 | 53.0 | 120.9 | 27.1 | 87.9 | 56.2 | 22.3 | 91.6 | 13.4 | 1.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 75.7 | 53.0 | 120.9 | 27.1 | 87.9 | 56.2 | 22.3 | 91.6 | 13.4 | 1.4 |
| Queue Length 50th (ft) | 169 | 154 | 168 | 81 | 39 | 405 | 63 | 147 | 87 | 0 |
| Queue Length 95th (ft) | m#348 | m174 | #324 | 108 | m35 | m357 | m44 | 221 | 257 | m20 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 257 | 1055 | 183 | 1131 | 284 | 2164 | 753 | 455 | 2356 | 810 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.73 | 0.33 | 0.96 | 0.35 | 0.29 | 0.55 | 0.21 | 0.73 | 0.55 | 0.19 |

Intersection Summary























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

5 Year plus Phase 1
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 183 | 284 | 59 | 172 | 167 | 220 | 79 | 1164 | 157 | 325 | 1277 | 150 |
| Future Volume (veh/h) | 183 | 284 | 59 | 172 | 167 | 220 | 79 | 1164 | 157 | 325 | 1277 | 150 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 187 | 290 | 60 | 176 | 170 | 224 | 81 | 1188 | 160 | 332 | 1303 | 153 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 184 | 560 | 114 | 184 | 330 | 294 | 654 | 2184 | 679 | 375 | 1747 | 543 |
| Arrive On Green | 0.10 | 0.19 | 0.19 | 0.10 | 0.19 | 0.19 | 0.38 | 0.86 | 0.86 | 0.22 | 0.69 | 0.69 |
| Sat Flow, veh/h | 1774 | 2929 | 597 | 1774 | 1770 | 1578 | 3442 | 5085 | 1580 | 3442 | 5085 | 1581 |
| Grp Volume(v), veh/h | 187 | 174 | 176 | 176 | 170 | 224 | 81 | 1188 | 160 | 332 | 1303 | 153 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1756 | 1774 | 1770 | 1578 | 1721 | 1695 | 1580 | 1721 | 1695 | 1581 |
| Q Serve(g_s), s | 15.0 | 12.8 | 13.1 | 14.3 | 12.5 | 19.5 | 2.2 | 9.0 | 2.6 | 13.6 | 23.9 | 5.4 |
| Cycle Q Clear(g_c), s | 15.0 | 12.8 | 13.1 | 14.3 | 12.5 | 19.5 | 2.2 | 9.0 | 2.6 | 13.6 | 23.9 | 5.4 |
| Prop In Lane | 1.00 | | 0.34 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 184 | 338 | 336 | 184 | 330 | 294 | 654 | 2184 | 679 | 375 | 1747 | 543 |
| V/C Ratio(X) | 1.02 | 0.51 | 0.53 | 0.96 | 0.52 | 0.76 | 0.12 | 0.54 | 0.24 | 0.89 | 0.75 | 0.28 |
| Avail Cap(c_a), veh/h | 184 | 537 | 533 | 184 | 537 | 479 | 654 | 2184 | 679 | 451 | 1747 | 543 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.09 | 0.09 | 0.09 | 0.58 | 0.58 | 0.58 |
| Uniform Delay (d), s/veh | 65.0 | 52.6 | 52.7 | 64.7 | 53.1 | 55.9 | 37.1 | 6.5 | 6.0 | 55.8 | 18.6 | 15.8 |
| Incr Delay (d2), s/veh | 71.5 | 2.2 | 2.4 | 54.0 | 2.9 | 9.2 | 0.0 | 0.1 | 0.1 | 9.4 | 1.7 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 11.0 | 6.4 | 6.6 | 9.8 | 6.4 | 9.3 | 1.0 | 3.9 | 1.1 | 6.9 | 11.3 | 2.5 |
| LnGrp Delay(d),s/veh | 136.6 | 54.8 | 55.1 | 118.7 | 56.0 | 65.1 | 37.1 | 6.6 | 6.1 | 65.2 | 20.4 | 16.5 |
| LnGrp LOS | F | D | E | F | E | E | D | A | A | E | C | B |
| Approach Vol, veh/h | | 537 | | | 570 | | | 1429 | | | 1788 | |
| Approach Delay, s/veh | | 83.4 | | | 78.9 | | | 8.2 | | | 28.4 | |
| Approach LOS | | F | | | E | | | A | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 21.5 | 68.7 | 20.7 | 34.1 | 34.0 | 56.2 | 21.4 | 33.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | 6.4 | 6.4 | * 6.4 | 6.4 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 19 | 42.8 | * 15 | 44.0 | 12.0 | * 50 | 15.0 | * 44 | | | | |
| Max Q Clear Time (g_c+I1), s | 15.6 | 11.0 | 16.3 | 15.1 | 4.2 | 25.9 | 17.0 | 21.5 | | | | |
| Green Ext Time (p_c), s | 0.2 | 25.0 | 0.0 | 3.6 | 0.1 | 20.5 | 0.0 | 4.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 35.2 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 9.2 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 649 | 39 | 274 | 577 | 12 | 353 |
| Future Vol, veh/h | 649 | 39 | 274 | 577 | 12 | 353 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 145 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 669 | 40 | 282 | 595 | 12 | 364 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 0 | 0 | 709 | 0 | 1848 689 |
| Stage 1 | - | - | - | - | 689 - |
| Stage 2 | - | - | - | - | 1159 - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | - | - | 890 | - | 82 446 |
| Stage 1 | - | - | - | - | 498 - |
| Stage 2 | - | - | - | - | 299 - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 890 | - | 43 446 |
| Mov Cap-2 Maneuver | - | - | - | - | 123 - |
| Stage 1 | - | - | - | - | 498 - |
| Stage 2 | - | - | - | - | 158 - |

| Approach | EB | WB | NB |
|----------------------|----|-----|----|
| HCM Control Delay, s | 0 | 3.5 | 40 |
| HCM LOS | | | E |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 123 | 446 | - | - | 890 | - |
| HCM Lane V/C Ratio | 0.101 | 0.816 | - | - | 0.317 | - |
| HCM Control Delay (s) | 37.5 | 40.1 | - | - | 10.9 | 0 |
| HCM Lane LOS | E | E | - | - | B | A |
| HCM 95th %tile Q(veh) | 0.3 | 7.6 | - | - | 1.4 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 185 | 735 | 20 | 10 | 579 | 9 | 11 | 6 | 3 | 6 | 7 | 200 |
| Future Vol, veh/h | 185 | 735 | 20 | 10 | 579 | 9 | 11 | 6 | 3 | 6 | 7 | 200 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 191 | 758 | 21 | 10 | 597 | 9 | 11 | 6 | 3 | 6 | 7 | 206 |

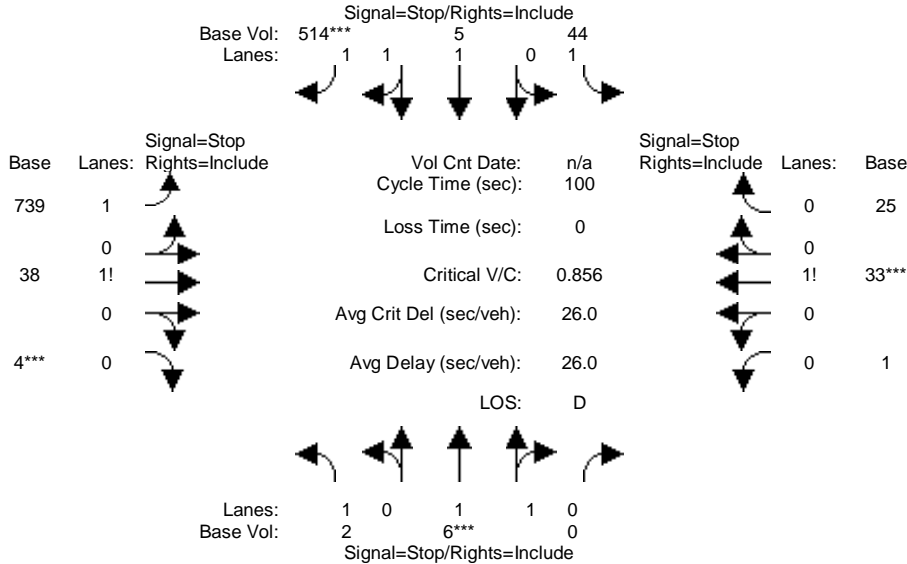
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 606 | 0 | 0 | 779 | 0 | 0 | 1879 | 1777 | 769 | 1777 | 1783 | 602 |
| Stage 1 | - | - | - | - | - | - | 1151 | 1151 | - | 622 | 622 | - |
| Stage 2 | - | - | - | - | - | - | 728 | 626 | - | 1155 | 1161 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 972 | - | - | 838 | - | - | 54 | 82 | 401 | 64 | 82 | 500 |
| Stage 1 | - | - | - | - | - | - | 241 | 272 | - | 474 | 479 | - |
| Stage 2 | - | - | - | - | - | - | 415 | 477 | - | 240 | 270 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 972 | - | - | 838 | - | - | 25 | 65 | 401 | 50 | 65 | 500 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 25 | 65 | - | 50 | 65 | - |
| Stage 1 | - | - | - | - | - | - | 194 | 218 | - | 381 | 473 | - |
| Stage 2 | - | - | - | - | - | - | 237 | 471 | - | 186 | 217 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|-------|--|--|------|--|--|
| HCM Control Delay, s | 1.9 | | | 0.2 | | | 187.9 | | | 24.9 | | |
| HCM LOS | | | | | | | F | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|-------|
| Capacity (veh/h) | 37 | 972 | - | - | 838 | - | - | 50 | 408 |
| HCM Lane V/C Ratio | 0.557 | 0.196 | - | - | 0.012 | - | - | 0.124 | 0.523 |
| HCM Control Delay (s) | 187.9 | 9.6 | - | - | 9.3 | - | - | 86.9 | 23.1 |
| HCM Lane LOS | F | A | - | - | A | - | - | F | C |
| HCM 95th %tile Q(veh) | 1.9 | 0.7 | - | - | 0 | - | - | 0.4 | 2.9 |

Level Of Service Computation Report
 2000 HCM 4-Way Stop (Base Volume Alternative)
 5 Year plus Phase 1 PM

Intersection #1: Cameron Ave/Court St



| Street Name: | Court St | | | | | | Cameron Ave | | | | | |
|--|-------------|------|------|-------------|------|------|-------------|------|------|------------|------|------|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 2 | 6 | 0 | 44 | 5 | 514 | 739 | 38 | 4 | 1 | 33 | 25 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 2 | 6 | 0 | 44 | 5 | 514 | 739 | 38 | 4 | 1 | 33 | 25 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| PHF Volume: | 2 | 7 | 0 | 48 | 5 | 559 | 803 | 41 | 4 | 1 | 36 | 27 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 2 | 7 | 0 | 48 | 5 | 559 | 803 | 41 | 4 | 1 | 36 | 27 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 2 | 7 | 0 | 48 | 5 | 559 | 803 | 41 | 4 | 1 | 36 | 27 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 1.89 | 0.10 | 0.01 | 0.02 | 0.56 | 0.42 |
| Final Sat.: | 373 | 788 | 0 | 460 | 491 | 1092 | 1465 | -447 | 5 | 9 | 289 | 219 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.01 | xxxx | 0.10 | 0.01 | 0.51 | 0.55-0.09 | 0.86 | 0.12 | 0.12 | 0.12 | 0.12 |
| Crit Moves: | **** | | | | | **** | | **** | | **** | | |
| Delay/Veh: | 11.7 | 11.2 | 0.0 | 11.2 | 9.9 | 15.5 | 36.4 | 39.0 | 39.0 | 10.7 | 10.7 | 10.7 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 11.7 | 11.2 | 0.0 | 11.2 | 9.9 | 15.5 | 36.4 | 39.0 | 39.0 | 10.7 | 10.7 | 10.7 |
| LOS by Move: | B | B | * | B | A | C | E | E | E | B | B | B |
| ApproachDel: | | 11.4 | | | 15.1 | | | 35.2 | | | 10.7 | |
| Delay Adj: | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | |
| ApprAdjDel: | | 11.4 | | | 15.1 | | | 35.2 | | | 10.7 | |
| LOS by Appr: | | B | | | C | | | E | | | B | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 1.0 | 4.0 | 4.0 | 4.0 | 0.1 | 0.1 | 0.1 |
| Note: Queue reported is the number of cars per lane. | | | | | | | | | | | | |
| Time Period: | 0.25 hour | | | | | | | | | | | |
| HevVeh: | 0% | | | 0% | | | 0% | | | 0% | | |
| Alpha Value: | 0.01 | | | | | | | | | | | |
| GroupType: | 6 | | | 6 | | | 5 | | | 4B | | |

| | | | | |
|-----------|--------|--------|--------|--------|
| P[C1]: | 0.01 | 0.03 | 0.19 | 0.01 |
| P[C2]: | 0.02 | 0.00 | 0.03 | 0.21 |
| P[C3]: | 0.19 | 0.84 | 0.67 | 0.02 |
| P[C4]: | 0.69 | 0.13 | 0.11 | 0.74 |
| P[C5]: | 0.09 | 0.00 | 0.00 | 0.02 |
| Padj[C1]: | 0.028 | 0.021 | 0.017 | 0.026 |
| Padj[C2]: | 0.018 | 0.011 | 0.009 | 0.013 |
| Padj[C3]: | 0.003 | -0.024 | -0.019 | 0.007 |
| Padj[C4]: | -0.041 | -0.008 | -0.006 | -0.045 |
| Padj[C5]: | -0.009 | -0.000 | -0.000 | -0.002 |

| Lanes: | L1 | L2 | L1 | L2 | L1 | L2 | L1 | L2 |
|--------------|-------|--------|-------|--------|-------|-------|--------|---------|
| LaneType: | LEFT | RTTHRU | LEFT | RITE | LEFT | LTR | LTR | NOLANE |
| HeadwayAdj: | 0.500 | 0.000 | 0.500 | -0.700 | 0.500 | 0.939 | -0.251 | xx.xxx |
| Volume: | 2 | 3 | 48 | 279 | 424 | 424 | 64 | xxxxxxx |
| Capacity: | 373 | 394 | 460 | 546 | 527 | 496 | 517 | xxxxxx |
| DegOfUtil: | 0.01 | 0.01 | 0.10 | 0.50 | 0.80 | 0.85 | 0.12 | x.xx |
| DepHeadway: | 8.97 | 8.47 | 7.65 | 6.45 | 6.79 | 7.23 | 6.74 | xx.xx |
| ServiceTime: | 6.7 | 6.2 | 5.4 | 4.2 | 4.5 | 4.9 | 4.7 | xx.x |
| Delay: | 11.7 | 11.2 | 11.2 | 15.5 | 31.4 | 39.0 | 10.7 | xxx.x |
| Queue: | 0.0 | 0.0 | 0.1 | 1.0 | 3.2 | 4.0 | 0.1 | xxx.x |

| Lanes: | L3 | L4 | L3 | L4 | L3 | L4 | L3 | L4 |
|--------------|-------|--------|--------|-------|---------|---------|---------|---------|
| LaneType: | THRU | NOLANE | RTTHRU | THRU | NOLANE | NOLANE | NOLANE | NOLANE |
| HeadwayAdj: | 0.000 | xx.xxx | -0.700 | 0.000 | xx.xxx | xx.xxx | xx.xxx | xx.xxx |
| Volume: | 3 | xxxxxx | 279 | 5 | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| Capacity: | 394 | xxxxxx | 546 | 491 | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| DegOfUtil: | 0.01 | x.xx | 0.50 | 0.01 | x.xx | x.xx | x.xx | x.xx |
| DepHeadway: | 8.47 | xx.xx | 6.45 | 7.15 | xx.xx | xx.xx | xx.xx | xx.xx |
| ServiceTime: | 6.2 | xx.x | 4.2 | 4.9 | xx.x | xx.x | xx.x | xx.x |
| Delay: | 11.2 | xxx.x | 15.5 | 9.9 | xxx.x | xxx.x | xxx.x | xxx.x |
| Queue: | 0.0 | xxx.x | 1.0 | 0.0 | xxx.x | xxx.x | xxx.x | xxx.x |

| Approach: | North Bound | South Bound | East Bound | West Bound |
|--------------|-------------|-------------|------------|------------|
| ApproachDel: | 11.4 | 15.1 | 35.2 | 10.7 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 |
| ApprAdjDel: | 11.4 | 15.1 | 35.2 | 10.7 |
| LOS by Appr: | B | C | E | B |
| OverallDel: | 26.0 | | | |
| OverallLOS: | D | | | |

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #1 Cameron Ave/Court St

Base Volume Alternative: Peak Hour Warrant Met

| Approach: | North Bound | South Bound | East Bound | West Bound |
|----------------------------------|-------------|-------------|------------|------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Control: | Stop Sign | Stop Sign | Stop Sign | Stop Sign |
| Lanes: | 1 0 1 1 0 | 1 0 1 1 1 | 1 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 2 6 0 | 44 5 514 | 739 38 4 | 1 33 25 |
| Major Street Volume: | 840 | | | |
| Minor Approach Volume: | 563 | | | |
| Minor Approach Volume Threshold: | 449 | | | |

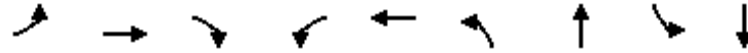
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Queues
16: Demaree St & Visalia Pkwy

5 Year plus Phase 1
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 20 | 328 | 59 | 83 | 499 | 71 | 692 | 183 | 601 |
| v/c Ratio | 0.15 | 0.75 | 0.13 | 0.45 | 0.45 | 0.41 | 0.66 | 0.70 | 0.45 |
| Control Delay | 45.5 | 46.5 | 0.6 | 47.9 | 20.5 | 47.6 | 28.9 | 53.2 | 22.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.5 | 46.5 | 0.6 | 47.9 | 20.5 | 47.6 | 28.9 | 53.2 | 22.7 |
| Queue Length 50th (ft) | 11 | 176 | 0 | 45 | 76 | 39 | 170 | 99 | 133 |
| Queue Length 95th (ft) | 37 | #377 | 0 | 99 | 163 | 88 | 246 | #213 | 207 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 775 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 324 | 455 | 484 | 324 | 1149 | 324 | 1465 | 324 | 1499 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.72 | 0.12 | 0.26 | 0.43 | 0.22 | 0.47 | 0.56 | 0.40 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

5 Year plus Phase 1
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 19 | 312 | 56 | 79 | 285 | 189 | 67 | 506 | 151 | 174 | 518 | 53 |
| Future Volume (veh/h) | 19 | 312 | 56 | 79 | 285 | 189 | 67 | 506 | 151 | 174 | 518 | 53 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 20 | 328 | 59 | 83 | 300 | 199 | 71 | 533 | 159 | 183 | 545 | 56 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 49 | 413 | 351 | 120 | 539 | 347 | 113 | 793 | 236 | 225 | 1159 | 119 |
| Arrive On Green | 0.03 | 0.22 | 0.22 | 0.07 | 0.26 | 0.26 | 0.06 | 0.29 | 0.29 | 0.13 | 0.36 | 0.36 |
| Sat Flow, veh/h | 1774 | 1863 | 1583 | 1774 | 2054 | 1324 | 1774 | 2692 | 800 | 1774 | 3241 | 332 |
| Grp Volume(v), veh/h | 20 | 328 | 59 | 83 | 257 | 242 | 71 | 350 | 342 | 183 | 297 | 304 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1583 | 1774 | 1770 | 1609 | 1774 | 1770 | 1722 | 1774 | 1770 | 1804 |
| Q Serve(g_s), s | 0.8 | 11.9 | 2.1 | 3.3 | 8.9 | 9.3 | 2.8 | 12.4 | 12.5 | 7.2 | 9.2 | 9.3 |
| Cycle Q Clear(g_c), s | 0.8 | 11.9 | 2.1 | 3.3 | 8.9 | 9.3 | 2.8 | 12.4 | 12.5 | 7.2 | 9.2 | 9.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.82 | 1.00 | | 0.46 | 1.00 | | 0.18 |
| Lane Grp Cap(c), veh/h | 49 | 413 | 351 | 120 | 464 | 422 | 113 | 521 | 507 | 225 | 633 | 645 |
| V/C Ratio(X) | 0.41 | 0.79 | 0.17 | 0.69 | 0.55 | 0.57 | 0.63 | 0.67 | 0.68 | 0.81 | 0.47 | 0.47 |
| Avail Cap(c_a), veh/h | 373 | 523 | 444 | 373 | 497 | 451 | 373 | 857 | 833 | 373 | 857 | 873 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.1 | 26.2 | 22.4 | 32.5 | 22.7 | 22.8 | 32.6 | 22.1 | 22.1 | 30.3 | 17.7 | 17.7 |
| Incr Delay (d2), s/veh | 2.0 | 11.2 | 0.7 | 2.6 | 3.2 | 3.9 | 2.2 | 2.9 | 3.0 | 2.7 | 1.1 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 7.4 | 1.0 | 1.7 | 4.8 | 4.5 | 1.4 | 6.4 | 6.3 | 3.7 | 4.6 | 4.7 |
| LnGrp Delay(d),s/veh | 36.1 | 37.4 | 23.1 | 35.1 | 25.9 | 26.7 | 34.7 | 25.0 | 25.2 | 33.0 | 18.7 | 18.7 |
| LnGrp LOS | D | D | C | D | C | C | C | C | C | C | B | B |
| Approach Vol, veh/h | | 407 | | | 582 | | | 763 | | | 784 | |
| Approach Delay, s/veh | | 35.3 | | | 27.5 | | | 26.0 | | | 22.1 | |
| Approach LOS | | D | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.2 | 28.0 | 9.0 | 21.0 | 8.7 | 32.5 | 6.2 | 23.9 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 15 | 34.5 | * 15 | 20.0 | * 15 | 34.5 | * 15 | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 9.2 | 14.5 | 5.3 | 13.9 | 4.8 | 11.3 | 2.8 | 11.3 | | | | |
| Green Ext Time (p_c), s | 0.1 | 6.5 | 0.1 | 2.0 | 0.0 | 6.0 | 0.0 | 3.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 26.6 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 29 | 553 | 4 | 6 | 565 | 45 | 2 | 0 | 1 | 48 | 1 | 40 |
| Future Vol, veh/h | 29 | 553 | 4 | 6 | 565 | 45 | 2 | 0 | 1 | 48 | 1 | 40 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 32 | 601 | 4 | 7 | 614 | 49 | 2 | 0 | 1 | 52 | 1 | 43 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 663 | 0 | 0 | 605 | 0 | 0 | 1342 | 1344 | 603 | 1321 | 1322 | 639 |
| Stage 1 | - | - | - | - | - | - | 667 | 667 | - | 653 | 653 | - |
| Stage 2 | - | - | - | - | - | - | 675 | 677 | - | 668 | 669 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 926 | - | - | 973 | - | - | 129 | 152 | 499 | 134 | 156 | 476 |
| Stage 1 | - | - | - | - | - | - | 448 | 457 | - | 456 | 464 | - |
| Stage 2 | - | - | - | - | - | - | 444 | 452 | - | 448 | 456 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 926 | - | - | 973 | - | - | 113 | 146 | 499 | 129 | 149 | 476 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 113 | 146 | - | 129 | 149 | - |
| Stage 1 | - | - | - | - | - | - | 432 | 441 | - | 440 | 461 | - |
| Stage 2 | - | - | - | - | - | - | 400 | 449 | - | 432 | 440 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.4 | | | 0.1 | | | 29.2 | | | 41.4 | | |
| HCM LOS | | | | | | | D | | | E | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 152 | 926 | - | - | 973 | - | - | 192 |
| HCM Lane V/C Ratio | 0.021 | 0.034 | - | - | 0.007 | - | - | 0.504 |
| HCM Control Delay (s) | 29.2 | 9 | - | - | 8.7 | - | - | 41.4 |
| HCM Lane LOS | D | A | - | - | A | - | - | E |
| HCM 95th %tile Q(veh) | 0.1 | 0.1 | - | - | 0 | - | - | 2.5 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 22.1 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↘ | ↑ | ↗ | | ↘ | ↗ |
| Traffic Vol, veh/h | 105 | 498 | 513 | 200 | 144 | 112 |
| Future Vol, veh/h | 105 | 498 | 513 | 200 | 144 | 112 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 114 | 541 | 558 | 217 | 157 | 122 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 775 | 0 | - | 0 | 1436 667 |
| Stage 1 | - | - | - | - | 667 - |
| Stage 2 | - | - | - | - | 769 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 841 | - | - | - | ~ 147 459 |
| Stage 1 | - | - | - | - | 510 - |
| Stage 2 | - | - | - | - | 457 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 841 | - | - | - | ~ 127 459 |
| Mov Cap-2 Maneuver | - | - | - | - | ~ 127 - |
| Stage 1 | - | - | - | - | 441 - |
| Stage 2 | - | - | - | - | 457 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-------|
| HCM Control Delay, s | 1.7 | 0 | 131.5 |
| HCM LOS | | | F |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 841 | - | - | - | 127 | 459 |
| HCM Lane V/C Ratio | 0.136 | - | - | - | 1.232 | 0.265 |
| HCM Control Delay (s) | 10 | - | - | - | 221.5 | 15.7 |
| HCM Lane LOS | A | - | - | - | F | C |
| HCM 95th %tile Q(veh) | 0.5 | - | - | - | 9.7 | 1.1 |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 TWSC
 19: Main Site Access/Target Dwy & Visalia Pkwy

5 Year plus Phase 1
 Timing Plan: P.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 563.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 107 | 498 | 74 | 161 | 478 | 29 | 131 | 0 | 260 | 135 | 0 | 68 |
| Future Vol, veh/h | 107 | 498 | 74 | 161 | 478 | 29 | 131 | 0 | 260 | 135 | 0 | 68 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 116 | 541 | 80 | 175 | 520 | 32 | 142 | 0 | 283 | 147 | 0 | 74 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 553 | 0 | 0 | 621 | 0 | 0 | 1736 | 1716 | 581 | 1842 | 1740 | 537 |
| Stage 1 | - | - | - | - | - | - | 813 | 813 | - | 887 | 887 | - |
| Stage 2 | - | - | - | - | - | - | 923 | 903 | - | 955 | 853 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1017 | - | - | 960 | - | - | ~ 69 | 90 | 514 | ~ 58 | 87 | 544 |
| Stage 1 | - | - | - | - | - | - | 372 | 392 | - | 339 | 362 | - |
| Stage 2 | - | - | - | - | - | - | 323 | 356 | - | 310 | 376 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1016 | - | - | 960 | - | - | ~ 47 | 65 | 514 | ~ 21 | 63 | 543 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 47 | 65 | - | ~ 21 | 63 | - |
| Stage 1 | - | - | - | - | - | - | 330 | 347 | - | 300 | 296 | - |
| Stage 2 | - | - | - | - | - | - | 228 | 291 | - | ~ 124 | 333 | - |

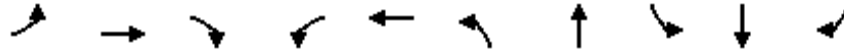
| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|---------|--|--|-----------|--|--|
| HCM Control Delay, s | 1.4 | | | 2.3 | | | \$ 1233 | | | \$ 3003.2 | | |
| HCM LOS | | | | | | | F | | | F | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|---------|-------|-----|-----|-------|-----|-----|-----------|
| Capacity (veh/h) | 119 | 1016 | - | - | 960 | - | - | 31 |
| HCM Lane V/C Ratio | 3.571 | 0.114 | - | - | 0.182 | - | - | 7.118 |
| HCM Control Delay (s) | \$ 1233 | 9 | - | - | 9.6 | - | - | \$ 3003.2 |
| HCM Lane LOS | F | A | - | - | A | - | - | F |
| HCM 95th %tile Q(veh) | 42 | 0.4 | - | - | 0.7 | - | - | 26.8 |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Queues
20: Mooney Blvd & Visalia Pkwy

5 Year plus Phase 1
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|-------|------|-------|------|------|
| Lane Group Flow (vph) | 492 | 322 | 233 | 280 | 293 | 269 | 1103 | 144 | 1085 | 155 |
| v/c Ratio | 2.02 | 0.81 | 0.45 | 0.89 | 0.64 | 1.10 | 0.94 | 0.82 | 0.71 | 0.27 |
| Control Delay | 501.9 | 70.6 | 8.3 | 87.2 | 52.2 | 143.6 | 60.6 | 94.5 | 23.8 | 3.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 501.9 | 70.6 | 8.3 | 87.2 | 52.2 | 143.6 | 60.6 | 94.5 | 23.8 | 3.3 |
| Queue Length 50th (ft) | ~725 | 287 | 0 | 258 | 231 | ~288 | 525 | ~134 | 246 | 21 |
| Queue Length 95th (ft) | #950 | 402 | 71 | #388 | 327 | #472 | #672 | m#286 | m323 | m11 |
| Internal Link Dist (ft) | | 765 | | | 337 | | 245 | | 1110 | |
| Turn Bay Length (ft) | 180 | | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 244 | 423 | 535 | 354 | 527 | 244 | 1173 | 175 | 1533 | 583 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 2.02 | 0.76 | 0.44 | 0.79 | 0.56 | 1.10 | 0.94 | 0.82 | 0.71 | 0.27 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

5 Year plus Phase 1
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 458 | 299 | 217 | 260 | 212 | 60 | 250 | 786 | 240 | 134 | 1009 | 144 |
| Future Volume (veh/h) | 458 | 299 | 217 | 260 | 212 | 60 | 250 | 786 | 240 | 134 | 1009 | 144 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 492 | 322 | 233 | 280 | 228 | 65 | 269 | 845 | 258 | 144 | 1085 | 155 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 245 | 374 | 314 | 245 | 286 | 82 | 380 | 1116 | 340 | 122 | 1347 | 410 |
| Arrive On Green | 0.14 | 0.20 | 0.20 | 0.14 | 0.21 | 0.21 | 0.21 | 0.42 | 0.42 | 0.14 | 0.53 | 0.53 |
| Sat Flow, veh/h | 1774 | 1863 | 1563 | 1774 | 1390 | 396 | 1774 | 2671 | 815 | 1774 | 5085 | 1547 |
| Grp Volume(v), veh/h | 492 | 322 | 233 | 280 | 0 | 293 | 269 | 559 | 544 | 144 | 1085 | 155 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1563 | 1774 | 0 | 1787 | 1774 | 1770 | 1717 | 1774 | 1695 | 1547 |
| Q Serve(g_s), s | 20.0 | 24.2 | 20.3 | 20.0 | 0.0 | 22.6 | 20.4 | 39.0 | 39.1 | 10.0 | 25.4 | 5.9 |
| Cycle Q Clear(g_c), s | 20.0 | 24.2 | 20.3 | 20.0 | 0.0 | 22.6 | 20.4 | 39.0 | 39.1 | 10.0 | 25.4 | 5.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.22 | 1.00 | | 0.47 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 245 | 374 | 314 | 245 | 0 | 368 | 380 | 739 | 717 | 122 | 1347 | 410 |
| V/C Ratio(X) | 2.01 | 0.86 | 0.74 | 1.14 | 0.00 | 0.80 | 0.71 | 0.76 | 0.76 | 1.18 | 0.81 | 0.38 |
| Avail Cap(c_a), veh/h | 245 | 424 | 356 | 245 | 0 | 518 | 380 | 739 | 717 | 122 | 1347 | 410 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.77 | 0.77 | 0.77 |
| Uniform Delay (d), s/veh | 62.5 | 56.0 | 54.4 | 62.5 | 0.0 | 54.7 | 52.8 | 36.0 | 36.0 | 62.5 | 31.0 | 13.1 |
| Incr Delay (d2), s/veh | 469.0 | 19.0 | 11.5 | 102.0 | 0.0 | 11.6 | 5.1 | 7.1 | 7.4 | 126.8 | 4.1 | 2.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 41.7 | 14.4 | 9.8 | 16.7 | 0.0 | 12.3 | 10.6 | 20.6 | 20.0 | 9.2 | 12.3 | 3.1 |
| LnGrp Delay(d),s/veh | 531.5 | 75.0 | 65.9 | 164.5 | 0.0 | 66.2 | 57.9 | 43.1 | 43.4 | 189.3 | 35.1 | 15.1 |
| LnGrp LOS | F | E | E | F | | E | E | D | D | F | D | B |
| Approach Vol, veh/h | | 1047 | | | 573 | | | 1372 | | | 1384 | |
| Approach Delay, s/veh | | 287.5 | | | 114.3 | | | 46.1 | | | 48.9 | |
| Approach LOS | | F | | | F | | | D | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.7 | 67.3 | 26.4 | 35.6 | 37.8 | 45.2 | 25.7 | 36.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | 6.4 | * 6.4 | 6.8 | * 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 10 | 48.4 | 20.0 | * 33 | 20.0 | * 38 | * 20 | 42.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 12.0 | 41.1 | 22.0 | 26.2 | 22.4 | 27.4 | 22.0 | 24.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.0 | 0.0 | 2.9 | 0.0 | 9.0 | 0.0 | 3.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 113.7 | | | | | | | | | |
| HCM 2010 LOS | | | F | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 352 | 20 | 5 | 0 | 0 | 279 |
| Future Vol, veh/h | 352 | 20 | 5 | 0 | 0 | 279 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 383 | 22 | 5 | 0 | 0 | 303 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 5 | 0 | - | 0 | 793 |
| Stage 1 | - | - | - | - | 5 |
| Stage 2 | - | - | - | - | 788 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1616 | - | - | - | 358 |
| Stage 1 | - | - | - | - | 1018 |
| Stage 2 | - | - | - | - | 448 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1616 | - | - | - | 273 |
| Mov Cap-2 Maneuver | - | - | - | - | 273 |
| Stage 1 | - | - | - | - | 777 |
| Stage 2 | - | - | - | - | 448 |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 7.5 | 0 | 9.6 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1616 | - | - | - | 1078 |
| HCM Lane V/C Ratio | 0.237 | - | - | - | 0.281 |
| HCM Control Delay (s) | 7.9 | - | - | - | 9.6 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0.9 | - | - | - | 1.2 |

Queues
22: Mooney Blvd & Midvalley Ave

5 Year plus Phase 1
Timing Plan: P.M. Peak























| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 49 | 10 | 240 | 7 | 1394 | 62 | 1266 | 82 |
| v/c Ratio | 0.18 | 0.02 | 0.63 | 0.04 | 0.92 | 0.30 | 0.69 | 0.09 |
| Control Delay | 21.1 | 0.1 | 20.3 | 33.7 | 33.0 | 33.5 | 17.2 | 2.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.1 | 0.1 | 20.3 | 33.7 | 33.0 | 33.5 | 17.2 | 2.0 |
| Queue Length 50th (ft) | 16 | 0 | 45 | 2 | 252 | 22 | 128 | 0 |
| Queue Length 95th (ft) | 41 | 0 | 110 | 17 | #694 | 71 | #546 | 15 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 640 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 682 | 966 | 827 | 448 | 1514 | 448 | 1846 | 864 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.01 | 0.29 | 0.02 | 0.92 | 0.14 | 0.69 | 0.09 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

5 Year plus Phase 1
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 45 | 3 | 10 | 127 | 0 | 106 | 7 | 1293 | 59 | 60 | 1228 | 80 |
| Future Volume (veh/h) | 45 | 3 | 10 | 127 | 0 | 106 | 7 | 1293 | 59 | 60 | 1228 | 80 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 46 | 3 | 10 | 131 | 0 | 109 | 7 | 1333 | 61 | 62 | 1266 | 82 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 345 | 19 | 332 | 232 | 17 | 132 | 19 | 1390 | 63 | 113 | 1615 | 707 |
| Arrive On Green | 0.21 | 0.21 | 0.21 | 0.21 | 0.00 | 0.21 | 0.01 | 0.40 | 0.40 | 0.06 | 0.46 | 0.46 |
| Sat Flow, veh/h | 1105 | 91 | 1583 | 676 | 80 | 629 | 1774 | 3443 | 157 | 1774 | 3539 | 1549 |
| Grp Volume(v), veh/h | 49 | 0 | 10 | 240 | 0 | 0 | 7 | 684 | 710 | 62 | 1266 | 82 |
| Grp Sat Flow(s),veh/h/ln | 1196 | 0 | 1583 | 1384 | 0 | 0 | 1774 | 1770 | 1831 | 1774 | 1770 | 1549 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.3 | 8.4 | 0.0 | 0.0 | 0.2 | 23.3 | 23.4 | 2.1 | 18.8 | 1.9 |
| Cycle Q Clear(g_c), s | 2.1 | 0.0 | 0.3 | 10.5 | 0.0 | 0.0 | 0.2 | 23.3 | 23.4 | 2.1 | 18.8 | 1.9 |
| Prop In Lane | 0.94 | | 1.00 | 0.55 | | 0.45 | 1.00 | | 0.09 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 364 | 0 | 332 | 380 | 0 | 0 | 19 | 714 | 739 | 113 | 1615 | 707 |
| V/C Ratio(X) | 0.13 | 0.00 | 0.03 | 0.63 | 0.00 | 0.00 | 0.36 | 0.96 | 0.96 | 0.55 | 0.78 | 0.12 |
| Avail Cap(c_a), veh/h | 511 | 0 | 511 | 856 | 0 | 0 | 430 | 714 | 739 | 430 | 1615 | 707 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.1 | 0.0 | 19.5 | 23.7 | 0.0 | 0.0 | 30.4 | 17.9 | 18.0 | 28.1 | 14.3 | 9.7 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 4.1 | 24.7 | 24.7 | 1.6 | 3.6 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 0.1 | 4.0 | 0.0 | 0.0 | 0.1 | 16.1 | 16.7 | 1.1 | 9.8 | 0.9 |
| LnGrp Delay(d),s/veh | 20.2 | 0.0 | 19.5 | 24.4 | 0.0 | 0.0 | 34.5 | 42.6 | 42.7 | 29.7 | 17.9 | 9.9 |
| LnGrp LOS | C | | B | C | | | C | D | D | C | B | A |
| Approach Vol, veh/h | | 59 | | | 240 | | | 1401 | | | 1410 | |
| Approach Delay, s/veh | | 20.1 | | | 24.4 | | | 42.6 | | | 17.9 | |
| Approach LOS | | C | | | C | | | D | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.6 | 31.8 | | 20.5 | 6.4 | 35.1 | | 20.5 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 20 | * 15 | 25.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.1 | 25.4 | | 4.1 | 2.2 | 20.8 | | 12.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.0 | | 0.1 | 0.0 | 3.8 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 29.6 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Intersection

Int Delay, s/veh 123.7

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 37 | 4 | 28 | 2 | 3 | 34 | 143 | 1338 | 60 | 27 | 1376 | 61 |
| Future Vol, veh/h | 37 | 4 | 28 | 2 | 3 | 34 | 143 | 1338 | 60 | 27 | 1376 | 61 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 39 | 4 | 29 | 2 | 3 | 36 | 151 | 1408 | 63 | 28 | 1448 | 64 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 2544 | 3309 | 756 | 2524 | 3310 | 736 | 1512 | 0 | 0 | 1471 | 0 | 0 |
| Stage 1 | 1536 | 1536 | - | 1742 | 1742 | - | - | - | - | - | - | - |
| Stage 2 | 1008 | 1773 | - | 782 | 1568 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | ~ 13 | 8 | 351 | 14 | 8 | 361 | 438 | - | - | 454 | - | - |
| Stage 1 | 121 | 176 | - | 90 | 139 | - | - | - | - | - | - | - |
| Stage 2 | 258 | 134 | - | 353 | 170 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | ~ 4 | 5 | 351 | 3 | 5 | 361 | 438 | - | - | 454 | - | - |
| Mov Cap-2 Maneuver | ~ 4 | 5 | - | 3 | 5 | - | - | - | - | - | - | - |
| Stage 1 | 79 | 165 | - | 59 | 91 | - | - | - | - | - | - | - |
| Stage 2 | 147 | 88 | - | 296 | 159 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|-----------------------|--------|--|-----|--|-----|--|-----|--|
| HCM Control Delay, \$ | 5246.4 | | 519 | | 1.6 | | 0.2 | |
| HCM LOS | F | | F | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-----------|--------|-------|-----|-----|
| Capacity (veh/h) | 438 | - | - | 7 | 29 | 454 | - | - |
| HCM Lane V/C Ratio | 0.344 | - | - | 10.376 | 1.416 | 0.063 | - | - |
| HCM Control Delay (s) | 17.5 | - | - | \$ 5246.4 | \$ 519 | 13.5 | - | - |
| HCM Lane LOS | C | - | - | F | F | B | - | - |
| HCM 95th %tile Q(veh) | 1.5 | - | - | 10.7 | 4.7 | 0.2 | - | - |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Queues
25: Mooney Blvd & Ave 268

5 Year plus Phase 1
Timing Plan: P.M. Peak





















| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 252 | 31 | 127 | 1419 | 64 | 1430 |
| v/c Ratio | 0.69 | 0.08 | 0.51 | 0.91 | 0.33 | 1.08 |
| Control Delay | 32.8 | 13.1 | 37.6 | 32.8 | 36.5 | 75.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 32.8 | 13.1 | 37.6 | 32.8 | 36.5 | 75.2 |
| Queue Length 50th (ft) | 88 | 4 | 54 | ~368 | 27 | ~406 |
| Queue Length 95th (ft) | 176 | 24 | 109 | #573 | 66 | #632 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 476 | 503 | 396 | 1558 | 396 | 1326 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.53 | 0.06 | 0.32 | 0.91 | 0.16 | 1.08 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
25: Mooney Blvd & Ave 268

5 Year plus Phase 1
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 152 | 1 | 79 | 9 | 1 | 18 | 117 | 1293 | 13 | 59 | 1305 | 11 |
| Future Volume (veh/h) | 152 | 1 | 79 | 9 | 1 | 18 | 117 | 1293 | 13 | 59 | 1305 | 11 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 165 | 1 | 86 | 10 | 1 | 20 | 127 | 1405 | 14 | 64 | 1418 | 12 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 292 | 12 | 110 | 156 | 44 | 231 | 163 | 1498 | 15 | 113 | 1399 | 12 |
| Arrive On Green | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.09 | 0.42 | 0.42 | 0.06 | 0.39 | 0.39 |
| Sat Flow, veh/h | 913 | 53 | 501 | 377 | 203 | 1054 | 1774 | 3589 | 36 | 1774 | 3596 | 30 |
| Grp Volume(v), veh/h | 252 | 0 | 0 | 31 | 0 | 0 | 127 | 692 | 727 | 64 | 697 | 733 |
| Grp Sat Flow(s),veh/h/ln | 1467 | 0 | 0 | 1634 | 0 | 0 | 1774 | 1770 | 1855 | 1774 | 1770 | 1857 |
| Q Serve(g_s), s | 9.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.5 | 24.1 | 24.1 | 2.3 | 25.0 | 25.0 |
| Cycle Q Clear(g_c), s | 10.3 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 | 4.5 | 24.1 | 24.1 | 2.3 | 25.0 | 25.0 |
| Prop In Lane | 0.65 | | 0.34 | 0.32 | | 0.65 | 1.00 | | 0.02 | 1.00 | | 0.02 |
| Lane Grp Cap(c), veh/h | 414 | 0 | 0 | 431 | 0 | 0 | 163 | 738 | 774 | 113 | 689 | 723 |
| V/C Ratio(X) | 0.61 | 0.00 | 0.00 | 0.07 | 0.00 | 0.00 | 0.78 | 0.94 | 0.94 | 0.57 | 1.01 | 1.01 |
| Avail Cap(c_a), veh/h | 592 | 0 | 0 | 615 | 0 | 0 | 414 | 738 | 774 | 414 | 689 | 723 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.6 | 0.0 | 0.0 | 20.0 | 0.0 | 0.0 | 28.5 | 17.9 | 17.9 | 29.2 | 19.6 | 19.6 |
| Incr Delay (d2), s/veh | 2.5 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 3.0 | 20.8 | 20.3 | 1.7 | 37.6 | 36.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.5 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 2.3 | 15.8 | 16.5 | 1.2 | 19.2 | 20.1 |
| LnGrp Delay(d),s/veh | 26.0 | 0.0 | 0.0 | 20.1 | 0.0 | 0.0 | 31.6 | 38.8 | 38.2 | 30.9 | 57.2 | 56.6 |
| LnGrp LOS | C | | | C | | | C | D | D | C | F | F |
| Approach Vol, veh/h | | 252 | | | 31 | | | 1546 | | | 1494 | |
| Approach Delay, s/veh | | 26.0 | | | 20.1 | | | 37.9 | | | 55.8 | |
| Approach LOS | | C | | | C | | | D | | | E | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.8 | 34.7 | | 19.8 | 11.6 | 32.9 | | 19.8 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 15 | 25.0 | | * 22 | * 15 | 25.0 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.3 | 26.1 | | 12.3 | 6.5 | 27.0 | | 2.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.0 | | 1.5 | 0.1 | 0.0 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 44.9 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.2 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 582 | 91 | 0 | 532 | 0 | 23 |
| Future Vol, veh/h | 582 | 91 | 0 | 532 | 0 | 23 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 606 | 95 | 0 | 554 | 0 | 24 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | 654 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | 0 | - | 0 | 467 |
| Stage 1 | - | 0 | - | 0 | - |
| Stage 2 | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 467 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 13.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 467 | - | - | - |
| HCM Lane V/C Ratio | 0.051 | - | - | - |
| HCM Control Delay (s) | 13.1 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - |

HCM 2010 TWSC
 27: North Access Dwy 2/Tuesday Morning Dwy & Visalia Pkwy

5 Year plus Phase 1
 Timing Plan: P.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | | ↖ | | | ↖ |
| Traffic Vol, veh/h | 19 | 520 | 66 | 68 | 507 | 23 | 0 | 0 | 23 | 0 | 0 | 46 |
| Future Vol, veh/h | 19 | 520 | 66 | 68 | 507 | 23 | 0 | 0 | 23 | 0 | 0 | 46 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | - | 150 | - | - | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 92 | 92 | 96 | 96 | 92 | 92 | 92 | 96 | 92 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 20 | 542 | 72 | 74 | 528 | 24 | 0 | 0 | 25 | 0 | 0 | 48 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|---|-------|--------|---|-------|
| Conflicting Flow All | 552 | 0 | 0 | 614 | 0 | 0 | - | - | 578 | - | - | 540 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | - | - | 6.22 | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | - | - | 3.318 | - | - | 3.318 |
| Pot Cap-1 Maneuver | 1018 | - | - | 965 | - | - | 0 | 0 | 516 | 0 | 0 | 542 |
| Stage 1 | - | - | - | - | - | - | 0 | 0 | - | 0 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 0 | 0 | - | 0 | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1018 | - | - | 965 | - | - | - | - | 516 | - | - | 542 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.3 | | | 1.1 | | | 12.3 | | | 12.3 | | |
| HCM LOS | | | | | | | B | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 516 | 1018 | - | - | 965 | - | - | 542 |
| HCM Lane V/C Ratio | 0.048 | 0.019 | - | - | 0.077 | - | - | 0.088 |
| HCM Control Delay (s) | 12.3 | 8.6 | - | - | 9 | - | - | 12.3 |
| HCM Lane LOS | B | A | - | - | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.2 | 0.1 | - | - | 0.2 | - | - | 0.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.2 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 564 | 0 | 0 | 546 | 0 | 22 |
| Future Vol, veh/h | 564 | 0 | 0 | 546 | 0 | 22 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 613 | 0 | 0 | 593 | 0 | 24 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | - | 613 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 492 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 492 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 12.7 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 492 | - | - | - |
| HCM Lane V/C Ratio | 0.049 | - | - | - |
| HCM Control Delay (s) | 12.7 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | ↔ |
| Traffic Vol, veh/h | 246 | 340 | 281 | 3 | 4 | 265 |
| Future Vol, veh/h | 246 | 340 | 281 | 3 | 4 | 265 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 265 | 366 | 302 | 3 | 4 | 285 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 305 | 0 | - | 0 | 1200 304 |
| Stage 1 | - | - | - | - | 304 - |
| Stage 2 | - | - | - | - | 896 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1256 | - | - | - | 204 736 |
| Stage 1 | - | - | - | - | 748 - |
| Stage 2 | - | - | - | - | 399 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1256 | - | - | - | 150 736 |
| Mov Cap-2 Maneuver | - | - | - | - | 150 - |
| Stage 1 | - | - | - | - | 550 - |
| Stage 2 | - | - | - | - | 399 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 3.6 | 0 | 13.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1256 | - | - | - | 150 | 736 |
| HCM Lane V/C Ratio | 0.211 | - | - | - | 0.029 | 0.387 |
| HCM Control Delay (s) | 8.6 | 0 | - | - | 29.7 | 12.9 |
| HCM Lane LOS | A | A | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.8 | - | - | - | 0.1 | 1.8 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | | ↕↔ | | | ↕↕ | ↗ |
| Traffic Vol, veh/h | 0 | 0 | 93 | 0 | 0 | 93 | 0 | 1170 | 34 | 0 | 1340 | 166 |
| Future Vol, veh/h | 0 | 0 | 93 | 0 | 0 | 93 | 0 | 1170 | 34 | 0 | 1340 | 166 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | - | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 101 | 0 | 0 | 101 | 0 | 1272 | 37 | 0 | 1457 | 180 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | |
|----------------------|--------|---|--------|---|--------|------|--------|---|
| Conflicting Flow All | - | - | 729 | - | - | 655 | - | 0 |
| Stage 1 | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 365 | 0 | 0 | 409 | 0 | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | 0 | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 365 | - | - | 409 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|----|----|
| HCM Control Delay, s | 18.6 | 16.7 | 0 | 0 |
| HCM LOS | C | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1WBLn1 | SBT | SBR |
|-----------------------|-----|-----|------------|-------|-----|
| Capacity (veh/h) | - | - | 365 | 409 | - |
| HCM Lane V/C Ratio | - | - | 0.277 | 0.247 | - |
| HCM Control Delay (s) | - | - | 18.6 | 16.7 | - |
| HCM Lane LOS | - | - | C | C | - |
| HCM 95th %tile Q(veh) | - | - | 1.1 | 1 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | ↗ | ↕↔ | | ↗ | ↕↕ | ↗ |
| Traffic Vol, veh/h | 0 | 0 | 122 | 0 | 0 | 81 | 229 | 1123 | 33 | 56 | 1261 | 123 |
| Future Vol, veh/h | 0 | 0 | 122 | 0 | 0 | 81 | 229 | 1123 | 33 | 56 | 1261 | 123 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | 150 | - | - | 150 | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 133 | 0 | 0 | 88 | 249 | 1221 | 36 | 61 | 1371 | 134 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|---|--------|---|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | - | - | 686 | - | - | 629 | 1505 | 0 | 0 | 1257 | 0 | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 390 | 0 | 0 | 425 | 441 | - | - | 549 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 390 | - | - | 425 | 441 | - | - | 549 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | | | |
|----------------------|------|--|------|--|-----|--|-----|--|--|--|
| HCM Control Delay, s | 18.9 | | 15.7 | | 3.8 | | 0.5 | | | |
| HCM LOS | C | | C | | | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 441 | - | - | 390 | 425 | 549 | - | - |
| HCM Lane V/C Ratio | 0.564 | - | - | 0.34 | 0.207 | 0.111 | - | - |
| HCM Control Delay (s) | 23.2 | - | - | 18.9 | 15.7 | 12.4 | - | - |
| HCM Lane LOS | C | - | - | C | C | B | - | - |
| HCM 95th %tile Q(veh) | 3.4 | - | - | 1.5 | 0.8 | 0.4 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 51 | 71 | 147 | 0 | 0 | 86 |
| Future Vol, veh/h | 51 | 71 | 147 | 0 | 0 | 86 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 55 | 77 | 160 | 0 | 0 | 93 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|-------|-------|
| Conflicting Flow All | 160 | 0 | 0 | 347 | 160 |
| Stage 1 | - | - | - | 160 | - |
| Stage 2 | - | - | - | 187 | - |
| Critical Hdwy | 4.12 | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1419 | - | - | 650 | 885 |
| Stage 1 | - | - | - | 869 | - |
| Stage 2 | - | - | - | 845 | - |
| Platoon blocked, % | | - | - | | |
| Mov Cap-1 Maneuver | 1419 | - | - | 624 | 885 |
| Mov Cap-2 Maneuver | - | - | - | 624 | - |
| Stage 1 | - | - | - | 834 | - |
| Stage 2 | - | - | - | 845 | - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 3.2 | 0 | 9.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1419 | - | - | - | 885 |
| HCM Lane V/C Ratio | 0.039 | - | - | - | 0.106 |
| HCM Control Delay (s) | 7.6 | 0 | - | - | 9.5 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.4 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.1 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↕ | ↕ | | ↕ | |
| Traffic Vol, veh/h | 39 | 32 | 81 | 0 | 0 | 66 |
| Future Vol, veh/h | 39 | 32 | 81 | 0 | 0 | 66 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 42 | 35 | 88 | 0 | 0 | 72 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 88 | 0 | - | 0 | 207 88 |
| Stage 1 | - | - | - | - | 88 - |
| Stage 2 | - | - | - | - | 119 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1508 | - | - | - | 781 970 |
| Stage 1 | - | - | - | - | 935 - |
| Stage 2 | - | - | - | - | 906 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1508 | - | - | - | 759 970 |
| Mov Cap-2 Maneuver | - | - | - | - | 759 - |
| Stage 1 | - | - | - | - | 909 - |
| Stage 2 | - | - | - | - | 906 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 4.1 | 0 | 9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1508 | - | - | - | 970 |
| HCM Lane V/C Ratio | 0.028 | - | - | - | 0.074 |
| HCM Control Delay (s) | 7.5 | 0 | - | - | 9 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 16 | 16 | 44 | 0 | 0 | 37 |
| Future Vol, veh/h | 16 | 16 | 44 | 0 | 0 | 37 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 17 | 17 | 48 | 0 | 0 | 40 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 48 | 0 | - | 0 | 99 48 |
| Stage 1 | - | - | - | - | 48 - |
| Stage 2 | - | - | - | - | 51 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1559 | - | - | - | 900 1021 |
| Stage 1 | - | - | - | - | 974 - |
| Stage 2 | - | - | - | - | 971 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1559 | - | - | - | 890 1021 |
| Mov Cap-2 Maneuver | - | - | - | - | 890 - |
| Stage 1 | - | - | - | - | 963 - |
| Stage 2 | - | - | - | - | 971 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 3.7 | 0 | 8.7 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1559 | - | - | - | 1021 |
| HCM Lane V/C Ratio | 0.011 | - | - | - | 0.039 |
| HCM Control Delay (s) | 7.3 | 0 | - | - | 8.7 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 23 |
| Future Vol, veh/h | 0 | 16 | 21 | 0 | 0 | 23 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 17 | 23 | 0 | 0 | 25 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 40 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 17 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 972 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 972 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1006 - |

| Approach | EB | WB | SB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0 | 0 | 8.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | 1054 |
| HCM Lane V/C Ratio | - | - | - | - | 0.024 |
| HCM Control Delay (s) | 0 | - | - | - | 8.5 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.4 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 22 | 23 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 22 | 23 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 24 | 25 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 8.6 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | 1053 | - | - |
| HCM Lane V/C Ratio | - | - | 0.046 | - | - |
| HCM Control Delay (s) | 0 | - | 8.6 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

Appendix I – 10-Year Cumulative Conditions Level of Service and Queuing Work Sheets

Queues
1: Mooney Blvd & Whitendale Ave

10 Year Cumulative
Timing Plan: A.M. Peak



























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| Lane Group Flow (vph) | 104 | 215 | 121 | 159 | 259 | 62 | 85 | 568 | 122 | 65 | 505 | 45 | |
| v/c Ratio | 0.42 | 0.38 | 0.30 | 0.56 | 0.44 | 0.15 | 0.52 | 0.21 | 0.14 | 0.37 | 0.19 | 0.05 | |
| Control Delay | 60.1 | 47.1 | 2.4 | 63.1 | 47.3 | 0.8 | 69.7 | 18.4 | 4.3 | 63.3 | 18.6 | 0.1 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 60.1 | 47.1 | 2.4 | 63.1 | 47.3 | 0.8 | 69.7 | 18.4 | 4.3 | 63.3 | 18.6 | 0.1 | |
| Queue Length 50th (ft) | 42 | 87 | 0 | 64 | 104 | 0 | 35 | 82 | 0 | 26 | 71 | 0 | |
| Queue Length 95th (ft) | 71 | 94 | 6 | 101 | 111 | 0 | 62 | 161 | 39 | 51 | 143 | 0 | |
| Internal Link Dist (ft) | 1104 | | | | | | 403 | | 770 | | 1028 | | |
| Turn Bay Length (ft) | 155 | 260 | | 250 | 235 | | 290 | 130 | | 445 | 190 | | |
| Base Capacity (vph) | 250 | 1330 | 702 | 282 | 1350 | 708 | 164 | 2705 | 891 | 177 | 2630 | 870 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.42 | 0.16 | 0.17 | 0.56 | 0.19 | 0.09 | 0.52 | 0.21 | 0.14 | 0.37 | 0.19 | 0.05 | |

Intersection Summary

HCM 2010 Signalized Intersection Summary
1: Mooney Blvd & Whitendale Ave

10 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 96 | 198 | 111 | 146 | 238 | 57 | 78 | 523 | 112 | 60 | 465 | 41 |
| Future Volume (veh/h) | 96 | 198 | 111 | 146 | 238 | 57 | 78 | 523 | 112 | 60 | 465 | 41 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 104 | 215 | 121 | 159 | 259 | 62 | 85 | 568 | 122 | 65 | 505 | 45 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 195 | 513 | 228 | 187 | 504 | 223 | 941 | 2869 | 882 | 148 | 1668 | 517 |
| Arrive On Green | 0.06 | 0.14 | 0.14 | 0.05 | 0.14 | 0.14 | 0.27 | 0.56 | 0.56 | 0.04 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3539 | 1573 | 3442 | 3539 | 1567 | 3442 | 5085 | 1563 | 3442 | 5085 | 1578 |
| Grp Volume(v), veh/h | 104 | 215 | 121 | 159 | 259 | 62 | 85 | 568 | 122 | 65 | 505 | 45 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1573 | 1721 | 1770 | 1567 | 1721 | 1695 | 1563 | 1721 | 1695 | 1578 |
| Q Serve(g_s), s | 3.7 | 6.9 | 8.9 | 5.7 | 8.5 | 3.7 | 2.3 | 6.9 | 3.0 | 2.3 | 9.3 | 2.5 |
| Cycle Q Clear(g_c), s | 3.7 | 6.9 | 8.9 | 5.7 | 8.5 | 3.7 | 2.3 | 6.9 | 3.0 | 2.3 | 9.3 | 2.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 195 | 513 | 228 | 187 | 504 | 223 | 941 | 2869 | 882 | 148 | 1668 | 517 |
| V/C Ratio(X) | 0.53 | 0.42 | 0.53 | 0.85 | 0.51 | 0.28 | 0.09 | 0.20 | 0.14 | 0.44 | 0.30 | 0.09 |
| Avail Cap(c_a), veh/h | 195 | 1331 | 592 | 187 | 1351 | 598 | 941 | 2869 | 882 | 165 | 1668 | 517 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.3 | 48.7 | 49.5 | 58.6 | 49.6 | 33.5 | 33.8 | 13.4 | 5.5 | 58.3 | 31.3 | 29.1 |
| Incr Delay (d2), s/veh | 1.5 | 1.1 | 3.7 | 27.8 | 1.6 | 1.3 | 0.0 | 0.2 | 0.3 | 0.8 | 0.5 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.8 | 3.5 | 4.1 | 3.4 | 4.2 | 1.9 | 1.1 | 3.2 | 1.9 | 1.1 | 4.4 | 1.1 |
| LnGrp Delay(d),s/veh | 58.8 | 49.7 | 53.2 | 86.4 | 51.2 | 34.8 | 33.8 | 13.5 | 5.8 | 59.1 | 31.8 | 29.4 |
| LnGrp LOS | E | D | D | F | D | C | C | B | A | E | C | C |
| Approach Vol, veh/h | | 440 | | | 480 | | | 775 | | | 615 | |
| Approach Delay, s/veh | | 52.8 | | | 60.7 | | | 14.5 | | | 34.5 | |
| Approach LOS | | D | | | E | | | B | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.1 | 76.9 | 12.5 | 24.5 | 40.6 | 47.4 | 12.8 | 24.2 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 41.0 | 6.8 | * 47 | 6.0 | * 41 | 6.1 | * 48 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.3 | 8.9 | 7.7 | 10.9 | 4.3 | 11.3 | 5.7 | 10.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.2 | 0.0 | 3.4 | 0.0 | 6.5 | 0.0 | 3.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 36.7 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave






















10 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 91 | 154 | 8 | 243 | 99 | 49 | 74 | 12 | 130 |
| v/c Ratio | 0.23 | 0.16 | 0.02 | 0.32 | 0.14 | 0.10 | 0.18 | 0.02 | 0.23 |
| Control Delay | 19.7 | 7.8 | 20.7 | 13.5 | 5.1 | 15.0 | 16.7 | 15.5 | 5.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.7 | 7.8 | 20.7 | 13.5 | 5.1 | 15.0 | 16.7 | 15.5 | 5.4 |
| Queue Length 50th (ft) | 20 | 15 | 2 | 46 | 2 | 9 | 15 | 2 | 0 |
| Queue Length 95th (ft) | 63 | 63 | 13 | 112 | 28 | 34 | 49 | 13 | 34 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 556 | 1414 | 385 | 1338 | 1162 | 1092 | 928 | 1280 | 1128 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.16 | 0.11 | 0.02 | 0.18 | 0.09 | 0.04 | 0.08 | 0.01 | 0.12 |
| Intersection Summary | | | | | | | | | |

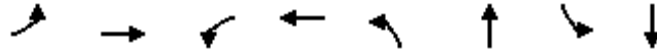
HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

10 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 84 | 129 | 13 | 7 | 224 | 91 | 19 | 22 | 4 | 68 | 11 | 120 |
| Future Volume (veh/h) | 84 | 129 | 13 | 7 | 224 | 91 | 19 | 22 | 4 | 68 | 11 | 120 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 91 | 140 | 14 | 8 | 243 | 99 | 21 | 24 | 4 | 74 | 12 | 130 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 180 | 612 | 61 | 23 | 520 | 442 | 244 | 222 | 28 | 512 | 398 | 338 |
| Arrive On Green | 0.10 | 0.37 | 0.37 | 0.01 | 0.28 | 0.28 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| Sat Flow, veh/h | 1774 | 1667 | 167 | 1774 | 1863 | 1583 | 444 | 1041 | 132 | 1377 | 1863 | 1583 |
| Grp Volume(v), veh/h | 91 | 0 | 154 | 8 | 243 | 99 | 49 | 0 | 0 | 74 | 12 | 130 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1833 | 1774 | 1863 | 1583 | 1617 | 0 | 0 | 1377 | 1863 | 1583 |
| Q Serve(g_s), s | 1.7 | 0.0 | 2.0 | 0.2 | 3.7 | 1.7 | 0.0 | 0.0 | 0.0 | 0.6 | 0.2 | 2.4 |
| Cycle Q Clear(g_c), s | 1.7 | 0.0 | 2.0 | 0.2 | 3.7 | 1.7 | 0.7 | 0.0 | 0.0 | 1.3 | 0.2 | 2.4 |
| Prop In Lane | 1.00 | | 0.09 | 1.00 | | 1.00 | 0.43 | | 0.08 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 180 | 0 | 674 | 23 | 520 | 442 | 495 | 0 | 0 | 512 | 398 | 338 |
| V/C Ratio(X) | 0.51 | 0.00 | 0.23 | 0.35 | 0.47 | 0.22 | 0.10 | 0.00 | 0.00 | 0.14 | 0.03 | 0.38 |
| Avail Cap(c_a), veh/h | 484 | 0 | 1569 | 334 | 1437 | 1221 | 1270 | 0 | 0 | 1215 | 1351 | 1148 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.7 | 0.0 | 7.5 | 16.9 | 10.3 | 9.6 | 11.0 | 0.0 | 0.0 | 11.1 | 10.7 | 11.6 |
| Incr Delay (d2), s/veh | 0.8 | 0.0 | 0.3 | 3.4 | 1.1 | 0.4 | 0.1 | 0.0 | 0.0 | 0.2 | 0.1 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 0.0 | 1.0 | 0.1 | 2.1 | 0.8 | 0.4 | 0.0 | 0.0 | 0.6 | 0.1 | 1.2 |
| LnGrp Delay(d),s/veh | 15.5 | 0.0 | 7.8 | 20.3 | 11.4 | 10.0 | 11.1 | 0.0 | 0.0 | 11.4 | 10.8 | 12.8 |
| LnGrp LOS | B | | A | C | B | A | B | | | B | B | B |
| Approach Vol, veh/h | | 245 | | | 350 | | | 49 | | | 216 | |
| Approach Delay, s/veh | | 10.7 | | | 11.2 | | | 11.1 | | | 12.2 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.4 | 17.7 | | 12.4 | 7.5 | 14.6 | | 12.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 29.5 | | 25.0 | 9.4 | 26.6 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 4.0 | | 2.7 | 3.7 | 5.7 | | 4.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.3 | | 0.3 | 0.0 | 2.7 | | 1.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 11.3 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave

10 Year Cumulative
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 46 | 15 | 2 | 34 | 42 | 723 | 93 | 694 |
| v/c Ratio | 0.18 | 0.02 | 0.01 | 0.06 | 0.16 | 0.24 | 0.32 | 0.19 |
| Control Delay | 34.0 | 0.1 | 36.5 | 0.2 | 33.7 | 15.7 | 32.3 | 13.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.0 | 0.1 | 36.5 | 0.2 | 33.7 | 15.7 | 32.3 | 13.0 |
| Queue Length 50th (ft) | 8 | 0 | 0 | 0 | 7 | 28 | 16 | 0 |
| Queue Length 95th (ft) | 66 | 0 | 9 | 0 | 61 | 194 | #116 | 177 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 263 | 1317 | 251 | 1290 | 276 | 3038 | 389 | 3349 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.17 | 0.01 | 0.01 | 0.03 | 0.15 | 0.24 | 0.24 | 0.21 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 3: Mooney Blvd & Sunnyside Ave

10 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 44 | 0 | 14 | 2 | 0 | 32 | 40 | 684 | 3 | 88 | 605 | 54 |
| Future Volume (veh/h) | 44 | 0 | 14 | 2 | 0 | 32 | 40 | 684 | 3 | 88 | 605 | 54 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 46 | 0 | 15 | 2 | 0 | 34 | 42 | 720 | 3 | 93 | 637 | 57 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 101 | 0 | 235 | 6 | 0 | 151 | 94 | 1493 | 6 | 155 | 1521 | 135 |
| Arrive On Green | 0.06 | 0.00 | 0.15 | 0.00 | 0.00 | 0.10 | 0.05 | 0.29 | 0.29 | 0.09 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1774 | 0 | 1577 | 1774 | 0 | 1580 | 1774 | 5227 | 22 | 1774 | 4755 | 422 |
| Grp Volume(v), veh/h | 46 | 0 | 15 | 2 | 0 | 34 | 42 | 467 | 256 | 93 | 453 | 241 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1577 | 1774 | 0 | 1580 | 1774 | 1695 | 1858 | 1774 | 1695 | 1787 |
| Q Serve(g_s), s | 1.2 | 0.0 | 0.4 | 0.1 | 0.0 | 1.0 | 1.1 | 5.7 | 5.7 | 2.5 | 5.2 | 5.3 |
| Cycle Q Clear(g_c), s | 1.2 | 0.0 | 0.4 | 0.1 | 0.0 | 1.0 | 1.1 | 5.7 | 5.7 | 2.5 | 5.2 | 5.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.01 | 1.00 | | 0.24 |
| Lane Grp Cap(c), veh/h | 101 | 0 | 235 | 6 | 0 | 151 | 94 | 968 | 531 | 155 | 1084 | 571 |
| V/C Ratio(X) | 0.46 | 0.00 | 0.06 | 0.34 | 0.00 | 0.22 | 0.45 | 0.48 | 0.48 | 0.60 | 0.42 | 0.42 |
| Avail Cap(c_a), veh/h | 226 | 0 | 1220 | 215 | 0 | 1212 | 236 | 1567 | 859 | 333 | 1752 | 923 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.6 | 0.0 | 18.1 | 24.6 | 0.0 | 20.7 | 22.7 | 14.7 | 14.7 | 21.8 | 13.2 | 13.2 |
| Incr Delay (d2), s/veh | 1.2 | 0.0 | 0.1 | 12.4 | 0.0 | 0.6 | 1.2 | 0.7 | 1.3 | 1.4 | 0.5 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.0 | 0.2 | 0.0 | 0.0 | 0.4 | 0.6 | 2.7 | 3.0 | 1.3 | 2.5 | 2.7 |
| LnGrp Delay(d),s/veh | 23.8 | 0.0 | 18.2 | 37.0 | 0.0 | 21.2 | 24.0 | 15.4 | 16.0 | 23.1 | 13.7 | 14.2 |
| LnGrp LOS | C | | B | D | | C | C | B | B | C | B | B |
| Approach Vol, veh/h | | 61 | | | 36 | | | 765 | | | 787 | |
| Approach Delay, s/veh | | 22.4 | | | 22.1 | | | 16.1 | | | 15.0 | |
| Approach LOS | | C | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.0 | 20.5 | 5.9 | 13.1 | 8.3 | 22.2 | 8.5 | 10.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | * 5.7 | 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 9.3 | 22.9 | * 6 | * 38 | * 6.6 | 25.6 | * 6.3 | * 38 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.5 | 7.7 | 2.1 | 2.4 | 3.1 | 7.3 | 3.2 | 3.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.3 | 0.0 | 0.0 | 0.0 | 6.7 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 15.9 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave

10 Year Cumulative
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 3 | 1 | 19 | 24 | 11 | 702 | 28 | 66 | 562 | 5 |
| v/c Ratio | 0.02 | 0.00 | 0.21 | 0.04 | 0.05 | 0.19 | 0.02 | 0.53 | 0.14 | 0.00 |
| Control Delay | 45.3 | 0.0 | 66.5 | 0.1 | 55.7 | 11.4 | 0.0 | 74.9 | 10.8 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.3 | 0.0 | 66.5 | 0.1 | 55.7 | 11.4 | 0.0 | 74.9 | 10.8 | 0.0 |
| Queue Length 50th (ft) | 3 | 0 | 16 | 0 | 4 | 61 | 0 | 57 | 23 | 0 |
| Queue Length 95th (ft) | 10 | 0 | 43 | 0 | 14 | 206 | 0 | 105 | 167 | 0 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 246 | 813 | 170 | 840 | 381 | 3727 | 1156 | 196 | 3949 | 1240 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.01 | 0.00 | 0.11 | 0.03 | 0.03 | 0.19 | 0.02 | 0.34 | 0.14 | 0.00 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

10 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 3 | 0 | 1 | 18 | 0 | 23 | 10 | 667 | 27 | 63 | 534 | 5 |
| Future Volume (veh/h) | 3 | 0 | 1 | 18 | 0 | 23 | 10 | 667 | 27 | 63 | 534 | 5 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 3 | 0 | 1 | 19 | 0 | 24 | 11 | 702 | 28 | 66 | 562 | 5 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 24 | 0 | 75 | 40 | 0 | 91 | 1521 | 3580 | 1112 | 84 | 1548 | 482 |
| Arrive On Green | 0.01 | 0.00 | 0.05 | 0.02 | 0.00 | 0.06 | 0.44 | 0.70 | 0.70 | 0.05 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1774 | 0 | 1543 | 1774 | 0 | 1583 | 3442 | 5085 | 1579 | 1774 | 5085 | 1582 |
| Grp Volume(v), veh/h | 3 | 0 | 1 | 19 | 0 | 24 | 11 | 702 | 28 | 66 | 562 | 5 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1543 | 1774 | 0 | 1583 | 1721 | 1695 | 1579 | 1774 | 1695 | 1582 |
| Q Serve(g_s), s | 0.2 | 0.0 | 0.1 | 1.4 | 0.0 | 2.0 | 0.2 | 6.4 | 0.4 | 5.0 | 11.7 | 0.3 |
| Cycle Q Clear(g_c), s | 0.2 | 0.0 | 0.1 | 1.4 | 0.0 | 2.0 | 0.2 | 6.4 | 0.4 | 5.0 | 11.7 | 0.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 24 | 0 | 75 | 40 | 0 | 91 | 1521 | 3580 | 1112 | 84 | 1548 | 482 |
| V/C Ratio(X) | 0.12 | 0.00 | 0.01 | 0.47 | 0.00 | 0.26 | 0.01 | 0.20 | 0.03 | 0.78 | 0.36 | 0.01 |
| Avail Cap(c_a), veh/h | 171 | 0 | 480 | 171 | 0 | 493 | 1521 | 3580 | 1112 | 197 | 1548 | 482 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.97 | 0.97 | 0.97 | 0.99 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 65.8 | 0.0 | 61.1 | 65.2 | 0.0 | 60.9 | 21.1 | 6.9 | 2.3 | 63.6 | 36.7 | 32.8 |
| Incr Delay (d2), s/veh | 0.8 | 0.0 | 0.0 | 3.2 | 0.0 | 1.1 | 0.0 | 0.1 | 0.0 | 5.8 | 0.7 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 0.0 | 0.0 | 0.7 | 0.0 | 0.9 | 0.1 | 3.0 | 0.3 | 2.6 | 5.6 | 0.1 |
| LnGrp Delay(d),s/veh | 66.6 | 0.0 | 61.1 | 68.4 | 0.0 | 62.0 | 21.1 | 7.0 | 2.4 | 69.4 | 37.4 | 32.8 |
| LnGrp LOS | E | | E | E | | E | C | A | A | E | D | C |
| Approach Vol, veh/h | | 4 | | | 43 | | | 741 | | | 633 | |
| Approach Delay, s/veh | | 65.3 | | | 64.8 | | | 7.0 | | | 40.7 | |
| Approach LOS | | E | | | E | | | A | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.1 | 101.4 | 8.8 | 12.7 | 66.1 | 47.5 | 7.5 | 13.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 15 | 41.1 | 13.0 | * 42 | 15.0 | * 41 | 13.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.0 | 8.4 | 3.4 | 2.1 | 2.2 | 13.7 | 2.2 | 4.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.1 | 0.0 | 0.0 | 0.0 | 6.7 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 23.9 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 13.9 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔↔ | | | ↔↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 40 | 691 | 81 | 59 | 683 | 34 | 57 | 0 | 95 | 10 | 0 | 21 |
| Future Vol, veh/h | 40 | 691 | 81 | 59 | 683 | 34 | 57 | 0 | 95 | 10 | 0 | 21 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 45 | 776 | 91 | 66 | 767 | 38 | 64 | 0 | 107 | 11 | 0 | 24 |

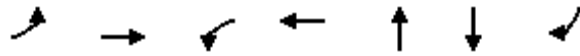
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 810 | 0 | 0 | 867 | 0 | 0 | 1428 | 1854 | 434 | 1401 | 1880 | 408 |
| Stage 1 | - | - | - | - | - | - | 912 | 912 | - | 923 | 923 | - |
| Stage 2 | - | - | - | - | - | - | 516 | 942 | - | 478 | 957 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 812 | - | - | 772 | - | - | 95 | 73 | 570 | 100 | 70 | 593 |
| Stage 1 | - | - | - | - | - | - | 295 | 351 | - | 290 | 347 | - |
| Stage 2 | - | - | - | - | - | - | 510 | 340 | - | 537 | 334 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 808 | - | - | 772 | - | - | 74 | 55 | 570 | 65 | 52 | 590 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 74 | 55 | - | 65 | 52 | - |
| Stage 1 | - | - | - | - | - | - | 263 | 312 | - | 257 | 291 | - |
| Stage 2 | - | - | - | - | - | - | 413 | 286 | - | 388 | 297 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|-------|--|--|------|--|--|
| HCM Control Delay, s | 0.9 | | | 1.4 | | | 142.8 | | | 32.8 | | |
| HCM LOS | | | | | | | F | | | D | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 162 | 808 | - | - | 772 | - | - | 164 |
| HCM Lane V/C Ratio | 1.054 | 0.056 | - | - | 0.086 | - | - | 0.212 |
| HCM Control Delay (s) | 142.8 | 9.7 | 0.5 | - | 10.1 | 0.7 | - | 32.8 |
| HCM Lane LOS | F | A | A | - | B | A | - | D |
| HCM 95th %tile Q(veh) | 8.6 | 0.2 | - | - | 0.3 | - | - | 0.8 |

Queues
6: Shady St & Caldwell Ave




















10 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 28 | 642 | 18 | 565 | 61 | 5 | 2 |
| v/c Ratio | 0.07 | 0.19 | 0.05 | 0.17 | 0.15 | 0.01 | 0.00 |
| Control Delay | 19.0 | 6.8 | 19.2 | 6.8 | 11.5 | 19.8 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.0 | 6.8 | 19.2 | 6.8 | 11.5 | 19.8 | 0.0 |
| Queue Length 50th (ft) | 4 | 20 | 3 | 17 | 3 | 1 | 0 |
| Queue Length 95th (ft) | 31 | 90 | 23 | 80 | 37 | 11 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 430 | 4154 | 430 | 4163 | 1504 | 1587 | 1430 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.15 | 0.04 | 0.14 | 0.04 | 0.00 | 0.00 |
| Intersection Summary | | | | | | | |

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

10 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 26 | 577 | 14 | 17 | 513 | 6 | 19 | 1 | 36 | 5 | 0 | 2 |
| Future Volume (veh/h) | 26 | 577 | 14 | 17 | 513 | 6 | 19 | 1 | 36 | 5 | 0 | 2 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 28 | 627 | 15 | 18 | 558 | 7 | 21 | 1 | 39 | 5 | 0 | 2 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 72 | 1816 | 43 | 49 | 1772 | 22 | 43 | 2 | 79 | 20 | 0 | 18 |
| Arrive On Green | 0.04 | 0.36 | 0.36 | 0.03 | 0.34 | 0.34 | 0.08 | 0.08 | 0.08 | 0.01 | 0.00 | 0.01 |
| Sat Flow, veh/h | 1774 | 5109 | 122 | 1774 | 5175 | 65 | 567 | 27 | 1054 | 1774 | 0 | 1583 |
| Grp Volume(v), veh/h | 28 | 416 | 226 | 18 | 365 | 200 | 61 | 0 | 0 | 5 | 0 | 2 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1841 | 1774 | 1695 | 1850 | 1648 | 0 | 0 | 1774 | 0 | 1583 |
| Q Serve(g_s), s | 0.6 | 3.4 | 3.4 | 0.4 | 3.0 | 3.0 | 1.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.6 | 3.4 | 3.4 | 0.4 | 3.0 | 3.0 | 1.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.07 | 1.00 | | 0.04 | 0.34 | | 0.64 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 72 | 1205 | 654 | 49 | 1161 | 633 | 124 | 0 | 0 | 20 | 0 | 18 |
| V/C Ratio(X) | 0.39 | 0.34 | 0.35 | 0.37 | 0.31 | 0.32 | 0.49 | 0.00 | 0.00 | 0.25 | 0.00 | 0.11 |
| Avail Cap(c_a), veh/h | 306 | 2474 | 1344 | 306 | 2474 | 1350 | 1444 | 0 | 0 | 1554 | 0 | 1387 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 17.6 | 8.9 | 8.9 | 18.0 | 9.1 | 9.1 | 16.7 | 0.0 | 0.0 | 18.5 | 0.0 | 18.4 |
| Incr Delay (d2), s/veh | 1.3 | 0.5 | 0.9 | 1.7 | 0.4 | 0.8 | 2.2 | 0.0 | 0.0 | 4.8 | 0.0 | 2.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 1.6 | 1.9 | 0.2 | 1.4 | 1.6 | 0.7 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 18.9 | 9.4 | 9.8 | 19.8 | 9.6 | 9.9 | 19.0 | 0.0 | 0.0 | 23.2 | 0.0 | 20.5 |
| LnGrp LOS | B | A | A | B | A | A | B | | | C | | C |
| Approach Vol, veh/h | | 670 | | | 583 | | | 61 | | | | 7 |
| Approach Delay, s/veh | | 9.9 | | | 10.0 | | | 19.0 | | | | 22.4 |
| Approach LOS | | A | | | A | | | B | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.0 | 19.4 | | 5.4 | 5.5 | 18.9 | | 7.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 27.5 | | 33.0 | 6.5 | 27.5 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.4 | 5.4 | | 2.1 | 2.6 | 5.0 | | 3.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.9 | | 0.0 | 0.0 | 7.0 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 10.4 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

10 Year Cumulative
Timing Plan: A.M. Peak





































| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 160 | 478 | 114 | 495 | 99 | 542 | 97 | 65 | 476 | 81 |
| v/c Ratio | 0.59 | 0.52 | 0.39 | 0.53 | 0.60 | 0.21 | 0.11 | 0.38 | 0.19 | 0.10 |
| Control Delay | 66.3 | 44.4 | 59.9 | 46.2 | 75.8 | 19.9 | 2.6 | 66.2 | 20.2 | 1.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 66.3 | 44.4 | 59.9 | 46.2 | 75.8 | 19.9 | 2.6 | 66.2 | 20.2 | 1.1 |
| Queue Length 50th (ft) | 68 | 126 | 47 | 136 | 42 | 86 | 0 | 27 | 73 | 0 |
| Queue Length 95th (ft) | 103 | 129 | 77 | 139 | #74 | 158 | 23 | 53 | 139 | 7 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 285 | 1833 | 293 | 1813 | 166 | 2628 | 866 | 172 | 2546 | 845 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.56 | 0.26 | 0.39 | 0.27 | 0.60 | 0.21 | 0.11 | 0.38 | 0.19 | 0.10 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

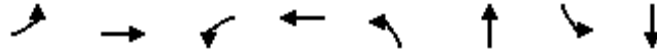
HCM 2010 Signalized Intersection Summary
7: Mooney Blvd & Caldwell Ave

10 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |   |    | |   |    | |   |    |  |   |    |  |
| Traffic Volume (veh/h) | 152 | 370 | 85 | 108 | 406 | 65 | 94 | 515 | 92 | 62 | 452 | 77 |
| Future Volume (veh/h) | 152 | 370 | 85 | 108 | 406 | 65 | 94 | 515 | 92 | 62 | 452 | 77 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 160 | 389 | 89 | 114 | 427 | 68 | 99 | 542 | 97 | 65 | 476 | 81 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 211 | 685 | 152 | 220 | 742 | 116 | 853 | 2765 | 860 | 144 | 1690 | 524 |
| Arrive On Green | 0.06 | 0.16 | 0.16 | 0.06 | 0.17 | 0.17 | 0.25 | 0.54 | 0.54 | 0.04 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 4164 | 921 | 3442 | 4437 | 691 | 3442 | 5085 | 1582 | 3442 | 5085 | 1578 |
| Grp Volume(v), veh/h | 160 | 314 | 164 | 114 | 324 | 171 | 99 | 542 | 97 | 65 | 476 | 81 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1694 | 1721 | 1695 | 1738 | 1721 | 1695 | 1582 | 1721 | 1695 | 1578 |
| Q Serve(g_s), s | 6.0 | 11.1 | 11.6 | 4.2 | 11.4 | 11.8 | 2.9 | 7.1 | 2.5 | 2.4 | 9.0 | 4.7 |
| Cycle Q Clear(g_c), s | 6.0 | 11.1 | 11.6 | 4.2 | 11.4 | 11.8 | 2.9 | 7.1 | 2.5 | 2.4 | 9.0 | 4.7 |
| Prop In Lane | 1.00 | | 0.54 | 1.00 | | 0.40 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 211 | 558 | 279 | 220 | 567 | 291 | 853 | 2765 | 860 | 144 | 1690 | 524 |
| V/C Ratio(X) | 0.76 | 0.56 | 0.59 | 0.52 | 0.57 | 0.59 | 0.12 | 0.20 | 0.11 | 0.45 | 0.28 | 0.15 |
| Avail Cap(c_a), veh/h | 246 | 1241 | 620 | 230 | 1226 | 628 | 853 | 2765 | 860 | 159 | 1690 | 524 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.99 | 0.99 | 0.99 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.99 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 60.1 | 50.0 | 50.2 | 58.9 | 49.8 | 50.0 | 37.9 | 15.2 | 6.2 | 60.8 | 32.0 | 30.5 |
| Incr Delay (d2), s/veh | 8.8 | 1.7 | 3.7 | 0.7 | 1.7 | 3.6 | 0.0 | 0.2 | 0.3 | 0.8 | 0.4 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.1 | 5.3 | 5.7 | 2.0 | 5.5 | 6.0 | 1.4 | 3.4 | 1.6 | 1.2 | 4.3 | 2.1 |
| LnGrp Delay(d),s/veh | 68.8 | 51.7 | 54.0 | 59.6 | 51.6 | 53.6 | 37.9 | 15.3 | 6.5 | 61.7 | 32.4 | 31.2 |
| LnGrp LOS | E | D | D | E | D | D | D | B | A | E | C | C |
| Approach Vol, veh/h | | 638 | | | 609 | | | 738 | | | 622 | |
| Approach Delay, s/veh | | 56.6 | | | 53.7 | | | 17.2 | | | 35.3 | |
| Approach LOS | | E | | | D | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.1 | 77.1 | 14.0 | 27.8 | 38.6 | 49.6 | 13.7 | 28.1 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 43.5 | 8.7 | * 48 | 6.3 | * 43 | 9.3 | * 47 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.4 | 9.1 | 6.2 | 13.6 | 4.9 | 11.0 | 8.0 | 13.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.6 | 0.0 | 5.7 | 0.0 | 7.3 | 0.0 | 5.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 39.7 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St

10 Year Cumulative
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 63 | 481 | 91 | 667 | 27 | 61 | 43 | 35 |
| v/c Ratio | 0.18 | 0.17 | 0.26 | 0.23 | 0.04 | 0.09 | 0.07 | 0.05 |
| Control Delay | 29.5 | 14.5 | 31.3 | 13.9 | 11.3 | 8.3 | 12.1 | 7.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 29.5 | 14.5 | 31.3 | 13.9 | 11.3 | 8.3 | 12.1 | 7.4 |
| Queue Length 50th (ft) | 17 | 32 | 25 | 44 | 6 | 3 | 11 | 1 |
| Queue Length 95th (ft) | 72 | 109 | #120 | 144 | 18 | 27 | 24 | 19 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 374 | 2915 | 374 | 2883 | 626 | 1196 | 585 | 1176 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.17 | 0.17 | 0.24 | 0.23 | 0.04 | 0.05 | 0.07 | 0.03 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

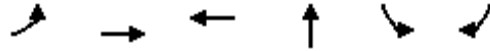
HCM 2010 Signalized Intersection Summary
8: Caldwell Ave & Fairway St

10 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 58 | 400 | 42 | 84 | 495 | 119 | 25 | 12 | 44 | 40 | 5 | 28 |
| Future Volume (veh/h) | 58 | 400 | 42 | 84 | 495 | 119 | 25 | 12 | 44 | 40 | 5 | 28 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 0.99 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 63 | 435 | 46 | 91 | 538 | 129 | 27 | 13 | 48 | 43 | 5 | 30 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 133 | 1310 | 136 | 167 | 1228 | 287 | 424 | 47 | 172 | 408 | 35 | 208 |
| Arrive On Green | 0.07 | 0.28 | 0.28 | 0.09 | 0.30 | 0.30 | 0.04 | 0.13 | 0.13 | 0.06 | 0.15 | 0.15 |
| Sat Flow, veh/h | 1774 | 4678 | 487 | 1774 | 4101 | 958 | 1774 | 348 | 1283 | 1774 | 228 | 1370 |
| Grp Volume(v), veh/h | 63 | 313 | 168 | 91 | 442 | 225 | 27 | 0 | 61 | 43 | 0 | 35 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1775 | 1774 | 1695 | 1669 | 1774 | 0 | 1631 | 1774 | 0 | 1598 |
| Q Serve(g_s), s | 1.4 | 3.0 | 3.1 | 2.0 | 4.3 | 4.5 | 0.5 | 0.0 | 1.4 | 0.8 | 0.0 | 0.8 |
| Cycle Q Clear(g_c), s | 1.4 | 3.0 | 3.1 | 2.0 | 4.3 | 4.5 | 0.5 | 0.0 | 1.4 | 0.8 | 0.0 | 0.8 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 0.57 | 1.00 | | 0.79 | 1.00 | | 0.86 |
| Lane Grp Cap(c), veh/h | 133 | 949 | 497 | 167 | 1015 | 500 | 424 | 0 | 219 | 408 | 0 | 243 |
| V/C Ratio(X) | 0.48 | 0.33 | 0.34 | 0.55 | 0.44 | 0.45 | 0.06 | 0.00 | 0.28 | 0.11 | 0.00 | 0.14 |
| Avail Cap(c_a), veh/h | 279 | 1558 | 816 | 279 | 1558 | 767 | 677 | 0 | 1341 | 629 | 0 | 1314 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.4 | 11.8 | 11.8 | 17.9 | 11.7 | 11.7 | 14.4 | 0.0 | 16.1 | 13.9 | 0.0 | 15.2 |
| Incr Delay (d2), s/veh | 1.0 | 0.6 | 1.1 | 1.0 | 0.8 | 1.7 | 0.1 | 0.0 | 1.9 | 0.2 | 0.0 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 1.5 | 1.6 | 1.0 | 2.1 | 2.3 | 0.3 | 0.0 | 0.7 | 0.4 | 0.0 | 0.4 |
| LnGrp Delay(d),s/veh | 19.3 | 12.4 | 12.9 | 18.9 | 12.5 | 13.5 | 14.5 | 0.0 | 18.0 | 14.1 | 0.0 | 15.9 |
| LnGrp LOS | B | B | B | B | B | B | B | | B | B | | B |
| Approach Vol, veh/h | | 544 | | | 758 | | | 88 | | | | 78 |
| Approach Delay, s/veh | | 13.3 | | | 13.6 | | | 16.9 | | | | 15.0 |
| Approach LOS | | B | | | B | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.9 | 17.6 | 5.3 | 10.5 | 7.1 | 18.4 | 4.6 | 11.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 19.0 | 7.5 | 34.0 | 6.5 | 19.0 | 7.5 | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.0 | 5.1 | 2.8 | 3.4 | 3.4 | 6.5 | 2.5 | 2.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.5 | 0.0 | 0.7 | 0.0 | 5.9 | 0.0 | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 13.8 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave





















10 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBT | NBT | SBL | SBR |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 25 | 528 | 852 | 3 | 66 | 58 |
| v/c Ratio | 0.09 | 0.23 | 0.40 | 0.01 | 0.17 | 0.09 |
| Control Delay | 23.7 | 5.5 | 8.3 | 18.3 | 19.3 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.7 | 5.5 | 8.3 | 18.3 | 19.3 | 0.3 |
| Queue Length 50th (ft) | 6 | 34 | 61 | 1 | 13 | 0 |
| Queue Length 95th (ft) | 29 | 61 | 165 | 7 | 52 | 0 |
| Internal Link Dist (ft) | | 1064 | 2594 | 260 | | |
| Turn Bay Length (ft) | 235 | | | | | 200 |
| Base Capacity (vph) | 312 | 2537 | 2405 | 1070 | 1068 | 1257 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.08 | 0.21 | 0.35 | 0.00 | 0.06 | 0.05 |
| Intersection Summary | | | | | | |

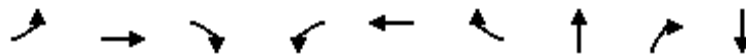
HCM 2010 Signalized Intersection Summary
 9: Stonebrook St & Caldwell Ave

10 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  |  |
| Traffic Volume (veh/h) | 23 | 482 | 4 | 0 | 759 | 25 | 3 | 0 | 0 | 61 | 0 | 53 |
| Future Volume (veh/h) | 23 | 482 | 4 | 0 | 759 | 25 | 3 | 0 | 0 | 61 | 0 | 53 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 25 | 524 | 4 | 0 | 825 | 27 | 3 | 0 | 0 | 66 | 0 | 58 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 64 | 2076 | 16 | 4 | 1578 | 52 | 399 | 0 | 0 | 411 | 331 | 281 |
| Arrive On Green | 0.04 | 0.58 | 0.58 | 0.00 | 0.45 | 0.45 | 0.18 | 0.00 | 0.00 | 0.18 | 0.00 | 0.18 |
| Sat Flow, veh/h | 1774 | 3600 | 27 | 1774 | 3497 | 114 | 1340 | 0 | 0 | 1406 | 1863 | 1583 |
| Grp Volume(v), veh/h | 25 | 258 | 270 | 0 | 417 | 435 | 3 | 0 | 0 | 66 | 0 | 58 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1858 | 1774 | 1770 | 1842 | 1340 | 0 | 0 | 1406 | 1863 | 1583 |
| Q Serve(g_s), s | 0.6 | 3.2 | 3.2 | 0.0 | 7.6 | 7.6 | 0.1 | 0.0 | 0.0 | 1.7 | 0.0 | 1.4 |
| Cycle Q Clear(g_c), s | 0.6 | 3.2 | 3.2 | 0.0 | 7.6 | 7.6 | 0.1 | 0.0 | 0.0 | 1.8 | 0.0 | 1.4 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 0.06 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 64 | 1020 | 1071 | 4 | 799 | 831 | 399 | 0 | 0 | 411 | 331 | 281 |
| V/C Ratio(X) | 0.39 | 0.25 | 0.25 | 0.00 | 0.52 | 0.52 | 0.01 | 0.00 | 0.00 | 0.16 | 0.00 | 0.21 |
| Avail Cap(c_a), veh/h | 262 | 1167 | 1226 | 258 | 1163 | 1211 | 1179 | 0 | 0 | 1230 | 1416 | 1204 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.1 | 4.7 | 4.7 | 0.0 | 8.8 | 8.8 | 15.2 | 0.0 | 0.0 | 15.9 | 0.0 | 15.7 |
| Incr Delay (d2), s/veh | 1.5 | 0.5 | 0.4 | 0.0 | 1.9 | 1.8 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 1.7 | 1.8 | 0.0 | 4.0 | 4.2 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.7 |
| LnGrp Delay(d),s/veh | 22.6 | 5.2 | 5.1 | 0.0 | 10.7 | 10.7 | 15.2 | 0.0 | 0.0 | 16.2 | 0.0 | 16.5 |
| LnGrp LOS | C | A | A | | B | B | B | | | B | | B |
| Approach Vol, veh/h | | 553 | | | 852 | | | 3 | | | 124 | |
| Approach Delay, s/veh | | 5.9 | | | 10.7 | | | 15.2 | | | 16.4 | |
| Approach LOS | | A | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 0.0 | 31.8 | | 12.9 | 5.6 | 26.2 | | 12.9 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 29.5 | | 34.0 | 6.6 | 29.4 | | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 0.0 | 5.2 | | 2.1 | 2.6 | 9.6 | | 3.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.3 | | 0.0 | 0.0 | 10.5 | | 0.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.4 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |

Queues
10: West St & Caldwell Ave






















10 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 57 | 555 | 28 | 50 | 751 | 47 | 139 | 30 | 202 |
| v/c Ratio | 0.26 | 0.37 | 0.04 | 0.23 | 0.50 | 0.07 | 0.34 | 0.06 | 0.48 |
| Control Delay | 31.2 | 12.9 | 0.1 | 30.8 | 14.2 | 1.9 | 22.7 | 0.2 | 21.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 31.2 | 12.9 | 0.1 | 30.8 | 14.2 | 1.9 | 22.7 | 0.2 | 21.9 |
| Queue Length 50th (ft) | 20 | 72 | 0 | 18 | 105 | 0 | 43 | 0 | 56 |
| Queue Length 95th (ft) | 58 | 125 | 1 | 52 | 175 | 10 | 94 | 0 | 121 |
| Internal Link Dist (ft) | | 2594 | | | 1245 | | 332 | | 320 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 242 | 2042 | 946 | 242 | 2042 | 946 | 1036 | 1056 | 1039 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.24 | 0.27 | 0.03 | 0.21 | 0.37 | 0.05 | 0.13 | 0.03 | 0.19 |
| Intersection Summary | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
10: West St & Caldwell Ave

10 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  | |
| Traffic Volume (veh/h) | 52 | 511 | 26 | 46 | 691 | 43 | 43 | 85 | 28 | 45 | 88 | 52 |
| Future Volume (veh/h) | 52 | 511 | 26 | 46 | 691 | 43 | 43 | 85 | 28 | 45 | 88 | 52 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 57 | 555 | 28 | 50 | 751 | 47 | 47 | 92 | 30 | 49 | 96 | 57 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 118 | 1477 | 661 | 108 | 1457 | 652 | 177 | 267 | 313 | 145 | 178 | 90 |
| Arrive On Green | 0.07 | 0.42 | 0.42 | 0.06 | 0.41 | 0.41 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1583 | 385 | 1352 | 1583 | 261 | 902 | 457 |
| Grp Volume(v), veh/h | 57 | 555 | 28 | 50 | 751 | 47 | 139 | 0 | 30 | 202 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1583 | 1737 | 0 | 1583 | 1620 | 0 | 0 |
| Q Serve(g_s), s | 1.5 | 5.2 | 0.5 | 1.3 | 7.6 | 0.9 | 0.0 | 0.0 | 0.7 | 2.3 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 1.5 | 5.2 | 0.5 | 1.3 | 7.6 | 0.9 | 3.1 | 0.0 | 0.7 | 5.4 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.34 | | 1.00 | 0.24 | | 0.28 |
| Lane Grp Cap(c), veh/h | 118 | 1477 | 661 | 108 | 1457 | 652 | 444 | 0 | 313 | 414 | 0 | 0 |
| V/C Ratio(X) | 0.48 | 0.38 | 0.04 | 0.46 | 0.52 | 0.07 | 0.31 | 0.00 | 0.10 | 0.49 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 260 | 2183 | 977 | 260 | 2183 | 977 | 1225 | 0 | 1093 | 1201 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 21.5 | 9.6 | 8.3 | 21.7 | 10.5 | 8.5 | 16.6 | 0.0 | 15.7 | 17.5 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 1.1 | 0.6 | 0.1 | 1.1 | 1.0 | 0.2 | 0.9 | 0.0 | 0.3 | 1.9 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 2.6 | 0.2 | 0.7 | 3.9 | 0.4 | 1.7 | 0.0 | 0.3 | 2.6 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 22.7 | 10.2 | 8.4 | 22.8 | 11.5 | 8.7 | 17.5 | 0.0 | 16.0 | 19.4 | 0.0 | 0.0 |
| LnGrp LOS | C | B | A | C | B | A | B | | B | B | | |
| Approach Vol, veh/h | | 640 | | | 848 | | | 169 | | | 202 | |
| Approach Delay, s/veh | | 11.2 | | | 12.0 | | | 17.2 | | | 19.4 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.9 | 26.5 | | 14.4 | 7.2 | 26.2 | | 14.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 7.0 | 29.5 | | 33.0 | 7.0 | 29.5 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.3 | 7.2 | | 5.1 | 3.5 | 9.6 | | 7.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.9 | | 1.7 | 0.0 | 10.1 | | 2.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 13.0 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
11: County Center Dr & Cameron Ave













10 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 54 | 158 | 137 | 23 | 229 | 196 |
| v/c Ratio | 0.14 | 0.34 | 0.13 | 0.03 | 0.32 | 0.18 |
| Control Delay | 10.3 | 4.7 | 5.1 | 2.6 | 6.7 | 5.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 10.3 | 4.7 | 5.1 | 2.6 | 6.7 | 5.3 |
| Queue Length 50th (ft) | 6 | 0 | 10 | 0 | 18 | 14 |
| Queue Length 95th (ft) | 23 | 25 | 28 | 6 | 53 | 39 |
| Internal Link Dist (ft) | 1226 | | 772 | | | 355 |
| Turn Bay Length (ft) | | 100 | | 160 | 145 | |
| Base Capacity (vph) | 1085 | 1010 | 1263 | 1055 | 842 | 1263 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.16 | 0.11 | 0.02 | 0.27 | 0.16 |
| Intersection Summary | | | | | | |

HCM 2010 Signalized Intersection Summary
 11: County Center Dr & Cameron Ave

10 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  | | |
|------------------------------|---|---|---|---|---|---|---|------|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT | | |
| Lane Configurations |  |  |  |  |  |  | | |
| Traffic Volume (veh/h) | 50 | 145 | 126 | 21 | 211 | 180 | | |
| Future Volume (veh/h) | 50 | 145 | 126 | 21 | 211 | 180 | | |
| Number | 3 | 18 | 2 | 12 | 1 | 6 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 54 | 158 | 137 | 23 | 229 | 196 | | |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 305 | 272 | 713 | 604 | 763 | 713 | | |
| Arrive On Green | 0.17 | 0.17 | 0.38 | 0.38 | 0.38 | 0.38 | | |
| Sat Flow, veh/h | 1774 | 1583 | 1863 | 1577 | 1218 | 1863 | | |
| Grp Volume(v), veh/h | 54 | 158 | 137 | 23 | 229 | 196 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1583 | 1863 | 1577 | 1218 | 1863 | | |
| Q Serve(g_s), s | 0.5 | 1.9 | 1.0 | 0.2 | 3.1 | 1.5 | | |
| Cycle Q Clear(g_c), s | 0.5 | 1.9 | 1.0 | 0.2 | 4.1 | 1.5 | | |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 305 | 272 | 713 | 604 | 763 | 713 | | |
| V/C Ratio(X) | 0.18 | 0.58 | 0.19 | 0.04 | 0.30 | 0.27 | | |
| Avail Cap(c_a), veh/h | 1579 | 1409 | 1658 | 1404 | 1380 | 1658 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 7.1 | 7.7 | 4.2 | 3.9 | 5.5 | 4.3 | | |
| Incr Delay (d2), s/veh | 0.3 | 2.0 | 0.1 | 0.0 | 0.2 | 0.2 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 0.3 | 0.9 | 0.5 | 0.1 | 1.1 | 0.7 | | |
| LnGrp Delay(d),s/veh | 7.4 | 9.7 | 4.3 | 3.9 | 5.7 | 4.5 | | |
| LnGrp LOS | A | A | A | A | A | A | | |
| Approach Vol, veh/h | 212 | | 160 | | | 425 | | |
| Approach Delay, s/veh | 9.1 | | 4.2 | | | 5.2 | | |
| Approach LOS | A | | A | | | A | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | | | 6 | | 8 |
| Phs Duration (G+Y+Rc), s | | 12.2 | | | | 12.2 | | 8.0 |
| Change Period (Y+Rc), s | | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | | 18.0 | | | | 18.0 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | | 3.0 | | | | 6.1 | | 3.9 |
| Green Ext Time (p_c), s | | 0.6 | | | | 1.5 | | 0.5 |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 6.0 | | | | | |
| HCM 2010 LOS | | | A | | | | | |

Queues
12: Mooney Blvd & Cameron Ave

10 Year Cumulative
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 72 | 179 | 104 | 280 | 9 | 584 | 101 | 86 | 427 | 35 |
| v/c Ratio | 0.47 | 0.45 | 0.59 | 0.49 | 0.05 | 0.22 | 0.11 | 0.46 | 0.14 | 0.04 |
| Control Delay | 57.4 | 46.2 | 59.9 | 31.2 | 50.0 | 15.2 | 1.0 | 58.7 | 11.4 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.4 | 46.2 | 59.9 | 31.2 | 50.0 | 15.2 | 1.0 | 58.7 | 11.4 | 0.1 |
| Queue Length 50th (ft) | 49 | 59 | 71 | 64 | 3 | 79 | 0 | 30 | 42 | 0 |
| Queue Length 95th (ft) | 94 | 92 | 123 | 102 | 11 | 120 | 9 | 57 | 88 | 0 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 172 | 1403 | 194 | 1404 | 187 | 2715 | 905 | 187 | 3040 | 990 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.42 | 0.13 | 0.54 | 0.20 | 0.05 | 0.22 | 0.11 | 0.46 | 0.14 | 0.04 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

10 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 69 | 157 | 14 | 100 | 177 | 92 | 9 | 561 | 97 | 83 | 410 | 34 |
| Future Volume (veh/h) | 69 | 157 | 14 | 100 | 177 | 92 | 9 | 561 | 97 | 83 | 410 | 34 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 72 | 164 | 15 | 104 | 184 | 96 | 9 | 584 | 101 | 86 | 427 | 35 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 92 | 272 | 25 | 175 | 295 | 147 | 45 | 1179 | 367 | 1240 | 2977 | 926 |
| Arrive On Green | 0.05 | 0.08 | 0.08 | 0.10 | 0.13 | 0.13 | 0.01 | 0.23 | 0.23 | 0.36 | 0.59 | 0.59 |
| Sat Flow, veh/h | 1774 | 3283 | 297 | 1774 | 2279 | 1134 | 3442 | 5085 | 1581 | 3442 | 5085 | 1581 |
| Grp Volume(v), veh/h | 72 | 88 | 91 | 104 | 141 | 139 | 9 | 584 | 101 | 86 | 427 | 35 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1810 | 1774 | 1770 | 1644 | 1721 | 1695 | 1581 | 1721 | 1695 | 1581 |
| Q Serve(g_s), s | 4.4 | 5.3 | 5.4 | 6.2 | 8.3 | 8.9 | 0.3 | 11.0 | 5.8 | 1.8 | 4.2 | 0.6 |
| Cycle Q Clear(g_c), s | 4.4 | 5.3 | 5.4 | 6.2 | 8.3 | 8.9 | 0.3 | 11.0 | 5.8 | 1.8 | 4.2 | 0.6 |
| Prop In Lane | 1.00 | | 0.16 | 1.00 | | 0.69 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 92 | 147 | 150 | 175 | 229 | 213 | 45 | 1179 | 367 | 1240 | 2977 | 926 |
| V/C Ratio(X) | 0.78 | 0.60 | 0.61 | 0.60 | 0.61 | 0.65 | 0.20 | 0.50 | 0.28 | 0.07 | 0.14 | 0.04 |
| Avail Cap(c_a), veh/h | 161 | 708 | 724 | 175 | 713 | 662 | 188 | 1179 | 367 | 1240 | 2977 | 926 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.76 | 0.76 | 0.76 | 0.98 | 0.98 | 0.98 |
| Uniform Delay (d), s/veh | 51.5 | 48.7 | 48.7 | 47.5 | 45.3 | 45.5 | 53.7 | 36.7 | 34.7 | 23.1 | 10.3 | 3.6 |
| Incr Delay (d2), s/veh | 5.3 | 7.1 | 7.2 | 3.8 | 6.2 | 7.8 | 0.6 | 1.1 | 1.4 | 0.0 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.3 | 2.9 | 3.0 | 3.2 | 4.4 | 4.5 | 0.1 | 5.3 | 2.7 | 0.9 | 2.0 | 0.4 |
| LnGrp Delay(d),s/veh | 56.8 | 55.7 | 55.9 | 51.3 | 51.5 | 53.3 | 54.3 | 37.8 | 36.1 | 23.1 | 10.4 | 3.7 |
| LnGrp LOS | E | E | E | D | D | D | D | D | D | C | B | A |
| Approach Vol, veh/h | | 251 | | | 384 | | | 694 | | | 548 | |
| Approach Delay, s/veh | | 56.1 | | | 52.1 | | | 37.8 | | | 12.0 | |
| Approach LOS | | E | | | D | | | D | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 46.0 | 31.9 | 16.5 | 15.5 | 7.1 | 70.8 | 11.4 | 20.6 | | | | |
| Change Period (Y+Rc), s | 6.4 | * 6.4 | 5.7 | * 6.4 | * 5.7 | 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | 6.0 | * 26 | 10.3 | * 44 | * 6 | 25.5 | 10.0 | * 44 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.8 | 13.0 | 8.2 | 7.4 | 2.3 | 6.2 | 6.4 | 10.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.3 | 0.0 | 1.8 | 0.0 | 7.0 | 0.0 | 3.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 35.6 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.3 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 274 | 5 | 321 | 414 | 6 | 188 |
| Future Vol, veh/h | 274 | 5 | 321 | 414 | 6 | 188 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 145 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 298 | 5 | 349 | 450 | 7 | 204 |

| Major/Minor | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|-------------|
| Conflicting Flow All | 0 | 0 | 303 | 0 | 1449 301 |
| Stage 1 | - | - | - | - | 301 - |
| Stage 2 | - | - | - | - | 1148 - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | - | - | 1258 | - | 144 739 |
| Stage 1 | - | - | - | - | 751 - |
| Stage 2 | - | - | - | - | 302 - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1258 | - | 91 739 |
| Mov Cap-2 Maneuver | - | - | - | - | 162 - |
| Stage 1 | - | - | - | - | 751 - |
| Stage 2 | - | - | - | - | 190 - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 3.9 | 12.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 162 | 739 | - | - | 1258 | - |
| HCM Lane V/C Ratio | 0.04 | 0.277 | - | - | 0.277 | - |
| HCM Control Delay (s) | 28.2 | 11.7 | - | - | 9 | 0 |
| HCM Lane LOS | D | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.1 | 1.1 | - | - | 1.1 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 56 | 316 | 9 | 0 | 326 | 5 | 25 | 6 | 8 | 3 | 3 | 11 |
| Future Vol, veh/h | 56 | 316 | 9 | 0 | 326 | 5 | 25 | 6 | 8 | 3 | 3 | 11 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 61 | 343 | 10 | 0 | 354 | 5 | 27 | 7 | 9 | 3 | 3 | 12 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 359 | 0 | 0 | 353 | 0 | 0 | 834 | 829 | 349 | 836 | 832 | 357 |
| Stage 1 | - | - | - | - | - | - | 470 | 470 | - | 357 | 357 | - |
| Stage 2 | - | - | - | - | - | - | 364 | 359 | - | 479 | 475 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1200 | - | - | 1206 | - | - | 288 | 306 | 694 | 287 | 305 | 687 |
| Stage 1 | - | - | - | - | - | - | 574 | 560 | - | 661 | 628 | - |
| Stage 2 | - | - | - | - | - | - | 655 | 627 | - | 568 | 557 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1200 | - | - | 1206 | - | - | 270 | 290 | 693 | 267 | 289 | 687 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 270 | 290 | - | 267 | 289 | - |
| Stage 1 | - | - | - | - | - | - | 545 | 531 | - | 627 | 628 | - |
| Stage 2 | - | - | - | - | - | - | 640 | 627 | - | 525 | 529 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 1.2 | | | 0 | | | 18.3 | | | 13.2 | | |
| HCM LOS | | | | | | | C | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|-------|
| Capacity (veh/h) | 312 | 1200 | - | - | 1206 | - | - | 267 | 530 |
| HCM Lane V/C Ratio | 0.136 | 0.051 | - | - | - | - | - | 0.012 | 0.029 |
| HCM Control Delay (s) | 18.3 | 8.2 | - | - | 0 | - | - | 18.7 | 12 |
| HCM Lane LOS | C | A | - | - | A | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.5 | 0.2 | - | - | 0 | - | - | 0 | 0.1 |

Queues
15: Court St & Cameron Ave





















10 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 250 | 250 | 99 | 1 | 4 | 52 | 241 | 240 |
| v/c Ratio | 0.53 | 0.56 | 0.14 | 0.00 | 0.00 | 0.12 | 0.15 | 0.21 |
| Control Delay | 11.5 | 12.2 | 3.4 | 9.0 | 9.0 | 9.8 | 0.2 | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 11.5 | 12.2 | 3.4 | 9.0 | 9.0 | 9.8 | 0.2 | 0.4 |
| Queue Length 50th (ft) | 24 | 24 | 3 | 0 | 0 | 5 | 0 | 0 |
| Queue Length 95th (ft) | 75 | 76 | 19 | 2 | 2 | 24 | 0 | 0 |
| Internal Link Dist (ft) | | 563 | 789 | | 604 | | 1556 | |
| Turn Bay Length (ft) | 260 | | | 225 | | 195 | | 200 |
| Base Capacity (vph) | 760 | 728 | 1079 | 688 | 2194 | 871 | 2159 | 1264 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.33 | 0.34 | 0.09 | 0.00 | 0.00 | 0.06 | 0.11 | 0.19 |
| Intersection Summary | | | | | | | | |

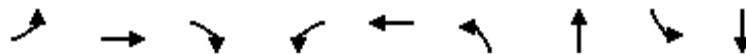
HCM 2010 Signalized Intersection Summary
 15: Court St & Cameron Ave

10 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 451 | 9 | 0 | 0 | 32 | 59 | 1 | 4 | 0 | 48 | 1 | 442 |
| Future Volume (veh/h) | 451 | 9 | 0 | 0 | 32 | 59 | 1 | 4 | 0 | 48 | 1 | 442 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 497 | 0 | 0 | 0 | 35 | 64 | 1 | 4 | 0 | 52 | 1 | 480 |
| Adj No. of Lanes | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 2 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 1380 | 643 | 0 | 0 | 204 | 373 | 555 | 1001 | 0 | 694 | 527 | 895 |
| Arrive On Green | 0.35 | 0.00 | 0.00 | 0.00 | 0.35 | 0.35 | 0.28 | 0.28 | 0.00 | 0.28 | 0.28 | 0.28 |
| Sat Flow, veh/h | 2582 | 1863 | 0 | 0 | 591 | 1081 | 910 | 3632 | 0 | 1407 | 1863 | 3167 |
| Grp Volume(v), veh/h | 497 | 0 | 0 | 0 | 0 | 99 | 1 | 4 | 0 | 52 | 1 | 480 |
| Grp Sat Flow(s),veh/h/ln | 1291 | 1863 | 0 | 0 | 0 | 1672 | 910 | 1770 | 0 | 1407 | 1863 | 1583 |
| Q Serve(g_s), s | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 3.1 |
| Cycle Q Clear(g_c), s | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 3.1 |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 0.65 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 1380 | 643 | 0 | 0 | 0 | 577 | 555 | 1001 | 0 | 694 | 527 | 895 |
| V/C Ratio(X) | 0.36 | 0.00 | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 | 0.00 | 0.07 | 0.00 | 0.54 |
| Avail Cap(c_a), veh/h | 2410 | 1386 | 0 | 0 | 0 | 1244 | 974 | 2633 | 0 | 1343 | 1386 | 2356 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 7.3 | 0.0 | 0.0 | 0.0 | 0.0 | 5.5 | 6.2 | 6.2 | 0.0 | 6.5 | 6.2 | 7.3 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 1.4 |
| LnGrp Delay(d),s/veh | 7.4 | 0.0 | 0.0 | 0.0 | 0.0 | 5.7 | 6.2 | 6.2 | 0.0 | 6.5 | 6.2 | 7.8 |
| LnGrp LOS | A | | | | | A | A | A | | A | A | A |
| Approach Vol, veh/h | | 497 | | | 99 | | | 5 | | | 533 | |
| Approach Delay, s/veh | | 7.4 | | | 5.7 | | | 6.2 | | | 7.7 | |
| Approach LOS | | A | | | A | | | A | | | A | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 11.3 | | 12.9 | | 11.3 | | 12.9 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 18.0 | | 18.0 | | 18.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 7.0 | | 5.1 | | 3.0 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 1.5 | | 1.7 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 7.4 | | | | | | | | |
| HCM 2010 LOS | | | | A | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
16: Demaree St & Visalia Pkwy






















10 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 46 | 318 | 86 | 71 | 326 | 65 | 652 | 103 | 530 |
| v/c Ratio | 0.29 | 0.59 | 0.16 | 0.40 | 0.28 | 0.36 | 0.60 | 0.49 | 0.46 |
| Control Delay | 49.3 | 33.5 | 2.7 | 50.2 | 21.4 | 48.6 | 29.1 | 49.8 | 25.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.3 | 33.5 | 2.7 | 50.2 | 21.4 | 48.6 | 29.1 | 49.8 | 25.3 |
| Queue Length 50th (ft) | 24 | 151 | 0 | 37 | 63 | 34 | 160 | 54 | 118 |
| Queue Length 95th (ft) | 71 | 278 | 16 | 97 | 115 | 90 | 260 | 127 | 199 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 775 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 174 | 876 | 800 | 215 | 1706 | 235 | 1679 | 289 | 1784 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.26 | 0.36 | 0.11 | 0.33 | 0.19 | 0.28 | 0.39 | 0.36 | 0.30 |
| Intersection Summary | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

10 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 42 | 293 | 79 | 65 | 228 | 72 | 60 | 537 | 63 | 95 | 429 | 59 |
| Future Volume (veh/h) | 42 | 293 | 79 | 65 | 228 | 72 | 60 | 537 | 63 | 95 | 429 | 59 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 46 | 318 | 86 | 71 | 248 | 78 | 65 | 584 | 68 | 103 | 466 | 64 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 92 | 477 | 405 | 118 | 722 | 222 | 112 | 914 | 106 | 137 | 940 | 128 |
| Arrive On Green | 0.05 | 0.26 | 0.26 | 0.07 | 0.27 | 0.27 | 0.06 | 0.29 | 0.29 | 0.08 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1774 | 1863 | 1581 | 1774 | 2668 | 820 | 1774 | 3187 | 370 | 1774 | 3123 | 427 |
| Grp Volume(v), veh/h | 46 | 318 | 86 | 71 | 163 | 163 | 65 | 324 | 328 | 103 | 263 | 267 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1581 | 1774 | 1770 | 1718 | 1774 | 1770 | 1787 | 1774 | 1770 | 1780 |
| Q Serve(g_s), s | 1.7 | 10.1 | 2.8 | 2.6 | 4.9 | 5.0 | 2.3 | 10.5 | 10.6 | 3.7 | 8.0 | 8.1 |
| Cycle Q Clear(g_c), s | 1.7 | 10.1 | 2.8 | 2.6 | 4.9 | 5.0 | 2.3 | 10.5 | 10.6 | 3.7 | 8.0 | 8.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.48 | 1.00 | | 0.21 | 1.00 | | 0.24 |
| Lane Grp Cap(c), veh/h | 92 | 477 | 405 | 118 | 479 | 465 | 112 | 508 | 513 | 137 | 532 | 536 |
| V/C Ratio(X) | 0.50 | 0.67 | 0.21 | 0.60 | 0.34 | 0.35 | 0.58 | 0.64 | 0.64 | 0.75 | 0.49 | 0.50 |
| Avail Cap(c_a), veh/h | 192 | 963 | 818 | 237 | 961 | 933 | 259 | 936 | 946 | 318 | 996 | 1002 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 30.3 | 21.9 | 19.2 | 29.9 | 19.3 | 19.3 | 29.9 | 20.5 | 20.5 | 29.7 | 18.9 | 18.9 |
| Incr Delay (d2), s/veh | 1.6 | 4.9 | 0.8 | 1.9 | 1.3 | 1.4 | 1.7 | 2.6 | 2.6 | 3.1 | 1.4 | 1.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 5.8 | 1.3 | 1.3 | 2.5 | 2.5 | 1.2 | 5.5 | 5.6 | 1.9 | 4.1 | 4.1 |
| LnGrp Delay(d),s/veh | 31.9 | 26.8 | 20.0 | 31.7 | 20.5 | 20.7 | 31.7 | 23.0 | 23.1 | 32.8 | 20.3 | 20.3 |
| LnGrp LOS | C | C | C | C | C | C | C | C | C | C | C | C |
| Approach Vol, veh/h | | 450 | | | 397 | | | 717 | | | 633 | |
| Approach Delay, s/veh | | 26.0 | | | 22.6 | | | 23.8 | | | 22.3 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.3 | 25.9 | 8.6 | 22.0 | 8.4 | 26.8 | 7.6 | 23.0 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 12 | 34.8 | * 8.8 | 34.0 | * 9.6 | 37.0 | * 7.1 | 35.7 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.7 | 12.6 | 4.6 | 12.1 | 4.3 | 10.1 | 3.7 | 7.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.3 | 0.0 | 4.6 | 0.0 | 5.5 | 0.0 | 4.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 23.6 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

HCM 2010 TWSC
17: Visalia Pkwy & Dans St

10 Year Cumulative
Timing Plan: A.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 162 | 272 | 3 | 1 | 266 | 97 | 5 | 0 | 3 | 42 | 0 | 126 |
| Future Vol, veh/h | 162 | 272 | 3 | 1 | 266 | 97 | 5 | 0 | 3 | 42 | 0 | 126 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 176 | 296 | 3 | 1 | 289 | 105 | 5 | 0 | 3 | 46 | 0 | 137 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 394 | 0 | 0 | 299 | 0 | 0 | 1062 | 1046 | 298 | 995 | 995 | 342 |
| Stage 1 | - | - | - | - | - | - | 650 | 650 | - | 344 | 344 | - |
| Stage 2 | - | - | - | - | - | - | 412 | 396 | - | 651 | 651 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1165 | - | - | 1262 | - | - | 201 | 228 | 741 | 224 | 245 | 701 |
| Stage 1 | - | - | - | - | - | - | 458 | 465 | - | 671 | 637 | - |
| Stage 2 | - | - | - | - | - | - | 617 | 604 | - | 457 | 465 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1165 | - | - | 1262 | - | - | 143 | 193 | 741 | 197 | 208 | 701 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 143 | 193 | - | 197 | 208 | - |
| Stage 1 | - | - | - | - | - | - | 389 | 395 | - | 570 | 636 | - |
| Stage 2 | - | - | - | - | - | - | 496 | 603 | - | 386 | 395 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 3.2 | | | 0 | | | 23.3 | | | 19.5 | | |
| HCM LOS | | | | | | | C | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 205 | 1165 | - | - | 1262 | - | - | 428 |
| HCM Lane V/C Ratio | 0.042 | 0.151 | - | - | 0.001 | - | - | 0.427 |
| HCM Control Delay (s) | 23.3 | 8.6 | - | - | 7.9 | - | - | 19.5 |
| HCM Lane LOS | C | A | - | - | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.1 | 0.5 | - | - | 0 | - | - | 2.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.2 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 87 | 287 | 345 | 56 | 69 | 155 |
| Future Vol, veh/h | 87 | 287 | 345 | 56 | 69 | 155 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 95 | 312 | 375 | 61 | 75 | 168 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 436 | 0 | - | 0 | 908 |
| Stage 1 | - | - | - | - | 406 |
| Stage 2 | - | - | - | - | 502 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1124 | - | - | - | 306 |
| Stage 1 | - | - | - | - | 673 |
| Stage 2 | - | - | - | - | 608 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1124 | - | - | - | 280 |
| Mov Cap-2 Maneuver | - | - | - | - | 280 |
| Stage 1 | - | - | - | - | 616 |
| Stage 2 | - | - | - | - | 608 |

| Approach | EB | WB | SB |
|----------------------|----|----|------|
| HCM Control Delay, s | 2 | 0 | 15.6 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1124 | - | - | - | 280 | 645 |
| HCM Lane V/C Ratio | 0.084 | - | - | - | 0.268 | 0.261 |
| HCM Control Delay (s) | 8.5 | - | - | - | 22.5 | 12.5 |
| HCM Lane LOS | A | - | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 1.1 | 1 |

HCM 2010 TWSC
 19: Main Site Access/Target Dwy & Visalia Pkwy

10 Year Cumulative
 Timing Plan: A.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 19.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 37 | 303 | 62 | 119 | 303 | 14 | 90 | 0 | 244 | 7 | 0 | 15 |
| Future Vol, veh/h | 37 | 303 | 62 | 119 | 303 | 14 | 90 | 0 | 244 | 7 | 0 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 40 | 329 | 67 | 129 | 329 | 15 | 98 | 0 | 265 | 8 | 0 | 16 |

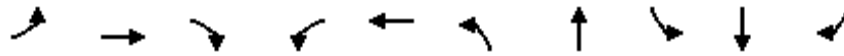
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 344 | 0 | 0 | 396 | 0 | 0 | 1047 | 1045 | 363 | 1170 | 1071 | 338 |
| Stage 1 | - | - | - | - | - | - | 443 | 443 | - | 595 | 595 | - |
| Stage 2 | - | - | - | - | - | - | 604 | 602 | - | 575 | 476 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1215 | - | - | 1163 | - | - | 206 | 229 | 682 | 170 | 221 | 704 |
| Stage 1 | - | - | - | - | - | - | 594 | 576 | - | 491 | 492 | - |
| Stage 2 | - | - | - | - | - | - | 485 | 489 | - | 503 | 557 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1215 | - | - | 1163 | - | - | 179 | 197 | 682 | 93 | 190 | 703 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 179 | 197 | - | 93 | 190 | - |
| Stage 1 | - | - | - | - | - | - | 574 | 557 | - | 475 | 437 | - |
| Stage 2 | - | - | - | - | - | - | 421 | 435 | - | 297 | 539 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|----|--|--|------|--|--|
| HCM Control Delay, s | 0.7 | | | 2.3 | | | 64 | | | 22.6 | | |
| HCM LOS | | | | | | | F | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 388 | 1215 | - | - | 1163 | - | - | 228 |
| HCM Lane V/C Ratio | 0.936 | 0.033 | - | - | 0.111 | - | - | 0.105 |
| HCM Control Delay (s) | 64 | 8.1 | - | - | 8.5 | - | - | 22.6 |
| HCM Lane LOS | F | A | - | - | A | - | - | C |
| HCM 95th %tile Q(veh) | 10.2 | 0.1 | - | - | 0.4 | - | - | 0.3 |

Queues
20: Mooney Blvd & Visalia Pkwy

10 Year Cumulative
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 62 | 134 | 124 | 217 | 203 | 91 | 770 | 12 | 449 | 47 |
| v/c Ratio | 0.44 | 0.38 | 0.26 | 0.68 | 0.33 | 0.63 | 0.62 | 0.08 | 0.40 | 0.09 |
| Control Delay | 49.5 | 32.1 | 1.3 | 42.3 | 21.9 | 60.1 | 26.0 | 41.2 | 28.1 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.5 | 32.1 | 1.3 | 42.3 | 21.9 | 60.1 | 26.0 | 41.2 | 28.1 | 0.3 |
| Queue Length 50th (ft) | 28 | 55 | 0 | 95 | 74 | 42 | 141 | 5 | 64 | 0 |
| Queue Length 95th (ft) | #97 | 121 | 0 | 200 | 135 | #151 | #381 | 26 | 122 | 0 |
| Internal Link Dist (ft) | | 765 | | | 339 | | 252 | | 1110 | |
| Turn Bay Length (ft) | 180 | | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 142 | 623 | 681 | 521 | 1014 | 144 | 1234 | 142 | 1518 | 629 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.44 | 0.22 | 0.18 | 0.42 | 0.20 | 0.63 | 0.62 | 0.08 | 0.30 | 0.07 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

10 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 57 | 123 | 114 | 200 | 176 | 11 | 84 | 612 | 97 | 11 | 413 | 43 |
| Future Volume (veh/h) | 57 | 123 | 114 | 200 | 176 | 11 | 84 | 612 | 97 | 11 | 413 | 43 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 62 | 134 | 124 | 217 | 191 | 12 | 91 | 665 | 105 | 12 | 449 | 47 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 111 | 264 | 224 | 266 | 397 | 25 | 133 | 936 | 148 | 32 | 1262 | 393 |
| Arrive On Green | 0.06 | 0.14 | 0.14 | 0.15 | 0.23 | 0.23 | 0.08 | 0.31 | 0.31 | 0.02 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1774 | 1863 | 1583 | 1774 | 1734 | 109 | 1774 | 3063 | 483 | 1774 | 5085 | 1583 |
| Grp Volume(v), veh/h | 62 | 134 | 124 | 217 | 0 | 203 | 91 | 384 | 386 | 12 | 449 | 47 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1583 | 1774 | 0 | 1843 | 1774 | 1770 | 1777 | 1774 | 1695 | 1583 |
| Q Serve(g_s), s | 2.2 | 4.3 | 4.7 | 7.6 | 0.0 | 6.1 | 3.2 | 12.3 | 12.3 | 0.4 | 4.7 | 1.5 |
| Cycle Q Clear(g_c), s | 2.2 | 4.3 | 4.7 | 7.6 | 0.0 | 6.1 | 3.2 | 12.3 | 12.3 | 0.4 | 4.7 | 1.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.06 | 1.00 | | 0.27 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 111 | 264 | 224 | 266 | 0 | 422 | 133 | 541 | 543 | 32 | 1262 | 393 |
| V/C Ratio(X) | 0.56 | 0.51 | 0.55 | 0.82 | 0.00 | 0.48 | 0.68 | 0.71 | 0.71 | 0.38 | 0.36 | 0.12 |
| Avail Cap(c_a), veh/h | 167 | 729 | 620 | 611 | 0 | 1183 | 169 | 620 | 623 | 167 | 1775 | 553 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 29.1 | 25.4 | 25.5 | 26.3 | 0.0 | 21.3 | 28.8 | 19.7 | 19.7 | 31.0 | 19.8 | 18.6 |
| Incr Delay (d2), s/veh | 1.6 | 4.6 | 6.4 | 2.3 | 0.0 | 2.5 | 4.2 | 7.3 | 7.4 | 2.7 | 0.7 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.1 | 2.5 | 2.4 | 3.8 | 0.0 | 3.4 | 1.7 | 7.1 | 7.1 | 0.2 | 2.2 | 0.7 |
| LnGrp Delay(d),s/veh | 30.7 | 30.0 | 32.0 | 28.6 | 0.0 | 23.8 | 33.0 | 27.0 | 27.0 | 33.7 | 20.5 | 19.2 |
| LnGrp LOS | C | C | C | C | | C | C | C | C | C | C | B |
| Approach Vol, veh/h | | 320 | | | 420 | | | 861 | | | 508 | |
| Approach Delay, s/veh | | 30.9 | | | 26.3 | | | 27.7 | | | 20.7 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.9 | 26.3 | 15.3 | 15.4 | 10.5 | 22.7 | 9.7 | 21.0 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | * 5.7 | 6.4 | * 5.7 | 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 22.4 | * 22 | 25.0 | * 6.1 | 22.3 | * 6 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.4 | 14.3 | 9.6 | 6.7 | 5.2 | 6.7 | 4.2 | 8.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.2 | 0.2 | 2.4 | 0.0 | 5.7 | 0.0 | 2.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 26.2 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↙ | ↑ | ↘ | | ↙ | |
| Traffic Vol, veh/h | 227 | 6 | 20 | 0 | 0 | 362 |
| Future Vol, veh/h | 227 | 6 | 20 | 0 | 0 | 362 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 247 | 7 | 22 | 0 | 0 | 393 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 22 | 0 | - | 0 | 523 22 |
| Stage 1 | - | - | - | - | 22 - |
| Stage 2 | - | - | - | - | 501 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1593 | - | - | - | 514 1055 |
| Stage 1 | - | - | - | - | 1001 - |
| Stage 2 | - | - | - | - | 609 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1593 | - | - | - | 434 1055 |
| Mov Cap-2 Maneuver | - | - | - | - | 434 - |
| Stage 1 | - | - | - | - | 846 - |
| Stage 2 | - | - | - | - | 609 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 7.5 | 0 | 10.4 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1593 | - | - | - | 1055 |
| HCM Lane V/C Ratio | 0.155 | - | - | - | 0.373 |
| HCM Control Delay (s) | 7.7 | - | - | - | 10.4 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0.5 | - | - | - | 1.7 |

Queues
22: Mooney Blvd & Midvalley Ave

10 Year Cumulative
Timing Plan: A.M. Peak























| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 40 | 14 | 21 | 8 | 828 | 8 | 743 | 34 |
| v/c Ratio | 0.15 | 0.04 | 0.06 | 0.03 | 0.33 | 0.03 | 0.29 | 0.03 |
| Control Delay | 21.3 | 0.2 | 0.3 | 22.9 | 7.0 | 22.9 | 6.8 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.3 | 0.2 | 0.3 | 22.9 | 7.0 | 22.9 | 6.8 | 0.0 |
| Queue Length 50th (ft) | 12 | 0 | 0 | 3 | 64 | 3 | 56 | 0 |
| Queue Length 95th (ft) | 37 | 0 | 0 | 14 | 158 | 14 | 138 | 0 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 630 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 1034 | 1212 | 1094 | 230 | 2532 | 230 | 2534 | 1146 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.04 | 0.01 | 0.02 | 0.03 | 0.33 | 0.03 | 0.29 | 0.03 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

10 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 37 | 0 | 13 | 6 | 0 | 13 | 7 | 759 | 3 | 7 | 684 | 31 |
| Future Volume (veh/h) | 37 | 0 | 13 | 6 | 0 | 13 | 7 | 759 | 3 | 7 | 684 | 31 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 40 | 0 | 14 | 7 | 0 | 14 | 8 | 825 | 3 | 8 | 743 | 34 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 318 | 0 | 172 | 140 | 25 | 114 | 23 | 1552 | 6 | 23 | 1519 | 679 |
| Arrive On Green | 0.11 | 0.00 | 0.11 | 0.11 | 0.00 | 0.11 | 0.01 | 0.43 | 0.43 | 0.01 | 0.43 | 0.43 |
| Sat Flow, veh/h | 1434 | 0 | 1583 | 294 | 232 | 1052 | 1774 | 3617 | 13 | 1774 | 3539 | 1581 |
| Grp Volume(v), veh/h | 40 | 0 | 14 | 21 | 0 | 0 | 8 | 404 | 424 | 8 | 743 | 34 |
| Grp Sat Flow(s),veh/h/ln | 1434 | 0 | 1583 | 1578 | 0 | 0 | 1774 | 1770 | 1860 | 1774 | 1770 | 1581 |
| Q Serve(g_s), s | 0.5 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.2 | 7.5 | 7.5 | 0.2 | 6.7 | 0.6 |
| Cycle Q Clear(g_c), s | 1.0 | 0.0 | 0.4 | 0.5 | 0.0 | 0.0 | 0.2 | 7.5 | 7.5 | 0.2 | 6.7 | 0.6 |
| Prop In Lane | 1.00 | | 1.00 | 0.33 | | 0.67 | 1.00 | | 0.01 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 318 | 0 | 172 | 279 | 0 | 0 | 23 | 759 | 798 | 23 | 1519 | 679 |
| V/C Ratio(X) | 0.13 | 0.00 | 0.08 | 0.08 | 0.00 | 0.00 | 0.36 | 0.53 | 0.53 | 0.36 | 0.49 | 0.05 |
| Avail Cap(c_a), veh/h | 1244 | 0 | 1224 | 1238 | 0 | 0 | 239 | 1034 | 1087 | 239 | 2068 | 924 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.1 | 0.0 | 17.8 | 17.9 | 0.0 | 0.0 | 21.8 | 9.4 | 9.4 | 21.8 | 9.2 | 7.4 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 3.5 | 2.5 | 2.4 | 3.5 | 0.9 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.2 | 0.2 | 0.0 | 0.0 | 0.1 | 4.1 | 4.3 | 0.1 | 3.4 | 0.3 |
| LnGrp Delay(d),s/veh | 18.2 | 0.0 | 17.9 | 17.9 | 0.0 | 0.0 | 25.3 | 11.9 | 11.8 | 25.3 | 10.1 | 7.5 |
| LnGrp LOS | B | | B | B | | | C | B | B | C | B | A |
| Approach Vol, veh/h | | 54 | | | 21 | | | 836 | | | 785 | |
| Approach Delay, s/veh | | 18.1 | | | 17.9 | | | 11.9 | | | 10.2 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.3 | 25.9 | | 12.3 | 6.3 | 25.9 | | 12.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 6 | 26.0 | | * 34 | * 6 | 26.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 9.5 | | 3.0 | 2.2 | 8.7 | | 2.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.6 | | 0.1 | 0.0 | 9.3 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 11.4 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 7.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 12 | 8 | 157 | 32 | 20 | 10 | 53 | 814 | 24 | 3 | 635 | 19 |
| Future Vol, veh/h | 12 | 8 | 157 | 32 | 20 | 10 | 53 | 814 | 24 | 3 | 635 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 13 | 9 | 171 | 35 | 22 | 11 | 58 | 885 | 26 | 3 | 690 | 21 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1277 | 1734 | 356 | 1370 | 1731 | 456 | 711 | 0 | 0 | 911 | 0 | 0 |
| Stage 1 | 707 | 707 | - | 1014 | 1014 | - | - | - | - | - | - | - |
| Stage 2 | 570 | 1027 | - | 356 | 717 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 123 | 87 | 640 | 105 | 87 | 551 | 884 | - | - | 743 | - | - |
| Stage 1 | 392 | 436 | - | 256 | 314 | - | - | - | - | - | - | - |
| Stage 2 | 474 | 310 | - | 634 | 432 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 91 | 81 | 640 | 67 | 81 | 551 | 884 | - | - | 743 | - | - |
| Mov Cap-2 Maneuver | 91 | 81 | - | 67 | 81 | - | - | - | - | - | - | - |
| Stage 1 | 366 | 434 | - | 239 | 293 | - | - | - | - | - | - | - |
| Stage 2 | 402 | 290 | - | 454 | 430 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | | | |
|----------------------|------|--|-------|--|-----|--|----|--|--|--|
| HCM Control Delay, s | 24.6 | | 138.9 | | 0.6 | | 0 | | | |
| HCM LOS | C | | F | | | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 884 | - | - | 372 | 83 | 743 | - |
| HCM Lane V/C Ratio | 0.065 | - | - | 0.517 | 0.812 | 0.004 | - |
| HCM Control Delay (s) | 9.4 | - | - | 24.6 | 138.9 | 9.9 | - |
| HCM Lane LOS | A | - | - | C | F | A | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 2.9 | 4.1 | 0 | - |

Queues
25: Mooney Blvd & Ave 268



















10 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 36 | 53 | 80 | 777 | 45 | 758 |
| v/c Ratio | 0.13 | 0.17 | 0.32 | 0.32 | 0.19 | 0.35 |
| Control Delay | 17.8 | 14.7 | 29.7 | 11.0 | 28.8 | 12.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 17.8 | 14.7 | 29.7 | 11.0 | 28.8 | 12.7 |
| Queue Length 50th (ft) | 8 | 8 | 27 | 56 | 15 | 97 |
| Queue Length 95th (ft) | 29 | 33 | 75 | 220 | 49 | 212 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 618 | 662 | 327 | 2393 | 320 | 2192 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.08 | 0.24 | 0.32 | 0.14 | 0.35 |
| Intersection Summary | | | | | | |

HCM 2010 Signalized Intersection Summary
25: Mooney Blvd & Ave 268

10 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 23 | 1 | 10 | 23 | 2 | 26 | 76 | 724 | 14 | 43 | 642 | 78 |
| Future Volume (veh/h) | 23 | 1 | 10 | 23 | 2 | 26 | 76 | 724 | 14 | 43 | 642 | 78 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 24 | 1 | 11 | 24 | 2 | 27 | 80 | 762 | 15 | 45 | 676 | 82 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 231 | 29 | 58 | 169 | 39 | 101 | 147 | 1441 | 28 | 101 | 1205 | 146 |
| Arrive On Green | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.08 | 0.41 | 0.41 | 0.06 | 0.38 | 0.38 |
| Sat Flow, veh/h | 818 | 233 | 462 | 458 | 309 | 796 | 1774 | 3550 | 70 | 1774 | 3170 | 384 |
| Grp Volume(v), veh/h | 36 | 0 | 0 | 53 | 0 | 0 | 80 | 380 | 397 | 45 | 377 | 381 |
| Grp Sat Flow(s),veh/h/ln | 1513 | 0 | 0 | 1563 | 0 | 0 | 1774 | 1770 | 1850 | 1774 | 1770 | 1785 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 7.6 | 7.6 | 1.2 | 7.9 | 7.9 |
| Cycle Q Clear(g_c), s | 0.9 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 2.0 | 7.6 | 7.6 | 1.2 | 7.9 | 7.9 |
| Prop In Lane | 0.67 | | 0.31 | 0.45 | | 0.51 | 1.00 | | 0.04 | 1.00 | | 0.22 |
| Lane Grp Cap(c), veh/h | 319 | 0 | 0 | 309 | 0 | 0 | 147 | 718 | 751 | 101 | 672 | 678 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 | 0.54 | 0.53 | 0.53 | 0.45 | 0.56 | 0.56 |
| Avail Cap(c_a), veh/h | 814 | 0 | 0 | 824 | 0 | 0 | 344 | 931 | 973 | 336 | 923 | 931 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.3 | 0.0 | 0.0 | 18.5 | 0.0 | 0.0 | 20.7 | 10.5 | 10.5 | 21.4 | 11.5 | 11.5 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 1.2 | 2.6 | 2.5 | 1.2 | 3.1 | 3.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 1.0 | 4.2 | 4.4 | 0.6 | 4.4 | 4.4 |
| LnGrp Delay(d),s/veh | 18.6 | 0.0 | 0.0 | 18.9 | 0.0 | 0.0 | 21.9 | 13.1 | 13.0 | 22.6 | 14.6 | 14.6 |
| LnGrp LOS | B | | | B | | | C | B | B | C | B | B |
| Approach Vol, veh/h | | 36 | | | 53 | | | 857 | | | 803 | |
| Approach Delay, s/veh | | 18.6 | | | 18.9 | | | 13.9 | | | 15.1 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.4 | 27.0 | | 11.6 | 9.6 | 25.7 | | 11.6 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 8.9 | 24.7 | | * 22 | * 9.1 | 24.5 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.2 | 9.6 | | 2.9 | 4.0 | 9.9 | | 3.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.3 | | 0.2 | 0.0 | 7.9 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 14.7 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 231 | 0 | 0 | 387 | 0 | 0 |
| Future Vol, veh/h | 231 | 0 | 0 | 387 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 251 | 0 | 0 | 421 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | - | 251 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 788 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 788 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

HCM 2010 TWSC
 27: Visalia Pkwy & Tuesday Morning Dwy

10 Year Cumulative
 Timing Plan: A.M. Peak

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | ↷ |
| Traffic Vol, veh/h | 10 | 221 | 372 | 7 | 3 | 15 |
| Future Vol, veh/h | 10 | 221 | 372 | 7 | 3 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 11 | 240 | 404 | 8 | 3 | 16 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 412 | 0 | - | 0 | 670 |
| Stage 1 | - | - | - | - | 408 |
| Stage 2 | - | - | - | - | 262 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1147 | - | - | - | 422 |
| Stage 1 | - | - | - | - | 671 |
| Stage 2 | - | - | - | - | 782 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1147 | - | - | - | 417 |
| Mov Cap-2 Maneuver | - | - | - | - | 417 |
| Stage 1 | - | - | - | - | 664 |
| Stage 2 | - | - | - | - | 782 |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.4 | 0 | 11.3 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1147 | - | - | - | 590 |
| HCM Lane V/C Ratio | 0.009 | - | - | - | 0.033 |
| HCM Control Delay (s) | 8.2 | 0 | - | - | 11.3 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 224 | 0 | 0 | 417 | 0 | 0 |
| Future Vol, veh/h | 224 | 0 | 0 | 417 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 243 | 0 | 0 | 453 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | - | 243 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 796 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 796 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.6 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | ↔ |
| Traffic Vol, veh/h | 119 | 105 | 359 | 3 | 0 | 58 |
| Future Vol, veh/h | 119 | 105 | 359 | 3 | 0 | 58 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 129 | 114 | 390 | 3 | 0 | 63 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|-------|-------|
| Conflicting Flow All | 393 | 0 | 0 | 764 | 392 |
| Stage 1 | - | - | - | 392 | - |
| Stage 2 | - | - | - | 372 | - |
| Critical Hdwy | 4.12 | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1166 | - | - | 372 | 657 |
| Stage 1 | - | - | - | 683 | - |
| Stage 2 | - | - | - | 697 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1166 | - | - | 328 | 657 |
| Mov Cap-2 Maneuver | - | - | - | 328 | - |
| Stage 1 | - | - | - | 602 | - |
| Stage 2 | - | - | - | 697 | - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 4.5 | 0 | 11.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1166 | - | - | - | - | 657 |
| HCM Lane V/C Ratio | 0.111 | - | - | - | - | 0.096 |
| HCM Control Delay (s) | 8.5 | 0 | - | - | 0 | 11.1 |
| HCM Lane LOS | A | A | - | - | A | B |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | - | 0.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | | ↕↕ | ↕↕ | ↗ |
| Traffic Vol, veh/h | 0 | 66 | 0 | 733 | 601 | 126 |
| Future Vol, veh/h | 0 | 66 | 0 | 733 | 601 | 126 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 72 | 0 | 797 | 653 | 137 |

| Major/Minor | Minor2 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | - | 327 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | 6.94 | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | 3.32 | - |
| Pot Cap-1 Maneuver | 0 | 669 | 0 |
| Stage 1 | 0 | - | 0 |
| Stage 2 | 0 | - | 0 |
| Platoon blocked, % | | | - |
| Mov Cap-1 Maneuver | - | 669 | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 11 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT EBLn1 | SBT | SBR |
|-----------------------|-----------|-----|-----|
| Capacity (veh/h) | - 669 | - | - |
| HCM Lane V/C Ratio | - 0.107 | - | - |
| HCM Control Delay (s) | - 11 | - | - |
| HCM Lane LOS | - B | - | - |
| HCM 95th %tile Q(veh) | - 0.4 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.7 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | ↘ | ↕ | ↕ | ↗ |
| Traffic Vol, veh/h | 0 | 87 | 171 | 666 | 569 | 98 |
| Future Vol, veh/h | 0 | 87 | 171 | 666 | 569 | 98 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | 150 | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 95 | 186 | 724 | 618 | 107 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | - | 309 | 725 | 0 | - | 0 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 0 | 687 | 874 | - | - | - |
| Stage 1 | 0 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | - | 687 | 874 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 11.1 | 2.1 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 874 | - | 687 | - | - |
| HCM Lane V/C Ratio | 0.213 | - | 0.138 | - | - |
| HCM Control Delay (s) | 10.2 | - | 11.1 | - | - |
| HCM Lane LOS | B | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.8 | - | 0.5 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 10 | 19 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 10 | 19 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 21 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 21 | 0 | - | 0 | 32 21 |
| Stage 1 | - | - | - | - | 21 - |
| Stage 2 | - | - | - | - | 11 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1595 | - | - | - | 982 1056 |
| Stage 1 | - | - | - | - | 1002 - |
| Stage 2 | - | - | - | - | 1012 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1595 | - | - | - | 982 1056 |
| Mov Cap-2 Maneuver | - | - | - | - | 982 - |
| Stage 1 | - | - | - | - | 1002 - |
| Stage 2 | - | - | - | - | 1012 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1595 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 10 | 19 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 10 | 19 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 21 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 21 | 0 | - | 0 | 32 21 |
| Stage 1 | - | - | - | - | 21 - |
| Stage 2 | - | - | - | - | 11 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1595 | - | - | - | 982 1056 |
| Stage 1 | - | - | - | - | 1002 - |
| Stage 2 | - | - | - | - | 1012 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1595 | - | - | - | 982 1056 |
| Mov Cap-2 Maneuver | - | - | - | - | 982 - |
| Stage 1 | - | - | - | - | 1002 - |
| Stage 2 | - | - | - | - | 1012 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1595 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 10 | 19 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 10 | 19 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 21 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 21 | 0 | - | 0 | 32 21 |
| Stage 1 | - | - | - | - | 21 - |
| Stage 2 | - | - | - | - | 11 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1595 | - | - | - | 982 1056 |
| Stage 1 | - | - | - | - | 1002 - |
| Stage 2 | - | - | - | - | 1012 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1595 | - | - | - | 982 1056 |
| Mov Cap-2 Maneuver | - | - | - | - | 982 - |
| Stage 1 | - | - | - | - | 1002 - |
| Stage 2 | - | - | - | - | 1012 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1595 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 10 | 19 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 10 | 19 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 21 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 21 | 0 | - | 0 | 32 21 |
| Stage 1 | - | - | - | - | 21 - |
| Stage 2 | - | - | - | - | 11 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1595 | - | - | - | 982 1056 |
| Stage 1 | - | - | - | - | 1002 - |
| Stage 2 | - | - | - | - | 1012 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1595 | - | - | - | 982 1056 |
| Mov Cap-2 Maneuver | - | - | - | - | 982 - |
| Stage 1 | - | - | - | - | 1002 - |
| Stage 2 | - | - | - | - | 1012 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1595 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

HCM 2010 TWSC
 36: Hall St & East Access Dwy 1

10 Year Cumulative
 Timing Plan: A.M. Peak

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

Queues
1: Mooney Blvd & Whitendale Ave

10 Year Cumulative
Timing Plan: P.M. Peak



























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 95 | 239 | 173 | 192 | 227 | 65 | 206 | 1011 | 192 | 113 | 1127 | 82 |
| v/c Ratio | 0.25 | 0.41 | 0.42 | 0.54 | 0.40 | 0.16 | 1.19 | 0.42 | 0.24 | 0.54 | 0.46 | 0.10 |
| Control Delay | 53.4 | 47.0 | 7.1 | 59.7 | 47.5 | 0.9 | 178.9 | 23.7 | 8.3 | 66.8 | 23.5 | 0.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.4 | 47.0 | 7.1 | 59.7 | 47.5 | 0.9 | 178.9 | 23.7 | 8.3 | 66.8 | 23.5 | 0.9 |
| Queue Length 50th (ft) | 36 | 96 | 0 | 76 | 92 | 0 | ~103 | 182 | 22 | 46 | 200 | 0 |
| Queue Length 95th (ft) | 66 | 103 | 42 | #120 | 98 | 0 | #185 | 297 | 88 | #89 | 339 | 6 |
| Internal Link Dist (ft) | | 1104 | | | 403 | | | 770 | | | 1028 | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 375 | 1330 | 701 | 356 | 1339 | 706 | 173 | 2421 | 816 | 209 | 2475 | 826 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.25 | 0.18 | 0.25 | 0.54 | 0.17 | 0.09 | 1.19 | 0.42 | 0.24 | 0.54 | 0.46 | 0.10 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
1: Mooney Blvd & Whitendale Ave

10 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 92 | 232 | 168 | 186 | 220 | 63 | 200 | 981 | 186 | 110 | 1093 | 80 |
| Future Volume (veh/h) | 92 | 232 | 168 | 186 | 220 | 63 | 200 | 981 | 186 | 110 | 1093 | 80 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 95 | 239 | 173 | 192 | 227 | 65 | 206 | 1011 | 192 | 113 | 1127 | 82 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 339 | 588 | 258 | 173 | 418 | 186 | 876 | 2758 | 848 | 163 | 1676 | 519 |
| Arrive On Green | 0.10 | 0.17 | 0.17 | 0.05 | 0.12 | 0.12 | 0.25 | 0.54 | 0.54 | 0.05 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3539 | 1554 | 3442 | 3539 | 1579 | 3442 | 5085 | 1564 | 3442 | 5085 | 1575 |
| Grp Volume(v), veh/h | 95 | 239 | 173 | 192 | 227 | 65 | 206 | 1011 | 192 | 113 | 1127 | 82 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1554 | 1721 | 1770 | 1579 | 1721 | 1695 | 1564 | 1721 | 1695 | 1575 |
| Q Serve(g_s), s | 3.2 | 7.5 | 13.1 | 6.3 | 7.6 | 4.0 | 5.9 | 14.2 | 5.4 | 4.0 | 23.9 | 4.6 |
| Cycle Q Clear(g_c), s | 3.2 | 7.5 | 13.1 | 6.3 | 7.6 | 4.0 | 5.9 | 14.2 | 5.4 | 4.0 | 23.9 | 4.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 339 | 588 | 258 | 173 | 418 | 186 | 876 | 2758 | 848 | 163 | 1676 | 519 |
| V/C Ratio(X) | 0.28 | 0.41 | 0.67 | 1.11 | 0.54 | 0.35 | 0.24 | 0.37 | 0.23 | 0.69 | 0.67 | 0.16 |
| Avail Cap(c_a), veh/h | 339 | 1331 | 584 | 173 | 1339 | 598 | 876 | 2758 | 848 | 165 | 1676 | 519 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.84 | 0.84 | 0.84 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.2 | 46.6 | 48.9 | 59.4 | 51.9 | 35.5 | 36.9 | 16.3 | 6.9 | 58.6 | 36.1 | 29.6 |
| Incr Delay (d2), s/veh | 0.2 | 0.9 | 5.7 | 99.9 | 2.1 | 2.2 | 0.0 | 0.3 | 0.5 | 9.7 | 2.2 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.5 | 3.8 | 6.0 | 5.4 | 3.8 | 2.1 | 2.8 | 6.7 | 3.1 | 2.2 | 11.5 | 2.1 |
| LnGrp Delay(d),s/veh | 52.4 | 47.5 | 54.6 | 159.2 | 54.1 | 37.6 | 37.0 | 16.7 | 7.4 | 68.4 | 38.3 | 30.3 |
| LnGrp LOS | D | D | D | F | D | D | D | B | A | E | D | C |
| Approach Vol, veh/h | | 507 | | | 484 | | | 1409 | | | 1322 | |
| Approach Delay, s/veh | | 50.8 | | | 93.6 | | | 18.4 | | | 40.3 | |
| Approach LOS | | D | | | F | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.6 | 74.2 | 12.0 | 27.2 | 38.2 | 47.6 | 18.0 | 21.2 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 41.5 | 6.3 | * 47 | 6.3 | * 41 | 6.0 | * 47 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.0 | 16.2 | 8.3 | 15.1 | 7.9 | 25.9 | 5.2 | 9.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 13.8 | 0.0 | 4.1 | 0.0 | 10.1 | 0.0 | 3.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 40.4 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave






















10 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 127 | 225 | 1 | 178 | 99 | 23 | 114 | 16 | 184 |
| v/c Ratio | 0.28 | 0.21 | 0.00 | 0.24 | 0.14 | 0.04 | 0.24 | 0.02 | 0.27 |
| Control Delay | 20.4 | 9.0 | 22.0 | 15.9 | 2.1 | 13.8 | 16.5 | 14.3 | 4.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.4 | 9.0 | 22.0 | 15.9 | 2.1 | 13.8 | 16.5 | 14.3 | 4.5 |
| Queue Length 50th (ft) | 28 | 25 | 0 | 36 | 0 | 4 | 23 | 3 | 0 |
| Queue Length 95th (ft) | 82 | 100 | 4 | 95 | 15 | 19 | 67 | 16 | 38 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 689 | 1309 | 407 | 1174 | 1051 | 1052 | 871 | 1174 | 1066 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.17 | 0.00 | 0.15 | 0.09 | 0.02 | 0.13 | 0.01 | 0.17 |
| Intersection Summary | | | | | | | | | |

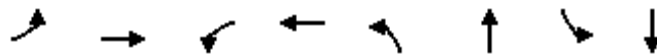
HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

10 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 117 | 196 | 11 | 1 | 164 | 91 | 7 | 12 | 2 | 105 | 15 | 169 |
| Future Volume (veh/h) | 117 | 196 | 11 | 1 | 164 | 91 | 7 | 12 | 2 | 105 | 15 | 169 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 127 | 213 | 12 | 1 | 178 | 99 | 8 | 13 | 2 | 114 | 16 | 184 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 215 | 670 | 38 | 5 | 493 | 419 | 208 | 258 | 31 | 512 | 406 | 345 |
| Arrive On Green | 0.12 | 0.38 | 0.38 | 0.00 | 0.26 | 0.26 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1774 | 1747 | 98 | 1774 | 1863 | 1583 | 323 | 1183 | 143 | 1393 | 1863 | 1583 |
| Grp Volume(v), veh/h | 127 | 0 | 225 | 1 | 178 | 99 | 23 | 0 | 0 | 114 | 16 | 184 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1845 | 1774 | 1863 | 1583 | 1649 | 0 | 0 | 1393 | 1863 | 1583 |
| Q Serve(g_s), s | 2.4 | 0.0 | 3.0 | 0.0 | 2.7 | 1.7 | 0.0 | 0.0 | 0.0 | 2.0 | 0.2 | 3.6 |
| Cycle Q Clear(g_c), s | 2.4 | 0.0 | 3.0 | 0.0 | 2.7 | 1.7 | 0.4 | 0.0 | 0.0 | 2.4 | 0.2 | 3.6 |
| Prop In Lane | 1.00 | | 0.05 | 1.00 | | 1.00 | 0.35 | | 0.09 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 215 | 0 | 708 | 5 | 493 | 419 | 497 | 0 | 0 | 512 | 406 | 345 |
| V/C Ratio(X) | 0.59 | 0.00 | 0.32 | 0.20 | 0.36 | 0.24 | 0.05 | 0.00 | 0.00 | 0.22 | 0.04 | 0.53 |
| Avail Cap(c_a), veh/h | 552 | 0 | 1541 | 326 | 1318 | 1121 | 1246 | 0 | 0 | 1193 | 1318 | 1121 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.7 | 0.0 | 7.6 | 17.6 | 10.6 | 10.2 | 10.9 | 0.0 | 0.0 | 11.7 | 10.9 | 12.2 |
| Incr Delay (d2), s/veh | 1.0 | 0.0 | 0.4 | 7.0 | 0.8 | 0.5 | 0.1 | 0.0 | 0.0 | 0.4 | 0.1 | 2.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.2 | 0.0 | 1.6 | 0.0 | 1.5 | 0.8 | 0.2 | 0.0 | 0.0 | 1.0 | 0.1 | 1.8 |
| LnGrp Delay(d),s/veh | 15.7 | 0.0 | 8.1 | 24.6 | 11.3 | 10.7 | 11.0 | 0.0 | 0.0 | 12.1 | 11.0 | 14.4 |
| LnGrp LOS | B | | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 352 | | | 278 | | | 23 | | | 314 | |
| Approach Delay, s/veh | | 10.8 | | | 11.1 | | | 11.0 | | | 13.4 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.1 | 18.6 | | 12.7 | 8.3 | 14.3 | | 12.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 29.5 | | 25.0 | 11.0 | 25.0 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 5.0 | | 2.4 | 4.4 | 4.7 | | 5.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.0 | | 0.1 | 0.1 | 2.0 | | 1.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 11.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave

10 Year Cumulative
Timing Plan: P.M. Peak























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 124 | 58 | 5 | 128 | 63 | 1239 | 78 | 1503 |
| v/c Ratio | 0.48 | 0.14 | 0.03 | 0.51 | 0.59 | 0.53 | 0.47 | 0.60 |
| Control Delay | 46.1 | 13.2 | 39.0 | 15.8 | 69.3 | 21.4 | 51.7 | 20.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 46.1 | 13.2 | 39.0 | 15.8 | 69.3 | 21.4 | 51.7 | 20.0 |
| Queue Length 50th (ft) | 74 | 2 | 3 | 1 | 40 | 204 | 48 | 246 |
| Queue Length 95th (ft) | 130 | 41 | 13 | 55 | #99 | 287 | 92 | 326 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 257 | 648 | 148 | 681 | 106 | 2354 | 165 | 2508 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.48 | 0.09 | 0.03 | 0.19 | 0.59 | 0.53 | 0.47 | 0.60 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 3: Mooney Blvd & Sunnyside Ave

10 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 115 | 5 | 49 | 5 | 2 | 117 | 59 | 1145 | 7 | 73 | 1328 | 70 |
| Future Volume (veh/h) | 115 | 5 | 49 | 5 | 2 | 117 | 59 | 1145 | 7 | 73 | 1328 | 70 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.96 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 124 | 5 | 53 | 5 | 2 | 126 | 63 | 1231 | 8 | 78 | 1428 | 75 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 112 | 11 | 117 | 156 | 3 | 164 | 582 | 2821 | 18 | 100 | 1293 | 68 |
| Arrive On Green | 0.06 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.33 | 0.54 | 0.54 | 0.06 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 138 | 1466 | 1774 | 25 | 1562 | 1774 | 5212 | 34 | 1774 | 4936 | 259 |
| Grp Volume(v), veh/h | 124 | 0 | 58 | 5 | 0 | 128 | 63 | 801 | 438 | 78 | 981 | 522 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1604 | 1774 | 0 | 1587 | 1774 | 1695 | 1856 | 1774 | 1695 | 1805 |
| Q Serve(g_s), s | 6.3 | 0.0 | 3.5 | 0.3 | 0.0 | 7.9 | 2.5 | 14.2 | 14.2 | 4.3 | 26.2 | 26.2 |
| Cycle Q Clear(g_c), s | 6.3 | 0.0 | 3.5 | 0.3 | 0.0 | 7.9 | 2.5 | 14.2 | 14.2 | 4.3 | 26.2 | 26.2 |
| Prop In Lane | 1.00 | | 0.91 | 1.00 | | 0.98 | 1.00 | | 0.02 | 1.00 | | 0.14 |
| Lane Grp Cap(c), veh/h | 112 | 0 | 128 | 156 | 0 | 166 | 582 | 1835 | 1004 | 100 | 888 | 473 |
| V/C Ratio(X) | 1.11 | 0.00 | 0.45 | 0.03 | 0.00 | 0.77 | 0.11 | 0.44 | 0.44 | 0.78 | 1.10 | 1.10 |
| Avail Cap(c_a), veh/h | 112 | 0 | 614 | 156 | 0 | 603 | 582 | 1835 | 1004 | 108 | 888 | 473 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Uniform Delay (d), s/veh | 46.8 | 0.0 | 43.9 | 41.7 | 0.0 | 43.6 | 23.4 | 13.8 | 13.8 | 46.6 | 36.9 | 36.9 |
| Incr Delay (d2), s/veh | 117.6 | 0.0 | 1.8 | 0.0 | 0.0 | 5.5 | 0.0 | 0.7 | 1.2 | 22.8 | 61.4 | 70.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.7 | 0.0 | 1.6 | 0.1 | 0.0 | 3.7 | 1.2 | 6.7 | 7.5 | 2.8 | 19.8 | 22.3 |
| LnGrp Delay(d),s/veh | 164.5 | 0.0 | 45.8 | 41.8 | 0.0 | 49.1 | 23.4 | 14.4 | 15.0 | 69.4 | 98.3 | 107.5 |
| LnGrp LOS | F | | D | D | | D | C | B | B | E | F | F |
| Approach Vol, veh/h | | 182 | | | 133 | | | 1302 | | | 1581 | |
| Approach Delay, s/veh | | 126.6 | | | 48.9 | | | 15.1 | | | 99.9 | |
| Approach LOS | | F | | | D | | | B | | | F | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.3 | 60.5 | 14.5 | 13.7 | 39.2 | 32.6 | 12.0 | 16.2 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | 6.4 | * 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 6.1 | 26.1 | * 6 | * 38 | 6.0 | * 26 | * 6.3 | * 38 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.3 | 16.2 | 2.3 | 5.5 | 4.5 | 28.2 | 8.3 | 9.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.3 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 64.8 | | | | | | | | | |
| HCM 2010 LOS | | | E | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave

10 Year Cumulative
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 20 | 41 | 66 | 91 | 71 | 1079 | 54 | 176 | 1303 | 40 |
| v/c Ratio | 0.17 | 0.16 | 0.50 | 0.27 | 0.36 | 0.48 | 0.07 | 0.52 | 0.42 | 0.04 |
| Control Delay | 49.8 | 11.1 | 60.8 | 10.2 | 53.1 | 24.3 | 0.2 | 48.1 | 17.9 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.8 | 11.1 | 60.8 | 10.2 | 53.1 | 24.3 | 0.2 | 48.1 | 17.9 | 0.1 |
| Queue Length 50th (ft) | 13 | 1 | 43 | 5 | 24 | 191 | 0 | 107 | 181 | 0 |
| Queue Length 95th (ft) | 38 | 22 | #112 | 35 | 47 | 305 | 0 | #314 | #426 | 0 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 115 | 651 | 132 | 685 | 196 | 2237 | 762 | 341 | 3102 | 1010 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.17 | 0.06 | 0.50 | 0.13 | 0.36 | 0.48 | 0.07 | 0.52 | 0.42 | 0.04 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

10 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 19 | 2 | 37 | 62 | 9 | 76 | 67 | 1014 | 51 | 165 | 1225 | 38 |
| Future Volume (veh/h) | 19 | 2 | 37 | 62 | 9 | 76 | 67 | 1014 | 51 | 165 | 1225 | 38 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 0.98 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 20 | 2 | 39 | 66 | 10 | 81 | 71 | 1079 | 54 | 176 | 1303 | 40 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 85 | 9 | 173 | 87 | 21 | 167 | 1180 | 2799 | 851 | 101 | 1312 | 406 |
| Arrive On Green | 0.05 | 0.12 | 0.12 | 0.05 | 0.12 | 0.12 | 0.34 | 0.55 | 0.55 | 0.06 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 77 | 1495 | 1774 | 176 | 1423 | 3442 | 5085 | 1546 | 1774 | 5085 | 1574 |
| Grp Volume(v), veh/h | 20 | 0 | 41 | 66 | 0 | 91 | 71 | 1079 | 54 | 176 | 1303 | 40 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1571 | 1774 | 0 | 1599 | 1721 | 1695 | 1546 | 1774 | 1695 | 1574 |
| Q Serve(g_s), s | 1.1 | 0.0 | 2.5 | 3.9 | 0.0 | 5.6 | 1.5 | 12.7 | 1.1 | 6.0 | 26.8 | 2.0 |
| Cycle Q Clear(g_c), s | 1.1 | 0.0 | 2.5 | 3.9 | 0.0 | 5.6 | 1.5 | 12.7 | 1.1 | 6.0 | 26.8 | 2.0 |
| Prop In Lane | 1.00 | | 0.95 | 1.00 | | 0.89 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 85 | 0 | 182 | 87 | 0 | 187 | 1180 | 2799 | 851 | 101 | 1312 | 406 |
| V/C Ratio(X) | 0.24 | 0.00 | 0.22 | 0.76 | 0.00 | 0.49 | 0.06 | 0.39 | 0.06 | 1.74 | 0.99 | 0.10 |
| Avail Cap(c_a), veh/h | 101 | 0 | 629 | 101 | 0 | 639 | 1180 | 2799 | 851 | 101 | 1312 | 406 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.87 | 0.87 | 0.87 | 0.77 | 0.77 | 0.77 |
| Uniform Delay (d), s/veh | 48.2 | 0.0 | 42.1 | 49.3 | 0.0 | 43.4 | 23.2 | 13.5 | 4.4 | 49.5 | 38.9 | 29.7 |
| Incr Delay (d2), s/veh | 0.5 | 0.0 | 0.2 | 20.1 | 0.0 | 1.4 | 0.0 | 0.3 | 0.1 | 360.9 | 20.2 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.0 | 1.1 | 2.4 | 0.0 | 2.6 | 0.7 | 6.0 | 0.7 | 13.1 | 15.0 | 0.9 |
| LnGrp Delay(d),s/veh | 48.7 | 0.0 | 42.4 | 69.4 | 0.0 | 44.8 | 23.2 | 13.8 | 4.6 | 410.4 | 59.0 | 30.0 |
| LnGrp LOS | D | | D | E | | D | C | B | A | F | E | C |
| Approach Vol, veh/h | | 61 | | | 157 | | | 1204 | | | 1519 | |
| Approach Delay, s/veh | | 44.4 | | | 55.2 | | | 14.0 | | | 99.0 | |
| Approach LOS | | D | | | E | | | B | | | F | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.7 | 64.2 | 10.8 | 18.3 | 42.4 | 33.5 | 10.7 | 18.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 6 | 27.1 | 6.0 | * 42 | 6.0 | * 27 | 6.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.0 | 14.7 | 5.9 | 4.5 | 3.5 | 28.8 | 3.1 | 7.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.6 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 60.7 | | | | | | | | | |
| HCM 2010 LOS | | | E | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 29 | 1108 | 51 | 41 | 875 | 24 | 21 | 0 | 39 | 22 | 0 | 42 |
| Future Vol, veh/h | 29 | 1108 | 51 | 41 | 875 | 24 | 21 | 0 | 39 | 22 | 0 | 42 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 30 | 1154 | 53 | 43 | 911 | 25 | 22 | 0 | 41 | 23 | 0 | 44 |

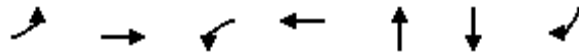
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 941 | 0 | 0 | 1207 | 0 | 0 | 1783 | 2268 | 604 | 1652 | 2282 | 473 |
| Stage 1 | - | - | - | - | - | - | 1241 | 1241 | - | 1015 | 1015 | - |
| Stage 2 | - | - | - | - | - | - | 542 | 1027 | - | 637 | 1267 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 724 | - | - | 574 | - | - | 52 | 40 | 441 | 65 | 39 | 538 |
| Stage 1 | - | - | - | - | - | - | 185 | 245 | - | 255 | 314 | - |
| Stage 2 | - | - | - | - | - | - | 492 | 310 | - | 432 | 238 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 721 | - | - | 574 | - | - | 38 | 29 | 441 | 47 | 29 | 535 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 38 | 29 | - | 47 | 29 | - |
| Stage 1 | - | - | - | - | - | - | 161 | 213 | - | 221 | 263 | - |
| Stage 2 | - | - | - | - | - | - | 381 | 260 | - | 342 | 207 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.8 | | | 1.3 | | | 98.8 | | | 70.3 | | |
| HCM LOS | F | | | F | | | F | | | F | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 94 | 721 | - | - | 574 | - | - | 117 |
| HCM Lane V/C Ratio | 0.665 | 0.042 | - | - | 0.074 | - | - | 0.57 |
| HCM Control Delay (s) | 98.8 | 10.2 | 0.6 | - | 11.8 | 0.8 | - | 70.3 |
| HCM Lane LOS | F | B | A | - | B | A | - | F |
| HCM 95th %tile Q(veh) | 3.3 | 0.1 | - | - | 0.2 | - | - | 2.8 |

Queues
6: Shady St & Caldwell Ave

10 Year Cumulative
Timing Plan: P.M. Peak






















| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 59 | 868 | 79 | 755 | 79 | 18 | 11 |
| v/c Ratio | 0.22 | 0.34 | 0.28 | 0.27 | 0.24 | 0.05 | 0.03 |
| Control Delay | 33.9 | 15.9 | 32.8 | 13.7 | 6.5 | 23.1 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 33.9 | 15.9 | 32.8 | 13.7 | 6.5 | 23.1 | 0.1 |
| Queue Length 50th (ft) | 17 | 59 | 22 | 49 | 0 | 5 | 0 |
| Queue Length 95th (ft) | 74 | 210 | 92 | 175 | 25 | 22 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 284 | 2713 | 368 | 2891 | 1116 | 1138 | 1038 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.21 | 0.32 | 0.21 | 0.26 | 0.07 | 0.02 | 0.01 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

10 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 55 | 794 | 22 | 74 | 696 | 14 | 32 | 0 | 42 | 16 | 1 | 10 |
| Future Volume (veh/h) | 55 | 794 | 22 | 74 | 696 | 14 | 32 | 0 | 42 | 16 | 1 | 10 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 59 | 845 | 23 | 79 | 740 | 15 | 34 | 0 | 45 | 17 | 1 | 11 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 121 | 1870 | 51 | 145 | 1954 | 40 | 59 | 0 | 78 | 75 | 4 | 69 |
| Arrive On Green | 0.07 | 0.37 | 0.37 | 0.08 | 0.38 | 0.38 | 0.08 | 0.00 | 0.08 | 0.04 | 0.04 | 0.04 |
| Sat Flow, veh/h | 1774 | 5086 | 138 | 1774 | 5127 | 104 | 714 | 0 | 946 | 1680 | 99 | 1558 |
| Grp Volume(v), veh/h | 59 | 563 | 305 | 79 | 489 | 266 | 79 | 0 | 0 | 18 | 0 | 11 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1834 | 1774 | 1695 | 1841 | 1660 | 0 | 0 | 1779 | 0 | 1558 |
| Q Serve(g_s), s | 1.5 | 5.9 | 6.0 | 2.0 | 4.9 | 4.9 | 2.2 | 0.0 | 0.0 | 0.5 | 0.0 | 0.3 |
| Cycle Q Clear(g_c), s | 1.5 | 5.9 | 6.0 | 2.0 | 4.9 | 4.9 | 2.2 | 0.0 | 0.0 | 0.5 | 0.0 | 0.3 |
| Prop In Lane | 1.00 | | 0.08 | 1.00 | | 0.06 | 0.43 | | 0.57 | 0.94 | | 1.00 |
| Lane Grp Cap(c), veh/h | 121 | 1246 | 674 | 145 | 1292 | 702 | 136 | 0 | 0 | 79 | 0 | 69 |
| V/C Ratio(X) | 0.49 | 0.45 | 0.45 | 0.54 | 0.38 | 0.38 | 0.58 | 0.00 | 0.00 | 0.23 | 0.00 | 0.16 |
| Avail Cap(c_a), veh/h | 256 | 1810 | 979 | 331 | 1954 | 1061 | 1161 | 0 | 0 | 1244 | 0 | 1089 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.2 | 11.3 | 11.3 | 20.8 | 10.6 | 10.6 | 20.9 | 0.0 | 0.0 | 21.8 | 0.0 | 21.7 |
| Incr Delay (d2), s/veh | 1.1 | 0.7 | 1.3 | 1.2 | 0.5 | 0.9 | 2.9 | 0.0 | 0.0 | 1.1 | 0.0 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 2.9 | 3.2 | 1.0 | 2.4 | 2.7 | 1.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.2 |
| LnGrp Delay(d),s/veh | 22.3 | 12.0 | 12.6 | 22.0 | 11.1 | 11.5 | 23.8 | 0.0 | 0.0 | 22.8 | 0.0 | 22.5 |
| LnGrp LOS | C | B | B | C | B | B | C | | | C | | C |
| Approach Vol, veh/h | | 927 | | | 834 | | | 79 | | | | 29 |
| Approach Delay, s/veh | | 12.9 | | | 12.2 | | | 23.8 | | | | 22.7 |
| Approach LOS | | B | | | B | | | C | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.9 | 23.4 | | 7.1 | 7.2 | 24.0 | | 8.9 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 8.8 | 25.2 | | 33.0 | 6.8 | 27.2 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.0 | 8.0 | | 2.5 | 3.5 | 6.9 | | 4.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.2 | | 0.1 | 0.0 | 8.9 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 13.2 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

10 Year Cumulative
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 286 | 690 | 229 | 527 | 261 | 907 | 120 | 184 | 1138 | 114 |
| v/c Ratio | 0.51 | 0.61 | 0.51 | 0.54 | 1.36 | 0.48 | 0.18 | 0.57 | 0.55 | 0.16 |
| Control Delay | 54.4 | 41.8 | 58.1 | 43.2 | 236.4 | 32.7 | 5.3 | 64.0 | 31.3 | 4.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 54.4 | 41.8 | 58.1 | 43.2 | 236.4 | 32.7 | 5.3 | 64.0 | 31.3 | 4.0 |
| Queue Length 50th (ft) | 114 | 175 | 94 | 135 | -148 | 208 | 0 | 77 | 254 | 0 |
| Queue Length 95th (ft) | #204 | 183 | 143 | 139 | #238 | 269 | 41 | #169 | 354 | 32 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 558 | 1883 | 448 | 1812 | 192 | 1882 | 655 | 321 | 2073 | 709 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.51 | 0.37 | 0.51 | 0.29 | 1.36 | 0.48 | 0.18 | 0.57 | 0.55 | 0.16 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

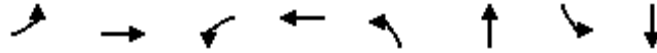
HCM 2010 Signalized Intersection Summary
7: Mooney Blvd & Caldwell Ave

10 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 272 | 484 | 172 | 218 | 393 | 107 | 248 | 862 | 114 | 175 | 1081 | 108 |
| Future Volume (veh/h) | 272 | 484 | 172 | 218 | 393 | 107 | 248 | 862 | 114 | 175 | 1081 | 108 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 286 | 509 | 181 | 229 | 414 | 113 | 261 | 907 | 120 | 184 | 1138 | 114 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 302 | 845 | 291 | 167 | 750 | 198 | 692 | 2494 | 775 | 167 | 1690 | 516 |
| Arrive On Green | 0.09 | 0.23 | 0.23 | 0.05 | 0.19 | 0.19 | 0.20 | 0.49 | 0.49 | 0.05 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3729 | 1283 | 3442 | 4007 | 1055 | 3442 | 5085 | 1580 | 3442 | 5085 | 1553 |
| Grp Volume(v), veh/h | 286 | 461 | 229 | 229 | 348 | 179 | 261 | 907 | 120 | 184 | 1138 | 114 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1622 | 1721 | 1695 | 1673 | 1721 | 1695 | 1580 | 1721 | 1695 | 1553 |
| Q Serve(g_s), s | 10.7 | 15.8 | 16.5 | 6.3 | 12.1 | 12.7 | 8.5 | 14.4 | 3.9 | 6.3 | 25.0 | 6.9 |
| Cycle Q Clear(g_c), s | 10.7 | 15.8 | 16.5 | 6.3 | 12.1 | 12.7 | 8.5 | 14.4 | 3.9 | 6.3 | 25.0 | 6.9 |
| Prop In Lane | 1.00 | | 0.79 | 1.00 | | 0.63 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 302 | 768 | 368 | 167 | 635 | 313 | 692 | 2494 | 775 | 167 | 1690 | 516 |
| V/C Ratio(X) | 0.95 | 0.60 | 0.62 | 1.37 | 0.55 | 0.57 | 0.38 | 0.36 | 0.15 | 1.10 | 0.67 | 0.22 |
| Avail Cap(c_a), veh/h | 302 | 1278 | 611 | 167 | 1226 | 605 | 692 | 2494 | 775 | 167 | 1690 | 516 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.95 | 0.95 | 0.95 | 0.86 | 0.86 | 0.86 | 0.77 | 0.77 | 0.77 | 0.91 | 0.91 | 0.91 |
| Uniform Delay (d), s/veh | 59.0 | 45.0 | 45.3 | 61.8 | 47.8 | 48.1 | 44.9 | 20.5 | 9.5 | 61.8 | 37.3 | 31.3 |
| Incr Delay (d2), s/veh | 36.1 | 1.4 | 3.2 | 197.0 | 1.2 | 2.7 | 0.1 | 0.3 | 0.3 | 96.8 | 2.0 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.6 | 7.6 | 7.7 | 7.6 | 5.8 | 6.1 | 4.1 | 6.8 | 2.2 | 5.2 | 12.0 | 3.1 |
| LnGrp Delay(d),s/veh | 95.1 | 46.4 | 48.4 | 258.8 | 49.1 | 50.8 | 45.0 | 20.9 | 9.9 | 158.6 | 39.3 | 32.2 |
| LnGrp LOS | F | D | D | F | D | D | D | C | A | F | D | C |
| Approach Vol, veh/h | | 976 | | | 756 | | | 1288 | | | 1436 | |
| Approach Delay, s/veh | | 61.1 | | | 113.0 | | | 24.7 | | | 54.0 | |
| Approach LOS | | E | | | F | | | C | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.0 | 70.1 | 12.0 | 35.9 | 32.5 | 49.6 | 17.1 | 30.7 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6.3 | 44.2 | 6.3 | * 49 | 7.3 | * 43 | 8.3 | * 47 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.3 | 16.4 | 8.3 | 18.5 | 10.5 | 27.0 | 12.7 | 14.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 13.6 | 0.0 | 8.5 | 0.0 | 11.4 | 0.0 | 6.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 57.1 | | | | | | | | | |
| HCM 2010 LOS | | | E | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St

10 Year Cumulative
Timing Plan: P.M. Peak























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 123 | 833 | 179 | 777 | 97 | 213 | 185 | 103 |
| v/c Ratio | 0.69 | 0.58 | 1.01 | 0.54 | 0.19 | 0.43 | 0.47 | 0.25 |
| Control Delay | 53.6 | 22.4 | 104.9 | 21.4 | 12.5 | 7.6 | 17.2 | 9.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.6 | 22.4 | 104.9 | 21.4 | 12.5 | 7.6 | 17.2 | 9.4 |
| Queue Length 50th (ft) | 45 | 88 | 67 | 79 | 23 | 9 | 47 | 9 |
| Queue Length 95th (ft) | #169 | 192 | #250 | 175 | 46 | 51 | 81 | 39 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 178 | 1487 | 178 | 1489 | 522 | 943 | 393 | 902 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.69 | 0.56 | 1.01 | 0.52 | 0.19 | 0.23 | 0.47 | 0.11 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

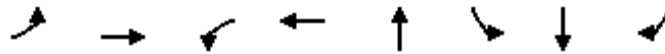
HCM 2010 Signalized Intersection Summary
 8: Caldwell Ave & Fairway St

10 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 117 | 697 | 94 | 170 | 621 | 117 | 92 | 27 | 176 | 176 | 27 | 71 |
| Future Volume (veh/h) | 117 | 697 | 94 | 170 | 621 | 117 | 92 | 27 | 176 | 176 | 27 | 71 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 123 | 734 | 99 | 179 | 654 | 123 | 97 | 28 | 185 | 185 | 28 | 75 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 158 | 1226 | 164 | 198 | 1267 | 235 | 491 | 42 | 278 | 407 | 100 | 268 |
| Arrive On Green | 0.09 | 0.27 | 0.27 | 0.11 | 0.29 | 0.29 | 0.08 | 0.20 | 0.20 | 0.11 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1774 | 4521 | 604 | 1774 | 4310 | 800 | 1774 | 212 | 1403 | 1774 | 443 | 1185 |
| Grp Volume(v), veh/h | 123 | 549 | 284 | 179 | 513 | 264 | 97 | 0 | 213 | 185 | 0 | 103 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1735 | 1774 | 1695 | 1720 | 1774 | 0 | 1615 | 1774 | 0 | 1628 |
| Q Serve(g_s), s | 4.0 | 8.2 | 8.3 | 5.8 | 7.3 | 7.5 | 2.4 | 0.0 | 7.1 | 4.6 | 0.0 | 3.0 |
| Cycle Q Clear(g_c), s | 4.0 | 8.2 | 8.3 | 5.8 | 7.3 | 7.5 | 2.4 | 0.0 | 7.1 | 4.6 | 0.0 | 3.0 |
| Prop In Lane | 1.00 | | 0.35 | 1.00 | | 0.47 | 1.00 | | 0.87 | 1.00 | | 0.73 |
| Lane Grp Cap(c), veh/h | 158 | 919 | 471 | 198 | 996 | 505 | 491 | 0 | 321 | 407 | 0 | 368 |
| V/C Ratio(X) | 0.78 | 0.60 | 0.60 | 0.90 | 0.51 | 0.52 | 0.20 | 0.00 | 0.66 | 0.45 | 0.00 | 0.28 |
| Avail Cap(c_a), veh/h | 198 | 1107 | 566 | 198 | 1107 | 561 | 575 | 0 | 943 | 441 | 0 | 951 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.0 | 18.4 | 18.5 | 25.5 | 17.1 | 17.1 | 16.0 | 0.0 | 21.5 | 15.7 | 0.0 | 18.6 |
| Incr Delay (d2), s/veh | 11.0 | 1.7 | 3.4 | 37.6 | 1.1 | 2.3 | 0.4 | 0.0 | 6.4 | 1.7 | 0.0 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.4 | 4.0 | 4.4 | 4.9 | 3.6 | 3.9 | 1.2 | 0.0 | 3.7 | 2.4 | 0.0 | 1.5 |
| LnGrp Delay(d),s/veh | 36.9 | 20.2 | 21.9 | 63.1 | 18.2 | 19.5 | 16.4 | 0.0 | 27.9 | 17.4 | 0.0 | 19.7 |
| LnGrp LOS | D | C | C | E | B | B | B | | C | B | | B |
| Approach Vol, veh/h | | 956 | | | 956 | | | 310 | | | 288 | |
| Approach Delay, s/veh | | 22.8 | | | 27.0 | | | 24.3 | | | 18.2 | |
| Approach LOS | | C | | | C | | | C | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.5 | 21.8 | 9.4 | 16.6 | 9.2 | 23.1 | 7.7 | 18.2 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 19.0 | 7.5 | 34.0 | 6.5 | 19.0 | 7.5 | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.8 | 10.3 | 6.6 | 9.1 | 6.0 | 9.5 | 4.4 | 5.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.4 | 0.1 | 2.8 | 0.0 | 5.5 | 0.1 | 1.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 24.1 | | | | | | | | |
| HCM 2010 LOS | | | | C | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave





















10 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 64 | 1217 | 1 | 1021 | 19 | 38 | 1 | 38 |
| v/c Ratio | 0.27 | 0.45 | 0.00 | 0.42 | 0.07 | 0.12 | 0.00 | 0.09 |
| Control Delay | 28.0 | 6.9 | 25.0 | 9.3 | 21.8 | 22.7 | 21.0 | 1.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 28.0 | 6.9 | 25.0 | 9.3 | 21.8 | 22.7 | 21.0 | 1.3 |
| Queue Length 50th (ft) | 22 | 102 | 0 | 134 | 6 | 12 | 0 | 0 |
| Queue Length 95th (ft) | 56 | 245 | 5 | 195 | 22 | 35 | 4 | 4 |
| Internal Link Dist (ft) | | 1064 | | 2598 | 260 | | 519 | |
| Turn Bay Length (ft) | 235 | | 300 | | | | | 200 |
| Base Capacity (vph) | 246 | 2683 | 242 | 2418 | 989 | 1024 | 1333 | 1158 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.26 | 0.45 | 0.00 | 0.42 | 0.02 | 0.04 | 0.00 | 0.03 |
| Intersection Summary | | | | | | | | |

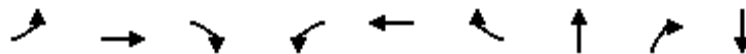
HCM 2010 Signalized Intersection Summary
 9: Stonebrook St & Caldwell Ave

10 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  |  |
| Traffic Volume (veh/h) | 59 | 1112 | 7 | 1 | 903 | 36 | 16 | 1 | 1 | 35 | 1 | 35 |
| Future Volume (veh/h) | 59 | 1112 | 7 | 1 | 903 | 36 | 16 | 1 | 1 | 35 | 1 | 35 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 64 | 1209 | 8 | 1 | 982 | 39 | 17 | 1 | 1 | 38 | 1 | 38 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 126 | 1967 | 13 | 4 | 1652 | 66 | 317 | 19 | 11 | 359 | 276 | 235 |
| Arrive On Green | 0.07 | 0.55 | 0.55 | 0.00 | 0.48 | 0.48 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| Sat Flow, veh/h | 1774 | 3604 | 24 | 1774 | 3467 | 138 | 1205 | 127 | 74 | 1409 | 1863 | 1583 |
| Grp Volume(v), veh/h | 64 | 594 | 623 | 1 | 501 | 520 | 19 | 0 | 0 | 38 | 1 | 38 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1858 | 1774 | 1770 | 1835 | 1406 | 0 | 0 | 1409 | 1863 | 1583 |
| Q Serve(g_s), s | 1.7 | 11.3 | 11.3 | 0.0 | 10.2 | 10.2 | 0.3 | 0.0 | 0.0 | 0.5 | 0.0 | 1.0 |
| Cycle Q Clear(g_c), s | 1.7 | 11.3 | 11.3 | 0.0 | 10.2 | 10.2 | 0.5 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 0.08 | 0.89 | | 0.05 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 126 | 966 | 1014 | 4 | 843 | 874 | 347 | 0 | 0 | 359 | 276 | 235 |
| V/C Ratio(X) | 0.51 | 0.61 | 0.61 | 0.28 | 0.59 | 0.59 | 0.05 | 0.00 | 0.00 | 0.11 | 0.00 | 0.16 |
| Avail Cap(c_a), veh/h | 237 | 1058 | 1111 | 234 | 1055 | 1094 | 1100 | 0 | 0 | 1121 | 1284 | 1091 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.1 | 7.7 | 7.7 | 24.6 | 9.4 | 9.4 | 18.1 | 0.0 | 0.0 | 18.3 | 17.9 | 18.3 |
| Incr Delay (d2), s/veh | 1.2 | 2.4 | 2.3 | 14.8 | 2.4 | 2.3 | 0.1 | 0.0 | 0.0 | 0.3 | 0.0 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 6.1 | 6.4 | 0.0 | 5.4 | 5.6 | 0.2 | 0.0 | 0.0 | 0.5 | 0.0 | 0.5 |
| LnGrp Delay(d),s/veh | 23.3 | 10.0 | 9.9 | 39.4 | 11.9 | 11.8 | 18.2 | 0.0 | 0.0 | 18.6 | 17.9 | 19.0 |
| LnGrp LOS | C | B | A | D | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 1281 | | | 1022 | | | 19 | | | 77 | |
| Approach Delay, s/veh | | 10.6 | | | 11.8 | | | 18.2 | | | 18.8 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.1 | 32.9 | | 12.3 | 7.5 | 29.5 | | 12.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 29.5 | | 34.0 | 6.6 | 29.4 | | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 13.3 | | 2.5 | 3.7 | 12.2 | | 3.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 12.6 | | 0.1 | 0.0 | 11.3 | | 0.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 11.5 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
10: West St & Caldwell Ave

10 Year Cumulative
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 135 | 784 | 58 | 100 | 737 | 58 | 180 | 26 | 216 |
| v/c Ratio | 0.52 | 0.54 | 0.08 | 0.45 | 0.53 | 0.09 | 0.45 | 0.06 | 0.51 |
| Control Delay | 34.8 | 15.9 | 2.9 | 35.0 | 16.9 | 3.2 | 25.7 | 0.2 | 21.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.8 | 15.9 | 2.9 | 35.0 | 16.9 | 3.2 | 25.7 | 0.2 | 21.4 |
| Queue Length 50th (ft) | 50 | 115 | 0 | 37 | 112 | 0 | 62 | 0 | 57 |
| Queue Length 95th (ft) | 109 | 190 | 15 | 88 | 186 | 16 | 118 | 0 | 118 |
| Internal Link Dist (ft) | | 2598 | | | 1241 | | 400 | | 320 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 313 | 1786 | 837 | 250 | 1661 | 783 | 979 | 965 | 974 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.43 | 0.44 | 0.07 | 0.40 | 0.44 | 0.07 | 0.18 | 0.03 | 0.22 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
10: West St & Caldwell Ave

10 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  | |
| Traffic Volume (veh/h) | 124 | 721 | 53 | 92 | 678 | 53 | 37 | 129 | 24 | 29 | 85 | 85 |
| Future Volume (veh/h) | 124 | 721 | 53 | 92 | 678 | 53 | 37 | 129 | 24 | 29 | 85 | 85 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 135 | 784 | 58 | 100 | 737 | 58 | 40 | 140 | 26 | 32 | 92 | 92 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 178 | 1425 | 637 | 158 | 1385 | 620 | 136 | 312 | 323 | 110 | 163 | 142 |
| Arrive On Green | 0.10 | 0.40 | 0.40 | 0.09 | 0.39 | 0.39 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1583 | 244 | 1530 | 1583 | 139 | 798 | 695 |
| Grp Volume(v), veh/h | 135 | 784 | 58 | 100 | 737 | 58 | 180 | 0 | 26 | 216 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1583 | 1774 | 0 | 1583 | 1633 | 0 | 0 |
| Q Serve(g_s), s | 3.8 | 8.7 | 1.2 | 2.8 | 8.2 | 1.2 | 0.0 | 0.0 | 0.7 | 1.8 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.8 | 8.7 | 1.2 | 2.8 | 8.2 | 1.2 | 4.3 | 0.0 | 0.7 | 6.1 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.22 | | 1.00 | 0.15 | | 0.43 |
| Lane Grp Cap(c), veh/h | 178 | 1425 | 637 | 158 | 1385 | 620 | 448 | 0 | 323 | 414 | 0 | 0 |
| V/C Ratio(X) | 0.76 | 0.55 | 0.09 | 0.63 | 0.53 | 0.09 | 0.40 | 0.00 | 0.08 | 0.52 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 348 | 1980 | 886 | 279 | 1841 | 824 | 1184 | 0 | 1026 | 1131 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 22.3 | 11.7 | 9.4 | 22.4 | 11.9 | 9.8 | 17.9 | 0.0 | 16.4 | 18.5 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 2.5 | 1.2 | 0.2 | 1.6 | 1.2 | 0.2 | 1.2 | 0.0 | 0.2 | 2.2 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 4.4 | 0.5 | 1.4 | 4.1 | 0.6 | 2.4 | 0.0 | 0.3 | 3.0 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 24.8 | 12.9 | 9.7 | 23.9 | 13.1 | 10.0 | 19.1 | 0.0 | 16.6 | 20.7 | 0.0 | 0.0 |
| LnGrp LOS | C | B | A | C | B | B | B | | B | C | | |
| Approach Vol, veh/h | | 977 | | | 895 | | | 206 | | | 216 | |
| Approach Delay, s/veh | | 14.3 | | | 14.1 | | | 18.8 | | | 20.7 | |
| Approach LOS | | B | | | B | | | B | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.5 | 27.0 | | 15.4 | 9.1 | 26.4 | | 15.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 8.0 | 28.5 | | 33.0 | 10.0 | 26.5 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.8 | 10.7 | | 6.3 | 5.8 | 10.2 | | 8.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.8 | | 2.2 | 0.1 | 8.8 | | 2.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 15.2 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
11: County Center Dr & Cameron Ave













10 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 67 | 359 | 214 | 35 | 370 | 131 |
| v/c Ratio | 0.17 | 0.57 | 0.23 | 0.04 | 0.64 | 0.14 |
| Control Delay | 13.2 | 6.3 | 5.8 | 2.3 | 12.7 | 5.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.2 | 6.3 | 5.8 | 2.3 | 12.7 | 5.3 |
| Queue Length 50th (ft) | 8 | 0 | 16 | 0 | 37 | 10 |
| Queue Length 95th (ft) | 39 | 50 | 53 | 8 | 129 | 34 |
| Internal Link Dist (ft) | 1226 | | 772 | | | 355 |
| Turn Bay Length (ft) | | 100 | | 160 | 145 | |
| Base Capacity (vph) | 990 | 1024 | 1581 | 1322 | 986 | 1581 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.35 | 0.14 | 0.03 | 0.38 | 0.08 |
| Intersection Summary | | | | | | |

HCM 2010 Signalized Intersection Summary
 11: County Center Dr & Cameron Ave

10 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  | | |
|------------------------------|---|---|---|---|---|---|---|------|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT | | |
| Lane Configurations |  |  |  |  |  |  | | |
| Traffic Volume (veh/h) | 62 | 334 | 199 | 33 | 344 | 122 | | |
| Future Volume (veh/h) | 62 | 334 | 199 | 33 | 344 | 122 | | |
| Number | 3 | 18 | 2 | 12 | 1 | 6 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 0.98 | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 67 | 359 | 214 | 35 | 370 | 131 | | |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 508 | 454 | 872 | 726 | 646 | 872 | | |
| Arrive On Green | 0.29 | 0.29 | 0.47 | 0.47 | 0.47 | 0.47 | | |
| Sat Flow, veh/h | 1774 | 1583 | 1863 | 1550 | 1126 | 1863 | | |
| Grp Volume(v), veh/h | 67 | 359 | 214 | 35 | 370 | 131 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1583 | 1863 | 1550 | 1126 | 1863 | | |
| Q Serve(g_s), s | 1.0 | 7.7 | 2.5 | 0.5 | 10.8 | 1.5 | | |
| Cycle Q Clear(g_c), s | 1.0 | 7.7 | 2.5 | 0.5 | 13.3 | 1.5 | | |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 508 | 454 | 872 | 726 | 646 | 872 | | |
| V/C Ratio(X) | 0.13 | 0.79 | 0.25 | 0.05 | 0.57 | 0.15 | | |
| Avail Cap(c_a), veh/h | 876 | 782 | 1418 | 1180 | 976 | 1418 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 9.7 | 12.1 | 5.9 | 5.3 | 9.9 | 5.6 | | |
| Incr Delay (d2), s/veh | 0.1 | 3.2 | 0.1 | 0.0 | 0.8 | 0.1 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 0.5 | 3.7 | 1.3 | 0.2 | 3.4 | 0.7 | | |
| LnGrp Delay(d),s/veh | 9.8 | 15.2 | 6.0 | 5.3 | 10.7 | 5.7 | | |
| LnGrp LOS | A | B | A | A | B | A | | |
| Approach Vol, veh/h | 426 | | 249 | | | 501 | | |
| Approach Delay, s/veh | 14.4 | | 5.9 | | | 9.4 | | |
| Approach LOS | B | | A | | | A | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | | | 6 | | 8 |
| Phs Duration (G+Y+Rc), s | | 21.6 | | | | 21.6 | | 15.0 |
| Change Period (Y+Rc), s | | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | | 27.9 | | | | 27.9 | | 18.1 |
| Max Q Clear Time (g_c+I1), s | | 4.5 | | | | 15.3 | | 9.7 |
| Green Ext Time (p_c), s | | 1.2 | | | | 1.8 | | 1.0 |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 10.4 | | | | | |
| HCM 2010 LOS | | | B | | | | | |

Queues
12: Mooney Blvd & Cameron Ave

10 Year Cumulative
Timing Plan: P.M. Peak































| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|-------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 198 | 333 | 147 | 399 | 66 | 800 | 133 | 316 | 928 | 160 |
| v/c Ratio | 0.57 | 0.31 | 1.26 | 0.53 | 0.35 | 0.60 | 0.24 | 0.62 | 0.49 | 0.22 |
| Control Delay | 49.9 | 27.9 | 210.1 | 18.1 | 69.8 | 49.5 | 13.0 | 51.4 | 28.8 | 2.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.9 | 27.9 | 210.1 | 18.1 | 69.8 | 49.5 | 13.0 | 51.4 | 28.8 | 2.1 |
| Queue Length 50th (ft) | 127 | 94 | ~130 | 58 | 19 | 167 | 14 | 107 | 175 | 0 |
| Queue Length 95th (ft) | #339 | 107 | #260 | 72 | m30 | m233 | m42 | #243 | 271 | 18 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 350 | 1427 | 117 | 1420 | 187 | 1324 | 561 | 507 | 1906 | 720 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.57 | 0.23 | 1.26 | 0.28 | 0.35 | 0.60 | 0.24 | 0.62 | 0.49 | 0.22 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

10 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |   |   |  |   |   |  |
| Traffic Volume (veh/h) | 194 | 282 | 44 | 144 | 168 | 223 | 65 | 784 | 130 | 310 | 909 | 157 |
| Future Volume (veh/h) | 194 | 282 | 44 | 144 | 168 | 223 | 65 | 784 | 130 | 310 | 909 | 157 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 198 | 288 | 45 | 147 | 171 | 228 | 66 | 800 | 133 | 316 | 928 | 160 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 134 | 680 | 105 | 118 | 364 | 325 | 813 | 2167 | 673 | 228 | 1271 | 395 |
| Arrive On Green | 0.08 | 0.22 | 0.22 | 0.07 | 0.21 | 0.21 | 0.47 | 0.85 | 0.85 | 0.07 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1774 | 3073 | 475 | 1774 | 1770 | 1579 | 3442 | 5085 | 1580 | 3442 | 5085 | 1580 |
| Grp Volume(v), veh/h | 198 | 164 | 169 | 147 | 171 | 228 | 66 | 800 | 133 | 316 | 928 | 160 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1778 | 1774 | 1770 | 1579 | 1721 | 1695 | 1580 | 1721 | 1695 | 1580 |
| Q Serve(g_s), s | 8.3 | 8.8 | 9.0 | 7.3 | 9.3 | 14.7 | 1.2 | 3.7 | 1.6 | 7.3 | 18.4 | 9.3 |
| Cycle Q Clear(g_c), s | 8.3 | 8.8 | 9.0 | 7.3 | 9.3 | 14.7 | 1.2 | 3.7 | 1.6 | 7.3 | 18.4 | 9.3 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 134 | 391 | 393 | 118 | 364 | 325 | 813 | 2167 | 673 | 228 | 1271 | 395 |
| V/C Ratio(X) | 1.48 | 0.42 | 0.43 | 1.25 | 0.47 | 0.70 | 0.08 | 0.37 | 0.20 | 1.38 | 0.73 | 0.41 |
| Avail Cap(c_a), veh/h | 134 | 724 | 727 | 118 | 708 | 631 | 813 | 2167 | 673 | 228 | 1271 | 395 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.50 | 0.50 | 0.50 | 0.82 | 0.82 | 0.82 |
| Uniform Delay (d), s/veh | 50.8 | 36.8 | 36.9 | 51.3 | 38.4 | 40.6 | 22.5 | 4.9 | 4.8 | 51.4 | 37.8 | 34.4 |
| Incr Delay (d2), s/veh | 251.2 | 1.3 | 1.4 | 164.2 | 2.2 | 6.4 | 0.0 | 0.2 | 0.3 | 193.5 | 3.1 | 2.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 13.4 | 4.4 | 4.6 | 8.9 | 4.8 | 7.0 | 0.5 | 1.7 | 0.7 | 9.6 | 9.0 | 4.3 |
| LnGrp Delay(d),s/veh | 302.1 | 38.1 | 38.2 | 215.5 | 40.6 | 46.9 | 22.5 | 5.2 | 5.1 | 244.8 | 40.9 | 37.0 |
| LnGrp LOS | F | D | D | F | D | D | C | A | A | F | D | D |
| Approach Vol, veh/h | | 531 | | | 546 | | | 999 | | | 1404 | |
| Approach Delay, s/veh | | 136.6 | | | 90.3 | | | 6.3 | | | 86.4 | |
| Approach LOS | | F | | | F | | | A | | | F | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.0 | 53.3 | 13.0 | 30.7 | 32.4 | 33.9 | 14.7 | 29.0 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | 6.4 | 6.4 | * 6.4 | 6.4 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 7.3 | 26.2 | * 7.3 | 45.0 | 6.0 | * 28 | 8.3 | * 44 | | | | |
| Max Q Clear Time (g_c+I1), s | 9.3 | 5.7 | 9.3 | 11.0 | 3.2 | 20.4 | 10.3 | 16.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 13.4 | 0.0 | 3.5 | 0.0 | 5.9 | 0.0 | 4.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 71.7 | | | | | | | | | |
| HCM 2010 LOS | | | E | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.3 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↔ | ↔ | ↔ |
| Traffic Vol, veh/h | 682 | 13 | 194 | 601 | 7 | 296 |
| Future Vol, veh/h | 682 | 13 | 194 | 601 | 7 | 296 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 145 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 703 | 13 | 200 | 620 | 7 | 305 |

| Major/Minor | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 716 | 0 | 1730 |
| Stage 1 | - | - | - | - | 710 |
| Stage 2 | - | - | - | - | 1020 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 885 | - | 97 |
| Stage 1 | - | - | - | - | 487 |
| Stage 2 | - | - | - | - | 348 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 885 | - | 64 |
| Mov Cap-2 Maneuver | - | - | - | - | 166 |
| Stage 1 | - | - | - | - | 487 |
| Stage 2 | - | - | - | - | 228 |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 2.5 | 30.6 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 166 | 434 | - | - | 885 | - |
| HCM Lane V/C Ratio | 0.043 | 0.703 | - | - | 0.226 | - |
| HCM Control Delay (s) | 27.7 | 30.7 | - | - | 10.3 | 0 |
| HCM Lane LOS | D | D | - | - | B | A |
| HCM 95th %tile Q(veh) | 0.1 | 5.3 | - | - | 0.9 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 126 | 647 | 18 | 9 | 495 | 9 | 8 | 6 | 2 | 6 | 7 | 141 |
| Future Vol, veh/h | 126 | 647 | 18 | 9 | 495 | 9 | 8 | 6 | 2 | 6 | 7 | 141 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 130 | 667 | 19 | 9 | 510 | 9 | 8 | 6 | 2 | 6 | 7 | 145 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 519 | 0 | 0 | 686 | 0 | 0 | 1546 | 1474 | 677 | 1474 | 1479 | 515 |
| Stage 1 | - | - | - | - | - | - | 937 | 937 | - | 533 | 533 | - |
| Stage 2 | - | - | - | - | - | - | 609 | 537 | - | 941 | 946 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1047 | - | - | 908 | - | - | 93 | 127 | 453 | 105 | 126 | 560 |
| Stage 1 | - | - | - | - | - | - | 318 | 343 | - | 531 | 525 | - |
| Stage 2 | - | - | - | - | - | - | 482 | 523 | - | 316 | 340 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1047 | - | - | 908 | - | - | 59 | 110 | 453 | 90 | 109 | 560 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 59 | 110 | - | 90 | 109 | - |
| Stage 1 | - | - | - | - | - | - | 279 | 300 | - | 465 | 520 | - |
| Stage 2 | - | - | - | - | - | - | 348 | 518 | - | 270 | 298 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 1.4 | | | 0.2 | | | 59.6 | | | 17.6 | | |
| HCM LOS | | | | | | | F | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|-------|
| Capacity (veh/h) | 82 | 1047 | - | - | 908 | - | - | 90 | 468 |
| HCM Lane V/C Ratio | 0.201 | 0.124 | - | - | 0.01 | - | - | 0.069 | 0.326 |
| HCM Control Delay (s) | 59.6 | 8.9 | - | - | 9 | - | - | 47.9 | 16.4 |
| HCM Lane LOS | F | A | - | - | A | - | - | E | C |
| HCM 95th %tile Q(veh) | 0.7 | 0.4 | - | - | 0 | - | - | 0.2 | 1.4 |

Queues
15: Court St & Cameron Ave

10 Year Cumulative
Timing Plan: P.M. Peak























| Lane Group | EBL | EBT | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 496 | 500 | 67 | 3 | 8 | 58 | 336 | 329 |
| v/c Ratio | 0.73 | 0.75 | 0.07 | 0.01 | 0.01 | 0.18 | 0.36 | 0.56 |
| Control Delay | 16.3 | 17.8 | 3.7 | 14.7 | 14.4 | 16.3 | 3.8 | 6.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 16.3 | 17.8 | 3.7 | 14.7 | 14.4 | 16.3 | 3.8 | 6.5 |
| Queue Length 50th (ft) | 73 | 75 | 3 | 1 | 1 | 11 | 1 | 0 |
| Queue Length 95th (ft) | #297 | #309 | 20 | 6 | 5 | 37 | 25 | 52 |
| Internal Link Dist (ft) | | 563 | 789 | | 604 | | 1556 | |
| Turn Bay Length (ft) | 260 | | | 225 | | 195 | | 200 |
| Base Capacity (vph) | 957 | 933 | 1317 | 494 | 1733 | 686 | 1584 | 873 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.52 | 0.54 | 0.05 | 0.01 | 0.00 | 0.08 | 0.21 | 0.38 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

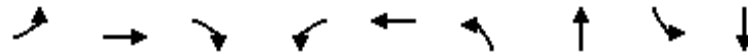
HCM 2010 Signalized Intersection Summary
 15: Court St & Cameron Ave

10 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 878 | 35 | 4 | 1 | 29 | 31 | 3 | 7 | 0 | 53 | 6 | 605 |
| Future Volume (veh/h) | 878 | 35 | 4 | 1 | 29 | 31 | 3 | 7 | 0 | 53 | 6 | 605 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 985 | 0 | 0 | 1 | 32 | 34 | 3 | 8 | 0 | 58 | 7 | 658 |
| Adj No. of Lanes | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 2 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 1632 | 860 | 0 | 99 | 387 | 400 | 419 | 1056 | 0 | 608 | 556 | 945 |
| Arrive On Green | 0.46 | 0.00 | 0.00 | 0.46 | 0.46 | 0.46 | 0.30 | 0.30 | 0.00 | 0.30 | 0.30 | 0.30 |
| Sat Flow, veh/h | 2660 | 1863 | 0 | 4 | 837 | 867 | 768 | 3632 | 0 | 1402 | 1863 | 3167 |
| Grp Volume(v), veh/h | 985 | 0 | 0 | 67 | 0 | 0 | 3 | 8 | 0 | 58 | 7 | 658 |
| Grp Sat Flow(s),veh/h/ln | 1330 | 1863 | 0 | 1708 | 0 | 0 | 768 | 1770 | 0 | 1402 | 1863 | 1583 |
| Q Serve(g_s), s | 10.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 1.1 | 0.1 | 6.9 |
| Cycle Q Clear(g_c), s | 11.4 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.2 | 0.1 | 0.0 | 1.2 | 0.1 | 6.9 |
| Prop In Lane | 1.00 | | 0.00 | 0.01 | | 0.51 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 1632 | 860 | 0 | 886 | 0 | 0 | 419 | 1056 | 0 | 608 | 556 | 945 |
| V/C Ratio(X) | 0.60 | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.10 | 0.01 | 0.70 |
| Avail Cap(c_a), veh/h | 2638 | 1564 | 0 | 1530 | 0 | 0 | 589 | 1840 | 0 | 918 | 968 | 1646 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 8.4 | 0.0 | 0.0 | 5.7 | 0.0 | 0.0 | 9.3 | 9.3 | 0.0 | 9.7 | 9.3 | 11.7 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.3 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.1 | 3.1 |
| LnGrp Delay(d),s/veh | 8.8 | 0.0 | 0.0 | 5.7 | 0.0 | 0.0 | 9.3 | 9.3 | 0.0 | 9.7 | 9.3 | 12.6 |
| LnGrp LOS | A | | | A | | | A | A | | A | A | B |
| Approach Vol, veh/h | | 985 | | | 67 | | | 11 | | | 723 | |
| Approach Delay, s/veh | | 8.8 | | | 5.7 | | | 9.3 | | | 12.3 | |
| Approach LOS | | A | | | A | | | A | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 15.7 | | 21.8 | | 15.7 | | 21.8 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 19.5 | | 31.5 | | 19.5 | | 31.5 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.2 | | 13.4 | | 8.9 | | 2.8 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 3.9 | | 2.3 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 10.1 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
16: Demaree St & Visalia Pkwy

10 Year Cumulative
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 18 | 252 | 55 | 103 | 382 | 63 | 662 | 122 | 601 |
| v/c Ratio | 0.14 | 0.57 | 0.12 | 0.57 | 0.31 | 0.39 | 0.65 | 0.60 | 0.49 |
| Control Delay | 45.4 | 35.0 | 0.5 | 53.5 | 17.3 | 47.8 | 28.7 | 52.5 | 24.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.4 | 35.0 | 0.5 | 53.5 | 17.3 | 47.8 | 28.7 | 52.5 | 24.6 |
| Queue Length 50th (ft) | 9 | 119 | 0 | 52 | 51 | 32 | 154 | 61 | 132 |
| Queue Length 95th (ft) | 35 | 220 | 0 | #142 | 116 | 84 | 244 | #158 | 218 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 775 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 137 | 783 | 736 | 207 | 1588 | 207 | 1498 | 240 | 1575 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.13 | 0.32 | 0.07 | 0.50 | 0.24 | 0.30 | 0.44 | 0.51 | 0.38 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

10 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 17 | 239 | 52 | 98 | 237 | 126 | 60 | 506 | 123 | 116 | 519 | 52 |
| Future Volume (veh/h) | 17 | 239 | 52 | 98 | 237 | 126 | 60 | 506 | 123 | 116 | 519 | 52 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 18 | 252 | 55 | 103 | 249 | 133 | 63 | 533 | 129 | 122 | 546 | 55 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 46 | 391 | 333 | 140 | 593 | 306 | 113 | 843 | 203 | 156 | 1048 | 105 |
| Arrive On Green | 0.03 | 0.21 | 0.21 | 0.08 | 0.26 | 0.26 | 0.06 | 0.30 | 0.30 | 0.09 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1774 | 1863 | 1583 | 1774 | 2250 | 1160 | 1774 | 2830 | 682 | 1774 | 3248 | 326 |
| Grp Volume(v), veh/h | 18 | 252 | 55 | 103 | 194 | 188 | 63 | 332 | 330 | 122 | 297 | 304 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1583 | 1774 | 1770 | 1640 | 1774 | 1770 | 1742 | 1774 | 1770 | 1805 |
| Q Serve(g_s), s | 0.6 | 7.8 | 1.8 | 3.6 | 5.7 | 6.0 | 2.2 | 10.3 | 10.4 | 4.3 | 8.7 | 8.7 |
| Cycle Q Clear(g_c), s | 0.6 | 7.8 | 1.8 | 3.6 | 5.7 | 6.0 | 2.2 | 10.3 | 10.4 | 4.3 | 8.7 | 8.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.71 | 1.00 | | 0.39 | 1.00 | | 0.18 |
| Lane Grp Cap(c), veh/h | 46 | 391 | 333 | 140 | 466 | 432 | 113 | 527 | 519 | 156 | 571 | 582 |
| V/C Ratio(X) | 0.39 | 0.64 | 0.17 | 0.73 | 0.42 | 0.43 | 0.56 | 0.63 | 0.63 | 0.78 | 0.52 | 0.52 |
| Avail Cap(c_a), veh/h | 176 | 999 | 849 | 266 | 1038 | 962 | 266 | 974 | 959 | 308 | 1016 | 1036 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 30.4 | 22.9 | 20.5 | 28.5 | 19.3 | 19.4 | 28.8 | 19.3 | 19.3 | 28.3 | 17.5 | 17.5 |
| Incr Delay (d2), s/veh | 2.0 | 5.4 | 0.7 | 2.8 | 1.8 | 2.1 | 1.6 | 2.4 | 2.5 | 3.2 | 1.4 | 1.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 4.6 | 0.8 | 1.9 | 3.0 | 3.0 | 1.1 | 5.3 | 5.3 | 2.2 | 4.4 | 4.5 |
| LnGrp Delay(d),s/veh | 32.5 | 28.2 | 21.2 | 31.3 | 21.1 | 21.5 | 30.5 | 21.7 | 21.8 | 31.5 | 18.9 | 18.9 |
| LnGrp LOS | C | C | C | C | C | C | C | C | C | C | B | B |
| Approach Vol, veh/h | | 325 | | | 485 | | | 725 | | | 723 | |
| Approach Delay, s/veh | | 27.3 | | | 23.5 | | | 22.5 | | | 21.0 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.8 | 25.9 | 9.2 | 18.5 | 8.2 | 27.5 | 5.8 | 21.9 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 11 | 34.9 | * 9.5 | 34.0 | * 9.5 | 36.4 | * 6.3 | 37.2 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.3 | 12.4 | 5.6 | 9.8 | 4.2 | 10.7 | 2.6 | 8.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 6.5 | 0.0 | 3.5 | 0.0 | 6.2 | 0.0 | 5.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 22.9 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 29 | 400 | 4 | 5 | 424 | 17 | 2 | 0 | 1 | 20 | 1 | 41 |
| Future Vol, veh/h | 29 | 400 | 4 | 5 | 424 | 17 | 2 | 0 | 1 | 20 | 1 | 41 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 32 | 435 | 4 | 5 | 461 | 18 | 2 | 0 | 1 | 22 | 1 | 45 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 479 | 0 | 0 | 439 | 0 | 0 | 1004 | 990 | 437 | 982 | 983 | 470 |
| Stage 1 | - | - | - | - | - | - | 501 | 501 | - | 480 | 480 | - |
| Stage 2 | - | - | - | - | - | - | 503 | 489 | - | 502 | 503 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1083 | - | - | 1121 | - | - | 220 | 246 | 620 | 228 | 249 | 594 |
| Stage 1 | - | - | - | - | - | - | 552 | 543 | - | 567 | 554 | - |
| Stage 2 | - | - | - | - | - | - | 551 | 549 | - | 552 | 541 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1083 | - | - | 1121 | - | - | 198 | 238 | 620 | 222 | 241 | 594 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 198 | 238 | - | 222 | 241 | - |
| Stage 1 | - | - | - | - | - | - | 535 | 527 | - | 550 | 552 | - |
| Stage 2 | - | - | - | - | - | - | 506 | 547 | - | 535 | 525 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.6 | | | 0.1 | | | 19.2 | | | 16.5 | | |
| HCM LOS | | | | | | | C | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 256 | 1083 | - | - | 1121 | - | - | 380 |
| HCM Lane V/C Ratio | 0.013 | 0.029 | - | - | 0.005 | - | - | 0.177 |
| HCM Control Delay (s) | 19.2 | 8.4 | - | - | 8.2 | - | - | 16.5 |
| HCM Lane LOS | | C | A | - | - | A | - | C |
| HCM 95th %tile Q(veh) | | 0 | 0.1 | - | - | 0 | - | 0.6 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↘ | ↑ | ↗ | | ↘ | ↗ |
| Traffic Vol, veh/h | 98 | 386 | 416 | 127 | 72 | 106 |
| Future Vol, veh/h | 98 | 386 | 416 | 127 | 72 | 106 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 107 | 420 | 452 | 138 | 78 | 115 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 590 | 0 | - | 0 | 1155 521 |
| Stage 1 | - | - | - | - | 521 - |
| Stage 2 | - | - | - | - | 634 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 985 | - | - | - | 218 555 |
| Stage 1 | - | - | - | - | 596 - |
| Stage 2 | - | - | - | - | 529 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 985 | - | - | - | 194 555 |
| Mov Cap-2 Maneuver | - | - | - | - | 194 - |
| Stage 1 | - | - | - | - | 531 - |
| Stage 2 | - | - | - | - | 529 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.8 | 0 | 22.3 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 985 | - | - | - | 194 | 555 |
| HCM Lane V/C Ratio | 0.108 | - | - | - | 0.403 | 0.208 |
| HCM Control Delay (s) | 9.1 | - | - | - | 35.6 | 13.2 |
| HCM Lane LOS | A | - | - | - | E | B |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 1.8 | 0.8 |

HCM 2010 TWSC
 19: Main Site Access/Target Dwy & Visalia Pkwy

10 Year Cumulative
 Timing Plan: P.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 284 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 75 | 354 | 74 | 161 | 390 | 30 | 131 | 0 | 260 | 135 | 0 | 68 |
| Future Vol, veh/h | 75 | 354 | 74 | 161 | 390 | 30 | 131 | 0 | 260 | 135 | 0 | 68 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 82 | 385 | 80 | 175 | 424 | 33 | 142 | 0 | 283 | 147 | 0 | 74 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 458 | 0 | 0 | 465 | 0 | 0 | 1417 | 1397 | 425 | 1523 | 1421 | 442 |
| Stage 1 | - | - | - | - | - | - | 589 | 589 | - | 792 | 792 | - |
| Stage 2 | - | - | - | - | - | - | 828 | 808 | - | 731 | 629 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1103 | - | - | 1096 | - | - | ~ 115 | 141 | 629 | ~ 97 | 136 | 615 |
| Stage 1 | - | - | - | - | - | - | 494 | 495 | - | 382 | 401 | - |
| Stage 2 | - | - | - | - | - | - | 365 | 394 | - | 413 | 475 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1102 | - | - | 1096 | - | - | ~ 84 | 110 | 629 | ~ 44 | 106 | 614 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 84 | 110 | - | ~ 44 | 106 | - |
| Stage 1 | - | - | - | - | - | - | 457 | 458 | - | 353 | 336 | - |
| Stage 2 | - | - | - | - | - | - | 270 | 331 | - | 211 | 440 | - |

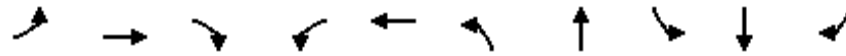
| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|----------|--|--|-----------|--|--|
| HCM Control Delay, s | 1.3 | | | 2.5 | | | \$ 571.1 | | | \$ 1236.9 | | |
| HCM LOS | | | | | | | F | | | F | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|----------|-------|-----|-----|------|-----|-----|-----------|
| Capacity (veh/h) | 198 | 1102 | - | - | 1096 | - | - | 64 |
| HCM Lane V/C Ratio | 2.146 | 0.074 | - | - | 0.16 | - | - | 3.448 |
| HCM Control Delay (s) | \$ 571.1 | 8.5 | - | - | 8.9 | - | - | \$ 1236.9 |
| HCM Lane LOS | F | A | - | - | A | - | - | F |
| HCM 95th %tile Q(veh) | 33.2 | 0.2 | - | - | 0.6 | - | - | 23.2 |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Queues
20: Mooney Blvd & Visalia Pkwy

10 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 125 | 195 | 153 | 274 | 276 | 131 | 992 | 51 | 814 | 61 |
| v/c Ratio | 0.96 | 0.58 | 0.33 | 0.83 | 0.51 | 0.71 | 0.78 | 0.47 | 0.53 | 0.10 |
| Control Delay | 121.3 | 47.6 | 2.7 | 63.8 | 32.6 | 69.0 | 37.6 | 86.6 | 26.3 | 1.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 121.3 | 47.6 | 2.7 | 63.8 | 32.6 | 69.0 | 37.6 | 86.6 | 26.3 | 1.7 |
| Queue Length 50th (ft) | 90 | 127 | 0 | 185 | 149 | 91 | 334 | 38 | 69 | 0 |
| Queue Length 95th (ft) | #209 | 187 | 9 | #302 | 208 | #180 | #518 | m73 | m178 | m13 |
| Internal Link Dist (ft) | | 765 | | | 337 | | 251 | | 1110 | |
| Turn Bay Length (ft) | 180 | | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 130 | 464 | 558 | 362 | 678 | 185 | 1273 | 110 | 1548 | 624 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.96 | 0.42 | 0.27 | 0.76 | 0.41 | 0.71 | 0.78 | 0.46 | 0.53 | 0.10 |

Intersection Summary























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

10 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 116 | 181 | 142 | 255 | 198 | 59 | 122 | 698 | 224 | 47 | 757 | 57 |
| Future Volume (veh/h) | 116 | 181 | 142 | 255 | 198 | 59 | 122 | 698 | 224 | 47 | 757 | 57 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 125 | 195 | 153 | 274 | 213 | 63 | 131 | 751 | 241 | 51 | 814 | 61 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 131 | 271 | 227 | 303 | 343 | 101 | 388 | 1083 | 347 | 76 | 1147 | 349 |
| Arrive On Green | 0.07 | 0.15 | 0.15 | 0.17 | 0.25 | 0.25 | 0.22 | 0.41 | 0.41 | 0.06 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1774 | 1863 | 1562 | 1774 | 1377 | 407 | 1774 | 2635 | 846 | 1774 | 5085 | 1546 |
| Grp Volume(v), veh/h | 125 | 195 | 153 | 274 | 0 | 276 | 131 | 504 | 488 | 51 | 814 | 61 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1562 | 1774 | 0 | 1785 | 1774 | 1770 | 1711 | 1774 | 1695 | 1546 |
| Q Serve(g_s), s | 7.7 | 11.0 | 10.2 | 16.7 | 0.0 | 15.1 | 6.9 | 25.8 | 25.8 | 3.1 | 15.7 | 2.4 |
| Cycle Q Clear(g_c), s | 7.7 | 11.0 | 10.2 | 16.7 | 0.0 | 15.1 | 6.9 | 25.8 | 25.8 | 3.1 | 15.7 | 2.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.23 | 1.00 | | 0.49 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 131 | 271 | 227 | 303 | 0 | 444 | 388 | 727 | 703 | 76 | 1147 | 349 |
| V/C Ratio(X) | 0.96 | 0.72 | 0.67 | 0.90 | 0.00 | 0.62 | 0.34 | 0.69 | 0.69 | 0.67 | 0.71 | 0.17 |
| Avail Cap(c_a), veh/h | 131 | 464 | 389 | 350 | 0 | 665 | 388 | 727 | 703 | 98 | 1147 | 349 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.33 | 1.33 | 1.33 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.78 | 0.78 | 0.78 |
| Uniform Delay (d), s/veh | 50.8 | 44.9 | 44.5 | 44.7 | 0.0 | 36.7 | 36.3 | 26.7 | 26.7 | 51.1 | 35.3 | 17.8 |
| Incr Delay (d2), s/veh | 64.8 | 10.5 | 10.2 | 22.2 | 0.0 | 4.1 | 0.2 | 5.4 | 5.6 | 4.1 | 2.9 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.1 | 6.4 | 5.1 | 10.0 | 0.0 | 7.9 | 3.4 | 13.7 | 13.3 | 1.6 | 7.6 | 1.4 |
| LnGrp Delay(d),s/veh | 115.6 | 55.4 | 54.7 | 67.0 | 0.0 | 40.8 | 36.5 | 32.1 | 32.3 | 55.2 | 38.2 | 18.6 |
| LnGrp LOS | F | E | D | E | | D | D | C | C | E | D | B |
| Approach Vol, veh/h | | 473 | | | 550 | | | 1123 | | | 926 | |
| Approach Delay, s/veh | | 71.1 | | | 53.8 | | | 32.7 | | | 37.9 | |
| Approach LOS | | E | | | D | | | C | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.4 | 52.0 | 25.2 | 22.4 | 30.8 | 31.6 | 13.8 | 33.8 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | 6.4 | * 6.4 | 6.8 | * 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6.1 | 30.2 | 21.7 | * 27 | 11.5 | * 25 | * 8.1 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.1 | 27.8 | 18.7 | 13.0 | 8.9 | 17.7 | 9.7 | 17.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.0 | 0.1 | 3.0 | 0.0 | 5.1 | 0.0 | 3.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 43.9 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.1 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 321 | 20 | 5 | 1 | 0 | 242 |
| Future Vol, veh/h | 321 | 20 | 5 | 1 | 0 | 242 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 349 | 22 | 5 | 1 | 0 | 263 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 6 | 0 | - | 0 | 726 |
| Stage 1 | - | - | - | - | 6 |
| Stage 2 | - | - | - | - | 720 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1615 | - | - | - | 391 |
| Stage 1 | - | - | - | - | 1017 |
| Stage 2 | - | - | - | - | 482 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1615 | - | - | - | 307 |
| Mov Cap-2 Maneuver | - | - | - | - | 307 |
| Stage 1 | - | - | - | - | 797 |
| Stage 2 | - | - | - | - | 482 |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 7.4 | 0 | 9.4 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1615 | - | - | - | 1077 |
| HCM Lane V/C Ratio | 0.216 | - | - | - | 0.244 |
| HCM Control Delay (s) | 7.8 | - | - | - | 9.4 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0.8 | - | - | - | 1 |

Queues
22: Mooney Blvd & Midvalley Ave

10 Year Cumulative
Timing Plan: P.M. Peak























| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 40 | 11 | 23 | 7 | 1079 | 10 | 1076 | 76 |
| v/c Ratio | 0.14 | 0.02 | 0.06 | 0.04 | 0.44 | 0.05 | 0.44 | 0.07 |
| Control Delay | 18.2 | 0.1 | 0.3 | 29.6 | 12.7 | 29.6 | 12.7 | 1.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.2 | 0.1 | 0.3 | 29.6 | 12.7 | 29.6 | 12.7 | 1.1 |
| Queue Length 50th (ft) | 12 | 0 | 0 | 2 | 92 | 3 | 92 | 0 |
| Queue Length 95th (ft) | 32 | 0 | 0 | 17 | #442 | 21 | #440 | 8 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 635 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 848 | 1039 | 956 | 193 | 2449 | 193 | 2452 | 1113 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.01 | 0.02 | 0.04 | 0.44 | 0.05 | 0.44 | 0.07 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

10 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 36 | 3 | 11 | 5 | 0 | 17 | 7 | 1043 | 4 | 10 | 1044 | 74 |
| Future Volume (veh/h) | 36 | 3 | 11 | 5 | 0 | 17 | 7 | 1043 | 4 | 10 | 1044 | 74 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 37 | 3 | 11 | 5 | 0 | 18 | 7 | 1075 | 4 | 10 | 1076 | 76 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 281 | 17 | 170 | 108 | 18 | 133 | 20 | 1694 | 6 | 28 | 1674 | 733 |
| Arrive On Green | 0.11 | 0.11 | 0.11 | 0.11 | 0.00 | 0.11 | 0.01 | 0.47 | 0.47 | 0.02 | 0.47 | 0.47 |
| Sat Flow, veh/h | 1296 | 162 | 1583 | 176 | 168 | 1238 | 1774 | 3616 | 13 | 1774 | 3539 | 1549 |
| Grp Volume(v), veh/h | 40 | 0 | 11 | 23 | 0 | 0 | 7 | 526 | 553 | 10 | 1076 | 76 |
| Grp Sat Flow(s),veh/h/ln | 1458 | 0 | 1583 | 1582 | 0 | 0 | 1774 | 1770 | 1860 | 1774 | 1770 | 1549 |
| Q Serve(g_s), s | 0.5 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.2 | 11.0 | 11.0 | 0.3 | 11.3 | 1.3 |
| Cycle Q Clear(g_c), s | 1.1 | 0.0 | 0.3 | 0.6 | 0.0 | 0.0 | 0.2 | 11.0 | 11.0 | 0.3 | 11.3 | 1.3 |
| Prop In Lane | 0.92 | | 1.00 | 0.22 | | 0.78 | 1.00 | | 0.01 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 298 | 0 | 170 | 260 | 0 | 0 | 20 | 829 | 871 | 28 | 1674 | 733 |
| V/C Ratio(X) | 0.13 | 0.00 | 0.06 | 0.09 | 0.00 | 0.00 | 0.35 | 0.63 | 0.63 | 0.36 | 0.64 | 0.10 |
| Avail Cap(c_a), veh/h | 1139 | 0 | 1112 | 1129 | 0 | 0 | 217 | 940 | 988 | 217 | 1879 | 823 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.0 | 0.0 | 19.6 | 19.8 | 0.0 | 0.0 | 24.0 | 9.8 | 9.8 | 23.9 | 9.8 | 7.2 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 4.0 | 3.5 | 3.3 | 2.9 | 1.6 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.1 | 0.3 | 0.0 | 0.0 | 0.1 | 6.1 | 6.3 | 0.2 | 5.8 | 0.6 |
| LnGrp Delay(d),s/veh | 20.0 | 0.0 | 19.7 | 19.8 | 0.0 | 0.0 | 28.0 | 13.3 | 13.2 | 26.8 | 11.4 | 7.4 |
| LnGrp LOS | C | | B | B | | | C | B | B | C | B | A |
| Approach Vol, veh/h | | 51 | | | 23 | | | 1086 | | | 1162 | |
| Approach Delay, s/veh | | 20.0 | | | 19.8 | | | 13.3 | | | 11.3 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.5 | 29.7 | | 12.8 | 6.2 | 30.0 | | 12.8 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 6 | 26.0 | | * 34 | * 6 | 26.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.3 | 13.0 | | 3.1 | 2.2 | 13.3 | | 2.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.8 | | 0.1 | 0.0 | 9.9 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.5 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 7.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 10 | 4 | 30 | 2 | 3 | 26 | 150 | 1096 | 63 | 19 | 1135 | 35 |
| Future Vol, veh/h | 10 | 4 | 30 | 2 | 3 | 26 | 150 | 1096 | 63 | 19 | 1135 | 35 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 11 | 4 | 32 | 2 | 3 | 27 | 158 | 1154 | 66 | 20 | 1195 | 37 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 2149 | 2790 | 616 | 2143 | 2775 | 610 | 1232 | 0 | 0 | 1220 | 0 | 0 |
| Stage 1 | 1254 | 1254 | - | 1503 | 1503 | - | - | - | - | - | - | - |
| Stage 2 | 895 | 1536 | - | 640 | 1272 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 27 | 18 | 433 | 27 | 19 | 437 | 561 | - | - | 567 | - | - |
| Stage 1 | 182 | 242 | - | 127 | 183 | - | - | - | - | - | - | - |
| Stage 2 | 302 | 176 | - | 430 | 237 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 16 | 12 | 433 | 14 | 13 | 437 | 561 | - | - | 567 | - | - |
| Mov Cap-2 Maneuver | 16 | 12 | - | 14 | 13 | - | - | - | - | - | - | - |
| Stage 1 | 131 | 234 | - | 91 | 131 | - | - | - | - | - | - | - |
| Stage 2 | 198 | 126 | - | 378 | 229 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|------------------------|-------|------|-----|-----|
| HCM Control Delay, s\$ | 308.3 | 91.1 | 1.6 | 0.2 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 561 | - | - | 43 | 72 | 567 | - |
| HCM Lane V/C Ratio | 0.281 | - | - | 1.077 | 0.453 | 0.035 | - |
| HCM Control Delay (s) | 13.9 | - | - | \$ 308.3 | 91.1 | 11.6 | - |
| HCM Lane LOS | B | - | - | F | F | B | - |
| HCM 95th %tile Q(veh) | 1.1 | - | - | 4.4 | 1.8 | 0.1 | - |

| Notes | | | |
|----------------------------|------------------------|----------------------------|--------------------------------|
| -: Volume exceeds capacity | \$: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

Queues
25: Mooney Blvd & Ave 268

10 Year Cumulative
Timing Plan: P.M. Peak





















| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 258 | 32 | 129 | 1100 | 66 | 1110 |
| v/c Ratio | 0.71 | 0.08 | 0.75 | 0.69 | 0.36 | 0.82 |
| Control Delay | 32.2 | 11.9 | 61.2 | 22.2 | 36.4 | 26.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 32.2 | 11.9 | 61.2 | 22.2 | 36.4 | 26.9 |
| Queue Length 50th (ft) | 88 | 4 | 56 | 223 | 28 | 225 |
| Queue Length 95th (ft) | 164 | 22 | #149 | #387 | 65 | #369 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 458 | 486 | 174 | 1588 | 222 | 1354 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.56 | 0.07 | 0.74 | 0.69 | 0.30 | 0.82 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 25: Mooney Blvd & Ave 268

10 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 156 | 1 | 80 | 9 | 1 | 19 | 119 | 998 | 14 | 61 | 1010 | 11 |
| Future Volume (veh/h) | 156 | 1 | 80 | 9 | 1 | 19 | 119 | 998 | 14 | 61 | 1010 | 11 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 170 | 1 | 87 | 10 | 1 | 21 | 129 | 1085 | 15 | 66 | 1098 | 12 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 297 | 11 | 110 | 153 | 44 | 238 | 163 | 1493 | 21 | 114 | 1398 | 15 |
| Arrive On Green | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.09 | 0.42 | 0.42 | 0.06 | 0.39 | 0.39 |
| Sat Flow, veh/h | 924 | 48 | 494 | 363 | 199 | 1073 | 1774 | 3573 | 49 | 1774 | 3586 | 39 |
| Grp Volume(v), veh/h | 258 | 0 | 0 | 32 | 0 | 0 | 129 | 537 | 563 | 66 | 542 | 568 |
| Grp Sat Flow(s),veh/h/ln | 1466 | 0 | 0 | 1635 | 0 | 0 | 1774 | 1770 | 1853 | 1774 | 1770 | 1856 |
| Q Serve(g_s), s | 9.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.6 | 16.6 | 16.6 | 2.4 | 17.6 | 17.6 |
| Cycle Q Clear(g_c), s | 10.8 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 4.6 | 16.6 | 16.6 | 2.4 | 17.6 | 17.6 |
| Prop In Lane | 0.66 | | 0.34 | 0.31 | | 0.66 | 1.00 | | 0.03 | 1.00 | | 0.02 |
| Lane Grp Cap(c), veh/h | 417 | 0 | 0 | 435 | 0 | 0 | 163 | 739 | 774 | 114 | 690 | 724 |
| V/C Ratio(X) | 0.62 | 0.00 | 0.00 | 0.07 | 0.00 | 0.00 | 0.79 | 0.73 | 0.73 | 0.58 | 0.79 | 0.79 |
| Avail Cap(c_a), veh/h | 584 | 0 | 0 | 607 | 0 | 0 | 188 | 739 | 774 | 239 | 727 | 763 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.8 | 0.0 | 0.0 | 20.1 | 0.0 | 0.0 | 29.0 | 15.9 | 15.9 | 29.7 | 17.5 | 17.5 |
| Incr Delay (d2), s/veh | 2.6 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 15.1 | 5.9 | 5.7 | 1.7 | 8.5 | 8.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.7 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 2.9 | 9.3 | 9.7 | 1.2 | 10.1 | 10.5 |
| LnGrp Delay(d),s/veh | 26.4 | 0.0 | 0.0 | 20.2 | 0.0 | 0.0 | 44.1 | 21.8 | 21.6 | 31.4 | 25.9 | 25.6 |
| LnGrp LOS | C | | | C | | | D | C | C | C | C | C |
| Approach Vol, veh/h | | 258 | | | 32 | | | 1229 | | | 1176 | |
| Approach Delay, s/veh | | 26.4 | | | 20.2 | | | 24.0 | | | 26.1 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.9 | 35.1 | | 20.2 | 11.7 | 33.3 | | 20.2 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 8.8 | 24.9 | | * 22 | * 6.9 | 26.8 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.4 | 18.6 | | 12.8 | 6.6 | 19.6 | | 3.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.2 | | 1.5 | 0.0 | 5.9 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 25.1 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 452 | 0 | 0 | 512 | 0 | 0 |
| Future Vol, veh/h | 452 | 0 | 0 | 512 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 471 | 0 | 0 | 533 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | - | 471 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 593 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 593 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

HCM 2010 TWSC
 27: Visalia Pkwy & Tuesday Morning Dwy

10 Year Cumulative
 Timing Plan: P.M. Peak

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↕ | ↕ | | ↕ | |
| Traffic Vol, veh/h | 19 | 433 | 487 | 23 | 21 | 25 |
| Future Vol, veh/h | 19 | 433 | 487 | 23 | 21 | 25 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 20 | 451 | 507 | 24 | 22 | 26 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 531 | 0 | - | 0 | 1010 519 |
| Stage 1 | - | - | - | - | 519 - |
| Stage 2 | - | - | - | - | 491 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1036 | - | - | - | 266 557 |
| Stage 1 | - | - | - | - | 597 - |
| Stage 2 | - | - | - | - | 615 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1036 | - | - | - | 259 557 |
| Mov Cap-2 Maneuver | - | - | - | - | 259 - |
| Stage 1 | - | - | - | - | 581 - |
| Stage 2 | - | - | - | - | 615 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.4 | 0 | 16.3 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1036 | - | - | - | 365 |
| HCM Lane V/C Ratio | 0.019 | - | - | - | 0.131 |
| HCM Control Delay (s) | 8.5 | 0 | - | - | 16.3 |
| HCM Lane LOS | A | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.4 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 454 | 0 | 0 | 510 | 0 | 0 |
| Future Vol, veh/h | 454 | 0 | 0 | 510 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 493 | 0 | 0 | 554 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | 493 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | 0 | - | 0 | 576 |
| Stage 1 | - | 0 | - | 0 | - |
| Stage 2 | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 576 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.6 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | ↔ |
| Traffic Vol, veh/h | 246 | 208 | 239 | 3 | 4 | 265 |
| Future Vol, veh/h | 246 | 208 | 239 | 3 | 4 | 265 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 265 | 224 | 257 | 3 | 4 | 285 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 260 | 0 | - | 0 | 1013 259 |
| Stage 1 | - | - | - | - | 259 - |
| Stage 2 | - | - | - | - | 754 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1304 | - | - | - | 265 780 |
| Stage 1 | - | - | - | - | 784 - |
| Stage 2 | - | - | - | - | 465 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1304 | - | - | - | 204 780 |
| Mov Cap-2 Maneuver | - | - | - | - | 204 - |
| Stage 1 | - | - | - | - | 602 - |
| Stage 2 | - | - | - | - | 465 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 4.6 | 0 | 12.4 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1304 | - | - | - | 204 | 780 |
| HCM Lane V/C Ratio | 0.203 | - | - | - | 0.021 | 0.365 |
| HCM Control Delay (s) | 8.5 | 0 | - | - | 23 | 12.2 |
| HCM Lane LOS | A | A | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.8 | - | - | - | 0.1 | 1.7 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.6 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | | ↕↕ | ↕↕ | ↗ |
| Traffic Vol, veh/h | 0 | 93 | 0 | 867 | 988 | 166 |
| Future Vol, veh/h | 0 | 93 | 0 | 867 | 988 | 166 |
| Conflicting Peds, #/hr | 3 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 101 | 0 | 942 | 1074 | 180 |

| Major/Minor | Minor2 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | - | 537 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | 6.94 | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | 3.32 | - |
| Pot Cap-1 Maneuver | 0 | 488 | 0 |
| Stage 1 | 0 | - | 0 |
| Stage 2 | 0 | - | 0 |
| Platoon blocked, % | | | - |
| Mov Cap-1 Maneuver | - | 488 | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 14.3 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT EBLn1 | SBT | SBR |
|-----------------------|-----------|-----|-----|
| Capacity (veh/h) | - 488 | - | - |
| HCM Lane V/C Ratio | - 0.207 | - | - |
| HCM Control Delay (s) | - 14.3 | - | - |
| HCM Lane LOS | - B | - | - |
| HCM 95th %tile Q(veh) | - 0.8 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.3 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | ↘ | ↕ | ↕ | ↗ |
| Traffic Vol, veh/h | 0 | 122 | 229 | 867 | 958 | 123 |
| Future Vol, veh/h | 0 | 122 | 229 | 867 | 958 | 123 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | 150 | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 133 | 249 | 942 | 1041 | 134 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | - | 521 | 1175 | 0 | - | 0 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 0 | 500 | 590 | - | - | - |
| Stage 1 | 0 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | - | 500 | 590 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 14.8 | 3.2 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 590 | - | 500 | - | - |
| HCM Lane V/C Ratio | 0.422 | - | 0.265 | - | - |
| HCM Control Delay (s) | 15.5 | - | 14.8 | - | - |
| HCM Lane LOS | C | - | B | - | - |
| HCM 95th %tile Q(veh) | 2.1 | - | 1.1 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | ↷ |
| Traffic Vol, veh/h | 0 | 17 | 22 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 17 | 22 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 18 | 24 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 24 | 0 | - | 0 | 42 24 |
| Stage 1 | - | - | - | - | 24 - |
| Stage 2 | - | - | - | - | 18 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1591 | - | - | - | 969 1052 |
| Stage 1 | - | - | - | - | 999 - |
| Stage 2 | - | - | - | - | 1005 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1591 | - | - | - | 969 1052 |
| Mov Cap-2 Maneuver | - | - | - | - | 969 - |
| Stage 1 | - | - | - | - | 999 - |
| Stage 2 | - | - | - | - | 1005 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1591 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | ↷ |
| Traffic Vol, veh/h | 0 | 17 | 22 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 17 | 22 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 18 | 24 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 24 | 0 | - | 0 | 42 24 |
| Stage 1 | - | - | - | - | 24 - |
| Stage 2 | - | - | - | - | 18 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1591 | - | - | - | 969 1052 |
| Stage 1 | - | - | - | - | 999 - |
| Stage 2 | - | - | - | - | 1005 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1591 | - | - | - | 969 1052 |
| Mov Cap-2 Maneuver | - | - | - | - | 969 - |
| Stage 1 | - | - | - | - | 999 - |
| Stage 2 | - | - | - | - | 1005 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1591 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 17 | 22 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 17 | 22 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 18 | 24 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 24 | 0 | - | 0 | 42 24 |
| Stage 1 | - | - | - | - | 24 - |
| Stage 2 | - | - | - | - | 18 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1591 | - | - | - | 969 1052 |
| Stage 1 | - | - | - | - | 999 - |
| Stage 2 | - | - | - | - | 1005 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1591 | - | - | - | 969 1052 |
| Mov Cap-2 Maneuver | - | - | - | - | 969 - |
| Stage 1 | - | - | - | - | 999 - |
| Stage 2 | - | - | - | - | 1005 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1591 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 17 | 22 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 17 | 22 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 18 | 24 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 24 | 0 | - | 0 | 42 24 |
| Stage 1 | - | - | - | - | 24 - |
| Stage 2 | - | - | - | - | 18 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1591 | - | - | - | 969 1052 |
| Stage 1 | - | - | - | - | 999 - |
| Stage 2 | - | - | - | - | 1005 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1591 | - | - | - | 969 1052 |
| Mov Cap-2 Maneuver | - | - | - | - | 969 - |
| Stage 1 | - | - | - | - | 999 - |
| Stage 2 | - | - | - | - | 1005 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1591 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | T | | T |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

Appendix J – 10-Year Cumulative Plus Project Conditions Level of Service and Queuing Work Sheets

Queues
1: Mooney Blvd & Whitendale Ave

10 Year plus Project
Timing Plan: A.M. Peak



























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 104 | 215 | 143 | 190 | 259 | 62 | 104 | 608 | 149 | 65 | 550 | 45 |
| v/c Ratio | 0.34 | 0.38 | 0.35 | 0.56 | 0.44 | 0.15 | 0.63 | 0.23 | 0.17 | 0.37 | 0.22 | 0.05 |
| Control Delay | 56.7 | 47.1 | 4.0 | 60.8 | 47.3 | 0.8 | 76.0 | 19.4 | 4.5 | 63.3 | 19.6 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 56.7 | 47.1 | 4.0 | 60.8 | 47.3 | 0.8 | 76.0 | 19.4 | 4.5 | 63.3 | 19.6 | 0.1 |
| Queue Length 50th (ft) | 41 | 87 | 0 | 76 | 104 | 0 | 43 | 92 | 0 | 26 | 81 | 0 |
| Queue Length 95th (ft) | 71 | 94 | 21 | 118 | 111 | 0 | #80 | 172 | 47 | 51 | 156 | 0 |
| Internal Link Dist (ft) | | 1104 | | | 403 | | | 770 | | | 1028 | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 307 | 1330 | 702 | 338 | 1350 | 708 | 164 | 2622 | 877 | 177 | 2546 | 847 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.16 | 0.20 | 0.56 | 0.19 | 0.09 | 0.63 | 0.23 | 0.17 | 0.37 | 0.22 | 0.05 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
1: Mooney Blvd & Whitendale Ave

10 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 96 | 198 | 132 | 175 | 238 | 57 | 96 | 559 | 137 | 60 | 506 | 41 |
| Future Volume (veh/h) | 96 | 198 | 132 | 175 | 238 | 57 | 96 | 559 | 137 | 60 | 506 | 41 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 104 | 215 | 143 | 190 | 259 | 62 | 104 | 608 | 149 | 65 | 550 | 45 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 238 | 556 | 247 | 187 | 504 | 223 | 899 | 2806 | 862 | 148 | 1668 | 517 |
| Arrive On Green | 0.07 | 0.16 | 0.16 | 0.05 | 0.14 | 0.14 | 0.26 | 0.55 | 0.55 | 0.04 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3539 | 1574 | 3442 | 3539 | 1567 | 3442 | 5085 | 1563 | 3442 | 5085 | 1578 |
| Grp Volume(v), veh/h | 104 | 215 | 143 | 190 | 259 | 62 | 104 | 608 | 149 | 65 | 550 | 45 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1574 | 1721 | 1770 | 1567 | 1721 | 1695 | 1563 | 1721 | 1695 | 1578 |
| Q Serve(g_s), s | 3.6 | 6.8 | 10.5 | 6.8 | 8.5 | 3.7 | 2.9 | 7.6 | 3.9 | 2.3 | 10.2 | 2.5 |
| Cycle Q Clear(g_c), s | 3.6 | 6.8 | 10.5 | 6.8 | 8.5 | 3.7 | 2.9 | 7.6 | 3.9 | 2.3 | 10.2 | 2.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 238 | 556 | 247 | 187 | 504 | 223 | 899 | 2806 | 862 | 148 | 1668 | 517 |
| V/C Ratio(X) | 0.44 | 0.39 | 0.58 | 1.01 | 0.51 | 0.28 | 0.12 | 0.22 | 0.17 | 0.44 | 0.33 | 0.09 |
| Avail Cap(c_a), veh/h | 238 | 1331 | 592 | 187 | 1351 | 598 | 899 | 2806 | 862 | 165 | 1668 | 517 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 | 0.98 | 0.98 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 55.8 | 47.3 | 48.8 | 59.1 | 49.6 | 33.5 | 35.2 | 14.3 | 6.1 | 58.3 | 31.6 | 29.1 |
| Incr Delay (d2), s/veh | 0.5 | 0.9 | 4.1 | 69.7 | 1.6 | 1.3 | 0.0 | 0.2 | 0.4 | 0.8 | 0.5 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 3.4 | 4.9 | 5.0 | 4.2 | 1.9 | 1.4 | 3.6 | 2.4 | 1.1 | 4.9 | 1.1 |
| LnGrp Delay(d),s/veh | 56.3 | 48.1 | 52.9 | 128.9 | 51.2 | 34.8 | 35.2 | 14.4 | 6.5 | 59.1 | 32.2 | 29.4 |
| LnGrp LOS | E | D | D | F | D | C | D | B | A | E | C | C |
| Approach Vol, veh/h | | 462 | | | 511 | | | 861 | | | 660 | |
| Approach Delay, s/veh | | 51.5 | | | 78.1 | | | 15.6 | | | 34.6 | |
| Approach LOS | | D | | | E | | | B | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.1 | 75.4 | 12.5 | 26.0 | 39.1 | 47.4 | 14.3 | 24.2 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 41.0 | 6.8 | * 47 | 6.0 | * 41 | 6.1 | * 48 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.3 | 9.6 | 8.8 | 12.5 | 4.9 | 12.2 | 5.6 | 10.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.0 | 0.0 | 3.6 | 0.0 | 7.0 | 0.0 | 3.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 40.1 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave

10 Year plus Project
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 99 | 174 | 8 | 266 | 99 | 49 | 74 | 12 | 139 |
| v/c Ratio | 0.24 | 0.17 | 0.02 | 0.33 | 0.13 | 0.10 | 0.17 | 0.02 | 0.23 |
| Control Delay | 20.1 | 7.7 | 21.4 | 13.4 | 5.0 | 15.4 | 17.0 | 15.9 | 5.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.1 | 7.7 | 21.4 | 13.4 | 5.0 | 15.4 | 17.0 | 15.9 | 5.3 |
| Queue Length 50th (ft) | 22 | 17 | 2 | 52 | 2 | 9 | 15 | 2 | 0 |
| Queue Length 95th (ft) | 68 | 71 | 13 | 122 | 28 | 35 | 50 | 14 | 35 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 589 | 1400 | 407 | 1316 | 1144 | 1074 | 912 | 1260 | 1115 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.17 | 0.12 | 0.02 | 0.20 | 0.09 | 0.05 | 0.08 | 0.01 | 0.12 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

10 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 91 | 147 | 13 | 7 | 245 | 91 | 19 | 22 | 4 | 68 | 11 | 128 |
| Future Volume (veh/h) | 91 | 147 | 13 | 7 | 245 | 91 | 19 | 22 | 4 | 68 | 11 | 128 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 99 | 160 | 14 | 8 | 266 | 99 | 21 | 24 | 4 | 74 | 12 | 139 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 188 | 628 | 55 | 23 | 519 | 441 | 242 | 221 | 28 | 509 | 398 | 338 |
| Arrive On Green | 0.11 | 0.37 | 0.37 | 0.01 | 0.28 | 0.28 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| Sat Flow, veh/h | 1774 | 1689 | 148 | 1774 | 1863 | 1583 | 444 | 1037 | 132 | 1377 | 1863 | 1583 |
| Grp Volume(v), veh/h | 99 | 0 | 174 | 8 | 266 | 99 | 49 | 0 | 0 | 74 | 12 | 139 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1837 | 1774 | 1863 | 1583 | 1612 | 0 | 0 | 1377 | 1863 | 1583 |
| Q Serve(g_s), s | 1.8 | 0.0 | 2.3 | 0.2 | 4.2 | 1.7 | 0.0 | 0.0 | 0.0 | 0.6 | 0.2 | 2.6 |
| Cycle Q Clear(g_c), s | 1.8 | 0.0 | 2.3 | 0.2 | 4.2 | 1.7 | 0.8 | 0.0 | 0.0 | 1.3 | 0.2 | 2.6 |
| Prop In Lane | 1.00 | | 0.08 | 1.00 | | 1.00 | 0.43 | | 0.08 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 188 | 0 | 683 | 23 | 519 | 441 | 492 | 0 | 0 | 509 | 398 | 338 |
| V/C Ratio(X) | 0.53 | 0.00 | 0.25 | 0.35 | 0.51 | 0.22 | 0.10 | 0.00 | 0.00 | 0.15 | 0.03 | 0.41 |
| Avail Cap(c_a), veh/h | 479 | 0 | 1555 | 331 | 1422 | 1209 | 1252 | 0 | 0 | 1203 | 1337 | 1136 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.7 | 0.0 | 7.6 | 17.1 | 10.6 | 9.7 | 11.1 | 0.0 | 0.0 | 11.3 | 10.8 | 11.8 |
| Incr Delay (d2), s/veh | 0.8 | 0.0 | 0.3 | 3.4 | 1.3 | 0.4 | 0.2 | 0.0 | 0.0 | 0.2 | 0.1 | 1.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 0.0 | 1.2 | 0.1 | 2.3 | 0.8 | 0.4 | 0.0 | 0.0 | 0.6 | 0.1 | 1.3 |
| LnGrp Delay(d),s/veh | 15.6 | 0.0 | 7.9 | 20.5 | 11.9 | 10.1 | 11.2 | 0.0 | 0.0 | 11.5 | 10.9 | 13.2 |
| LnGrp LOS | B | | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 273 | | | 373 | | | 49 | | | 225 | |
| Approach Delay, s/veh | | 10.7 | | | 11.6 | | | 11.2 | | | 12.5 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.4 | 18.0 | | 12.4 | 7.7 | 14.7 | | 12.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 29.5 | | 25.0 | 9.4 | 26.6 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 4.3 | | 2.8 | 3.8 | 6.2 | | 4.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.5 | | 0.3 | 0.0 | 2.9 | | 1.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 11.5 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave

10 Year plus Project
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 46 | 15 | 11 | 34 | 42 | 814 | 93 | 790 |
| v/c Ratio | 0.19 | 0.02 | 0.05 | 0.06 | 0.17 | 0.26 | 0.33 | 0.22 |
| Control Delay | 34.5 | 0.1 | 35.6 | 0.2 | 34.2 | 15.8 | 32.9 | 13.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.5 | 0.1 | 35.6 | 0.2 | 34.2 | 15.8 | 32.9 | 13.2 |
| Queue Length 50th (ft) | 9 | 0 | 2 | 0 | 8 | 32 | 17 | 0 |
| Queue Length 95th (ft) | 66 | 0 | 25 | 0 | 61 | 220 | #116 | 203 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 256 | 1302 | 243 | 1281 | 268 | 3193 | 378 | 3499 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.01 | 0.05 | 0.03 | 0.16 | 0.25 | 0.25 | 0.23 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 3: Mooney Blvd & Sunnyside Ave

10 Year plus Project
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 44 | 0 | 14 | 10 | 0 | 32 | 40 | 763 | 10 | 88 | 696 | 54 |
| Future Volume (veh/h) | 44 | 0 | 14 | 10 | 0 | 32 | 40 | 763 | 10 | 88 | 696 | 54 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 46 | 0 | 15 | 11 | 0 | 34 | 42 | 803 | 11 | 93 | 733 | 57 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 99 | 0 | 225 | 30 | 0 | 163 | 93 | 1557 | 21 | 152 | 1609 | 124 |
| Arrive On Green | 0.06 | 0.00 | 0.14 | 0.02 | 0.00 | 0.10 | 0.05 | 0.30 | 0.30 | 0.09 | 0.33 | 0.33 |
| Sat Flow, veh/h | 1774 | 0 | 1577 | 1774 | 0 | 1580 | 1774 | 5167 | 71 | 1774 | 4814 | 372 |
| Grp Volume(v), veh/h | 46 | 0 | 15 | 11 | 0 | 34 | 42 | 527 | 287 | 93 | 515 | 275 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1577 | 1774 | 0 | 1580 | 1774 | 1695 | 1848 | 1774 | 1695 | 1796 |
| Q Serve(g_s), s | 1.3 | 0.0 | 0.4 | 0.3 | 0.0 | 1.0 | 1.2 | 6.7 | 6.7 | 2.6 | 6.2 | 6.2 |
| Cycle Q Clear(g_c), s | 1.3 | 0.0 | 0.4 | 0.3 | 0.0 | 1.0 | 1.2 | 6.7 | 6.7 | 2.6 | 6.2 | 6.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.04 | 1.00 | | 0.21 |
| Lane Grp Cap(c), veh/h | 99 | 0 | 225 | 30 | 0 | 163 | 93 | 1021 | 557 | 152 | 1133 | 600 |
| V/C Ratio(X) | 0.46 | 0.00 | 0.07 | 0.37 | 0.00 | 0.21 | 0.45 | 0.52 | 0.52 | 0.61 | 0.45 | 0.46 |
| Avail Cap(c_a), veh/h | 216 | 0 | 1167 | 206 | 0 | 1160 | 226 | 1499 | 817 | 319 | 1676 | 888 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.7 | 0.0 | 19.2 | 25.2 | 0.0 | 21.3 | 23.8 | 15.0 | 15.0 | 22.9 | 13.5 | 13.6 |
| Incr Delay (d2), s/veh | 1.2 | 0.0 | 0.1 | 2.7 | 0.0 | 0.5 | 1.3 | 0.8 | 1.4 | 1.5 | 0.6 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 0.2 | 0.2 | 0.0 | 0.5 | 0.6 | 3.2 | 3.6 | 1.3 | 2.9 | 3.2 |
| LnGrp Delay(d),s/veh | 24.9 | 0.0 | 19.3 | 27.9 | 0.0 | 21.7 | 25.1 | 15.8 | 16.4 | 24.4 | 14.1 | 14.6 |
| LnGrp LOS | C | | B | C | | C | C | B | B | C | B | B |
| Approach Vol, veh/h | | 61 | | | 45 | | | 856 | | | 883 | |
| Approach Delay, s/veh | | 23.5 | | | 23.2 | | | 16.4 | | | 15.3 | |
| Approach LOS | | C | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.1 | 22.0 | 6.6 | 13.1 | 8.4 | 23.7 | 8.6 | 11.1 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | * 5.7 | 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 9.3 | 22.9 | * 6 | * 38 | * 6.6 | 25.6 | * 6.3 | * 38 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.6 | 8.7 | 2.3 | 2.4 | 3.2 | 8.2 | 3.3 | 3.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.7 | 0.0 | 0.0 | 0.0 | 7.4 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 16.3 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave

10 Year plus Project
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 3 | 1 | 19 | 24 | 11 | 793 | 28 | 66 | 666 | 5 |
| v/c Ratio | 0.02 | 0.00 | 0.21 | 0.04 | 0.05 | 0.21 | 0.02 | 0.53 | 0.17 | 0.00 |
| Control Delay | 45.3 | 0.0 | 66.5 | 0.1 | 55.7 | 11.6 | 0.0 | 74.9 | 10.9 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.3 | 0.0 | 66.5 | 0.1 | 55.7 | 11.6 | 0.0 | 74.9 | 10.9 | 0.0 |
| Queue Length 50th (ft) | 3 | 0 | 16 | 0 | 4 | 70 | 0 | 57 | 28 | 0 |
| Queue Length 95th (ft) | 10 | 0 | 43 | 0 | 14 | 235 | 0 | 105 | 199 | 0 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 246 | 800 | 170 | 834 | 381 | 3727 | 1156 | 196 | 3949 | 1240 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.01 | 0.00 | 0.11 | 0.03 | 0.03 | 0.21 | 0.02 | 0.34 | 0.17 | 0.00 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

10 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 3 | 0 | 1 | 18 | 0 | 23 | 10 | 753 | 27 | 63 | 633 | 5 |
| Future Volume (veh/h) | 3 | 0 | 1 | 18 | 0 | 23 | 10 | 753 | 27 | 63 | 633 | 5 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 3 | 0 | 1 | 19 | 0 | 24 | 11 | 793 | 28 | 66 | 666 | 5 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 24 | 0 | 75 | 40 | 0 | 91 | 1521 | 3580 | 1112 | 84 | 1548 | 482 |
| Arrive On Green | 0.01 | 0.00 | 0.05 | 0.02 | 0.00 | 0.06 | 0.44 | 0.70 | 0.70 | 0.05 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1774 | 0 | 1543 | 1774 | 0 | 1583 | 3442 | 5085 | 1579 | 1774 | 5085 | 1582 |
| Grp Volume(v), veh/h | 3 | 0 | 1 | 19 | 0 | 24 | 11 | 793 | 28 | 66 | 666 | 5 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1543 | 1774 | 0 | 1583 | 1721 | 1695 | 1579 | 1774 | 1695 | 1582 |
| Q Serve(g_s), s | 0.2 | 0.0 | 0.1 | 1.4 | 0.0 | 2.0 | 0.2 | 7.4 | 0.4 | 5.0 | 14.2 | 0.3 |
| Cycle Q Clear(g_c), s | 0.2 | 0.0 | 0.1 | 1.4 | 0.0 | 2.0 | 0.2 | 7.4 | 0.4 | 5.0 | 14.2 | 0.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 24 | 0 | 75 | 40 | 0 | 91 | 1521 | 3580 | 1112 | 84 | 1548 | 482 |
| V/C Ratio(X) | 0.12 | 0.00 | 0.01 | 0.47 | 0.00 | 0.26 | 0.01 | 0.22 | 0.03 | 0.78 | 0.43 | 0.01 |
| Avail Cap(c_a), veh/h | 171 | 0 | 480 | 171 | 0 | 493 | 1521 | 3580 | 1112 | 197 | 1548 | 482 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.96 | 0.96 | 0.96 | 0.99 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 65.8 | 0.0 | 61.1 | 65.2 | 0.0 | 60.9 | 21.1 | 7.0 | 2.3 | 63.6 | 37.6 | 32.8 |
| Incr Delay (d2), s/veh | 0.8 | 0.0 | 0.0 | 3.2 | 0.0 | 1.1 | 0.0 | 0.1 | 0.0 | 5.8 | 0.9 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 0.0 | 0.0 | 0.7 | 0.0 | 0.9 | 0.1 | 3.5 | 0.3 | 2.6 | 6.7 | 0.1 |
| LnGrp Delay(d),s/veh | 66.6 | 0.0 | 61.1 | 68.4 | 0.0 | 62.0 | 21.1 | 7.1 | 2.4 | 69.4 | 38.4 | 32.8 |
| LnGrp LOS | E | | E | E | | E | C | A | A | E | D | C |
| Approach Vol, veh/h | | 4 | | | 43 | | | 832 | | | 737 | |
| Approach Delay, s/veh | | 65.3 | | | 64.8 | | | 7.2 | | | 41.2 | |
| Approach LOS | | E | | | E | | | A | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.1 | 101.4 | 8.8 | 12.7 | 66.1 | 47.5 | 7.5 | 13.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 15 | 41.1 | 13.0 | * 42 | 15.0 | * 41 | 13.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.0 | 9.4 | 3.4 | 2.1 | 2.2 | 16.2 | 2.2 | 4.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 11.5 | 0.0 | 0.0 | 0.0 | 7.8 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 24.4 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 17.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 40 | 732 | 81 | 59 | 719 | 34 | 57 | 0 | 95 | 10 | 0 | 21 |
| Future Vol, veh/h | 40 | 732 | 81 | 59 | 719 | 34 | 57 | 0 | 95 | 10 | 0 | 21 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 45 | 822 | 91 | 66 | 808 | 38 | 64 | 0 | 107 | 11 | 0 | 24 |

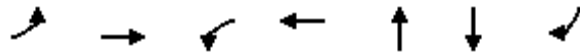
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 851 | 0 | 0 | 913 | 0 | 0 | 1494 | 1941 | 457 | 1465 | 1967 | 428 |
| Stage 1 | - | - | - | - | - | - | 958 | 958 | - | 964 | 964 | - |
| Stage 2 | - | - | - | - | - | - | 536 | 983 | - | 501 | 1003 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 783 | - | - | 742 | - | - | 85 | 64 | 551 | 89 | 62 | 575 |
| Stage 1 | - | - | - | - | - | - | 276 | 334 | - | 274 | 332 | - |
| Stage 2 | - | - | - | - | - | - | 496 | 325 | - | 521 | 318 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 779 | - | - | 742 | - | - | 65 | 47 | 551 | 57 | 45 | 572 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 65 | 47 | - | 57 | 45 | - |
| Stage 1 | - | - | - | - | - | - | 243 | 294 | - | 240 | 275 | - |
| Stage 2 | - | - | - | - | - | - | 395 | 269 | - | 370 | 280 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|-------|--|--|------|--|--|
| HCM Control Delay, s | 0.9 | | | 1.4 | | | 191.3 | | | 37.2 | | |
| HCM LOS | | | | | | | F | | | E | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 145 | 779 | - | - | 742 | - | - | 146 |
| HCM Lane V/C Ratio | 1.178 | 0.058 | - | - | 0.089 | - | - | 0.239 |
| HCM Control Delay (s) | 191.3 | 9.9 | 0.5 | - | 10.3 | 0.7 | - | 37.2 |
| HCM Lane LOS | F | A | A | - | B | A | - | E |
| HCM 95th %tile Q(veh) | 9.8 | 0.2 | - | - | 0.3 | - | - | 0.9 |

Queues
6: Shady St & Caldwell Ave




















10 Year plus Project
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-----------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 28 | 687 | 18 | 604 | 61 | 5 | 2 |
| v/c Ratio | 0.07 | 0.20 | 0.05 | 0.18 | 0.15 | 0.01 | 0.00 |
| Control Delay | 19.7 | 6.7 | 19.9 | 6.7 | 11.9 | 20.4 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.7 | 6.7 | 19.9 | 6.7 | 11.9 | 20.4 | 0.0 |
| Queue Length 50th (ft) | 4 | 22 | 3 | 19 | 3 | 1 | 0 |
| Queue Length 95th (ft) | 32 | 96 | 24 | 85 | 38 | 11 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 424 | 4107 | 424 | 4112 | 1488 | 1569 | 1415 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.17 | 0.04 | 0.15 | 0.04 | 0.00 | 0.00 |
| Intersection Summary | | | | | | | |

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

10 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 26 | 618 | 14 | 17 | 549 | 6 | 19 | 1 | 36 | 5 | 0 | 2 |
| Future Volume (veh/h) | 26 | 618 | 14 | 17 | 549 | 6 | 19 | 1 | 36 | 5 | 0 | 2 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 28 | 672 | 15 | 18 | 597 | 7 | 21 | 1 | 39 | 5 | 0 | 2 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 72 | 1885 | 42 | 48 | 1840 | 22 | 42 | 2 | 79 | 20 | 0 | 18 |
| Arrive On Green | 0.04 | 0.37 | 0.37 | 0.03 | 0.36 | 0.36 | 0.07 | 0.07 | 0.07 | 0.01 | 0.00 | 0.01 |
| Sat Flow, veh/h | 1774 | 5118 | 114 | 1774 | 5180 | 61 | 567 | 27 | 1054 | 1774 | 0 | 1583 |
| Grp Volume(v), veh/h | 28 | 445 | 242 | 18 | 390 | 214 | 61 | 0 | 0 | 5 | 0 | 2 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1842 | 1774 | 1695 | 1851 | 1648 | 0 | 0 | 1774 | 0 | 1583 |
| Q Serve(g_s), s | 0.6 | 3.7 | 3.7 | 0.4 | 3.2 | 3.2 | 1.4 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.6 | 3.7 | 3.7 | 0.4 | 3.2 | 3.2 | 1.4 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.06 | 1.00 | | 0.03 | 0.34 | | 0.64 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 72 | 1249 | 678 | 48 | 1204 | 657 | 123 | 0 | 0 | 20 | 0 | 18 |
| V/C Ratio(X) | 0.39 | 0.36 | 0.36 | 0.37 | 0.32 | 0.32 | 0.50 | 0.00 | 0.00 | 0.25 | 0.00 | 0.11 |
| Avail Cap(c_a), veh/h | 299 | 2417 | 1314 | 299 | 2417 | 1319 | 1410 | 0 | 0 | 1518 | 0 | 1355 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.0 | 8.9 | 8.9 | 18.4 | 9.1 | 9.1 | 17.1 | 0.0 | 0.0 | 18.9 | 0.0 | 18.9 |
| Incr Delay (d2), s/veh | 1.3 | 0.5 | 0.9 | 1.8 | 0.4 | 0.8 | 2.3 | 0.0 | 0.0 | 4.8 | 0.0 | 2.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 1.7 | 2.0 | 0.2 | 1.6 | 1.8 | 0.7 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 19.3 | 9.3 | 9.7 | 20.2 | 9.5 | 9.8 | 19.4 | 0.0 | 0.0 | 23.7 | 0.0 | 20.9 |
| LnGrp LOS | B | A | A | C | A | A | B | | | C | | C |
| Approach Vol, veh/h | | 715 | | | 622 | | | 61 | | | | 7 |
| Approach Delay, s/veh | | 9.9 | | | 9.9 | | | 19.4 | | | | 22.9 |
| Approach LOS | | A | | | A | | | B | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.1 | 20.2 | | 5.4 | 5.6 | 19.7 | | 7.9 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 27.5 | | 33.0 | 6.5 | 27.5 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.4 | 5.7 | | 2.1 | 2.6 | 5.2 | | 3.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.4 | | 0.0 | 0.0 | 7.4 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 10.4 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

10 Year plus Project
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 160 | 522 | 122 | 495 | 137 | 633 | 104 | 65 | 580 | 81 |
| v/c Ratio | 0.59 | 0.54 | 0.45 | 0.53 | 0.83 | 0.24 | 0.12 | 0.38 | 0.23 | 0.10 |
| Control Delay | 66.3 | 41.9 | 61.8 | 46.2 | 96.6 | 20.3 | 3.4 | 66.2 | 20.6 | 1.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 66.3 | 41.9 | 61.8 | 46.2 | 96.6 | 20.3 | 3.4 | 66.2 | 20.6 | 1.1 |
| Queue Length 50th (ft) | 68 | 129 | 51 | 136 | 60 | 102 | 0 | 27 | 91 | 0 |
| Queue Length 95th (ft) | 103 | 134 | 82 | 139 | #118 | 184 | 28 | 53 | 169 | 7 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 285 | 1832 | 279 | 1813 | 166 | 2628 | 866 | 172 | 2546 | 845 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.56 | 0.28 | 0.44 | 0.27 | 0.83 | 0.24 | 0.12 | 0.38 | 0.23 | 0.10 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

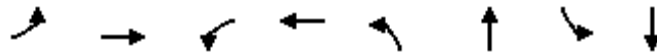
HCM 2010 Signalized Intersection Summary
 7: Mooney Blvd & Caldwell Ave

10 Year plus Project
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 152 | 370 | 126 | 116 | 406 | 65 | 130 | 601 | 99 | 62 | 551 | 77 |
| Future Volume (veh/h) | 152 | 370 | 126 | 116 | 406 | 65 | 130 | 601 | 99 | 62 | 551 | 77 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 160 | 389 | 133 | 122 | 427 | 68 | 137 | 633 | 104 | 65 | 580 | 81 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 211 | 673 | 220 | 175 | 742 | 116 | 853 | 2765 | 860 | 144 | 1690 | 524 |
| Arrive On Green | 0.06 | 0.18 | 0.18 | 0.05 | 0.17 | 0.17 | 0.25 | 0.54 | 0.54 | 0.04 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3789 | 1238 | 3442 | 4437 | 691 | 3442 | 5085 | 1582 | 3442 | 5085 | 1578 |
| Grp Volume(v), veh/h | 160 | 346 | 176 | 122 | 324 | 171 | 137 | 633 | 104 | 65 | 580 | 81 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1637 | 1721 | 1695 | 1738 | 1721 | 1695 | 1582 | 1721 | 1695 | 1578 |
| Q Serve(g_s), s | 6.0 | 12.2 | 12.9 | 4.5 | 11.4 | 11.8 | 4.1 | 8.4 | 2.9 | 2.4 | 11.2 | 4.7 |
| Cycle Q Clear(g_c), s | 6.0 | 12.2 | 12.9 | 4.5 | 11.4 | 11.8 | 4.1 | 8.4 | 2.9 | 2.4 | 11.2 | 4.7 |
| Prop In Lane | 1.00 | | 0.76 | 1.00 | | 0.40 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 211 | 602 | 291 | 175 | 567 | 291 | 853 | 2765 | 860 | 144 | 1690 | 524 |
| V/C Ratio(X) | 0.76 | 0.58 | 0.61 | 0.70 | 0.57 | 0.59 | 0.16 | 0.23 | 0.12 | 0.45 | 0.34 | 0.15 |
| Avail Cap(c_a), veh/h | 246 | 1241 | 599 | 230 | 1226 | 628 | 853 | 2765 | 860 | 159 | 1690 | 524 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.99 | 0.99 | 0.99 | 0.98 | 0.98 | 0.98 | 0.97 | 0.97 | 0.97 | 0.99 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 60.1 | 49.0 | 49.3 | 60.7 | 49.8 | 50.0 | 38.3 | 15.5 | 6.8 | 60.8 | 32.7 | 30.5 |
| Incr Delay (d2), s/veh | 8.8 | 1.7 | 3.9 | 3.1 | 1.7 | 3.6 | 0.0 | 0.2 | 0.3 | 0.8 | 0.6 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.1 | 5.9 | 6.1 | 2.2 | 5.5 | 6.0 | 1.9 | 4.0 | 1.7 | 1.2 | 5.3 | 2.1 |
| LnGrp Delay(d),s/veh | 68.8 | 50.6 | 53.1 | 63.8 | 51.6 | 53.6 | 38.3 | 15.6 | 7.1 | 61.7 | 33.3 | 31.2 |
| LnGrp LOS | E | D | D | E | D | D | D | B | A | E | C | C |
| Approach Vol, veh/h | | 682 | | | 617 | | | 874 | | | 726 | |
| Approach Delay, s/veh | | 55.5 | | | 54.6 | | | 18.2 | | | 35.6 | |
| Approach LOS | | E | | | D | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.1 | 77.1 | 12.3 | 29.5 | 38.6 | 49.6 | 13.7 | 28.1 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 43.5 | 8.7 | * 48 | 6.3 | * 43 | 9.3 | * 47 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.4 | 10.4 | 6.5 | 14.9 | 6.1 | 13.2 | 8.0 | 13.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.1 | 0.0 | 6.3 | 0.0 | 8.7 | 0.0 | 5.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 39.1 | | | | | | | | |
| HCM 2010 LOS | | | | D | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St

10 Year plus Project
Timing Plan: A.M. Peak























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 63 | 488 | 91 | 676 | 27 | 61 | 43 | 35 |
| v/c Ratio | 0.18 | 0.17 | 0.26 | 0.23 | 0.04 | 0.09 | 0.07 | 0.05 |
| Control Delay | 29.5 | 14.5 | 31.3 | 14.0 | 11.4 | 8.4 | 12.1 | 7.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 29.5 | 14.5 | 31.3 | 14.0 | 11.4 | 8.4 | 12.1 | 7.4 |
| Queue Length 50th (ft) | 17 | 33 | 25 | 45 | 6 | 3 | 11 | 1 |
| Queue Length 95th (ft) | 72 | 110 | #120 | 146 | 18 | 27 | 24 | 19 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 374 | 2915 | 374 | 2881 | 626 | 1195 | 585 | 1175 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.17 | 0.17 | 0.24 | 0.23 | 0.04 | 0.05 | 0.07 | 0.03 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

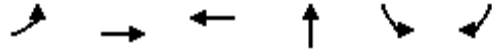
HCM 2010 Signalized Intersection Summary
8: Caldwell Ave & Fairway St

10 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 58 | 407 | 42 | 84 | 503 | 119 | 25 | 12 | 44 | 40 | 5 | 28 |
| Future Volume (veh/h) | 58 | 407 | 42 | 84 | 503 | 119 | 25 | 12 | 44 | 40 | 5 | 28 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 0.99 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 63 | 442 | 46 | 91 | 547 | 129 | 27 | 13 | 48 | 43 | 5 | 30 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 132 | 1321 | 135 | 167 | 1239 | 285 | 423 | 47 | 172 | 407 | 35 | 208 |
| Arrive On Green | 0.07 | 0.28 | 0.28 | 0.09 | 0.30 | 0.30 | 0.04 | 0.13 | 0.13 | 0.06 | 0.15 | 0.15 |
| Sat Flow, veh/h | 1774 | 4686 | 480 | 1774 | 4115 | 947 | 1774 | 348 | 1283 | 1774 | 228 | 1370 |
| Grp Volume(v), veh/h | 63 | 318 | 170 | 91 | 448 | 228 | 27 | 0 | 61 | 43 | 0 | 35 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1776 | 1774 | 1695 | 1672 | 1774 | 0 | 1631 | 1774 | 0 | 1598 |
| Q Serve(g_s), s | 1.4 | 3.1 | 3.2 | 2.0 | 4.4 | 4.6 | 0.5 | 0.0 | 1.4 | 0.8 | 0.0 | 0.8 |
| Cycle Q Clear(g_c), s | 1.4 | 3.1 | 3.2 | 2.0 | 4.4 | 4.6 | 0.5 | 0.0 | 1.4 | 0.8 | 0.0 | 0.8 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 0.57 | 1.00 | | 0.79 | 1.00 | | 0.86 |
| Lane Grp Cap(c), veh/h | 132 | 956 | 501 | 167 | 1021 | 503 | 423 | 0 | 218 | 407 | 0 | 242 |
| V/C Ratio(X) | 0.48 | 0.33 | 0.34 | 0.55 | 0.44 | 0.45 | 0.06 | 0.00 | 0.28 | 0.11 | 0.00 | 0.14 |
| Avail Cap(c_a), veh/h | 278 | 1552 | 813 | 278 | 1552 | 765 | 675 | 0 | 1336 | 627 | 0 | 1309 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.4 | 11.8 | 11.8 | 18.0 | 11.7 | 11.7 | 14.4 | 0.0 | 16.2 | 14.0 | 0.0 | 15.3 |
| Incr Delay (d2), s/veh | 1.0 | 0.6 | 1.1 | 1.0 | 0.8 | 1.8 | 0.1 | 0.0 | 1.9 | 0.2 | 0.0 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 1.5 | 1.7 | 1.0 | 2.2 | 2.3 | 0.3 | 0.0 | 0.7 | 0.4 | 0.0 | 0.4 |
| LnGrp Delay(d),s/veh | 19.4 | 12.4 | 12.9 | 19.0 | 12.5 | 13.5 | 14.6 | 0.0 | 18.1 | 14.2 | 0.0 | 16.0 |
| LnGrp LOS | B | B | B | B | B | B | B | | B | B | | B |
| Approach Vol, veh/h | | 551 | | | 767 | | | 88 | | | | 78 |
| Approach Delay, s/veh | | 13.3 | | | 13.6 | | | 17.0 | | | | 15.0 |
| Approach LOS | | B | | | B | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.9 | 17.7 | 5.3 | 10.6 | 7.1 | 18.5 | 4.6 | 11.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 19.0 | 7.5 | 34.0 | 6.5 | 19.0 | 7.5 | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.0 | 5.2 | 2.8 | 3.4 | 3.4 | 6.6 | 2.5 | 2.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.6 | 0.0 | 0.7 | 0.0 | 5.9 | 0.0 | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 13.8 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave





















10 Year plus Project
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBT | NBT | SBL | SBR |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 33 | 528 | 852 | 3 | 66 | 66 |
| v/c Ratio | 0.12 | 0.23 | 0.41 | 0.01 | 0.17 | 0.11 |
| Control Delay | 25.7 | 5.2 | 9.5 | 20.0 | 21.2 | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 25.7 | 5.2 | 9.5 | 20.0 | 21.2 | 0.4 |
| Queue Length 50th (ft) | 8 | 34 | 61 | 1 | 15 | 0 |
| Queue Length 95th (ft) | 36 | 61 | 165 | 7 | 52 | 0 |
| Internal Link Dist (ft) | | 1064 | 2594 | 260 | | |
| Turn Bay Length (ft) | 235 | | | | | 200 |
| Base Capacity (vph) | 301 | 2553 | 2307 | 1024 | 1023 | 1214 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.11 | 0.21 | 0.37 | 0.00 | 0.06 | 0.05 |
| Intersection Summary | | | | | | |

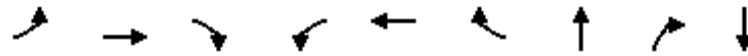
HCM 2010 Signalized Intersection Summary
 9: Stonebrook St & Caldwell Ave

10 Year plus Project
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  |  |
| Traffic Volume (veh/h) | 30 | 482 | 4 | 0 | 759 | 25 | 3 | 0 | 0 | 61 | 0 | 61 |
| Future Volume (veh/h) | 30 | 482 | 4 | 0 | 759 | 25 | 3 | 0 | 0 | 61 | 0 | 61 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 33 | 524 | 4 | 0 | 825 | 27 | 3 | 0 | 0 | 66 | 0 | 66 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 80 | 2084 | 16 | 4 | 1560 | 51 | 397 | 0 | 0 | 411 | 335 | 285 |
| Arrive On Green | 0.04 | 0.58 | 0.58 | 0.00 | 0.45 | 0.45 | 0.18 | 0.00 | 0.00 | 0.18 | 0.00 | 0.18 |
| Sat Flow, veh/h | 1774 | 3600 | 27 | 1774 | 3497 | 114 | 1330 | 0 | 0 | 1406 | 1863 | 1583 |
| Grp Volume(v), veh/h | 33 | 258 | 270 | 0 | 417 | 435 | 3 | 0 | 0 | 66 | 0 | 66 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1858 | 1774 | 1770 | 1842 | 1330 | 0 | 0 | 1406 | 1863 | 1583 |
| Q Serve(g_s), s | 0.8 | 3.3 | 3.3 | 0.0 | 7.8 | 7.8 | 0.1 | 0.0 | 0.0 | 1.7 | 0.0 | 1.6 |
| Cycle Q Clear(g_c), s | 0.8 | 3.3 | 3.3 | 0.0 | 7.8 | 7.8 | 0.1 | 0.0 | 0.0 | 1.8 | 0.0 | 1.6 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 0.06 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 80 | 1024 | 1075 | 4 | 789 | 822 | 397 | 0 | 0 | 411 | 335 | 285 |
| V/C Ratio(X) | 0.41 | 0.25 | 0.25 | 0.00 | 0.53 | 0.53 | 0.01 | 0.00 | 0.00 | 0.16 | 0.00 | 0.23 |
| Avail Cap(c_a), veh/h | 257 | 1146 | 1203 | 253 | 1142 | 1189 | 1151 | 0 | 0 | 1208 | 1390 | 1182 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.2 | 4.7 | 4.7 | 0.0 | 9.1 | 9.1 | 15.4 | 0.0 | 0.0 | 16.1 | 0.0 | 16.0 |
| Incr Delay (d2), s/veh | 1.3 | 0.5 | 0.4 | 0.0 | 2.0 | 1.9 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 1.7 | 1.8 | 0.0 | 4.1 | 4.3 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.8 |
| LnGrp Delay(d),s/veh | 22.4 | 5.2 | 5.2 | 0.0 | 11.1 | 11.1 | 15.4 | 0.0 | 0.0 | 16.5 | 0.0 | 16.9 |
| LnGrp LOS | C | A | A | | B | B | B | | | B | | B |
| Approach Vol, veh/h | | 561 | | | 852 | | | 3 | | | 132 | |
| Approach Delay, s/veh | | 6.2 | | | 11.1 | | | 15.4 | | | 16.7 | |
| Approach LOS | | A | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 0.0 | 32.4 | | 13.2 | 6.0 | 26.3 | | 13.2 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 29.5 | | 34.0 | 6.6 | 29.4 | | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 0.0 | 5.3 | | 2.1 | 2.8 | 9.8 | | 3.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.3 | | 0.0 | 0.0 | 10.4 | | 0.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.8 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |

Queues
10: West St & Caldwell Ave

10 Year plus Project
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 57 | 555 | 28 | 66 | 751 | 47 | 167 | 42 | 233 |
| v/c Ratio | 0.27 | 0.38 | 0.04 | 0.31 | 0.51 | 0.07 | 0.38 | 0.08 | 0.51 |
| Control Delay | 32.3 | 13.8 | 0.1 | 32.8 | 15.1 | 1.9 | 22.6 | 0.7 | 22.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 32.3 | 13.8 | 0.1 | 32.8 | 15.1 | 1.9 | 22.6 | 0.7 | 22.8 |
| Queue Length 50th (ft) | 21 | 76 | 0 | 24 | 110 | 0 | 54 | 0 | 70 |
| Queue Length 95th (ft) | 59 | 132 | 1 | 66 | 184 | 10 | 110 | 3 | 142 |
| Internal Link Dist (ft) | | 2594 | | | 1245 | | 332 | | 320 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 235 | 1987 | 922 | 235 | 1987 | 922 | 1021 | 1030 | 1025 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.24 | 0.28 | 0.03 | 0.28 | 0.38 | 0.05 | 0.16 | 0.04 | 0.23 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
 10: West St & Caldwell Ave

10 Year plus Project
 Timing Plan: A.M. Peak

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 52 | 511 | 26 | 61 | 691 | 43 | 43 | 110 | 39 | 45 | 117 | 52 |
| Future Volume (veh/h) | 52 | 511 | 26 | 61 | 691 | 43 | 43 | 110 | 39 | 45 | 117 | 52 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 57 | 555 | 28 | 66 | 751 | 47 | 47 | 120 | 42 | 49 | 127 | 57 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 117 | 1402 | 627 | 128 | 1425 | 637 | 162 | 315 | 347 | 136 | 221 | 87 |
| Arrive On Green | 0.07 | 0.40 | 0.40 | 0.07 | 0.40 | 0.40 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1583 | 315 | 1438 | 1583 | 220 | 1011 | 399 |
| Grp Volume(v), veh/h | 57 | 555 | 28 | 66 | 751 | 47 | 167 | 0 | 42 | 233 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1583 | 1753 | 0 | 1583 | 1630 | 0 | 0 |
| Q Serve(g_s), s | 1.5 | 5.6 | 0.5 | 1.8 | 8.0 | 0.9 | 0.0 | 0.0 | 1.1 | 2.6 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 1.5 | 5.6 | 0.5 | 1.8 | 8.0 | 0.9 | 3.8 | 0.0 | 1.1 | 6.4 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.28 | | 1.00 | 0.21 | | 0.24 |
| Lane Grp Cap(c), veh/h | 117 | 1402 | 627 | 128 | 1425 | 637 | 477 | 0 | 347 | 445 | 0 | 0 |
| V/C Ratio(X) | 0.49 | 0.40 | 0.04 | 0.51 | 0.53 | 0.07 | 0.35 | 0.00 | 0.12 | 0.52 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 251 | 2107 | 942 | 251 | 2107 | 942 | 1196 | 0 | 1054 | 1166 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 22.3 | 10.7 | 9.2 | 22.2 | 11.2 | 9.1 | 16.6 | 0.0 | 15.5 | 17.5 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 1.2 | 0.7 | 0.1 | 1.2 | 1.1 | 0.2 | 0.9 | 0.0 | 0.3 | 2.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 2.8 | 0.3 | 0.9 | 4.1 | 0.4 | 2.1 | 0.0 | 0.5 | 3.2 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 23.5 | 11.4 | 9.3 | 23.3 | 12.3 | 9.3 | 17.5 | 0.0 | 15.9 | 19.6 | 0.0 | 0.0 |
| LnGrp LOS | C | B | A | C | B | A | B | | B | B | | |
| Approach Vol, veh/h | | 640 | | | 864 | | | 209 | | | 233 | |
| Approach Delay, s/veh | | 12.4 | | | 13.0 | | | 17.2 | | | 19.6 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.6 | 26.1 | | 15.8 | 7.3 | 26.5 | | 15.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 7.0 | 29.5 | | 33.0 | 7.0 | 29.5 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.8 | 7.6 | | 5.8 | 3.5 | 10.0 | | 8.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.8 | | 2.2 | 0.0 | 10.0 | | 2.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 14.0 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
 11: County Center Dr & Cameron Ave













10 Year plus Project
 Timing Plan: A.M. Peak



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 54 | 158 | 164 | 23 | 229 | 227 |
| v/c Ratio | 0.14 | 0.34 | 0.15 | 0.03 | 0.32 | 0.21 |
| Control Delay | 10.4 | 4.8 | 5.2 | 2.6 | 6.8 | 5.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 10.4 | 4.8 | 5.2 | 2.6 | 6.8 | 5.4 |
| Queue Length 50th (ft) | 6 | 0 | 12 | 0 | 18 | 17 |
| Queue Length 95th (ft) | 24 | 26 | 33 | 6 | 53 | 44 |
| Internal Link Dist (ft) | 1226 | | 772 | | | 355 |
| Turn Bay Length (ft) | | 100 | | 160 | 145 | |
| Base Capacity (vph) | 1080 | 1006 | 1258 | 1051 | 819 | 1258 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.16 | 0.13 | 0.02 | 0.28 | 0.18 |
| Intersection Summary | | | | | | |

HCM 2010 Signalized Intersection Summary
 11: County Center Dr & Cameron Ave

10 Year plus Project
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  | | |
|------------------------------|---|---|---|---|---|---|---|------|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT | | |
| Lane Configurations |  |  |  |  |  |  | | |
| Traffic Volume (veh/h) | 50 | 145 | 151 | 21 | 211 | 209 | | |
| Future Volume (veh/h) | 50 | 145 | 151 | 21 | 211 | 209 | | |
| Number | 3 | 18 | 2 | 12 | 1 | 6 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 54 | 158 | 164 | 23 | 229 | 227 | | |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 301 | 269 | 741 | 627 | 749 | 741 | | |
| Arrive On Green | 0.17 | 0.17 | 0.40 | 0.40 | 0.40 | 0.40 | | |
| Sat Flow, veh/h | 1774 | 1583 | 1863 | 1577 | 1188 | 1863 | | |
| Grp Volume(v), veh/h | 54 | 158 | 164 | 23 | 229 | 227 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1583 | 1863 | 1577 | 1188 | 1863 | | |
| Q Serve(g_s), s | 0.5 | 1.9 | 1.2 | 0.2 | 3.3 | 1.7 | | |
| Cycle Q Clear(g_c), s | 0.5 | 1.9 | 1.2 | 0.2 | 4.5 | 1.7 | | |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 301 | 269 | 741 | 627 | 749 | 741 | | |
| V/C Ratio(X) | 0.18 | 0.59 | 0.22 | 0.04 | 0.31 | 0.31 | | |
| Avail Cap(c_a), veh/h | 1535 | 1370 | 1612 | 1365 | 1305 | 1612 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 7.4 | 8.0 | 4.1 | 3.8 | 5.6 | 4.3 | | |
| Incr Delay (d2), s/veh | 0.3 | 2.0 | 0.1 | 0.0 | 0.2 | 0.2 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 0.3 | 1.0 | 0.6 | 0.1 | 1.1 | 0.9 | | |
| LnGrp Delay(d),s/veh | 7.7 | 10.0 | 4.3 | 3.9 | 5.9 | 4.5 | | |
| LnGrp LOS | A | B | A | A | A | A | | |
| Approach Vol, veh/h | 212 | | 187 | | | 456 | | |
| Approach Delay, s/veh | 9.4 | | 4.2 | | | 5.2 | | |
| Approach LOS | A | | A | | | A | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | | | 6 | | 8 |
| Phs Duration (G+Y+Rc), s | | 12.8 | | | | 12.8 | | 8.0 |
| Change Period (Y+Rc), s | | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | | 18.0 | | | | 18.0 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | | 3.2 | | | | 6.5 | | 3.9 |
| Green Ext Time (p_c), s | | 0.7 | | | | 1.6 | | 0.5 |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 6.0 | | | | | |
| HCM 2010 LOS | | | A | | | | | |

Queues
12: Mooney Blvd & Cameron Ave

10 Year plus Project
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 72 | 179 | 104 | 280 | 9 | 719 | 101 | 86 | 581 | 35 |
| v/c Ratio | 0.47 | 0.45 | 0.59 | 0.49 | 0.05 | 0.26 | 0.11 | 0.46 | 0.19 | 0.04 |
| Control Delay | 57.4 | 46.2 | 59.9 | 31.2 | 50.0 | 15.7 | 1.0 | 58.7 | 11.7 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.4 | 46.2 | 59.9 | 31.2 | 50.0 | 15.7 | 1.0 | 58.7 | 11.7 | 0.1 |
| Queue Length 50th (ft) | 49 | 59 | 71 | 64 | 3 | 101 | 0 | 30 | 59 | 0 |
| Queue Length 95th (ft) | 94 | 92 | 123 | 102 | 11 | 149 | 9 | 57 | 119 | 0 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 172 | 1403 | 194 | 1404 | 187 | 2715 | 905 | 187 | 3040 | 990 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.42 | 0.13 | 0.54 | 0.20 | 0.05 | 0.26 | 0.11 | 0.46 | 0.19 | 0.04 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
12: Mooney Blvd & Cameron Ave

10 Year plus Project
Timing Plan: A.M. Peak

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|-------|------|-------|-------|------|------|-------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 69 | 157 | 14 | 100 | 177 | 92 | 9 | 690 | 97 | 83 | 558 | 34 |
| Future Volume (veh/h) | 69 | 157 | 14 | 100 | 177 | 92 | 9 | 690 | 97 | 83 | 558 | 34 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 72 | 164 | 15 | 104 | 184 | 96 | 9 | 719 | 101 | 86 | 581 | 35 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 92 | 272 | 25 | 175 | 295 | 147 | 45 | 1179 | 367 | 1240 | 2977 | 926 |
| Arrive On Green | 0.05 | 0.08 | 0.08 | 0.10 | 0.13 | 0.13 | 0.01 | 0.23 | 0.23 | 0.36 | 0.59 | 0.59 |
| Sat Flow, veh/h | 1774 | 3283 | 297 | 1774 | 2279 | 1134 | 3442 | 5085 | 1581 | 3442 | 5085 | 1581 |
| Grp Volume(v), veh/h | 72 | 88 | 91 | 104 | 141 | 139 | 9 | 719 | 101 | 86 | 581 | 35 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1810 | 1774 | 1770 | 1644 | 1721 | 1695 | 1581 | 1721 | 1695 | 1581 |
| Q Serve(g_s), s | 4.4 | 5.3 | 5.4 | 6.2 | 8.3 | 8.9 | 0.3 | 13.9 | 5.8 | 1.8 | 5.9 | 0.6 |
| Cycle Q Clear(g_c), s | 4.4 | 5.3 | 5.4 | 6.2 | 8.3 | 8.9 | 0.3 | 13.9 | 5.8 | 1.8 | 5.9 | 0.6 |
| Prop In Lane | 1.00 | | 0.16 | 1.00 | | 0.69 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 92 | 147 | 150 | 175 | 229 | 213 | 45 | 1179 | 367 | 1240 | 2977 | 926 |
| V/C Ratio(X) | 0.78 | 0.60 | 0.61 | 0.60 | 0.61 | 0.65 | 0.20 | 0.61 | 0.28 | 0.07 | 0.20 | 0.04 |
| Avail Cap(c_a), veh/h | 161 | 708 | 724 | 175 | 713 | 662 | 188 | 1179 | 367 | 1240 | 2977 | 926 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.20 | 0.20 | 0.20 | 0.97 | 0.97 | 0.97 |
| Uniform Delay (d), s/veh | 51.5 | 48.7 | 48.7 | 47.5 | 45.3 | 45.5 | 53.7 | 37.8 | 34.7 | 23.1 | 10.7 | 3.6 |
| Incr Delay (d2), s/veh | 5.3 | 7.1 | 7.2 | 3.8 | 6.2 | 7.8 | 0.2 | 0.5 | 0.4 | 0.0 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.3 | 2.9 | 3.0 | 3.2 | 4.4 | 4.5 | 0.1 | 6.6 | 2.5 | 0.9 | 2.8 | 0.4 |
| LnGrp Delay(d),s/veh | 56.8 | 55.7 | 55.9 | 51.3 | 51.5 | 53.3 | 53.9 | 38.3 | 35.0 | 23.1 | 10.8 | 3.7 |
| LnGrp LOS | E | E | E | D | D | D | D | D | D | C | B | A |
| Approach Vol, veh/h | | 251 | | | 384 | | | 829 | | | 702 | |
| Approach Delay, s/veh | | 56.1 | | | 52.1 | | | 38.1 | | | 12.0 | |
| Approach LOS | | E | | | D | | | D | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 46.0 | 31.9 | 16.5 | 15.5 | 7.1 | 70.8 | 11.4 | 20.6 | | | | |
| Change Period (Y+Rc), s | 6.4 | * 6.4 | 5.7 | * 6.4 | * 5.7 | 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | 6.0 | * 26 | 10.3 | * 44 | * 6 | 25.5 | 10.0 | * 44 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.8 | 15.9 | 8.2 | 7.4 | 2.3 | 7.9 | 6.4 | 10.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.7 | 0.0 | 1.8 | 0.0 | 8.7 | 0.0 | 3.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 34.2 | | | | | | | | |
| HCM 2010 LOS | | | | C | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.2 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↔ | ↔ | ↔ |
| Traffic Vol, veh/h | 274 | 5 | 383 | 414 | 6 | 241 |
| Future Vol, veh/h | 274 | 5 | 383 | 414 | 6 | 241 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 145 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 298 | 5 | 416 | 450 | 7 | 262 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 0 | 0 | 303 | 0 | 1583 301 |
| Stage 1 | - | - | - | - | 301 - |
| Stage 2 | - | - | - | - | 1282 - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | - | - | 1258 | - | 120 739 |
| Stage 1 | - | - | - | - | 751 - |
| Stage 2 | - | - | - | - | 260 - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1258 | - | 67 739 |
| Mov Cap-2 Maneuver | - | - | - | - | 125 - |
| Stage 1 | - | - | - | - | 751 - |
| Stage 2 | - | - | - | - | 145 - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 4.5 | 13.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 125 | 739 | - | - | 1258 | - |
| HCM Lane V/C Ratio | 0.052 | 0.354 | - | - | 0.331 | - |
| HCM Control Delay (s) | 35.4 | 12.5 | - | - | 9.3 | 0 |
| HCM Lane LOS | E | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.2 | 1.6 | - | - | 1.5 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 92 | 333 | 9 | 0 | 344 | 5 | 25 | 6 | 8 | 3 | 3 | 55 |
| Future Vol, veh/h | 92 | 333 | 9 | 0 | 344 | 5 | 25 | 6 | 8 | 3 | 3 | 55 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 100 | 362 | 10 | 0 | 374 | 5 | 27 | 7 | 9 | 3 | 3 | 60 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 379 | 0 | 0 | 372 | 0 | 0 | 975 | 946 | 368 | 953 | 949 | 377 |
| Stage 1 | - | - | - | - | - | - | 567 | 567 | - | 377 | 377 | - |
| Stage 2 | - | - | - | - | - | - | 408 | 379 | - | 576 | 572 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1179 | - | - | 1186 | - | - | 231 | 262 | 677 | 239 | 260 | 670 |
| Stage 1 | - | - | - | - | - | - | 508 | 507 | - | 644 | 616 | - |
| Stage 2 | - | - | - | - | - | - | 620 | 615 | - | 503 | 504 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1179 | - | - | 1186 | - | - | 195 | 240 | 676 | 216 | 238 | 670 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 195 | 240 | - | 216 | 238 | - |
| Stage 1 | - | - | - | - | - | - | 465 | 464 | - | 589 | 616 | - |
| Stage 2 | - | - | - | - | - | - | 562 | 615 | - | 448 | 461 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 1.8 | | | 0 | | | 23.6 | | | 12.1 | | |
| HCM LOS | | | | | | | C | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|-------|
| Capacity (veh/h) | 236 | 1179 | - | - | 1186 | - | - | 216 | 612 |
| HCM Lane V/C Ratio | 0.18 | 0.085 | - | - | - | - | - | 0.015 | 0.103 |
| HCM Control Delay (s) | 23.6 | 8.3 | - | - | 0 | - | - | 21.9 | 11.6 |
| HCM Lane LOS | C | A | - | - | A | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.6 | 0.3 | - | - | 0 | - | - | 0 | 0.3 |

Queues
15: Court St & Cameron Ave

10 Year plus Project
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 261 | 257 | 107 | 1 | 4 | 52 | 247 | 245 |
| v/c Ratio | 0.56 | 0.57 | 0.15 | 0.00 | 0.00 | 0.12 | 0.16 | 0.22 |
| Control Delay | 12.1 | 12.6 | 3.7 | 9.0 | 9.0 | 9.9 | 0.2 | 0.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 12.1 | 12.6 | 3.7 | 9.0 | 9.0 | 9.9 | 0.2 | 0.5 |
| Queue Length 50th (ft) | 25 | 25 | 3 | 0 | 0 | 5 | 0 | 0 |
| Queue Length 95th (ft) | 80 | 80 | 20 | 2 | 2 | 24 | 0 | 0 |
| Internal Link Dist (ft) | | 563 | 789 | | 604 | | 1556 | |
| Turn Bay Length (ft) | 260 | | | 225 | | 195 | | 200 |
| Base Capacity (vph) | 754 | 727 | 1085 | 683 | 2192 | 871 | 2149 | 1254 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.35 | 0.35 | 0.10 | 0.00 | 0.00 | 0.06 | 0.11 | 0.20 |
| Intersection Summary | | | | | | | | |

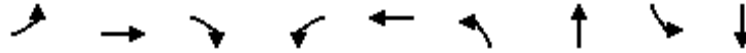
HCM 2010 Signalized Intersection Summary
15: Court St & Cameron Ave

10 Year plus Project
Timing Plan: A.M. Peak

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 461 | 16 | 0 | 0 | 40 | 59 | 1 | 4 | 0 | 48 | 1 | 452 |
| Future Volume (veh/h) | 461 | 16 | 0 | 0 | 40 | 59 | 1 | 4 | 0 | 48 | 1 | 452 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 513 | 0 | 0 | 0 | 43 | 64 | 1 | 4 | 0 | 52 | 1 | 491 |
| Adj No. of Lanes | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 2 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 1375 | 660 | 0 | 0 | 240 | 357 | 545 | 1003 | 0 | 688 | 528 | 898 |
| Arrive On Green | 0.35 | 0.00 | 0.00 | 0.00 | 0.35 | 0.35 | 0.28 | 0.28 | 0.00 | 0.28 | 0.28 | 0.28 |
| Sat Flow, veh/h | 2563 | 1863 | 0 | 0 | 677 | 1008 | 901 | 3632 | 0 | 1407 | 1863 | 3167 |
| Grp Volume(v), veh/h | 513 | 0 | 0 | 0 | 0 | 107 | 1 | 4 | 0 | 52 | 1 | 491 |
| Grp Sat Flow(s),veh/h/ln | 1281 | 1863 | 0 | 0 | 0 | 1685 | 901 | 1770 | 0 | 1407 | 1863 | 1583 |
| Q Serve(g_s), s | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 3.3 |
| Cycle Q Clear(g_c), s | 5.4 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 3.3 |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 0.60 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 1375 | 660 | 0 | 0 | 0 | 597 | 545 | 1003 | 0 | 688 | 528 | 898 |
| V/C Ratio(X) | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.18 | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 | 0.55 |
| Avail Cap(c_a), veh/h | 2325 | 1350 | 0 | 0 | 0 | 1221 | 943 | 2565 | 0 | 1308 | 1350 | 2295 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 7.4 | 0.0 | 0.0 | 0.0 | 0.0 | 5.5 | 6.4 | 6.4 | 0.0 | 6.6 | 6.4 | 7.5 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 1.4 |
| LnGrp Delay(d),s/veh | 7.6 | 0.0 | 0.0 | 0.0 | 0.0 | 5.7 | 6.4 | 6.4 | 0.0 | 6.7 | 6.4 | 8.1 |
| LnGrp LOS | A | | | | | A | A | A | | A | A | A |
| Approach Vol, veh/h | | 513 | | | 107 | | | 5 | | | 544 | |
| Approach Delay, s/veh | | 7.6 | | | 5.7 | | | 6.4 | | | 7.9 | |
| Approach LOS | | A | | | A | | | A | | | A | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 11.5 | | 13.3 | | 11.5 | | 13.3 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 18.0 | | 18.0 | | 18.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 7.4 | | 5.3 | | 3.1 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 1.5 | | 1.8 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 7.6 | | | | | | | | |
| HCM 2010 LOS | | | | A | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
16: Demaree St & Visalia Pkwy

10 Year plus Project
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 46 | 341 | 86 | 71 | 365 | 65 | 652 | 126 | 530 |
| v/c Ratio | 0.32 | 0.65 | 0.16 | 0.44 | 0.33 | 0.39 | 0.64 | 0.61 | 0.43 |
| Control Delay | 51.2 | 35.7 | 2.7 | 52.7 | 21.5 | 50.7 | 30.8 | 55.1 | 24.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.2 | 35.7 | 2.7 | 52.7 | 21.5 | 50.7 | 30.8 | 55.1 | 24.9 |
| Queue Length 50th (ft) | 25 | 172 | 0 | 39 | 73 | 36 | 169 | 69 | 122 |
| Queue Length 95th (ft) | 71 | 301 | 16 | 97 | 127 | 90 | 260 | #168 | 199 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 775 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 156 | 790 | 733 | 194 | 1542 | 211 | 1515 | 260 | 1610 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.29 | 0.43 | 0.12 | 0.37 | 0.24 | 0.31 | 0.43 | 0.48 | 0.33 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

10 Year plus Project
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 42 | 314 | 79 | 65 | 246 | 90 | 60 | 537 | 63 | 116 | 429 | 59 |
| Future Volume (veh/h) | 42 | 314 | 79 | 65 | 246 | 90 | 60 | 537 | 63 | 116 | 429 | 59 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 46 | 341 | 86 | 71 | 267 | 98 | 65 | 584 | 68 | 126 | 466 | 64 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 90 | 494 | 420 | 115 | 713 | 256 | 110 | 896 | 104 | 160 | 967 | 132 |
| Arrive On Green | 0.05 | 0.27 | 0.27 | 0.06 | 0.28 | 0.28 | 0.06 | 0.28 | 0.28 | 0.09 | 0.31 | 0.31 |
| Sat Flow, veh/h | 1774 | 1863 | 1582 | 1774 | 2555 | 916 | 1774 | 3187 | 370 | 1774 | 3123 | 427 |
| Grp Volume(v), veh/h | 46 | 341 | 86 | 71 | 183 | 182 | 65 | 324 | 328 | 126 | 263 | 267 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1582 | 1774 | 1770 | 1701 | 1774 | 1770 | 1787 | 1774 | 1770 | 1780 |
| Q Serve(g_s), s | 1.7 | 11.4 | 2.9 | 2.7 | 5.7 | 6.0 | 2.5 | 11.1 | 11.2 | 4.8 | 8.3 | 8.4 |
| Cycle Q Clear(g_c), s | 1.7 | 11.4 | 2.9 | 2.7 | 5.7 | 6.0 | 2.5 | 11.1 | 11.2 | 4.8 | 8.3 | 8.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.54 | 1.00 | | 0.21 | 1.00 | | 0.24 |
| Lane Grp Cap(c), veh/h | 90 | 494 | 420 | 115 | 494 | 475 | 110 | 497 | 502 | 160 | 548 | 551 |
| V/C Ratio(X) | 0.51 | 0.69 | 0.20 | 0.62 | 0.37 | 0.38 | 0.59 | 0.65 | 0.65 | 0.79 | 0.48 | 0.48 |
| Avail Cap(c_a), veh/h | 182 | 917 | 779 | 226 | 915 | 879 | 247 | 892 | 901 | 303 | 948 | 954 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 31.9 | 22.8 | 19.7 | 31.5 | 20.0 | 20.1 | 31.5 | 21.8 | 21.9 | 30.7 | 19.3 | 19.4 |
| Incr Delay (d2), s/veh | 1.6 | 5.2 | 0.7 | 2.0 | 1.4 | 1.6 | 1.9 | 2.8 | 2.8 | 3.2 | 1.3 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 6.5 | 1.3 | 1.4 | 3.0 | 3.0 | 1.3 | 5.8 | 5.9 | 2.5 | 4.2 | 4.3 |
| LnGrp Delay(d),s/veh | 33.6 | 28.0 | 20.4 | 33.5 | 21.4 | 21.6 | 33.4 | 24.6 | 24.7 | 33.9 | 20.6 | 20.6 |
| LnGrp LOS | C | C | C | C | C | C | C | C | C | C | C | C |
| Approach Vol, veh/h | | 473 | | | 436 | | | 717 | | | 656 | |
| Approach Delay, s/veh | | 27.2 | | | 23.5 | | | 25.4 | | | 23.2 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.4 | 26.4 | 8.7 | 23.5 | 8.5 | 28.4 | 7.7 | 24.5 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 12 | 34.8 | * 8.8 | 34.0 | * 9.6 | 37.0 | * 7.1 | 35.7 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.8 | 13.2 | 4.7 | 13.4 | 4.5 | 10.4 | 3.7 | 8.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 6.2 | 0.0 | 4.8 | 0.0 | 5.4 | 0.0 | 4.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 24.8 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 162 | 314 | 3 | 1 | 302 | 115 | 5 | 0 | 3 | 63 | 0 | 126 |
| Future Vol, veh/h | 162 | 314 | 3 | 1 | 302 | 115 | 5 | 0 | 3 | 63 | 0 | 126 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 176 | 341 | 3 | 1 | 328 | 125 | 5 | 0 | 3 | 68 | 0 | 137 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 453 | 0 | 0 | 344 | 0 | 0 | 1156 | 1150 | 343 | 1089 | 1089 | 391 |
| Stage 1 | - | - | - | - | - | - | 695 | 695 | - | 393 | 393 | - |
| Stage 2 | - | - | - | - | - | - | 461 | 455 | - | 696 | 696 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1108 | - | - | 1215 | - | - | 174 | 198 | 700 | 193 | 215 | 658 |
| Stage 1 | - | - | - | - | - | - | 433 | 444 | - | 632 | 606 | - |
| Stage 2 | - | - | - | - | - | - | 581 | 569 | - | 432 | 443 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1108 | - | - | 1215 | - | - | 121 | 166 | 700 | 168 | 181 | 658 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 121 | 166 | - | 168 | 181 | - |
| Stage 1 | - | - | - | - | - | - | 364 | 373 | - | 532 | 605 | - |
| Stage 2 | - | - | - | - | - | - | 460 | 568 | - | 362 | 373 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 3 | | | 0 | | | 26.6 | | | 31.6 | | |
| HCM LOS | | | | | | | D | | | D | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 175 | 1108 | - | - | 1215 | - | - | 334 |
| HCM Lane V/C Ratio | 0.05 | 0.159 | - | - | 0.001 | - | - | 0.615 |
| HCM Control Delay (s) | 26.6 | 8.9 | - | - | 8 | - | - | 31.6 |
| HCM Lane LOS | D | A | - | - | A | - | - | D |
| HCM 95th %tile Q(veh) | 0.2 | 0.6 | - | - | 0 | - | - | 3.9 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↙ | ↑ | ↗ | | ↙ | ↗ |
| Traffic Vol, veh/h | 87 | 350 | 399 | 81 | 98 | 155 |
| Future Vol, veh/h | 87 | 350 | 399 | 81 | 98 | 155 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 95 | 380 | 434 | 88 | 107 | 168 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 522 | 0 | - | 0 | 1048 478 |
| Stage 1 | - | - | - | - | 478 - |
| Stage 2 | - | - | - | - | 570 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1044 | - | - | - | 252 587 |
| Stage 1 | - | - | - | - | 624 - |
| Stage 2 | - | - | - | - | 566 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1044 | - | - | - | 229 587 |
| Mov Cap-2 Maneuver | - | - | - | - | 229 - |
| Stage 1 | - | - | - | - | 567 - |
| Stage 2 | - | - | - | - | 566 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.8 | 0 | 21.4 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1044 | - | - | - | 229 | 587 |
| HCM Lane V/C Ratio | 0.091 | - | - | - | 0.465 | 0.287 |
| HCM Control Delay (s) | 8.8 | - | - | - | 33.7 | 13.6 |
| HCM Lane LOS | A | - | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 2.3 | 1.2 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 37.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 37 | 395 | 62 | 119 | 382 | 14 | 90 | 0 | 244 | 7 | 0 | 15 |
| Future Vol, veh/h | 37 | 395 | 62 | 119 | 382 | 14 | 90 | 0 | 244 | 7 | 0 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 40 | 429 | 67 | 129 | 415 | 15 | 98 | 0 | 265 | 8 | 0 | 16 |

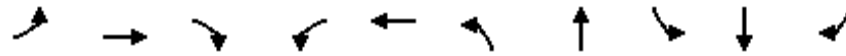
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 430 | 0 | 0 | 496 | 0 | 0 | 1233 | 1231 | 463 | 1356 | 1257 | 424 |
| Stage 1 | - | - | - | - | - | - | 543 | 543 | - | 681 | 681 | - |
| Stage 2 | - | - | - | - | - | - | 690 | 688 | - | 675 | 576 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1129 | - | - | 1068 | - | - | 154 | 177 | 599 | 126 | 171 | 630 |
| Stage 1 | - | - | - | - | - | - | 524 | 520 | - | 440 | 450 | - |
| Stage 2 | - | - | - | - | - | - | 435 | 447 | - | 444 | 502 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1129 | - | - | 1068 | - | - | 132 | 150 | 599 | 62 | 145 | 629 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 132 | 150 | - | 62 | 145 | - |
| Stage 1 | - | - | - | - | - | - | 506 | 502 | - | 425 | 396 | - |
| Stage 2 | - | - | - | - | - | - | 372 | 393 | - | 239 | 484 | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|----|-------|------|
| HCM Control Delay, s | 0.6 | 2 | 146.8 | 31.2 |
| HCM LOS | | | F | D |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 307 | 1129 | - | - | 1068 | - | - | 161 |
| HCM Lane V/C Ratio | 1.183 | 0.036 | - | - | 0.121 | - | - | 0.149 |
| HCM Control Delay (s) | 146.8 | 8.3 | - | - | 8.8 | - | - | 31.2 |
| HCM Lane LOS | F | A | - | - | A | - | - | D |
| HCM 95th %tile Q(veh) | 15.7 | 0.1 | - | - | 0.4 | - | - | 0.5 |

Queues
20: Mooney Blvd & Visalia Pkwy

10 Year plus Project
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph) | 62 | 201 | 157 | 217 | 203 | 177 | 910 | 99 | 523 | 47 |
| v/c Ratio | 0.50 | 0.53 | 0.31 | 0.72 | 0.33 | 1.39 | 0.98 | 0.79 | 0.39 | 0.08 |
| Control Delay | 56.5 | 36.4 | 2.5 | 47.9 | 22.6 | 253.9 | 59.7 | 83.7 | 28.6 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 56.5 | 36.4 | 2.5 | 47.9 | 22.6 | 253.9 | 59.7 | 83.7 | 28.6 | 0.3 |
| Queue Length 50th (ft) | 33 | 97 | 0 | 111 | 82 | ~129 | 254 | 54 | 84 | 0 |
| Queue Length 95th (ft) | #97 | 176 | 12 | 200 | 135 | #298 | #487 | #165 | 141 | 0 |
| Internal Link Dist (ft) | | 765 | | | 339 | | 252 | | 1110 | |
| Turn Bay Length (ft) | 180 | | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 125 | 548 | 626 | 458 | 893 | 127 | 925 | 125 | 1335 | 581 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.50 | 0.37 | 0.25 | 0.47 | 0.23 | 1.39 | 0.98 | 0.79 | 0.39 | 0.08 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
20: Mooney Blvd & Visalia Pkwy

10 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 57 | 185 | 144 | 200 | 176 | 11 | 163 | 741 | 97 | 91 | 481 | 43 |
| Future Volume (veh/h) | 57 | 185 | 144 | 200 | 176 | 11 | 163 | 741 | 97 | 91 | 481 | 43 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 62 | 201 | 157 | 217 | 191 | 12 | 177 | 805 | 105 | 99 | 523 | 47 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 102 | 315 | 267 | 260 | 447 | 28 | 142 | 912 | 119 | 126 | 1427 | 444 |
| Arrive On Green | 0.06 | 0.17 | 0.17 | 0.15 | 0.26 | 0.26 | 0.08 | 0.29 | 0.29 | 0.07 | 0.28 | 0.28 |
| Sat Flow, veh/h | 1774 | 1863 | 1583 | 1774 | 1734 | 109 | 1774 | 3148 | 411 | 1774 | 5085 | 1583 |
| Grp Volume(v), veh/h | 62 | 201 | 157 | 217 | 0 | 203 | 177 | 452 | 458 | 99 | 523 | 47 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1583 | 1774 | 0 | 1843 | 1774 | 1770 | 1789 | 1774 | 1695 | 1583 |
| Q Serve(g_s), s | 2.6 | 7.6 | 7.0 | 9.0 | 0.0 | 7.0 | 6.1 | 18.5 | 18.5 | 4.2 | 6.3 | 1.7 |
| Cycle Q Clear(g_c), s | 2.6 | 7.6 | 7.0 | 9.0 | 0.0 | 7.0 | 6.1 | 18.5 | 18.5 | 4.2 | 6.3 | 1.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.06 | 1.00 | | 0.23 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 102 | 315 | 267 | 260 | 0 | 475 | 142 | 513 | 518 | 126 | 1427 | 444 |
| V/C Ratio(X) | 0.61 | 0.64 | 0.59 | 0.83 | 0.00 | 0.43 | 1.24 | 0.88 | 0.88 | 0.78 | 0.37 | 0.11 |
| Avail Cap(c_a), veh/h | 140 | 613 | 521 | 513 | 0 | 994 | 142 | 521 | 527 | 140 | 1492 | 464 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.0 | 29.4 | 29.1 | 31.5 | 0.0 | 23.5 | 35.0 | 25.8 | 25.8 | 34.7 | 21.9 | 20.3 |
| Incr Delay (d2), s/veh | 2.2 | 6.5 | 6.2 | 2.7 | 0.0 | 1.8 | 155.1 | 19.0 | 18.9 | 19.8 | 0.7 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.3 | 4.5 | 3.5 | 4.6 | 0.0 | 3.8 | 9.1 | 11.8 | 11.9 | 2.7 | 3.0 | 0.8 |
| LnGrp Delay(d),s/veh | 37.1 | 35.9 | 35.3 | 34.2 | 0.0 | 25.3 | 190.1 | 44.8 | 44.6 | 54.6 | 22.6 | 20.7 |
| LnGrp LOS | D | D | D | C | | C | F | D | D | D | C | C |
| Approach Vol, veh/h | | 420 | | | 420 | | | 1087 | | | 669 | |
| Approach Delay, s/veh | | 35.9 | | | 29.9 | | | 68.4 | | | 27.2 | |
| Approach LOS | | D | | | C | | | E | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.1 | 28.8 | 16.8 | 19.2 | 11.8 | 28.1 | 10.1 | 26.0 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | * 5.7 | 6.4 | * 5.7 | 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 22.4 | * 22 | 25.0 | * 6.1 | 22.3 | * 6 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.2 | 20.5 | 11.0 | 9.6 | 8.1 | 8.3 | 4.6 | 9.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.5 | 0.2 | 3.2 | 0.0 | 6.1 | 0.0 | 2.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 46.3 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 9.4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 280 | 6 | 20 | 0 | 0 | 424 |
| Future Vol, veh/h | 280 | 6 | 20 | 0 | 0 | 424 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 304 | 7 | 22 | 0 | 0 | 461 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 22 | 0 | - | 0 | 637 22 |
| Stage 1 | - | - | - | - | 22 - |
| Stage 2 | - | - | - | - | 615 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1593 | - | - | - | 441 1055 |
| Stage 1 | - | - | - | - | 1001 - |
| Stage 2 | - | - | - | - | 539 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1593 | - | - | - | 357 1055 |
| Mov Cap-2 Maneuver | - | - | - | - | 357 - |
| Stage 1 | - | - | - | - | 810 - |
| Stage 2 | - | - | - | - | 539 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 7.6 | 0 | 11 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1593 | - | - | - | 1055 |
| HCM Lane V/C Ratio | 0.191 | - | - | - | 0.437 |
| HCM Control Delay (s) | 7.8 | - | - | - | 11 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0.7 | - | - | - | 2.3 |

Queues
22: Mooney Blvd & Midvalley Ave





















10 Year plus Project
Timing Plan: A.M. Peak



| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 40 | 14 | 200 | 8 | 949 | 51 | 743 | 34 |
| v/c Ratio | 0.17 | 0.04 | 0.61 | 0.04 | 0.57 | 0.27 | 0.38 | 0.04 |
| Control Delay | 23.0 | 0.2 | 19.1 | 26.7 | 14.0 | 30.2 | 9.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.0 | 0.2 | 19.1 | 26.7 | 14.0 | 30.2 | 9.2 | 0.1 |
| Queue Length 50th (ft) | 13 | 0 | 26 | 3 | 132 | 18 | 56 | 0 |
| Queue Length 95th (ft) | 36 | 0 | 83 | 15 | 217 | 49 | 161 | 0 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 630 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 754 | 1004 | 868 | 186 | 1677 | 186 | 1961 | 917 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.01 | 0.23 | 0.04 | 0.57 | 0.27 | 0.38 | 0.04 |
| Intersection Summary | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

10 Year plus Project
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 37 | 0 | 13 | 102 | 0 | 82 | 7 | 820 | 53 | 47 | 684 | 31 |
| Future Volume (veh/h) | 37 | 0 | 13 | 102 | 0 | 82 | 7 | 820 | 53 | 47 | 684 | 31 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 40 | 0 | 14 | 111 | 0 | 89 | 8 | 891 | 58 | 51 | 743 | 34 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 354 | 0 | 280 | 223 | 16 | 111 | 22 | 1361 | 89 | 104 | 1591 | 711 |
| Arrive On Green | 0.18 | 0.00 | 0.18 | 0.18 | 0.00 | 0.18 | 0.01 | 0.40 | 0.40 | 0.06 | 0.45 | 0.45 |
| Sat Flow, veh/h | 1270 | 0 | 1583 | 692 | 92 | 629 | 1774 | 3374 | 220 | 1774 | 3539 | 1582 |
| Grp Volume(v), veh/h | 40 | 0 | 14 | 200 | 0 | 0 | 8 | 467 | 482 | 51 | 743 | 34 |
| Grp Sat Flow(s),veh/h/ln | 1270 | 0 | 1583 | 1413 | 0 | 0 | 1774 | 1770 | 1824 | 1774 | 1770 | 1582 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.4 | 6.1 | 0.0 | 0.0 | 0.2 | 11.9 | 11.9 | 1.5 | 8.1 | 0.7 |
| Cycle Q Clear(g_c), s | 1.5 | 0.0 | 0.4 | 7.6 | 0.0 | 0.0 | 0.2 | 11.9 | 11.9 | 1.5 | 8.1 | 0.7 |
| Prop In Lane | 1.00 | | 1.00 | 0.55 | | 0.44 | 1.00 | | 0.12 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 354 | 0 | 280 | 351 | 0 | 0 | 22 | 714 | 736 | 104 | 1591 | 711 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.05 | 0.57 | 0.00 | 0.00 | 0.36 | 0.65 | 0.65 | 0.49 | 0.47 | 0.05 |
| Avail Cap(c_a), veh/h | 933 | 0 | 983 | 968 | 0 | 0 | 192 | 831 | 856 | 192 | 1661 | 742 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.4 | 0.0 | 18.9 | 22.0 | 0.0 | 0.0 | 27.1 | 13.4 | 13.4 | 25.3 | 10.6 | 8.6 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 3.6 | 4.4 | 4.3 | 1.3 | 0.8 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.2 | 2.9 | 0.0 | 0.0 | 0.1 | 6.6 | 6.8 | 0.8 | 4.1 | 0.3 |
| LnGrp Delay(d),s/veh | 19.4 | 0.0 | 19.0 | 22.6 | 0.0 | 0.0 | 30.7 | 17.8 | 17.7 | 26.6 | 11.4 | 8.7 |
| LnGrp LOS | B | | B | C | | | C | B | B | C | B | A |
| Approach Vol, veh/h | | 54 | | | 200 | | | 957 | | | 828 | |
| Approach Delay, s/veh | | 19.3 | | | 22.6 | | | 17.8 | | | 12.3 | |
| Approach LOS | | B | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.0 | 29.1 | | 17.3 | 6.4 | 31.7 | | 17.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 6 | 26.0 | | * 34 | * 6 | 26.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.5 | 13.9 | | 3.5 | 2.2 | 10.1 | | 9.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.5 | | 0.1 | 0.0 | 8.8 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 16.1 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 20.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 33 | 8 | 157 | 32 | 20 | 18 | 53 | 896 | 24 | 10 | 706 | 37 |
| Future Vol, veh/h | 33 | 8 | 157 | 32 | 20 | 18 | 53 | 896 | 24 | 10 | 706 | 37 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 36 | 9 | 171 | 35 | 22 | 20 | 58 | 974 | 26 | 11 | 767 | 40 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1423 | 1925 | 404 | 1513 | 1932 | 500 | 807 | 0 | 0 | 1000 | 0 | 0 |
| Stage 1 | 809 | 809 | - | 1103 | 1103 | - | - | - | - | - | - | - |
| Stage 2 | 614 | 1116 | - | 410 | 829 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 96 | 66 | 596 | 82 | 65 | 516 | 814 | - | - | 688 | - | - |
| Stage 1 | 340 | 392 | - | 225 | 285 | - | - | - | - | - | - | - |
| Stage 2 | 446 | 281 | - | 589 | 383 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 62 | 60 | 596 | 49 | 59 | 516 | 814 | - | - | 688 | - | - |
| Mov Cap-2 Maneuver | 62 | 60 | - | 49 | 59 | - | - | - | - | - | - | - |
| Stage 1 | 316 | 386 | - | 209 | 265 | - | - | - | - | - | - | - |
| Stage 2 | 366 | 261 | - | 404 | 377 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|-------|--|-------|--|-----|--|-----|--|
| HCM Control Delay, s | 111.9 | | 250.1 | | 0.5 | | 0.1 | |
| HCM LOS | F | | F | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 814 | - | - | 213 | 68 | 688 | - |
| HCM Lane V/C Ratio | 0.071 | - | - | 1.01 | 1.119 | 0.016 | - |
| HCM Control Delay (s) | 9.8 | - | - | 111.9 | 250.1 | 10.3 | - |
| HCM Lane LOS | A | - | - | F | F | B | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 9.1 | 5.9 | 0 | - |

Queues
25: Mooney Blvd & Ave 268



















10 Year plus Project
Timing Plan: A.M. Peak



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 36 | 53 | 80 | 863 | 45 | 833 |
| v/c Ratio | 0.13 | 0.17 | 0.33 | 0.36 | 0.20 | 0.38 |
| Control Delay | 17.9 | 14.8 | 29.9 | 11.3 | 28.9 | 13.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 17.9 | 14.8 | 29.9 | 11.3 | 28.9 | 13.1 |
| Queue Length 50th (ft) | 8 | 8 | 27 | 64 | 15 | 110 |
| Queue Length 95th (ft) | 29 | 33 | 75 | 249 | 49 | 238 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 605 | 648 | 320 | 2392 | 312 | 2194 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.08 | 0.25 | 0.36 | 0.14 | 0.38 |
| Intersection Summary | | | | | | |

HCM 2010 Signalized Intersection Summary
25: Mooney Blvd & Ave 268

10 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 23 | 1 | 10 | 23 | 2 | 26 | 76 | 806 | 14 | 43 | 713 | 78 |
| Future Volume (veh/h) | 23 | 1 | 10 | 23 | 2 | 26 | 76 | 806 | 14 | 43 | 713 | 78 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 24 | 1 | 11 | 24 | 2 | 27 | 80 | 848 | 15 | 45 | 751 | 82 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 226 | 29 | 58 | 165 | 38 | 99 | 145 | 1496 | 26 | 100 | 1268 | 138 |
| Arrive On Green | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.08 | 0.42 | 0.42 | 0.06 | 0.40 | 0.40 |
| Sat Flow, veh/h | 821 | 230 | 463 | 458 | 309 | 796 | 1774 | 3558 | 63 | 1774 | 3211 | 350 |
| Grp Volume(v), veh/h | 36 | 0 | 0 | 53 | 0 | 0 | 80 | 422 | 441 | 45 | 414 | 419 |
| Grp Sat Flow(s),veh/h/ln | 1514 | 0 | 0 | 1563 | 0 | 0 | 1774 | 1770 | 1852 | 1774 | 1770 | 1792 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.1 | 8.8 | 8.8 | 1.2 | 8.9 | 8.9 |
| Cycle Q Clear(g_c), s | 0.9 | 0.0 | 0.0 | 1.4 | 0.0 | 0.0 | 2.1 | 8.8 | 8.8 | 1.2 | 8.9 | 8.9 |
| Prop In Lane | 0.67 | | 0.31 | 0.45 | | 0.51 | 1.00 | | 0.03 | 1.00 | | 0.20 |
| Lane Grp Cap(c), veh/h | 312 | 0 | 0 | 303 | 0 | 0 | 145 | 744 | 778 | 100 | 699 | 708 |
| V/C Ratio(X) | 0.12 | 0.00 | 0.00 | 0.18 | 0.00 | 0.00 | 0.55 | 0.57 | 0.57 | 0.45 | 0.59 | 0.59 |
| Avail Cap(c_a), veh/h | 790 | 0 | 0 | 799 | 0 | 0 | 334 | 903 | 945 | 326 | 896 | 907 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.9 | 0.0 | 0.0 | 19.1 | 0.0 | 0.0 | 21.4 | 10.7 | 10.7 | 22.1 | 11.6 | 11.6 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 1.2 | 2.9 | 2.8 | 1.2 | 3.4 | 3.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 1.1 | 4.8 | 5.0 | 0.6 | 4.9 | 5.0 |
| LnGrp Delay(d),s/veh | 19.2 | 0.0 | 0.0 | 19.6 | 0.0 | 0.0 | 22.6 | 13.6 | 13.5 | 23.3 | 15.0 | 14.9 |
| LnGrp LOS | B | | | B | | | C | B | B | C | B | B |
| Approach Vol, veh/h | | 36 | | | 53 | | | 943 | | | 878 | |
| Approach Delay, s/veh | | 19.2 | | | 19.6 | | | 14.3 | | | 15.4 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.4 | 28.2 | | 11.7 | 9.7 | 27.0 | | 11.7 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 8.9 | 24.7 | | * 22 | * 9.1 | 24.5 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.2 | 10.8 | | 2.9 | 4.1 | 10.9 | | 3.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.6 | | 0.2 | 0.0 | 8.2 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 15.0 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.2 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↔ |
| Traffic Vol, veh/h | 292 | 81 | 0 | 387 | 0 | 12 |
| Future Vol, veh/h | 292 | 81 | 0 | 387 | 0 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 317 | 88 | 0 | 421 | 0 | 13 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | - | 361 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 684 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 684 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 10.4 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 684 | - | - | - |
| HCM Lane V/C Ratio | 0.019 | - | - | - |
| HCM Control Delay (s) | 10.4 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | | ↖ | | | ↖ |
| Traffic Vol, veh/h | 10 | 233 | 61 | 62 | 372 | 7 | 0 | 0 | 12 | 0 | 0 | 18 |
| Future Vol, veh/h | 10 | 233 | 61 | 62 | 372 | 7 | 0 | 0 | 12 | 0 | 0 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | - | 150 | - | - | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 11 | 253 | 66 | 67 | 404 | 8 | 0 | 0 | 13 | 0 | 0 | 20 |

| Major/Minor | Major1 | | Major2 | | Minor1 | | Minor2 | | | | | |
|----------------------|--------|---|--------|-------|--------|---|--------|---|-------|---|---|-------|
| Conflicting Flow All | 412 | 0 | 0 | 319 | 0 | 0 | - | - | 286 | - | - | 408 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | - | - | 6.22 | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | - | - | 3.318 | - | - | 3.318 |
| Pot Cap-1 Maneuver | 1147 | - | - | 1241 | - | - | 0 | 0 | 753 | 0 | 0 | 643 |
| Stage 1 | - | - | - | - | - | - | 0 | 0 | - | 0 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 0 | 0 | - | 0 | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1147 | - | - | 1241 | - | - | - | - | 753 | - | - | 643 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|-----|--|-----|--|-----|--|------|--|
| HCM Control Delay, s | 0.3 | | 1.1 | | 9.9 | | 10.8 | |
| HCM LOS | | | | | A | | B | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 753 | 1147 | - | - | 1241 | - | - | 643 |
| HCM Lane V/C Ratio | 0.017 | 0.009 | - | - | 0.054 | - | - | 0.03 |
| HCM Control Delay (s) | 9.9 | 8.2 | - | - | 8.1 | - | - | 10.8 |
| HCM Lane LOS | A | A | - | - | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0.2 | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.4 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 248 | 0 | 0 | 479 | 0 | 29 |
| Future Vol, veh/h | 248 | 0 | 0 | 479 | 0 | 29 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 270 | 0 | 0 | 521 | 0 | 32 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | - | 270 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 769 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 769 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0 | 0 | 9.9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 769 | - | - | - |
| HCM Lane V/C Ratio | 0.041 | - | - | - |
| HCM Control Delay (s) | 9.9 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.2 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | ↔ |
| Traffic Vol, veh/h | 119 | 158 | 421 | 3 | 0 | 58 |
| Future Vol, veh/h | 119 | 158 | 421 | 3 | 0 | 58 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 129 | 172 | 458 | 3 | 0 | 63 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|-------|-------|
| Conflicting Flow All | 461 | 0 | 0 | 890 | 460 |
| Stage 1 | - | - | - | 460 | - |
| Stage 2 | - | - | - | 430 | - |
| Critical Hdwy | 4.12 | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1100 | - | - | 313 | 601 |
| Stage 1 | - | - | - | 636 | - |
| Stage 2 | - | - | - | 656 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1100 | - | - | 272 | 601 |
| Mov Cap-2 Maneuver | - | - | - | 272 | - |
| Stage 1 | - | - | - | 553 | - |
| Stage 2 | - | - | - | 656 | - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 3.7 | 0 | 11.7 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1100 | - | - | - | - | 601 |
| HCM Lane V/C Ratio | 0.118 | - | - | - | - | 0.105 |
| HCM Control Delay (s) | 8.7 | 0 | - | - | 0 | 11.7 |
| HCM Lane LOS | A | A | - | - | A | B |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | - | 0.3 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.9 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | | ↕↔ | | | ↕↕ | ↗ |
| Traffic Vol, veh/h | 0 | 0 | 66 | 0 | 0 | 76 | 0 | 865 | 30 | 0 | 699 | 126 |
| Future Vol, veh/h | 0 | 0 | 66 | 0 | 0 | 76 | 0 | 865 | 30 | 0 | 699 | 126 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | - | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 72 | 0 | 0 | 83 | 0 | 940 | 33 | 0 | 760 | 137 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | |
|----------------------|--------|---|--------|---|--------|------|--------|---|
| Conflicting Flow All | - | - | 380 | - | - | 487 | - | 0 |
| Stage 1 | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 618 | 0 | 0 | 526 | 0 | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | 0 | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 618 | - | - | 526 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|------|--|----|--|----|--|
| HCM Control Delay, s | 11.6 | | 13.1 | | 0 | | 0 | |
| HCM LOS | B | | B | | | | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1WBLn1 | SBT | SBR |
|-----------------------|-----|-----|------------|-------|-----|
| Capacity (veh/h) | - | - | 618 | 526 | - |
| HCM Lane V/C Ratio | - | - | 0.116 | 0.157 | - |
| HCM Control Delay (s) | - | - | 11.6 | 13.1 | - |
| HCM Lane LOS | - | - | B | B | - |
| HCM 95th %tile Q(veh) | - | - | 0.4 | 0.6 | - |

HCM 2010 TWSC
 31: Mooney Blvd & Visalia Commons Dwy 2/West Access Dwy 2

10 Year plus Project
 Timing Plan: A.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | ↗ | ↕ | | ↗ | ↕ | ↗ |
| Traffic Vol, veh/h | 0 | 0 | 87 | 0 | 0 | 63 | 171 | 765 | 31 | 58 | 609 | 98 |
| Future Vol, veh/h | 0 | 0 | 87 | 0 | 0 | 63 | 171 | 765 | 31 | 58 | 609 | 98 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | 150 | - | - | 150 | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 95 | 0 | 0 | 68 | 186 | 832 | 34 | 63 | 662 | 107 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|---|--------|---|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | - | - | 331 | - | - | 433 | 769 | 0 | 0 | 866 | 0 | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 665 | 0 | 0 | 571 | 841 | - | - | 773 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 665 | - | - | 571 | 841 | - | - | 773 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | | | |
|----------------------|------|--|------|--|-----|--|-----|--|--|--|
| HCM Control Delay, s | 11.3 | | 12.2 | | 1.9 | | 0.8 | | | |
| HCM LOS | B | | B | | | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 841 | - | - | 665 | 571 | 773 | - | - |
| HCM Lane V/C Ratio | 0.221 | - | - | 0.142 | 0.12 | 0.082 | - | - |
| HCM Control Delay (s) | 10.5 | - | - | 11.3 | 12.2 | 10.1 | - | - |
| HCM Lane LOS | B | - | - | B | B | B | - | - |
| HCM 95th %tile Q(veh) | 0.8 | - | - | 0.5 | 0.4 | 0.3 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 43 | 57 | 117 | 0 | 0 | 67 |
| Future Vol, veh/h | 43 | 57 | 117 | 0 | 0 | 67 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 47 | 62 | 127 | 0 | 0 | 73 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|-------|-------|
| Conflicting Flow All | 127 | 0 | 0 | 283 | 127 |
| Stage 1 | - | - | - | 127 | - |
| Stage 2 | - | - | - | 156 | - |
| Critical Hdwy | 4.12 | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1459 | - | - | 707 | 923 |
| Stage 1 | - | - | - | 899 | - |
| Stage 2 | - | - | - | 872 | - |
| Platoon blocked, % | | - | - | | |
| Mov Cap-1 Maneuver | 1459 | - | - | 684 | 923 |
| Mov Cap-2 Maneuver | - | - | - | 684 | - |
| Stage 1 | - | - | - | 869 | - |
| Stage 2 | - | - | - | 872 | - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 3.2 | 0 | 9.2 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1459 | - | - | - | 923 |
| HCM Lane V/C Ratio | 0.032 | - | - | - | 0.079 |
| HCM Control Delay (s) | 7.5 | 0 | - | - | 9.2 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 33 | 24 | 66 | 0 | 0 | 51 |
| Future Vol, veh/h | 33 | 24 | 66 | 0 | 0 | 51 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 36 | 26 | 72 | 0 | 0 | 55 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 72 | 0 | - | 0 | 170 72 |
| Stage 1 | - | - | - | - | 72 - |
| Stage 2 | - | - | - | - | 98 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1528 | - | - | - | 820 990 |
| Stage 1 | - | - | - | - | 951 - |
| Stage 2 | - | - | - | - | 926 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1528 | - | - | - | 800 990 |
| Mov Cap-2 Maneuver | - | - | - | - | 800 - |
| Stage 1 | - | - | - | - | 928 - |
| Stage 2 | - | - | - | - | 926 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 4.3 | 0 | 8.9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1528 | - | - | - | 990 |
| HCM Lane V/C Ratio | 0.023 | - | - | - | 0.056 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 8.9 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 14 | 10 | 37 | 0 | 0 | 29 |
| Future Vol, veh/h | 14 | 10 | 37 | 0 | 0 | 29 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 15 | 11 | 40 | 0 | 0 | 32 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 40 | 0 | - | 0 | 81 |
| Stage 1 | - | - | - | - | 40 |
| Stage 2 | - | - | - | - | 41 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1570 | - | - | - | 921 |
| Stage 1 | - | - | - | - | 982 |
| Stage 2 | - | - | - | - | 981 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1570 | - | - | - | 912 |
| Mov Cap-2 Maneuver | - | - | - | - | 912 |
| Stage 1 | - | - | - | - | 972 |
| Stage 2 | - | - | - | - | 981 |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 4.3 | 0 | 8.6 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1570 | - | - | - | 1031 |
| HCM Lane V/C Ratio | 0.01 | - | - | - | 0.031 |
| HCM Control Delay (s) | 7.3 | 0 | - | - | 8.6 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 10 | 19 | 0 | 0 | 18 |
| Future Vol, veh/h | 0 | 10 | 19 | 0 | 0 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 21 | 0 | 0 | 20 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 21 | 0 | - | 0 | 32 21 |
| Stage 1 | - | - | - | - | 21 - |
| Stage 2 | - | - | - | - | 11 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1595 | - | - | - | 982 1056 |
| Stage 1 | - | - | - | - | 1002 - |
| Stage 2 | - | - | - | - | 1012 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1595 | - | - | - | 982 1056 |
| Mov Cap-2 Maneuver | - | - | - | - | 982 - |
| Stage 1 | - | - | - | - | 1002 - |
| Stage 2 | - | - | - | - | 1012 - |

| Approach | EB | WB | SB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0 | 0 | 8.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1595 | - | - | - | 1056 |
| HCM Lane V/C Ratio | - | - | - | - | 0.019 |
| HCM Control Delay (s) | 0 | - | - | - | 8.5 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.4 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 29 | 18 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 29 | 18 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 32 | 20 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 8.6 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | 1045 | - | - |
| HCM Lane V/C Ratio | - | - | 0.049 | - | - |
| HCM Control Delay (s) | 0 | - | 8.6 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

Queues
1: Mooney Blvd & Whitendale Ave

10 Year plus Project
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 95 | 239 | 204 | 235 | 227 | 65 | 238 | 1074 | 236 | 113 | 1190 | 82 |
| v/c Ratio | 0.20 | 0.41 | 0.49 | 0.52 | 0.40 | 0.16 | 1.38 | 0.47 | 0.30 | 0.54 | 0.51 | 0.10 |
| Control Delay | 50.7 | 46.8 | 11.1 | 56.4 | 47.5 | 0.9 | 244.3 | 26.2 | 9.5 | 66.8 | 26.1 | 0.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.7 | 46.8 | 11.1 | 56.4 | 47.5 | 0.9 | 244.3 | 26.2 | 9.5 | 66.8 | 26.1 | 0.9 |
| Queue Length 50th (ft) | 35 | 96 | 14 | 92 | 92 | 0 | ~131 | 206 | 33 | 46 | 225 | 0 |
| Queue Length 95th (ft) | 66 | 103 | 64 | #165 | 98 | 0 | #217 | 318 | 111 | #89 | 362 | 6 |
| Internal Link Dist (ft) | | 1104 | | | 403 | | | 770 | | | 1028 | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 472 | 1330 | 701 | 448 | 1339 | 706 | 173 | 2278 | 789 | 209 | 2332 | 786 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | 0.18 | 0.29 | 0.52 | 0.17 | 0.09 | 1.38 | 0.47 | 0.30 | 0.54 | 0.51 | 0.10 |

























Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
1: Mooney Blvd & Whitendale Ave

10 Year plus Project
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 92 | 232 | 198 | 228 | 220 | 63 | 231 | 1042 | 229 | 110 | 1154 | 80 |
| Future Volume (veh/h) | 92 | 232 | 198 | 228 | 220 | 63 | 231 | 1042 | 229 | 110 | 1154 | 80 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 95 | 239 | 204 | 235 | 227 | 65 | 238 | 1074 | 236 | 113 | 1190 | 82 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 404 | 655 | 288 | 173 | 418 | 186 | 811 | 2662 | 819 | 163 | 1676 | 519 |
| Arrive On Green | 0.12 | 0.19 | 0.19 | 0.05 | 0.12 | 0.12 | 0.24 | 0.52 | 0.52 | 0.05 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3539 | 1555 | 3442 | 3539 | 1579 | 3442 | 5085 | 1564 | 3442 | 5085 | 1575 |
| Grp Volume(v), veh/h | 95 | 239 | 204 | 235 | 227 | 65 | 238 | 1074 | 236 | 113 | 1190 | 82 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1555 | 1721 | 1770 | 1579 | 1721 | 1695 | 1564 | 1721 | 1695 | 1575 |
| Q Serve(g_s), s | 3.1 | 7.4 | 15.4 | 6.3 | 7.6 | 4.0 | 7.1 | 15.9 | 7.3 | 4.0 | 25.6 | 4.6 |
| Cycle Q Clear(g_c), s | 3.1 | 7.4 | 15.4 | 6.3 | 7.6 | 4.0 | 7.1 | 15.9 | 7.3 | 4.0 | 25.6 | 4.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 404 | 655 | 288 | 173 | 418 | 186 | 811 | 2662 | 819 | 163 | 1676 | 519 |
| V/C Ratio(X) | 0.24 | 0.36 | 0.71 | 1.35 | 0.54 | 0.35 | 0.29 | 0.40 | 0.29 | 0.69 | 0.71 | 0.16 |
| Avail Cap(c_a), veh/h | 404 | 1331 | 585 | 173 | 1339 | 598 | 811 | 2662 | 819 | 165 | 1676 | 519 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.78 | 0.78 | 0.78 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 50.1 | 44.5 | 47.8 | 59.4 | 51.9 | 35.5 | 39.2 | 18.0 | 8.0 | 58.6 | 36.7 | 29.6 |
| Incr Delay (d2), s/veh | 0.1 | 0.7 | 6.1 | 192.5 | 2.1 | 2.2 | 0.1 | 0.4 | 0.7 | 9.7 | 2.6 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.5 | 3.7 | 7.1 | 7.6 | 3.8 | 2.1 | 3.4 | 7.5 | 4.0 | 2.2 | 12.4 | 2.1 |
| LnGrp Delay(d),s/veh | 50.2 | 45.2 | 53.9 | 251.9 | 54.1 | 37.6 | 39.3 | 18.3 | 8.7 | 68.4 | 39.2 | 30.3 |
| LnGrp LOS | D | D | D | F | D | D | D | B | A | E | D | C |
| Approach Vol, veh/h | | 538 | | | 527 | | | 1548 | | | 1385 | |
| Approach Delay, s/veh | | 49.4 | | | 140.3 | | | 20.1 | | | 41.1 | |
| Approach LOS | | D | | | F | | | C | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.6 | 71.8 | 12.0 | 29.5 | 35.9 | 47.6 | 20.4 | 21.2 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 41.5 | 6.3 | * 47 | 6.3 | * 41 | 6.0 | * 47 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.0 | 17.9 | 8.3 | 17.4 | 9.1 | 27.6 | 5.1 | 9.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 14.2 | 0.0 | 4.3 | 0.0 | 9.6 | 0.0 | 3.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 47.1 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave

10 Year plus Project
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 140 | 259 | 1 | 211 | 99 | 23 | 114 | 16 | 197 |
| v/c Ratio | 0.23 | 0.23 | 0.00 | 0.27 | 0.13 | 0.04 | 0.23 | 0.02 | 0.28 |
| Control Delay | 20.5 | 8.9 | 23.0 | 16.0 | 2.0 | 14.5 | 17.1 | 14.9 | 4.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.5 | 8.9 | 23.0 | 16.0 | 2.0 | 14.5 | 17.1 | 14.9 | 4.5 |
| Queue Length 50th (ft) | 32 | 30 | 0 | 44 | 0 | 4 | 24 | 3 | 0 |
| Queue Length 95th (ft) | 93 | 116 | 4 | 111 | 15 | 20 | 69 | 16 | 40 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 679 | 1283 | 422 | 1151 | 1033 | 1032 | 854 | 1151 | 1053 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.21 | 0.20 | 0.00 | 0.18 | 0.10 | 0.02 | 0.13 | 0.01 | 0.19 |

Intersection Summary

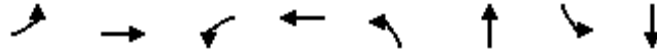
HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

10 Year plus Project
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 129 | 227 | 11 | 1 | 194 | 91 | 7 | 12 | 2 | 105 | 15 | 181 |
| Future Volume (veh/h) | 129 | 227 | 11 | 1 | 194 | 91 | 7 | 12 | 2 | 105 | 15 | 181 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 140 | 247 | 12 | 1 | 211 | 99 | 8 | 13 | 2 | 114 | 16 | 197 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 223 | 689 | 33 | 5 | 496 | 422 | 205 | 255 | 31 | 506 | 403 | 343 |
| Arrive On Green | 0.13 | 0.39 | 0.39 | 0.00 | 0.27 | 0.27 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1774 | 1762 | 86 | 1774 | 1863 | 1583 | 322 | 1179 | 143 | 1393 | 1863 | 1583 |
| Grp Volume(v), veh/h | 140 | 0 | 259 | 1 | 211 | 99 | 23 | 0 | 0 | 114 | 16 | 197 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1848 | 1774 | 1863 | 1583 | 1644 | 0 | 0 | 1393 | 1863 | 1583 |
| Q Serve(g_s), s | 2.7 | 0.0 | 3.6 | 0.0 | 3.4 | 1.8 | 0.0 | 0.0 | 0.0 | 2.0 | 0.2 | 4.0 |
| Cycle Q Clear(g_c), s | 2.7 | 0.0 | 3.6 | 0.0 | 3.4 | 1.8 | 0.4 | 0.0 | 0.0 | 2.4 | 0.2 | 4.0 |
| Prop In Lane | 1.00 | | 0.05 | 1.00 | | 1.00 | 0.35 | | 0.09 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 223 | 0 | 722 | 5 | 496 | 422 | 492 | 0 | 0 | 506 | 403 | 343 |
| V/C Ratio(X) | 0.63 | 0.00 | 0.36 | 0.20 | 0.43 | 0.23 | 0.05 | 0.00 | 0.00 | 0.23 | 0.04 | 0.57 |
| Avail Cap(c_a), veh/h | 545 | 0 | 1522 | 322 | 1301 | 1106 | 1224 | 0 | 0 | 1177 | 1301 | 1106 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.8 | 0.0 | 7.7 | 17.8 | 10.9 | 10.3 | 11.1 | 0.0 | 0.0 | 11.9 | 11.1 | 12.5 |
| Incr Delay (d2), s/veh | 1.1 | 0.0 | 0.5 | 7.2 | 1.0 | 0.5 | 0.1 | 0.0 | 0.0 | 0.4 | 0.1 | 2.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 0.0 | 1.9 | 0.0 | 1.8 | 0.8 | 0.2 | 0.0 | 0.0 | 1.0 | 0.1 | 1.9 |
| LnGrp Delay(d),s/veh | 15.9 | 0.0 | 8.2 | 25.1 | 11.9 | 10.8 | 11.2 | 0.0 | 0.0 | 12.3 | 11.2 | 15.1 |
| LnGrp LOS | B | | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 399 | | | 311 | | | 23 | | | 327 | |
| Approach Delay, s/veh | | 10.9 | | | 11.5 | | | 11.2 | | | 13.9 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.1 | 19.0 | | 12.8 | 8.5 | 14.5 | | 12.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 29.5 | | 25.0 | 11.0 | 25.0 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 5.6 | | 2.4 | 4.7 | 5.4 | | 6.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.3 | | 0.1 | 0.1 | 2.3 | | 1.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.1 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave

10 Year plus Project
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 124 | 58 | 18 | 128 | 63 | 1396 | 78 | 1646 |
| v/c Ratio | 0.48 | 0.16 | 0.10 | 0.51 | 0.59 | 0.59 | 0.47 | 0.66 |
| Control Delay | 46.1 | 15.2 | 38.7 | 15.8 | 69.3 | 22.5 | 51.7 | 21.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 46.1 | 15.2 | 38.7 | 15.8 | 69.3 | 22.5 | 51.7 | 21.1 |
| Queue Length 50th (ft) | 74 | 2 | 11 | 1 | 40 | 239 | 48 | 281 |
| Queue Length 95th (ft) | 130 | 41 | 29 | 55 | #99 | 334 | 92 | 370 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 257 | 648 | 178 | 681 | 106 | 2351 | 165 | 2508 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.48 | 0.09 | 0.10 | 0.19 | 0.59 | 0.59 | 0.47 | 0.66 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 3: Mooney Blvd & Sunnyside Ave

10 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 115 | 5 | 49 | 17 | 2 | 117 | 59 | 1280 | 19 | 73 | 1461 | 70 |
| Future Volume (veh/h) | 115 | 5 | 49 | 17 | 2 | 117 | 59 | 1280 | 19 | 73 | 1461 | 70 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.96 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 124 | 5 | 53 | 18 | 2 | 126 | 63 | 1376 | 20 | 78 | 1571 | 75 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 112 | 11 | 117 | 156 | 3 | 164 | 582 | 2793 | 41 | 100 | 1300 | 62 |
| Arrive On Green | 0.06 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.33 | 0.54 | 0.54 | 0.06 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 138 | 1466 | 1774 | 25 | 1562 | 1774 | 5162 | 75 | 1774 | 4963 | 237 |
| Grp Volume(v), veh/h | 124 | 0 | 58 | 18 | 0 | 128 | 63 | 904 | 492 | 78 | 1073 | 573 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1604 | 1774 | 0 | 1587 | 1774 | 1695 | 1847 | 1774 | 1695 | 1810 |
| Q Serve(g_s), s | 6.3 | 0.0 | 3.5 | 0.9 | 0.0 | 7.9 | 2.5 | 16.7 | 16.7 | 4.3 | 26.2 | 26.2 |
| Cycle Q Clear(g_c), s | 6.3 | 0.0 | 3.5 | 0.9 | 0.0 | 7.9 | 2.5 | 16.7 | 16.7 | 4.3 | 26.2 | 26.2 |
| Prop In Lane | 1.00 | | 0.91 | 1.00 | | 0.98 | 1.00 | | 0.04 | 1.00 | | 0.13 |
| Lane Grp Cap(c), veh/h | 112 | 0 | 128 | 156 | 0 | 166 | 582 | 1834 | 999 | 100 | 888 | 474 |
| V/C Ratio(X) | 1.11 | 0.00 | 0.45 | 0.12 | 0.00 | 0.77 | 0.11 | 0.49 | 0.49 | 0.78 | 1.21 | 1.21 |
| Avail Cap(c_a), veh/h | 112 | 0 | 614 | 156 | 0 | 603 | 582 | 1834 | 999 | 108 | 888 | 474 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.82 | 0.82 | 0.82 | 0.85 | 0.85 | 0.85 |
| Uniform Delay (d), s/veh | 46.8 | 0.0 | 43.9 | 42.0 | 0.0 | 43.6 | 23.4 | 14.4 | 14.4 | 46.6 | 36.9 | 36.9 |
| Incr Delay (d2), s/veh | 117.6 | 0.0 | 1.8 | 0.1 | 0.0 | 5.5 | 0.0 | 0.8 | 1.4 | 22.0 | 102.7 | 109.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.7 | 0.0 | 1.6 | 0.5 | 0.0 | 3.7 | 1.2 | 8.0 | 8.9 | 2.7 | 24.9 | 27.5 |
| LnGrp Delay(d),s/veh | 164.5 | 0.0 | 45.8 | 42.1 | 0.0 | 49.1 | 23.4 | 15.1 | 15.8 | 68.6 | 139.6 | 146.7 |
| LnGrp LOS | F | | D | D | | D | C | B | B | E | F | F |
| Approach Vol, veh/h | | 182 | | | 146 | | | 1459 | | | 1724 | |
| Approach Delay, s/veh | | 126.6 | | | 48.2 | | | 15.7 | | | 138.7 | |
| Approach LOS | | F | | | D | | | B | | | F | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.3 | 60.5 | 14.5 | 13.7 | 39.2 | 32.6 | 12.0 | 16.2 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | 6.4 | * 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 6.1 | 26.1 | * 6 | * 38 | 6.0 | * 26 | * 6.3 | * 38 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.3 | 18.7 | 2.9 | 5.5 | 4.5 | 28.2 | 8.3 | 9.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 83.2 | | | | | | | | | |
| HCM 2010 LOS | | | F | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave

10 Year plus Project
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 20 | 41 | 66 | 91 | 71 | 1235 | 54 | 176 | 1457 | 40 |
| v/c Ratio | 0.17 | 0.16 | 0.50 | 0.27 | 0.36 | 0.55 | 0.07 | 0.52 | 0.47 | 0.04 |
| Control Delay | 49.8 | 11.1 | 60.8 | 10.2 | 53.1 | 25.6 | 0.2 | 48.1 | 18.6 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.8 | 11.1 | 60.8 | 10.2 | 53.1 | 25.6 | 0.2 | 48.1 | 18.6 | 0.1 |
| Queue Length 50th (ft) | 13 | 1 | 43 | 5 | 24 | 227 | 0 | 107 | 210 | 0 |
| Queue Length 95th (ft) | 38 | 22 | #112 | 35 | 47 | #390 | 0 | #314 | #507 | 0 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 115 | 651 | 132 | 685 | 196 | 2237 | 762 | 341 | 3102 | 1010 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.17 | 0.06 | 0.50 | 0.13 | 0.36 | 0.55 | 0.07 | 0.52 | 0.47 | 0.04 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

10 Year plus Project
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 19 | 2 | 37 | 62 | 9 | 76 | 67 | 1161 | 51 | 165 | 1370 | 38 |
| Future Volume (veh/h) | 19 | 2 | 37 | 62 | 9 | 76 | 67 | 1161 | 51 | 165 | 1370 | 38 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 0.98 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 20 | 2 | 39 | 66 | 10 | 81 | 71 | 1235 | 54 | 176 | 1457 | 40 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 85 | 9 | 173 | 87 | 21 | 167 | 1180 | 2799 | 851 | 101 | 1312 | 406 |
| Arrive On Green | 0.05 | 0.12 | 0.12 | 0.05 | 0.12 | 0.12 | 0.34 | 0.55 | 0.55 | 0.06 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 77 | 1495 | 1774 | 176 | 1423 | 3442 | 5085 | 1546 | 1774 | 5085 | 1574 |
| Grp Volume(v), veh/h | 20 | 0 | 41 | 66 | 0 | 91 | 71 | 1235 | 54 | 176 | 1457 | 40 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1571 | 1774 | 0 | 1599 | 1721 | 1695 | 1546 | 1774 | 1695 | 1574 |
| Q Serve(g_s), s | 1.1 | 0.0 | 2.5 | 3.9 | 0.0 | 5.6 | 1.5 | 15.1 | 1.1 | 6.0 | 27.1 | 2.0 |
| Cycle Q Clear(g_c), s | 1.1 | 0.0 | 2.5 | 3.9 | 0.0 | 5.6 | 1.5 | 15.1 | 1.1 | 6.0 | 27.1 | 2.0 |
| Prop In Lane | 1.00 | | 0.95 | 1.00 | | 0.89 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 85 | 0 | 182 | 87 | 0 | 187 | 1180 | 2799 | 851 | 101 | 1312 | 406 |
| V/C Ratio(X) | 0.24 | 0.00 | 0.22 | 0.76 | 0.00 | 0.49 | 0.06 | 0.44 | 0.06 | 1.74 | 1.11 | 0.10 |
| Avail Cap(c_a), veh/h | 101 | 0 | 629 | 101 | 0 | 639 | 1180 | 2799 | 851 | 101 | 1312 | 406 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.80 | 0.80 | 0.80 | 0.71 | 0.71 | 0.71 |
| Uniform Delay (d), s/veh | 48.2 | 0.0 | 42.1 | 49.3 | 0.0 | 43.4 | 23.2 | 14.0 | 4.4 | 49.5 | 38.9 | 29.7 |
| Incr Delay (d2), s/veh | 0.5 | 0.0 | 0.2 | 20.1 | 0.0 | 1.4 | 0.0 | 0.4 | 0.1 | 358.8 | 58.0 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.0 | 1.1 | 2.4 | 0.0 | 2.6 | 0.7 | 7.2 | 0.7 | 13.0 | 19.7 | 0.9 |
| LnGrp Delay(d),s/veh | 48.7 | 0.0 | 42.4 | 69.4 | 0.0 | 44.8 | 23.2 | 14.4 | 4.5 | 408.3 | 96.9 | 30.0 |
| LnGrp LOS | D | | D | E | | D | C | B | A | F | F | C |
| Approach Vol, veh/h | | 61 | | | 157 | | | 1360 | | | 1673 | |
| Approach Delay, s/veh | | 44.4 | | | 55.2 | | | 14.5 | | | 128.1 | |
| Approach LOS | | D | | | E | | | B | | | F | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.7 | 64.2 | 10.8 | 18.3 | 42.4 | 33.5 | 10.7 | 18.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 6 | 27.1 | 6.0 | * 42 | 6.0 | * 27 | 6.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.0 | 17.1 | 5.9 | 4.5 | 3.5 | 29.1 | 3.1 | 7.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.8 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 75.5 | | | | | | | | | |
| HCM 2010 LOS | | | E | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 7.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 29 | 1169 | 51 | 41 | 936 | 24 | 21 | 0 | 39 | 22 | 0 | 42 |
| Future Vol, veh/h | 29 | 1169 | 51 | 41 | 936 | 24 | 21 | 0 | 39 | 22 | 0 | 42 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 30 | 1218 | 53 | 43 | 975 | 25 | 22 | 0 | 41 | 23 | 0 | 44 |

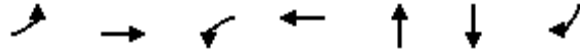
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 1005 | 0 | 0 | 1271 | 0 | 0 | 1879 | 2396 | 636 | 1748 | 2410 | 505 |
| Stage 1 | - | - | - | - | - | - | 1305 | 1305 | - | 1079 | 1079 | - |
| Stage 2 | - | - | - | - | - | - | 574 | 1091 | - | 669 | 1331 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 685 | - | - | 542 | - | - | 44 | 33 | 421 | 55 | 32 | 512 |
| Stage 1 | - | - | - | - | - | - | 169 | 228 | - | 233 | 293 | - |
| Stage 2 | - | - | - | - | - | - | 471 | 289 | - | 413 | 222 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 682 | - | - | 542 | - | - | 31 | 23 | 421 | 38 | 22 | 510 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 31 | 23 | - | 38 | 22 | - |
| Stage 1 | - | - | - | - | - | - | 143 | 193 | - | 196 | 239 | - |
| Stage 2 | - | - | - | - | - | - | 353 | 236 | - | 316 | 188 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|----|--|--|-----|--|--|-----|--|--|------|--|--|
| HCM Control Delay, s | 1 | | | 1.4 | | | 143 | | | 99.9 | | |
| HCM LOS | | | | | | | F | | | F | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 78 | 682 | - | - | 542 | - | - | 97 |
| HCM Lane V/C Ratio | 0.801 | 0.044 | - | - | 0.079 | - | - | 0.687 |
| HCM Control Delay (s) | 143 | 10.5 | 0.8 | - | 12.2 | 1 | - | 99.9 |
| HCM Lane LOS | F | B | A | - | B | A | - | F |
| HCM 95th %tile Q(veh) | 4 | 0.1 | - | - | 0.3 | - | - | 3.5 |

Queues
6: Shady St & Caldwell Ave

10 Year plus Project
Timing Plan: P.M. Peak






















| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 59 | 933 | 79 | 820 | 79 | 18 | 11 |
| v/c Ratio | 0.23 | 0.36 | 0.28 | 0.29 | 0.24 | 0.05 | 0.03 |
| Control Delay | 34.2 | 16.0 | 33.2 | 13.8 | 6.5 | 23.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.2 | 16.0 | 33.2 | 13.8 | 6.5 | 23.2 | 0.1 |
| Queue Length 50th (ft) | 17 | 65 | 23 | 54 | 0 | 5 | 0 |
| Queue Length 95th (ft) | 74 | 228 | 92 | 191 | 25 | 22 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 276 | 2668 | 357 | 2903 | 1097 | 1117 | 1021 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.21 | 0.35 | 0.22 | 0.28 | 0.07 | 0.02 | 0.01 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

10 Year plus Project
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 55 | 855 | 22 | 74 | 757 | 14 | 32 | 0 | 42 | 16 | 1 | 10 |
| Future Volume (veh/h) | 55 | 855 | 22 | 74 | 757 | 14 | 32 | 0 | 42 | 16 | 1 | 10 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 59 | 910 | 23 | 79 | 805 | 15 | 34 | 0 | 45 | 17 | 1 | 11 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 121 | 1931 | 49 | 144 | 2014 | 37 | 58 | 0 | 77 | 75 | 4 | 69 |
| Arrive On Green | 0.07 | 0.38 | 0.38 | 0.08 | 0.39 | 0.39 | 0.08 | 0.00 | 0.08 | 0.04 | 0.04 | 0.04 |
| Sat Flow, veh/h | 1774 | 5097 | 129 | 1774 | 5137 | 96 | 714 | 0 | 946 | 1680 | 99 | 1558 |
| Grp Volume(v), veh/h | 59 | 605 | 328 | 79 | 531 | 289 | 79 | 0 | 0 | 18 | 0 | 11 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1836 | 1774 | 1695 | 1843 | 1660 | 0 | 0 | 1779 | 0 | 1558 |
| Q Serve(g_s), s | 1.5 | 6.5 | 6.5 | 2.1 | 5.4 | 5.5 | 2.2 | 0.0 | 0.0 | 0.5 | 0.0 | 0.3 |
| Cycle Q Clear(g_c), s | 1.5 | 6.5 | 6.5 | 2.1 | 5.4 | 5.5 | 2.2 | 0.0 | 0.0 | 0.5 | 0.0 | 0.3 |
| Prop In Lane | 1.00 | | 0.07 | 1.00 | | 0.05 | 0.43 | | 0.57 | 0.94 | | 1.00 |
| Lane Grp Cap(c), veh/h | 121 | 1284 | 695 | 144 | 1329 | 723 | 135 | 0 | 0 | 79 | 0 | 69 |
| V/C Ratio(X) | 0.49 | 0.47 | 0.47 | 0.55 | 0.40 | 0.40 | 0.59 | 0.00 | 0.00 | 0.23 | 0.00 | 0.16 |
| Avail Cap(c_a), veh/h | 250 | 1770 | 958 | 323 | 1910 | 1038 | 1135 | 0 | 0 | 1216 | 0 | 1065 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.7 | 11.3 | 11.3 | 21.3 | 10.6 | 10.6 | 21.4 | 0.0 | 0.0 | 22.3 | 0.0 | 22.2 |
| Incr Delay (d2), s/veh | 1.1 | 0.7 | 1.4 | 1.2 | 0.5 | 1.0 | 3.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 3.2 | 3.5 | 1.1 | 2.6 | 2.9 | 1.1 | 0.0 | 0.0 | 0.3 | 0.0 | 0.2 |
| LnGrp Delay(d),s/veh | 22.8 | 12.1 | 12.7 | 22.5 | 11.1 | 11.6 | 24.4 | 0.0 | 0.0 | 23.3 | 0.0 | 23.0 |
| LnGrp LOS | C | B | B | C | B | B | C | | | C | | C |
| Approach Vol, veh/h | | 992 | | | 899 | | | 79 | | | | 29 |
| Approach Delay, s/veh | | 12.9 | | | 12.3 | | | 24.4 | | | | 23.2 |
| Approach LOS | | B | | | B | | | C | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.9 | 24.3 | | 7.1 | 7.3 | 24.9 | | 8.9 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 8.8 | 25.2 | | 33.0 | 6.8 | 27.2 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.1 | 8.5 | | 2.5 | 3.5 | 7.5 | | 4.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.6 | | 0.1 | 0.0 | 9.5 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 13.2 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

10 Year plus Project
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 286 | 754 | 242 | 527 | 325 | 1062 | 133 | 184 | 1291 | 114 |
| v/c Ratio | 0.46 | 0.63 | 0.51 | 0.54 | 1.69 | 0.59 | 0.21 | 0.57 | 0.65 | 0.17 |
| Control Delay | 51.6 | 40.1 | 57.2 | 43.2 | 369.1 | 36.4 | 6.9 | 64.1 | 35.0 | 4.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.6 | 40.1 | 57.2 | 43.2 | 369.1 | 36.4 | 6.9 | 64.1 | 35.0 | 4.0 |
| Queue Length 50th (ft) | 111 | 184 | 99 | 135 | -206 | 263 | 5 | 77 | 313 | 0 |
| Queue Length 95th (ft) | #204 | 196 | #159 | 139 | #303 | 322 | 50 | #169 | 413 | 32 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 624 | 1879 | 476 | 1812 | 192 | 1785 | 628 | 321 | 1975 | 682 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.46 | 0.40 | 0.51 | 0.29 | 1.69 | 0.59 | 0.21 | 0.57 | 0.65 | 0.17 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

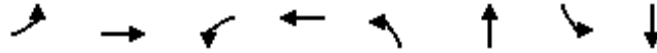
HCM 2010 Signalized Intersection Summary
 7: Mooney Blvd & Caldwell Ave

10 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 272 | 484 | 233 | 230 | 393 | 107 | 309 | 1009 | 126 | 175 | 1226 | 108 |
| Future Volume (veh/h) | 272 | 484 | 233 | 230 | 393 | 107 | 309 | 1009 | 126 | 175 | 1226 | 108 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 286 | 509 | 245 | 242 | 414 | 113 | 325 | 1062 | 133 | 184 | 1291 | 114 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 358 | 823 | 381 | 167 | 750 | 198 | 637 | 2412 | 749 | 167 | 1690 | 516 |
| Arrive On Green | 0.10 | 0.24 | 0.24 | 0.05 | 0.19 | 0.19 | 0.18 | 0.47 | 0.47 | 0.05 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3390 | 1570 | 3442 | 4007 | 1055 | 3442 | 5085 | 1580 | 3442 | 5085 | 1553 |
| Grp Volume(v), veh/h | 286 | 509 | 245 | 242 | 348 | 179 | 325 | 1062 | 133 | 184 | 1291 | 114 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1570 | 1721 | 1695 | 1673 | 1721 | 1695 | 1580 | 1721 | 1695 | 1553 |
| Q Serve(g_s), s | 10.6 | 17.4 | 18.2 | 6.3 | 12.1 | 12.7 | 11.0 | 18.0 | 4.6 | 6.3 | 29.5 | 6.9 |
| Cycle Q Clear(g_c), s | 10.6 | 17.4 | 18.2 | 6.3 | 12.1 | 12.7 | 11.0 | 18.0 | 4.6 | 6.3 | 29.5 | 6.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.63 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 358 | 823 | 381 | 167 | 635 | 313 | 637 | 2412 | 749 | 167 | 1690 | 516 |
| V/C Ratio(X) | 0.80 | 0.62 | 0.64 | 1.45 | 0.55 | 0.57 | 0.51 | 0.44 | 0.18 | 1.10 | 0.76 | 0.22 |
| Avail Cap(c_a), veh/h | 358 | 1278 | 592 | 167 | 1226 | 605 | 637 | 2412 | 749 | 167 | 1690 | 516 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.94 | 0.94 | 0.94 | 0.85 | 0.85 | 0.85 | 0.59 | 0.59 | 0.59 | 0.88 | 0.88 | 0.88 |
| Uniform Delay (d), s/veh | 56.9 | 43.9 | 44.2 | 61.8 | 47.8 | 48.1 | 47.7 | 22.7 | 10.5 | 61.8 | 38.8 | 31.3 |
| Incr Delay (d2), s/veh | 10.7 | 1.4 | 3.3 | 229.2 | 1.2 | 2.7 | 0.2 | 0.3 | 0.3 | 95.7 | 2.9 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.5 | 8.3 | 8.2 | 8.3 | 5.8 | 6.1 | 5.3 | 8.5 | 2.5 | 5.2 | 14.2 | 3.1 |
| LnGrp Delay(d),s/veh | 67.6 | 45.3 | 47.5 | 291.1 | 49.1 | 50.8 | 47.9 | 23.1 | 10.8 | 157.5 | 41.8 | 32.1 |
| LnGrp LOS | E | D | D | F | D | D | D | C | B | F | D | C |
| Approach Vol, veh/h | | 1040 | | | 769 | | | 1520 | | | 1589 | |
| Approach Delay, s/veh | | 51.9 | | | 125.6 | | | 27.3 | | | 54.5 | |
| Approach LOS | | D | | | F | | | C | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.0 | 68.0 | 12.0 | 38.0 | 30.4 | 49.6 | 19.2 | 30.7 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6.3 | 44.2 | 6.3 | * 49 | 7.3 | * 43 | 8.3 | * 47 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.3 | 20.0 | 8.3 | 20.2 | 13.0 | 31.5 | 12.6 | 14.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 14.6 | 0.0 | 9.3 | 0.0 | 9.4 | 0.0 | 6.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 56.7 | | | | | | | | | |
| HCM 2010 LOS | | | E | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St

10 Year plus Project
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 123 | 845 | 179 | 789 | 97 | 213 | 185 | 103 |
| v/c Ratio | 0.69 | 0.58 | 1.01 | 0.54 | 0.19 | 0.43 | 0.47 | 0.25 |
| Control Delay | 53.6 | 22.5 | 104.9 | 21.5 | 12.5 | 7.6 | 17.2 | 9.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.6 | 22.5 | 104.9 | 21.5 | 12.5 | 7.6 | 17.2 | 9.4 |
| Queue Length 50th (ft) | 45 | 90 | 67 | 80 | 23 | 9 | 47 | 9 |
| Queue Length 95th (ft) | #169 | 195 | #250 | 178 | 46 | 51 | 81 | 39 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 178 | 1487 | 178 | 1489 | 522 | 943 | 392 | 902 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.69 | 0.57 | 1.01 | 0.53 | 0.19 | 0.23 | 0.47 | 0.11 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

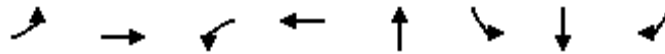
HCM 2010 Signalized Intersection Summary
8: Caldwell Ave & Fairway St

10 Year plus Project
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 117 | 709 | 94 | 170 | 633 | 117 | 92 | 27 | 176 | 176 | 27 | 71 |
| Future Volume (veh/h) | 117 | 709 | 94 | 170 | 633 | 117 | 92 | 27 | 176 | 176 | 27 | 71 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 123 | 746 | 99 | 179 | 666 | 123 | 97 | 28 | 185 | 185 | 28 | 75 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 158 | 1235 | 162 | 198 | 1276 | 233 | 491 | 42 | 278 | 406 | 100 | 268 |
| Arrive On Green | 0.09 | 0.27 | 0.27 | 0.11 | 0.30 | 0.30 | 0.08 | 0.20 | 0.20 | 0.11 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1774 | 4531 | 596 | 1774 | 4324 | 789 | 1774 | 212 | 1403 | 1774 | 443 | 1185 |
| Grp Volume(v), veh/h | 123 | 556 | 289 | 179 | 520 | 269 | 97 | 0 | 213 | 185 | 0 | 103 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1737 | 1774 | 1695 | 1722 | 1774 | 0 | 1615 | 1774 | 0 | 1628 |
| Q Serve(g_s), s | 4.0 | 8.3 | 8.5 | 5.8 | 7.5 | 7.6 | 2.4 | 0.0 | 7.1 | 4.6 | 0.0 | 3.1 |
| Cycle Q Clear(g_c), s | 4.0 | 8.3 | 8.5 | 5.8 | 7.5 | 7.6 | 2.4 | 0.0 | 7.1 | 4.6 | 0.0 | 3.1 |
| Prop In Lane | 1.00 | | 0.34 | 1.00 | | 0.46 | 1.00 | | 0.87 | 1.00 | | 0.73 |
| Lane Grp Cap(c), veh/h | 158 | 924 | 473 | 198 | 1001 | 508 | 491 | 0 | 320 | 406 | 0 | 368 |
| V/C Ratio(X) | 0.78 | 0.60 | 0.61 | 0.91 | 0.52 | 0.53 | 0.20 | 0.00 | 0.67 | 0.46 | 0.00 | 0.28 |
| Avail Cap(c_a), veh/h | 198 | 1103 | 565 | 198 | 1103 | 560 | 574 | 0 | 941 | 440 | 0 | 948 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.0 | 18.5 | 18.5 | 25.6 | 17.1 | 17.2 | 16.0 | 0.0 | 21.6 | 15.7 | 0.0 | 18.7 |
| Incr Delay (d2), s/veh | 11.2 | 1.8 | 3.5 | 38.2 | 1.2 | 2.3 | 0.4 | 0.0 | 6.4 | 1.7 | 0.0 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.4 | 4.1 | 4.5 | 4.9 | 3.6 | 3.9 | 1.2 | 0.0 | 3.7 | 2.4 | 0.0 | 1.5 |
| LnGrp Delay(d),s/veh | 37.2 | 20.2 | 22.0 | 63.8 | 18.3 | 19.5 | 16.5 | 0.0 | 28.0 | 17.4 | 0.0 | 19.8 |
| LnGrp LOS | D | C | C | E | B | B | B | | C | B | | B |
| Approach Vol, veh/h | | 968 | | | 968 | | | 310 | | | 288 | |
| Approach Delay, s/veh | | 22.9 | | | 27.1 | | | 24.4 | | | 18.3 | |
| Approach LOS | | C | | | C | | | C | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.5 | 21.9 | 9.4 | 16.6 | 9.2 | 23.2 | 7.8 | 18.2 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 19.0 | 7.5 | 34.0 | 6.5 | 19.0 | 7.5 | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.8 | 10.5 | 6.6 | 9.1 | 6.0 | 9.6 | 4.4 | 5.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.3 | 0.1 | 2.8 | 0.0 | 5.5 | 0.1 | 1.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 24.2 | | | | | | | | |
| HCM 2010 LOS | | | | C | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave

10 Year plus Project
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 77 | 1217 | 1 | 1021 | 19 | 38 | 1 | 51 |
| v/c Ratio | 0.33 | 0.45 | 0.00 | 0.42 | 0.07 | 0.12 | 0.00 | 0.12 |
| Control Delay | 29.0 | 6.9 | 25.0 | 9.3 | 21.8 | 22.7 | 21.0 | 3.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 29.0 | 6.9 | 25.0 | 9.3 | 21.8 | 22.7 | 21.0 | 3.1 |
| Queue Length 50th (ft) | 27 | 102 | 0 | 134 | 6 | 12 | 0 | 0 |
| Queue Length 95th (ft) | 64 | 245 | 5 | 195 | 22 | 35 | 4 | 12 |
| Internal Link Dist (ft) | | 1064 | | 2598 | 260 | | 519 | |
| Turn Bay Length (ft) | 235 | | 300 | | | | | 200 |
| Base Capacity (vph) | 246 | 2683 | 242 | 2418 | 989 | 1024 | 1333 | 1158 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.31 | 0.45 | 0.00 | 0.42 | 0.02 | 0.04 | 0.00 | 0.04 |

Intersection Summary

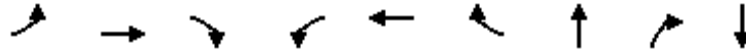
HCM 2010 Signalized Intersection Summary
 9: Stonebrook St & Caldwell Ave

10 Year plus Project
 Timing Plan: P.M. Peak

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 71 | 1112 | 7 | 1 | 903 | 36 | 16 | 1 | 1 | 35 | 1 | 47 |
| Future Volume (veh/h) | 71 | 1112 | 7 | 1 | 903 | 36 | 16 | 1 | 1 | 35 | 1 | 47 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 77 | 1209 | 8 | 1 | 982 | 39 | 17 | 1 | 1 | 38 | 1 | 51 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 139 | 1968 | 13 | 4 | 1627 | 65 | 320 | 19 | 11 | 365 | 289 | 246 |
| Arrive On Green | 0.08 | 0.55 | 0.55 | 0.00 | 0.47 | 0.47 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 |
| Sat Flow, veh/h | 1774 | 3604 | 24 | 1774 | 3467 | 138 | 1195 | 123 | 73 | 1409 | 1863 | 1583 |
| Grp Volume(v), veh/h | 77 | 594 | 623 | 1 | 501 | 520 | 19 | 0 | 0 | 38 | 1 | 51 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1858 | 1774 | 1770 | 1835 | 1391 | 0 | 0 | 1409 | 1863 | 1583 |
| Q Serve(g_s), s | 2.1 | 11.6 | 11.6 | 0.0 | 10.6 | 10.6 | 0.3 | 0.0 | 0.0 | 0.5 | 0.0 | 1.4 |
| Cycle Q Clear(g_c), s | 2.1 | 11.6 | 11.6 | 0.0 | 10.6 | 10.6 | 0.5 | 0.0 | 0.0 | 1.0 | 0.0 | 1.4 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 0.08 | 0.89 | | 0.05 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 139 | 966 | 1015 | 4 | 831 | 861 | 351 | 0 | 0 | 365 | 289 | 246 |
| V/C Ratio(X) | 0.55 | 0.61 | 0.61 | 0.28 | 0.60 | 0.60 | 0.05 | 0.00 | 0.00 | 0.10 | 0.00 | 0.21 |
| Avail Cap(c_a), veh/h | 232 | 1034 | 1085 | 228 | 1030 | 1068 | 1065 | 0 | 0 | 1095 | 1254 | 1066 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.4 | 7.8 | 7.8 | 25.2 | 9.9 | 9.9 | 18.2 | 0.0 | 0.0 | 18.4 | 18.0 | 18.6 |
| Incr Delay (d2), s/veh | 1.3 | 2.4 | 2.3 | 15.6 | 2.6 | 2.5 | 0.1 | 0.0 | 0.0 | 0.3 | 0.0 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.1 | 6.2 | 6.5 | 0.0 | 5.6 | 5.8 | 0.2 | 0.0 | 0.0 | 0.5 | 0.0 | 0.7 |
| LnGrp Delay(d),s/veh | 23.7 | 10.2 | 10.1 | 40.8 | 12.5 | 12.4 | 18.4 | 0.0 | 0.0 | 18.7 | 18.0 | 19.5 |
| LnGrp LOS | C | B | B | D | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 1294 | | | 1022 | | | 19 | | | 90 | |
| Approach Delay, s/veh | | 11.0 | | | 12.5 | | | 18.4 | | | 19.2 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.1 | 33.6 | | 12.8 | 8.0 | 29.7 | | 12.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 29.5 | | 34.0 | 6.6 | 29.4 | | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 13.6 | | 2.5 | 4.1 | 12.6 | | 3.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 12.4 | | 0.1 | 0.0 | 11.1 | | 0.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.0 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
10: West St & Caldwell Ave

10 Year plus Project
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 135 | 784 | 58 | 122 | 737 | 58 | 227 | 46 | 262 |
| v/c Ratio | 0.57 | 0.57 | 0.09 | 0.59 | 0.51 | 0.08 | 0.54 | 0.10 | 0.59 |
| Control Delay | 38.9 | 18.2 | 3.1 | 43.5 | 17.8 | 3.3 | 26.9 | 1.2 | 24.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.9 | 18.2 | 3.1 | 43.5 | 17.8 | 3.3 | 26.9 | 1.2 | 24.6 |
| Queue Length 50th (ft) | 52 | 123 | 0 | 49 | 120 | 0 | 83 | 0 | 82 |
| Queue Length 95th (ft) | #119 | 207 | 16 | #128 | 203 | 16 | 146 | 5 | 151 |
| Internal Link Dist (ft) | | 2598 | | | 1241 | | 400 | | 320 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 278 | 1587 | 752 | 222 | 1497 | 714 | 868 | 868 | 881 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.49 | 0.49 | 0.08 | 0.55 | 0.49 | 0.08 | 0.26 | 0.05 | 0.30 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
10: West St & Caldwell Ave

10 Year plus Project
Timing Plan: P.M. Peak

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 124 | 721 | 53 | 112 | 678 | 53 | 37 | 172 | 42 | 29 | 127 | 85 |
| Future Volume (veh/h) | 124 | 721 | 53 | 112 | 678 | 53 | 37 | 172 | 42 | 29 | 127 | 85 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 135 | 784 | 58 | 122 | 737 | 58 | 40 | 187 | 46 | 32 | 138 | 92 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 173 | 1370 | 613 | 165 | 1354 | 606 | 122 | 375 | 371 | 100 | 223 | 134 |
| Arrive On Green | 0.10 | 0.39 | 0.39 | 0.09 | 0.38 | 0.38 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1583 | 189 | 1600 | 1583 | 109 | 952 | 574 |
| Grp Volume(v), veh/h | 135 | 784 | 58 | 122 | 737 | 58 | 227 | 0 | 46 | 262 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1583 | 1789 | 0 | 1583 | 1635 | 0 | 0 |
| Q Serve(g_s), s | 4.0 | 9.5 | 1.3 | 3.6 | 8.8 | 1.3 | 0.0 | 0.0 | 1.2 | 2.2 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 4.0 | 9.5 | 1.3 | 3.6 | 8.8 | 1.3 | 5.8 | 0.0 | 1.2 | 7.9 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.18 | | 1.00 | 0.12 | | 0.35 |
| Lane Grp Cap(c), veh/h | 173 | 1370 | 613 | 165 | 1354 | 606 | 497 | 0 | 371 | 457 | 0 | 0 |
| V/C Ratio(X) | 0.78 | 0.57 | 0.09 | 0.74 | 0.54 | 0.10 | 0.46 | 0.00 | 0.12 | 0.57 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 327 | 1859 | 832 | 262 | 1728 | 773 | 1125 | 0 | 963 | 1069 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 23.9 | 13.1 | 10.6 | 24.0 | 13.1 | 10.7 | 18.1 | 0.0 | 16.4 | 18.8 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 2.9 | 1.4 | 0.2 | 2.4 | 1.2 | 0.2 | 1.4 | 0.0 | 0.3 | 2.4 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.1 | 4.8 | 0.6 | 1.9 | 4.5 | 0.6 | 3.2 | 0.0 | 0.6 | 3.9 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 26.8 | 14.5 | 10.8 | 26.4 | 14.3 | 11.0 | 19.5 | 0.0 | 16.7 | 21.2 | 0.0 | 0.0 |
| LnGrp LOS | C | B | B | C | B | B | B | | B | C | | |
| Approach Vol, veh/h | | 977 | | | 917 | | | 273 | | | 262 | |
| Approach Delay, s/veh | | 16.0 | | | 15.7 | | | 19.0 | | | 21.2 | |
| Approach LOS | | B | | | B | | | B | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.0 | 27.5 | | 17.7 | 9.3 | 27.3 | | 17.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 8.0 | 28.5 | | 33.0 | 10.0 | 26.5 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.6 | 11.5 | | 7.8 | 6.0 | 10.8 | | 9.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.5 | | 2.9 | 0.1 | 8.5 | | 2.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 16.8 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
 11: County Center Dr & Cameron Ave













10 Year plus Project
 Timing Plan: P.M. Peak



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 67 | 359 | 260 | 35 | 370 | 176 |
| v/c Ratio | 0.17 | 0.58 | 0.28 | 0.04 | 0.66 | 0.19 |
| Control Delay | 13.6 | 6.4 | 6.0 | 2.3 | 13.2 | 5.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.6 | 6.4 | 6.0 | 2.3 | 13.2 | 5.4 |
| Queue Length 50th (ft) | 9 | 0 | 20 | 0 | 37 | 13 |
| Queue Length 95th (ft) | 39 | 50 | 65 | 8 | 134 | 45 |
| Internal Link Dist (ft) | 1226 | | 772 | | | 355 |
| Turn Bay Length (ft) | | 100 | | 160 | 145 | |
| Base Capacity (vph) | 966 | 1009 | 1552 | 1297 | 929 | 1552 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.36 | 0.17 | 0.03 | 0.40 | 0.11 |
| Intersection Summary | | | | | | |

HCM 2010 Signalized Intersection Summary
 11: County Center Dr & Cameron Ave

10 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  | | |
|------------------------------|---|---|---|---|---|---|---|------|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT | | |
| Lane Configurations |  |  |  |  |  |  | | |
| Traffic Volume (veh/h) | 62 | 334 | 242 | 33 | 344 | 164 | | |
| Future Volume (veh/h) | 62 | 334 | 242 | 33 | 344 | 164 | | |
| Number | 3 | 18 | 2 | 12 | 1 | 6 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 0.98 | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 67 | 359 | 260 | 35 | 370 | 176 | | |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 500 | 446 | 914 | 761 | 623 | 914 | | |
| Arrive On Green | 0.28 | 0.28 | 0.49 | 0.49 | 0.49 | 0.49 | | |
| Sat Flow, veh/h | 1774 | 1583 | 1863 | 1550 | 1080 | 1863 | | |
| Grp Volume(v), veh/h | 67 | 359 | 260 | 35 | 370 | 176 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1583 | 1863 | 1550 | 1080 | 1863 | | |
| Q Serve(g_s), s | 1.1 | 8.3 | 3.3 | 0.5 | 12.2 | 2.1 | | |
| Cycle Q Clear(g_c), s | 1.1 | 8.3 | 3.3 | 0.5 | 15.5 | 2.1 | | |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 500 | 446 | 914 | 761 | 623 | 914 | | |
| V/C Ratio(X) | 0.13 | 0.80 | 0.28 | 0.05 | 0.59 | 0.19 | | |
| Avail Cap(c_a), veh/h | 811 | 724 | 1313 | 1093 | 854 | 1313 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 10.6 | 13.2 | 6.0 | 5.2 | 10.5 | 5.7 | | |
| Incr Delay (d2), s/veh | 0.1 | 3.5 | 0.2 | 0.0 | 0.9 | 0.1 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 0.6 | 4.0 | 1.7 | 0.2 | 3.8 | 1.1 | | |
| LnGrp Delay(d),s/veh | 10.7 | 16.7 | 6.1 | 5.3 | 11.5 | 5.8 | | |
| LnGrp LOS | B | B | A | A | B | A | | |
| Approach Vol, veh/h | 426 | | 295 | | | 546 | | |
| Approach Delay, s/veh | 15.7 | | 6.0 | | | 9.6 | | |
| Approach LOS | B | | A | | | A | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | | | 6 | | 8 |
| Phs Duration (G+Y+Rc), s | | 23.9 | | | | 23.9 | | 15.7 |
| Change Period (Y+Rc), s | | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | | 27.9 | | | | 27.9 | | 18.1 |
| Max Q Clear Time (g_c+I1), s | | 5.3 | | | | 17.5 | | 10.3 |
| Green Ext Time (p_c), s | | 1.5 | | | | 2.0 | | 0.9 |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 10.8 | | | | | |
| HCM 2010 LOS | | | B | | | | | |

Queues
12: Mooney Blvd & Cameron Ave

10 Year plus Project
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|-------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 198 | 333 | 147 | 399 | 66 | 1024 | 133 | 316 | 1150 | 160 |
| v/c Ratio | 0.57 | 0.31 | 1.26 | 0.53 | 0.35 | 0.77 | 0.24 | 0.62 | 0.60 | 0.22 |
| Control Delay | 49.9 | 27.9 | 210.1 | 18.1 | 74.0 | 62.6 | 14.8 | 51.4 | 30.9 | 2.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.9 | 27.9 | 210.1 | 18.1 | 74.0 | 62.6 | 14.8 | 51.4 | 30.9 | 2.1 |
| Queue Length 50th (ft) | 127 | 94 | ~130 | 58 | 22 | 250 | 28 | 107 | 230 | 0 |
| Queue Length 95th (ft) | #339 | 107 | #260 | 72 | m20 | m212 | m20 | #243 | #370 | 18 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 350 | 1427 | 117 | 1420 | 187 | 1324 | 561 | 507 | 1906 | 720 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.57 | 0.23 | 1.26 | 0.28 | 0.35 | 0.77 | 0.24 | 0.62 | 0.60 | 0.22 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

10 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 194 | 282 | 44 | 144 | 168 | 223 | 65 | 1004 | 130 | 310 | 1127 | 157 |
| Future Volume (veh/h) | 194 | 282 | 44 | 144 | 168 | 223 | 65 | 1004 | 130 | 310 | 1127 | 157 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 198 | 288 | 45 | 147 | 171 | 228 | 66 | 1024 | 133 | 316 | 1150 | 160 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 134 | 680 | 105 | 118 | 364 | 325 | 813 | 2167 | 673 | 228 | 1271 | 395 |
| Arrive On Green | 0.08 | 0.22 | 0.22 | 0.07 | 0.21 | 0.21 | 0.47 | 0.85 | 0.85 | 0.07 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1774 | 3073 | 475 | 1774 | 1770 | 1579 | 3442 | 5085 | 1580 | 3442 | 5085 | 1580 |
| Grp Volume(v), veh/h | 198 | 164 | 169 | 147 | 171 | 228 | 66 | 1024 | 133 | 316 | 1150 | 160 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1778 | 1774 | 1770 | 1579 | 1721 | 1695 | 1580 | 1721 | 1695 | 1580 |
| Q Serve(g_s), s | 8.3 | 8.8 | 9.0 | 7.3 | 9.3 | 14.7 | 1.2 | 5.5 | 1.6 | 7.3 | 24.1 | 9.3 |
| Cycle Q Clear(g_c), s | 8.3 | 8.8 | 9.0 | 7.3 | 9.3 | 14.7 | 1.2 | 5.5 | 1.6 | 7.3 | 24.1 | 9.3 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 134 | 391 | 393 | 118 | 364 | 325 | 813 | 2167 | 673 | 228 | 1271 | 395 |
| V/C Ratio(X) | 1.48 | 0.42 | 0.43 | 1.25 | 0.47 | 0.70 | 0.08 | 0.47 | 0.20 | 1.38 | 0.90 | 0.41 |
| Avail Cap(c_a), veh/h | 134 | 724 | 727 | 118 | 708 | 631 | 813 | 2167 | 673 | 228 | 1271 | 395 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.09 | 0.09 | 0.09 | 0.74 | 0.74 | 0.74 |
| Uniform Delay (d), s/veh | 50.8 | 36.8 | 36.9 | 51.3 | 38.4 | 40.6 | 22.5 | 5.1 | 4.8 | 51.4 | 40.0 | 34.4 |
| Incr Delay (d2), s/veh | 251.2 | 1.3 | 1.4 | 164.2 | 2.2 | 6.4 | 0.0 | 0.1 | 0.1 | 191.4 | 8.3 | 2.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 13.4 | 4.4 | 4.6 | 8.9 | 4.8 | 7.0 | 0.5 | 2.5 | 0.7 | 9.5 | 12.3 | 4.3 |
| LnGrp Delay(d),s/veh | 302.1 | 38.1 | 38.2 | 215.5 | 40.6 | 46.9 | 22.5 | 5.1 | 4.8 | 242.8 | 48.3 | 36.7 |
| LnGrp LOS | F | D | D | F | D | D | C | A | A | F | D | D |
| Approach Vol, veh/h | | 531 | | | 546 | | | 1223 | | | 1626 | |
| Approach Delay, s/veh | | 136.6 | | | 90.3 | | | 6.0 | | | 84.9 | |
| Approach LOS | | F | | | F | | | A | | | F | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.0 | 53.3 | 13.0 | 30.7 | 32.4 | 33.9 | 14.7 | 29.0 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | 6.4 | 6.4 | * 6.4 | 6.4 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 7.3 | 26.2 | * 7.3 | 45.0 | 6.0 | * 28 | 8.3 | * 44 | | | | |
| Max Q Clear Time (g_c+I1), s | 9.3 | 7.5 | 9.3 | 11.0 | 3.2 | 26.1 | 10.3 | 16.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 14.6 | 0.0 | 3.5 | 0.0 | 1.3 | 0.0 | 4.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 68.1 | | | | | | | | | |
| HCM 2010 LOS | | | E | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 12.9 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↔ | ↔ | ↔ |
| Traffic Vol, veh/h | 682 | 13 | 284 | 601 | 7 | 388 |
| Future Vol, veh/h | 682 | 13 | 284 | 601 | 7 | 388 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 145 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 703 | 13 | 293 | 620 | 7 | 400 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 0 | 0 | 716 | 0 | 1916 710 |
| Stage 1 | - | - | - | - | 710 - |
| Stage 2 | - | - | - | - | 1206 - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | - | - | 885 | - | 74 434 |
| Stage 1 | - | - | - | - | 487 - |
| Stage 2 | - | - | - | - | 283 - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 885 | - | 37 434 |
| Mov Cap-2 Maneuver | - | - | - | - | 110 - |
| Stage 1 | - | - | - | - | 487 - |
| Stage 2 | - | - | - | - | 140 - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 3.6 | 56.6 |
| HCM LOS | | | F |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 110 | 434 | - | - | 885 | - |
| HCM Lane V/C Ratio | 0.066 | 0.922 | - | - | 0.331 | - |
| HCM Control Delay (s) | 40 | 56.9 | - | - | 11.1 | 0 |
| HCM Lane LOS | E | F | - | - | B | A |
| HCM 95th %tile Q(veh) | 0.2 | 10.3 | - | - | 1.5 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | | ↷ | | ↶ | ↷ | |
| Traffic Vol, veh/h | 187 | 678 | 18 | 9 | 523 | 9 | 8 | 6 | 2 | 6 | 7 | 203 |
| Future Vol, veh/h | 187 | 678 | 18 | 9 | 523 | 9 | 8 | 6 | 2 | 6 | 7 | 203 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 193 | 699 | 19 | 9 | 539 | 9 | 8 | 6 | 2 | 6 | 7 | 209 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 548 | 0 | 0 | 718 | 0 | 0 | 1765 | 1661 | 709 | 1661 | 1666 | 544 |
| Stage 1 | - | - | - | - | - | - | 1095 | 1095 | - | 562 | 562 | - |
| Stage 2 | - | - | - | - | - | - | 670 | 566 | - | 1099 | 1104 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1021 | - | - | 883 | - | - | 65 | 97 | 434 | 77 | 97 | 539 |
| Stage 1 | - | - | - | - | - | - | 259 | 290 | - | 512 | 510 | - |
| Stage 2 | - | - | - | - | - | - | 446 | 507 | - | 258 | 287 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1021 | - | - | 883 | - | - | 31 | 78 | 434 | 61 | 78 | 539 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 31 | 78 | - | 61 | 78 | - |
| Stage 1 | - | - | - | - | - | - | 210 | 235 | - | 415 | 505 | - |
| Stage 2 | - | - | - | - | - | - | 266 | 502 | - | 203 | 233 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|----|--|--|-----|--|--|-------|--|--|------|--|--|
| HCM Control Delay, s | 2 | | | 0.2 | | | 118.4 | | | 21.6 | | |
| HCM LOS | | | | | | | F | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|-------|
| Capacity (veh/h) | 47 | 1021 | - | - | 883 | - | - | 61 | 450 |
| HCM Lane V/C Ratio | 0.351 | 0.189 | - | - | 0.011 | - | - | 0.101 | 0.481 |
| HCM Control Delay (s) | 118.4 | 9.3 | - | - | 9.1 | - | - | 70.6 | 20.2 |
| HCM Lane LOS | F | A | - | - | A | - | - | F | C |
| HCM 95th %tile Q(veh) | 1.2 | 0.7 | - | - | 0 | - | - | 0.3 | 2.6 |

Queues
15: Court St & Cameron Ave

10 Year plus Project
Timing Plan: P.M. Peak























| Lane Group | EBL | EBT | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 517 | 513 | 80 | 3 | 8 | 58 | 345 | 337 |
| v/c Ratio | 0.76 | 0.77 | 0.08 | 0.01 | 0.01 | 0.18 | 0.37 | 0.57 |
| Control Delay | 18.0 | 18.6 | 3.9 | 14.7 | 14.6 | 16.5 | 3.8 | 6.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.0 | 18.6 | 3.9 | 14.7 | 14.6 | 16.5 | 3.8 | 6.6 |
| Queue Length 50th (ft) | 80 | 78 | 4 | 1 | 1 | 12 | 1 | 0 |
| Queue Length 95th (ft) | #321 | #325 | 24 | 6 | 5 | 37 | 26 | 53 |
| Internal Link Dist (ft) | | 563 | 789 | | 604 | | 1556 | |
| Turn Bay Length (ft) | 260 | | | 225 | | 195 | | 200 |
| Base Capacity (vph) | 935 | 916 | 1320 | 480 | 1701 | 673 | 1565 | 867 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.55 | 0.56 | 0.06 | 0.01 | 0.00 | 0.09 | 0.22 | 0.39 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

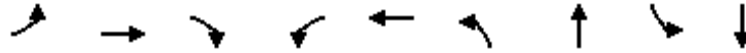
HCM 2010 Signalized Intersection Summary
 15: Court St & Cameron Ave

10 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 897 | 47 | 4 | 1 | 41 | 31 | 3 | 7 | 0 | 53 | 6 | 621 |
| Future Volume (veh/h) | 897 | 47 | 4 | 1 | 41 | 31 | 3 | 7 | 0 | 53 | 6 | 621 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 1015 | 0 | 0 | 1 | 45 | 34 | 3 | 8 | 0 | 58 | 7 | 675 |
| Adj No. of Lanes | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 2 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 1630 | 878 | 0 | 95 | 468 | 347 | 408 | 1059 | 0 | 601 | 557 | 947 |
| Arrive On Green | 0.47 | 0.00 | 0.00 | 0.47 | 0.47 | 0.47 | 0.30 | 0.30 | 0.00 | 0.30 | 0.30 | 0.30 |
| Sat Flow, veh/h | 2629 | 1863 | 0 | 3 | 992 | 736 | 756 | 3632 | 0 | 1402 | 1863 | 3167 |
| Grp Volume(v), veh/h | 1015 | 0 | 0 | 80 | 0 | 0 | 3 | 8 | 0 | 58 | 7 | 675 |
| Grp Sat Flow(s),veh/h/ln | 1314 | 1863 | 0 | 1732 | 0 | 0 | 756 | 1770 | 0 | 1402 | 1863 | 1583 |
| Q Serve(g_s), s | 11.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 1.2 | 0.1 | 7.4 |
| Cycle Q Clear(g_c), s | 12.5 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.2 | 0.1 | 0.0 | 1.3 | 0.1 | 7.4 |
| Prop In Lane | 1.00 | | 0.00 | 0.01 | | 0.42 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 1630 | 878 | 0 | 909 | 0 | 0 | 408 | 1059 | 0 | 601 | 557 | 947 |
| V/C Ratio(X) | 0.62 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.10 | 0.01 | 0.71 |
| Avail Cap(c_a), veh/h | 2502 | 1496 | 0 | 1482 | 0 | 0 | 557 | 1759 | 0 | 878 | 926 | 1574 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 8.6 | 0.0 | 0.0 | 5.7 | 0.0 | 0.0 | 9.7 | 9.7 | 0.0 | 10.1 | 9.7 | 12.2 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.6 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.1 | 3.3 |
| LnGrp Delay(d),s/veh | 9.0 | 0.0 | 0.0 | 5.8 | 0.0 | 0.0 | 9.8 | 9.7 | 0.0 | 10.2 | 9.7 | 13.3 |
| LnGrp LOS | A | | | A | | | A | A | | B | A | B |
| Approach Vol, veh/h | | 1015 | | | 80 | | | 11 | | | 740 | |
| Approach Delay, s/veh | | 9.0 | | | 5.8 | | | 9.7 | | | 13.0 | |
| Approach LOS | | A | | | A | | | A | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 16.2 | | 23.0 | | 16.2 | | 23.0 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 19.5 | | 31.5 | | 19.5 | | 31.5 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.2 | | 14.5 | | 9.4 | | 3.0 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 4.0 | | 2.3 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 10.5 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
16: Demaree St & Visalia Pkwy

10 Year plus Project
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 18 | 283 | 55 | 103 | 447 | 63 | 662 | 154 | 601 |
| v/c Ratio | 0.14 | 0.61 | 0.11 | 0.59 | 0.36 | 0.40 | 0.66 | 0.71 | 0.49 |
| Control Delay | 46.9 | 36.2 | 0.5 | 56.3 | 17.4 | 49.8 | 30.2 | 58.9 | 25.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 46.9 | 36.2 | 0.5 | 56.3 | 17.4 | 49.8 | 30.2 | 58.9 | 25.2 |
| Queue Length 50th (ft) | 9 | 138 | 0 | 54 | 61 | 33 | 160 | 81 | 136 |
| Queue Length 95th (ft) | 36 | 247 | 0 | #146 | 134 | 86 | 252 | #224 | 226 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 775 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 132 | 749 | 710 | 199 | 1531 | 199 | 1436 | 230 | 1509 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.14 | 0.38 | 0.08 | 0.52 | 0.29 | 0.32 | 0.46 | 0.67 | 0.40 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

10 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 17 | 269 | 52 | 98 | 268 | 157 | 60 | 506 | 123 | 146 | 519 | 52 |
| Future Volume (veh/h) | 17 | 269 | 52 | 98 | 268 | 157 | 60 | 506 | 123 | 146 | 519 | 52 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 18 | 283 | 55 | 103 | 282 | 165 | 63 | 533 | 129 | 154 | 546 | 55 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 45 | 419 | 356 | 134 | 596 | 338 | 109 | 818 | 197 | 193 | 1092 | 110 |
| Arrive On Green | 0.03 | 0.22 | 0.22 | 0.08 | 0.27 | 0.27 | 0.06 | 0.29 | 0.29 | 0.11 | 0.34 | 0.34 |
| Sat Flow, veh/h | 1774 | 1863 | 1583 | 1774 | 2167 | 1230 | 1774 | 2830 | 682 | 1774 | 3248 | 326 |
| Grp Volume(v), veh/h | 18 | 283 | 55 | 103 | 229 | 218 | 63 | 332 | 330 | 154 | 297 | 304 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1583 | 1774 | 1770 | 1627 | 1774 | 1770 | 1742 | 1774 | 1770 | 1805 |
| Q Serve(g_s), s | 0.7 | 9.5 | 1.9 | 3.9 | 7.3 | 7.7 | 2.4 | 11.2 | 11.3 | 5.8 | 9.1 | 9.2 |
| Cycle Q Clear(g_c), s | 0.7 | 9.5 | 1.9 | 3.9 | 7.3 | 7.7 | 2.4 | 11.2 | 11.3 | 5.8 | 9.1 | 9.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.76 | 1.00 | | 0.39 | 1.00 | | 0.18 |
| Lane Grp Cap(c), veh/h | 45 | 419 | 356 | 134 | 486 | 447 | 109 | 511 | 503 | 193 | 595 | 607 |
| V/C Ratio(X) | 0.40 | 0.68 | 0.15 | 0.77 | 0.47 | 0.49 | 0.58 | 0.65 | 0.65 | 0.80 | 0.50 | 0.50 |
| Avail Cap(c_a), veh/h | 164 | 929 | 790 | 247 | 966 | 888 | 247 | 906 | 892 | 286 | 945 | 964 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 32.7 | 24.2 | 21.2 | 30.9 | 20.6 | 20.7 | 31.1 | 21.2 | 21.3 | 29.7 | 18.0 | 18.1 |
| Incr Delay (d2), s/veh | 2.1 | 5.7 | 0.6 | 3.5 | 2.2 | 2.5 | 1.8 | 2.7 | 2.8 | 5.3 | 1.3 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 5.5 | 0.9 | 2.0 | 3.8 | 3.8 | 1.2 | 5.8 | 5.8 | 3.1 | 4.7 | 4.8 |
| LnGrp Delay(d),s/veh | 34.8 | 29.9 | 21.8 | 34.4 | 22.8 | 23.2 | 32.9 | 23.9 | 24.1 | 34.9 | 19.3 | 19.3 |
| LnGrp LOS | C | C | C | C | C | C | C | C | C | C | B | B |
| Approach Vol, veh/h | | 356 | | | 550 | | | 725 | | | 755 | |
| Approach Delay, s/veh | | 28.9 | | | 25.1 | | | 24.8 | | | 22.5 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.6 | 26.7 | 9.3 | 20.5 | 8.4 | 29.9 | 5.9 | 23.9 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 11 | 34.9 | * 9.5 | 34.0 | * 9.5 | 36.4 | * 6.3 | 37.2 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.8 | 13.3 | 5.9 | 11.5 | 4.4 | 11.2 | 2.7 | 9.7 | | | | |
| Green Ext Time (p_c), s | 0.1 | 6.4 | 0.0 | 3.9 | 0.0 | 6.2 | 0.0 | 6.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 24.7 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 29 | 460 | 4 | 5 | 486 | 48 | 2 | 0 | 1 | 50 | 1 | 41 |
| Future Vol, veh/h | 29 | 460 | 4 | 5 | 486 | 48 | 2 | 0 | 1 | 50 | 1 | 41 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 32 | 500 | 4 | 5 | 528 | 52 | 2 | 0 | 1 | 54 | 1 | 45 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 580 | 0 | 0 | 504 | 0 | 0 | 1153 | 1156 | 502 | 1131 | 1132 | 554 |
| Stage 1 | - | - | - | - | - | - | 566 | 566 | - | 564 | 564 | - |
| Stage 2 | - | - | - | - | - | - | 587 | 590 | - | 567 | 568 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 994 | - | - | 1061 | - | - | 174 | 197 | 569 | 181 | 203 | 532 |
| Stage 1 | - | - | - | - | - | - | 509 | 507 | - | 510 | 508 | - |
| Stage 2 | - | - | - | - | - | - | 496 | 495 | - | 508 | 506 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 994 | - | - | 1061 | - | - | 154 | 190 | 569 | 176 | 195 | 532 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 154 | 190 | - | 176 | 195 | - |
| Stage 1 | - | - | - | - | - | - | 493 | 491 | - | 494 | 505 | - |
| Stage 2 | - | - | - | - | - | - | 451 | 493 | - | 491 | 490 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|----|--|--|------|--|--|
| HCM Control Delay, s | 0.5 | | | 0.1 | | | 23 | | | 28.5 | | |
| HCM LOS | | | | | | | C | | | D | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 203 | 994 | - | - | 1061 | - | - | 251 |
| HCM Lane V/C Ratio | 0.016 | 0.032 | - | - | 0.005 | - | - | 0.398 |
| HCM Control Delay (s) | 23 | 8.7 | - | - | 8.4 | - | - | 28.5 |
| HCM Lane LOS | | C | A | - | - | A | - | D |
| HCM 95th %tile Q(veh) | 0 | 0.1 | - | - | 0 | - | - | 1.8 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 10.2 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↙ | ↑ | ↗ | | ↙ | ↗ |
| Traffic Vol, veh/h | 98 | 476 | 509 | 170 | 114 | 106 |
| Future Vol, veh/h | 98 | 476 | 509 | 170 | 114 | 106 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 107 | 517 | 553 | 185 | 124 | 115 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 738 | 0 | - | 0 | 1377 646 |
| Stage 1 | - | - | - | - | 646 - |
| Stage 2 | - | - | - | - | 731 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 868 | - | - | - | 160 472 |
| Stage 1 | - | - | - | - | 522 - |
| Stage 2 | - | - | - | - | 476 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 868 | - | - | - | 140 472 |
| Mov Cap-2 Maneuver | - | - | - | - | 140 - |
| Stage 1 | - | - | - | - | 458 - |
| Stage 2 | - | - | - | - | 476 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.7 | 0 | 63.9 |
| HCM LOS | | | F |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 868 | - | - | - | 140 | 472 |
| HCM Lane V/C Ratio | 0.123 | - | - | - | 0.885 | 0.244 |
| HCM Control Delay (s) | 9.7 | - | - | - | 109.3 | 15.1 |
| HCM Lane LOS | A | - | - | - | F | C |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 5.9 | 0.9 |

HCM 2010 TWSC
 19: Main Site Access/Target Dwy & Visalia Pkwy

10 Year plus Project
 Timing Plan: P.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 535 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 75 | 486 | 74 | 161 | 526 | 30 | 131 | 0 | 260 | 135 | 0 | 68 |
| Future Vol, veh/h | 75 | 486 | 74 | 161 | 526 | 30 | 131 | 0 | 260 | 135 | 0 | 68 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 82 | 528 | 80 | 175 | 572 | 33 | 142 | 0 | 283 | 147 | 0 | 74 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 606 | 0 | 0 | 608 | 0 | 0 | 1708 | 1688 | 568 | 1814 | 1712 | 590 |
| Stage 1 | - | - | - | - | - | - | 732 | 732 | - | 940 | 940 | - |
| Stage 2 | - | - | - | - | - | - | 976 | 956 | - | 874 | 772 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 972 | - | - | 970 | - | - | ~ 72 | 94 | 522 | ~ 60 | 90 | 508 |
| Stage 1 | - | - | - | - | - | - | 413 | 427 | - | 316 | 342 | - |
| Stage 2 | - | - | - | - | - | - | 302 | 336 | - | 344 | 409 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 971 | - | - | 970 | - | - | ~ 50 | 71 | 522 | ~ 22 | 68 | 508 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 50 | 71 | - | ~ 22 | 68 | - |
| Stage 1 | - | - | - | - | - | - | 378 | 391 | - | 289 | 280 | - |
| Stage 2 | - | - | - | - | - | - | 212 | 275 | - | ~ 144 | 375 | - |

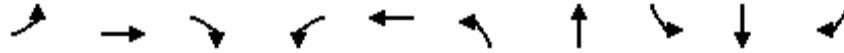
| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|-----------|--|--|-----------|--|--|
| HCM Control Delay, s | 1.1 | | | 2.1 | | | \$ 1153.2 | | | \$ 2896.1 | | |
| HCM LOS | | | | | | | F | | | F | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-----------|-------|-----|-----|------|-----|-----|-----------|
| Capacity (veh/h) | 125 | 971 | - | - | 970 | - | - | 32 |
| HCM Lane V/C Ratio | 3.4 | 0.084 | - | - | 0.18 | - | - | 6.895 |
| HCM Control Delay (s) | \$ 1153.2 | 9 | - | - | 9.5 | - | - | \$ 2896.1 |
| HCM Lane LOS | F | A | - | - | A | - | - | F |
| HCM 95th %tile Q(veh) | 41.4 | 0.3 | - | - | 0.7 | - | - | 26.7 |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Queues
20: Mooney Blvd & Visalia Pkwy

10 Year plus Project
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|-------|-------|-------|------|------|
| Lane Group Flow (vph) | 125 | 289 | 200 | 274 | 276 | 277 | 1228 | 180 | 919 | 61 |
| v/c Ratio | 0.96 | 0.71 | 0.39 | 0.86 | 0.46 | 1.50 | 1.28 | 0.99 | 0.66 | 0.10 |
| Control Delay | 121.3 | 49.2 | 5.3 | 69.2 | 29.4 | 285.4 | 168.7 | 120.0 | 28.7 | 1.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 121.3 | 49.2 | 5.3 | 69.2 | 29.4 | 285.4 | 168.7 | 120.0 | 28.7 | 1.9 |
| Queue Length 50th (ft) | 90 | 185 | 0 | 185 | 137 | ~272 | ~576 | ~168 | 72 | 0 |
| Queue Length 95th (ft) | #209 | 275 | 42 | #313 | 208 | #440 | #713 | m#324 | m205 | m10 |
| Internal Link Dist (ft) | | 765 | | | 337 | | 251 | | 1110 | |
| Turn Bay Length (ft) | 180 | | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 130 | 464 | 558 | 350 | 678 | 185 | 958 | 181 | 1385 | 581 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.96 | 0.62 | 0.36 | 0.78 | 0.41 | 1.50 | 1.28 | 0.99 | 0.66 | 0.10 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

10 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 116 | 269 | 186 | 255 | 198 | 59 | 258 | 918 | 224 | 167 | 855 | 57 |
| Future Volume (veh/h) | 116 | 269 | 186 | 255 | 198 | 59 | 258 | 918 | 224 | 167 | 855 | 57 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 125 | 289 | 200 | 274 | 213 | 63 | 277 | 987 | 241 | 180 | 919 | 61 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 131 | 364 | 305 | 303 | 412 | 122 | 298 | 983 | 239 | 98 | 1147 | 349 |
| Arrive On Green | 0.07 | 0.20 | 0.20 | 0.17 | 0.30 | 0.30 | 0.17 | 0.35 | 0.35 | 0.04 | 0.15 | 0.15 |
| Sat Flow, veh/h | 1774 | 1863 | 1563 | 1774 | 1377 | 407 | 1774 | 2822 | 687 | 1774 | 5085 | 1546 |
| Grp Volume(v), veh/h | 125 | 289 | 200 | 274 | 0 | 276 | 277 | 618 | 610 | 180 | 919 | 61 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1563 | 1774 | 0 | 1785 | 1774 | 1770 | 1739 | 1774 | 1695 | 1546 |
| Q Serve(g_s), s | 7.7 | 16.3 | 13.0 | 16.7 | 0.0 | 14.1 | 16.9 | 38.3 | 38.3 | 6.1 | 19.2 | 2.9 |
| Cycle Q Clear(g_c), s | 7.7 | 16.3 | 13.0 | 16.7 | 0.0 | 14.1 | 16.9 | 38.3 | 38.3 | 6.1 | 19.2 | 2.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.23 | 1.00 | | 0.40 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 131 | 364 | 305 | 303 | 0 | 534 | 298 | 616 | 606 | 98 | 1147 | 349 |
| V/C Ratio(X) | 0.96 | 0.79 | 0.65 | 0.90 | 0.00 | 0.52 | 0.93 | 1.00 | 1.01 | 1.83 | 0.80 | 0.17 |
| Avail Cap(c_a), veh/h | 131 | 464 | 389 | 350 | 0 | 665 | 298 | 616 | 606 | 98 | 1147 | 349 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 | 0.67 | 0.67 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.68 | 0.68 | 0.68 |
| Uniform Delay (d), s/veh | 50.8 | 42.1 | 40.8 | 44.7 | 0.0 | 32.0 | 45.1 | 35.8 | 35.8 | 53.0 | 44.3 | 21.7 |
| Incr Delay (d2), s/veh | 64.8 | 12.5 | 7.2 | 22.2 | 0.0 | 2.3 | 33.3 | 36.9 | 38.4 | 399.0 | 4.1 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.1 | 9.6 | 6.2 | 10.0 | 0.0 | 7.3 | 11.1 | 25.0 | 24.8 | 13.9 | 9.5 | 1.6 |
| LnGrp Delay(d),s/veh | 115.6 | 54.6 | 48.0 | 67.0 | 0.0 | 34.2 | 78.4 | 72.8 | 74.2 | 452.0 | 48.4 | 22.5 |
| LnGrp LOS | F | D | D | E | | C | E | F | F | F | D | C |
| Approach Vol, veh/h | | 614 | | | 550 | | | 1505 | | | 1160 | |
| Approach Delay, s/veh | | 64.9 | | | 50.5 | | | 74.4 | | | 109.7 | |
| Approach LOS | | E | | | D | | | E | | | F | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.8 | 45.1 | 25.2 | 27.9 | 25.3 | 31.6 | 13.8 | 39.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | 6.4 | * 6.4 | 6.8 | * 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6.1 | 30.2 | 21.7 | * 27 | 11.5 | * 25 | * 8.1 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.1 | 40.3 | 18.7 | 18.3 | 18.9 | 21.2 | 9.7 | 16.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.1 | 3.3 | 0.0 | 2.9 | 0.0 | 3.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 80.1 | | | | | | | | | |
| HCM 2010 LOS | | | F | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.6 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↙ | ↑ | ↘ | | ↙ | |
| Traffic Vol, veh/h | 413 | 20 | 5 | 1 | 0 | 332 |
| Future Vol, veh/h | 413 | 20 | 5 | 1 | 0 | 332 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 449 | 22 | 5 | 1 | 0 | 361 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 6 | 0 | - | 0 | 926 |
| Stage 1 | - | - | - | - | 6 |
| Stage 2 | - | - | - | - | 920 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1615 | - | - | - | 298 |
| Stage 1 | - | - | - | - | 1017 |
| Stage 2 | - | - | - | - | 388 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1615 | - | - | - | 215 |
| Mov Cap-2 Maneuver | - | - | - | - | 215 |
| Stage 1 | - | - | - | - | 734 |
| Stage 2 | - | - | - | - | 388 |

| Approach | EB | WB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 7.7 | 0 | 10 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1615 | - | - | - | 1077 |
| HCM Lane V/C Ratio | 0.278 | - | - | - | 0.335 |
| HCM Control Delay (s) | 8.1 | - | - | - | 10 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 1.1 | - | - | - | 1.5 |

Queues
22: Mooney Blvd & Midvalley Ave

10 Year plus Project
Timing Plan: P.M. Peak























| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 40 | 11 | 318 | 7 | 1247 | 76 | 1076 | 76 |
| v/c Ratio | 0.13 | 0.02 | 0.76 | 0.04 | 0.87 | 0.46 | 0.59 | 0.09 |
| Control Delay | 19.3 | 0.1 | 26.3 | 33.7 | 29.6 | 43.3 | 16.6 | 1.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.3 | 0.1 | 26.3 | 33.7 | 29.6 | 43.3 | 16.6 | 1.2 |
| Queue Length 50th (ft) | 13 | 0 | 74 | 3 | 233 | 29 | 121 | 0 |
| Queue Length 95th (ft) | 33 | 0 | 152 | 17 | #551 | #101 | #440 | 8 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 635 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 636 | 910 | 785 | 166 | 1433 | 166 | 1825 | 861 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.01 | 0.41 | 0.04 | 0.87 | 0.46 | 0.59 | 0.09 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

10 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 36 | 3 | 11 | 170 | 0 | 139 | 7 | 1134 | 76 | 74 | 1044 | 74 |
| Future Volume (veh/h) | 36 | 3 | 11 | 170 | 0 | 139 | 7 | 1134 | 76 | 74 | 1044 | 74 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 37 | 3 | 11 | 175 | 0 | 143 | 7 | 1169 | 78 | 76 | 1076 | 76 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 369 | 26 | 410 | 271 | 12 | 164 | 19 | 1278 | 85 | 119 | 1544 | 676 |
| Arrive On Green | 0.26 | 0.26 | 0.26 | 0.26 | 0.00 | 0.26 | 0.01 | 0.38 | 0.38 | 0.07 | 0.44 | 0.44 |
| Sat Flow, veh/h | 1033 | 101 | 1583 | 728 | 45 | 632 | 1774 | 3363 | 224 | 1774 | 3539 | 1549 |
| Grp Volume(v), veh/h | 40 | 0 | 11 | 318 | 0 | 0 | 7 | 615 | 632 | 76 | 1076 | 76 |
| Grp Sat Flow(s),veh/h/ln | 1133 | 0 | 1583 | 1405 | 0 | 0 | 1774 | 1770 | 1817 | 1774 | 1770 | 1549 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.4 | 13.1 | 0.0 | 0.0 | 0.3 | 22.5 | 22.5 | 2.8 | 16.8 | 2.0 |
| Cycle Q Clear(g_c), s | 1.8 | 0.0 | 0.4 | 14.9 | 0.0 | 0.0 | 0.3 | 22.5 | 22.5 | 2.8 | 16.8 | 2.0 |
| Prop In Lane | 0.92 | | 1.00 | 0.55 | | 0.45 | 1.00 | | 0.12 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 395 | 0 | 410 | 446 | 0 | 0 | 19 | 673 | 691 | 119 | 1544 | 676 |
| V/C Ratio(X) | 0.10 | 0.00 | 0.03 | 0.71 | 0.00 | 0.00 | 0.36 | 0.91 | 0.92 | 0.64 | 0.70 | 0.11 |
| Avail Cap(c_a), veh/h | 709 | 0 | 800 | 778 | 0 | 0 | 156 | 676 | 694 | 156 | 1544 | 676 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.3 | 0.0 | 18.8 | 24.5 | 0.0 | 0.0 | 33.4 | 20.0 | 20.1 | 30.9 | 15.5 | 11.4 |
| Incr Delay (d2), s/veh | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 4.2 | 18.9 | 18.7 | 2.1 | 2.4 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.0 | 0.2 | 5.8 | 0.0 | 0.0 | 0.2 | 14.4 | 14.8 | 1.5 | 8.6 | 0.9 |
| LnGrp Delay(d),s/veh | 19.4 | 0.0 | 18.8 | 25.3 | 0.0 | 0.0 | 37.6 | 38.9 | 38.8 | 33.0 | 17.9 | 11.7 |
| LnGrp LOS | B | | B | C | | | D | D | D | C | B | B |
| Approach Vol, veh/h | | 51 | | | 318 | | | 1254 | | | 1228 | |
| Approach Delay, s/veh | | 19.2 | | | 25.3 | | | 38.8 | | | 18.5 | |
| Approach LOS | | B | | | C | | | D | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.3 | 32.7 | | 25.1 | 6.4 | 36.5 | | 25.1 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 6 | 26.0 | | * 34 | * 6 | 26.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.8 | 24.5 | | 3.8 | 2.3 | 18.8 | | 16.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.4 | | 0.1 | 0.0 | 6.0 | | 0.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 28.2 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 75.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 40 | 4 | 30 | 2 | 3 | 38 | 150 | 1217 | 63 | 31 | 1257 | 66 |
| Future Vol, veh/h | 40 | 4 | 30 | 2 | 3 | 38 | 150 | 1217 | 63 | 31 | 1257 | 66 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 42 | 4 | 32 | 2 | 3 | 40 | 158 | 1281 | 66 | 33 | 1323 | 69 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 2382 | 3087 | 696 | 2360 | 3088 | 674 | 1392 | 0 | 0 | 1347 | 0 | 0 |
| Stage 1 | 1424 | 1424 | - | 1630 | 1630 | - | - | - | - | - | - | - |
| Stage 2 | 958 | 1663 | - | 730 | 1458 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | ~ 18 | 12 | 384 | 19 | 12 | 397 | 487 | - | - | 507 | - | - |
| Stage 1 | 143 | 200 | - | 106 | 158 | - | - | - | - | - | - | - |
| Stage 2 | 276 | 152 | - | 380 | 192 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | ~ 8 | 8 | 384 | 8 | 8 | 397 | 487 | - | - | 507 | - | - |
| Mov Cap-2 Maneuver | ~ 8 | 8 | - | 8 | 8 | - | - | - | - | - | - | - |
| Stage 1 | 97 | 187 | - | 72 | 107 | - | - | - | - | - | - | - |
| Stage 2 | 163 | 103 | - | 319 | 180 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|------------------------------|----|-------|-----|-----|
| HCM Control Delay, \$ 2822.2 | | 162.8 | 1.7 | 0.3 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 487 | - | - | 13 | 60 | 507 | - |
| HCM Lane V/C Ratio | 0.324 | - | - | 5.992 | 0.754 | 0.064 | - |
| HCM Control Delay (s) | 15.9 | - | - | \$ 2822.2 | 162.8 | 12.6 | - |
| HCM Lane LOS | C | - | - | F | F | B | - |
| HCM 95th %tile Q(veh) | 1.4 | - | - | 10.8 | 3.3 | 0.2 | - |

| Notes | | | |
|----------------------------|------------------------|----------------------------|--------------------------------|
| -: Volume exceeds capacity | \$: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

Queues
25: Mooney Blvd & Ave 268

10 Year plus Project
Timing Plan: P.M. Peak





















| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 258 | 32 | 129 | 1231 | 66 | 1242 |
| v/c Ratio | 0.71 | 0.08 | 0.75 | 0.78 | 0.36 | 0.92 |
| Control Delay | 32.2 | 11.9 | 61.2 | 25.2 | 36.4 | 34.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 32.2 | 11.9 | 61.2 | 25.2 | 36.4 | 34.5 |
| Queue Length 50th (ft) | 88 | 4 | 56 | 264 | 28 | 267 |
| Queue Length 95th (ft) | 164 | 22 | #149 | #461 | 65 | #443 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 458 | 486 | 174 | 1588 | 222 | 1354 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.56 | 0.07 | 0.74 | 0.78 | 0.30 | 0.92 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 25: Mooney Blvd & Ave 268

10 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 156 | 1 | 80 | 9 | 1 | 19 | 119 | 1119 | 14 | 61 | 1132 | 11 |
| Future Volume (veh/h) | 156 | 1 | 80 | 9 | 1 | 19 | 119 | 1119 | 14 | 61 | 1132 | 11 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 170 | 1 | 87 | 10 | 1 | 21 | 129 | 1216 | 15 | 66 | 1230 | 12 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 294 | 10 | 109 | 152 | 44 | 237 | 163 | 1521 | 19 | 113 | 1424 | 14 |
| Arrive On Green | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.09 | 0.43 | 0.43 | 0.06 | 0.40 | 0.40 |
| Sat Flow, veh/h | 926 | 46 | 494 | 364 | 197 | 1072 | 1774 | 3579 | 44 | 1774 | 3591 | 35 |
| Grp Volume(v), veh/h | 258 | 0 | 0 | 32 | 0 | 0 | 129 | 601 | 630 | 66 | 606 | 636 |
| Grp Sat Flow(s),veh/h/ln | 1466 | 0 | 0 | 1633 | 0 | 0 | 1774 | 1770 | 1854 | 1774 | 1770 | 1856 |
| Q Serve(g_s), s | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.7 | 19.6 | 19.7 | 2.4 | 20.9 | 20.9 |
| Cycle Q Clear(g_c), s | 11.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 4.7 | 19.6 | 19.7 | 2.4 | 20.9 | 20.9 |
| Prop In Lane | 0.66 | | 0.34 | 0.31 | | 0.66 | 1.00 | | 0.02 | 1.00 | | 0.02 |
| Lane Grp Cap(c), veh/h | 414 | 0 | 0 | 432 | 0 | 0 | 163 | 752 | 788 | 113 | 702 | 736 |
| V/C Ratio(X) | 0.62 | 0.00 | 0.00 | 0.07 | 0.00 | 0.00 | 0.79 | 0.80 | 0.80 | 0.58 | 0.86 | 0.86 |
| Avail Cap(c_a), veh/h | 573 | 0 | 0 | 596 | 0 | 0 | 184 | 752 | 788 | 235 | 714 | 749 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 24.3 | 0.0 | 0.0 | 20.6 | 0.0 | 0.0 | 29.5 | 16.6 | 16.6 | 30.3 | 18.4 | 18.4 |
| Incr Delay (d2), s/veh | 2.6 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 16.0 | 8.5 | 8.1 | 1.8 | 13.1 | 12.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.7 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 3.1 | 11.3 | 11.8 | 1.2 | 12.7 | 13.2 |
| LnGrp Delay(d),s/veh | 27.0 | 0.0 | 0.0 | 20.7 | 0.0 | 0.0 | 45.5 | 25.1 | 24.8 | 32.0 | 31.5 | 31.0 |
| LnGrp LOS | C | | | C | | | D | C | C | C | C | C |
| Approach Vol, veh/h | | 258 | | | 32 | | | 1360 | | | 1308 | |
| Approach Delay, s/veh | | 27.0 | | | 20.7 | | | 26.9 | | | 31.3 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.9 | 36.1 | | 20.4 | 11.8 | 34.3 | | 20.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 8.8 | 24.9 | | * 22 | * 6.9 | 26.8 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.4 | 21.7 | | 13.0 | 6.7 | 22.9 | | 3.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.9 | | 1.5 | 0.0 | 3.5 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 28.8 | | | | | | | | |
| HCM 2010 LOS | | | | C | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.3 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 536 | 124 | 0 | 512 | 0 | 25 |
| Future Vol, veh/h | 536 | 124 | 0 | 512 | 0 | 25 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 558 | 129 | 0 | 533 | 0 | 26 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | 623 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 486 |
| Stage 1 | - | - | 0 | - | - |
| Stage 2 | - | - | 0 | - | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 486 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 12.8 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 486 | - | - | - |
| HCM Lane V/C Ratio | 0.054 | - | - | - |
| HCM Control Delay (s) | 12.8 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | | ↖ | | | ↖ |
| Traffic Vol, veh/h | 19 | 458 | 84 | 90 | 487 | 23 | 0 | 0 | 25 | 0 | 0 | 46 |
| Future Vol, veh/h | 19 | 458 | 84 | 90 | 487 | 23 | 0 | 0 | 25 | 0 | 0 | 46 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | - | 150 | - | - | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 92 | 92 | 96 | 96 | 92 | 92 | 92 | 96 | 92 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 20 | 477 | 91 | 98 | 507 | 24 | 0 | 0 | 27 | 0 | 0 | 48 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|---|-------|--------|---|-------|
| Conflicting Flow All | 531 | 0 | 0 | 568 | 0 | 0 | - | - | 523 | - | - | 519 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | - | - | 6.22 | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | - | - | 3.318 | - | - | 3.318 |
| Pot Cap-1 Maneuver | 1036 | - | - | 1004 | - | - | 0 | 0 | 554 | 0 | 0 | 557 |
| Stage 1 | - | - | - | - | - | - | 0 | 0 | - | 0 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 0 | 0 | - | 0 | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1036 | - | - | 1004 | - | - | - | - | 554 | - | - | 557 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.3 | | | 1.4 | | | 11.8 | | | 12.1 | | |
| HCM LOS | | | | | | | B | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 554 | 1036 | - | - | 1004 | - | - | 557 |
| HCM Lane V/C Ratio | 0.049 | 0.019 | - | - | 0.097 | - | - | 0.086 |
| HCM Control Delay (s) | 11.8 | 8.5 | - | - | 9 | - | - | 12.1 |
| HCM Lane LOS | B | A | - | - | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.2 | 0.1 | - | - | 0.3 | - | - | 0.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | | ↑ | | ↗ |
| Traffic Vol, veh/h | 504 | 0 | 0 | 600 | 0 | 42 |
| Future Vol, veh/h | 504 | 0 | 0 | 600 | 0 | 42 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 548 | 0 | 0 | 652 | 0 | 46 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | - | - | 548 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 536 |
| Stage 1 | - | - | 0 | - | - |
| Stage 2 | - | - | 0 | - | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 536 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 12.3 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 536 | - | - | - |
| HCM Lane V/C Ratio | 0.085 | - | - | - |
| HCM Control Delay (s) | 12.3 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.2 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | ↔ |
| Traffic Vol, veh/h | 246 | 300 | 329 | 3 | 4 | 265 |
| Future Vol, veh/h | 246 | 300 | 329 | 3 | 4 | 265 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 265 | 323 | 354 | 3 | 4 | 285 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 357 | 0 | - | 0 | 1209 356 |
| Stage 1 | - | - | - | - | 356 - |
| Stage 2 | - | - | - | - | 853 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1202 | - | - | - | 202 688 |
| Stage 1 | - | - | - | - | 709 - |
| Stage 2 | - | - | - | - | 418 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1202 | - | - | - | 148 688 |
| Mov Cap-2 Maneuver | - | - | - | - | 148 - |
| Stage 1 | - | - | - | - | 518 - |
| Stage 2 | - | - | - | - | 418 - |

| Approach | EB | WB | SB |
|----------------------|----|----|------|
| HCM Control Delay, s | 4 | 0 | 14.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1202 | - | - | - | 148 | 688 |
| HCM Lane V/C Ratio | 0.22 | - | - | - | 0.029 | 0.414 |
| HCM Control Delay (s) | 8.8 | 0 | - | - | 30.1 | 13.9 |
| HCM Lane LOS | A | A | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.8 | - | - | - | 0.1 | 2 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | | ↕↔ | | | ↕↕ | ↗ |
| Traffic Vol, veh/h | 0 | 0 | 93 | 0 | 0 | 128 | 0 | 1095 | 46 | 0 | 1130 | 166 |
| Future Vol, veh/h | 0 | 0 | 93 | 0 | 0 | 128 | 0 | 1095 | 46 | 0 | 1130 | 166 |
| Conflicting Peds, #/hr | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | - | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 101 | 0 | 0 | 139 | 0 | 1190 | 50 | 0 | 1228 | 180 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | |
|----------------------|--------|---|--------|---|--------|------|--------|---|
| Conflicting Flow All | - | - | 614 | - | - | 620 | - | 0 |
| Stage 1 | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 435 | 0 | 0 | 431 | 0 | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | 0 | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 435 | - | - | 431 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|------|--|----|--|----|--|
| HCM Control Delay, s | 15.8 | | 17.3 | | 0 | | 0 | |
| HCM LOS | C | | C | | | | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1WBLn1 | SBT | SBR |
|-----------------------|-----|-----|------------|-------|-----|
| Capacity (veh/h) | - | - | 435 | 431 | - |
| HCM Lane V/C Ratio | - | - | 0.232 | 0.323 | - |
| HCM Control Delay (s) | - | - | 15.8 | 17.3 | - |
| HCM Lane LOS | - | - | C | C | - |
| HCM 95th %tile Q(veh) | - | - | 0.9 | 1.4 | - |

HCM 2010 TWSC
 31: Mooney Blvd & Visalia Commons Dwy 2/West Access Dwy 2

10 Year plus Project
 Timing Plan: P.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | ↗ | ↕ | | ↗ | ↕ | ↗ |
| Traffic Vol, veh/h | 0 | 0 | 122 | 0 | 0 | 106 | 229 | 1035 | 45 | 78 | 1022 | 123 |
| Future Vol, veh/h | 0 | 0 | 122 | 0 | 0 | 106 | 229 | 1035 | 45 | 78 | 1022 | 123 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | 150 | - | - | 150 | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 133 | 0 | 0 | 115 | 249 | 1125 | 49 | 85 | 1111 | 134 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|---|--------|---|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | - | - | 556 | - | - | 587 | 1245 | 0 | 0 | 1174 | 0 | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 475 | 0 | 0 | 453 | 555 | - | - | 591 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 475 | - | - | 453 | 555 | - | - | 591 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | | | |
|----------------------|------|--|------|--|-----|--|-----|--|--|--|
| HCM Control Delay, s | 15.5 | | 15.6 | | 2.9 | | 0.8 | | | |
| HCM LOS | C | | C | | | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 555 | - | - | 475 | 453 | 591 | - | - |
| HCM Lane V/C Ratio | 0.448 | - | - | 0.279 | 0.254 | 0.143 | - | - |
| HCM Control Delay (s) | 16.7 | - | - | 15.5 | 15.6 | 12.1 | - | - |
| HCM Lane LOS | C | - | - | C | C | B | - | - |
| HCM 95th %tile Q(veh) | 2.3 | - | - | 1.1 | 1 | 0.5 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.7 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 65 | 88 | 191 | 0 | 0 | 118 |
| Future Vol, veh/h | 65 | 88 | 191 | 0 | 0 | 118 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 71 | 96 | 208 | 0 | 0 | 128 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 208 | 0 | - | 0 | 446 208 |
| Stage 1 | - | - | - | - | 208 - |
| Stage 2 | - | - | - | - | 238 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1363 | - | - | - | 570 832 |
| Stage 1 | - | - | - | - | 827 - |
| Stage 2 | - | - | - | - | 802 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1363 | - | - | - | 539 832 |
| Mov Cap-2 Maneuver | - | - | - | - | 539 - |
| Stage 1 | - | - | - | - | 782 - |
| Stage 2 | - | - | - | - | 802 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 3.3 | 0 | 10.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1363 | - | - | - | 832 |
| HCM Lane V/C Ratio | 0.052 | - | - | - | 0.154 |
| HCM Control Delay (s) | 7.8 | 0 | - | - | 10.1 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | 0.5 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 51 | 37 | 104 | 0 | 0 | 87 |
| Future Vol, veh/h | 51 | 37 | 104 | 0 | 0 | 87 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 55 | 40 | 113 | 0 | 0 | 95 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 113 | 0 | - | 0 | 263 113 |
| Stage 1 | - | - | - | - | 113 - |
| Stage 2 | - | - | - | - | 150 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1476 | - | - | - | 726 940 |
| Stage 1 | - | - | - | - | 912 - |
| Stage 2 | - | - | - | - | 878 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1476 | - | - | - | 698 940 |
| Mov Cap-2 Maneuver | - | - | - | - | 698 - |
| Stage 1 | - | - | - | - | 877 - |
| Stage 2 | - | - | - | - | 878 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 4.4 | 0 | 9.3 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1476 | - | - | - | 940 |
| HCM Lane V/C Ratio | 0.038 | - | - | - | 0.101 |
| HCM Control Delay (s) | 7.5 | 0 | - | - | 9.3 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.2 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 20 | 17 | 53 | 0 | 0 | 51 |
| Future Vol, veh/h | 20 | 17 | 53 | 0 | 0 | 51 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 22 | 18 | 58 | 0 | 0 | 55 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 58 | 0 | - | 0 | 120 58 |
| Stage 1 | - | - | - | - | 58 - |
| Stage 2 | - | - | - | - | 62 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1546 | - | - | - | 876 1008 |
| Stage 1 | - | - | - | - | 965 - |
| Stage 2 | - | - | - | - | 961 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1546 | - | - | - | 864 1008 |
| Mov Cap-2 Maneuver | - | - | - | - | 864 - |
| Stage 1 | - | - | - | - | 951 - |
| Stage 2 | - | - | - | - | 961 - |

| Approach | EB | WB | SB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 4 | 0 | 8.8 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1546 | - | - | - | 1008 |
| HCM Lane V/C Ratio | 0.014 | - | - | - | 0.055 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 8.8 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.8 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | ↷ |
| Traffic Vol, veh/h | 0 | 17 | 22 | 0 | 0 | 31 |
| Future Vol, veh/h | 0 | 17 | 22 | 0 | 0 | 31 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 18 | 24 | 0 | 0 | 34 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 24 | 0 | - | 0 | 42 |
| Stage 1 | - | - | - | - | 24 |
| Stage 2 | - | - | - | - | 18 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1591 | - | - | - | 969 |
| Stage 1 | - | - | - | - | 999 |
| Stage 2 | - | - | - | - | 1005 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1591 | - | - | - | 969 |
| Mov Cap-2 Maneuver | - | - | - | - | 969 |
| Stage 1 | - | - | - | - | 999 |
| Stage 2 | - | - | - | - | 1005 |

| Approach | EB | WB | SB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0 | 0 | 8.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1591 | - | - | - | 1052 |
| HCM Lane V/C Ratio | - | - | - | - | 0.032 |
| HCM Control Delay (s) | 0 | - | - | - | 8.5 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.6 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | T | | |
| Traffic Vol, veh/h | 42 | 31 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 42 | 31 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 46 | 34 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |













| Approach | EB | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 8.7 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | 1047 | - | - |
| HCM Lane V/C Ratio | - | - | 0.076 | - | - |
| HCM Control Delay (s) | 0 | - | 8.7 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

Appendix K – 20-Year Cumulative Conditions Level of Service
Work Sheets

























Queues
1: Mooney Blvd & Whitendale Ave

20 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 108 | 221 | 124 | 163 | 266 | 63 | 88 | 585 | 125 | 66 | 521 | 46 |
| v/c Ratio | 0.43 | 0.39 | 0.31 | 0.57 | 0.44 | 0.15 | 0.54 | 0.22 | 0.14 | 0.37 | 0.20 | 0.05 |
| Control Delay | 60.3 | 47.2 | 2.7 | 63.0 | 47.3 | 0.8 | 70.5 | 18.6 | 4.5 | 63.5 | 18.8 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 60.3 | 47.2 | 2.7 | 63.0 | 47.3 | 0.8 | 70.5 | 18.6 | 4.5 | 63.5 | 18.8 | 0.1 |
| Queue Length 50th (ft) | 43 | 89 | 0 | 65 | 107 | 0 | 36 | 86 | 0 | 27 | 74 | 0 |
| Queue Length 95th (ft) | 73 | 96 | 8 | 103 | 114 | 0 | 64 | 166 | 42 | 52 | 147 | 0 |
| Internal Link Dist (ft) | | 1104 | | | 403 | | | 770 | | | 1028 | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 253 | 1330 | 702 | 287 | 1344 | 706 | 164 | 2693 | 888 | 177 | 2618 | 867 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.43 | 0.17 | 0.18 | 0.57 | 0.20 | 0.09 | 0.54 | 0.22 | 0.14 | 0.37 | 0.20 | 0.05 |
| Intersection Summary | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 1: Mooney Blvd & Whitendale Ave

20 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 99 | 203 | 114 | 150 | 245 | 58 | 81 | 538 | 115 | 61 | 479 | 42 |
| Future Volume (veh/h) | 99 | 203 | 114 | 150 | 245 | 58 | 81 | 538 | 115 | 61 | 479 | 42 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 108 | 221 | 124 | 163 | 266 | 63 | 88 | 585 | 125 | 66 | 521 | 46 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 195 | 520 | 231 | 187 | 512 | 227 | 934 | 2857 | 878 | 148 | 1668 | 517 |
| Arrive On Green | 0.06 | 0.15 | 0.15 | 0.05 | 0.14 | 0.14 | 0.27 | 0.56 | 0.56 | 0.04 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3539 | 1574 | 3442 | 3539 | 1567 | 3442 | 5085 | 1563 | 3442 | 5085 | 1578 |
| Grp Volume(v), veh/h | 108 | 221 | 124 | 163 | 266 | 63 | 88 | 585 | 125 | 66 | 521 | 46 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1574 | 1721 | 1770 | 1567 | 1721 | 1695 | 1563 | 1721 | 1695 | 1578 |
| Q Serve(g_s), s | 3.8 | 7.1 | 9.1 | 5.9 | 8.7 | 3.7 | 2.4 | 7.1 | 3.1 | 2.3 | 9.6 | 2.5 |
| Cycle Q Clear(g_c), s | 3.8 | 7.1 | 9.1 | 5.9 | 8.7 | 3.7 | 2.4 | 7.1 | 3.1 | 2.3 | 9.6 | 2.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 195 | 520 | 231 | 187 | 512 | 227 | 934 | 2857 | 878 | 148 | 1668 | 517 |
| V/C Ratio(X) | 0.55 | 0.42 | 0.54 | 0.87 | 0.52 | 0.28 | 0.09 | 0.20 | 0.14 | 0.44 | 0.31 | 0.09 |
| Avail Cap(c_a), veh/h | 195 | 1331 | 592 | 187 | 1345 | 595 | 934 | 2857 | 878 | 165 | 1668 | 517 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 0.97 | 0.97 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.4 | 48.5 | 49.4 | 58.7 | 49.4 | 33.3 | 34.1 | 13.6 | 5.6 | 58.3 | 31.4 | 29.1 |
| Incr Delay (d2), s/veh | 2.0 | 1.1 | 3.7 | 31.9 | 1.6 | 1.3 | 0.0 | 0.2 | 0.3 | 0.8 | 0.5 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.9 | 3.5 | 4.2 | 3.6 | 4.4 | 1.9 | 1.1 | 3.3 | 1.9 | 1.1 | 4.6 | 1.1 |
| LnGrp Delay(d),s/veh | 59.4 | 49.6 | 53.1 | 90.5 | 51.0 | 34.6 | 34.1 | 13.7 | 5.9 | 59.1 | 31.9 | 29.4 |
| LnGrp LOS | E | D | D | F | D | C | C | B | A | E | C | C |
| Approach Vol, veh/h | | 453 | | | 492 | | | 798 | | | 633 | |
| Approach Delay, s/veh | | 52.9 | | | 62.0 | | | 14.7 | | | 34.6 | |
| Approach LOS | | D | | | E | | | B | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.1 | 76.6 | 12.5 | 24.8 | 40.3 | 47.4 | 12.8 | 24.5 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 41.0 | 6.8 | * 47 | 6.0 | * 41 | 6.3 | * 48 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.3 | 9.1 | 7.9 | 11.1 | 4.4 | 11.6 | 5.8 | 10.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.4 | 0.0 | 3.5 | 0.0 | 6.7 | 0.0 | 3.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 37.1 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave






















20 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 98 | 165 | 9 | 260 | 105 | 54 | 79 | 12 | 139 |
| v/c Ratio | 0.23 | 0.17 | 0.02 | 0.33 | 0.15 | 0.11 | 0.18 | 0.02 | 0.23 |
| Control Delay | 20.2 | 7.8 | 21.8 | 13.7 | 5.5 | 15.3 | 17.1 | 15.9 | 5.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.2 | 7.8 | 21.8 | 13.7 | 5.5 | 15.3 | 17.1 | 15.9 | 5.3 |
| Queue Length 50th (ft) | 22 | 16 | 2 | 51 | 3 | 10 | 16 | 2 | 0 |
| Queue Length 95th (ft) | 68 | 68 | 14 | 123 | 31 | 37 | 53 | 14 | 35 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 616 | 1393 | 401 | 1291 | 1124 | 1071 | 906 | 1256 | 1112 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.16 | 0.12 | 0.02 | 0.20 | 0.09 | 0.05 | 0.09 | 0.01 | 0.13 |
| Intersection Summary | | | | | | | | | |

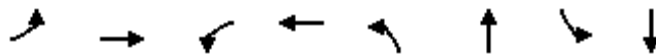
HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

20 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 90 | 138 | 14 | 8 | 239 | 97 | 21 | 24 | 5 | 73 | 11 | 128 |
| Future Volume (veh/h) | 90 | 138 | 14 | 8 | 239 | 97 | 21 | 24 | 5 | 73 | 11 | 128 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 98 | 150 | 15 | 9 | 260 | 105 | 23 | 26 | 5 | 79 | 12 | 139 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 187 | 616 | 62 | 25 | 519 | 441 | 242 | 219 | 32 | 511 | 400 | 340 |
| Arrive On Green | 0.11 | 0.37 | 0.37 | 0.01 | 0.28 | 0.28 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| Sat Flow, veh/h | 1774 | 1667 | 167 | 1774 | 1863 | 1583 | 440 | 1021 | 149 | 1373 | 1863 | 1583 |
| Grp Volume(v), veh/h | 98 | 0 | 165 | 9 | 260 | 105 | 54 | 0 | 0 | 79 | 12 | 139 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1833 | 1774 | 1863 | 1583 | 1611 | 0 | 0 | 1373 | 1863 | 1583 |
| Q Serve(g_s), s | 1.8 | 0.0 | 2.2 | 0.2 | 4.1 | 1.8 | 0.0 | 0.0 | 0.0 | 0.6 | 0.2 | 2.6 |
| Cycle Q Clear(g_c), s | 1.8 | 0.0 | 2.2 | 0.2 | 4.1 | 1.8 | 0.8 | 0.0 | 0.0 | 1.4 | 0.2 | 2.6 |
| Prop In Lane | 1.00 | | 0.09 | 1.00 | | 1.00 | 0.43 | | 0.09 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 187 | 0 | 677 | 25 | 519 | 441 | 493 | 0 | 0 | 511 | 400 | 340 |
| V/C Ratio(X) | 0.52 | 0.00 | 0.24 | 0.35 | 0.50 | 0.24 | 0.11 | 0.00 | 0.00 | 0.15 | 0.03 | 0.41 |
| Avail Cap(c_a), veh/h | 509 | 0 | 1551 | 331 | 1389 | 1180 | 1250 | 0 | 0 | 1200 | 1335 | 1135 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.8 | 0.0 | 7.6 | 17.0 | 10.6 | 9.7 | 11.1 | 0.0 | 0.0 | 11.3 | 10.8 | 11.8 |
| Incr Delay (d2), s/veh | 0.8 | 0.0 | 0.3 | 3.1 | 1.3 | 0.5 | 0.2 | 0.0 | 0.0 | 0.2 | 0.1 | 1.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 0.0 | 1.2 | 0.1 | 2.3 | 0.8 | 0.4 | 0.0 | 0.0 | 0.6 | 0.1 | 1.3 |
| LnGrp Delay(d),s/veh | 15.6 | 0.0 | 7.9 | 20.1 | 11.8 | 10.2 | 11.2 | 0.0 | 0.0 | 11.5 | 10.9 | 13.1 |
| LnGrp LOS | B | | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 263 | | | 374 | | | 54 | | | 230 | |
| Approach Delay, s/veh | | 10.8 | | | 11.6 | | | 11.2 | | | 12.5 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.5 | 17.9 | | 12.5 | 7.7 | 14.7 | | 12.5 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 29.5 | | 25.0 | 10.0 | 26.0 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 4.2 | | 2.8 | 3.8 | 6.1 | | 4.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.4 | | 0.3 | 0.0 | 2.8 | | 1.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 11.6 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave

20 Year Cumulative
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 47 | 15 | 2 | 36 | 43 | 751 | 97 | 721 |
| v/c Ratio | 0.19 | 0.02 | 0.01 | 0.06 | 0.17 | 0.30 | 0.34 | 0.20 |
| Control Delay | 34.4 | 0.1 | 36.5 | 0.2 | 34.0 | 16.9 | 33.0 | 13.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.4 | 0.1 | 36.5 | 0.2 | 34.0 | 16.9 | 33.0 | 13.1 |
| Queue Length 50th (ft) | 9 | 0 | 0 | 0 | 8 | 30 | 17 | 0 |
| Queue Length 95th (ft) | 67 | 0 | 9 | 0 | 62 | 202 | #124 | 184 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 254 | 1315 | 242 | 1289 | 270 | 2938 | 375 | 3242 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.19 | 0.01 | 0.01 | 0.03 | 0.16 | 0.26 | 0.26 | 0.22 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 3: Mooney Blvd & Sunnyside Ave

20 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 45 | 0 | 14 | 2 | 0 | 34 | 41 | 711 | 3 | 92 | 629 | 56 |
| Future Volume (veh/h) | 45 | 0 | 14 | 2 | 0 | 34 | 41 | 711 | 3 | 92 | 629 | 56 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 47 | 0 | 15 | 2 | 0 | 36 | 43 | 748 | 3 | 97 | 662 | 59 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 102 | 0 | 239 | 6 | 0 | 154 | 96 | 1517 | 6 | 157 | 1545 | 137 |
| Arrive On Green | 0.06 | 0.00 | 0.15 | 0.00 | 0.00 | 0.10 | 0.05 | 0.29 | 0.29 | 0.09 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1774 | 0 | 1577 | 1774 | 0 | 1580 | 1774 | 5228 | 21 | 1774 | 4756 | 421 |
| Grp Volume(v), veh/h | 47 | 0 | 15 | 2 | 0 | 36 | 43 | 485 | 266 | 97 | 470 | 251 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1577 | 1774 | 0 | 1580 | 1774 | 1695 | 1858 | 1774 | 1695 | 1787 |
| Q Serve(g_s), s | 1.3 | 0.0 | 0.4 | 0.1 | 0.0 | 1.1 | 1.2 | 6.0 | 6.0 | 2.7 | 5.5 | 5.5 |
| Cycle Q Clear(g_c), s | 1.3 | 0.0 | 0.4 | 0.1 | 0.0 | 1.1 | 1.2 | 6.0 | 6.0 | 2.7 | 5.5 | 5.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.01 | 1.00 | | 0.24 |
| Lane Grp Cap(c), veh/h | 102 | 0 | 239 | 6 | 0 | 154 | 96 | 984 | 539 | 157 | 1101 | 580 |
| V/C Ratio(X) | 0.46 | 0.00 | 0.06 | 0.34 | 0.00 | 0.23 | 0.45 | 0.49 | 0.49 | 0.62 | 0.43 | 0.43 |
| Avail Cap(c_a), veh/h | 222 | 0 | 1200 | 211 | 0 | 1192 | 236 | 1542 | 845 | 328 | 1717 | 905 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.0 | 0.0 | 18.3 | 25.0 | 0.0 | 21.0 | 23.1 | 14.8 | 14.8 | 22.1 | 13.3 | 13.4 |
| Incr Delay (d2), s/veh | 1.2 | 0.0 | 0.1 | 12.4 | 0.0 | 0.6 | 1.2 | 0.7 | 1.4 | 1.5 | 0.5 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 0.2 | 0.0 | 0.0 | 0.5 | 0.6 | 2.9 | 3.2 | 1.4 | 2.6 | 2.9 |
| LnGrp Delay(d),s/veh | 24.2 | 0.0 | 18.4 | 37.5 | 0.0 | 21.6 | 24.3 | 15.6 | 16.2 | 23.6 | 13.8 | 14.3 |
| LnGrp LOS | C | | B | D | | C | C | B | B | C | B | B |
| Approach Vol, veh/h | | 62 | | | 38 | | | 794 | | | 818 | |
| Approach Delay, s/veh | | 22.8 | | | 22.4 | | | 16.2 | | | 15.2 | |
| Approach LOS | | C | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.2 | 21.0 | 5.9 | 13.3 | 8.4 | 22.8 | 8.6 | 10.6 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | * 5.7 | 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 9.3 | 22.9 | * 6 | * 38 | * 6.7 | 25.5 | * 6.3 | * 38 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.7 | 8.0 | 2.1 | 2.4 | 3.2 | 7.5 | 3.3 | 3.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.4 | 0.0 | 0.0 | 0.0 | 6.9 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 16.1 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave

20 Year Cumulative
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 3 | 1 | 20 | 25 | 12 | 734 | 29 | 69 | 587 | 5 |
| v/c Ratio | 0.01 | 0.00 | 0.18 | 0.05 | 0.06 | 0.21 | 0.03 | 0.53 | 0.15 | 0.00 |
| Control Delay | 31.3 | 0.0 | 50.7 | 0.2 | 47.6 | 12.6 | 0.0 | 62.5 | 10.0 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 31.3 | 0.0 | 50.7 | 0.2 | 47.6 | 12.6 | 0.0 | 62.5 | 10.0 | 0.0 |
| Queue Length 50th (ft) | 2 | 0 | 13 | 0 | 4 | 63 | 0 | 45 | 24 | 0 |
| Queue Length 95th (ft) | 8 | 0 | 38 | 0 | 13 | 198 | 0 | #117 | 157 | 0 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 216 | 827 | 109 | 873 | 196 | 3447 | 1092 | 130 | 3933 | 1244 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.01 | 0.00 | 0.18 | 0.03 | 0.06 | 0.21 | 0.03 | 0.53 | 0.15 | 0.00 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

20 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 3 | 0 | 1 | 19 | 0 | 24 | 11 | 697 | 28 | 66 | 558 | 5 |
| Future Volume (veh/h) | 3 | 0 | 1 | 19 | 0 | 24 | 11 | 697 | 28 | 66 | 558 | 5 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 3 | 0 | 1 | 20 | 0 | 25 | 12 | 734 | 29 | 69 | 587 | 5 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 23 | 0 | 83 | 45 | 0 | 105 | 1474 | 3272 | 1016 | 88 | 1312 | 408 |
| Arrive On Green | 0.01 | 0.00 | 0.05 | 0.03 | 0.00 | 0.07 | 0.43 | 0.64 | 0.64 | 0.05 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 0 | 1548 | 1774 | 0 | 1583 | 3442 | 5085 | 1578 | 1774 | 5085 | 1581 |
| Grp Volume(v), veh/h | 3 | 0 | 1 | 20 | 0 | 25 | 12 | 734 | 29 | 69 | 587 | 5 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1548 | 1774 | 0 | 1583 | 1721 | 1695 | 1578 | 1774 | 1695 | 1581 |
| Q Serve(g_s), s | 0.2 | 0.0 | 0.1 | 1.2 | 0.0 | 1.6 | 0.2 | 6.3 | 0.4 | 4.0 | 10.2 | 0.2 |
| Cycle Q Clear(g_c), s | 0.2 | 0.0 | 0.1 | 1.2 | 0.0 | 1.6 | 0.2 | 6.3 | 0.4 | 4.0 | 10.2 | 0.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 23 | 0 | 83 | 45 | 0 | 105 | 1474 | 3272 | 1016 | 88 | 1312 | 408 |
| V/C Ratio(X) | 0.13 | 0.00 | 0.01 | 0.45 | 0.00 | 0.24 | 0.01 | 0.22 | 0.03 | 0.78 | 0.45 | 0.01 |
| Avail Cap(c_a), veh/h | 101 | 0 | 619 | 101 | 0 | 633 | 1474 | 3272 | 1016 | 101 | 1312 | 408 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.96 | 0.96 | 0.96 | 0.99 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 51.2 | 0.0 | 47.0 | 50.5 | 0.0 | 46.5 | 17.2 | 7.8 | 2.5 | 49.3 | 32.7 | 29.0 |
| Incr Delay (d2), s/veh | 1.0 | 0.0 | 0.0 | 2.6 | 0.0 | 0.9 | 0.0 | 0.2 | 0.0 | 23.8 | 1.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 0.0 | 0.0 | 0.6 | 0.0 | 0.7 | 0.1 | 3.0 | 0.3 | 2.6 | 4.9 | 0.1 |
| LnGrp Delay(d),s/veh | 52.2 | 0.0 | 47.0 | 53.0 | 0.0 | 47.4 | 17.2 | 8.0 | 2.5 | 73.1 | 33.8 | 29.0 |
| LnGrp LOS | D | | D | D | | D | B | A | A | E | C | C |
| Approach Vol, veh/h | | 4 | | | 45 | | | 775 | | | 661 | |
| Approach Delay, s/veh | | 50.9 | | | 49.9 | | | 7.9 | | | 37.8 | |
| Approach LOS | | D | | | D | | | A | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.9 | 74.0 | 8.4 | 11.8 | 51.4 | 33.5 | 7.0 | 13.1 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 6 | 27.1 | 6.0 | * 42 | 6.0 | * 27 | 6.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.0 | 8.3 | 3.2 | 2.1 | 2.2 | 12.2 | 2.2 | 3.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.1 | 0.0 | 0.0 | 0.0 | 5.3 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 22.6 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 53.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 49 | 839 | 99 | 72 | 829 | 41 | 69 | 0 | 115 | 12 | 0 | 25 |
| Future Vol, veh/h | 49 | 839 | 99 | 72 | 829 | 41 | 69 | 0 | 115 | 12 | 0 | 25 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 53 | 912 | 108 | 78 | 901 | 45 | 75 | 0 | 125 | 13 | 0 | 27 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 951 | 0 | 0 | 1020 | 0 | 0 | 1679 | 2179 | 510 | 1647 | 2211 | 478 |
| Stage 1 | - | - | - | - | - | - | 1072 | 1072 | - | 1085 | 1085 | - |
| Stage 2 | - | - | - | - | - | - | 607 | 1107 | - | 562 | 1126 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 718 | - | - | 676 | - | - | ~ 62 | 46 | 509 | 65 | 44 | 534 |
| Stage 1 | - | - | - | - | - | - | 235 | 295 | - | 231 | 291 | - |
| Stage 2 | - | - | - | - | - | - | 450 | 284 | - | 479 | 278 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 715 | - | - | 676 | - | - | ~ 41 | 28 | 509 | 34 | 27 | 531 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 41 | 28 | - | 34 | 27 | - |
| Stage 1 | - | - | - | - | - | - | 194 | 243 | - | 189 | 218 | - |
| Stage 2 | - | - | - | - | - | - | 322 | 213 | - | 298 | 229 | - |

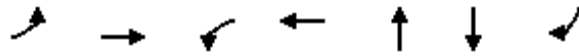
| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|----------|--|--|------|--|--|
| HCM Control Delay, s | 1.2 | | | 1.9 | | | \$ 593.8 | | | 71.6 | | |
| HCM LOS | | | | | | | F | | | F | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|----------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 96 | 715 | - | - | 676 | - | - | 92 |
| HCM Lane V/C Ratio | 2.083 | 0.074 | - | - | 0.116 | - | - | 0.437 |
| HCM Control Delay (s) | \$ 593.8 | 10.4 | 0.8 | - | 11 | 1.2 | - | 71.6 |
| HCM Lane LOS | F | B | A | - | B | A | - | F |
| HCM 95th %tile Q(veh) | 17.3 | 0.2 | - | - | 0.4 | - | - | 1.8 |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Queues
6: Shady St & Caldwell Ave




















20 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-----------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 32 | 726 | 21 | 637 | 70 | 5 | 3 |
| v/c Ratio | 0.08 | 0.21 | 0.06 | 0.18 | 0.17 | 0.01 | 0.01 |
| Control Delay | 20.5 | 6.6 | 20.7 | 6.5 | 12.1 | 21.2 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.5 | 6.6 | 20.7 | 6.5 | 12.1 | 21.2 | 0.0 |
| Queue Length 50th (ft) | 5 | 23 | 3 | 20 | 4 | 1 | 0 |
| Queue Length 95th (ft) | 36 | 102 | 27 | 90 | 42 | 11 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 410 | 4027 | 410 | 4032 | 1466 | 1546 | 1396 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.08 | 0.18 | 0.05 | 0.16 | 0.05 | 0.00 | 0.00 |
| Intersection Summary | | | | | | | |

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

20 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 29 | 653 | 15 | 19 | 580 | 6 | 22 | 1 | 41 | 5 | 0 | 3 |
| Future Volume (veh/h) | 29 | 653 | 15 | 19 | 580 | 6 | 22 | 1 | 41 | 5 | 0 | 3 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 32 | 710 | 16 | 21 | 630 | 7 | 24 | 1 | 45 | 5 | 0 | 3 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 80 | 1917 | 43 | 55 | 1871 | 21 | 46 | 2 | 86 | 23 | 0 | 20 |
| Arrive On Green | 0.04 | 0.37 | 0.37 | 0.03 | 0.36 | 0.36 | 0.08 | 0.08 | 0.08 | 0.01 | 0.00 | 0.01 |
| Sat Flow, veh/h | 1774 | 5117 | 115 | 1774 | 5184 | 58 | 565 | 24 | 1059 | 1774 | 0 | 1583 |
| Grp Volume(v), veh/h | 32 | 470 | 256 | 21 | 412 | 225 | 70 | 0 | 0 | 5 | 0 | 3 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1842 | 1774 | 1695 | 1851 | 1648 | 0 | 0 | 1774 | 0 | 1583 |
| Q Serve(g_s), s | 0.7 | 4.0 | 4.0 | 0.5 | 3.5 | 3.5 | 1.6 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 |
| Cycle Q Clear(g_c), s | 0.7 | 4.0 | 4.0 | 0.5 | 3.5 | 3.5 | 1.6 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 |
| Prop In Lane | 1.00 | | 0.06 | 1.00 | | 0.03 | 0.34 | | 0.64 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 80 | 1270 | 690 | 55 | 1223 | 668 | 134 | 0 | 0 | 23 | 0 | 20 |
| V/C Ratio(X) | 0.40 | 0.37 | 0.37 | 0.38 | 0.34 | 0.34 | 0.52 | 0.00 | 0.00 | 0.22 | 0.00 | 0.15 |
| Avail Cap(c_a), veh/h | 289 | 2333 | 1267 | 289 | 2333 | 1274 | 1360 | 0 | 0 | 1465 | 0 | 1307 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.6 | 9.1 | 9.1 | 19.0 | 9.3 | 9.3 | 17.6 | 0.0 | 0.0 | 19.5 | 0.0 | 19.5 |
| Incr Delay (d2), s/veh | 1.2 | 0.5 | 0.9 | 1.6 | 0.4 | 0.8 | 2.3 | 0.0 | 0.0 | 3.6 | 0.0 | 2.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 1.9 | 2.2 | 0.3 | 1.7 | 2.0 | 0.8 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 19.8 | 9.6 | 10.0 | 20.6 | 9.7 | 10.1 | 20.0 | 0.0 | 0.0 | 23.1 | 0.0 | 22.0 |
| LnGrp LOS | B | A | A | C | A | B | B | | | C | | C |
| Approach Vol, veh/h | | 758 | | | 658 | | | 70 | | | | 8 |
| Approach Delay, s/veh | | 10.1 | | | 10.2 | | | 20.0 | | | | 22.7 |
| Approach LOS | | B | | | B | | | B | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.2 | 21.0 | | 5.5 | 5.8 | 20.4 | | 8.2 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 27.5 | | 33.0 | 6.5 | 27.5 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.5 | 6.0 | | 2.1 | 2.7 | 5.5 | | 3.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.9 | | 0.0 | 0.0 | 7.8 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 10.7 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

20 Year Cumulative
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 174 | 518 | 123 | 536 | 107 | 586 | 104 | 71 | 514 | 87 |
| v/c Ratio | 0.61 | 0.54 | 0.40 | 0.55 | 0.64 | 0.23 | 0.12 | 0.41 | 0.21 | 0.11 |
| Control Delay | 66.4 | 44.4 | 59.6 | 46.1 | 78.7 | 20.9 | 3.4 | 66.8 | 21.1 | 1.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 66.4 | 44.4 | 59.6 | 46.1 | 78.7 | 20.9 | 3.4 | 66.8 | 21.1 | 1.6 |
| Queue Length 50th (ft) | 74 | 136 | 51 | 147 | 46 | 98 | 0 | 30 | 84 | 0 |
| Queue Length 95th (ft) | 110 | 141 | 82 | 150 | #84 | 170 | 28 | 57 | 150 | 12 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 295 | 1822 | 306 | 1813 | 166 | 2562 | 848 | 175 | 2485 | 828 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.59 | 0.28 | 0.40 | 0.30 | 0.64 | 0.23 | 0.12 | 0.41 | 0.21 | 0.11 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
7: Mooney Blvd & Caldwell Ave

20 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 165 | 400 | 92 | 117 | 439 | 70 | 102 | 557 | 99 | 67 | 488 | 83 |
| Future Volume (veh/h) | 165 | 400 | 92 | 117 | 439 | 70 | 102 | 557 | 99 | 67 | 488 | 83 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 174 | 421 | 97 | 123 | 462 | 74 | 107 | 586 | 104 | 71 | 514 | 87 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 225 | 725 | 162 | 234 | 786 | 123 | 804 | 2689 | 836 | 147 | 1690 | 524 |
| Arrive On Green | 0.07 | 0.17 | 0.17 | 0.07 | 0.18 | 0.18 | 0.23 | 0.53 | 0.53 | 0.04 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 4156 | 928 | 3442 | 4432 | 695 | 3442 | 5085 | 1582 | 3442 | 5085 | 1578 |
| Grp Volume(v), veh/h | 174 | 341 | 177 | 123 | 351 | 185 | 107 | 586 | 104 | 71 | 514 | 87 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1693 | 1721 | 1695 | 1737 | 1721 | 1695 | 1582 | 1721 | 1695 | 1578 |
| Q Serve(g_s), s | 6.5 | 12.0 | 12.5 | 4.5 | 12.4 | 12.7 | 3.2 | 8.0 | 2.8 | 2.6 | 9.8 | 5.1 |
| Cycle Q Clear(g_c), s | 6.5 | 12.0 | 12.5 | 4.5 | 12.4 | 12.7 | 3.2 | 8.0 | 2.8 | 2.6 | 9.8 | 5.1 |
| Prop In Lane | 1.00 | | 0.55 | 1.00 | | 0.40 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 225 | 591 | 295 | 234 | 601 | 308 | 804 | 2689 | 836 | 147 | 1690 | 524 |
| V/C Ratio(X) | 0.78 | 0.58 | 0.60 | 0.53 | 0.58 | 0.60 | 0.13 | 0.22 | 0.12 | 0.48 | 0.30 | 0.17 |
| Avail Cap(c_a), veh/h | 246 | 1234 | 616 | 238 | 1226 | 628 | 804 | 2689 | 836 | 159 | 1690 | 524 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.99 | 0.99 | 0.99 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.99 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 59.8 | 49.3 | 49.5 | 58.6 | 49.1 | 49.2 | 39.4 | 16.3 | 6.7 | 60.8 | 32.2 | 30.7 |
| Incr Delay (d2), s/veh | 11.3 | 1.7 | 3.7 | 0.9 | 1.7 | 3.5 | 0.0 | 0.2 | 0.3 | 0.9 | 0.5 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.4 | 5.8 | 6.2 | 2.2 | 5.9 | 6.4 | 1.5 | 3.8 | 1.8 | 1.3 | 4.6 | 2.3 |
| LnGrp Delay(d),s/veh | 71.1 | 51.0 | 53.2 | 59.5 | 50.8 | 52.8 | 39.4 | 16.5 | 7.0 | 61.8 | 32.7 | 31.3 |
| LnGrp LOS | E | D | D | E | D | D | D | B | A | E | C | C |
| Approach Vol, veh/h | | 692 | | | 659 | | | 797 | | | 672 | |
| Approach Delay, s/veh | | 56.6 | | | 53.0 | | | 18.3 | | | 35.6 | |
| Approach LOS | | E | | | D | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.2 | 75.1 | 14.5 | 29.1 | 36.8 | 49.6 | 14.2 | 29.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 43.5 | 9.0 | * 47 | 6.3 | * 43 | 9.3 | * 47 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.6 | 10.0 | 6.5 | 14.5 | 5.2 | 11.8 | 8.5 | 14.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.3 | 0.0 | 6.2 | 0.0 | 7.8 | 0.0 | 6.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 39.9 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St

20 Year Cumulative
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 74 | 567 | 108 | 786 | 32 | 70 | 51 | 43 |
| v/c Ratio | 0.25 | 0.25 | 0.35 | 0.28 | 0.05 | 0.12 | 0.10 | 0.08 |
| Control Delay | 32.3 | 16.5 | 34.9 | 15.4 | 11.0 | 8.5 | 13.7 | 8.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 32.3 | 16.5 | 34.9 | 15.4 | 11.0 | 8.5 | 13.7 | 8.7 |
| Queue Length 50th (ft) | 26 | 56 | 39 | 78 | 7 | 5 | 17 | 2 |
| Queue Length 95th (ft) | #92 | 128 | #146 | 173 | 20 | 29 | 28 | 22 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 318 | 2526 | 318 | 2825 | 589 | 1159 | 507 | 1142 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.23 | 0.22 | 0.34 | 0.28 | 0.05 | 0.06 | 0.10 | 0.04 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
8: Caldwell Ave & Fairway St

20 Year Cumulative
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 68 | 472 | 50 | 99 | 583 | 140 | 29 | 14 | 51 | 47 | 6 | 33 |
| Future Volume (veh/h) | 68 | 472 | 50 | 99 | 583 | 140 | 29 | 14 | 51 | 47 | 6 | 33 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 74 | 513 | 54 | 108 | 634 | 152 | 32 | 15 | 55 | 51 | 7 | 36 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 143 | 1381 | 144 | 176 | 1284 | 302 | 425 | 49 | 181 | 408 | 42 | 215 |
| Arrive On Green | 0.08 | 0.30 | 0.30 | 0.10 | 0.31 | 0.31 | 0.04 | 0.14 | 0.14 | 0.06 | 0.16 | 0.16 |
| Sat Flow, veh/h | 1774 | 4679 | 486 | 1774 | 4095 | 964 | 1774 | 349 | 1281 | 1774 | 261 | 1342 |
| Grp Volume(v), veh/h | 74 | 370 | 197 | 108 | 523 | 263 | 32 | 0 | 70 | 51 | 0 | 43 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1775 | 1774 | 1695 | 1668 | 1774 | 0 | 1631 | 1774 | 0 | 1603 |
| Q Serve(g_s), s | 1.8 | 3.9 | 3.9 | 2.6 | 5.6 | 5.8 | 0.7 | 0.0 | 1.7 | 1.1 | 0.0 | 1.0 |
| Cycle Q Clear(g_c), s | 1.8 | 3.9 | 3.9 | 2.6 | 5.6 | 5.8 | 0.7 | 0.0 | 1.7 | 1.1 | 0.0 | 1.0 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 0.58 | 1.00 | | 0.79 | 1.00 | | 0.84 |
| Lane Grp Cap(c), veh/h | 143 | 1001 | 524 | 176 | 1063 | 523 | 425 | 0 | 231 | 408 | 0 | 257 |
| V/C Ratio(X) | 0.52 | 0.37 | 0.38 | 0.62 | 0.49 | 0.50 | 0.08 | 0.00 | 0.30 | 0.12 | 0.00 | 0.17 |
| Avail Cap(c_a), veh/h | 257 | 1436 | 752 | 257 | 1436 | 707 | 643 | 0 | 1236 | 593 | 0 | 1215 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.8 | 12.5 | 12.5 | 19.4 | 12.5 | 12.5 | 15.1 | 0.0 | 17.3 | 14.6 | 0.0 | 16.2 |
| Incr Delay (d2), s/veh | 1.1 | 0.6 | 1.2 | 1.3 | 1.0 | 2.1 | 0.2 | 0.0 | 2.0 | 0.3 | 0.0 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 1.9 | 2.1 | 1.4 | 2.8 | 2.9 | 0.3 | 0.0 | 0.9 | 0.5 | 0.0 | 0.5 |
| LnGrp Delay(d),s/veh | 20.9 | 13.1 | 13.8 | 20.7 | 13.5 | 14.6 | 15.3 | 0.0 | 19.3 | 14.9 | 0.0 | 17.1 |
| LnGrp LOS | C | B | B | C | B | B | B | | B | B | | B |
| Approach Vol, veh/h | | 641 | | | 894 | | | 102 | | | | 94 |
| Approach Delay, s/veh | | 14.2 | | | 14.7 | | | 18.0 | | | | 15.9 |
| Approach LOS | | B | | | B | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.4 | 19.2 | 5.8 | 11.4 | 7.6 | 20.1 | 5.0 | 12.2 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 19.0 | 7.5 | 34.0 | 6.5 | 19.0 | 7.5 | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.6 | 5.9 | 3.1 | 3.7 | 3.8 | 7.8 | 2.7 | 3.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.1 | 0.1 | 0.8 | 0.0 | 6.3 | 0.0 | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 14.8 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave

20 Year Cumulative
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 26 | 576 | 224 | 746 | 52 | 90 | 70 | 12 | 58 |
| v/c Ratio | 0.11 | 0.42 | 0.88 | 0.34 | 0.17 | 0.21 | 0.22 | 0.03 | 0.13 |
| Control Delay | 25.0 | 12.2 | 64.6 | 7.7 | 20.2 | 7.5 | 21.0 | 18.7 | 3.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 25.0 | 12.2 | 64.6 | 7.7 | 20.2 | 7.5 | 21.0 | 18.7 | 3.4 |
| Queue Length 50th (ft) | 7 | 62 | 66 | 51 | 13 | 1 | 17 | 3 | 0 |
| Queue Length 95th (ft) | 30 | 105 | #235 | 144 | 43 | 33 | 55 | 16 | 15 |
| Internal Link Dist (ft) | | 1064 | | 2600 | | 1465 | | 519 | |
| Turn Bay Length (ft) | 235 | | 300 | | | | | | 200 |
| Base Capacity (vph) | 258 | 2241 | 254 | 2278 | 993 | 1160 | 926 | 1325 | 1151 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.10 | 0.26 | 0.88 | 0.33 | 0.05 | 0.08 | 0.08 | 0.01 | 0.05 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

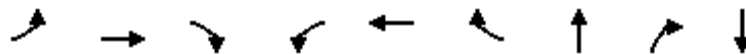
HCM 2010 Signalized Intersection Summary
 9: Stonebrook St & Caldwell Ave

20 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 24 | 471 | 59 | 206 | 656 | 30 | 48 | 4 | 79 | 64 | 11 | 53 |
| Future Volume (veh/h) | 24 | 471 | 59 | 206 | 656 | 30 | 48 | 4 | 79 | 64 | 11 | 53 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 26 | 512 | 64 | 224 | 713 | 33 | 52 | 4 | 86 | 70 | 12 | 58 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 65 | 1064 | 133 | 245 | 1507 | 70 | 421 | 15 | 315 | 361 | 386 | 328 |
| Arrive On Green | 0.04 | 0.34 | 0.34 | 0.14 | 0.44 | 0.44 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| Sat Flow, veh/h | 1774 | 3167 | 394 | 1774 | 3445 | 159 | 1325 | 71 | 1523 | 1301 | 1863 | 1583 |
| Grp Volume(v), veh/h | 26 | 285 | 291 | 224 | 366 | 380 | 52 | 0 | 90 | 70 | 12 | 58 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1792 | 1774 | 1770 | 1834 | 1325 | 0 | 1594 | 1301 | 1863 | 1583 |
| Q Serve(g_s), s | 0.7 | 6.0 | 6.1 | 5.9 | 6.9 | 6.9 | 1.5 | 0.0 | 2.2 | 2.2 | 0.2 | 1.4 |
| Cycle Q Clear(g_c), s | 0.7 | 6.0 | 6.1 | 5.9 | 6.9 | 6.9 | 1.8 | 0.0 | 2.2 | 4.5 | 0.2 | 1.4 |
| Prop In Lane | 1.00 | | 0.22 | 1.00 | | 0.09 | 1.00 | | 0.96 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 65 | 595 | 602 | 245 | 774 | 802 | 421 | 0 | 330 | 361 | 386 | 328 |
| V/C Ratio(X) | 0.40 | 0.48 | 0.48 | 0.91 | 0.47 | 0.47 | 0.12 | 0.00 | 0.27 | 0.19 | 0.03 | 0.18 |
| Avail Cap(c_a), veh/h | 249 | 1109 | 1123 | 245 | 1105 | 1146 | 1103 | 0 | 1151 | 1031 | 1346 | 1144 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.2 | 12.4 | 12.4 | 20.0 | 9.4 | 9.4 | 15.6 | 0.0 | 15.7 | 17.6 | 14.9 | 15.4 |
| Incr Delay (d2), s/veh | 1.5 | 2.2 | 2.2 | 34.7 | 1.6 | 1.6 | 0.3 | 0.0 | 0.9 | 0.6 | 0.1 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 3.3 | 3.4 | 5.2 | 3.7 | 3.8 | 0.6 | 0.0 | 1.1 | 0.9 | 0.1 | 0.7 |
| LnGrp Delay(d),s/veh | 23.6 | 14.5 | 14.6 | 54.7 | 11.0 | 11.0 | 15.9 | 0.0 | 16.6 | 18.1 | 15.0 | 15.9 |
| LnGrp LOS | C | B | B | D | B | B | B | | B | B | B | B |
| Approach Vol, veh/h | | 602 | | | 970 | | | 142 | | | 140 | |
| Approach Delay, s/veh | | 14.9 | | | 21.1 | | | 16.3 | | | 16.9 | |
| Approach LOS | | B | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.5 | 21.8 | | 14.7 | 5.7 | 26.6 | | 14.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 29.5 | | 34.0 | 6.6 | 29.4 | | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.9 | 8.1 | | 4.2 | 2.7 | 8.9 | | 6.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.6 | | 1.4 | 0.0 | 9.4 | | 1.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 18.4 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
10: West St & Caldwell Ave

20 Year Cumulative
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 66 | 645 | 33 | 59 | 872 | 54 | 161 | 35 | 235 |
| v/c Ratio | 0.31 | 0.42 | 0.04 | 0.29 | 0.57 | 0.07 | 0.39 | 0.07 | 0.54 |
| Control Delay | 33.0 | 14.0 | 0.6 | 33.4 | 16.2 | 2.7 | 23.7 | 0.3 | 23.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 33.0 | 14.0 | 0.6 | 33.4 | 16.2 | 2.7 | 23.7 | 0.3 | 23.8 |
| Queue Length 50th (ft) | 26 | 92 | 0 | 23 | 135 | 0 | 56 | 0 | 75 |
| Queue Length 95th (ft) | 65 | 157 | 3 | 61 | 228 | 13 | 107 | 0 | 142 |
| Internal Link Dist (ft) | | 2600 | | | 1239 | | 366 | | 344 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 252 | 1858 | 867 | 224 | 1801 | 843 | 914 | 972 | 940 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.26 | 0.35 | 0.04 | 0.26 | 0.48 | 0.06 | 0.18 | 0.04 | 0.25 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
 10: West St & Caldwell Ave

20 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  |  |
| Traffic Volume (veh/h) | 61 | 593 | 30 | 54 | 802 | 50 | 50 | 98 | 32 | 53 | 102 | 61 |
| Future Volume (veh/h) | 61 | 593 | 30 | 54 | 802 | 50 | 50 | 98 | 32 | 53 | 102 | 61 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 66 | 645 | 33 | 59 | 872 | 54 | 54 | 107 | 35 | 58 | 111 | 66 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 125 | 1494 | 668 | 116 | 1478 | 661 | 178 | 298 | 351 | 142 | 192 | 98 |
| Arrive On Green | 0.07 | 0.42 | 0.42 | 0.07 | 0.42 | 0.42 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1583 | 396 | 1348 | 1583 | 261 | 868 | 441 |
| Grp Volume(v), veh/h | 66 | 645 | 33 | 59 | 872 | 54 | 161 | 0 | 35 | 235 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1583 | 1744 | 0 | 1583 | 1571 | 0 | 0 |
| Q Serve(g_s), s | 1.9 | 6.9 | 0.7 | 1.7 | 10.1 | 1.1 | 0.0 | 0.0 | 0.9 | 3.4 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 1.9 | 6.9 | 0.7 | 1.7 | 10.1 | 1.1 | 3.9 | 0.0 | 0.9 | 7.4 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.34 | | 1.00 | 0.25 | | 0.28 |
| Lane Grp Cap(c), veh/h | 125 | 1494 | 668 | 116 | 1478 | 661 | 476 | 0 | 351 | 432 | 0 | 0 |
| V/C Ratio(X) | 0.53 | 0.43 | 0.05 | 0.51 | 0.59 | 0.08 | 0.34 | 0.00 | 0.10 | 0.54 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 266 | 1953 | 874 | 236 | 1893 | 847 | 1102 | 0 | 981 | 1064 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 23.9 | 10.9 | 9.1 | 24.1 | 12.0 | 9.4 | 17.7 | 0.0 | 16.5 | 18.9 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 1.3 | 0.7 | 0.1 | 1.3 | 1.4 | 0.2 | 0.9 | 0.0 | 0.3 | 2.3 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 3.5 | 0.3 | 0.9 | 5.1 | 0.5 | 2.1 | 0.0 | 0.4 | 3.4 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 25.2 | 11.6 | 9.2 | 25.3 | 13.4 | 9.6 | 18.6 | 0.0 | 16.8 | 21.2 | 0.0 | 0.0 |
| LnGrp LOS | C | B | A | C | B | A | B | | B | C | | |
| Approach Vol, veh/h | | 744 | | | 985 | | | 196 | | | 235 | |
| Approach Delay, s/veh | | 12.7 | | | 13.9 | | | 18.2 | | | 21.2 | |
| Approach LOS | | B | | | B | | | B | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.5 | 29.0 | | 16.8 | 7.7 | 28.7 | | 16.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 7.1 | 29.4 | | 33.0 | 8.0 | 28.5 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.7 | 8.9 | | 5.9 | 3.9 | 12.1 | | 9.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.8 | | 2.0 | 0.0 | 10.1 | | 2.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 14.7 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
11: County Center Dr & Cameron Ave













20 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 64 | 186 | 162 | 27 | 272 | 233 |
| v/c Ratio | 0.16 | 0.37 | 0.15 | 0.03 | 0.39 | 0.22 |
| Control Delay | 10.7 | 4.8 | 5.3 | 2.5 | 7.6 | 5.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 10.7 | 4.8 | 5.3 | 2.5 | 7.6 | 5.6 |
| Queue Length 50th (ft) | 6 | 0 | 12 | 0 | 23 | 18 |
| Queue Length 95th (ft) | 27 | 28 | 34 | 6 | 67 | 47 |
| Internal Link Dist (ft) | 1226 | | 772 | | | 355 |
| Turn Bay Length (ft) | | 100 | | 160 | 145 | |
| Base Capacity (vph) | 1087 | 1022 | 1253 | 1049 | 817 | 1253 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.18 | 0.13 | 0.03 | 0.33 | 0.19 |
| Intersection Summary | | | | | | |

HCM 2010 Signalized Intersection Summary
 11: County Center Dr & Cameron Ave

20 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  | | |
|------------------------------|---|---|---|---|---|---|---|------|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT | | |
| Lane Configurations |  |  |  |  |  |  | | |
| Traffic Volume (veh/h) | 59 | 171 | 149 | 25 | 250 | 214 | | |
| Future Volume (veh/h) | 59 | 171 | 149 | 25 | 250 | 214 | | |
| Number | 3 | 18 | 2 | 12 | 1 | 6 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 64 | 186 | 162 | 27 | 272 | 233 | | |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 317 | 283 | 780 | 660 | 753 | 780 | | |
| Arrive On Green | 0.18 | 0.18 | 0.42 | 0.42 | 0.42 | 0.42 | | |
| Sat Flow, veh/h | 1774 | 1583 | 1863 | 1578 | 1186 | 1863 | | |
| Grp Volume(v), veh/h | 64 | 186 | 162 | 27 | 272 | 233 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1583 | 1863 | 1578 | 1186 | 1863 | | |
| Q Serve(g_s), s | 0.7 | 2.4 | 1.2 | 0.2 | 4.2 | 1.9 | | |
| Cycle Q Clear(g_c), s | 0.7 | 2.4 | 1.2 | 0.2 | 5.5 | 1.9 | | |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 317 | 283 | 780 | 660 | 753 | 780 | | |
| V/C Ratio(X) | 0.20 | 0.66 | 0.21 | 0.04 | 0.36 | 0.30 | | |
| Avail Cap(c_a), veh/h | 1430 | 1276 | 1502 | 1272 | 1213 | 1502 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 7.8 | 8.5 | 4.1 | 3.8 | 5.9 | 4.3 | | |
| Incr Delay (d2), s/veh | 0.3 | 2.6 | 0.1 | 0.0 | 0.3 | 0.2 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 0.4 | 1.2 | 0.7 | 0.1 | 1.4 | 1.0 | | |
| LnGrp Delay(d),s/veh | 8.1 | 11.1 | 4.3 | 3.9 | 6.2 | 4.5 | | |
| LnGrp LOS | A | B | A | A | A | A | | |
| Approach Vol, veh/h | 250 | | 189 | | | 505 | | |
| Approach Delay, s/veh | 10.4 | | 4.2 | | | 5.4 | | |
| Approach LOS | B | | A | | | A | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | | | 6 | | 8 |
| Phs Duration (G+Y+Rc), s | | 13.8 | | | | 13.8 | | 8.5 |
| Change Period (Y+Rc), s | | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | | 18.0 | | | | 18.0 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | | 3.2 | | | | 7.5 | | 4.4 |
| Green Ext Time (p_c), s | | 0.7 | | | | 1.7 | | 0.6 |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 6.5 | | | | | |
| HCM 2010 LOS | | | A | | | | | |

Queues
12: Mooney Blvd & Cameron Ave

20 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 78 | 193 | 113 | 303 | 9 | 632 | 109 | 94 | 463 | 38 |
| v/c Ratio | 0.49 | 0.47 | 0.60 | 0.50 | 0.05 | 0.24 | 0.12 | 0.50 | 0.16 | 0.04 |
| Control Delay | 57.2 | 46.3 | 59.3 | 31.2 | 50.0 | 16.1 | 1.4 | 60.3 | 12.0 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.2 | 46.3 | 59.3 | 31.2 | 50.0 | 16.1 | 1.4 | 60.3 | 12.0 | 0.1 |
| Queue Length 50th (ft) | 53 | 64 | 77 | 69 | 3 | 89 | 0 | 34 | 47 | 0 |
| Queue Length 95th (ft) | 100 | 98 | 131 | 109 | 11 | 133 | 13 | 61 | 98 | 0 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 168 | 1404 | 201 | 1455 | 187 | 2661 | 890 | 187 | 2986 | 975 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.46 | 0.14 | 0.56 | 0.21 | 0.05 | 0.24 | 0.12 | 0.50 | 0.16 | 0.04 |
| Intersection Summary | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

20 Year Cumulative
 Timing Plan: A.M. Peak

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|-------|------|-------|-------|------|------|-------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 75 | 170 | 15 | 108 | 192 | 99 | 9 | 607 | 105 | 90 | 444 | 36 |
| Future Volume (veh/h) | 75 | 170 | 15 | 108 | 192 | 99 | 9 | 607 | 105 | 90 | 444 | 36 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 78 | 177 | 16 | 112 | 200 | 103 | 9 | 632 | 109 | 94 | 462 | 38 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 99 | 289 | 26 | 189 | 317 | 156 | 45 | 1179 | 367 | 1195 | 2910 | 905 |
| Arrive On Green | 0.06 | 0.09 | 0.09 | 0.11 | 0.14 | 0.14 | 0.01 | 0.23 | 0.23 | 0.35 | 0.57 | 0.57 |
| Sat Flow, veh/h | 1774 | 3286 | 294 | 1774 | 2287 | 1128 | 3442 | 5085 | 1581 | 3442 | 5085 | 1581 |
| Grp Volume(v), veh/h | 78 | 95 | 98 | 112 | 153 | 150 | 9 | 632 | 109 | 94 | 462 | 38 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1811 | 1774 | 1770 | 1645 | 1721 | 1695 | 1581 | 1721 | 1695 | 1581 |
| Q Serve(g_s), s | 4.8 | 5.7 | 5.8 | 6.6 | 8.9 | 9.5 | 0.3 | 12.0 | 6.3 | 2.0 | 4.7 | 0.7 |
| Cycle Q Clear(g_c), s | 4.8 | 5.7 | 5.8 | 6.6 | 8.9 | 9.5 | 0.3 | 12.0 | 6.3 | 2.0 | 4.7 | 0.7 |
| Prop In Lane | 1.00 | | 0.16 | 1.00 | | 0.69 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 99 | 156 | 159 | 189 | 245 | 228 | 45 | 1179 | 367 | 1195 | 2910 | 905 |
| V/C Ratio(X) | 0.79 | 0.61 | 0.62 | 0.59 | 0.62 | 0.66 | 0.20 | 0.54 | 0.30 | 0.08 | 0.16 | 0.04 |
| Avail Cap(c_a), veh/h | 135 | 708 | 724 | 189 | 738 | 687 | 188 | 1179 | 367 | 1195 | 2910 | 905 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.72 | 0.72 | 0.72 | 0.98 | 0.98 | 0.98 |
| Uniform Delay (d), s/veh | 51.3 | 48.3 | 48.4 | 46.9 | 44.7 | 44.9 | 53.7 | 37.1 | 34.9 | 24.1 | 11.1 | 3.9 |
| Incr Delay (d2), s/veh | 12.8 | 6.9 | 7.1 | 3.4 | 6.0 | 7.4 | 0.6 | 1.3 | 1.5 | 0.0 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.7 | 3.1 | 3.2 | 3.4 | 4.8 | 4.8 | 0.1 | 5.8 | 2.9 | 1.0 | 2.2 | 0.5 |
| LnGrp Delay(d),s/veh | 64.1 | 55.2 | 55.4 | 50.2 | 50.6 | 52.3 | 54.3 | 38.3 | 36.4 | 24.1 | 11.2 | 3.9 |
| LnGrp LOS | E | E | E | D | D | D | D | D | D | C | B | A |
| Approach Vol, veh/h | | 271 | | | 415 | | | 750 | | | 594 | |
| Approach Delay, s/veh | | 57.9 | | | 51.1 | | | 38.2 | | | 12.8 | |
| Approach LOS | | E | | | D | | | D | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 44.6 | 31.9 | 17.4 | 16.1 | 7.1 | 69.3 | 11.9 | 21.7 | | | | |
| Change Period (Y+Rc), s | 6.4 | * 6.4 | 5.7 | * 6.4 | * 5.7 | 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | 6.0 | * 26 | 10.3 | * 44 | * 6 | 25.5 | 8.4 | * 46 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.0 | 14.0 | 8.6 | 7.8 | 2.3 | 6.7 | 6.8 | 11.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.2 | 0.0 | 1.9 | 0.0 | 7.4 | 0.0 | 3.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 36.0 | | | | | | | | |
| HCM 2010 LOS | | | | D | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.9 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 33 | 316 | 22 | 326 | 422 | 23 | 54 | 82 | 221 | 22 | 107 | 96 |
| Future Vol, veh/h | 33 | 316 | 22 | 326 | 422 | 23 | 54 | 82 | 221 | 22 | 107 | 96 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | 145 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 36 | 343 | 24 | 354 | 459 | 25 | 59 | 89 | 240 | 24 | 116 | 104 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 484 | 0 | 0 | 367 | 0 | 0 | 1717 | 1619 | 355 | 1772 | 1619 | 472 |
| Stage 1 | - | - | - | - | - | - | 427 | 427 | - | 1180 | 1180 | - |
| Stage 2 | - | - | - | - | - | - | 1290 | 1192 | - | 592 | 439 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1079 | - | - | 1192 | - | - | 71 | 103 | 689 | 65 | ~ 103 | 592 |
| Stage 1 | - | - | - | - | - | - | 606 | 585 | - | 232 | 264 | - |
| Stage 2 | - | - | - | - | - | - | 201 | 261 | - | 493 | 578 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1079 | - | - | 1192 | - | - | ~ 70 | 689 | - | ~ 70 | 592 | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 70 | - | - | ~ 70 | - | - |
| Stage 1 | - | - | - | - | - | - | 586 | 566 | - | 224 | 186 | - |
| Stage 2 | - | - | - | - | - | - | ~ 44 | 183 | - | 262 | 559 | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|-----|----|----|
| HCM Control Delay, s | 0.8 | 3.9 | | |
| HCM LOS | | | - | - |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | NBLn3 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | SBLn3 |
|-----------------------|-------|-------|-------|-------|-----|-----|-------|-----|-----|-------|-------|-------|
| Capacity (veh/h) | - | 70 | 289 | 1079 | - | - | 1192 | - | - | - | 70 | 161 |
| HCM Lane V/C Ratio | - | 0.637 | 0.985 | 0.033 | - | - | 0.297 | - | - | - | 0.831 | 1.009 |
| HCM Control Delay (s) | - | 121 | 88.6 | 8.5 | - | - | 9.3 | - | - | - | 162.1 | 130.3 |
| HCM Lane LOS | - | F | F | A | - | - | A | - | - | - | F | F |
| HCM 95th %tile Q(veh) | - | 2.8 | 10.1 | 0.1 | - | - | 1.3 | - | - | - | 4 | 7.9 |

| Notes | | | |
|----------------------------|------------------------|----------------------------|--------------------------------|
| -: Volume exceeds capacity | \$: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 56 | 375 | 9 | 0 | 442 | 5 | 26 | 6 | 8 | 3 | 3 | 139 |
| Future Vol, veh/h | 56 | 375 | 9 | 0 | 442 | 5 | 26 | 6 | 8 | 3 | 3 | 139 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 61 | 408 | 10 | 0 | 480 | 5 | 28 | 7 | 9 | 3 | 3 | 151 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 485 | 0 | 0 | 418 | 0 | 0 | 1095 | 1020 | 414 | 1027 | 1023 | 483 |
| Stage 1 | - | - | - | - | - | - | 535 | 535 | - | 483 | 483 | - |
| Stage 2 | - | - | - | - | - | - | 560 | 485 | - | 544 | 540 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1078 | - | - | 1141 | - | - | 191 | 237 | 638 | 213 | 236 | 584 |
| Stage 1 | - | - | - | - | - | - | 529 | 524 | - | 565 | 553 | - |
| Stage 2 | - | - | - | - | - | - | 513 | 552 | - | 523 | 521 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1078 | - | - | 1141 | - | - | 134 | 223 | 637 | 196 | 223 | 584 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 134 | 223 | - | 196 | 223 | - |
| Stage 1 | - | - | - | - | - | - | 499 | 494 | - | 533 | 553 | - |
| Stage 2 | - | - | - | - | - | - | 378 | 552 | - | 480 | 491 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 1.1 | | | 0 | | | 33.1 | | | 13.9 | | |
| HCM LOS | | | | | | | D | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|-------|
| Capacity (veh/h) | 171 | 1078 | - | - | 1141 | - | - | 196 | 565 |
| HCM Lane V/C Ratio | 0.254 | 0.056 | - | - | - | - | - | 0.017 | 0.273 |
| HCM Control Delay (s) | 33.1 | 8.5 | - | - | 0 | - | - | 23.7 | 13.7 |
| HCM Lane LOS | | D | A | - | - | A | - | C | B |
| HCM 95th %tile Q(veh) | | 1 | 0.2 | - | - | 0 | - | 0.1 | 1.1 |

Queues
15: Court St & Cameron Ave

20 Year Cumulative
Timing Plan: A.M. Peak























| Lane Group | EBL | EBT | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 177 | 178 | 144 | 2 | 7 | 77 | 219 | 216 |
| v/c Ratio | 0.43 | 0.45 | 0.22 | 0.00 | 0.00 | 0.13 | 0.12 | 0.19 |
| Control Delay | 10.5 | 10.9 | 4.0 | 8.0 | 7.7 | 8.6 | 0.1 | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 10.5 | 10.9 | 4.0 | 8.0 | 7.7 | 8.6 | 0.1 | 0.4 |
| Queue Length 50th (ft) | 14 | 14 | 4 | 0 | 0 | 7 | 0 | 0 |
| Queue Length 95th (ft) | 55 | 55 | 25 | 3 | 3 | 29 | 0 | 0 |
| Internal Link Dist (ft) | | 563 | 789 | | 604 | | 1556 | |
| Turn Bay Length (ft) | 260 | | | 225 | | 195 | | 200 |
| Base Capacity (vph) | 1093 | 1057 | 1587 | 876 | 2734 | 1084 | 2446 | 1330 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.16 | 0.17 | 0.09 | 0.00 | 0.00 | 0.07 | 0.09 | 0.16 |

Intersection Summary

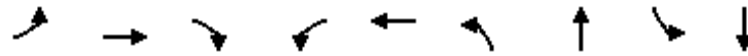
HCM 2010 Signalized Intersection Summary
 15: Court St & Cameron Ave

20 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 314 | 13 | 0 | 0 | 47 | 86 | 2 | 6 | 0 | 71 | 2 | 398 |
| Future Volume (veh/h) | 314 | 13 | 0 | 0 | 47 | 86 | 2 | 6 | 0 | 71 | 2 | 398 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 351 | 0 | 0 | 0 | 51 | 93 | 2 | 7 | 0 | 77 | 2 | 433 |
| Adj No. of Lanes | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 2 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 1274 | 595 | 0 | 0 | 189 | 345 | 586 | 990 | 0 | 711 | 521 | 886 |
| Arrive On Green | 0.32 | 0.00 | 0.00 | 0.00 | 0.32 | 0.32 | 0.28 | 0.28 | 0.00 | 0.28 | 0.28 | 0.28 |
| Sat Flow, veh/h | 2478 | 1863 | 0 | 0 | 592 | 1080 | 950 | 3632 | 0 | 1403 | 1863 | 3167 |
| Grp Volume(v), veh/h | 351 | 0 | 0 | 0 | 0 | 144 | 2 | 7 | 0 | 77 | 2 | 433 |
| Grp Sat Flow(s),veh/h/ln | 1239 | 1863 | 0 | 0 | 0 | 1672 | 950 | 1770 | 0 | 1403 | 1863 | 1583 |
| Q Serve(g_s), s | 2.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 2.6 |
| Cycle Q Clear(g_c), s | 4.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 0.1 | 0.0 | 0.0 | 1.0 | 0.0 | 2.6 |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 0.65 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 1274 | 595 | 0 | 0 | 0 | 534 | 586 | 990 | 0 | 711 | 521 | 886 |
| V/C Ratio(X) | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27 | 0.00 | 0.01 | 0.00 | 0.11 | 0.00 | 0.49 |
| Avail Cap(c_a), veh/h | 3407 | 2198 | 0 | 0 | 0 | 1973 | 1145 | 3074 | 0 | 1537 | 1618 | 2750 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 7.3 | 0.0 | 0.0 | 0.0 | 0.0 | 5.7 | 5.8 | 5.8 | 0.0 | 6.2 | 5.8 | 6.7 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 1.1 |
| LnGrp Delay(d),s/veh | 7.4 | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 | 5.9 | 5.8 | 0.0 | 6.3 | 5.8 | 7.2 |
| LnGrp LOS | A | | | | | A | A | A | | A | A | A |
| Approach Vol, veh/h | | 351 | | | 144 | | | 9 | | | 512 | |
| Approach Delay, s/veh | | 7.4 | | | 6.0 | | | 5.8 | | | 7.0 | |
| Approach LOS | | A | | | A | | | A | | | A | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 10.8 | | 11.7 | | 10.8 | | 11.7 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 19.5 | | 26.5 | | 19.5 | | 26.5 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.1 | | 6.2 | | 4.6 | | 3.4 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 1.3 | | 1.7 | | 0.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 7.0 | | | | | | | | |
| HCM 2010 LOS | | | | A | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
16: Demaree St & Visalia Pkwy























20 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 48 | 339 | 91 | 75 | 348 | 70 | 695 | 110 | 565 |
| v/c Ratio | 0.30 | 0.62 | 0.17 | 0.44 | 0.30 | 0.39 | 0.63 | 0.53 | 0.49 |
| Control Delay | 50.2 | 34.8 | 3.0 | 52.6 | 22.3 | 50.1 | 30.1 | 52.7 | 26.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.2 | 34.8 | 3.0 | 52.6 | 22.3 | 50.1 | 30.1 | 52.7 | 26.4 |
| Queue Length 50th (ft) | 27 | 175 | 0 | 42 | 73 | 39 | 182 | 62 | 135 |
| Queue Length 95th (ft) | 72 | 298 | 20 | 100 | 125 | 94 | 280 | 135 | 216 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 2053 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 188 | 843 | 774 | 207 | 1602 | 245 | 1617 | 277 | 1679 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.26 | 0.40 | 0.12 | 0.36 | 0.22 | 0.29 | 0.43 | 0.40 | 0.34 |
| Intersection Summary | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

20 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 44 | 312 | 84 | 69 | 243 | 77 | 64 | 572 | 67 | 101 | 458 | 62 |
| Future Volume (veh/h) | 44 | 312 | 84 | 69 | 243 | 77 | 64 | 572 | 67 | 101 | 458 | 62 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 48 | 339 | 91 | 75 | 264 | 84 | 70 | 622 | 73 | 110 | 498 | 67 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 92 | 492 | 417 | 117 | 739 | 230 | 113 | 940 | 110 | 141 | 973 | 130 |
| Arrive On Green | 0.05 | 0.26 | 0.26 | 0.07 | 0.28 | 0.28 | 0.06 | 0.29 | 0.29 | 0.08 | 0.31 | 0.31 |
| Sat Flow, veh/h | 1774 | 1863 | 1582 | 1774 | 2659 | 828 | 1774 | 3187 | 373 | 1774 | 3132 | 420 |
| Grp Volume(v), veh/h | 48 | 339 | 91 | 75 | 174 | 174 | 70 | 345 | 350 | 110 | 280 | 285 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1582 | 1774 | 1770 | 1717 | 1774 | 1770 | 1791 | 1774 | 1770 | 1782 |
| Q Serve(g_s), s | 1.8 | 11.4 | 3.1 | 2.9 | 5.5 | 5.7 | 2.7 | 11.9 | 11.9 | 4.2 | 9.0 | 9.1 |
| Cycle Q Clear(g_c), s | 1.8 | 11.4 | 3.1 | 2.9 | 5.5 | 5.7 | 2.7 | 11.9 | 11.9 | 4.2 | 9.0 | 9.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.48 | 1.00 | | 0.21 | 1.00 | | 0.24 |
| Lane Grp Cap(c), veh/h | 92 | 492 | 417 | 117 | 492 | 477 | 113 | 522 | 528 | 141 | 549 | 553 |
| V/C Ratio(X) | 0.52 | 0.69 | 0.22 | 0.64 | 0.35 | 0.37 | 0.62 | 0.66 | 0.66 | 0.78 | 0.51 | 0.51 |
| Avail Cap(c_a), veh/h | 204 | 909 | 772 | 224 | 884 | 857 | 265 | 884 | 895 | 300 | 919 | 926 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 32.2 | 23.1 | 20.0 | 31.7 | 20.1 | 20.2 | 31.8 | 21.5 | 21.5 | 31.5 | 19.7 | 19.7 |
| Incr Delay (d2), s/veh | 1.7 | 5.2 | 0.8 | 2.2 | 1.3 | 1.4 | 2.0 | 2.8 | 2.8 | 3.5 | 1.4 | 1.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 6.6 | 1.5 | 1.5 | 2.8 | 2.9 | 1.4 | 6.2 | 6.2 | 2.2 | 4.6 | 4.7 |
| LnGrp Delay(d),s/veh | 33.8 | 28.3 | 20.8 | 33.9 | 21.5 | 21.7 | 33.8 | 24.3 | 24.3 | 35.0 | 21.1 | 21.2 |
| LnGrp LOS | C | C | C | C | C | C | C | C | C | C | C | C |
| Approach Vol, veh/h | | 478 | | | 423 | | | 765 | | | 675 | |
| Approach Delay, s/veh | | 27.4 | | | 23.8 | | | 25.2 | | | 23.4 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.7 | 27.5 | 8.8 | 23.6 | 8.7 | 28.6 | 7.8 | 24.6 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 12 | 34.8 | * 8.8 | 34.0 | * 10 | 36.2 | * 8 | 34.8 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.2 | 13.9 | 4.9 | 13.4 | 4.7 | 11.1 | 3.8 | 7.7 | | | | |
| Green Ext Time (p_c), s | 0.1 | 6.6 | 0.0 | 4.8 | 0.0 | 5.7 | 0.0 | 4.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 24.9 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 182 | 304 | 3 | 1 | 299 | 109 | 6 | 0 | 3 | 47 | 0 | 141 |
| Future Vol, veh/h | 182 | 304 | 3 | 1 | 299 | 109 | 6 | 0 | 3 | 47 | 0 | 141 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 198 | 330 | 3 | 1 | 325 | 118 | 7 | 0 | 3 | 51 | 0 | 153 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 443 | 0 | 0 | 333 | 0 | 0 | 893 | 1173 | 167 | 947 | 1115 | 222 |
| Stage 1 | - | - | - | - | - | - | 728 | 728 | - | 386 | 386 | - |
| Stage 2 | - | - | - | - | - | - | 165 | 445 | - | 561 | 729 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 1113 | - | - | 1223 | - | - | 236 | 191 | 848 | 216 | 207 | 782 |
| Stage 1 | - | - | - | - | - | - | 381 | 427 | - | 609 | 609 | - |
| Stage 2 | - | - | - | - | - | - | 821 | 573 | - | 480 | 426 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1113 | - | - | 1223 | - | - | 164 | 157 | 848 | 186 | 170 | 782 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 164 | 157 | - | 186 | 170 | - |
| Stage 1 | - | - | - | - | - | - | 313 | 351 | - | 501 | 608 | - |
| Stage 2 | - | - | - | - | - | - | 660 | 572 | - | 393 | 350 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 3.3 | | | 0 | | | 21.8 | | | 20.5 | | |
| HCM LOS | | | | | | | C | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 224 | 1113 | - | - | 1223 | - | - | 434 |
| HCM Lane V/C Ratio | 0.044 | 0.178 | - | - | 0.001 | - | - | 0.471 |
| HCM Control Delay (s) | 21.8 | 8.9 | - | - | 7.9 | - | - | 20.5 |
| HCM Lane LOS | C | A | - | - | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.1 | 0.6 | - | - | 0 | - | - | 2.5 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↘ | ↑↑ | ↑↑ | | ↘ | ↗ |
| Traffic Vol, veh/h | 100 | 332 | 398 | 64 | 80 | 179 |
| Future Vol, veh/h | 100 | 332 | 398 | 64 | 80 | 179 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 109 | 361 | 433 | 70 | 87 | 195 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|------|------|
| Conflicting Flow All | 503 | 0 | 0 | 867 | 252 |
| Stage 1 | - | - | - | 468 | - |
| Stage 2 | - | - | - | 399 | - |
| Critical Hdwy | 4.14 | - | - | 6.84 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | 5.84 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.84 | - |
| Follow-up Hdwy | 2.22 | - | - | 3.52 | 3.32 |
| Pot Cap-1 Maneuver | 1058 | - | - | 292 | 748 |
| Stage 1 | - | - | - | 597 | - |
| Stage 2 | - | - | - | 647 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1058 | - | - | 262 | 748 |
| Mov Cap-2 Maneuver | - | - | - | 262 | - |
| Stage 1 | - | - | - | 536 | - |
| Stage 2 | - | - | - | 647 | - |

| Approach | EB | WB | SB |
|----------------------|----|----|------|
| HCM Control Delay, s | 2 | 0 | 15.8 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1058 | - | - | - | 262 | 748 |
| HCM Lane V/C Ratio | 0.103 | - | - | - | 0.332 | 0.26 |
| HCM Control Delay (s) | 8.8 | - | - | - | 25.4 | 11.5 |
| HCM Lane LOS | A | - | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 1.4 | 1 |

HCM 2010 TWSC
 19: Main Site Access/Target Dwy & Visalia Pkwy

20 Year Cumulative
 Timing Plan: A.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 12 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↵ | ↕ | | ↵ | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 38 | 317 | 62 | 119 | 317 | 14 | 90 | 0 | 244 | 7 | 0 | 15 |
| Future Vol, veh/h | 38 | 317 | 62 | 119 | 317 | 14 | 90 | 0 | 244 | 7 | 0 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 41 | 345 | 67 | 129 | 345 | 15 | 98 | 0 | 265 | 8 | 0 | 16 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 360 | 0 | 0 | 412 | 0 | 0 | 893 | 1079 | 206 | 866 | 1105 | 181 |
| Stage 1 | - | - | - | - | - | - | 461 | 461 | - | 611 | 611 | - |
| Stage 2 | - | - | - | - | - | - | 432 | 618 | - | 255 | 494 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 1195 | - | - | 1143 | - | - | 236 | 217 | 800 | 247 | 209 | 831 |
| Stage 1 | - | - | - | - | - | - | 550 | 564 | - | 448 | 482 | - |
| Stage 2 | - | - | - | - | - | - | 572 | 479 | - | 727 | 545 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1195 | - | - | 1143 | - | - | 206 | 186 | 800 | 147 | 179 | 830 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 206 | 186 | - | 147 | 179 | - |
| Stage 1 | - | - | - | - | - | - | 531 | 545 | - | 433 | 428 | - |
| Stage 2 | - | - | - | - | - | - | 497 | 425 | - | 469 | 526 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 | | | 2.3 | | | 38.8 | | | 16.6 | | |
| HCM LOS | | | | | | | E | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 450 | 1195 | - | - | 1143 | - | - | 335 |
| HCM Lane V/C Ratio | 0.807 | 0.035 | - | - | 0.113 | - | - | 0.071 |
| HCM Control Delay (s) | 38.8 | 8.1 | - | - | 8.6 | - | - | 16.6 |
| HCM Lane LOS | E | A | - | - | A | - | - | C |
| HCM 95th %tile Q(veh) | 7.4 | 0.1 | - | - | 0.4 | - | - | 0.2 |

Queues
20: Mooney Blvd & Visalia Pkwy

20 Year Cumulative
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 67 | 279 | 235 | 221 | 99 | 834 | 13 | 486 | 51 |
| v/c Ratio | 0.47 | 0.42 | 0.70 | 0.20 | 0.70 | 0.66 | 0.09 | 0.41 | 0.09 |
| Control Delay | 51.2 | 17.7 | 41.8 | 19.8 | 66.4 | 26.3 | 41.2 | 27.5 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.2 | 17.7 | 41.8 | 19.8 | 66.4 | 26.3 | 41.2 | 27.5 | 0.3 |
| Queue Length 50th (ft) | 30 | 31 | 102 | 40 | 46 | 152 | 6 | 69 | 0 |
| Queue Length 95th (ft) | #107 | 74 | 211 | 68 | #165 | #429 | 28 | 131 | 0 |
| Internal Link Dist (ft) | | 765 | | 339 | | 253 | | 1110 | |
| Turn Bay Length (ft) | 180 | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 142 | 1116 | 561 | 1927 | 142 | 1272 | 142 | 1524 | 631 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.47 | 0.25 | 0.42 | 0.11 | 0.70 | 0.66 | 0.09 | 0.32 | 0.08 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

20 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 62 | 133 | 123 | 216 | 191 | 12 | 91 | 662 | 105 | 12 | 447 | 47 |
| Future Volume (veh/h) | 62 | 133 | 123 | 216 | 191 | 12 | 91 | 662 | 105 | 12 | 447 | 47 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 67 | 145 | 134 | 235 | 208 | 13 | 99 | 720 | 114 | 13 | 486 | 51 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 113 | 274 | 235 | 283 | 838 | 52 | 133 | 936 | 148 | 34 | 1271 | 396 |
| Arrive On Green | 0.06 | 0.15 | 0.15 | 0.16 | 0.25 | 0.25 | 0.07 | 0.31 | 0.31 | 0.02 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1774 | 1809 | 1550 | 1774 | 3384 | 210 | 1774 | 3062 | 485 | 1774 | 5085 | 1583 |
| Grp Volume(v), veh/h | 67 | 142 | 137 | 235 | 108 | 113 | 99 | 416 | 418 | 13 | 486 | 51 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1589 | 1774 | 1770 | 1825 | 1774 | 1770 | 1777 | 1774 | 1695 | 1583 |
| Q Serve(g_s), s | 2.5 | 5.0 | 5.4 | 8.7 | 3.3 | 3.4 | 3.7 | 14.4 | 14.4 | 0.5 | 5.4 | 1.7 |
| Cycle Q Clear(g_c), s | 2.5 | 5.0 | 5.4 | 8.7 | 3.3 | 3.4 | 3.7 | 14.4 | 14.4 | 0.5 | 5.4 | 1.7 |
| Prop In Lane | 1.00 | | 0.98 | 1.00 | | 0.12 | 1.00 | | 0.27 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 113 | 268 | 241 | 283 | 438 | 452 | 133 | 541 | 543 | 34 | 1271 | 396 |
| V/C Ratio(X) | 0.59 | 0.53 | 0.57 | 0.83 | 0.25 | 0.25 | 0.74 | 0.77 | 0.77 | 0.38 | 0.38 | 0.13 |
| Avail Cap(c_a), veh/h | 157 | 610 | 548 | 622 | 1074 | 1107 | 157 | 587 | 589 | 157 | 1685 | 525 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 30.8 | 26.5 | 26.6 | 27.5 | 20.4 | 20.4 | 30.6 | 21.3 | 21.3 | 32.7 | 21.0 | 19.6 |
| Incr Delay (d2), s/veh | 1.9 | 4.9 | 6.4 | 2.4 | 0.8 | 0.8 | 11.4 | 9.7 | 9.7 | 2.6 | 0.8 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.3 | 2.8 | 2.8 | 4.4 | 1.7 | 1.8 | 2.2 | 8.5 | 8.6 | 0.3 | 2.6 | 0.8 |
| LnGrp Delay(d),s/veh | 32.7 | 31.3 | 33.1 | 29.9 | 21.2 | 21.2 | 42.0 | 31.0 | 31.0 | 35.3 | 21.8 | 20.3 |
| LnGrp LOS | C | C | C | C | C | C | D | C | C | D | C | C |
| Approach Vol, veh/h | | 346 | | | 456 | | | 933 | | | 550 | |
| Approach Delay, s/veh | | 32.3 | | | 25.7 | | | 32.2 | | | 22.0 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.0 | 27.5 | 16.5 | 16.6 | 10.8 | 23.7 | 10.0 | 23.1 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | * 5.7 | 6.4 | * 5.7 | 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 22.4 | * 24 | 23.3 | * 6 | 22.4 | * 6 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.5 | 16.4 | 10.7 | 7.4 | 5.7 | 7.4 | 4.5 | 5.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.2 | 0.3 | 2.8 | 0.0 | 6.0 | 0.0 | 2.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 28.5 | | | | | | | | |
| HCM 2010 LOS | | | | C | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 7.2 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↘ | ↑↑ | ↑↑ | | ↘ | ↗ |
| Traffic Vol, veh/h | 141 | 69 | 50 | 18 | 68 | 226 |
| Future Vol, veh/h | 141 | 69 | 50 | 18 | 68 | 226 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 153 | 75 | 54 | 20 | 74 | 246 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 74 | 0 | - | 0 | 408 37 |
| Stage 1 | - | - | - | - | 64 - |
| Stage 2 | - | - | - | - | 344 - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 3.32 |
| Pot Cap-1 Maneuver | 1524 | - | - | - | 571 1027 |
| Stage 1 | - | - | - | - | 951 - |
| Stage 2 | - | - | - | - | 689 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1524 | - | - | - | 514 1027 |
| Mov Cap-2 Maneuver | - | - | - | - | 514 - |
| Stage 1 | - | - | - | - | 856 - |
| Stage 2 | - | - | - | - | 689 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 5.1 | 0 | 10.4 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1524 | - | - | - | 514 | 1027 |
| HCM Lane V/C Ratio | 0.101 | - | - | - | 0.144 | 0.239 |
| HCM Control Delay (s) | 7.6 | - | - | - | 13.2 | 9.6 |
| HCM Lane LOS | A | - | - | - | B | A |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 0.5 | 0.9 |

Queues
22: Mooney Blvd & Midvalley Ave





















20 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 43 | 15 | 23 | 9 | 887 | 9 | 797 | 36 |
| v/c Ratio | 0.17 | 0.04 | 0.07 | 0.04 | 0.35 | 0.04 | 0.31 | 0.03 |
| Control Delay | 21.5 | 0.2 | 0.4 | 22.9 | 7.2 | 22.9 | 6.9 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.5 | 0.2 | 0.4 | 22.9 | 7.2 | 22.9 | 6.9 | 0.1 |
| Queue Length 50th (ft) | 13 | 0 | 0 | 3 | 70 | 3 | 61 | 0 |
| Queue Length 95th (ft) | 39 | 0 | 0 | 14 | 172 | 14 | 151 | 0 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 631 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 1011 | 1191 | 1070 | 225 | 2530 | 225 | 2532 | 1145 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.04 | 0.01 | 0.02 | 0.04 | 0.35 | 0.04 | 0.31 | 0.03 |
| Intersection Summary | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

20 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 40 | 0 | 14 | 7 | 0 | 14 | 8 | 813 | 3 | 8 | 733 | 33 |
| Future Volume (veh/h) | 40 | 0 | 14 | 7 | 0 | 14 | 8 | 813 | 3 | 8 | 733 | 33 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 43 | 0 | 15 | 8 | 0 | 15 | 9 | 884 | 3 | 9 | 797 | 36 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 318 | 0 | 178 | 139 | 28 | 116 | 25 | 1586 | 5 | 25 | 1551 | 693 |
| Arrive On Green | 0.11 | 0.00 | 0.11 | 0.11 | 0.00 | 0.11 | 0.01 | 0.44 | 0.44 | 0.01 | 0.44 | 0.44 |
| Sat Flow, veh/h | 1435 | 0 | 1583 | 301 | 248 | 1030 | 1774 | 3618 | 12 | 1774 | 3539 | 1582 |
| Grp Volume(v), veh/h | 43 | 0 | 15 | 23 | 0 | 0 | 9 | 432 | 455 | 9 | 797 | 36 |
| Grp Sat Flow(s),veh/h/ln | 1435 | 0 | 1583 | 1579 | 0 | 0 | 1774 | 1770 | 1861 | 1774 | 1770 | 1582 |
| Q Serve(g_s), s | 0.6 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.2 | 8.3 | 8.3 | 0.2 | 7.5 | 0.6 |
| Cycle Q Clear(g_c), s | 1.1 | 0.0 | 0.4 | 0.6 | 0.0 | 0.0 | 0.2 | 8.3 | 8.3 | 0.2 | 7.5 | 0.6 |
| Prop In Lane | 1.00 | | 1.00 | 0.35 | | 0.65 | 1.00 | | 0.01 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 318 | 0 | 178 | 283 | 0 | 0 | 25 | 776 | 816 | 25 | 1551 | 693 |
| V/C Ratio(X) | 0.14 | 0.00 | 0.08 | 0.08 | 0.00 | 0.00 | 0.36 | 0.56 | 0.56 | 0.36 | 0.51 | 0.05 |
| Avail Cap(c_a), veh/h | 1204 | 0 | 1185 | 1199 | 0 | 0 | 232 | 1001 | 1053 | 232 | 2003 | 895 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.6 | 0.0 | 18.3 | 18.4 | 0.0 | 0.0 | 22.4 | 9.6 | 9.6 | 22.4 | 9.4 | 7.4 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 3.2 | 2.7 | 2.6 | 3.2 | 1.0 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.2 | 0.3 | 0.0 | 0.0 | 0.1 | 4.5 | 4.7 | 0.1 | 3.9 | 0.3 |
| LnGrp Delay(d),s/veh | 18.7 | 0.0 | 18.4 | 18.4 | 0.0 | 0.0 | 25.6 | 12.3 | 12.1 | 25.6 | 10.4 | 7.5 |
| LnGrp LOS | B | | B | B | | | C | B | B | C | B | A |
| Approach Vol, veh/h | | 58 | | | 23 | | | 896 | | | 842 | |
| Approach Delay, s/veh | | 18.6 | | | 18.4 | | | 12.3 | | | 10.4 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.4 | 26.9 | | 12.7 | 6.4 | 26.9 | | 12.7 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 6 | 26.0 | | * 34 | * 6 | 26.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 10.3 | | 3.1 | 2.2 | 9.5 | | 2.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.8 | | 0.1 | 0.0 | 9.6 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 11.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 13.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 13 | 8 | 172 | 35 | 22 | 11 | 58 | 893 | 26 | 4 | 697 | 20 |
| Future Vol, veh/h | 13 | 8 | 172 | 35 | 22 | 11 | 58 | 893 | 26 | 4 | 697 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 14 | 9 | 187 | 38 | 24 | 12 | 63 | 971 | 28 | 4 | 758 | 22 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1401 | 1902 | 390 | 1503 | 1899 | 500 | 780 | 0 | 0 | 999 | 0 | 0 |
| Stage 1 | 777 | 777 | - | 1111 | 1111 | - | - | - | - | - | - | - |
| Stage 2 | 624 | 1125 | - | 392 | 788 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 100 | 68 | 609 | 84 | 69 | 516 | 833 | - | - | 689 | - | - |
| Stage 1 | 356 | 405 | - | 223 | 283 | - | - | - | - | - | - | - |
| Stage 2 | 440 | 278 | - | 604 | 400 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 65 | 62 | 609 | 49 | 63 | 516 | 833 | - | - | 689 | - | - |
| Mov Cap-2 Maneuver | 65 | 62 | - | 49 | 63 | - | - | - | - | - | - | - |
| Stage 1 | 329 | 403 | - | 206 | 261 | - | - | - | - | - | - | - |
| Stage 2 | 361 | 257 | - | 407 | 398 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | | |
|----------------------|------|--|-------|--|-----|--|-----|--|--|
| HCM Control Delay, s | 36.3 | | 279.1 | | 0.6 | | 0.1 | | |
| HCM LOS | E | | F | | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 833 | - | - | 316 | 63 | 689 | - |
| HCM Lane V/C Ratio | 0.076 | - | - | 0.664 | 1.173 | 0.006 | - |
| HCM Control Delay (s) | 9.7 | - | - | 36.3 | 279.1 | 10.3 | - |
| HCM Lane LOS | A | - | - | E | F | B | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 4.4 | 6 | 0 | - |

Queues
25: Mooney Blvd & Ave 268



















20 Year Cumulative
Timing Plan: A.M. Peak



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 38 | 55 | 84 | 811 | 47 | 792 |
| v/c Ratio | 0.13 | 0.18 | 0.34 | 0.36 | 0.20 | 0.36 |
| Control Delay | 17.9 | 14.9 | 30.7 | 12.6 | 29.1 | 12.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 17.9 | 14.9 | 30.7 | 12.6 | 29.1 | 12.6 |
| Queue Length 50th (ft) | 8 | 9 | 29 | 104 | 16 | 103 |
| Queue Length 95th (ft) | 30 | 34 | 79 | 232 | 50 | 220 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 610 | 653 | 294 | 2262 | 315 | 2209 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.08 | 0.29 | 0.36 | 0.15 | 0.36 |
| Intersection Summary | | | | | | |

HCM 2010 Signalized Intersection Summary
 25: Mooney Blvd & Ave 268

20 Year Cumulative
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 24 | 1 | 11 | 24 | 2 | 27 | 80 | 756 | 14 | 45 | 671 | 82 |
| Future Volume (veh/h) | 24 | 1 | 11 | 24 | 2 | 27 | 80 | 756 | 14 | 45 | 671 | 82 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 25 | 1 | 12 | 25 | 2 | 28 | 84 | 796 | 15 | 47 | 706 | 86 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 226 | 29 | 61 | 167 | 39 | 101 | 149 | 1476 | 28 | 103 | 1234 | 150 |
| Arrive On Green | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.08 | 0.42 | 0.42 | 0.06 | 0.39 | 0.39 |
| Sat Flow, veh/h | 808 | 229 | 478 | 460 | 307 | 795 | 1774 | 3554 | 67 | 1774 | 3168 | 386 |
| Grp Volume(v), veh/h | 38 | 0 | 0 | 55 | 0 | 0 | 84 | 396 | 415 | 47 | 394 | 398 |
| Grp Sat Flow(s),veh/h/ln | 1515 | 0 | 0 | 1562 | 0 | 0 | 1774 | 1770 | 1851 | 1774 | 1770 | 1785 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 8.2 | 8.2 | 1.2 | 8.5 | 8.5 |
| Cycle Q Clear(g_c), s | 0.9 | 0.0 | 0.0 | 1.4 | 0.0 | 0.0 | 2.2 | 8.2 | 8.2 | 1.2 | 8.5 | 8.5 |
| Prop In Lane | 0.66 | | 0.32 | 0.45 | | 0.51 | 1.00 | | 0.04 | 1.00 | | 0.22 |
| Lane Grp Cap(c), veh/h | 316 | 0 | 0 | 307 | 0 | 0 | 149 | 735 | 769 | 103 | 689 | 695 |
| V/C Ratio(X) | 0.12 | 0.00 | 0.00 | 0.18 | 0.00 | 0.00 | 0.56 | 0.54 | 0.54 | 0.46 | 0.57 | 0.57 |
| Avail Cap(c_a), veh/h | 791 | 0 | 0 | 800 | 0 | 0 | 305 | 904 | 946 | 327 | 926 | 934 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.8 | 0.0 | 0.0 | 19.0 | 0.0 | 0.0 | 21.3 | 10.6 | 10.6 | 22.0 | 11.6 | 11.6 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 1.2 | 2.6 | 2.5 | 1.2 | 3.2 | 3.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 1.1 | 4.5 | 4.7 | 0.6 | 4.7 | 4.7 |
| LnGrp Delay(d),s/veh | 19.1 | 0.0 | 0.0 | 19.5 | 0.0 | 0.0 | 22.5 | 13.3 | 13.2 | 23.2 | 14.8 | 14.8 |
| LnGrp LOS | B | | | B | | | C | B | B | C | B | B |
| Approach Vol, veh/h | | 38 | | | 55 | | | 895 | | | 839 | |
| Approach Delay, s/veh | | 19.1 | | | 19.5 | | | 14.1 | | | 15.2 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.5 | 28.0 | | 11.8 | 9.8 | 26.7 | | 11.8 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 8.9 | 24.7 | | * 22 | * 8.3 | 25.3 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.2 | 10.2 | | 2.9 | 4.2 | 10.5 | | 3.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.4 | | 0.2 | 0.0 | 8.4 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 14.9 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 329 | 0 | 0 | 324 | 0 | 0 |
| Future Vol, veh/h | 329 | 0 | 0 | 324 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 358 | 0 | 0 | 352 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|------|
| Conflicting Flow All | 0 | 0 | - | - | - | 179 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 833 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 833 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

HCM 2010 TWSC
 27: Visalia Pkwy & Tuesday Morning Dwy

20 Year Cumulative
 Timing Plan: A.M. Peak

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↑↑ | ↑↑ | | ↑↑ | |
| Traffic Vol, veh/h | 10 | 319 | 324 | 7 | 15 | 3 |
| Future Vol, veh/h | 10 | 319 | 324 | 7 | 15 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 11 | 347 | 352 | 8 | 16 | 3 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 360 | 0 | - | 0 | 552 180 |
| Stage 1 | - | - | - | - | 356 - |
| Stage 2 | - | - | - | - | 196 - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 3.32 |
| Pot Cap-1 Maneuver | 1195 | - | - | - | 464 832 |
| Stage 1 | - | - | - | - | 680 - |
| Stage 2 | - | - | - | - | 818 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1195 | - | - | - | 459 832 |
| Mov Cap-2 Maneuver | - | - | - | - | 459 - |
| Stage 1 | - | - | - | - | 673 - |
| Stage 2 | - | - | - | - | 818 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.2 | 0 | 12.6 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1195 | - | - | - | 496 |
| HCM Lane V/C Ratio | 0.009 | - | - | - | 0.039 |
| HCM Control Delay (s) | 8 | 0 | - | - | 12.6 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 329 | 0 | 0 | 331 | 0 | 0 |
| Future Vol, veh/h | 329 | 0 | 0 | 331 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 358 | 0 | 0 | 360 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|------|
| Conflicting Flow All | 0 | 0 | - | - | - | 179 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 833 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 833 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↑↑ | ↑↑ | | ↑ | ↑ |
| Traffic Vol, veh/h | 119 | 210 | 273 | 3 | 0 | 58 |
| Future Vol, veh/h | 119 | 210 | 273 | 3 | 0 | 58 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 129 | 228 | 297 | 3 | 0 | 63 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 300 | 0 | - | 0 | 671 |
| Stage 1 | - | - | - | - | 299 |
| Stage 2 | - | - | - | - | 372 |
| Critical Hdwy | 4.14 | - | - | - | 6.84 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 |
| Pot Cap-1 Maneuver | 1258 | - | - | - | 390 |
| Stage 1 | - | - | - | - | 726 |
| Stage 2 | - | - | - | - | 667 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1258 | - | - | - | 344 |
| Mov Cap-2 Maneuver | - | - | - | - | 344 |
| Stage 1 | - | - | - | - | 641 |
| Stage 2 | - | - | - | - | 667 |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 3.1 | 0 | 9.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1258 | - | - | - | - | 870 |
| HCM Lane V/C Ratio | 0.103 | - | - | - | - | 0.072 |
| HCM Control Delay (s) | 8.2 | 0.2 | - | - | 0 | 9.5 |
| HCM Lane LOS | A | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | - | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | | ↕↕ | ↕↕ | ↗ |
| Traffic Vol, veh/h | 0 | 66 | 0 | 746 | 660 | 126 |
| Future Vol, veh/h | 0 | 66 | 0 | 746 | 660 | 126 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 72 | 0 | 811 | 717 | 137 |

| Major/Minor | Minor2 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | - | 359 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | 6.94 | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | 3.32 | - |
| Pot Cap-1 Maneuver | 0 | 638 | 0 |
| Stage 1 | 0 | - | 0 |
| Stage 2 | 0 | - | 0 |
| Platoon blocked, % | | | - |
| Mov Cap-1 Maneuver | - | 638 | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 11.4 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT EBLn1 | SBT | SBR |
|-----------------------|-----------|-----|-----|
| Capacity (veh/h) | - 638 | - | - |
| HCM Lane V/C Ratio | - 0.112 | - | - |
| HCM Control Delay (s) | - 11.4 | - | - |
| HCM Lane LOS | - B | - | - |
| HCM 95th %tile Q(veh) | - 0.4 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.6 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | ↘ | ↕ | ↕ | ↗ |
| Traffic Vol, veh/h | 0 | 87 | 171 | 746 | 628 | 98 |
| Future Vol, veh/h | 0 | 87 | 171 | 746 | 628 | 98 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | 150 | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 95 | 186 | 811 | 683 | 107 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | - | 342 | 790 | 0 | - | 0 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 0 | 654 | 826 | - | - | - |
| Stage 1 | 0 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | - | 654 | 826 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 11.4 | 2 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 826 | - | 654 | - | - |
| HCM Lane V/C Ratio | 0.225 | - | 0.145 | - | - |
| HCM Control Delay (s) | 10.6 | - | 11.4 | - | - |
| HCM Lane LOS | B | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.9 | - | 0.5 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 11 | 21 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 11 | 21 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 12 | 23 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 35 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 12 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 978 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1011 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 978 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 978 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1011 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 11 | 21 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 11 | 21 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 12 | 23 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 35 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 12 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 978 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1011 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 978 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 978 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1011 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 11 | 21 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 11 | 21 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 12 | 23 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 35 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 12 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 978 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1011 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 978 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 978 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1011 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 11 | 21 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 11 | 21 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 12 | 23 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 35 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 12 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 978 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1011 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 978 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 978 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1011 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | T | | T |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

Queues
1: Mooney Blvd & Whitendale Ave

20 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 97 | 245 | 178 | 198 | 234 | 67 | 211 | 1040 | 198 | 116 | 1160 | 86 |
| v/c Ratio | 0.25 | 0.42 | 0.43 | 0.54 | 0.41 | 0.16 | 1.22 | 0.43 | 0.25 | 0.55 | 0.47 | 0.11 |
| Control Delay | 53.1 | 47.0 | 7.6 | 59.1 | 47.5 | 0.9 | 188.4 | 24.3 | 8.8 | 66.9 | 24.1 | 1.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.1 | 47.0 | 7.6 | 59.1 | 47.5 | 0.9 | 188.4 | 24.3 | 8.8 | 66.9 | 24.1 | 1.2 |
| Queue Length 50th (ft) | 37 | 98 | 0 | 79 | 94 | 0 | ~107 | 191 | 25 | 47 | 210 | 0 |
| Queue Length 95th (ft) | 68 | 106 | 45 | #128 | 101 | 0 | #189 | 307 | 93 | #93 | 350 | 9 |
| Internal Link Dist (ft) | | 1104 | | | 403 | | | 770 | | | 1028 | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 387 | 1330 | 701 | 369 | 1339 | 706 | 173 | 2391 | 808 | 212 | 2449 | 819 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.25 | 0.18 | 0.25 | 0.54 | 0.17 | 0.09 | 1.22 | 0.43 | 0.25 | 0.55 | 0.47 | 0.11 |

























Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
1: Mooney Blvd & Whitendale Ave

20 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 94 | 238 | 173 | 192 | 227 | 65 | 205 | 1009 | 192 | 113 | 1125 | 83 |
| Future Volume (veh/h) | 94 | 238 | 173 | 192 | 227 | 65 | 205 | 1009 | 192 | 113 | 1125 | 83 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 97 | 245 | 178 | 198 | 234 | 67 | 211 | 1040 | 198 | 116 | 1160 | 86 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 343 | 601 | 264 | 173 | 426 | 190 | 864 | 2737 | 842 | 165 | 1676 | 519 |
| Arrive On Green | 0.10 | 0.17 | 0.17 | 0.05 | 0.12 | 0.12 | 0.25 | 0.54 | 0.54 | 0.05 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3539 | 1554 | 3442 | 3539 | 1579 | 3442 | 5085 | 1564 | 3442 | 5085 | 1575 |
| Grp Volume(v), veh/h | 97 | 245 | 178 | 198 | 234 | 67 | 211 | 1040 | 198 | 116 | 1160 | 86 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1554 | 1721 | 1770 | 1579 | 1721 | 1695 | 1564 | 1721 | 1695 | 1575 |
| Q Serve(g_s), s | 3.3 | 7.7 | 13.4 | 6.3 | 7.8 | 4.1 | 6.1 | 14.8 | 5.7 | 4.2 | 24.8 | 4.8 |
| Cycle Q Clear(g_c), s | 3.3 | 7.7 | 13.4 | 6.3 | 7.8 | 4.1 | 6.1 | 14.8 | 5.7 | 4.2 | 24.8 | 4.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 343 | 601 | 264 | 173 | 426 | 190 | 864 | 2737 | 842 | 165 | 1676 | 519 |
| V/C Ratio(X) | 0.28 | 0.41 | 0.67 | 1.14 | 0.55 | 0.35 | 0.24 | 0.38 | 0.24 | 0.70 | 0.69 | 0.17 |
| Avail Cap(c_a), veh/h | 343 | 1331 | 584 | 173 | 1339 | 598 | 864 | 2737 | 842 | 165 | 1676 | 519 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.84 | 0.84 | 0.84 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.1 | 46.3 | 48.7 | 59.4 | 51.8 | 35.2 | 37.4 | 16.8 | 7.1 | 58.6 | 36.4 | 29.7 |
| Incr Delay (d2), s/veh | 0.2 | 0.9 | 5.7 | 111.5 | 2.1 | 2.1 | 0.0 | 0.3 | 0.6 | 10.8 | 2.4 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 3.8 | 6.2 | 5.7 | 3.9 | 2.1 | 2.9 | 7.0 | 3.2 | 2.2 | 12.0 | 2.2 |
| LnGrp Delay(d),s/veh | 52.3 | 47.1 | 54.4 | 170.8 | 53.9 | 37.4 | 37.4 | 17.1 | 7.6 | 69.4 | 38.8 | 30.4 |
| LnGrp LOS | D | D | D | F | D | D | D | B | A | E | D | C |
| Approach Vol, veh/h | | 520 | | | 499 | | | 1449 | | | 1362 | |
| Approach Delay, s/veh | | 50.6 | | | 98.1 | | | 18.8 | | | 40.8 | |
| Approach LOS | | D | | | F | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.7 | 73.7 | 12.0 | 27.6 | 37.8 | 47.6 | 18.2 | 21.5 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 41.5 | 6.3 | * 47 | 6.3 | * 41 | 6.0 | * 47 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.2 | 16.8 | 8.3 | 15.4 | 8.1 | 26.8 | 5.3 | 9.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 13.9 | 0.0 | 4.2 | 0.0 | 9.9 | 0.0 | 3.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 41.3 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave






















20 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 136 | 240 | 1 | 190 | 105 | 25 | 122 | 17 | 196 |
| v/c Ratio | 0.22 | 0.22 | 0.00 | 0.25 | 0.14 | 0.04 | 0.24 | 0.02 | 0.28 |
| Control Delay | 20.2 | 9.1 | 23.0 | 16.1 | 2.4 | 14.1 | 16.8 | 14.5 | 4.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.2 | 9.1 | 23.0 | 16.1 | 2.4 | 14.1 | 16.8 | 14.5 | 4.3 |
| Queue Length 50th (ft) | 31 | 28 | 0 | 39 | 0 | 4 | 25 | 3 | 0 |
| Queue Length 95th (ft) | 90 | 109 | 4 | 102 | 18 | 21 | 72 | 16 | 39 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 682 | 1290 | 424 | 1158 | 1039 | 1035 | 858 | 1158 | 1058 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | 0.19 | 0.00 | 0.16 | 0.10 | 0.02 | 0.14 | 0.01 | 0.19 |
| Intersection Summary | | | | | | | | | |

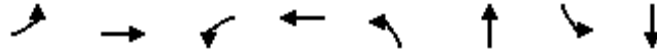
HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

20 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 125 | 210 | 11 | 1 | 175 | 97 | 8 | 13 | 2 | 112 | 16 | 180 |
| Future Volume (veh/h) | 125 | 210 | 11 | 1 | 175 | 97 | 8 | 13 | 2 | 112 | 16 | 180 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 136 | 228 | 12 | 1 | 190 | 105 | 9 | 14 | 2 | 122 | 17 | 196 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 221 | 681 | 36 | 5 | 494 | 420 | 211 | 254 | 29 | 509 | 406 | 345 |
| Arrive On Green | 0.12 | 0.39 | 0.39 | 0.00 | 0.27 | 0.27 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1774 | 1754 | 92 | 1774 | 1863 | 1583 | 340 | 1165 | 131 | 1392 | 1863 | 1583 |
| Grp Volume(v), veh/h | 136 | 0 | 240 | 1 | 190 | 105 | 25 | 0 | 0 | 122 | 17 | 196 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1846 | 1774 | 1863 | 1583 | 1636 | 0 | 0 | 1392 | 1863 | 1583 |
| Q Serve(g_s), s | 2.6 | 0.0 | 3.3 | 0.0 | 3.0 | 1.9 | 0.0 | 0.0 | 0.0 | 2.2 | 0.3 | 3.9 |
| Cycle Q Clear(g_c), s | 2.6 | 0.0 | 3.3 | 0.0 | 3.0 | 1.9 | 0.4 | 0.0 | 0.0 | 2.6 | 0.3 | 3.9 |
| Prop In Lane | 1.00 | | 0.05 | 1.00 | | 1.00 | 0.36 | | 0.08 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 221 | 0 | 717 | 5 | 494 | 420 | 494 | 0 | 0 | 509 | 406 | 345 |
| V/C Ratio(X) | 0.62 | 0.00 | 0.33 | 0.20 | 0.38 | 0.25 | 0.05 | 0.00 | 0.00 | 0.24 | 0.04 | 0.57 |
| Avail Cap(c_a), veh/h | 547 | 0 | 1527 | 323 | 1305 | 1109 | 1225 | 0 | 0 | 1181 | 1305 | 1109 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.8 | 0.0 | 7.7 | 17.8 | 10.7 | 10.3 | 11.1 | 0.0 | 0.0 | 11.9 | 11.0 | 12.5 |
| Incr Delay (d2), s/veh | 1.0 | 0.0 | 0.5 | 7.2 | 0.8 | 0.5 | 0.1 | 0.0 | 0.0 | 0.4 | 0.1 | 2.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.3 | 0.0 | 1.8 | 0.0 | 1.6 | 0.9 | 0.2 | 0.0 | 0.0 | 1.1 | 0.1 | 1.9 |
| LnGrp Delay(d),s/veh | 15.9 | 0.0 | 8.1 | 24.9 | 11.6 | 10.8 | 11.1 | 0.0 | 0.0 | 12.3 | 11.1 | 15.0 |
| LnGrp LOS | B | | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 376 | | | 296 | | | 25 | | | 335 | |
| Approach Delay, s/veh | | 10.9 | | | 11.4 | | | 11.1 | | | 13.8 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.1 | 18.8 | | 12.8 | 8.4 | 14.5 | | 12.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 29.5 | | 25.0 | 11.0 | 25.0 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 5.3 | | 2.4 | 4.6 | 5.0 | | 5.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.1 | | 0.1 | 0.1 | 2.2 | | 1.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.0 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave

20 Year Cumulative
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 129 | 60 | 5 | 133 | 67 | 1289 | 82 | 1561 |
| v/c Ratio | 0.58 | 0.16 | 0.04 | 0.54 | 0.67 | 0.52 | 0.51 | 0.57 |
| Control Delay | 55.8 | 14.1 | 43.4 | 17.3 | 82.2 | 21.0 | 58.2 | 18.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 55.8 | 14.1 | 43.4 | 17.3 | 82.2 | 21.0 | 58.2 | 18.5 |
| Queue Length 50th (ft) | 87 | 3 | 3 | 1 | 47 | 218 | 56 | 262 |
| Queue Length 95th (ft) | 145 | 45 | 14 | 59 | #117 | 311 | 103 | 353 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 221 | 631 | 139 | 633 | 101 | 2494 | 163 | 2757 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.58 | 0.10 | 0.04 | 0.21 | 0.66 | 0.52 | 0.50 | 0.57 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
3: Mooney Blvd & Sunnyside Ave

20 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 120 | 5 | 51 | 5 | 2 | 122 | 62 | 1190 | 8 | 76 | 1380 | 72 |
| Future Volume (veh/h) | 120 | 5 | 51 | 5 | 2 | 122 | 62 | 1190 | 8 | 76 | 1380 | 72 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 129 | 5 | 55 | 5 | 2 | 131 | 67 | 1280 | 9 | 82 | 1484 | 77 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 144 | 10 | 107 | 203 | 3 | 166 | 515 | 2817 | 20 | 104 | 1496 | 78 |
| Arrive On Green | 0.08 | 0.07 | 0.07 | 0.11 | 0.11 | 0.11 | 0.29 | 0.54 | 0.54 | 0.06 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1774 | 134 | 1470 | 1774 | 24 | 1563 | 1774 | 5209 | 37 | 1774 | 4940 | 256 |
| Grp Volume(v), veh/h | 129 | 0 | 60 | 5 | 0 | 133 | 67 | 833 | 456 | 82 | 1018 | 543 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1603 | 1774 | 0 | 1587 | 1774 | 1695 | 1855 | 1774 | 1695 | 1807 |
| Q Serve(g_s), s | 7.9 | 0.0 | 4.0 | 0.3 | 0.0 | 9.0 | 3.1 | 16.5 | 16.5 | 5.0 | 32.9 | 32.9 |
| Cycle Q Clear(g_c), s | 7.9 | 0.0 | 4.0 | 0.3 | 0.0 | 9.0 | 3.1 | 16.5 | 16.5 | 5.0 | 32.9 | 32.9 |
| Prop In Lane | 1.00 | | 0.92 | 1.00 | | 0.98 | 1.00 | | 0.02 | 1.00 | | 0.14 |
| Lane Grp Cap(c), veh/h | 144 | 0 | 117 | 203 | 0 | 168 | 515 | 1834 | 1003 | 104 | 1026 | 547 |
| V/C Ratio(X) | 0.90 | 0.00 | 0.51 | 0.02 | 0.00 | 0.79 | 0.13 | 0.45 | 0.45 | 0.79 | 0.99 | 0.99 |
| Avail Cap(c_a), veh/h | 144 | 0 | 596 | 203 | 0 | 548 | 515 | 1834 | 1003 | 111 | 1026 | 547 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.85 | 0.85 | 0.85 | 0.87 | 0.87 | 0.87 |
| Uniform Delay (d), s/veh | 50.1 | 0.0 | 49.1 | 43.3 | 0.0 | 48.0 | 28.8 | 15.4 | 15.4 | 51.1 | 38.2 | 38.2 |
| Incr Delay (d2), s/veh | 45.4 | 0.0 | 2.6 | 0.0 | 0.0 | 6.1 | 0.0 | 0.7 | 1.3 | 23.4 | 24.5 | 34.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.7 | 0.0 | 1.9 | 0.1 | 0.0 | 4.2 | 1.5 | 7.8 | 8.7 | 3.1 | 18.9 | 21.6 |
| LnGrp Delay(d),s/veh | 95.5 | 0.0 | 51.7 | 43.3 | 0.0 | 54.1 | 28.8 | 16.1 | 16.6 | 74.5 | 62.7 | 72.4 |
| LnGrp LOS | F | | D | D | | D | C | B | B | E | E | E |
| Approach Vol, veh/h | | 189 | | | 138 | | | 1356 | | | 1643 | |
| Approach Delay, s/veh | | 81.6 | | | 53.7 | | | 16.9 | | | 66.5 | |
| Approach LOS | | F | | | D | | | B | | | E | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.1 | 65.9 | 18.3 | 13.7 | 38.3 | 39.7 | 14.6 | 17.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | 6.4 | * 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 6.9 | 32.7 | * 6 | * 41 | 6.3 | * 33 | * 8.9 | * 38 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.0 | 18.5 | 2.3 | 6.0 | 5.1 | 34.9 | 9.9 | 11.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 46.6 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave

20 Year Cumulative
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 21 | 42 | 68 | 96 | 74 | 1127 | 57 | 184 | 1362 | 41 |
| v/c Ratio | 0.18 | 0.16 | 0.51 | 0.28 | 0.38 | 0.52 | 0.08 | 0.51 | 0.44 | 0.04 |
| Control Delay | 50.0 | 11.0 | 61.3 | 10.3 | 53.5 | 25.3 | 0.2 | 47.3 | 18.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.0 | 11.0 | 61.3 | 10.3 | 53.5 | 25.3 | 0.2 | 47.3 | 18.2 | 0.1 |
| Queue Length 50th (ft) | 14 | 1 | 44 | 6 | 25 | 205 | 0 | 111 | 192 | 0 |
| Queue Length 95th (ft) | 39 | 22 | #114 | 36 | 48 | 321 | 0 | #328 | #456 | 0 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 115 | 652 | 133 | 689 | 196 | 2186 | 748 | 358 | 3099 | 1009 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.06 | 0.51 | 0.14 | 0.38 | 0.52 | 0.08 | 0.51 | 0.44 | 0.04 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

20 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 20 | 2 | 38 | 64 | 10 | 80 | 70 | 1059 | 54 | 173 | 1280 | 39 |
| Future Volume (veh/h) | 20 | 2 | 38 | 64 | 10 | 80 | 70 | 1059 | 54 | 173 | 1280 | 39 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 0.98 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 21 | 2 | 40 | 68 | 11 | 85 | 74 | 1127 | 57 | 184 | 1362 | 41 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 81 | 9 | 174 | 87 | 22 | 170 | 1178 | 2796 | 850 | 101 | 1312 | 406 |
| Arrive On Green | 0.05 | 0.12 | 0.12 | 0.05 | 0.12 | 0.12 | 0.34 | 0.55 | 0.55 | 0.06 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 75 | 1496 | 1774 | 183 | 1417 | 3442 | 5085 | 1546 | 1774 | 5085 | 1574 |
| Grp Volume(v), veh/h | 21 | 0 | 42 | 68 | 0 | 96 | 74 | 1127 | 57 | 184 | 1362 | 41 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1571 | 1774 | 0 | 1600 | 1721 | 1695 | 1546 | 1774 | 1695 | 1574 |
| Q Serve(g_s), s | 1.2 | 0.0 | 2.5 | 4.0 | 0.0 | 5.9 | 1.5 | 13.5 | 1.1 | 6.0 | 27.1 | 2.1 |
| Cycle Q Clear(g_c), s | 1.2 | 0.0 | 2.5 | 4.0 | 0.0 | 5.9 | 1.5 | 13.5 | 1.1 | 6.0 | 27.1 | 2.1 |
| Prop In Lane | 1.00 | | 0.95 | 1.00 | | 0.89 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 81 | 0 | 182 | 87 | 0 | 192 | 1178 | 2796 | 850 | 101 | 1312 | 406 |
| V/C Ratio(X) | 0.26 | 0.00 | 0.23 | 0.78 | 0.00 | 0.50 | 0.06 | 0.40 | 0.07 | 1.82 | 1.04 | 0.10 |
| Avail Cap(c_a), veh/h | 101 | 0 | 628 | 101 | 0 | 640 | 1178 | 2796 | 850 | 101 | 1312 | 406 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.82 | 0.82 | 0.82 | 0.80 | 0.80 | 0.80 |
| Uniform Delay (d), s/veh | 48.4 | 0.0 | 42.1 | 49.3 | 0.0 | 43.3 | 23.2 | 13.7 | 4.4 | 49.5 | 38.9 | 29.7 |
| Incr Delay (d2), s/veh | 0.6 | 0.0 | 0.2 | 23.1 | 0.0 | 1.5 | 0.0 | 0.4 | 0.1 | 396.2 | 32.7 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.0 | 1.1 | 2.5 | 0.0 | 2.7 | 0.7 | 6.4 | 0.8 | 14.1 | 16.6 | 1.0 |
| LnGrp Delay(d),s/veh | 49.0 | 0.0 | 42.4 | 72.4 | 0.0 | 44.8 | 23.2 | 14.0 | 4.6 | 445.7 | 71.7 | 30.1 |
| LnGrp LOS | D | | D | E | | D | C | B | A | F | F | C |
| Approach Vol, veh/h | | 63 | | | 164 | | | 1258 | | | 1587 | |
| Approach Delay, s/veh | | 44.6 | | | 56.2 | | | 14.1 | | | 113.9 | |
| Approach LOS | | D | | | E | | | B | | | F | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.7 | 64.1 | 10.9 | 18.3 | 42.3 | 33.5 | 10.5 | 18.7 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 6 | 27.1 | 6.0 | * 42 | 6.0 | * 27 | 6.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.0 | 15.5 | 6.0 | 4.5 | 3.5 | 29.1 | 3.2 | 7.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.4 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 68.6 | | | | | | | | | |
| HCM 2010 LOS | | | E | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 35.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 35 | 1344 | 62 | 50 | 1061 | 29 | 25 | 0 | 47 | 26 | 0 | 52 |
| Future Vol, veh/h | 35 | 1344 | 62 | 50 | 1061 | 29 | 25 | 0 | 47 | 26 | 0 | 52 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 36 | 1400 | 65 | 52 | 1105 | 30 | 26 | 0 | 49 | 27 | 0 | 54 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 1140 | 0 | 0 | 1465 | 0 | 0 | 2162 | 2749 | 733 | 2001 | 2766 | 573 |
| Stage 1 | - | - | - | - | - | - | 1505 | 1505 | - | 1229 | 1229 | - |
| Stage 2 | - | - | - | - | - | - | 657 | 1244 | - | 772 | 1537 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 609 | - | - | 457 | - | - | 27 | 20 | 363 | 35 | 19 | 463 |
| Stage 1 | - | - | - | - | - | - | 127 | 182 | - | 188 | 248 | - |
| Stage 2 | - | - | - | - | - | - | 420 | 244 | - | 358 | 176 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 606 | - | - | 457 | - | - | ~ 14 | 9 | 363 | ~ 17 | 9 | 461 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 14 | 9 | - | ~ 17 | 9 | - |
| Stage 1 | - | - | - | - | - | - | 85 | 122 | - | 125 | 170 | - |
| Stage 2 | - | - | - | - | - | - | 255 | 167 | - | 207 | 118 | - |

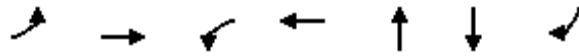
| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|----|--|--|-----|--|--|----------|--|--|----------|--|--|
| HCM Control Delay, s | 2 | | | 2.5 | | | \$ 682.3 | | | \$ 539.6 | | |
| HCM LOS | | | | | | | F | | | F | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|----------|------|-----|-----|-------|-----|-----|----------|
| Capacity (veh/h) | 38 | 606 | - | - | 457 | - | - | 47 |
| HCM Lane V/C Ratio | 1.974 | 0.06 | - | - | 0.114 | - | - | 1.729 |
| HCM Control Delay (s) | \$ 682.3 | 11.3 | 1.8 | - | 13.9 | 2 | - | \$ 539.6 |
| HCM Lane LOS | F | B | A | - | B | A | - | F |
| HCM 95th %tile Q(veh) | 8.1 | 0.2 | - | - | 0.4 | - | - | 8.1 |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Queues
6: Shady St & Caldwell Ave

20 Year Cumulative
Timing Plan: P.M. Peak






















| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 67 | 982 | 88 | 854 | 88 | 20 | 13 |
| v/c Ratio | 0.32 | 0.46 | 0.38 | 0.32 | 0.30 | 0.07 | 0.04 |
| Control Delay | 37.0 | 16.4 | 37.9 | 14.8 | 8.9 | 23.7 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 37.0 | 16.4 | 37.9 | 14.8 | 8.9 | 23.7 | 0.2 |
| Queue Length 50th (ft) | 21 | 68 | 27 | 56 | 0 | 6 | 0 |
| Queue Length 95th (ft) | #92 | 238 | #124 | 202 | 33 | 24 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 219 | 2554 | 235 | 2787 | 1083 | 1101 | 1007 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.31 | 0.38 | 0.37 | 0.31 | 0.08 | 0.02 | 0.01 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

20 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 63 | 899 | 24 | 83 | 788 | 15 | 36 | 0 | 47 | 18 | 1 | 12 |
| Future Volume (veh/h) | 63 | 899 | 24 | 83 | 788 | 15 | 36 | 0 | 47 | 18 | 1 | 12 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 67 | 956 | 26 | 88 | 838 | 16 | 38 | 0 | 50 | 19 | 1 | 13 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 128 | 1982 | 54 | 149 | 2061 | 39 | 60 | 0 | 79 | 82 | 4 | 75 |
| Arrive On Green | 0.07 | 0.39 | 0.39 | 0.08 | 0.40 | 0.40 | 0.08 | 0.00 | 0.08 | 0.05 | 0.05 | 0.05 |
| Sat Flow, veh/h | 1774 | 5086 | 138 | 1774 | 5135 | 98 | 717 | 0 | 943 | 1689 | 89 | 1557 |
| Grp Volume(v), veh/h | 67 | 637 | 345 | 88 | 553 | 301 | 88 | 0 | 0 | 20 | 0 | 13 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1834 | 1774 | 1695 | 1842 | 1660 | 0 | 0 | 1778 | 0 | 1557 |
| Q Serve(g_s), s | 1.8 | 7.2 | 7.2 | 2.4 | 5.9 | 5.9 | 2.6 | 0.0 | 0.0 | 0.5 | 0.0 | 0.4 |
| Cycle Q Clear(g_c), s | 1.8 | 7.2 | 7.2 | 2.4 | 5.9 | 5.9 | 2.6 | 0.0 | 0.0 | 0.5 | 0.0 | 0.4 |
| Prop In Lane | 1.00 | | 0.08 | 1.00 | | 0.05 | 0.43 | | 0.57 | 0.95 | | 1.00 |
| Lane Grp Cap(c), veh/h | 128 | 1321 | 715 | 149 | 1361 | 739 | 140 | 0 | 0 | 86 | 0 | 75 |
| V/C Ratio(X) | 0.52 | 0.48 | 0.48 | 0.59 | 0.41 | 0.41 | 0.63 | 0.00 | 0.00 | 0.23 | 0.00 | 0.17 |
| Avail Cap(c_a), veh/h | 231 | 1797 | 972 | 248 | 1830 | 994 | 1079 | 0 | 0 | 1156 | 0 | 1012 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.7 | 11.6 | 11.6 | 22.4 | 10.9 | 10.9 | 22.5 | 0.0 | 0.0 | 23.2 | 0.0 | 23.2 |
| Incr Delay (d2), s/veh | 1.2 | 0.8 | 1.4 | 1.4 | 0.5 | 1.0 | 3.5 | 0.0 | 0.0 | 1.0 | 0.0 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 3.4 | 3.8 | 1.2 | 2.9 | 3.2 | 1.3 | 0.0 | 0.0 | 0.3 | 0.0 | 0.2 |
| LnGrp Delay(d),s/veh | 23.9 | 12.4 | 13.0 | 23.8 | 11.4 | 11.9 | 25.9 | 0.0 | 0.0 | 24.3 | 0.0 | 24.0 |
| LnGrp LOS | C | B | B | C | B | B | C | | | C | | C |
| Approach Vol, veh/h | | 1049 | | | 942 | | | 88 | | | | 33 |
| Approach Delay, s/veh | | 13.3 | | | 12.7 | | | 25.9 | | | | 24.2 |
| Approach LOS | | B | | | B | | | C | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.3 | 25.8 | | 7.5 | 7.7 | 26.4 | | 9.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 7.1 | 26.9 | | 33.0 | 6.6 | 27.4 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.4 | 9.2 | | 2.5 | 3.8 | 7.9 | | 4.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.5 | | 0.1 | 0.0 | 9.8 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 13.8 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

20 Year Cumulative
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 309 | 747 | 248 | 569 | 282 | 980 | 131 | 199 | 1229 | 123 |
| v/c Ratio | 0.51 | 0.63 | 0.51 | 0.56 | 1.47 | 0.56 | 0.21 | 0.61 | 0.63 | 0.18 |
| Control Delay | 52.8 | 41.5 | 56.8 | 43.2 | 278.5 | 36.2 | 6.7 | 64.9 | 34.9 | 4.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 52.8 | 41.5 | 56.8 | 43.2 | 278.5 | 36.2 | 6.7 | 64.9 | 34.9 | 4.9 |
| Queue Length 50th (ft) | 122 | 189 | 102 | 147 | -167 | 243 | 4 | 82 | 295 | 0 |
| Queue Length 95th (ft) | #227 | 201 | #165 | 152 | #259 | 293 | 49 | #185 | 389 | 39 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 610 | 1882 | 488 | 1812 | 192 | 1746 | 617 | 326 | 1945 | 673 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.51 | 0.40 | 0.51 | 0.31 | 1.47 | 0.56 | 0.21 | 0.61 | 0.63 | 0.18 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

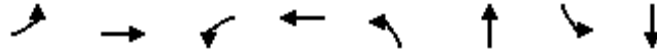
HCM 2010 Signalized Intersection Summary
 7: Mooney Blvd & Caldwell Ave

20 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 294 | 523 | 186 | 236 | 425 | 116 | 268 | 931 | 124 | 189 | 1168 | 117 |
| Future Volume (veh/h) | 294 | 523 | 186 | 236 | 425 | 116 | 268 | 931 | 124 | 189 | 1168 | 117 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 309 | 551 | 196 | 248 | 447 | 122 | 282 | 980 | 131 | 199 | 1229 | 123 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 312 | 891 | 308 | 167 | 788 | 208 | 649 | 2430 | 755 | 167 | 1690 | 516 |
| Arrive On Green | 0.09 | 0.24 | 0.24 | 0.05 | 0.20 | 0.20 | 0.19 | 0.48 | 0.48 | 0.05 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3725 | 1288 | 3442 | 4005 | 1058 | 3442 | 5085 | 1580 | 3442 | 5085 | 1553 |
| Grp Volume(v), veh/h | 309 | 500 | 247 | 248 | 376 | 193 | 282 | 980 | 131 | 199 | 1229 | 123 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1622 | 1721 | 1695 | 1672 | 1721 | 1695 | 1580 | 1721 | 1695 | 1553 |
| Q Serve(g_s), s | 11.7 | 17.1 | 17.8 | 6.3 | 13.0 | 13.6 | 9.4 | 16.2 | 4.5 | 6.3 | 27.7 | 7.5 |
| Cycle Q Clear(g_c), s | 11.7 | 17.1 | 17.8 | 6.3 | 13.0 | 13.6 | 9.4 | 16.2 | 4.5 | 6.3 | 27.7 | 7.5 |
| Prop In Lane | 1.00 | | 0.79 | 1.00 | | 0.63 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 312 | 811 | 388 | 167 | 667 | 329 | 649 | 2430 | 755 | 167 | 1690 | 516 |
| V/C Ratio(X) | 0.99 | 0.62 | 0.64 | 1.49 | 0.56 | 0.59 | 0.43 | 0.40 | 0.17 | 1.19 | 0.73 | 0.24 |
| Avail Cap(c_a), veh/h | 312 | 1278 | 611 | 167 | 1226 | 605 | 649 | 2430 | 755 | 167 | 1690 | 516 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.89 | 0.89 | 0.89 | 0.79 | 0.79 | 0.79 | 0.80 | 0.80 | 0.80 | 0.90 | 0.90 | 0.90 |
| Uniform Delay (d), s/veh | 59.0 | 44.1 | 44.4 | 61.8 | 47.2 | 47.4 | 46.6 | 22.0 | 10.3 | 61.8 | 38.2 | 31.5 |
| Incr Delay (d2), s/veh | 44.8 | 1.3 | 3.0 | 242.7 | 1.2 | 2.6 | 0.1 | 0.4 | 0.4 | 127.6 | 2.5 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.5 | 8.1 | 8.3 | 8.6 | 6.2 | 6.5 | 4.5 | 7.6 | 2.5 | 5.9 | 13.4 | 3.3 |
| LnGrp Delay(d),s/veh | 103.8 | 45.5 | 47.4 | 304.5 | 48.3 | 50.0 | 46.8 | 22.4 | 10.7 | 189.5 | 40.7 | 32.4 |
| LnGrp LOS | F | D | D | F | D | D | D | C | B | F | D | C |
| Approach Vol, veh/h | | 1056 | | | 817 | | | 1393 | | | 1551 | |
| Approach Delay, s/veh | | 63.0 | | | 126.5 | | | 26.2 | | | 59.1 | |
| Approach LOS | | E | | | F | | | C | | | E | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.0 | 68.5 | 12.0 | 37.5 | 30.9 | 49.6 | 17.5 | 32.0 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6.3 | 44.2 | 6.3 | * 49 | 7.3 | * 43 | 8.3 | * 47 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.3 | 18.2 | 8.3 | 19.8 | 11.4 | 29.7 | 13.7 | 15.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 14.2 | 0.0 | 9.2 | 0.0 | 10.4 | 0.0 | 6.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 61.9 | | | | | | | | |
| HCM 2010 LOS | | | | E | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St

20 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 144 | 981 | 211 | 913 | 114 | 252 | 218 | 121 |
| v/c Ratio | 0.82 | 0.67 | 1.20 | 0.62 | 0.22 | 0.48 | 0.60 | 0.28 |
| Control Delay | 67.8 | 24.4 | 163.6 | 22.9 | 12.8 | 7.8 | 20.9 | 9.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 67.8 | 24.4 | 163.6 | 22.9 | 12.8 | 7.8 | 20.9 | 9.3 |
| Queue Length 50th (ft) | 53 | 108 | -92 | 97 | 28 | 11 | 56 | 11 |
| Queue Length 95th (ft) | #200 | #250 | #295 | 210 | 52 | 56 | 94 | 43 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 176 | 1468 | 176 | 1470 | 517 | 950 | 365 | 898 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.82 | 0.67 | 1.20 | 0.62 | 0.22 | 0.27 | 0.60 | 0.13 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 8: Caldwell Ave & Fairway St

20 Year Cumulative
 Timing Plan: P.M. Peak

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 137 | 821 | 111 | 200 | 731 | 137 | 108 | 32 | 207 | 207 | 32 | 83 |
| Future Volume (veh/h) | 137 | 821 | 111 | 200 | 731 | 137 | 108 | 32 | 207 | 207 | 32 | 83 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 144 | 864 | 117 | 211 | 769 | 144 | 114 | 34 | 218 | 218 | 34 | 87 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 181 | 1236 | 166 | 181 | 1179 | 219 | 511 | 49 | 314 | 413 | 119 | 306 |
| Arrive On Green | 0.10 | 0.27 | 0.27 | 0.10 | 0.27 | 0.27 | 0.08 | 0.22 | 0.22 | 0.12 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 4516 | 608 | 1774 | 4310 | 800 | 1774 | 218 | 1398 | 1774 | 458 | 1173 |
| Grp Volume(v), veh/h | 144 | 647 | 334 | 211 | 604 | 309 | 114 | 0 | 252 | 218 | 0 | 121 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1734 | 1774 | 1695 | 1720 | 1774 | 0 | 1616 | 1774 | 0 | 1631 |
| Q Serve(g_s), s | 5.1 | 10.9 | 11.0 | 6.5 | 10.0 | 10.2 | 3.0 | 0.0 | 9.1 | 5.7 | 0.0 | 3.8 |
| Cycle Q Clear(g_c), s | 5.1 | 10.9 | 11.0 | 6.5 | 10.0 | 10.2 | 3.0 | 0.0 | 9.1 | 5.7 | 0.0 | 3.8 |
| Prop In Lane | 1.00 | | 0.35 | 1.00 | | 0.47 | 1.00 | | 0.87 | 1.00 | | 0.72 |
| Lane Grp Cap(c), veh/h | 181 | 928 | 475 | 181 | 928 | 471 | 511 | 0 | 363 | 413 | 0 | 425 |
| V/C Ratio(X) | 0.80 | 0.70 | 0.70 | 1.17 | 0.65 | 0.66 | 0.22 | 0.00 | 0.69 | 0.53 | 0.00 | 0.28 |
| Avail Cap(c_a), veh/h | 181 | 1010 | 517 | 181 | 1010 | 513 | 575 | 0 | 862 | 413 | 0 | 870 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 28.0 | 20.8 | 20.8 | 28.6 | 20.5 | 20.5 | 16.4 | 0.0 | 22.7 | 15.8 | 0.0 | 18.8 |
| Incr Delay (d2), s/veh | 20.0 | 3.1 | 6.1 | 118.9 | 2.4 | 4.8 | 0.5 | 0.0 | 6.4 | 2.4 | 0.0 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.5 | 5.5 | 6.1 | 9.1 | 5.0 | 5.4 | 1.5 | 0.0 | 4.7 | 3.0 | 0.0 | 1.8 |
| LnGrp Delay(d),s/veh | 47.9 | 23.9 | 27.0 | 147.5 | 22.9 | 25.4 | 16.9 | 0.0 | 29.2 | 18.2 | 0.0 | 19.8 |
| LnGrp LOS | D | C | C | F | C | C | B | | C | B | | B |
| Approach Vol, veh/h | | 1125 | | | 1124 | | | 366 | | | 339 | |
| Approach Delay, s/veh | | 27.9 | | | 47.0 | | | 25.3 | | | 18.8 | |
| Approach LOS | | C | | | D | | | C | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.5 | 23.4 | 10.5 | 19.3 | 10.5 | 23.4 | 8.2 | 21.6 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 19.0 | 7.5 | 34.0 | 6.5 | 19.0 | 7.5 | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.5 | 13.0 | 7.7 | 11.1 | 7.1 | 12.2 | 5.0 | 5.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.4 | 0.0 | 3.3 | 0.0 | 4.7 | 0.1 | 1.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 33.8 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave

20 Year Cumulative
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|-------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 64 | 1279 | 162 | 962 | 70 | 257 | 51 | 28 | 40 |
| v/c Ratio | 0.41 | 0.70 | 1.03 | 0.50 | 0.28 | 0.60 | 0.41 | 0.08 | 0.11 |
| Control Delay | 41.9 | 16.1 | 120.2 | 12.3 | 28.9 | 15.7 | 37.1 | 25.1 | 2.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.9 | 16.1 | 120.2 | 12.3 | 28.9 | 15.7 | 37.1 | 25.1 | 2.2 |
| Queue Length 50th (ft) | 28 | 203 | ~78 | 133 | 28 | 32 | 21 | 11 | 0 |
| Queue Length 95th (ft) | 70 | 344 | #216 | 231 | 62 | 98 | 53 | 31 | 7 |
| Internal Link Dist (ft) | | 1064 | | 2595 | | 1465 | | 519 | |
| Turn Bay Length (ft) | 235 | | 300 | | | | | | 200 |
| Base Capacity (vph) | 164 | 1880 | 157 | 1935 | 638 | 822 | 317 | 864 | 777 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.39 | 0.68 | 1.03 | 0.50 | 0.11 | 0.31 | 0.16 | 0.03 | 0.05 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

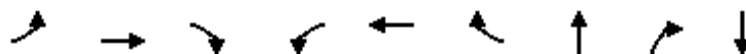
HCM 2010 Signalized Intersection Summary
 9: Stonebrook St & Caldwell Ave

20 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 59 | 1054 | 122 | 149 | 787 | 98 | 64 | 5 | 232 | 47 | 26 | 37 |
| Future Volume (veh/h) | 59 | 1054 | 122 | 149 | 787 | 98 | 64 | 5 | 232 | 47 | 26 | 37 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 64 | 1146 | 133 | 162 | 855 | 107 | 70 | 5 | 252 | 51 | 28 | 40 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 104 | 1543 | 179 | 153 | 1617 | 202 | 387 | 7 | 355 | 185 | 430 | 366 |
| Arrive On Green | 0.06 | 0.48 | 0.48 | 0.09 | 0.51 | 0.51 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1774 | 3188 | 369 | 1774 | 3161 | 396 | 1328 | 31 | 1537 | 1118 | 1863 | 1583 |
| Grp Volume(v), veh/h | 64 | 635 | 644 | 162 | 479 | 483 | 70 | 0 | 257 | 51 | 28 | 40 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1787 | 1774 | 1770 | 1787 | 1328 | 0 | 1568 | 1118 | 1863 | 1583 |
| Q Serve(g_s), s | 2.7 | 21.8 | 21.9 | 6.5 | 13.7 | 13.7 | 3.3 | 0.0 | 11.4 | 3.3 | 0.9 | 1.5 |
| Cycle Q Clear(g_c), s | 2.7 | 21.8 | 21.9 | 6.5 | 13.7 | 13.7 | 4.2 | 0.0 | 11.4 | 14.7 | 0.9 | 1.5 |
| Prop In Lane | 1.00 | | 0.21 | 1.00 | | 0.22 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 104 | 857 | 865 | 153 | 905 | 914 | 387 | 0 | 362 | 185 | 430 | 366 |
| V/C Ratio(X) | 0.61 | 0.74 | 0.74 | 1.06 | 0.53 | 0.53 | 0.18 | 0.00 | 0.71 | 0.28 | 0.07 | 0.11 |
| Avail Cap(c_a), veh/h | 160 | 926 | 935 | 153 | 919 | 928 | 678 | 0 | 706 | 430 | 839 | 713 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.7 | 15.7 | 15.7 | 34.5 | 12.3 | 12.3 | 24.3 | 0.0 | 26.7 | 33.5 | 22.7 | 22.9 |
| Incr Delay (d2), s/veh | 2.2 | 5.0 | 5.0 | 89.9 | 1.8 | 1.7 | 0.5 | 0.0 | 5.4 | 1.7 | 0.1 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 11.8 | 11.9 | 7.0 | 7.1 | 7.2 | 1.3 | 0.0 | 5.5 | 1.1 | 0.5 | 0.7 |
| LnGrp Delay(d),s/veh | 36.9 | 20.7 | 20.7 | 124.4 | 14.1 | 14.1 | 24.8 | 0.0 | 32.1 | 35.2 | 22.8 | 23.2 |
| LnGrp LOS | D | C | C | F | B | B | C | | C | D | C | C |
| Approach Vol, veh/h | | 1343 | | | 1124 | | | 327 | | | 119 | |
| Approach Delay, s/veh | | 21.5 | | | 30.0 | | | 30.5 | | | 28.2 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.5 | 42.6 | | 22.4 | 8.4 | 44.6 | | 22.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 39.5 | | 34.0 | 6.8 | 39.2 | | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.5 | 23.9 | | 13.4 | 4.7 | 15.7 | | 16.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 12.6 | | 3.5 | 0.0 | 13.4 | | 0.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 26.1 | | | | | | | | |
| HCM 2010 LOS | | | | C | | | | | | | | |

Queues
10: West St & Caldwell Ave

20 Year Cumulative
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 157 | 910 | 67 | 115 | 855 | 67 | 210 | 30 | 251 |
| v/c Ratio | 0.63 | 0.59 | 0.09 | 0.54 | 0.64 | 0.10 | 0.55 | 0.07 | 0.59 |
| Control Delay | 41.7 | 17.7 | 3.9 | 39.9 | 20.0 | 4.2 | 28.2 | 0.3 | 23.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.7 | 17.7 | 3.9 | 39.9 | 20.0 | 4.2 | 28.2 | 0.3 | 23.8 |
| Queue Length 50th (ft) | 61 | 150 | 0 | 45 | 143 | 0 | 77 | 0 | 73 |
| Queue Length 95th (ft) | #150 | 248 | 20 | #110 | 237 | 21 | 137 | 0 | 139 |
| Internal Link Dist (ft) | | 2595 | | | 1244 | | 367 | | 412 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 274 | 1558 | 739 | 236 | 1455 | 696 | 815 | 857 | 854 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.57 | 0.58 | 0.09 | 0.49 | 0.59 | 0.10 | 0.26 | 0.04 | 0.29 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 10: West St & Caldwell Ave

20 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  | |
| Traffic Volume (veh/h) | 144 | 837 | 62 | 106 | 787 | 62 | 43 | 150 | 28 | 34 | 98 | 98 |
| Future Volume (veh/h) | 144 | 837 | 62 | 106 | 787 | 62 | 43 | 150 | 28 | 34 | 98 | 98 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 157 | 910 | 67 | 115 | 855 | 67 | 47 | 163 | 30 | 37 | 107 | 107 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 199 | 1446 | 647 | 157 | 1363 | 610 | 137 | 347 | 362 | 104 | 177 | 154 |
| Arrive On Green | 0.11 | 0.41 | 0.41 | 0.09 | 0.39 | 0.39 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1583 | 256 | 1517 | 1583 | 135 | 775 | 676 |
| Grp Volume(v), veh/h | 157 | 910 | 67 | 115 | 855 | 67 | 210 | 0 | 30 | 251 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1583 | 1773 | 0 | 1583 | 1586 | 0 | 0 |
| Q Serve(g_s), s | 4.9 | 11.6 | 1.5 | 3.6 | 11.1 | 1.5 | 0.0 | 0.0 | 0.8 | 2.7 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 4.9 | 11.6 | 1.5 | 3.6 | 11.1 | 1.5 | 5.6 | 0.0 | 0.8 | 8.3 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.22 | | 1.00 | 0.15 | | 0.43 |
| Lane Grp Cap(c), veh/h | 199 | 1446 | 647 | 157 | 1363 | 610 | 483 | 0 | 362 | 435 | 0 | 0 |
| V/C Ratio(X) | 0.79 | 0.63 | 0.10 | 0.73 | 0.63 | 0.11 | 0.43 | 0.00 | 0.08 | 0.58 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 314 | 1748 | 782 | 270 | 1660 | 743 | 1067 | 0 | 925 | 1007 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 24.4 | 13.3 | 10.3 | 25.1 | 14.1 | 11.2 | 19.0 | 0.0 | 17.1 | 19.9 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 2.6 | 1.7 | 0.3 | 2.4 | 1.7 | 0.3 | 1.3 | 0.0 | 0.2 | 2.6 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.5 | 5.9 | 0.7 | 1.9 | 5.7 | 0.7 | 3.0 | 0.0 | 0.4 | 3.9 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 27.1 | 15.0 | 10.6 | 27.5 | 15.8 | 11.4 | 20.3 | 0.0 | 17.3 | 22.4 | 0.0 | 0.0 |
| LnGrp LOS | C | B | B | C | B | B | C | | B | C | | |
| Approach Vol, veh/h | | 1134 | | | 1037 | | | 240 | | | 251 | |
| Approach Delay, s/veh | | 16.4 | | | 16.8 | | | 19.9 | | | 22.4 | |
| Approach LOS | | B | | | B | | | B | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.0 | 29.6 | | 17.9 | 10.3 | 28.3 | | 17.9 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 8.6 | 27.9 | | 33.0 | 10.0 | 26.5 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.6 | 13.6 | | 7.6 | 6.9 | 13.1 | | 10.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.5 | | 2.6 | 0.1 | 8.6 | | 2.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 17.5 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
11: County Center Dr & Cameron Ave

20 Year Cumulative
Timing Plan: P.M. Peak















| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 78 | 426 | 254 | 42 | 439 | 156 |
| v/c Ratio | 0.20 | 0.63 | 0.26 | 0.05 | 0.74 | 0.16 |
| Control Delay | 15.7 | 7.0 | 5.9 | 2.2 | 16.7 | 5.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 15.7 | 7.0 | 5.9 | 2.2 | 16.7 | 5.3 |
| Queue Length 50th (ft) | 13 | 0 | 21 | 0 | 51 | 12 |
| Queue Length 95th (ft) | 48 | 57 | 72 | 10 | #205 | 45 |
| Internal Link Dist (ft) | 1226 | | 772 | | | 355 |
| Turn Bay Length (ft) | | 100 | | 160 | 145 | |
| Base Capacity (vph) | 889 | 990 | 1579 | 1321 | 950 | 1579 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.09 | 0.43 | 0.16 | 0.03 | 0.46 | 0.10 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 11: County Center Dr & Cameron Ave

20 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  | | |
|------------------------------|---|---|---|---|---|---|---|------|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT | | |
| Lane Configurations |  |  |  |  |  |  | | |
| Traffic Volume (veh/h) | 73 | 396 | 236 | 39 | 408 | 145 | | |
| Future Volume (veh/h) | 73 | 396 | 236 | 39 | 408 | 145 | | |
| Number | 3 | 18 | 2 | 12 | 1 | 6 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 0.98 | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 78 | 426 | 254 | 42 | 439 | 156 | | |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 539 | 481 | 977 | 813 | 622 | 977 | | |
| Arrive On Green | 0.30 | 0.30 | 0.52 | 0.52 | 0.52 | 0.52 | | |
| Sat Flow, veh/h | 1774 | 1583 | 1863 | 1551 | 1079 | 1863 | | |
| Grp Volume(v), veh/h | 78 | 426 | 254 | 42 | 439 | 156 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1583 | 1863 | 1551 | 1079 | 1863 | | |
| Q Serve(g_s), s | 1.7 | 13.4 | 3.9 | 0.7 | 19.8 | 2.3 | | |
| Cycle Q Clear(g_c), s | 1.7 | 13.4 | 3.9 | 0.7 | 23.7 | 2.3 | | |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 539 | 481 | 977 | 813 | 622 | 977 | | |
| V/C Ratio(X) | 0.14 | 0.89 | 0.26 | 0.05 | 0.71 | 0.16 | | |
| Avail Cap(c_a), veh/h | 609 | 544 | 1173 | 976 | 736 | 1173 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 13.3 | 17.4 | 6.9 | 6.1 | 13.4 | 6.5 | | |
| Incr Delay (d2), s/veh | 0.1 | 14.8 | 0.1 | 0.0 | 2.5 | 0.1 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 0.8 | 7.8 | 2.0 | 0.3 | 6.3 | 1.2 | | |
| LnGrp Delay(d),s/veh | 13.4 | 32.2 | 7.0 | 6.1 | 15.9 | 6.5 | | |
| LnGrp LOS | B | C | A | A | B | A | | |
| Approach Vol, veh/h | 504 | | 296 | | | 595 | | |
| Approach Delay, s/veh | 29.3 | | 6.9 | | | 13.5 | | |
| Approach LOS | C | | A | | | B | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | | | 6 | | 8 |
| Phs Duration (G+Y+Rc), s | | 32.0 | | | | 32.0 | | 20.4 |
| Change Period (Y+Rc), s | | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | | | 33.0 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | | 5.9 | | | | 25.7 | | 15.4 |
| Green Ext Time (p_c), s | | 1.5 | | | | 1.7 | | 0.5 |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 17.8 | | | | | |
| HCM 2010 LOS | | | B | | | | | |

Queues
12: Mooney Blvd & Cameron Ave

20 Year Cumulative
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|-------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 213 | 360 | 159 | 431 | 71 | 865 | 143 | 343 | 1003 | 173 |
| v/c Ratio | 0.72 | 0.43 | 0.91 | 0.58 | 0.42 | 0.53 | 0.23 | 0.71 | 0.46 | 0.22 |
| Control Delay | 62.8 | 37.1 | 102.2 | 20.5 | 62.9 | 36.3 | 2.6 | 58.5 | 27.6 | 3.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 62.8 | 37.1 | 102.2 | 20.5 | 62.9 | 36.3 | 2.6 | 58.5 | 27.6 | 3.6 |
| Queue Length 50th (ft) | 155 | 123 | 124 | 70 | 27 | 197 | 0 | 130 | 197 | 0 |
| Queue Length 95th (ft) | #330 | 131 | #255 | 89 | 53 | 285 | 21 | #241 | 315 | 38 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 294 | 1349 | 175 | 1332 | 171 | 1636 | 632 | 482 | 2195 | 786 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.72 | 0.27 | 0.91 | 0.32 | 0.42 | 0.53 | 0.23 | 0.71 | 0.46 | 0.22 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

20 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 209 | 305 | 48 | 156 | 181 | 241 | 70 | 848 | 140 | 336 | 983 | 170 |
| Future Volume (veh/h) | 209 | 305 | 48 | 156 | 181 | 241 | 70 | 848 | 140 | 336 | 983 | 170 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 213 | 311 | 49 | 159 | 185 | 246 | 71 | 865 | 143 | 343 | 1003 | 173 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 211 | 732 | 114 | 176 | 376 | 336 | 662 | 1843 | 572 | 338 | 1335 | 415 |
| Arrive On Green | 0.12 | 0.24 | 0.24 | 0.10 | 0.21 | 0.21 | 0.19 | 0.36 | 0.36 | 0.10 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 3069 | 478 | 1774 | 1770 | 1579 | 3442 | 5085 | 1579 | 3442 | 5085 | 1580 |
| Grp Volume(v), veh/h | 213 | 178 | 182 | 159 | 185 | 246 | 71 | 865 | 143 | 343 | 1003 | 173 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1778 | 1774 | 1770 | 1579 | 1721 | 1695 | 1579 | 1721 | 1695 | 1580 |
| Q Serve(g_s), s | 14.3 | 10.2 | 10.4 | 10.6 | 11.0 | 17.4 | 2.0 | 15.7 | 7.6 | 11.8 | 21.7 | 10.9 |
| Cycle Q Clear(g_c), s | 14.3 | 10.2 | 10.4 | 10.6 | 11.0 | 17.4 | 2.0 | 15.7 | 7.6 | 11.8 | 21.7 | 10.9 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 211 | 422 | 424 | 176 | 376 | 336 | 662 | 1843 | 572 | 338 | 1335 | 415 |
| V/C Ratio(X) | 1.01 | 0.42 | 0.43 | 0.90 | 0.49 | 0.73 | 0.11 | 0.47 | 0.25 | 1.01 | 0.75 | 0.42 |
| Avail Cap(c_a), veh/h | 211 | 684 | 687 | 176 | 649 | 579 | 662 | 1843 | 572 | 338 | 1335 | 415 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.43 | 0.43 | 0.43 | 0.76 | 0.76 | 0.76 |
| Uniform Delay (d), s/veh | 52.8 | 38.7 | 38.8 | 53.5 | 41.5 | 44.1 | 40.0 | 29.4 | 26.8 | 54.1 | 40.7 | 36.6 |
| Incr Delay (d2), s/veh | 63.9 | 1.2 | 1.3 | 40.7 | 2.3 | 7.1 | 0.0 | 0.4 | 0.4 | 46.0 | 3.0 | 2.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 10.7 | 5.1 | 5.3 | 7.2 | 5.6 | 8.2 | 1.0 | 7.4 | 3.4 | 7.8 | 10.5 | 5.0 |
| LnGrp Delay(d),s/veh | 116.7 | 39.9 | 40.1 | 94.2 | 43.9 | 51.2 | 40.0 | 29.8 | 27.3 | 100.2 | 43.7 | 39.0 |
| LnGrp LOS | F | D | D | F | D | D | D | C | C | F | D | D |
| Approach Vol, veh/h | | 573 | | | 590 | | | 1079 | | | 1519 | |
| Approach Delay, s/veh | | 68.5 | | | 60.5 | | | 30.1 | | | 55.9 | |
| Approach LOS | | E | | | E | | | C | | | E | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 17.5 | 49.9 | 17.6 | 35.0 | 29.5 | 37.9 | 20.7 | 31.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | 6.4 | 6.4 | * 6.4 | 6.4 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 12 | 25.7 | * 12 | 46.4 | 6.0 | * 32 | 14.3 | * 44 | | | | |
| Max Q Clear Time (g_c+I1), s | 13.8 | 17.7 | 12.6 | 12.4 | 4.0 | 23.7 | 16.3 | 19.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.4 | 0.0 | 3.8 | 0.0 | 6.7 | 0.0 | 5.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 51.1 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 95 | 699 | 52 | 233 | 541 | 82 | 94 | 99 | 313 | 53 | 165 | 75 |
| Future Vol, veh/h | 95 | 699 | 52 | 233 | 541 | 82 | 94 | 99 | 313 | 53 | 165 | 75 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | 145 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 98 | 721 | 54 | 240 | 558 | 85 | 97 | 102 | 323 | 55 | 170 | 77 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 643 | 0 | 0 | 775 | 0 | 0 | 2148 | 2067 | 748 | 2238 | 2052 | 601 |
| Stage 1 | - | - | - | - | - | - | 944 | 944 | - | 1081 | 1081 | - |
| Stage 2 | - | - | - | - | - | - | 1204 | 1123 | - | 1157 | 971 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 942 | - | - | 841 | - | - | ~ 35 | ~ 54 | 412 | ~ 30 | ~ 56 | 500 |
| Stage 1 | - | - | - | - | - | - | 315 | 341 | - | 264 | 294 | - |
| Stage 2 | - | - | - | - | - | - | 225 | 281 | - | 239 | 331 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 942 | - | - | 841 | - | - | ~ 35 | 412 | - | ~ 36 | 500 | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 35 | - | - | ~ 36 | - | - |
| Stage 1 | - | - | - | - | - | - | 282 | 306 | - | 237 | 210 | - |
| Stage 2 | - | - | - | - | - | - | ~ 26 | 201 | - | ~ 31 | 297 | - |

| Approach | EB | WB | NB | SB |
|----------------------|----|----|----|----|
| HCM Control Delay, s | 1 | 3 | | |
| HCM LOS | | | - | - |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | NBLn3 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | SBLn3 |
|-----------------------|-------|----------|----------|-------|-----|-----|-------|-----|-----|-------|----------|----------|
| Capacity (veh/h) | - | 35 | 167 | 942 | - | - | 841 | - | - | - | 36 | 65 |
| HCM Lane V/C Ratio | - | 1.458 | 2.238 | 0.104 | - | - | 0.286 | - | - | - | 2.363 | 2.498 |
| HCM Control Delay (s) | - | \$ 490.4 | \$ 620.1 | 9.3 | - | - | 11 | - | - | - | \$ 859.1 | \$ 816.8 |
| HCM Lane LOS | - | F | F | A | - | - | B | - | - | - | F | F |
| HCM 95th %tile Q(veh) | - | 5.5 | 30.4 | 0.3 | - | - | 1.2 | - | - | - | 9.5 | 16 |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 131 | 670 | 18 | 10 | 512 | 10 | 9 | 6 | 2 | 6 | 8 | 146 |
| Future Vol, veh/h | 131 | 670 | 18 | 10 | 512 | 10 | 9 | 6 | 2 | 6 | 8 | 146 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 135 | 691 | 19 | 10 | 528 | 10 | 9 | 6 | 2 | 6 | 8 | 151 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 538 | 0 | 0 | 710 | 0 | 0 | 1604 | 1529 | 701 | 1528 | 1533 | 533 |
| Stage 1 | - | - | - | - | - | - | 971 | 971 | - | 553 | 553 | - |
| Stage 2 | - | - | - | - | - | - | 633 | 558 | - | 975 | 980 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1030 | - | - | 889 | - | - | 85 | 117 | 439 | 96 | 116 | 547 |
| Stage 1 | - | - | - | - | - | - | 304 | 331 | - | 517 | 514 | - |
| Stage 2 | - | - | - | - | - | - | 468 | 512 | - | 303 | 328 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1030 | - | - | 889 | - | - | 52 | 101 | 439 | 81 | 100 | 547 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 52 | 101 | - | 81 | 100 | - |
| Stage 1 | - | - | - | - | - | - | 264 | 288 | - | 449 | 508 | - |
| Stage 2 | - | - | - | - | - | - | 330 | 506 | - | 256 | 285 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 1.4 | | | 0.2 | | | 70.4 | | | 18.9 | | |
| HCM LOS | | | | | | | F | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|-------|
| Capacity (veh/h) | 72 | 1030 | - | - | 889 | - | - | 81 | 444 |
| HCM Lane V/C Ratio | 0.243 | 0.131 | - | - | 0.012 | - | - | 0.076 | 0.358 |
| HCM Control Delay (s) | 70.4 | 9 | - | - | 9.1 | - | - | 53.1 | 17.6 |
| HCM Lane LOS | F | A | - | - | A | - | - | F | C |
| HCM 95th %tile Q(veh) | 0.9 | 0.5 | - | - | 0 | - | - | 0.2 | 1.6 |

Queues
15: Court St & Cameron Ave

20 Year Cumulative
Timing Plan: P.M. Peak























| Lane Group | EBL | EBT | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 364 | 374 | 98 | 4 | 12 | 85 | 274 | 263 |
| v/c Ratio | 0.61 | 0.63 | 0.11 | 0.02 | 0.01 | 0.25 | 0.30 | 0.47 |
| Control Delay | 12.0 | 12.4 | 3.4 | 13.5 | 13.0 | 15.1 | 3.8 | 5.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 12.0 | 12.4 | 3.4 | 13.5 | 13.0 | 15.1 | 3.8 | 5.9 |
| Queue Length 50th (ft) | 43 | 45 | 4 | 1 | 1 | 12 | 1 | 0 |
| Queue Length 95th (ft) | 128 | 133 | 21 | 7 | 6 | 51 | 25 | 49 |
| Internal Link Dist (ft) | | 563 | 789 | | 604 | | 1556 | |
| Turn Bay Length (ft) | 260 | | | 225 | | 195 | | 200 |
| Base Capacity (vph) | 1228 | 1228 | 1724 | 656 | 2165 | 853 | 1876 | 983 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.30 | 0.30 | 0.06 | 0.01 | 0.01 | 0.10 | 0.15 | 0.27 |

Intersection Summary

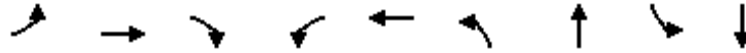
HCM 2010 Signalized Intersection Summary
 15: Court St & Cameron Ave

20 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 620 | 52 | 6 | 2 | 43 | 45 | 4 | 11 | 0 | 78 | 9 | 485 |
| Future Volume (veh/h) | 620 | 52 | 6 | 2 | 43 | 45 | 4 | 11 | 0 | 78 | 9 | 485 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 721 | 0 | 0 | 2 | 47 | 49 | 4 | 12 | 0 | 85 | 10 | 527 |
| Adj No. of Lanes | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 2 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 1563 | 734 | 0 | 133 | 333 | 337 | 500 | 1021 | 0 | 654 | 537 | 913 |
| Arrive On Green | 0.39 | 0.00 | 0.00 | 0.39 | 0.39 | 0.39 | 0.29 | 0.29 | 0.00 | 0.29 | 0.29 | 0.29 |
| Sat Flow, veh/h | 2589 | 1863 | 0 | 8 | 846 | 855 | 864 | 3632 | 0 | 1397 | 1863 | 3167 |
| Grp Volume(v), veh/h | 721 | 0 | 0 | 98 | 0 | 0 | 4 | 12 | 0 | 85 | 10 | 527 |
| Grp Sat Flow(s),veh/h/ln | 1294 | 1863 | 0 | 1709 | 0 | 0 | 864 | 1770 | 0 | 1397 | 1863 | 1583 |
| Q Serve(g_s), s | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 1.3 | 0.1 | 4.0 |
| Cycle Q Clear(g_c), s | 6.1 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.2 | 0.1 | 0.0 | 1.4 | 0.1 | 4.0 |
| Prop In Lane | 1.00 | | 0.00 | 0.02 | | 0.50 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 1563 | 734 | 0 | 803 | 0 | 0 | 500 | 1021 | 0 | 654 | 537 | 913 |
| V/C Ratio(X) | 0.46 | 0.00 | 0.00 | 0.12 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.13 | 0.02 | 0.58 |
| Avail Cap(c_a), veh/h | 6073 | 3979 | 0 | 3767 | 0 | 0 | 876 | 2562 | 0 | 1262 | 1348 | 2292 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 6.9 | 0.0 | 0.0 | 5.5 | 0.0 | 0.0 | 7.3 | 7.2 | 0.0 | 7.7 | 7.2 | 8.6 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.2 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.1 | 1.8 |
| LnGrp Delay(d),s/veh | 7.1 | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 | 7.3 | 7.2 | 0.0 | 7.8 | 7.2 | 9.2 |
| LnGrp LOS | A | | | A | | | A | A | | A | A | A |
| Approach Vol, veh/h | | 721 | | | 98 | | | 16 | | | 622 | |
| Approach Delay, s/veh | | 7.1 | | | 5.6 | | | 7.2 | | | 9.0 | |
| Approach LOS | | A | | | A | | | A | | | A | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 12.7 | | 15.7 | | 12.7 | | 15.7 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 20.5 | | 60.5 | | 20.5 | | 60.5 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.2 | | 8.1 | | 6.0 | | 3.0 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 3.1 | | 2.1 | | 0.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 7.8 | | | | | | | | |
| HCM 2010 LOS | | | | A | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
16: Demaree St & Visalia Pkwy

20 Year Cumulative
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 19 | 267 | 59 | 109 | 406 | 67 | 705 | 131 | 641 |
| v/c Ratio | 0.15 | 0.60 | 0.12 | 0.63 | 0.33 | 0.42 | 0.67 | 0.65 | 0.51 |
| Control Delay | 46.8 | 36.1 | 0.5 | 59.0 | 18.4 | 49.6 | 29.2 | 56.4 | 25.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 46.8 | 36.1 | 0.5 | 59.0 | 18.4 | 49.6 | 29.2 | 56.4 | 25.1 |
| Queue Length 50th (ft) | 10 | 130 | 0 | 58 | 59 | 35 | 168 | 68 | 145 |
| Queue Length 95th (ft) | 37 | 233 | 0 | #164 | 128 | 89 | 263 | #180 | 236 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 775 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 133 | 756 | 715 | 185 | 1509 | 204 | 1485 | 228 | 1543 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.14 | 0.35 | 0.08 | 0.59 | 0.27 | 0.33 | 0.47 | 0.57 | 0.42 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

20 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 18 | 254 | 56 | 104 | 252 | 134 | 64 | 539 | 131 | 124 | 553 | 56 |
| Future Volume (veh/h) | 18 | 254 | 56 | 104 | 252 | 134 | 64 | 539 | 131 | 124 | 553 | 56 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 19 | 267 | 59 | 109 | 265 | 141 | 67 | 567 | 138 | 131 | 582 | 59 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 47 | 402 | 341 | 140 | 602 | 310 | 113 | 867 | 210 | 166 | 1094 | 111 |
| Arrive On Green | 0.03 | 0.22 | 0.22 | 0.08 | 0.27 | 0.27 | 0.06 | 0.31 | 0.31 | 0.09 | 0.34 | 0.34 |
| Sat Flow, veh/h | 1774 | 1863 | 1583 | 1774 | 2251 | 1159 | 1774 | 2826 | 686 | 1774 | 3246 | 328 |
| Grp Volume(v), veh/h | 19 | 267 | 59 | 109 | 206 | 200 | 67 | 354 | 351 | 131 | 317 | 324 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1583 | 1774 | 1770 | 1640 | 1774 | 1770 | 1742 | 1774 | 1770 | 1805 |
| Q Serve(g_s), s | 0.7 | 8.9 | 2.1 | 4.1 | 6.5 | 6.8 | 2.5 | 11.7 | 11.8 | 4.9 | 9.8 | 9.8 |
| Cycle Q Clear(g_c), s | 0.7 | 8.9 | 2.1 | 4.1 | 6.5 | 6.8 | 2.5 | 11.7 | 11.8 | 4.9 | 9.8 | 9.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.71 | 1.00 | | 0.39 | 1.00 | | 0.18 |
| Lane Grp Cap(c), veh/h | 47 | 402 | 341 | 140 | 474 | 439 | 113 | 543 | 534 | 166 | 597 | 608 |
| V/C Ratio(X) | 0.40 | 0.66 | 0.17 | 0.78 | 0.44 | 0.45 | 0.59 | 0.65 | 0.66 | 0.79 | 0.53 | 0.53 |
| Avail Cap(c_a), veh/h | 165 | 938 | 797 | 231 | 956 | 887 | 255 | 938 | 923 | 284 | 967 | 986 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 32.3 | 24.3 | 21.6 | 30.5 | 20.5 | 20.6 | 30.8 | 20.3 | 20.3 | 29.9 | 18.1 | 18.1 |
| Incr Delay (d2), s/veh | 2.0 | 5.7 | 0.7 | 3.6 | 1.9 | 2.2 | 1.9 | 2.6 | 2.7 | 3.1 | 1.4 | 1.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 5.2 | 1.0 | 2.1 | 3.4 | 3.4 | 1.3 | 6.1 | 6.0 | 2.5 | 5.0 | 5.1 |
| LnGrp Delay(d),s/veh | 34.4 | 29.9 | 22.3 | 34.1 | 22.4 | 22.9 | 32.6 | 22.9 | 23.0 | 33.0 | 19.5 | 19.5 |
| LnGrp LOS | C | C | C | C | C | C | C | C | C | C | B | B |
| Approach Vol, veh/h | | 345 | | | 515 | | | 772 | | | 772 | |
| Approach Delay, s/veh | | 28.9 | | | 25.1 | | | 23.8 | | | 21.8 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.5 | 27.7 | 9.5 | 19.8 | 8.5 | 29.8 | 6.0 | 23.3 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 11 | 35.8 | * 8.8 | 34.0 | * 9.7 | 36.9 | * 6.3 | 36.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.9 | 13.8 | 6.1 | 10.9 | 4.5 | 11.8 | 2.7 | 8.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.9 | 0.0 | 3.7 | 0.0 | 6.6 | 0.0 | 5.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 24.1 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↵ | ↕↗ | | ↵ | ↕↗ | | | ↕↗ | | | ↕↗ | |
| Traffic Vol, veh/h | 30 | 406 | 4 | 5 | 429 | 17 | 2 | 0 | 1 | 21 | 1 | 41 |
| Future Vol, veh/h | 30 | 406 | 4 | 5 | 429 | 17 | 2 | 0 | 1 | 21 | 1 | 41 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 33 | 441 | 4 | 5 | 466 | 18 | 2 | 0 | 1 | 23 | 1 | 45 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 484 | 0 | 0 | 445 | 0 | 0 | 753 | 1003 | 223 | 772 | 996 | 242 |
| Stage 1 | - | - | - | - | - | - | 509 | 509 | - | 485 | 485 | - |
| Stage 2 | - | - | - | - | - | - | 244 | 494 | - | 287 | 511 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 1075 | - | - | 1112 | - | - | 298 | 241 | 780 | 289 | 243 | 759 |
| Stage 1 | - | - | - | - | - | - | 515 | 536 | - | 532 | 550 | - |
| Stage 2 | - | - | - | - | - | - | 738 | 545 | - | 696 | 535 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1075 | - | - | 1112 | - | - | 272 | 233 | 780 | 281 | 234 | 759 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 272 | 233 | - | 281 | 234 | - |
| Stage 1 | - | - | - | - | - | - | 499 | 519 | - | 516 | 548 | - |
| Stage 2 | - | - | - | - | - | - | 690 | 543 | - | 674 | 518 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.6 | | | 0.1 | | | 15.5 | | | 13.9 | | |
| HCM LOS | | | | | | | C | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 347 | 1075 | - | - | 1112 | - | - | 474 |
| HCM Lane V/C Ratio | 0.009 | 0.03 | - | - | 0.005 | - | - | 0.144 |
| HCM Control Delay (s) | 15.5 | 8.5 | - | - | 8.3 | - | - | 13.9 |
| HCM Lane LOS | | C | A | - | - | A | - | B |
| HCM 95th %tile Q(veh) | 0 | 0.1 | - | - | 0 | - | - | 0.5 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.5 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 114 | 447 | 481 | 147 | 83 | 123 |
| Future Vol, veh/h | 114 | 447 | 481 | 147 | 83 | 123 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 124 | 486 | 523 | 160 | 90 | 134 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 683 | 0 | - | 0 | 1094 342 |
| Stage 1 | - | - | - | - | 603 - |
| Stage 2 | - | - | - | - | 491 - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 3.32 |
| Pot Cap-1 Maneuver | 906 | - | - | - | 208 654 |
| Stage 1 | - | - | - | - | 509 - |
| Stage 2 | - | - | - | - | 581 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 906 | - | - | - | 180 654 |
| Mov Cap-2 Maneuver | - | - | - | - | 180 - |
| Stage 1 | - | - | - | - | 439 - |
| Stage 2 | - | - | - | - | 581 - |

| Approach | EB | WB | SB |
|----------------------|----|----|------|
| HCM Control Delay, s | 2 | 0 | 24.7 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 906 | - | - | - | 180 | 654 |
| HCM Lane V/C Ratio | 0.137 | - | - | - | 0.501 | 0.204 |
| HCM Control Delay (s) | 9.6 | - | - | - | 43.6 | 11.9 |
| HCM Lane LOS | A | - | - | - | E | B |
| HCM 95th %tile Q(veh) | 0.5 | - | - | - | 2.5 | 0.8 |

HCM 2010 TWSC
 19: Main Site Access/Target Dwy & Visalia Pkwy

20 Year Cumulative
 Timing Plan: P.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 153.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↵ | ↕ | | ↵ | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 79 | 371 | 74 | 161 | 408 | 32 | 131 | 0 | 260 | 135 | 0 | 68 |
| Future Vol, veh/h | 79 | 371 | 74 | 161 | 408 | 32 | 131 | 0 | 260 | 135 | 0 | 68 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 86 | 403 | 80 | 175 | 443 | 35 | 142 | 0 | 283 | 147 | 0 | 74 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 479 | 0 | 0 | 483 | 0 | 0 | 1187 | 1444 | 242 | 1186 | 1467 | 240 |
| Stage 1 | - | - | - | - | - | - | 615 | 615 | - | 812 | 812 | - |
| Stage 2 | - | - | - | - | - | - | 572 | 829 | - | 374 | 655 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 1080 | - | - | 1076 | - | - | 144 | 131 | 759 | ~ 144 | 127 | 761 |
| Stage 1 | - | - | - | - | - | - | 445 | 480 | - | 339 | 390 | - |
| Stage 2 | - | - | - | - | - | - | 472 | 383 | - | 619 | 461 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1079 | - | - | 1076 | - | - | ~ 107 | 101 | 759 | ~ 74 | 98 | 760 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 107 | 101 | - | ~ 74 | 98 | - |
| Stage 1 | - | - | - | - | - | - | 409 | 442 | - | 312 | 326 | - |
| Stage 2 | - | - | - | - | - | - | 357 | 320 | - | 358 | 424 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|----------|--|--|----------|--|--|
| HCM Control Delay, s | 1.3 | | | 2.4 | | | \$ 366.2 | | | \$ 584.1 | | |
| HCM LOS | | | | | | | F | | | F | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|----------|------|-----|-----|-------|-----|-----|----------|
| Capacity (veh/h) | 250 | 1079 | - | - | 1076 | - | - | 106 |
| HCM Lane V/C Ratio | 1.7 | 0.08 | - | - | 0.163 | - | - | 2.082 |
| HCM Control Delay (s) | \$ 366.2 | 8.6 | - | - | 9 | - | - | \$ 584.1 |
| HCM Lane LOS | F | A | - | - | A | - | - | F |
| HCM 95th %tile Q(veh) | 27.6 | 0.3 | - | - | 0.6 | - | - | 18.7 |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Queues
20: Mooney Blvd & Visalia Pkwy

20 Year Cumulative
Timing Plan: P.M. Peak





























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 134 | 375 | 297 | 299 | 142 | 1071 | 54 | 881 | 67 |
| v/c Ratio | 1.15 | 0.63 | 0.82 | 0.30 | 0.76 | 0.80 | 0.47 | 0.54 | 0.10 |
| Control Delay | 174.1 | 30.0 | 59.5 | 26.0 | 72.9 | 37.5 | 63.5 | 33.6 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 174.1 | 30.0 | 59.5 | 26.0 | 72.9 | 37.5 | 63.5 | 33.6 | 0.3 |
| Queue Length 50th (ft) | ~111 | 75 | 201 | 73 | 99 | 361 | 37 | 189 | 0 |
| Queue Length 95th (ft) | #236 | 122 | 280 | 97 | #199 | #571 | #92 | 262 | 0 |
| Internal Link Dist (ft) | | 765 | | 337 | | 252 | | 1110 | |
| Turn Bay Length (ft) | 180 | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 117 | 699 | 469 | 1294 | 188 | 1334 | 115 | 1643 | 654 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.15 | 0.54 | 0.63 | 0.23 | 0.76 | 0.80 | 0.47 | 0.54 | 0.10 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

20 Year Cumulative
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |  |   | |  |    |  |
| Traffic Volume (veh/h) | 125 | 195 | 153 | 276 | 214 | 64 | 132 | 754 | 242 | 50 | 819 | 62 |
| Future Volume (veh/h) | 125 | 195 | 153 | 276 | 214 | 64 | 132 | 754 | 242 | 50 | 819 | 62 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 134 | 210 | 165 | 297 | 230 | 69 | 142 | 811 | 260 | 54 | 881 | 67 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 118 | 278 | 207 | 328 | 725 | 212 | 355 | 1046 | 335 | 78 | 1174 | 361 |
| Arrive On Green | 0.07 | 0.14 | 0.14 | 0.18 | 0.27 | 0.27 | 0.20 | 0.40 | 0.40 | 0.04 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1774 | 1923 | 1433 | 1774 | 2694 | 788 | 1774 | 2637 | 845 | 1774 | 5085 | 1561 |
| Grp Volume(v), veh/h | 134 | 192 | 183 | 297 | 149 | 150 | 142 | 544 | 527 | 54 | 881 | 67 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1587 | 1774 | 1770 | 1712 | 1774 | 1770 | 1712 | 1774 | 1695 | 1561 |
| Q Serve(g_s), s | 7.3 | 11.5 | 12.2 | 18.0 | 7.4 | 7.7 | 7.7 | 29.5 | 29.5 | 3.3 | 17.7 | 2.9 |
| Cycle Q Clear(g_c), s | 7.3 | 11.5 | 12.2 | 18.0 | 7.4 | 7.7 | 7.7 | 29.5 | 29.5 | 3.3 | 17.7 | 2.9 |
| Prop In Lane | 1.00 | | 0.90 | 1.00 | | 0.46 | 1.00 | | 0.49 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 118 | 256 | 229 | 328 | 476 | 461 | 355 | 702 | 679 | 78 | 1174 | 361 |
| V/C Ratio(X) | 1.14 | 0.75 | 0.80 | 0.91 | 0.31 | 0.33 | 0.40 | 0.78 | 0.78 | 0.69 | 0.75 | 0.19 |
| Avail Cap(c_a), veh/h | 118 | 307 | 276 | 471 | 660 | 638 | 355 | 702 | 679 | 97 | 1174 | 361 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.84 | 0.84 | 0.84 |
| Uniform Delay (d), s/veh | 51.3 | 45.2 | 45.5 | 43.9 | 32.1 | 32.2 | 38.3 | 28.9 | 28.9 | 51.8 | 39.3 | 19.9 |
| Incr Delay (d2), s/veh | 124.9 | 14.2 | 19.7 | 13.0 | 1.1 | 1.2 | 0.3 | 8.2 | 8.5 | 7.7 | 3.8 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.6 | 6.6 | 6.6 | 10.0 | 3.7 | 3.8 | 3.8 | 16.0 | 15.5 | 1.8 | 8.7 | 1.6 |
| LnGrp Delay(d),s/veh | 176.2 | 59.4 | 65.2 | 56.9 | 33.2 | 33.4 | 38.5 | 37.1 | 37.4 | 59.5 | 43.1 | 20.9 |
| LnGrp LOS | F | E | E | E | C | C | D | D | D | E | D | C |
| Approach Vol, veh/h | | 509 | | | 596 | | | 1213 | | | 1002 | |
| Approach Delay, s/veh | | 92.2 | | | 45.0 | | | 37.4 | | | 42.5 | |
| Approach LOS | | F | | | D | | | D | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.5 | 50.4 | 26.7 | 22.3 | 28.8 | 32.2 | 13.0 | 36.0 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | 6.4 | * 6.4 | 6.8 | * 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 31.1 | 29.2 | * 19 | 11.7 | * 25 | * 7.3 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.3 | 31.5 | 20.0 | 14.2 | 9.7 | 19.7 | 9.3 | 9.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.3 | 1.6 | 0.0 | 4.3 | 0.0 | 3.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 48.7 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 9.5 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↖ | ↗ | ↖ | | ↖ | ↗ |
| Traffic Vol, veh/h | 194 | 219 | 56 | 33 | 184 | 255 |
| Future Vol, veh/h | 194 | 219 | 56 | 33 | 184 | 255 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 211 | 238 | 61 | 36 | 200 | 277 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 97 | 0 | - | 0 | 620 49 |
| Stage 1 | - | - | - | - | 79 - |
| Stage 2 | - | - | - | - | 541 - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 3.32 |
| Pot Cap-1 Maneuver | 1494 | - | - | - | 420 1009 |
| Stage 1 | - | - | - | - | 935 - |
| Stage 2 | - | - | - | - | 548 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1494 | - | - | - | 361 1009 |
| Mov Cap-2 Maneuver | - | - | - | - | 361 - |
| Stage 1 | - | - | - | - | 803 - |
| Stage 2 | - | - | - | - | 548 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 3.7 | 0 | 16.9 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1494 | - | - | - | 361 | 1009 |
| HCM Lane V/C Ratio | 0.141 | - | - | - | 0.554 | 0.275 |
| HCM Control Delay (s) | 7.8 | - | - | - | 26.7 | 9.9 |
| HCM Lane LOS | A | - | - | - | D | A |
| HCM 95th %tile Q(veh) | 0.5 | - | - | - | 3.2 | 1.1 |

Queues
22: Mooney Blvd & Midvalley Ave

20 Year Cumulative
Timing Plan: P.M. Peak



| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 43 | 11 | 25 | 8 | 1157 | 10 | 1153 | 81 |
| v/c Ratio | 0.15 | 0.02 | 0.06 | 0.04 | 0.47 | 0.05 | 0.47 | 0.07 |
| Control Delay | 18.2 | 0.1 | 0.3 | 29.5 | 13.2 | 29.5 | 13.2 | 1.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.2 | 0.1 | 0.3 | 29.5 | 13.2 | 29.5 | 13.2 | 1.4 |
| Queue Length 50th (ft) | 13 | 0 | 0 | 3 | 102 | 3 | 101 | 0 |
| Queue Length 95th (ft) | 34 | 0 | 0 | 18 | #494 | 21 | #487 | 11 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 639 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 851 | 1045 | 954 | 194 | 2442 | 194 | 2444 | 1109 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.01 | 0.03 | 0.04 | 0.47 | 0.05 | 0.47 | 0.07 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

20 Year Cumulative
 Timing Plan: P.M. Peak

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|------|------|-------|-------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 39 | 3 | 11 | 6 | 0 | 18 | 8 | 1117 | 5 | 10 | 1118 | 79 |
| Future Volume (veh/h) | 39 | 3 | 11 | 6 | 0 | 18 | 8 | 1117 | 5 | 10 | 1118 | 79 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 40 | 3 | 11 | 6 | 0 | 19 | 8 | 1152 | 5 | 10 | 1153 | 81 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 283 | 16 | 175 | 110 | 21 | 133 | 22 | 1716 | 7 | 28 | 1691 | 740 |
| Arrive On Green | 0.11 | 0.11 | 0.11 | 0.11 | 0.00 | 0.11 | 0.01 | 0.47 | 0.47 | 0.02 | 0.48 | 0.48 |
| Sat Flow, veh/h | 1309 | 149 | 1583 | 194 | 186 | 1203 | 1774 | 3613 | 16 | 1774 | 3539 | 1549 |
| Grp Volume(v), veh/h | 43 | 0 | 11 | 25 | 0 | 0 | 8 | 564 | 593 | 10 | 1153 | 81 |
| Grp Sat Flow(s),veh/h/ln | 1458 | 0 | 1583 | 1583 | 0 | 0 | 1774 | 1770 | 1860 | 1774 | 1770 | 1549 |
| Q Serve(g_s), s | 0.5 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.2 | 12.3 | 12.3 | 0.3 | 12.6 | 1.4 |
| Cycle Q Clear(g_c), s | 1.2 | 0.0 | 0.3 | 0.7 | 0.0 | 0.0 | 0.2 | 12.3 | 12.3 | 0.3 | 12.6 | 1.4 |
| Prop In Lane | 0.93 | | 1.00 | 0.24 | | 0.76 | 1.00 | | 0.01 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 300 | 0 | 175 | 264 | 0 | 0 | 22 | 840 | 883 | 28 | 1691 | 740 |
| V/C Ratio(X) | 0.14 | 0.00 | 0.06 | 0.09 | 0.00 | 0.00 | 0.36 | 0.67 | 0.67 | 0.36 | 0.68 | 0.11 |
| Avail Cap(c_a), veh/h | 1112 | 0 | 1087 | 1103 | 0 | 0 | 212 | 918 | 965 | 212 | 1836 | 804 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.3 | 0.0 | 20.0 | 20.1 | 0.0 | 0.0 | 24.5 | 10.1 | 10.1 | 24.4 | 10.1 | 7.2 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 3.5 | 4.0 | 3.8 | 2.9 | 2.0 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.1 | 0.3 | 0.0 | 0.0 | 0.1 | 6.9 | 7.2 | 0.2 | 6.5 | 0.7 |
| LnGrp Delay(d),s/veh | 20.4 | 0.0 | 20.0 | 20.2 | 0.0 | 0.0 | 28.1 | 14.2 | 14.0 | 27.4 | 12.1 | 7.5 |
| LnGrp LOS | C | | C | C | | | C | B | B | C | B | A |
| Approach Vol, veh/h | | 54 | | | 25 | | | 1165 | | | 1244 | |
| Approach Delay, s/veh | | 20.3 | | | 20.2 | | | 14.2 | | | 11.9 | |
| Approach LOS | | C | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.5 | 30.6 | | 13.0 | 6.3 | 30.7 | | 13.0 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 6 | 26.0 | | * 34 | * 6 | 26.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.3 | 14.3 | | 3.2 | 2.2 | 14.6 | | 2.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.4 | | 0.1 | 0.0 | 9.3 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 13.2 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

HCM 2010 TWSC
 23: Mooney Blvd & Ave 272

20 Year Cumulative
 Timing Plan: P.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 20 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 11 | 5 | 32 | 2 | 4 | 29 | 165 | 1202 | 69 | 20 | 1245 | 39 |
| Future Vol, veh/h | 11 | 5 | 32 | 2 | 4 | 29 | 165 | 1202 | 69 | 20 | 1245 | 39 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 12 | 5 | 34 | 2 | 4 | 31 | 174 | 1265 | 73 | 21 | 1311 | 41 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 2357 | 3060 | 676 | 2350 | 3044 | 669 | 1352 | 0 | 0 | 1338 | 0 | 0 |
| Stage 1 | 1374 | 1374 | - | 1650 | 1650 | - | - | - | - | - | - | - |
| Stage 2 | 983 | 1686 | - | 700 | 1394 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 19 | 12 | 396 | 19 | 12 | 400 | 505 | - | - | 511 | - | - |
| Stage 1 | 153 | 211 | - | 103 | 155 | - | - | - | - | - | - | - |
| Stage 2 | 267 | 149 | - | 396 | 207 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | ~ 8 | 8 | 396 | 6 | 8 | 400 | 505 | - | - | 511 | - | - |
| Mov Cap-2 Maneuver | ~ 8 | 8 | - | 6 | 8 | - | - | - | - | - | - | - |
| Stage 1 | 100 | 202 | - | 67 | 102 | - | - | - | - | - | - | - |
| Stage 2 | 155 | 98 | - | 338 | 199 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|------------------------|-------|-------|-----|-----|
| HCM Control Delay, s\$ | 907.5 | 283.3 | 1.8 | 0.2 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 505 | - | - | 23 | 39 | 511 | - |
| HCM Lane V/C Ratio | 0.344 | - | - | 2.197 | 0.945 | 0.041 | - |
| HCM Control Delay (s) | 15.8 | - | - | \$ 907.5 | 283.3 | 12.3 | - |
| HCM Lane LOS | C | - | - | F | F | B | - |
| HCM 95th %tile Q(veh) | 1.5 | - | - | 6.4 | 3.6 | 0.1 | - |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Queues
25: Mooney Blvd & Ave 268

20 Year Cumulative
Timing Plan: P.M. Peak





















| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 269 | 34 | 135 | 1149 | 68 | 1160 |
| v/c Ratio | 0.76 | 0.09 | 0.73 | 0.73 | 0.40 | 0.82 |
| Control Delay | 38.0 | 13.0 | 59.1 | 23.6 | 40.3 | 27.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.0 | 13.0 | 59.1 | 23.6 | 40.3 | 27.3 |
| Queue Length 50th (ft) | 105 | 4 | 64 | 252 | 32 | 261 |
| Queue Length 95th (ft) | #189 | 25 | #153 | #397 | 70 | #396 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 426 | 455 | 194 | 1564 | 208 | 1416 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.63 | 0.07 | 0.70 | 0.73 | 0.33 | 0.82 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
25: Mooney Blvd & Ave 268

20 Year Cumulative
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 163 | 1 | 84 | 10 | 1 | 20 | 124 | 1043 | 14 | 63 | 1055 | 12 |
| Future Volume (veh/h) | 163 | 1 | 84 | 10 | 1 | 20 | 124 | 1043 | 14 | 63 | 1055 | 12 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 177 | 1 | 91 | 11 | 1 | 22 | 135 | 1134 | 15 | 68 | 1147 | 13 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 294 | 8 | 111 | 154 | 41 | 235 | 170 | 1573 | 21 | 111 | 1458 | 17 |
| Arrive On Green | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.10 | 0.44 | 0.44 | 0.06 | 0.41 | 0.41 |
| Sat Flow, veh/h | 935 | 36 | 496 | 387 | 184 | 1047 | 1774 | 3575 | 47 | 1774 | 3584 | 41 |
| Grp Volume(v), veh/h | 269 | 0 | 0 | 34 | 0 | 0 | 135 | 561 | 588 | 68 | 566 | 594 |
| Grp Sat Flow(s),veh/h/ln | 1467 | 0 | 0 | 1618 | 0 | 0 | 1774 | 1770 | 1853 | 1774 | 1770 | 1855 |
| Q Serve(g_s), s | 11.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.3 | 18.4 | 18.4 | 2.6 | 19.7 | 19.7 |
| Cycle Q Clear(g_c), s | 12.2 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 5.3 | 18.4 | 18.4 | 2.6 | 19.7 | 19.7 |
| Prop In Lane | 0.66 | | 0.34 | 0.32 | | 0.65 | 1.00 | | 0.03 | 1.00 | | 0.02 |
| Lane Grp Cap(c), veh/h | 414 | 0 | 0 | 430 | 0 | 0 | 170 | 779 | 815 | 111 | 720 | 755 |
| V/C Ratio(X) | 0.65 | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 | 0.79 | 0.72 | 0.72 | 0.61 | 0.79 | 0.79 |
| Avail Cap(c_a), veh/h | 541 | 0 | 0 | 561 | 0 | 0 | 208 | 779 | 815 | 223 | 759 | 796 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 25.9 | 0.0 | 0.0 | 21.7 | 0.0 | 0.0 | 31.3 | 16.2 | 16.2 | 32.3 | 18.3 | 18.3 |
| Incr Delay (d2), s/veh | 2.9 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 12.7 | 5.5 | 5.3 | 2.0 | 8.2 | 7.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.3 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 3.2 | 10.1 | 10.5 | 1.3 | 11.2 | 11.7 |
| LnGrp Delay(d),s/veh | 28.8 | 0.0 | 0.0 | 21.8 | 0.0 | 0.0 | 44.0 | 21.7 | 21.5 | 34.3 | 26.5 | 26.1 |
| LnGrp LOS | C | | | C | | | D | C | C | C | C | C |
| Approach Vol, veh/h | | 269 | | | 34 | | | 1284 | | | 1228 | |
| Approach Delay, s/veh | | 28.8 | | | 21.8 | | | 24.0 | | | 26.7 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.1 | 39.0 | | 21.5 | 12.5 | 36.6 | | 21.5 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 8.9 | 29.7 | | * 22 | * 8.3 | 30.3 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.6 | 20.4 | | 14.2 | 7.3 | 21.7 | | 3.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.5 | | 1.4 | 0.0 | 7.0 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 25.6 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 487 | 0 | 0 | 554 | 0 | 0 |
| Future Vol, veh/h | 487 | 0 | 0 | 554 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 507 | 0 | 0 | 577 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 0 | 0 | - | - | 254 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | - | 0 | - | 0 | 745 |
| Stage 1 | - | 0 | - | 0 | - |
| Stage 2 | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 745 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

HCM 2010 TWSC
 27: Visalia Pkwy & Tuesday Morning Dwy

20 Year Cumulative
 Timing Plan: P.M. Peak

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.8 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↑↑ | ↑↑ | | ↑↑ | |
| Traffic Vol, veh/h | 19 | 634 | 550 | 23 | 21 | 25 |
| Future Vol, veh/h | 19 | 634 | 550 | 23 | 21 | 25 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 20 | 660 | 573 | 24 | 22 | 26 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 597 | 0 | - | 0 | 955 299 |
| Stage 1 | - | - | - | - | 585 - |
| Stage 2 | - | - | - | - | 370 - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 3.32 |
| Pot Cap-1 Maneuver | 976 | - | - | - | 256 697 |
| Stage 1 | - | - | - | - | 520 - |
| Stage 2 | - | - | - | - | 669 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 976 | - | - | - | 248 697 |
| Mov Cap-2 Maneuver | - | - | - | - | 248 - |
| Stage 1 | - | - | - | - | 503 - |
| Stage 2 | - | - | - | - | 669 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.4 | 0 | 15.8 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 976 | - | - | - | 382 |
| HCM Lane V/C Ratio | 0.02 | - | - | - | 0.125 |
| HCM Control Delay (s) | 8.8 | 0.1 | - | - | 15.8 |
| HCM Lane LOS | A | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.4 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 655 | 0 | 0 | 573 | 0 | 0 |
| Future Vol, veh/h | 655 | 0 | 0 | 573 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 712 | 0 | 0 | 623 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|------|
| Conflicting Flow All | 0 | 0 | - | - | - | 356 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 640 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 640 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.5 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↑↑ | ↑↑ | | ↑ | ↑ |
| Traffic Vol, veh/h | 246 | 409 | 308 | 3 | 4 | 265 |
| Future Vol, veh/h | 246 | 409 | 308 | 3 | 4 | 265 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 265 | 440 | 331 | 3 | 4 | 285 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 334 | 0 | - | 0 | 1083 167 |
| Stage 1 | - | - | - | - | 333 - |
| Stage 2 | - | - | - | - | 750 - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 3.32 |
| Pot Cap-1 Maneuver | 1222 | - | - | - | 212 848 |
| Stage 1 | - | - | - | - | 698 - |
| Stage 2 | - | - | - | - | 427 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1222 | - | - | - | 151 848 |
| Mov Cap-2 Maneuver | - | - | - | - | 151 - |
| Stage 1 | - | - | - | - | 498 - |
| Stage 2 | - | - | - | - | 427 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 3.7 | 0 | 11.7 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1222 | - | - | - | 151 | 848 |
| HCM Lane V/C Ratio | 0.216 | - | - | - | 0.028 | 0.336 |
| HCM Control Delay (s) | 8.8 | 0.6 | - | - | 29.5 | 11.4 |
| HCM Lane LOS | A | A | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.8 | - | - | - | 0.1 | 1.5 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.6 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | | ↕↕ | ↕↕ | ↗ |
| Traffic Vol, veh/h | 0 | 93 | 0 | 945 | 1082 | 166 |
| Future Vol, veh/h | 0 | 93 | 0 | 945 | 1082 | 166 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 101 | 0 | 1027 | 1176 | 180 |

| Major/Minor | Minor2 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | - | 588 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | 6.94 | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | 3.32 | - |
| Pot Cap-1 Maneuver | 0 | 452 | 0 |
| Stage 1 | 0 | - | 0 |
| Stage 2 | 0 | - | 0 |
| Platoon blocked, % | | | - |
| Mov Cap-1 Maneuver | - | 452 | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 15.2 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT EBLn1 | SBT | SBR |
|-----------------------|-----------|-------|-----|
| Capacity (veh/h) | - | 452 | - |
| HCM Lane V/C Ratio | - | 0.224 | - |
| HCM Control Delay (s) | - | 15.2 | - |
| HCM Lane LOS | - | C | - |
| HCM 95th %tile Q(veh) | - | 0.8 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.4 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | | ↗ | ↘ | ↕ | ↕ | ↗ |
| Traffic Vol, veh/h | 0 | 122 | 229 | 945 | 1052 | 123 |
| Future Vol, veh/h | 0 | 122 | 229 | 945 | 1052 | 123 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | 150 | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 133 | 249 | 1027 | 1143 | 134 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | - | 572 | 1277 | 0 | - | 0 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 0 | 463 | 540 | - | - | - |
| Stage 1 | 0 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | - | 463 | 540 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 15.9 | 3.4 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 540 | - | 463 | - | - |
| HCM Lane V/C Ratio | 0.461 | - | 0.286 | - | - |
| HCM Control Delay (s) | 17.2 | - | 15.9 | - | - |
| HCM Lane LOS | C | - | C | - | - |
| HCM 95th %tile Q(veh) | 2.4 | - | 1.2 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↕ | ↕ | | ↕ | |
| Traffic Vol, veh/h | 0 | 18 | 24 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 18 | 24 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 20 | 26 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 26 | 0 | - | 0 | 46 26 |
| Stage 1 | - | - | - | - | 26 - |
| Stage 2 | - | - | - | - | 20 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1588 | - | - | - | 964 1050 |
| Stage 1 | - | - | - | - | 997 - |
| Stage 2 | - | - | - | - | 1003 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1588 | - | - | - | 964 1050 |
| Mov Cap-2 Maneuver | - | - | - | - | 964 - |
| Stage 1 | - | - | - | - | 997 - |
| Stage 2 | - | - | - | - | 1003 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1588 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↕ | ↕ | | ↕ | |
| Traffic Vol, veh/h | 0 | 18 | 24 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 18 | 24 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 20 | 26 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 26 | 0 | - | 0 | 46 26 |
| Stage 1 | - | - | - | - | 26 - |
| Stage 2 | - | - | - | - | 20 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1588 | - | - | - | 964 1050 |
| Stage 1 | - | - | - | - | 997 - |
| Stage 2 | - | - | - | - | 1003 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1588 | - | - | - | 964 1050 |
| Mov Cap-2 Maneuver | - | - | - | - | 964 - |
| Stage 1 | - | - | - | - | 997 - |
| Stage 2 | - | - | - | - | 1003 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1588 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↕ | ↕ | | ↕ | |
| Traffic Vol, veh/h | 0 | 18 | 24 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 18 | 24 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 20 | 26 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 26 | 0 | - | 0 | 46 26 |
| Stage 1 | - | - | - | - | 26 - |
| Stage 2 | - | - | - | - | 20 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1588 | - | - | - | 964 1050 |
| Stage 1 | - | - | - | - | 997 - |
| Stage 2 | - | - | - | - | 1003 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1588 | - | - | - | 964 1050 |
| Mov Cap-2 Maneuver | - | - | - | - | 964 - |
| Stage 1 | - | - | - | - | 997 - |
| Stage 2 | - | - | - | - | 1003 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1588 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↕ | ↕ | | ↕ | |
| Traffic Vol, veh/h | 0 | 18 | 24 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 18 | 24 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 20 | 26 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 26 | 0 | - | 0 | 46 26 |
| Stage 1 | - | - | - | - | 26 - |
| Stage 2 | - | - | - | - | 20 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1588 | - | - | - | 964 1050 |
| Stage 1 | - | - | - | - | 997 - |
| Stage 2 | - | - | - | - | 1003 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1588 | - | - | - | 964 1050 |
| Mov Cap-2 Maneuver | - | - | - | - | 964 - |
| Stage 1 | - | - | - | - | 997 - |
| Stage 2 | - | - | - | - | 1003 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1588 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | T | | T |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

Appendix L – 20-Year Cumulative Plus Project Conditions Level of Service Work Sheets

Queues
1: Mooney Blvd & Whitendale Ave

20 Year plus Project
Timing Plan: A.M. Peak



























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 108 | 221 | 147 | 195 | 266 | 63 | 108 | 624 | 152 | 66 | 565 | 46 |
| v/c Ratio | 0.34 | 0.39 | 0.36 | 0.56 | 0.44 | 0.15 | 0.66 | 0.24 | 0.17 | 0.37 | 0.22 | 0.05 |
| Control Delay | 56.5 | 47.2 | 4.2 | 60.3 | 47.3 | 0.8 | 77.6 | 19.7 | 4.5 | 63.5 | 19.9 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 56.5 | 47.2 | 4.2 | 60.3 | 47.3 | 0.8 | 77.6 | 19.7 | 4.5 | 63.5 | 19.9 | 0.1 |
| Queue Length 50th (ft) | 42 | 89 | 0 | 78 | 107 | 0 | 45 | 96 | 0 | 27 | 84 | 0 |
| Queue Length 95th (ft) | 73 | 96 | 24 | 120 | 114 | 0 | #84 | 177 | 48 | 52 | 160 | 0 |
| Internal Link Dist (ft) | | 1104 | | | 403 | | | 770 | | | 1028 | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 316 | 1330 | 702 | 350 | 1344 | 706 | 164 | 2601 | 873 | 177 | 2525 | 841 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.17 | 0.21 | 0.56 | 0.20 | 0.09 | 0.66 | 0.24 | 0.17 | 0.37 | 0.22 | 0.05 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
1: Mooney Blvd & Whitendale Ave

20 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 99 | 203 | 135 | 179 | 245 | 58 | 99 | 574 | 140 | 61 | 520 | 42 |
| Future Volume (veh/h) | 99 | 203 | 135 | 179 | 245 | 58 | 99 | 574 | 140 | 61 | 520 | 42 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 108 | 221 | 147 | 195 | 266 | 63 | 108 | 624 | 152 | 66 | 565 | 46 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 240 | 566 | 252 | 187 | 512 | 227 | 890 | 2791 | 858 | 148 | 1668 | 517 |
| Arrive On Green | 0.07 | 0.16 | 0.16 | 0.05 | 0.14 | 0.14 | 0.26 | 0.55 | 0.55 | 0.04 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3539 | 1574 | 3442 | 3539 | 1567 | 3442 | 5085 | 1563 | 3442 | 5085 | 1578 |
| Grp Volume(v), veh/h | 108 | 221 | 147 | 195 | 266 | 63 | 108 | 624 | 152 | 66 | 565 | 46 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1574 | 1721 | 1770 | 1567 | 1721 | 1695 | 1563 | 1721 | 1695 | 1578 |
| Q Serve(g_s), s | 3.8 | 7.0 | 10.8 | 6.8 | 8.7 | 3.7 | 3.0 | 7.9 | 4.0 | 2.3 | 10.5 | 2.5 |
| Cycle Q Clear(g_c), s | 3.8 | 7.0 | 10.8 | 6.8 | 8.7 | 3.7 | 3.0 | 7.9 | 4.0 | 2.3 | 10.5 | 2.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 240 | 566 | 252 | 187 | 512 | 227 | 890 | 2791 | 858 | 148 | 1668 | 517 |
| V/C Ratio(X) | 0.45 | 0.39 | 0.58 | 1.04 | 0.52 | 0.28 | 0.12 | 0.22 | 0.18 | 0.44 | 0.34 | 0.09 |
| Avail Cap(c_a), veh/h | 240 | 1331 | 592 | 187 | 1345 | 595 | 890 | 2791 | 858 | 165 | 1668 | 517 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 0.96 | 0.96 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 55.8 | 47.0 | 48.7 | 59.1 | 49.4 | 33.3 | 35.5 | 14.5 | 6.2 | 58.3 | 31.8 | 29.1 |
| Incr Delay (d2), s/veh | 0.5 | 0.9 | 4.1 | 77.1 | 1.6 | 1.3 | 0.0 | 0.2 | 0.4 | 0.8 | 0.6 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.8 | 3.5 | 5.0 | 5.2 | 4.4 | 1.9 | 1.4 | 3.7 | 2.4 | 1.1 | 5.0 | 1.1 |
| LnGrp Delay(d),s/veh | 56.3 | 47.9 | 52.8 | 136.3 | 51.0 | 34.6 | 35.5 | 14.7 | 6.7 | 59.1 | 32.3 | 29.4 |
| LnGrp LOS | E | D | D | F | D | C | D | B | A | E | C | C |
| Approach Vol, veh/h | | 476 | | | 524 | | | 884 | | | 677 | |
| Approach Delay, s/veh | | 51.3 | | | 80.8 | | | 15.8 | | | 34.7 | |
| Approach LOS | | D | | | F | | | B | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.1 | 75.0 | 12.5 | 26.4 | 38.7 | 47.4 | 14.4 | 24.5 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 41.0 | 6.8 | * 47 | 6.0 | * 41 | 6.3 | * 48 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.3 | 9.9 | 8.8 | 12.8 | 5.0 | 12.5 | 5.8 | 10.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.2 | 0.0 | 3.7 | 0.0 | 7.2 | 0.0 | 3.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 40.7 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave

20 Year plus Project
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 105 | 185 | 9 | 283 | 105 | 54 | 79 | 12 | 148 |
| v/c Ratio | 0.25 | 0.17 | 0.02 | 0.35 | 0.14 | 0.10 | 0.18 | 0.02 | 0.24 |
| Control Delay | 21.2 | 7.5 | 22.2 | 14.5 | 5.4 | 15.9 | 18.0 | 16.4 | 5.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.2 | 7.5 | 22.2 | 14.5 | 5.4 | 15.9 | 18.0 | 16.4 | 5.3 |
| Queue Length 50th (ft) | 24 | 19 | 2 | 57 | 3 | 10 | 17 | 2 | 0 |
| Queue Length 95th (ft) | 74 | 76 | 14 | 134 | 31 | 38 | 54 | 14 | 37 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 623 | 1287 | 405 | 1191 | 1043 | 983 | 837 | 1159 | 1041 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.17 | 0.14 | 0.02 | 0.24 | 0.10 | 0.05 | 0.09 | 0.01 | 0.14 |

Intersection Summary

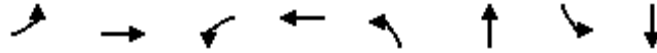
HCM 2010 Signalized Intersection Summary
2: Giddings St & Whitendale Ave

20 Year plus Project
Timing Plan: A.M. Peak

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 97 | 156 | 14 | 8 | 260 | 97 | 21 | 24 | 5 | 73 | 11 | 136 |
| Future Volume (veh/h) | 97 | 156 | 14 | 8 | 260 | 97 | 21 | 24 | 5 | 73 | 11 | 136 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 105 | 170 | 15 | 9 | 283 | 105 | 23 | 26 | 5 | 79 | 12 | 148 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 194 | 630 | 56 | 25 | 518 | 440 | 240 | 218 | 32 | 509 | 400 | 340 |
| Arrive On Green | 0.11 | 0.37 | 0.37 | 0.01 | 0.28 | 0.28 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| Sat Flow, veh/h | 1774 | 1688 | 149 | 1774 | 1863 | 1583 | 439 | 1018 | 149 | 1373 | 1863 | 1583 |
| Grp Volume(v), veh/h | 105 | 0 | 185 | 9 | 283 | 105 | 54 | 0 | 0 | 79 | 12 | 148 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1836 | 1774 | 1863 | 1583 | 1606 | 0 | 0 | 1373 | 1863 | 1583 |
| Q Serve(g_s), s | 2.0 | 0.0 | 2.5 | 0.2 | 4.5 | 1.8 | 0.0 | 0.0 | 0.0 | 0.6 | 0.2 | 2.8 |
| Cycle Q Clear(g_c), s | 2.0 | 0.0 | 2.5 | 0.2 | 4.5 | 1.8 | 0.8 | 0.0 | 0.0 | 1.4 | 0.2 | 2.8 |
| Prop In Lane | 1.00 | | 0.08 | 1.00 | | 1.00 | 0.43 | | 0.09 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 194 | 0 | 685 | 25 | 518 | 440 | 490 | 0 | 0 | 509 | 400 | 340 |
| V/C Ratio(X) | 0.54 | 0.00 | 0.27 | 0.35 | 0.55 | 0.24 | 0.11 | 0.00 | 0.00 | 0.16 | 0.03 | 0.44 |
| Avail Cap(c_a), veh/h | 504 | 0 | 1541 | 328 | 1377 | 1171 | 1236 | 0 | 0 | 1190 | 1324 | 1126 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.8 | 0.0 | 7.7 | 17.2 | 10.8 | 9.8 | 11.2 | 0.0 | 0.0 | 11.4 | 10.9 | 12.0 |
| Incr Delay (d2), s/veh | 0.9 | 0.0 | 0.4 | 3.1 | 1.5 | 0.5 | 0.2 | 0.0 | 0.0 | 0.2 | 0.1 | 1.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 0.0 | 1.3 | 0.1 | 2.5 | 0.8 | 0.4 | 0.0 | 0.0 | 0.7 | 0.1 | 1.4 |
| LnGrp Delay(d),s/veh | 15.7 | 0.0 | 8.0 | 20.2 | 12.4 | 10.3 | 11.3 | 0.0 | 0.0 | 11.6 | 11.0 | 13.5 |
| LnGrp LOS | B | | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 290 | | | 397 | | | 54 | | | 239 | |
| Approach Delay, s/veh | | 10.8 | | | 12.0 | | | 11.3 | | | 12.7 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.5 | 18.1 | | 12.5 | 7.8 | 14.8 | | 12.5 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 29.5 | | 25.0 | 10.0 | 26.0 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 4.5 | | 2.8 | 4.0 | 6.5 | | 4.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.6 | | 0.3 | 0.1 | 3.0 | | 1.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 11.8 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave

20 Year plus Project
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 47 | 15 | 11 | 36 | 43 | 843 | 97 | 817 |
| v/c Ratio | 0.20 | 0.02 | 0.05 | 0.06 | 0.18 | 0.33 | 0.35 | 0.22 |
| Control Delay | 34.8 | 0.1 | 35.7 | 0.2 | 34.5 | 17.0 | 33.6 | 13.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.8 | 0.1 | 35.7 | 0.2 | 34.5 | 17.0 | 33.6 | 13.3 |
| Queue Length 50th (ft) | 9 | 0 | 2 | 0 | 8 | 35 | 18 | 0 |
| Queue Length 95th (ft) | 67 | 0 | 25 | 0 | 62 | 229 | #124 | 211 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 247 | 1299 | 235 | 1277 | 263 | 2867 | 365 | 3637 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.19 | 0.01 | 0.05 | 0.03 | 0.16 | 0.29 | 0.27 | 0.22 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
3: Mooney Blvd & Sunnyside Ave

20 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 45 | 0 | 14 | 10 | 0 | 34 | 41 | 790 | 10 | 92 | 720 | 56 |
| Future Volume (veh/h) | 45 | 0 | 14 | 10 | 0 | 34 | 41 | 790 | 10 | 92 | 720 | 56 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 47 | 0 | 15 | 11 | 0 | 36 | 43 | 832 | 11 | 97 | 758 | 59 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 101 | 0 | 228 | 30 | 0 | 165 | 94 | 1579 | 21 | 153 | 1629 | 126 |
| Arrive On Green | 0.06 | 0.00 | 0.14 | 0.02 | 0.00 | 0.10 | 0.05 | 0.31 | 0.31 | 0.09 | 0.34 | 0.34 |
| Sat Flow, veh/h | 1774 | 0 | 1577 | 1774 | 0 | 1580 | 1774 | 5170 | 68 | 1774 | 4813 | 373 |
| Grp Volume(v), veh/h | 47 | 0 | 15 | 11 | 0 | 36 | 43 | 545 | 298 | 97 | 533 | 284 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1577 | 1774 | 0 | 1580 | 1774 | 1695 | 1848 | 1774 | 1695 | 1796 |
| Q Serve(g_s), s | 1.3 | 0.0 | 0.4 | 0.3 | 0.0 | 1.1 | 1.2 | 7.0 | 7.0 | 2.8 | 6.5 | 6.5 |
| Cycle Q Clear(g_c), s | 1.3 | 0.0 | 0.4 | 0.3 | 0.0 | 1.1 | 1.2 | 7.0 | 7.0 | 2.8 | 6.5 | 6.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.04 | 1.00 | | 0.21 |
| Lane Grp Cap(c), veh/h | 101 | 0 | 228 | 30 | 0 | 165 | 94 | 1035 | 564 | 153 | 1148 | 608 |
| V/C Ratio(X) | 0.47 | 0.00 | 0.07 | 0.37 | 0.00 | 0.22 | 0.46 | 0.53 | 0.53 | 0.63 | 0.46 | 0.47 |
| Avail Cap(c_a), veh/h | 213 | 0 | 1149 | 202 | 0 | 1142 | 226 | 1477 | 805 | 314 | 1644 | 871 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 24.0 | 0.0 | 19.4 | 25.6 | 0.0 | 21.6 | 24.1 | 15.1 | 15.1 | 23.2 | 13.6 | 13.7 |
| Incr Delay (d2), s/veh | 1.3 | 0.0 | 0.1 | 2.7 | 0.0 | 0.5 | 1.3 | 0.8 | 1.5 | 1.6 | 0.6 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 0.2 | 0.2 | 0.0 | 0.5 | 0.6 | 3.4 | 3.8 | 1.4 | 3.1 | 3.4 |
| LnGrp Delay(d),s/veh | 25.3 | 0.0 | 19.5 | 28.3 | 0.0 | 22.1 | 25.4 | 15.9 | 16.6 | 24.8 | 14.2 | 14.8 |
| LnGrp LOS | C | | B | C | | C | C | B | B | C | B | B |
| Approach Vol, veh/h | | 62 | | | 47 | | | 886 | | | 914 | |
| Approach Delay, s/veh | | 23.9 | | | 23.5 | | | 16.6 | | | 15.5 | |
| Approach LOS | | C | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.2 | 22.5 | 6.6 | 13.3 | 8.5 | 24.2 | 8.7 | 11.2 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | * 5.7 | 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 9.3 | 22.9 | * 6 | * 38 | * 6.7 | 25.5 | * 6.3 | * 38 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.8 | 9.0 | 2.3 | 2.4 | 3.2 | 8.5 | 3.3 | 3.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.9 | 0.0 | 0.0 | 0.0 | 7.6 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 16.5 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave

20 Year plus Project
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 3 | 1 | 20 | 25 | 12 | 824 | 29 | 69 | 692 | 5 |
| v/c Ratio | 0.01 | 0.00 | 0.18 | 0.05 | 0.06 | 0.24 | 0.03 | 0.53 | 0.18 | 0.00 |
| Control Delay | 31.3 | 0.0 | 50.7 | 0.2 | 47.6 | 12.8 | 0.0 | 62.5 | 10.1 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 31.3 | 0.0 | 50.7 | 0.2 | 47.6 | 12.8 | 0.0 | 62.5 | 10.1 | 0.0 |
| Queue Length 50th (ft) | 2 | 0 | 13 | 0 | 4 | 72 | 0 | 45 | 29 | 0 |
| Queue Length 95th (ft) | 8 | 0 | 38 | 0 | 13 | 224 | 0 | #117 | 186 | 0 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 216 | 818 | 109 | 870 | 196 | 3447 | 1092 | 130 | 3933 | 1244 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.01 | 0.00 | 0.18 | 0.03 | 0.06 | 0.24 | 0.03 | 0.53 | 0.18 | 0.00 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

20 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 3 | 0 | 1 | 19 | 0 | 24 | 11 | 783 | 28 | 66 | 657 | 5 |
| Future Volume (veh/h) | 3 | 0 | 1 | 19 | 0 | 24 | 11 | 783 | 28 | 66 | 657 | 5 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 3 | 0 | 1 | 20 | 0 | 25 | 12 | 824 | 29 | 69 | 692 | 5 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 23 | 0 | 83 | 45 | 0 | 105 | 1474 | 3272 | 1016 | 88 | 1312 | 408 |
| Arrive On Green | 0.01 | 0.00 | 0.05 | 0.03 | 0.00 | 0.07 | 0.43 | 0.64 | 0.64 | 0.05 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 0 | 1548 | 1774 | 0 | 1583 | 3442 | 5085 | 1578 | 1774 | 5085 | 1581 |
| Grp Volume(v), veh/h | 3 | 0 | 1 | 20 | 0 | 25 | 12 | 824 | 29 | 69 | 692 | 5 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1548 | 1774 | 0 | 1583 | 1721 | 1695 | 1578 | 1774 | 1695 | 1581 |
| Q Serve(g_s), s | 0.2 | 0.0 | 0.1 | 1.2 | 0.0 | 1.6 | 0.2 | 7.2 | 0.4 | 4.0 | 12.3 | 0.2 |
| Cycle Q Clear(g_c), s | 0.2 | 0.0 | 0.1 | 1.2 | 0.0 | 1.6 | 0.2 | 7.2 | 0.4 | 4.0 | 12.3 | 0.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 23 | 0 | 83 | 45 | 0 | 105 | 1474 | 3272 | 1016 | 88 | 1312 | 408 |
| V/C Ratio(X) | 0.13 | 0.00 | 0.01 | 0.45 | 0.00 | 0.24 | 0.01 | 0.25 | 0.03 | 0.78 | 0.53 | 0.01 |
| Avail Cap(c_a), veh/h | 101 | 0 | 619 | 101 | 0 | 633 | 1474 | 3272 | 1016 | 101 | 1312 | 408 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.98 | 0.98 | 0.98 |
| Uniform Delay (d), s/veh | 51.2 | 0.0 | 47.0 | 50.5 | 0.0 | 46.5 | 17.2 | 8.0 | 2.5 | 49.3 | 33.4 | 29.0 |
| Incr Delay (d2), s/veh | 1.0 | 0.0 | 0.0 | 2.6 | 0.0 | 0.9 | 0.0 | 0.2 | 0.0 | 23.7 | 1.5 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 0.0 | 0.0 | 0.6 | 0.0 | 0.7 | 0.1 | 3.4 | 0.3 | 2.6 | 5.9 | 0.1 |
| LnGrp Delay(d),s/veh | 52.2 | 0.0 | 47.0 | 53.0 | 0.0 | 47.4 | 17.2 | 8.1 | 2.5 | 73.1 | 34.9 | 29.0 |
| LnGrp LOS | D | | D | D | | D | B | A | A | E | C | C |
| Approach Vol, veh/h | | 4 | | | 45 | | | 865 | | | 766 | |
| Approach Delay, s/veh | | 50.9 | | | 49.9 | | | 8.1 | | | 38.3 | |
| Approach LOS | | D | | | D | | | A | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.9 | 74.0 | 8.4 | 11.8 | 51.4 | 33.5 | 7.0 | 13.1 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 6 | 27.1 | 6.0 | * 42 | 6.0 | * 27 | 6.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.0 | 9.2 | 3.2 | 2.1 | 2.2 | 14.3 | 2.2 | 3.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.8 | 0.0 | 0.0 | 0.0 | 5.6 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 23.1 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 64.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 49 | 880 | 99 | 72 | 865 | 41 | 69 | 0 | 115 | 12 | 0 | 25 |
| Future Vol, veh/h | 49 | 880 | 99 | 72 | 865 | 41 | 69 | 0 | 115 | 12 | 0 | 25 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 53 | 957 | 108 | 78 | 940 | 45 | 75 | 0 | 125 | 13 | 0 | 27 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 990 | 0 | 0 | 1065 | 0 | 0 | 1743 | 2263 | 533 | 1709 | 2295 | 498 |
| Stage 1 | - | - | - | - | - | - | 1117 | 1117 | - | 1124 | 1124 | - |
| Stage 2 | - | - | - | - | - | - | 626 | 1146 | - | 585 | 1171 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 694 | - | - | 650 | - | - | ~ 55 | 40 | 491 | 59 | 38 | 518 |
| Stage 1 | - | - | - | - | - | - | 221 | 281 | - | 219 | 279 | - |
| Stage 2 | - | - | - | - | - | - | 439 | 272 | - | 464 | 265 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 691 | - | - | 650 | - | - | ~ 35 | 24 | 491 | 30 | 22 | 516 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 35 | 24 | - | 30 | 22 | - |
| Stage 1 | - | - | - | - | - | - | 178 | 227 | - | 176 | 203 | - |
| Stage 2 | - | - | - | - | - | - | 304 | 198 | - | 279 | 214 | - |

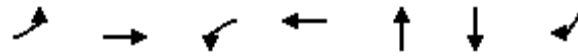
| Approach | EB | WB | NB | SB |
|----------------------|-----|----|----------|------|
| HCM Control Delay, s | 1.3 | 2 | \$ 749.8 | 83.8 |
| HCM LOS | | | F | F |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|----------|-------|-----|-----|------|-----|-----|-------|
| Capacity (veh/h) | 83 | 691 | - | - | 650 | - | - | 83 |
| HCM Lane V/C Ratio | 2.41 | 0.077 | - | - | 0.12 | - | - | 0.485 |
| HCM Control Delay (s) | \$ 749.8 | 10.6 | 0.9 | - | 11.3 | 1.3 | - | 83.8 |
| HCM Lane LOS | F | B | A | - | B | A | - | F |
| HCM 95th %tile Q(veh) | 18.6 | 0.2 | - | - | 0.4 | - | - | 2 |

| Notes | | | |
|----------------------------|------------------------|----------------------------|--------------------------------|
| -: Volume exceeds capacity | \$: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

Queues
6: Shady St & Caldwell Ave




















20 Year plus Project
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-----------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 32 | 770 | 21 | 677 | 70 | 5 | 3 |
| v/c Ratio | 0.09 | 0.22 | 0.06 | 0.19 | 0.18 | 0.01 | 0.01 |
| Control Delay | 21.2 | 6.5 | 21.4 | 6.4 | 12.5 | 22.0 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.2 | 6.5 | 21.4 | 6.4 | 12.5 | 22.0 | 0.0 |
| Queue Length 50th (ft) | 5 | 25 | 3 | 21 | 4 | 1 | 0 |
| Queue Length 95th (ft) | 37 | 109 | 28 | 95 | 43 | 12 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 397 | 3982 | 397 | 3987 | 1449 | 1527 | 1381 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.08 | 0.19 | 0.05 | 0.17 | 0.05 | 0.00 | 0.00 |
| Intersection Summary | | | | | | | |

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

20 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 29 | 694 | 15 | 19 | 616 | 6 | 22 | 1 | 41 | 5 | 0 | 3 |
| Future Volume (veh/h) | 29 | 694 | 15 | 19 | 616 | 6 | 22 | 1 | 41 | 5 | 0 | 3 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 32 | 754 | 16 | 21 | 670 | 7 | 24 | 1 | 45 | 5 | 0 | 3 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 79 | 1976 | 42 | 55 | 1930 | 20 | 45 | 2 | 85 | 23 | 0 | 20 |
| Arrive On Green | 0.04 | 0.39 | 0.39 | 0.03 | 0.37 | 0.37 | 0.08 | 0.08 | 0.08 | 0.01 | 0.00 | 0.01 |
| Sat Flow, veh/h | 1774 | 5125 | 109 | 1774 | 5188 | 54 | 565 | 24 | 1059 | 1774 | 0 | 1583 |
| Grp Volume(v), veh/h | 32 | 498 | 272 | 21 | 438 | 239 | 70 | 0 | 0 | 5 | 0 | 3 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1843 | 1774 | 1695 | 1852 | 1648 | 0 | 0 | 1774 | 0 | 1583 |
| Q Serve(g_s), s | 0.7 | 4.3 | 4.3 | 0.5 | 3.8 | 3.8 | 1.7 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 |
| Cycle Q Clear(g_c), s | 0.7 | 4.3 | 4.3 | 0.5 | 3.8 | 3.8 | 1.7 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 |
| Prop In Lane | 1.00 | | 0.06 | 1.00 | | 0.03 | 0.34 | | 0.64 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 79 | 1307 | 711 | 55 | 1261 | 689 | 133 | 0 | 0 | 23 | 0 | 20 |
| V/C Ratio(X) | 0.40 | 0.38 | 0.38 | 0.38 | 0.35 | 0.35 | 0.53 | 0.00 | 0.00 | 0.22 | 0.00 | 0.15 |
| Avail Cap(c_a), veh/h | 283 | 2284 | 1242 | 283 | 2284 | 1248 | 1332 | 0 | 0 | 1434 | 0 | 1280 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.0 | 9.0 | 9.0 | 19.4 | 9.2 | 9.2 | 18.0 | 0.0 | 0.0 | 19.9 | 0.0 | 19.9 |
| Incr Delay (d2), s/veh | 1.2 | 0.5 | 0.9 | 1.6 | 0.5 | 0.8 | 2.4 | 0.0 | 0.0 | 3.6 | 0.0 | 2.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 2.1 | 2.4 | 0.3 | 1.8 | 2.1 | 0.8 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 20.2 | 9.5 | 10.0 | 21.0 | 9.7 | 10.1 | 20.4 | 0.0 | 0.0 | 23.5 | 0.0 | 22.4 |
| LnGrp LOS | C | A | A | C | A | B | C | | | C | | C |
| Approach Vol, veh/h | | 802 | | | 698 | | | 70 | | | | 8 |
| Approach Delay, s/veh | | 10.1 | | | 10.2 | | | 20.4 | | | | 23.1 |
| Approach LOS | | B | | | B | | | C | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.3 | 21.7 | | 5.5 | 5.8 | 21.2 | | 8.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 27.5 | | 33.0 | 6.5 | 27.5 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.5 | 6.3 | | 2.1 | 2.7 | 5.8 | | 3.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.3 | | 0.0 | 0.0 | 8.3 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 10.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

20 Year plus Project
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 174 | 561 | 132 | 536 | 145 | 677 | 112 | 71 | 618 | 87 |
| v/c Ratio | 0.61 | 0.56 | 0.47 | 0.55 | 0.87 | 0.26 | 0.13 | 0.41 | 0.25 | 0.11 |
| Control Delay | 66.4 | 42.1 | 61.9 | 46.1 | 104.0 | 21.3 | 4.0 | 66.8 | 21.5 | 1.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 66.4 | 42.1 | 61.9 | 46.1 | 104.0 | 21.3 | 4.0 | 66.8 | 21.5 | 1.6 |
| Queue Length 50th (ft) | 74 | 141 | 55 | 147 | 63 | 116 | 0 | 30 | 103 | 0 |
| Queue Length 95th (ft) | 110 | 146 | 87 | 150 | #127 | 198 | 35 | 57 | 180 | 12 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 295 | 1821 | 292 | 1813 | 166 | 2562 | 848 | 175 | 2485 | 828 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.59 | 0.31 | 0.45 | 0.30 | 0.87 | 0.26 | 0.13 | 0.41 | 0.25 | 0.11 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

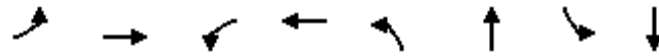
HCM 2010 Signalized Intersection Summary
7: Mooney Blvd & Caldwell Ave

20 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 165 | 400 | 133 | 125 | 439 | 70 | 138 | 643 | 106 | 67 | 587 | 83 |
| Future Volume (veh/h) | 165 | 400 | 133 | 125 | 439 | 70 | 138 | 643 | 106 | 67 | 587 | 83 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 174 | 421 | 140 | 132 | 462 | 74 | 145 | 677 | 112 | 71 | 618 | 87 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 225 | 713 | 228 | 191 | 786 | 123 | 804 | 2689 | 836 | 147 | 1690 | 524 |
| Arrive On Green | 0.07 | 0.19 | 0.19 | 0.06 | 0.18 | 0.18 | 0.23 | 0.53 | 0.53 | 0.04 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3814 | 1217 | 3442 | 4432 | 695 | 3442 | 5085 | 1582 | 3442 | 5085 | 1578 |
| Grp Volume(v), veh/h | 174 | 372 | 189 | 132 | 351 | 185 | 145 | 677 | 112 | 71 | 618 | 87 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1641 | 1721 | 1695 | 1737 | 1721 | 1695 | 1582 | 1721 | 1695 | 1578 |
| Q Serve(g_s), s | 6.5 | 13.0 | 13.7 | 4.9 | 12.4 | 12.7 | 4.4 | 9.4 | 3.2 | 2.6 | 12.0 | 5.1 |
| Cycle Q Clear(g_c), s | 6.5 | 13.0 | 13.7 | 4.9 | 12.4 | 12.7 | 4.4 | 9.4 | 3.2 | 2.6 | 12.0 | 5.1 |
| Prop In Lane | 1.00 | | 0.74 | 1.00 | | 0.40 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 225 | 634 | 307 | 191 | 601 | 308 | 804 | 2689 | 836 | 147 | 1690 | 524 |
| V/C Ratio(X) | 0.78 | 0.59 | 0.62 | 0.69 | 0.58 | 0.60 | 0.18 | 0.25 | 0.13 | 0.48 | 0.37 | 0.17 |
| Avail Cap(c_a), veh/h | 246 | 1234 | 597 | 238 | 1226 | 628 | 804 | 2689 | 836 | 159 | 1690 | 524 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.98 | 0.98 | 0.98 | 0.97 | 0.97 | 0.97 | 0.96 | 0.96 | 0.96 | 0.99 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 59.8 | 48.3 | 48.6 | 60.3 | 49.1 | 49.2 | 39.8 | 16.6 | 7.3 | 60.8 | 33.0 | 30.7 |
| Incr Delay (d2), s/veh | 11.3 | 1.7 | 3.8 | 3.6 | 1.7 | 3.5 | 0.0 | 0.2 | 0.3 | 0.9 | 0.6 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.4 | 6.2 | 6.6 | 2.4 | 5.9 | 6.4 | 2.1 | 4.4 | 1.9 | 1.3 | 5.7 | 2.3 |
| LnGrp Delay(d),s/veh | 71.1 | 49.9 | 52.4 | 63.8 | 50.8 | 52.8 | 39.9 | 16.9 | 7.6 | 61.7 | 33.6 | 31.3 |
| LnGrp LOS | E | D | D | E | D | D | D | B | A | E | C | C |
| Approach Vol, veh/h | | 735 | | | 668 | | | 934 | | | 776 | |
| Approach Delay, s/veh | | 55.6 | | | 53.9 | | | 19.3 | | | 35.9 | |
| Approach LOS | | E | | | D | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.2 | 75.1 | 12.9 | 30.7 | 36.8 | 49.6 | 14.2 | 29.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 43.5 | 9.0 | * 47 | 6.3 | * 43 | 9.3 | * 47 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.6 | 11.4 | 6.9 | 15.7 | 6.4 | 14.0 | 8.5 | 14.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.8 | 0.0 | 6.8 | 0.0 | 9.2 | 0.0 | 6.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 39.4 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St

20 Year plus Project
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 74 | 575 | 108 | 794 | 32 | 70 | 51 | 43 |
| v/c Ratio | 0.25 | 0.25 | 0.35 | 0.28 | 0.05 | 0.12 | 0.10 | 0.08 |
| Control Delay | 32.3 | 16.6 | 34.9 | 15.5 | 11.0 | 8.5 | 13.7 | 8.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 32.3 | 16.6 | 34.9 | 15.5 | 11.0 | 8.5 | 13.7 | 8.7 |
| Queue Length 50th (ft) | 26 | 57 | 39 | 79 | 7 | 5 | 17 | 2 |
| Queue Length 95th (ft) | #92 | 130 | #146 | 175 | 20 | 29 | 28 | 22 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 318 | 2526 | 318 | 2825 | 589 | 1159 | 507 | 1142 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.23 | 0.23 | 0.34 | 0.28 | 0.05 | 0.06 | 0.10 | 0.04 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
8: Caldwell Ave & Fairway St

20 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 68 | 479 | 50 | 99 | 591 | 140 | 29 | 14 | 51 | 47 | 6 | 33 |
| Future Volume (veh/h) | 68 | 479 | 50 | 99 | 591 | 140 | 29 | 14 | 51 | 47 | 6 | 33 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 74 | 521 | 54 | 108 | 642 | 152 | 32 | 15 | 55 | 51 | 7 | 36 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 143 | 1389 | 142 | 175 | 1292 | 301 | 424 | 49 | 181 | 407 | 42 | 215 |
| Arrive On Green | 0.08 | 0.30 | 0.30 | 0.10 | 0.31 | 0.31 | 0.04 | 0.14 | 0.14 | 0.06 | 0.16 | 0.16 |
| Sat Flow, veh/h | 1774 | 4687 | 480 | 1774 | 4105 | 955 | 1774 | 349 | 1281 | 1774 | 261 | 1342 |
| Grp Volume(v), veh/h | 74 | 375 | 200 | 108 | 528 | 266 | 32 | 0 | 70 | 51 | 0 | 43 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1776 | 1774 | 1695 | 1670 | 1774 | 0 | 1631 | 1774 | 0 | 1603 |
| Q Serve(g_s), s | 1.8 | 3.9 | 4.0 | 2.6 | 5.7 | 5.8 | 0.7 | 0.0 | 1.7 | 1.1 | 0.0 | 1.0 |
| Cycle Q Clear(g_c), s | 1.8 | 3.9 | 4.0 | 2.6 | 5.7 | 5.8 | 0.7 | 0.0 | 1.7 | 1.1 | 0.0 | 1.0 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 0.57 | 1.00 | | 0.79 | 1.00 | | 0.84 |
| Lane Grp Cap(c), veh/h | 143 | 1005 | 527 | 175 | 1067 | 526 | 424 | 0 | 231 | 407 | 0 | 257 |
| V/C Ratio(X) | 0.52 | 0.37 | 0.38 | 0.62 | 0.49 | 0.51 | 0.08 | 0.00 | 0.30 | 0.13 | 0.00 | 0.17 |
| Avail Cap(c_a), veh/h | 256 | 1433 | 751 | 256 | 1433 | 706 | 642 | 0 | 1233 | 592 | 0 | 1212 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.8 | 12.5 | 12.5 | 19.4 | 12.5 | 12.6 | 15.2 | 0.0 | 17.3 | 14.7 | 0.0 | 16.3 |
| Incr Delay (d2), s/veh | 1.1 | 0.6 | 1.2 | 1.3 | 1.0 | 2.1 | 0.2 | 0.0 | 2.0 | 0.3 | 0.0 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 1.9 | 2.1 | 1.4 | 2.8 | 3.0 | 0.3 | 0.0 | 0.9 | 0.5 | 0.0 | 0.5 |
| LnGrp Delay(d),s/veh | 20.9 | 13.1 | 13.8 | 20.8 | 13.5 | 14.6 | 15.3 | 0.0 | 19.3 | 15.0 | 0.0 | 17.1 |
| LnGrp LOS | C | B | B | C | B | B | B | | B | B | | B |
| Approach Vol, veh/h | | 649 | | | 902 | | | 102 | | | | 94 |
| Approach Delay, s/veh | | 14.2 | | | 14.7 | | | 18.1 | | | | 16.0 |
| Approach LOS | | B | | | B | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.4 | 19.3 | 5.8 | 11.4 | 7.6 | 20.2 | 5.0 | 12.2 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 19.0 | 7.5 | 34.0 | 6.5 | 19.0 | 7.5 | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.6 | 6.0 | 3.1 | 3.7 | 3.8 | 7.8 | 2.7 | 3.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.2 | 0.1 | 0.8 | 0.0 | 6.3 | 0.0 | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 14.8 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave

20 Year plus Project
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 34 | 576 | 224 | 746 | 52 | 90 | 70 | 12 | 66 |
| v/c Ratio | 0.14 | 0.41 | 0.90 | 0.35 | 0.17 | 0.21 | 0.23 | 0.03 | 0.15 |
| Control Delay | 26.2 | 11.9 | 68.7 | 9.1 | 21.1 | 7.7 | 22.0 | 19.6 | 4.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 26.2 | 11.9 | 68.7 | 9.1 | 21.1 | 7.7 | 22.0 | 19.6 | 4.5 |
| Queue Length 50th (ft) | 9 | 63 | 67 | 52 | 13 | 1 | 17 | 3 | 0 |
| Queue Length 95th (ft) | 37 | 105 | #235 | 144 | 43 | 33 | 55 | 16 | 19 |
| Internal Link Dist (ft) | | 1064 | | 2600 | | 1465 | | 519 | |
| Turn Bay Length (ft) | 235 | | 300 | | | | | | 200 |
| Base Capacity (vph) | 254 | 2201 | 250 | 2215 | 974 | 1139 | 908 | 1299 | 1131 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.13 | 0.26 | 0.90 | 0.34 | 0.05 | 0.08 | 0.08 | 0.01 | 0.06 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

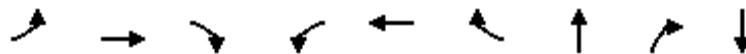
HCM 2010 Signalized Intersection Summary
9: Stonebrook St & Caldwell Ave

20 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 31 | 471 | 59 | 206 | 656 | 30 | 48 | 4 | 79 | 64 | 11 | 61 |
| Future Volume (veh/h) | 31 | 471 | 59 | 206 | 656 | 30 | 48 | 4 | 79 | 64 | 11 | 61 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 34 | 512 | 64 | 224 | 713 | 33 | 52 | 4 | 86 | 70 | 12 | 66 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 81 | 1064 | 133 | 245 | 1475 | 68 | 419 | 15 | 316 | 361 | 387 | 329 |
| Arrive On Green | 0.05 | 0.34 | 0.34 | 0.14 | 0.43 | 0.43 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| Sat Flow, veh/h | 1774 | 3167 | 394 | 1774 | 3445 | 159 | 1316 | 71 | 1523 | 1301 | 1863 | 1583 |
| Grp Volume(v), veh/h | 34 | 285 | 291 | 224 | 366 | 380 | 52 | 0 | 90 | 70 | 12 | 66 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1792 | 1774 | 1770 | 1834 | 1316 | 0 | 1594 | 1301 | 1863 | 1583 |
| Q Serve(g_s), s | 0.9 | 6.0 | 6.1 | 5.9 | 7.0 | 7.0 | 1.5 | 0.0 | 2.2 | 2.2 | 0.2 | 1.6 |
| Cycle Q Clear(g_c), s | 0.9 | 6.0 | 6.1 | 5.9 | 7.0 | 7.0 | 1.8 | 0.0 | 2.2 | 4.5 | 0.2 | 1.6 |
| Prop In Lane | 1.00 | | 0.22 | 1.00 | | 0.09 | 1.00 | | 0.96 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 81 | 595 | 602 | 245 | 758 | 786 | 419 | 0 | 331 | 361 | 387 | 329 |
| V/C Ratio(X) | 0.42 | 0.48 | 0.48 | 0.91 | 0.48 | 0.48 | 0.12 | 0.00 | 0.27 | 0.19 | 0.03 | 0.20 |
| Avail Cap(c_a), veh/h | 249 | 1108 | 1122 | 245 | 1105 | 1145 | 1096 | 0 | 1151 | 1031 | 1345 | 1143 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.9 | 12.4 | 12.4 | 20.0 | 9.7 | 9.7 | 15.6 | 0.0 | 15.7 | 17.6 | 14.9 | 15.4 |
| Incr Delay (d2), s/veh | 1.3 | 2.2 | 2.2 | 34.9 | 1.7 | 1.7 | 0.3 | 0.0 | 0.9 | 0.6 | 0.1 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 3.3 | 3.4 | 5.2 | 3.7 | 3.8 | 0.6 | 0.0 | 1.1 | 0.9 | 0.1 | 0.8 |
| LnGrp Delay(d),s/veh | 23.1 | 14.6 | 14.6 | 54.9 | 11.4 | 11.4 | 15.9 | 0.0 | 16.6 | 18.1 | 15.0 | 16.1 |
| LnGrp LOS | C | B | B | D | B | B | B | | B | B | B | B |
| Approach Vol, veh/h | | 610 | | | 970 | | | 142 | | | 148 | |
| Approach Delay, s/veh | | 15.0 | | | 21.5 | | | 16.3 | | | 16.9 | |
| Approach LOS | | B | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.5 | 21.8 | | 14.8 | 6.2 | 26.2 | | 14.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 29.5 | | 34.0 | 6.6 | 29.4 | | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.9 | 8.1 | | 4.2 | 2.9 | 9.0 | | 6.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.6 | | 1.4 | 0.0 | 9.4 | | 1.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 18.6 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
10: West St & Caldwell Ave

20 Year plus Project
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 66 | 645 | 33 | 75 | 872 | 54 | 188 | 47 | 266 |
| v/c Ratio | 0.32 | 0.46 | 0.05 | 0.38 | 0.57 | 0.07 | 0.43 | 0.09 | 0.58 |
| Control Delay | 34.7 | 16.4 | 0.6 | 36.7 | 17.2 | 2.8 | 23.8 | 1.2 | 24.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.7 | 16.4 | 0.6 | 36.7 | 17.2 | 2.8 | 23.8 | 1.2 | 24.8 |
| Queue Length 50th (ft) | 26 | 97 | 0 | 30 | 142 | 0 | 67 | 0 | 90 |
| Queue Length 95th (ft) | 68 | 168 | 3 | 76 | 245 | 14 | 123 | 5 | 162 |
| Internal Link Dist (ft) | | 2600 | | | 1239 | | 366 | | 344 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 242 | 1781 | 835 | 215 | 1731 | 813 | 884 | 936 | 914 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.27 | 0.36 | 0.04 | 0.35 | 0.50 | 0.07 | 0.21 | 0.05 | 0.29 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
10: West St & Caldwell Ave

20 Year plus Project
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  | |
| Traffic Volume (veh/h) | 61 | 593 | 30 | 69 | 802 | 50 | 50 | 123 | 43 | 53 | 131 | 61 |
| Future Volume (veh/h) | 61 | 593 | 30 | 69 | 802 | 50 | 50 | 123 | 43 | 53 | 131 | 61 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 66 | 645 | 33 | 75 | 872 | 54 | 54 | 134 | 47 | 58 | 142 | 66 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 123 | 1425 | 638 | 132 | 1443 | 646 | 164 | 341 | 384 | 134 | 232 | 95 |
| Arrive On Green | 0.07 | 0.40 | 0.40 | 0.07 | 0.41 | 0.41 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1583 | 330 | 1403 | 1583 | 226 | 956 | 390 |
| Grp Volume(v), veh/h | 66 | 645 | 33 | 75 | 872 | 54 | 188 | 0 | 47 | 266 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1583 | 1733 | 0 | 1583 | 1572 | 0 | 0 |
| Q Serve(g_s), s | 2.0 | 7.4 | 0.7 | 2.3 | 10.7 | 1.2 | 0.0 | 0.0 | 1.3 | 3.9 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.0 | 7.4 | 0.7 | 2.3 | 10.7 | 1.2 | 4.7 | 0.0 | 1.3 | 8.6 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.29 | | 1.00 | 0.22 | | 0.25 |
| Lane Grp Cap(c), veh/h | 123 | 1425 | 638 | 132 | 1443 | 646 | 504 | 0 | 384 | 461 | 0 | 0 |
| V/C Ratio(X) | 0.54 | 0.45 | 0.05 | 0.57 | 0.60 | 0.08 | 0.37 | 0.00 | 0.12 | 0.58 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 257 | 1882 | 842 | 228 | 1824 | 816 | 1068 | 0 | 945 | 1027 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 24.9 | 12.1 | 10.1 | 24.7 | 12.9 | 10.0 | 17.6 | 0.0 | 16.3 | 19.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 1.4 | 0.8 | 0.1 | 1.4 | 1.5 | 0.2 | 1.0 | 0.0 | 0.3 | 2.4 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 3.7 | 0.3 | 1.2 | 5.5 | 0.5 | 2.5 | 0.0 | 0.6 | 4.0 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 26.2 | 12.9 | 10.2 | 26.2 | 14.3 | 10.2 | 18.6 | 0.0 | 16.6 | 21.4 | 0.0 | 0.0 |
| LnGrp LOS | C | B | B | C | B | B | B | | B | C | | |
| Approach Vol, veh/h | | 744 | | | 1001 | | | 235 | | | 266 | |
| Approach Delay, s/veh | | 13.9 | | | 15.0 | | | 18.2 | | | 21.4 | |
| Approach LOS | | B | | | B | | | B | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.1 | 28.8 | | 18.4 | 7.8 | 29.0 | | 18.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 7.1 | 29.4 | | 33.0 | 8.0 | 28.5 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.3 | 9.4 | | 6.7 | 4.0 | 12.7 | | 10.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.7 | | 2.5 | 0.0 | 9.8 | | 2.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 15.8 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
11: County Center Dr & Cameron Ave













20 Year plus Project
Timing Plan: A.M. Peak



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 64 | 186 | 189 | 27 | 272 | 264 |
| v/c Ratio | 0.16 | 0.38 | 0.17 | 0.03 | 0.39 | 0.24 |
| Control Delay | 10.8 | 4.9 | 5.3 | 2.5 | 7.7 | 5.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 10.8 | 4.9 | 5.3 | 2.5 | 7.7 | 5.6 |
| Queue Length 50th (ft) | 7 | 0 | 14 | 0 | 23 | 20 |
| Queue Length 95th (ft) | 27 | 28 | 39 | 6 | 68 | 53 |
| Internal Link Dist (ft) | 1226 | | 772 | | | 355 |
| Turn Bay Length (ft) | | 100 | | 160 | 145 | |
| Base Capacity (vph) | 1072 | 1011 | 1239 | 1037 | 789 | 1239 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.18 | 0.15 | 0.03 | 0.34 | 0.21 |
| Intersection Summary | | | | | | |

HCM 2010 Signalized Intersection Summary
 11: County Center Dr & Cameron Ave

20 Year plus Project
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  | | |
|------------------------------|---|---|---|---|---|---|---|------|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT | | |
| Lane Configurations |  |  |  |  |  |  | | |
| Traffic Volume (veh/h) | 59 | 171 | 174 | 25 | 250 | 243 | | |
| Future Volume (veh/h) | 59 | 171 | 174 | 25 | 250 | 243 | | |
| Number | 3 | 18 | 2 | 12 | 1 | 6 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 64 | 186 | 189 | 27 | 272 | 264 | | |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 316 | 282 | 804 | 681 | 738 | 804 | | |
| Arrive On Green | 0.18 | 0.18 | 0.43 | 0.43 | 0.43 | 0.43 | | |
| Sat Flow, veh/h | 1774 | 1583 | 1863 | 1578 | 1158 | 1863 | | |
| Grp Volume(v), veh/h | 64 | 186 | 189 | 27 | 272 | 264 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1583 | 1863 | 1578 | 1158 | 1863 | | |
| Q Serve(g_s), s | 0.7 | 2.5 | 1.5 | 0.2 | 4.5 | 2.2 | | |
| Cycle Q Clear(g_c), s | 0.7 | 2.5 | 1.5 | 0.2 | 6.0 | 2.2 | | |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 316 | 282 | 804 | 681 | 738 | 804 | | |
| V/C Ratio(X) | 0.20 | 0.66 | 0.23 | 0.04 | 0.37 | 0.33 | | |
| Avail Cap(c_a), veh/h | 1385 | 1236 | 1454 | 1232 | 1142 | 1454 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 8.1 | 8.8 | 4.1 | 3.8 | 6.0 | 4.3 | | |
| Incr Delay (d2), s/veh | 0.3 | 2.6 | 0.1 | 0.0 | 0.3 | 0.2 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 0.4 | 1.3 | 0.8 | 0.1 | 1.4 | 1.2 | | |
| LnGrp Delay(d),s/veh | 8.4 | 11.5 | 4.3 | 3.8 | 6.3 | 4.6 | | |
| LnGrp LOS | A | B | A | A | A | A | | |
| Approach Vol, veh/h | 250 | | 216 | | | 536 | | |
| Approach Delay, s/veh | 10.7 | | 4.2 | | | 5.5 | | |
| Approach LOS | B | | A | | | A | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | | | 6 | | 8 |
| Phs Duration (G+Y+Rc), s | | 14.5 | | | | 14.5 | | 8.6 |
| Change Period (Y+Rc), s | | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | | 18.0 | | | | 18.0 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | | 3.5 | | | | 8.0 | | 4.5 |
| Green Ext Time (p_c), s | | 0.8 | | | | 1.8 | | 0.6 |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 6.5 | | | | | |
| HCM 2010 LOS | | | A | | | | | |

Queues
12: Mooney Blvd & Cameron Ave

20 Year plus Project
Timing Plan: A.M. Peak































| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 78 | 193 | 113 | 303 | 9 | 767 | 109 | 94 | 617 | 38 |
| v/c Ratio | 0.49 | 0.47 | 0.60 | 0.50 | 0.05 | 0.29 | 0.12 | 0.50 | 0.21 | 0.04 |
| Control Delay | 57.2 | 46.3 | 59.3 | 31.2 | 50.0 | 16.6 | 1.4 | 60.3 | 12.4 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.2 | 46.3 | 59.3 | 31.2 | 50.0 | 16.6 | 1.4 | 60.3 | 12.4 | 0.1 |
| Queue Length 50th (ft) | 53 | 64 | 77 | 69 | 3 | 112 | 0 | 34 | 66 | 0 |
| Queue Length 95th (ft) | 100 | 98 | 131 | 109 | 11 | 163 | 13 | 61 | 130 | 0 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 168 | 1404 | 201 | 1455 | 187 | 2661 | 890 | 187 | 2986 | 975 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.46 | 0.14 | 0.56 | 0.21 | 0.05 | 0.29 | 0.12 | 0.50 | 0.21 | 0.04 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

20 Year plus Project
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |   |   |  |   |   |  |
| Traffic Volume (veh/h) | 75 | 170 | 15 | 108 | 192 | 99 | 9 | 736 | 105 | 90 | 592 | 36 |
| Future Volume (veh/h) | 75 | 170 | 15 | 108 | 192 | 99 | 9 | 736 | 105 | 90 | 592 | 36 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 78 | 177 | 16 | 112 | 200 | 103 | 9 | 767 | 109 | 94 | 617 | 38 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 99 | 289 | 26 | 189 | 317 | 156 | 45 | 1179 | 367 | 1195 | 2910 | 905 |
| Arrive On Green | 0.06 | 0.09 | 0.09 | 0.11 | 0.14 | 0.14 | 0.01 | 0.23 | 0.23 | 0.35 | 0.57 | 0.57 |
| Sat Flow, veh/h | 1774 | 3286 | 294 | 1774 | 2287 | 1128 | 3442 | 5085 | 1581 | 3442 | 5085 | 1581 |
| Grp Volume(v), veh/h | 78 | 95 | 98 | 112 | 153 | 150 | 9 | 767 | 109 | 94 | 617 | 38 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1811 | 1774 | 1770 | 1645 | 1721 | 1695 | 1581 | 1721 | 1695 | 1581 |
| Q Serve(g_s), s | 4.8 | 5.7 | 5.8 | 6.6 | 8.9 | 9.5 | 0.3 | 15.0 | 6.3 | 2.0 | 6.5 | 0.7 |
| Cycle Q Clear(g_c), s | 4.8 | 5.7 | 5.8 | 6.6 | 8.9 | 9.5 | 0.3 | 15.0 | 6.3 | 2.0 | 6.5 | 0.7 |
| Prop In Lane | 1.00 | | 0.16 | 1.00 | | 0.69 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 99 | 156 | 159 | 189 | 245 | 228 | 45 | 1179 | 367 | 1195 | 2910 | 905 |
| V/C Ratio(X) | 0.79 | 0.61 | 0.62 | 0.59 | 0.62 | 0.66 | 0.20 | 0.65 | 0.30 | 0.08 | 0.21 | 0.04 |
| Avail Cap(c_a), veh/h | 135 | 708 | 724 | 189 | 738 | 687 | 188 | 1179 | 367 | 1195 | 2910 | 905 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.10 | 0.10 | 0.97 | 0.97 | 0.97 |
| Uniform Delay (d), s/veh | 51.3 | 48.3 | 48.4 | 46.9 | 44.7 | 44.9 | 53.7 | 38.2 | 34.9 | 24.1 | 11.5 | 3.9 |
| Incr Delay (d2), s/veh | 12.8 | 6.9 | 7.1 | 3.4 | 6.0 | 7.4 | 0.1 | 0.3 | 0.2 | 0.0 | 0.2 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.7 | 3.1 | 3.2 | 3.4 | 4.8 | 4.8 | 0.1 | 7.1 | 2.8 | 1.0 | 3.1 | 0.5 |
| LnGrp Delay(d),s/veh | 64.1 | 55.2 | 55.4 | 50.2 | 50.6 | 52.3 | 53.8 | 38.5 | 35.1 | 24.1 | 11.6 | 3.9 |
| LnGrp LOS | E | E | E | D | D | D | D | D | D | C | B | A |
| Approach Vol, veh/h | | 271 | | | 415 | | | 885 | | | 749 | |
| Approach Delay, s/veh | | 57.9 | | | 51.1 | | | 38.2 | | | 12.8 | |
| Approach LOS | | E | | | D | | | D | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 44.6 | 31.9 | 17.4 | 16.1 | 7.1 | 69.3 | 11.9 | 21.7 | | | | |
| Change Period (Y+Rc), s | 6.4 | * 6.4 | 5.7 | * 6.4 | * 5.7 | 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | 6.0 | * 26 | 10.3 | * 44 | * 6 | 25.5 | 8.4 | * 46 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.0 | 17.0 | 8.6 | 7.8 | 2.3 | 8.5 | 6.8 | 11.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.3 | 0.0 | 1.9 | 0.0 | 8.9 | 0.0 | 3.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 34.6 | | | | | | | | |
| HCM 2010 LOS | | | | C | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 33 | 316 | 22 | 388 | 422 | 23 | 54 | 82 | 274 | 22 | 107 | 96 |
| Future Vol, veh/h | 33 | 316 | 22 | 388 | 422 | 23 | 54 | 82 | 274 | 22 | 107 | 96 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | 145 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 36 | 343 | 24 | 422 | 459 | 25 | 59 | 89 | 298 | 24 | 116 | 104 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 484 | 0 | 0 | 367 | 0 | 0 | 1853 | 1755 | 355 | 1937 | 1755 | 472 |
| Stage 1 | - | - | - | - | - | - | 427 | 427 | - | 1316 | 1316 | - |
| Stage 2 | - | - | - | - | - | - | 1426 | 1328 | - | 621 | 439 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1079 | - | - | 1192 | - | - | ~ 57 | ~ 85 | 689 | 49 | ~ 85 | 592 |
| Stage 1 | - | - | - | - | - | - | 606 | 585 | - | 194 | 227 | - |
| Stage 2 | - | - | - | - | - | - | 168 | 224 | - | 475 | 578 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1079 | - | - | 1192 | - | - | ~ 53 | 689 | - | ~ 53 | 592 | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 53 | - | - | ~ 53 | - | - |
| Stage 1 | - | - | - | - | - | - | 586 | 566 | - | 188 | 147 | - |
| Stage 2 | - | - | - | - | - | - | ~ 19 | 145 | - | 220 | 559 | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|-----|----|----|
| HCM Control Delay, s | 0.8 | 4.5 | | |
| HCM LOS | | | - | - |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | NBLn3 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | SBLn3 |
|-----------------------|-------|-------|-------|-------|-----|-----|-------|-----|-----|-------|-------|-------|
| Capacity (veh/h) | - | 53 | 269 | 1079 | - | - | 1192 | - | - | - | 53 | 128 |
| HCM Lane V/C Ratio | - | 0.841 | 1.273 | 0.033 | - | - | 0.354 | - | - | - | 1.097 | 1.27 |
| HCM Control Delay (s) | - | 201.4 | 186.7 | 8.5 | - | - | 9.7 | - | - | - | 279.2 | 234.3 |
| HCM Lane LOS | - | F | F | A | - | - | A | - | - | - | F | F |
| HCM 95th %tile Q(veh) | - | 3.6 | 16.8 | 0.1 | - | - | 1.6 | - | - | - | 5 | 10.3 |

| Notes | | | |
|----------------------------|------------------------|----------------------------|--------------------------------|
| -: Volume exceeds capacity | \$: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↔ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 92 | 392 | 9 | 0 | 460 | 5 | 26 | 6 | 8 | 3 | 3 | 183 |
| Future Vol, veh/h | 92 | 392 | 9 | 0 | 460 | 5 | 26 | 6 | 8 | 3 | 3 | 183 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 100 | 426 | 10 | 0 | 500 | 5 | 28 | 7 | 9 | 3 | 3 | 199 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 505 | 0 | 0 | 436 | 0 | 0 | 1235 | 1136 | 432 | 1143 | 1139 | 503 |
| Stage 1 | - | - | - | - | - | - | 631 | 631 | - | 503 | 503 | - |
| Stage 2 | - | - | - | - | - | - | 604 | 505 | - | 640 | 636 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1060 | - | - | 1124 | - | - | 153 | 202 | 624 | 177 | 201 | 569 |
| Stage 1 | - | - | - | - | - | - | 469 | 474 | - | 551 | 541 | - |
| Stage 2 | - | - | - | - | - | - | 485 | 540 | - | 464 | 472 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1060 | - | - | 1124 | - | - | 91 | 183 | 623 | 157 | 182 | 569 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 91 | 183 | - | 157 | 182 | - |
| Stage 1 | - | - | - | - | - | - | 425 | 429 | - | 499 | 541 | - |
| Stage 2 | - | - | - | - | - | - | 314 | 540 | - | 408 | 428 | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|----|------|------|
| HCM Control Delay, s | 1.6 | 0 | 50.6 | 15.5 |
| HCM LOS | | | F | C |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|-------|
| Capacity (veh/h) | 121 | 1060 | - | - | 1124 | - | - | 157 | 550 |
| HCM Lane V/C Ratio | 0.359 | 0.094 | - | - | - | - | - | 0.021 | 0.368 |
| HCM Control Delay (s) | 50.6 | 8.8 | - | - | 0 | - | - | 28.4 | 15.3 |
| HCM Lane LOS | F | A | - | - | A | - | - | D | C |
| HCM 95th %tile Q(veh) | 1.5 | 0.3 | - | - | 0 | - | - | 0.1 | 1.7 |

Queues
15: Court St & Cameron Ave





















20 Year plus Project
Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 187 | 187 | 153 | 2 | 7 | 77 | 224 | 221 |
| v/c Ratio | 0.45 | 0.46 | 0.23 | 0.00 | 0.00 | 0.13 | 0.13 | 0.19 |
| Control Delay | 10.7 | 11.0 | 4.1 | 8.0 | 7.8 | 8.8 | 0.1 | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 10.7 | 11.0 | 4.1 | 8.0 | 7.8 | 8.8 | 0.1 | 0.4 |
| Queue Length 50th (ft) | 15 | 15 | 4 | 0 | 0 | 7 | 0 | 0 |
| Queue Length 95th (ft) | 58 | 60 | 27 | 3 | 3 | 30 | 0 | 0 |
| Internal Link Dist (ft) | | 563 | 789 | | 604 | | 1556 | |
| Turn Bay Length (ft) | 260 | | | 225 | | 195 | | 200 |
| Base Capacity (vph) | 1079 | 1058 | 1587 | 865 | 2711 | 1074 | 2428 | 1322 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.17 | 0.18 | 0.10 | 0.00 | 0.00 | 0.07 | 0.09 | 0.17 |
| Intersection Summary | | | | | | | | |

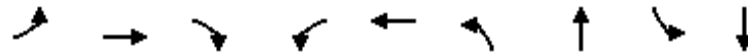
HCM 2010 Signalized Intersection Summary
 15: Court St & Cameron Ave

20 Year plus Project
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 324 | 20 | 0 | 0 | 55 | 86 | 2 | 6 | 0 | 71 | 2 | 408 |
| Future Volume (veh/h) | 324 | 20 | 0 | 0 | 55 | 86 | 2 | 6 | 0 | 71 | 2 | 408 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 368 | 0 | 0 | 0 | 60 | 93 | 2 | 7 | 0 | 77 | 2 | 443 |
| Adj No. of Lanes | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 2 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 1273 | 617 | 0 | 0 | 219 | 339 | 574 | 989 | 0 | 701 | 521 | 885 |
| Arrive On Green | 0.33 | 0.00 | 0.00 | 0.00 | 0.33 | 0.33 | 0.28 | 0.28 | 0.00 | 0.28 | 0.28 | 0.28 |
| Sat Flow, veh/h | 2458 | 1863 | 0 | 0 | 660 | 1023 | 941 | 3632 | 0 | 1403 | 1863 | 3167 |
| Grp Volume(v), veh/h | 368 | 0 | 0 | 0 | 0 | 153 | 2 | 7 | 0 | 77 | 2 | 443 |
| Grp Sat Flow(s),veh/h/ln | 1229 | 1863 | 0 | 0 | 0 | 1682 | 941 | 1770 | 0 | 1403 | 1863 | 1583 |
| Q Serve(g_s), s | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 2.7 |
| Cycle Q Clear(g_c), s | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.1 | 0.0 | 0.0 | 1.0 | 0.0 | 2.7 |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 0.61 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 1273 | 617 | 0 | 0 | 0 | 557 | 574 | 989 | 0 | 701 | 521 | 885 |
| V/C Ratio(X) | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27 | 0.00 | 0.01 | 0.00 | 0.11 | 0.00 | 0.50 |
| Avail Cap(c_a), veh/h | 3275 | 2134 | 0 | 0 | 0 | 1928 | 1104 | 2984 | 0 | 1492 | 1571 | 2670 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 7.4 | 0.0 | 0.0 | 0.0 | 0.0 | 5.7 | 6.0 | 6.0 | 0.0 | 6.4 | 6.0 | 7.0 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 1.2 |
| LnGrp Delay(d),s/veh | 7.5 | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 | 6.0 | 6.0 | 0.0 | 6.4 | 6.0 | 7.4 |
| LnGrp LOS | A | | | | | A | A | A | | A | A | A |
| Approach Vol, veh/h | | 368 | | | 153 | | | 9 | | | 522 | |
| Approach Delay, s/veh | | 7.5 | | | 6.0 | | | 6.0 | | | 7.3 | |
| Approach LOS | | A | | | A | | | A | | | A | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 11.0 | | 12.2 | | 11.0 | | 12.2 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 19.5 | | 26.5 | | 19.5 | | 26.5 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.1 | | 6.5 | | 4.7 | | 3.5 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 1.4 | | 1.8 | | 0.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 7.1 | | | | | | | | |
| HCM 2010 LOS | | | | A | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
16: Demaree St & Visalia Pkwy

20 Year plus Project
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 48 | 362 | 91 | 75 | 387 | 70 | 695 | 133 | 565 |
| v/c Ratio | 0.33 | 0.68 | 0.17 | 0.47 | 0.35 | 0.42 | 0.67 | 0.65 | 0.45 |
| Control Delay | 52.2 | 37.2 | 3.1 | 55.6 | 22.7 | 52.4 | 32.0 | 58.5 | 26.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 52.2 | 37.2 | 3.1 | 55.6 | 22.7 | 52.4 | 32.0 | 58.5 | 26.0 |
| Queue Length 50th (ft) | 28 | 196 | 0 | 44 | 84 | 41 | 192 | 78 | 139 |
| Queue Length 95th (ft) | 72 | 320 | 20 | 100 | 137 | 94 | 280 | #181 | 216 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 2053 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 169 | 759 | 710 | 186 | 1447 | 221 | 1459 | 250 | 1515 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.28 | 0.48 | 0.13 | 0.40 | 0.27 | 0.32 | 0.48 | 0.53 | 0.37 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

20 Year plus Project
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 44 | 333 | 84 | 69 | 261 | 95 | 64 | 572 | 67 | 122 | 458 | 62 |
| Future Volume (veh/h) | 44 | 333 | 84 | 69 | 261 | 95 | 64 | 572 | 67 | 122 | 458 | 62 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 48 | 362 | 91 | 75 | 284 | 103 | 70 | 622 | 73 | 133 | 498 | 67 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 90 | 507 | 431 | 114 | 731 | 259 | 110 | 920 | 108 | 168 | 1006 | 135 |
| Arrive On Green | 0.05 | 0.27 | 0.27 | 0.06 | 0.29 | 0.29 | 0.06 | 0.29 | 0.29 | 0.09 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1774 | 1863 | 1582 | 1774 | 2563 | 909 | 1774 | 3187 | 373 | 1774 | 3132 | 420 |
| Grp Volume(v), veh/h | 48 | 362 | 91 | 75 | 194 | 193 | 70 | 345 | 350 | 133 | 280 | 285 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1582 | 1774 | 1770 | 1702 | 1774 | 1770 | 1791 | 1774 | 1770 | 1782 |
| Q Serve(g_s), s | 1.9 | 12.9 | 3.3 | 3.0 | 6.5 | 6.7 | 2.8 | 12.6 | 12.7 | 5.4 | 9.4 | 9.5 |
| Cycle Q Clear(g_c), s | 1.9 | 12.9 | 3.3 | 3.0 | 6.5 | 6.7 | 2.8 | 12.6 | 12.7 | 5.4 | 9.4 | 9.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.53 | 1.00 | | 0.21 | 1.00 | | 0.24 |
| Lane Grp Cap(c), veh/h | 90 | 507 | 431 | 114 | 505 | 486 | 110 | 511 | 517 | 168 | 568 | 572 |
| V/C Ratio(X) | 0.53 | 0.71 | 0.21 | 0.66 | 0.38 | 0.40 | 0.64 | 0.68 | 0.68 | 0.79 | 0.49 | 0.50 |
| Avail Cap(c_a), veh/h | 193 | 862 | 732 | 213 | 838 | 807 | 251 | 838 | 849 | 285 | 872 | 878 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.0 | 24.1 | 20.6 | 33.6 | 21.1 | 21.2 | 33.6 | 23.1 | 23.1 | 32.5 | 20.1 | 20.1 |
| Incr Delay (d2), s/veh | 1.8 | 5.6 | 0.7 | 2.4 | 1.5 | 1.6 | 2.3 | 3.0 | 3.0 | 3.2 | 1.3 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 7.4 | 1.5 | 1.6 | 3.3 | 3.4 | 1.4 | 6.6 | 6.7 | 2.8 | 4.8 | 4.9 |
| LnGrp Delay(d),s/veh | 35.8 | 29.8 | 21.4 | 36.0 | 22.5 | 22.8 | 35.9 | 26.1 | 26.1 | 35.7 | 21.4 | 21.4 |
| LnGrp LOS | D | C | C | D | C | C | D | C | C | D | C | C |
| Approach Vol, veh/h | | 501 | | | 462 | | | 765 | | | 698 | |
| Approach Delay, s/veh | | 28.8 | | | 24.8 | | | 27.0 | | | 24.2 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.2 | 28.2 | 8.9 | 25.2 | 8.8 | 30.6 | 7.9 | 26.2 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 12 | 34.8 | * 8.8 | 34.0 | * 10 | 36.2 | * 8 | 34.8 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.4 | 14.7 | 5.0 | 14.9 | 4.8 | 11.5 | 3.9 | 8.7 | | | | |
| Green Ext Time (p_c), s | 0.1 | 6.5 | 0.0 | 5.0 | 0.0 | 5.7 | 0.0 | 5.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 26.1 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 7.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↕ | | ↖ | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 182 | 346 | 3 | 1 | 335 | 127 | 6 | 0 | 3 | 68 | 0 | 141 |
| Future Vol, veh/h | 182 | 346 | 3 | 1 | 335 | 127 | 6 | 0 | 3 | 68 | 0 | 141 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 198 | 376 | 3 | 1 | 364 | 138 | 7 | 0 | 3 | 74 | 0 | 153 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 502 | 0 | 0 | 379 | 0 | 0 | 958 | 1278 | 190 | 1019 | 1210 | 251 |
| Stage 1 | - | - | - | - | - | - | 774 | 774 | - | 435 | 435 | - |
| Stage 2 | - | - | - | - | - | - | 184 | 504 | - | 584 | 775 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 1059 | - | - | 1176 | - | - | 212 | 165 | 820 | 191 | 181 | 749 |
| Stage 1 | - | - | - | - | - | - | 357 | 406 | - | 570 | 579 | - |
| Stage 2 | - | - | - | - | - | - | 800 | 539 | - | 465 | 406 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1059 | - | - | 1176 | - | - | 144 | 134 | 820 | 163 | 147 | 749 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 144 | 134 | - | 163 | 147 | - |
| Stage 1 | - | - | - | - | - | - | 290 | 330 | - | 463 | 578 | - |
| Stage 2 | - | - | - | - | - | - | 636 | 538 | - | 377 | 330 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|----|--|--|------|--|--|
| HCM Control Delay, s | 3.1 | | | 0 | | | 24 | | | 33.4 | | |
| HCM LOS | | | | | | | C | | | D | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 199 | 1059 | - | - | 1176 | - | - | 345 |
| HCM Lane V/C Ratio | 0.049 | 0.187 | - | - | 0.001 | - | - | 0.658 |
| HCM Control Delay (s) | 24 | 9.2 | - | - | 8.1 | - | - | 33.4 |
| HCM Lane LOS | C | A | - | - | A | - | - | D |
| HCM 95th %tile Q(veh) | 0.2 | 0.7 | - | - | 0 | - | - | 4.4 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.5 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↘ | ↑↑ | ↑↑ | | ↘ | ↘ |
| Traffic Vol, veh/h | 100 | 395 | 452 | 89 | 109 | 179 |
| Future Vol, veh/h | 100 | 395 | 452 | 89 | 109 | 179 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 109 | 429 | 491 | 97 | 118 | 195 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 588 | 0 | - | 0 | 973 |
| Stage 1 | - | - | - | - | 540 |
| Stage 2 | - | - | - | - | 433 |
| Critical Hdwy | 4.14 | - | - | - | 6.84 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 |
| Pot Cap-1 Maneuver | 983 | - | - | - | 250 |
| Stage 1 | - | - | - | - | 548 |
| Stage 2 | - | - | - | - | 621 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 983 | - | - | - | 222 |
| Mov Cap-2 Maneuver | - | - | - | - | 222 |
| Stage 1 | - | - | - | - | 487 |
| Stage 2 | - | - | - | - | 621 |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.8 | 0 | 22.1 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 983 | - | - | - | 222 | 702 |
| HCM Lane V/C Ratio | 0.111 | - | - | - | 0.534 | 0.277 |
| HCM Control Delay (s) | 9.1 | - | - | - | 38.4 | 12.1 |
| HCM Lane LOS | A | - | - | - | E | B |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 2.8 | 1.1 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 18.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↵ | ↕ | | ↵ | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 38 | 409 | 62 | 119 | 396 | 14 | 90 | 0 | 244 | 7 | 0 | 15 |
| Future Vol, veh/h | 38 | 409 | 62 | 119 | 396 | 14 | 90 | 0 | 244 | 7 | 0 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 41 | 445 | 67 | 129 | 430 | 15 | 98 | 0 | 265 | 8 | 0 | 16 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 445 | 0 | 0 | 512 | 0 | 0 | 1035 | 1264 | 256 | 1001 | 1290 | 224 |
| Stage 1 | - | - | - | - | - | - | 561 | 561 | - | 696 | 696 | - |
| Stage 2 | - | - | - | - | - | - | 474 | 703 | - | 305 | 594 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 1112 | - | - | 1050 | - | - | 186 | 168 | 743 | 197 | 162 | 779 |
| Stage 1 | - | - | - | - | - | - | 480 | 508 | - | 398 | 441 | - |
| Stage 2 | - | - | - | - | - | - | 540 | 438 | - | 680 | 491 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1112 | - | - | 1050 | - | - | 160 | 142 | 743 | 112 | 137 | 778 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 160 | 142 | - | 112 | 137 | - |
| Stage 1 | - | - | - | - | - | - | 462 | 489 | - | 383 | 387 | - |
| Stage 2 | - | - | - | - | - | - | 463 | 384 | - | 421 | 473 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.6 | | | 2 | | | 72.5 | | | 19.7 | | |
| HCM LOS | | | | | | | F | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 375 | 1112 | - | - | 1050 | - | - | 269 |
| HCM Lane V/C Ratio | 0.968 | 0.037 | - | - | 0.123 | - | - | 0.089 |
| HCM Control Delay (s) | 72.5 | 8.4 | - | - | 8.9 | - | - | 19.7 |
| HCM Lane LOS | F | A | - | - | A | - | - | C |
| HCM 95th %tile Q(veh) | 10.9 | 0.1 | - | - | 0.4 | - | - | 0.3 |

Queues
20: Mooney Blvd & Visalia Pkwy

20 Year plus Project
Timing Plan: A.M. Peak





























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph) | 67 | 378 | 235 | 221 | 185 | 974 | 100 | 560 | 51 |
| v/c Ratio | 0.52 | 0.53 | 0.73 | 0.20 | 1.45 | 1.03 | 0.78 | 0.41 | 0.09 |
| Control Delay | 56.8 | 20.1 | 46.2 | 20.5 | 271.3 | 68.7 | 80.3 | 27.7 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 56.8 | 20.1 | 46.2 | 20.5 | 271.3 | 68.7 | 80.3 | 27.7 | 0.3 |
| Queue Length 50th (ft) | 34 | 51 | 116 | 44 | -132 | -274 | 52 | 86 | 0 |
| Queue Length 95th (ft) | #107 | 102 | 211 | 68 | #312 | #535 | #168 | 151 | 0 |
| Internal Link Dist (ft) | | 765 | | 339 | | 253 | | 1110 | |
| Turn Bay Length (ft) | 180 | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 128 | 1050 | 507 | 1741 | 128 | 949 | 128 | 1377 | 592 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.52 | 0.36 | 0.46 | 0.13 | 1.45 | 1.03 | 0.78 | 0.41 | 0.09 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

20 Year plus Project
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |  |   | |  |    |  |
| Traffic Volume (veh/h) | 62 | 195 | 153 | 216 | 191 | 12 | 170 | 791 | 105 | 92 | 515 | 47 |
| Future Volume (veh/h) | 62 | 195 | 153 | 216 | 191 | 12 | 170 | 791 | 105 | 92 | 515 | 47 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 67 | 212 | 166 | 235 | 208 | 13 | 185 | 860 | 114 | 100 | 560 | 51 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 104 | 341 | 254 | 277 | 928 | 58 | 135 | 892 | 118 | 127 | 1422 | 443 |
| Arrive On Green | 0.06 | 0.18 | 0.18 | 0.16 | 0.27 | 0.27 | 0.08 | 0.28 | 0.28 | 0.07 | 0.28 | 0.28 |
| Sat Flow, veh/h | 1774 | 1934 | 1444 | 1774 | 3385 | 210 | 1774 | 3142 | 416 | 1774 | 5085 | 1583 |
| Grp Volume(v), veh/h | 67 | 193 | 185 | 235 | 108 | 113 | 185 | 484 | 490 | 100 | 560 | 51 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1608 | 1774 | 1770 | 1825 | 1774 | 1770 | 1789 | 1774 | 1695 | 1583 |
| Q Serve(g_s), s | 2.9 | 8.0 | 8.4 | 10.2 | 3.7 | 3.8 | 6.0 | 21.3 | 21.3 | 4.4 | 7.0 | 1.9 |
| Cycle Q Clear(g_c), s | 2.9 | 8.0 | 8.4 | 10.2 | 3.7 | 3.8 | 6.0 | 21.3 | 21.3 | 4.4 | 7.0 | 1.9 |
| Prop In Lane | 1.00 | | 0.90 | 1.00 | | 0.12 | 1.00 | | 0.23 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 104 | 312 | 283 | 277 | 485 | 500 | 135 | 502 | 508 | 127 | 1422 | 443 |
| V/C Ratio(X) | 0.65 | 0.62 | 0.65 | 0.85 | 0.22 | 0.23 | 1.37 | 0.96 | 0.96 | 0.79 | 0.39 | 0.12 |
| Avail Cap(c_a), veh/h | 135 | 523 | 475 | 533 | 919 | 948 | 135 | 502 | 508 | 135 | 1444 | 449 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 36.3 | 30.1 | 30.3 | 32.4 | 22.1 | 22.2 | 36.5 | 27.9 | 27.9 | 36.0 | 23.0 | 21.2 |
| Incr Delay (d2), s/veh | 2.5 | 6.0 | 7.6 | 2.8 | 0.7 | 0.7 | 206.9 | 32.1 | 31.9 | 22.1 | 0.8 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.5 | 4.4 | 4.3 | 5.2 | 1.9 | 2.0 | 10.7 | 14.8 | 15.0 | 2.9 | 3.4 | 0.9 |
| LnGrp Delay(d),s/veh | 38.8 | 36.1 | 37.8 | 35.1 | 22.8 | 22.8 | 243.4 | 60.0 | 59.8 | 58.1 | 23.8 | 21.6 |
| LnGrp LOS | D | D | D | D | C | C | F | E | E | E | C | C |
| Approach Vol, veh/h | | 445 | | | 456 | | | 1159 | | | 711 | |
| Approach Delay, s/veh | | 37.2 | | | 29.2 | | | 89.2 | | | 28.4 | |
| Approach LOS | | D | | | C | | | F | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.4 | 29.2 | 18.0 | 20.3 | 11.7 | 28.9 | 10.3 | 28.0 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | * 5.7 | 6.4 | * 5.7 | 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 22.4 | * 24 | 23.3 | * 6 | 22.4 | * 6 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.4 | 23.3 | 12.2 | 10.4 | 8.0 | 9.0 | 4.9 | 5.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.2 | 3.5 | 0.0 | 6.3 | 0.0 | 2.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | 55.4 | | | | | | | | | | | |
| HCM 2010 LOS | E | | | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 7.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↖ | ↑↑ | ↑↑ | | ↖ | ↖ |
| Traffic Vol, veh/h | 194 | 69 | 50 | 18 | 68 | 288 |
| Future Vol, veh/h | 194 | 69 | 50 | 18 | 68 | 288 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 211 | 75 | 54 | 20 | 74 | 313 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|------|------|
| Conflicting Flow All | 74 | 0 | 0 | 524 | 37 |
| Stage 1 | - | - | - | 64 | - |
| Stage 2 | - | - | - | 460 | - |
| Critical Hdwy | 4.14 | - | - | 6.84 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | 5.84 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.84 | - |
| Follow-up Hdwy | 2.22 | - | - | 3.52 | 3.32 |
| Pot Cap-1 Maneuver | 1524 | - | - | 483 | 1027 |
| Stage 1 | - | - | - | 951 | - |
| Stage 2 | - | - | - | 602 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1524 | - | - | 416 | 1027 |
| Mov Cap-2 Maneuver | - | - | - | 416 | - |
| Stage 1 | - | - | - | 820 | - |
| Stage 2 | - | - | - | 602 | - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 5.7 | 0 | 11.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1524 | - | - | - | 416 | 1027 |
| HCM Lane V/C Ratio | 0.138 | - | - | - | 0.178 | 0.305 |
| HCM Control Delay (s) | 7.7 | - | - | - | 15.5 | 10 |
| HCM Lane LOS | A | - | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.5 | - | - | - | 0.6 | 1.3 |

Queues
22: Mooney Blvd & Midvalley Ave

20 Year plus Project
Timing Plan: A.M. Peak























| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 43 | 15 | 202 | 9 | 1008 | 52 | 797 | 36 |
| v/c Ratio | 0.19 | 0.04 | 0.62 | 0.05 | 0.60 | 0.28 | 0.40 | 0.04 |
| Control Delay | 23.2 | 0.2 | 19.5 | 26.9 | 14.5 | 30.5 | 9.4 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.2 | 0.2 | 19.5 | 26.9 | 14.5 | 30.5 | 9.4 | 0.1 |
| Queue Length 50th (ft) | 14 | 0 | 27 | 3 | 143 | 18 | 61 | 0 |
| Queue Length 95th (ft) | 38 | 0 | 84 | 16 | 236 | 50 | 176 | 0 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 631 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 739 | 992 | 857 | 183 | 1687 | 183 | 1971 | 920 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.02 | 0.24 | 0.05 | 0.60 | 0.28 | 0.40 | 0.04 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

20 Year plus Project
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 40 | 0 | 14 | 103 | 0 | 83 | 8 | 874 | 53 | 48 | 733 | 33 |
| Future Volume (veh/h) | 40 | 0 | 14 | 103 | 0 | 83 | 8 | 874 | 53 | 48 | 733 | 33 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 43 | 0 | 15 | 112 | 0 | 90 | 9 | 950 | 58 | 52 | 797 | 36 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 352 | 0 | 285 | 221 | 17 | 112 | 25 | 1384 | 85 | 105 | 1606 | 718 |
| Arrive On Green | 0.18 | 0.00 | 0.18 | 0.18 | 0.00 | 0.18 | 0.01 | 0.41 | 0.41 | 0.06 | 0.45 | 0.45 |
| Sat Flow, veh/h | 1251 | 0 | 1583 | 682 | 92 | 622 | 1774 | 3389 | 207 | 1774 | 3539 | 1582 |
| Grp Volume(v), veh/h | 43 | 0 | 15 | 202 | 0 | 0 | 9 | 496 | 512 | 52 | 797 | 36 |
| Grp Sat Flow(s),veh/h/ln | 1251 | 0 | 1583 | 1396 | 0 | 0 | 1774 | 1770 | 1826 | 1774 | 1770 | 1582 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.4 | 6.3 | 0.0 | 0.0 | 0.3 | 13.1 | 13.1 | 1.6 | 9.0 | 0.7 |
| Cycle Q Clear(g_c), s | 1.7 | 0.0 | 0.4 | 8.0 | 0.0 | 0.0 | 0.3 | 13.1 | 13.1 | 1.6 | 9.0 | 0.7 |
| Prop In Lane | 1.00 | | 1.00 | 0.55 | | 0.45 | 1.00 | | 0.11 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 352 | 0 | 285 | 350 | 0 | 0 | 25 | 723 | 746 | 105 | 1606 | 718 |
| V/C Ratio(X) | 0.12 | 0.00 | 0.05 | 0.58 | 0.00 | 0.00 | 0.36 | 0.69 | 0.69 | 0.50 | 0.50 | 0.05 |
| Avail Cap(c_a), veh/h | 907 | 0 | 960 | 941 | 0 | 0 | 188 | 811 | 837 | 188 | 1622 | 725 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.8 | 0.0 | 19.3 | 22.5 | 0.0 | 0.0 | 27.7 | 13.8 | 13.8 | 25.9 | 10.9 | 8.7 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 3.3 | 5.0 | 4.8 | 1.3 | 0.9 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.0 | 0.2 | 3.1 | 0.0 | 0.0 | 0.2 | 7.3 | 7.5 | 0.8 | 4.5 | 0.3 |
| LnGrp Delay(d),s/veh | 19.8 | 0.0 | 19.3 | 23.1 | 0.0 | 0.0 | 31.0 | 18.8 | 18.6 | 27.2 | 11.8 | 8.8 |
| LnGrp LOS | B | | B | C | | | C | B | B | C | B | A |
| Approach Vol, veh/h | | 58 | | | 202 | | | 1017 | | | 885 | |
| Approach Delay, s/veh | | 19.7 | | | 23.1 | | | 18.8 | | | 12.6 | |
| Approach LOS | | B | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.1 | 30.0 | | 17.7 | 6.5 | 32.5 | | 17.7 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 6 | 26.0 | | * 34 | * 6 | 26.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.6 | 15.1 | | 3.7 | 2.3 | 11.0 | | 10.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.1 | | 0.1 | 0.0 | 8.9 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 16.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 44.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 34 | 8 | 172 | 35 | 22 | 19 | 58 | 975 | 26 | 11 | 768 | 38 |
| Future Vol, veh/h | 34 | 8 | 172 | 35 | 22 | 19 | 58 | 975 | 26 | 11 | 768 | 38 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 37 | 9 | 187 | 38 | 24 | 21 | 63 | 1060 | 28 | 12 | 835 | 41 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1548 | 2094 | 438 | 1646 | 2100 | 544 | 876 | 0 | 0 | 1088 | 0 | 0 |
| Stage 1 | 880 | 880 | - | 1200 | 1200 | - | - | - | - | - | - | - |
| Stage 2 | 668 | 1214 | - | 446 | 900 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 78 | 52 | 567 | 65 | 51 | 483 | 766 | - | - | 637 | - | - |
| Stage 1 | 308 | 363 | - | 196 | 256 | - | - | - | - | - | - | - |
| Stage 2 | 414 | 253 | - | 561 | 355 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 41 | 47 | 567 | ~ 35 | 46 | 483 | 766 | - | - | 637 | - | - |
| Mov Cap-2 Maneuver | 41 | 47 | - | ~ 35 | 46 | - | - | - | - | - | - | - |
| Stage 1 | 283 | 356 | - | 180 | 235 | - | - | - | - | - | - | - |
| Stage 2 | 327 | 232 | - | 360 | 348 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|-------|--|----------|--|-----|--|-----|--|
| HCM Control Delay, s | 272.3 | | \$ 497.7 | | 0.6 | | 0.1 | |
| HCM LOS | F | | F | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|----------|-------|-----|
| Capacity (veh/h) | 766 | - | - | 164 | 50 | 637 | - |
| HCM Lane V/C Ratio | 0.082 | - | - | 1.418 | 1.652 | 0.019 | - |
| HCM Control Delay (s) | 10.1 | - | - | 272.3 | \$ 497.7 | 10.8 | - |
| HCM Lane LOS | B | - | - | F | F | B | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 14.6 | 8 | 0.1 | - |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Queues
25: Mooney Blvd & Ave 268

20 Year plus Project
Timing Plan: A.M. Peak





















| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 38 | 55 | 84 | 897 | 47 | 867 |
| v/c Ratio | 0.14 | 0.18 | 0.35 | 0.40 | 0.21 | 0.39 |
| Control Delay | 17.9 | 15.0 | 30.9 | 13.0 | 29.2 | 13.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 17.9 | 15.0 | 30.9 | 13.0 | 29.2 | 13.0 |
| Queue Length 50th (ft) | 8 | 9 | 29 | 120 | 16 | 117 |
| Queue Length 95th (ft) | 30 | 34 | 79 | 263 | 50 | 246 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 597 | 639 | 288 | 2262 | 309 | 2211 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.09 | 0.29 | 0.40 | 0.15 | 0.39 |

Intersection Summary

HCM 2010 Signalized Intersection Summary
 25: Mooney Blvd & Ave 268

20 Year plus Project
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 24 | 1 | 11 | 24 | 2 | 27 | 80 | 838 | 14 | 45 | 742 | 82 |
| Future Volume (veh/h) | 24 | 1 | 11 | 24 | 2 | 27 | 80 | 838 | 14 | 45 | 742 | 82 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 25 | 1 | 12 | 25 | 2 | 28 | 84 | 882 | 15 | 47 | 781 | 86 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 222 | 28 | 60 | 163 | 39 | 100 | 147 | 1528 | 26 | 102 | 1296 | 143 |
| Arrive On Green | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.08 | 0.43 | 0.43 | 0.06 | 0.40 | 0.40 |
| Sat Flow, veh/h | 811 | 226 | 479 | 460 | 307 | 795 | 1774 | 3561 | 61 | 1774 | 3208 | 353 |
| Grp Volume(v), veh/h | 38 | 0 | 0 | 55 | 0 | 0 | 84 | 438 | 459 | 47 | 431 | 436 |
| Grp Sat Flow(s),veh/h/ln | 1516 | 0 | 0 | 1562 | 0 | 0 | 1774 | 1770 | 1852 | 1774 | 1770 | 1791 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 | 9.4 | 9.4 | 1.3 | 9.5 | 9.5 |
| Cycle Q Clear(g_c), s | 1.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 2.3 | 9.4 | 9.4 | 1.3 | 9.5 | 9.5 |
| Prop In Lane | 0.66 | | 0.32 | 0.45 | | 0.51 | 1.00 | | 0.03 | 1.00 | | 0.20 |
| Lane Grp Cap(c), veh/h | 310 | 0 | 0 | 301 | 0 | 0 | 147 | 759 | 795 | 102 | 715 | 723 |
| V/C Ratio(X) | 0.12 | 0.00 | 0.00 | 0.18 | 0.00 | 0.00 | 0.57 | 0.58 | 0.58 | 0.46 | 0.60 | 0.60 |
| Avail Cap(c_a), veh/h | 769 | 0 | 0 | 777 | 0 | 0 | 296 | 878 | 919 | 317 | 900 | 911 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.5 | 0.0 | 0.0 | 19.7 | 0.0 | 0.0 | 22.0 | 10.8 | 10.8 | 22.7 | 11.7 | 11.7 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 1.3 | 3.0 | 2.8 | 1.2 | 3.5 | 3.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 1.1 | 5.1 | 5.3 | 0.7 | 5.2 | 5.3 |
| LnGrp Delay(d),s/veh | 19.8 | 0.0 | 0.0 | 20.2 | 0.0 | 0.0 | 23.3 | 13.7 | 13.6 | 23.9 | 15.2 | 15.1 |
| LnGrp LOS | B | | | C | | | C | B | B | C | B | B |
| Approach Vol, veh/h | | 38 | | | 55 | | | 981 | | | 914 | |
| Approach Delay, s/veh | | 19.8 | | | 20.2 | | | 14.5 | | | 15.6 | |
| Approach LOS | | B | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.6 | 29.3 | | 11.9 | 9.8 | 28.0 | | 11.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 8.9 | 24.7 | | * 22 | * 8.3 | 25.3 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.3 | 11.4 | | 3.0 | 4.3 | 11.5 | | 3.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.6 | | 0.2 | 0.0 | 8.5 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 15.3 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 390 | 81 | 0 | 324 | 0 | 12 |
| Future Vol, veh/h | 390 | 81 | 0 | 324 | 0 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 424 | 88 | 0 | 352 | 0 | 13 |

| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 0 | 0 | - - - 256 |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |
| Critical Hdwy | - | - | - - - 6.94 |
| Critical Hdwy Stg 1 | - | - | - - - |
| Critical Hdwy Stg 2 | - | - | - - - |
| Follow-up Hdwy | - | - | - - - 3.32 |
| Pot Cap-1 Maneuver | - | - 0 | - 0 743 |
| Stage 1 | - | - 0 | - 0 - |
| Stage 2 | - | - 0 | - 0 - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | - - - 743 |
| Mov Cap-2 Maneuver | - | - | - - - |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |

| Approach | EB | WB | NB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0 | 0 | 9.9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 743 | - | - | - |
| HCM Lane V/C Ratio | 0.018 | - | - | - |
| HCM Control Delay (s) | 9.9 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↕ | | ↖ | ↕ | | | | ↖ | | | ↖ |
| Traffic Vol, veh/h | 10 | 331 | 61 | 62 | 324 | 7 | 0 | 0 | 12 | 0 | 0 | 18 |
| Future Vol, veh/h | 10 | 331 | 61 | 62 | 324 | 7 | 0 | 0 | 12 | 0 | 0 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | - | 150 | - | - | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 11 | 360 | 66 | 67 | 352 | 8 | 0 | 0 | 13 | 0 | 0 | 20 |

| Major/Minor | Major1 | | Major2 | | Minor1 | | | Minor2 | | | | |
|----------------------|--------|---|--------|------|--------|---|---|--------|------|---|---|------|
| Conflicting Flow All | 360 | 0 | 0 | 426 | 0 | 0 | - | - | 213 | - | - | 180 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | - | - | 6.94 | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | - | - | 3.32 | - | - | 3.32 |
| Pot Cap-1 Maneuver | 1195 | - | - | 1130 | - | - | 0 | 0 | 792 | 0 | 0 | 832 |
| Stage 1 | - | - | - | - | - | - | 0 | 0 | - | 0 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 0 | 0 | - | 0 | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1195 | - | - | 1130 | - | - | - | - | 792 | - | - | 832 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | | SB | | |
|----------------------|-----|--|-----|--|-----|--|--|-----|--|--|
| HCM Control Delay, s | 0.2 | | 1.3 | | 9.6 | | | 9.4 | | |
| HCM LOS | | | | | A | | | A | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|
| Capacity (veh/h) | 792 | 1195 | - | - | 1130 | - | - | 832 |
| HCM Lane V/C Ratio | 0.016 | 0.009 | - | - | 0.06 | - | - | 0.024 |
| HCM Control Delay (s) | 9.6 | 8 | - | - | 8.4 | - | - | 9.4 |
| HCM Lane LOS | A | A | - | - | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0.2 | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.4 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 353 | 0 | 0 | 393 | 0 | 29 |
| Future Vol, veh/h | 353 | 0 | 0 | 393 | 0 | 29 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 384 | 0 | 0 | 427 | 0 | 32 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|------|
| Conflicting Flow All | 0 | 0 | - | - | - | 192 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 817 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 817 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0 | 0 | 9.6 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 817 | - | - | - |
| HCM Lane V/C Ratio | 0.039 | - | - | - |
| HCM Control Delay (s) | 9.6 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.1 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↑↑ | ↑↑ | | ↑ | ↑ |
| Traffic Vol, veh/h | 119 | 263 | 335 | 3 | 0 | 58 |
| Future Vol, veh/h | 119 | 263 | 335 | 3 | 0 | 58 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 129 | 286 | 364 | 3 | 0 | 63 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 367 | 0 | - | 0 | 767 |
| Stage 1 | - | - | - | - | 366 |
| Stage 2 | - | - | - | - | 401 |
| Critical Hdwy | 4.14 | - | - | - | 6.84 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 |
| Pot Cap-1 Maneuver | 1188 | - | - | - | 339 |
| Stage 1 | - | - | - | - | 672 |
| Stage 2 | - | - | - | - | 645 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1188 | - | - | - | 295 |
| Mov Cap-2 Maneuver | - | - | - | - | 295 |
| Stage 1 | - | - | - | - | 585 |
| Stage 2 | - | - | - | - | 645 |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 2.8 | 0 | 9.7 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1188 | - | - | - | - | 827 |
| HCM Lane V/C Ratio | 0.109 | - | - | - | - | 0.076 |
| HCM Control Delay (s) | 8.4 | 0.3 | - | - | 0 | 9.7 |
| HCM Lane LOS | A | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | - | 0.2 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.9 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | | ↕ | | | ↕ | ↗ |
| Traffic Vol, veh/h | 0 | 0 | 66 | 0 | 0 | 76 | 0 | 878 | 30 | 0 | 758 | 126 |
| Future Vol, veh/h | 0 | 0 | 66 | 0 | 0 | 76 | 0 | 878 | 30 | 0 | 758 | 126 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | - | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 72 | 0 | 0 | 83 | 0 | 954 | 33 | 0 | 824 | 137 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|---|--------|---|--------|------|--------|---|---|---|---|---|
| Conflicting Flow All | - | - | 412 | - | - | 494 | - | 0 | 0 | - | - | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | - | - | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | - | - | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 589 | 0 | 0 | 521 | 0 | - | - | 0 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | 0 | - | - | 0 | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | 0 | - | - | 0 | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 589 | - | - | 521 | - | - | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|----|--|------|--|----|--|----|--|
| HCM Control Delay, s | 12 | | 13.2 | | 0 | | 0 | |
| HCM LOS | B | | B | | | | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1WBLn1 | SBT | SBR |
|-----------------------|-----|-----|------------|-------|-----|
| Capacity (veh/h) | - | - | 589 | 521 | - |
| HCM Lane V/C Ratio | - | - | 0.122 | 0.159 | - |
| HCM Control Delay (s) | - | - | 12 | 13.2 | - |
| HCM Lane LOS | - | - | B | B | - |
| HCM 95th %tile Q(veh) | - | - | 0.4 | 0.6 | - |

HCM 2010 TWSC
 31: Mooney Blvd & Visalia Commons Dwy 2/West Access Dwy 2

20 Year plus Project
 Timing Plan: A.M. Peak

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | ↗ | ↕ | | ↗ | ↕ | ↗ |
| Traffic Vol, veh/h | 0 | 0 | 87 | 0 | 0 | 63 | 171 | 845 | 31 | 58 | 668 | 98 |
| Future Vol, veh/h | 0 | 0 | 87 | 0 | 0 | 63 | 171 | 845 | 31 | 58 | 668 | 98 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | 150 | - | - | 150 | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 95 | 0 | 0 | 68 | 186 | 918 | 34 | 63 | 726 | 107 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|---|--------|---|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | - | - | 363 | - | - | 476 | 833 | 0 | 0 | 952 | 0 | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 634 | 0 | 0 | 535 | 796 | - | - | 717 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 634 | - | - | 535 | 796 | - | - | 717 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | | | |
|----------------------|------|--|------|--|-----|--|-----|--|--|--|
| HCM Control Delay, s | 11.7 | | 12.7 | | 1.8 | | 0.7 | | | |
| HCM LOS | B | | B | | | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 796 | - | - | 634 | 535 | 717 | - | - |
| HCM Lane V/C Ratio | 0.234 | - | - | 0.149 | 0.128 | 0.088 | - | - |
| HCM Control Delay (s) | 10.9 | - | - | 11.7 | 12.7 | 10.5 | - | - |
| HCM Lane LOS | B | - | - | B | B | B | - | - |
| HCM 95th %tile Q(veh) | 0.9 | - | - | 0.5 | 0.4 | 0.3 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | ↗ | ↕ | | ↗ | ↕ | ↗ |
| Traffic Vol, veh/h | 0 | 0 | 87 | 0 | 0 | 139 | 171 | 815 | 61 | 58 | 668 | 98 |
| Future Vol, veh/h | 0 | 0 | 87 | 0 | 0 | 139 | 171 | 815 | 61 | 58 | 668 | 98 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | 150 | - | - | 150 | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 95 | 0 | 0 | 151 | 186 | 886 | 66 | 63 | 726 | 107 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|---|--------|---|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | - | - | 363 | - | - | 476 | 833 | 0 | 0 | 952 | 0 | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 634 | 0 | 0 | 535 | 796 | - | - | 717 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 634 | - | - | 535 | 796 | - | - | 717 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | | | |
|----------------------|------|--|------|--|-----|--|-----|--|--|--|
| HCM Control Delay, s | 11.7 | | 14.4 | | 1.8 | | 0.7 | | | |
| HCM LOS | B | | B | | | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 796 | - | - | 634 | 535 | 717 | - | - |
| HCM Lane V/C Ratio | 0.234 | - | - | 0.149 | 0.282 | 0.088 | - | - |
| HCM Control Delay (s) | 10.9 | - | - | 11.7 | 14.4 | 10.5 | - | - |
| HCM Lane LOS | B | - | - | B | B | B | - | - |
| HCM 95th %tile Q(veh) | 0.9 | - | - | 0.5 | 1.2 | 0.3 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↕ | ↕ | | ↕ | |
| Traffic Vol, veh/h | 43 | 58 | 119 | 0 | 0 | 67 |
| Future Vol, veh/h | 43 | 58 | 119 | 0 | 0 | 67 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 47 | 63 | 129 | 0 | 0 | 73 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 129 | 0 | - | 0 | 286 129 |
| Stage 1 | - | - | - | - | 129 - |
| Stage 2 | - | - | - | - | 157 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1457 | - | - | - | 704 921 |
| Stage 1 | - | - | - | - | 897 - |
| Stage 2 | - | - | - | - | 871 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1457 | - | - | - | 681 921 |
| Mov Cap-2 Maneuver | - | - | - | - | 681 - |
| Stage 1 | - | - | - | - | 867 - |
| Stage 2 | - | - | - | - | 871 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 3.2 | 0 | 9.2 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1457 | - | - | - | 921 |
| HCM Lane V/C Ratio | 0.032 | - | - | - | 0.079 |
| HCM Control Delay (s) | 7.6 | 0 | - | - | 9.2 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↕ | ↕ | | ↕ | |
| Traffic Vol, veh/h | 33 | 25 | 68 | 0 | 0 | 51 |
| Future Vol, veh/h | 33 | 25 | 68 | 0 | 0 | 51 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 36 | 27 | 74 | 0 | 0 | 55 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 74 | 0 | - | 0 | 173 74 |
| Stage 1 | - | - | - | - | 74 - |
| Stage 2 | - | - | - | - | 99 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1526 | - | - | - | 817 988 |
| Stage 1 | - | - | - | - | 949 - |
| Stage 2 | - | - | - | - | 925 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1526 | - | - | - | 797 988 |
| Mov Cap-2 Maneuver | - | - | - | - | 797 - |
| Stage 1 | - | - | - | - | 926 - |
| Stage 2 | - | - | - | - | 925 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 4.2 | 0 | 8.9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1526 | - | - | - | 988 |
| HCM Lane V/C Ratio | 0.024 | - | - | - | 0.056 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 8.9 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.8 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 14 | 11 | 39 | 0 | 0 | 29 |
| Future Vol, veh/h | 14 | 11 | 39 | 0 | 0 | 29 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 15 | 12 | 42 | 0 | 0 | 32 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 42 | 0 | - | 0 | 84 42 |
| Stage 1 | - | - | - | - | 42 - |
| Stage 2 | - | - | - | - | 42 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1567 | - | - | - | 918 1029 |
| Stage 1 | - | - | - | - | 980 - |
| Stage 2 | - | - | - | - | 980 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1567 | - | - | - | 909 1029 |
| Mov Cap-2 Maneuver | - | - | - | - | 909 - |
| Stage 1 | - | - | - | - | 970 - |
| Stage 2 | - | - | - | - | 980 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 4.1 | 0 | 8.6 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1567 | - | - | - | 1029 |
| HCM Lane V/C Ratio | 0.01 | - | - | - | 0.031 |
| HCM Control Delay (s) | 7.3 | 0 | - | - | 8.6 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.1 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 0 | 11 | 21 | 0 | 0 | 18 |
| Future Vol, veh/h | 0 | 11 | 21 | 0 | 0 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 12 | 23 | 0 | 0 | 20 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 23 | 0 | - | 0 | 35 23 |
| Stage 1 | - | - | - | - | 23 - |
| Stage 2 | - | - | - | - | 12 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1592 | - | - | - | 978 1054 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1011 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1592 | - | - | - | 978 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 978 - |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 1011 - |

| Approach | EB | WB | SB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0 | 0 | 8.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1592 | - | - | - | 1054 |
| HCM Lane V/C Ratio | - | - | - | - | 0.019 |
| HCM Control Delay (s) | 0 | - | - | - | 8.5 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.4 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | T | | T | |
| Traffic Vol, veh/h | 29 | 18 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 29 | 18 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 32 | 20 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 8.6 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | 1045 | - | - |
| HCM Lane V/C Ratio | - | - | 0.049 | - | - |
| HCM Control Delay (s) | 0 | - | 8.6 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

Queues
1: Mooney Blvd & Whitendale Ave

20 Year plus Project
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 97 | 245 | 209 | 241 | 234 | 67 | 243 | 1103 | 242 | 116 | 1223 | 86 |
| v/c Ratio | 0.20 | 0.41 | 0.50 | 0.52 | 0.41 | 0.16 | 1.40 | 0.49 | 0.31 | 0.55 | 0.53 | 0.11 |
| Control Delay | 50.5 | 46.8 | 11.8 | 56.0 | 47.5 | 0.9 | 255.3 | 26.8 | 10.1 | 66.9 | 26.8 | 1.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.5 | 46.8 | 11.8 | 56.0 | 47.5 | 0.9 | 255.3 | 26.8 | 10.1 | 66.9 | 26.8 | 1.3 |
| Queue Length 50th (ft) | 36 | 98 | 17 | 95 | 94 | 0 | ~135 | 215 | 36 | 47 | 236 | 0 |
| Queue Length 95th (ft) | 68 | 106 | 68 | #172 | 101 | 0 | #222 | 328 | 116 | #93 | 374 | 9 |
| Internal Link Dist (ft) | | 1104 | | | 403 | | | 770 | | | 1028 | |
| Turn Bay Length (ft) | 155 | | 260 | 250 | | 235 | 290 | | 130 | 445 | | 190 |
| Base Capacity (vph) | 483 | 1330 | 701 | 460 | 1339 | 706 | 173 | 2248 | 780 | 212 | 2307 | 779 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | 0.18 | 0.30 | 0.52 | 0.17 | 0.09 | 1.40 | 0.49 | 0.31 | 0.55 | 0.53 | 0.11 |

























Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 1: Mooney Blvd & Whitendale Ave

20 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 94 | 238 | 203 | 234 | 227 | 65 | 236 | 1070 | 235 | 113 | 1186 | 83 |
| Future Volume (veh/h) | 94 | 238 | 203 | 234 | 227 | 65 | 236 | 1070 | 235 | 113 | 1186 | 83 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 97 | 245 | 209 | 241 | 234 | 67 | 243 | 1103 | 242 | 116 | 1223 | 86 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 408 | 667 | 293 | 173 | 426 | 190 | 799 | 2641 | 812 | 165 | 1676 | 519 |
| Arrive On Green | 0.12 | 0.19 | 0.19 | 0.05 | 0.12 | 0.12 | 0.23 | 0.52 | 0.52 | 0.05 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3539 | 1555 | 3442 | 3539 | 1579 | 3442 | 5085 | 1564 | 3442 | 5085 | 1575 |
| Grp Volume(v), veh/h | 97 | 245 | 209 | 241 | 234 | 67 | 243 | 1103 | 242 | 116 | 1223 | 86 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1555 | 1721 | 1770 | 1579 | 1721 | 1695 | 1564 | 1721 | 1695 | 1575 |
| Q Serve(g_s), s | 3.2 | 7.5 | 15.7 | 6.3 | 7.8 | 4.1 | 7.3 | 16.6 | 7.6 | 4.2 | 26.5 | 4.8 |
| Cycle Q Clear(g_c), s | 3.2 | 7.5 | 15.7 | 6.3 | 7.8 | 4.1 | 7.3 | 16.6 | 7.6 | 4.2 | 26.5 | 4.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 408 | 667 | 293 | 173 | 426 | 190 | 799 | 2641 | 812 | 165 | 1676 | 519 |
| V/C Ratio(X) | 0.24 | 0.37 | 0.71 | 1.39 | 0.55 | 0.35 | 0.30 | 0.42 | 0.30 | 0.70 | 0.73 | 0.17 |
| Avail Cap(c_a), veh/h | 408 | 1331 | 585 | 173 | 1339 | 598 | 799 | 2641 | 812 | 165 | 1676 | 519 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.79 | 0.79 | 0.79 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 50.0 | 44.2 | 47.5 | 59.4 | 51.8 | 35.2 | 39.6 | 18.4 | 8.2 | 58.6 | 37.0 | 29.7 |
| Incr Delay (d2), s/veh | 0.1 | 0.7 | 6.1 | 206.6 | 2.1 | 2.1 | 0.1 | 0.4 | 0.7 | 10.8 | 2.8 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.5 | 3.7 | 7.3 | 8.0 | 3.9 | 2.1 | 3.5 | 7.9 | 4.1 | 2.2 | 12.9 | 2.2 |
| LnGrp Delay(d),s/veh | 50.1 | 44.9 | 53.7 | 266.0 | 53.9 | 37.4 | 39.7 | 18.8 | 9.0 | 69.4 | 39.8 | 30.4 |
| LnGrp LOS | D | D | D | F | D | D | D | B | A | E | D | C |
| Approach Vol, veh/h | | 551 | | | 542 | | | 1588 | | | 1425 | |
| Approach Delay, s/veh | | 49.1 | | | 146.2 | | | 20.5 | | | 41.7 | |
| Approach LOS | | D | | | F | | | C | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.7 | 71.3 | 12.0 | 30.0 | 35.4 | 47.6 | 20.5 | 21.5 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 41.5 | 6.3 | * 47 | 6.3 | * 41 | 6.0 | * 47 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.2 | 18.6 | 8.3 | 17.7 | 9.3 | 28.5 | 5.2 | 9.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 14.3 | 0.0 | 4.4 | 0.0 | 9.2 | 0.0 | 3.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 48.3 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
2: Giddings St & Whitendale Ave






















20 Year plus Project
Timing Plan: P.M. Peak



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 149 | 274 | 1 | 223 | 105 | 25 | 122 | 17 | 209 |
| v/c Ratio | 0.45 | 0.31 | 0.00 | 0.40 | 0.18 | 0.06 | 0.34 | 0.04 | 0.37 |
| Control Delay | 24.9 | 9.7 | 24.0 | 17.7 | 2.6 | 15.2 | 19.3 | 15.6 | 5.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 24.9 | 9.7 | 24.0 | 17.7 | 2.6 | 15.2 | 19.3 | 15.6 | 5.3 |
| Queue Length 50th (ft) | 35 | 33 | 0 | 48 | 0 | 5 | 27 | 3 | 0 |
| Queue Length 95th (ft) | 102 | 125 | 4 | 118 | 17 | 22 | 76 | 17 | 42 |
| Internal Link Dist (ft) | | 1986 | | 690 | | 343 | | 406 | |
| Turn Bay Length (ft) | 105 | | 105 | | 35 | | 150 | | 50 |
| Base Capacity (vph) | 454 | 1257 | 268 | 1087 | 983 | 992 | 805 | 1087 | 1010 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.33 | 0.22 | 0.00 | 0.21 | 0.11 | 0.03 | 0.15 | 0.02 | 0.21 |
| Intersection Summary | | | | | | | | | |

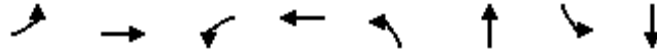
HCM 2010 Signalized Intersection Summary
 2: Giddings St & Whitendale Ave

20 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  | |  |  |  |
| Traffic Volume (veh/h) | 137 | 241 | 11 | 1 | 205 | 97 | 8 | 13 | 2 | 112 | 16 | 192 |
| Future Volume (veh/h) | 137 | 241 | 11 | 1 | 205 | 97 | 8 | 13 | 2 | 112 | 16 | 192 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 149 | 262 | 12 | 1 | 223 | 105 | 9 | 14 | 2 | 122 | 17 | 209 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 228 | 691 | 32 | 5 | 493 | 419 | 211 | 257 | 29 | 512 | 415 | 353 |
| Arrive On Green | 0.13 | 0.39 | 0.39 | 0.00 | 0.26 | 0.26 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1774 | 1768 | 81 | 1774 | 1863 | 1583 | 343 | 1153 | 130 | 1392 | 1863 | 1583 |
| Grp Volume(v), veh/h | 149 | 0 | 274 | 1 | 223 | 105 | 25 | 0 | 0 | 122 | 17 | 209 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1848 | 1774 | 1863 | 1583 | 1627 | 0 | 0 | 1392 | 1863 | 1583 |
| Q Serve(g_s), s | 2.9 | 0.0 | 3.9 | 0.0 | 3.6 | 1.9 | 0.0 | 0.0 | 0.0 | 2.2 | 0.3 | 4.3 |
| Cycle Q Clear(g_c), s | 2.9 | 0.0 | 3.9 | 0.0 | 3.6 | 1.9 | 0.4 | 0.0 | 0.0 | 2.6 | 0.3 | 4.3 |
| Prop In Lane | 1.00 | | 0.04 | 1.00 | | 1.00 | 0.36 | | 0.08 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 228 | 0 | 723 | 5 | 493 | 419 | 497 | 0 | 0 | 512 | 415 | 353 |
| V/C Ratio(X) | 0.65 | 0.00 | 0.38 | 0.21 | 0.45 | 0.25 | 0.05 | 0.00 | 0.00 | 0.24 | 0.04 | 0.59 |
| Avail Cap(c_a), veh/h | 536 | 0 | 1497 | 317 | 1279 | 1087 | 1195 | 0 | 0 | 1157 | 1279 | 1087 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 15.1 | 0.0 | 7.9 | 18.1 | 11.2 | 10.5 | 11.2 | 0.0 | 0.0 | 12.0 | 11.1 | 12.7 |
| Incr Delay (d2), s/veh | 1.2 | 0.0 | 0.6 | 7.5 | 1.1 | 0.5 | 0.1 | 0.0 | 0.0 | 0.4 | 0.1 | 2.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.5 | 0.0 | 2.0 | 0.0 | 2.0 | 0.9 | 0.2 | 0.0 | 0.0 | 1.1 | 0.1 | 2.1 |
| LnGrp Delay(d),s/veh | 16.3 | 0.0 | 8.5 | 25.6 | 12.3 | 11.1 | 11.2 | 0.0 | 0.0 | 12.4 | 11.2 | 15.4 |
| LnGrp LOS | B | | A | C | B | B | B | | | B | B | B |
| Approach Vol, veh/h | | 423 | | | 329 | | | 25 | | | 348 | |
| Approach Delay, s/veh | | 11.2 | | | 12.0 | | | 11.2 | | | 14.1 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.1 | 19.2 | | 13.1 | 8.7 | 14.6 | | 13.1 | | | | |
| Change Period (Y+Rc), s | 4.0 | 5.0 | | 5.0 | 4.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 29.5 | | 25.0 | 11.0 | 25.0 | | 25.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 5.9 | | 2.4 | 4.9 | 5.6 | | 6.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.5 | | 0.1 | 0.1 | 2.4 | | 2.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.3 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
3: Mooney Blvd & Sunnyside Ave

20 Year plus Project
Timing Plan: P.M. Peak























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 129 | 60 | 18 | 133 | 67 | 1447 | 82 | 1704 |
| v/c Ratio | 0.58 | 0.19 | 0.11 | 0.54 | 0.67 | 0.58 | 0.51 | 0.62 |
| Control Delay | 55.8 | 16.2 | 43.0 | 17.3 | 82.2 | 22.1 | 58.2 | 19.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 55.8 | 16.2 | 43.0 | 17.3 | 82.2 | 22.1 | 58.2 | 19.5 |
| Queue Length 50th (ft) | 87 | 3 | 12 | 1 | 47 | 256 | 56 | 299 |
| Queue Length 95th (ft) | 145 | 45 | 32 | 59 | #117 | 361 | 103 | 400 |
| Internal Link Dist (ft) | | 838 | | 514 | | 1073 | | 770 |
| Turn Bay Length (ft) | 170 | | 100 | | 400 | | 270 | |
| Base Capacity (vph) | 221 | 631 | 169 | 633 | 101 | 2491 | 163 | 2757 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.58 | 0.10 | 0.11 | 0.21 | 0.66 | 0.58 | 0.50 | 0.62 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
3: Mooney Blvd & Sunnyside Ave

20 Year plus Project
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 120 | 5 | 51 | 17 | 2 | 122 | 62 | 1325 | 20 | 76 | 1513 | 72 |
| Future Volume (veh/h) | 120 | 5 | 51 | 17 | 2 | 122 | 62 | 1325 | 20 | 76 | 1513 | 72 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 129 | 5 | 55 | 18 | 2 | 131 | 67 | 1425 | 22 | 82 | 1627 | 77 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 144 | 10 | 107 | 203 | 3 | 166 | 515 | 2789 | 43 | 104 | 1504 | 71 |
| Arrive On Green | 0.08 | 0.07 | 0.07 | 0.11 | 0.11 | 0.11 | 0.29 | 0.54 | 0.54 | 0.06 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1774 | 134 | 1470 | 1774 | 24 | 1563 | 1774 | 5157 | 80 | 1774 | 4967 | 235 |
| Grp Volume(v), veh/h | 129 | 0 | 60 | 18 | 0 | 133 | 67 | 937 | 510 | 82 | 1110 | 594 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1603 | 1774 | 0 | 1587 | 1774 | 1695 | 1846 | 1774 | 1695 | 1811 |
| Q Serve(g_s), s | 7.9 | 0.0 | 4.0 | 1.0 | 0.0 | 9.0 | 3.1 | 19.3 | 19.3 | 5.0 | 33.3 | 33.3 |
| Cycle Q Clear(g_c), s | 7.9 | 0.0 | 4.0 | 1.0 | 0.0 | 9.0 | 3.1 | 19.3 | 19.3 | 5.0 | 33.3 | 33.3 |
| Prop In Lane | 1.00 | | 0.92 | 1.00 | | 0.98 | 1.00 | | 0.04 | 1.00 | | 0.13 |
| Lane Grp Cap(c), veh/h | 144 | 0 | 117 | 203 | 0 | 168 | 515 | 1833 | 998 | 104 | 1026 | 548 |
| V/C Ratio(X) | 0.90 | 0.00 | 0.51 | 0.09 | 0.00 | 0.79 | 0.13 | 0.51 | 0.51 | 0.79 | 1.08 | 1.08 |
| Avail Cap(c_a), veh/h | 144 | 0 | 596 | 203 | 0 | 548 | 515 | 1833 | 998 | 111 | 1026 | 548 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.79 | 0.79 | 0.79 | 0.84 | 0.84 | 0.84 |
| Uniform Delay (d), s/veh | 50.1 | 0.0 | 49.1 | 43.6 | 0.0 | 48.0 | 28.8 | 16.0 | 16.0 | 51.1 | 38.3 | 38.4 |
| Incr Delay (d2), s/veh | 45.4 | 0.0 | 2.6 | 0.1 | 0.0 | 6.1 | 0.0 | 0.8 | 1.5 | 22.6 | 50.9 | 59.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.7 | 0.0 | 1.9 | 0.5 | 0.0 | 4.2 | 1.5 | 9.2 | 10.2 | 3.1 | 22.8 | 25.7 |
| LnGrp Delay(d),s/veh | 95.5 | 0.0 | 51.7 | 43.7 | 0.0 | 54.1 | 28.8 | 16.8 | 17.5 | 73.7 | 89.2 | 98.0 |
| LnGrp LOS | F | | D | D | | D | C | B | B | E | F | F |
| Approach Vol, veh/h | | 189 | | | 151 | | | 1514 | | | 1786 | |
| Approach Delay, s/veh | | 81.6 | | | 52.8 | | | 17.6 | | | 91.4 | |
| Approach LOS | | F | | | D | | | B | | | F | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.1 | 65.9 | 18.3 | 13.7 | 38.3 | 39.7 | 14.6 | 17.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | 6.4 | * 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 6.9 | 32.7 | * 6 | * 41 | 6.3 | * 33 | * 8.9 | * 38 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.0 | 21.3 | 3.0 | 6.0 | 5.1 | 35.3 | 9.9 | 11.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 58.6 | | | | | | | | | |
| HCM 2010 LOS | | | E | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
4: Mooney Blvd & Orchard Ave

20 Year plus Project
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 21 | 42 | 68 | 96 | 74 | 1283 | 57 | 184 | 1516 | 41 |
| v/c Ratio | 0.18 | 0.16 | 0.51 | 0.28 | 0.38 | 0.59 | 0.08 | 0.51 | 0.49 | 0.04 |
| Control Delay | 50.0 | 11.0 | 61.3 | 10.3 | 53.5 | 26.7 | 0.2 | 47.3 | 18.9 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.0 | 11.0 | 61.3 | 10.3 | 53.5 | 26.7 | 0.2 | 47.3 | 18.9 | 0.1 |
| Queue Length 50th (ft) | 14 | 1 | 44 | 6 | 25 | 243 | 0 | 111 | 223 | 0 |
| Queue Length 95th (ft) | 39 | 22 | #114 | 36 | 48 | #415 | 0 | #328 | #537 | 0 |
| Internal Link Dist (ft) | | 301 | | 578 | | 581 | | | 1073 | |
| Turn Bay Length (ft) | | | 105 | | 125 | | 100 | 250 | | 101 |
| Base Capacity (vph) | 115 | 652 | 133 | 689 | 196 | 2186 | 748 | 358 | 3099 | 1009 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.06 | 0.51 | 0.14 | 0.38 | 0.59 | 0.08 | 0.51 | 0.49 | 0.04 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

20 Year plus Project
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 20 | 2 | 38 | 64 | 10 | 80 | 70 | 1206 | 54 | 173 | 1425 | 39 |
| Future Volume (veh/h) | 20 | 2 | 38 | 64 | 10 | 80 | 70 | 1206 | 54 | 173 | 1425 | 39 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 0.98 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 21 | 2 | 40 | 68 | 11 | 85 | 74 | 1283 | 57 | 184 | 1516 | 41 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 81 | 9 | 174 | 87 | 22 | 170 | 1178 | 2796 | 850 | 101 | 1312 | 406 |
| Arrive On Green | 0.05 | 0.12 | 0.12 | 0.05 | 0.12 | 0.12 | 0.34 | 0.55 | 0.55 | 0.06 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 75 | 1496 | 1774 | 183 | 1417 | 3442 | 5085 | 1546 | 1774 | 5085 | 1574 |
| Grp Volume(v), veh/h | 21 | 0 | 42 | 68 | 0 | 96 | 74 | 1283 | 57 | 184 | 1516 | 41 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1571 | 1774 | 0 | 1600 | 1721 | 1695 | 1546 | 1774 | 1695 | 1574 |
| Q Serve(g_s), s | 1.2 | 0.0 | 2.5 | 4.0 | 0.0 | 5.9 | 1.5 | 15.9 | 1.1 | 6.0 | 27.1 | 2.1 |
| Cycle Q Clear(g_c), s | 1.2 | 0.0 | 2.5 | 4.0 | 0.0 | 5.9 | 1.5 | 15.9 | 1.1 | 6.0 | 27.1 | 2.1 |
| Prop In Lane | 1.00 | | 0.95 | 1.00 | | 0.89 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 81 | 0 | 182 | 87 | 0 | 192 | 1178 | 2796 | 850 | 101 | 1312 | 406 |
| V/C Ratio(X) | 0.26 | 0.00 | 0.23 | 0.78 | 0.00 | 0.50 | 0.06 | 0.46 | 0.07 | 1.82 | 1.16 | 0.10 |
| Avail Cap(c_a), veh/h | 101 | 0 | 628 | 101 | 0 | 640 | 1178 | 2796 | 850 | 101 | 1312 | 406 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.75 | 0.75 | 0.75 | 0.76 | 0.76 | 0.76 |
| Uniform Delay (d), s/veh | 48.4 | 0.0 | 42.1 | 49.3 | 0.0 | 43.3 | 23.2 | 14.2 | 4.4 | 49.5 | 38.9 | 29.7 |
| Incr Delay (d2), s/veh | 0.6 | 0.0 | 0.2 | 23.1 | 0.0 | 1.5 | 0.0 | 0.4 | 0.1 | 394.5 | 76.8 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.0 | 1.1 | 2.5 | 0.0 | 2.7 | 0.7 | 7.5 | 0.8 | 14.0 | 22.0 | 1.0 |
| LnGrp Delay(d),s/veh | 49.0 | 0.0 | 42.4 | 72.4 | 0.0 | 44.8 | 23.2 | 14.6 | 4.6 | 444.0 | 115.7 | 30.0 |
| LnGrp LOS | D | | D | E | | D | C | B | A | F | F | C |
| Approach Vol, veh/h | | 63 | | | 164 | | | 1414 | | | 1741 | |
| Approach Delay, s/veh | | 44.6 | | | 56.2 | | | 14.7 | | | 148.4 | |
| Approach LOS | | D | | | E | | | B | | | F | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.7 | 64.1 | 10.9 | 18.3 | 42.3 | 33.5 | 10.5 | 18.7 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 6 | 27.1 | 6.0 | * 42 | 6.0 | * 27 | 6.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.0 | 17.9 | 6.0 | 4.5 | 3.5 | 29.1 | 3.2 | 7.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.4 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 86.1 | | | | | | | | | |
| HCM 2010 LOS | | | F | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 57.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 35 | 1405 | 62 | 50 | 1122 | 29 | 25 | 0 | 47 | 26 | 0 | 52 |
| Future Vol, veh/h | 35 | 1405 | 62 | 50 | 1122 | 29 | 25 | 0 | 47 | 26 | 0 | 52 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 36 | 1464 | 65 | 52 | 1169 | 30 | 26 | 0 | 49 | 27 | 0 | 54 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 1204 | 0 | 0 | 1529 | 0 | 0 | 2258 | 2877 | 765 | 2097 | 2894 | 605 |
| Stage 1 | - | - | - | - | - | - | 1569 | 1569 | - | 1293 | 1293 | - |
| Stage 2 | - | - | - | - | - | - | 689 | 1308 | - | 804 | 1601 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 575 | - | - | 432 | - | - | ~ 22 | 16 | 346 | 30 | 16 | 441 |
| Stage 1 | - | - | - | - | - | - | 116 | 170 | - | 172 | 231 | - |
| Stage 2 | - | - | - | - | - | - | 402 | 228 | - | 343 | 164 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 572 | - | - | 432 | - | - | ~ 9 | 6 | 346 | ~ 12 | 6 | 439 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 9 | 6 | - | ~ 12 | 6 | - |
| Stage 1 | - | - | - | - | - | - | 65 | 96 | - | 96 | 146 | - |
| Stage 2 | - | - | - | - | - | - | 224 | 144 | - | 166 | 92 | - |

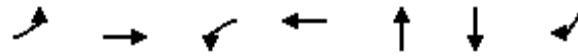
| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|---------|--|--|----------|--|--|
| HCM Control Delay, s | 2.5 | | | 2.8 | | | \$ 1229 | | | \$ 883.6 | | |
| HCM LOS | | | | | | | F | | | F | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|---------|-------|-----|-----|-------|-----|-----|----------|
| Capacity (veh/h) | 25 | 572 | - | - | 432 | - | - | 34 |
| HCM Lane V/C Ratio | 3 | 0.064 | - | - | 0.121 | - | - | 2.39 |
| HCM Control Delay (s) | \$ 1229 | 11.7 | 2.4 | - | 14.5 | 2.4 | - | \$ 883.6 |
| HCM Lane LOS | F | B | A | - | B | A | - | F |
| HCM 95th %tile Q(veh) | 9.3 | 0.2 | - | - | 0.4 | - | - | 9.2 |

| Notes | | | |
|----------------------------|------------------------|----------------------------|--------------------------------|
| -: Volume exceeds capacity | \$: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

Queues
6: Shady St & Caldwell Ave

20 Year plus Project
Timing Plan: P.M. Peak






















| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 67 | 1047 | 88 | 919 | 88 | 20 | 13 |
| v/c Ratio | 0.33 | 0.47 | 0.40 | 0.34 | 0.31 | 0.07 | 0.04 |
| Control Delay | 37.4 | 16.5 | 38.4 | 14.9 | 9.0 | 23.7 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 37.4 | 16.5 | 38.4 | 14.9 | 9.0 | 23.7 | 0.2 |
| Queue Length 50th (ft) | 21 | 74 | 27 | 61 | 0 | 6 | 0 |
| Queue Length 95th (ft) | #92 | 256 | #124 | 219 | 33 | 24 | 0 |
| Internal Link Dist (ft) | | 262 | | 745 | 695 | 187 | |
| Turn Bay Length (ft) | 240 | | 250 | | | | |
| Base Capacity (vph) | 211 | 2470 | 227 | 2752 | 1050 | 1064 | 977 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.32 | 0.42 | 0.39 | 0.33 | 0.08 | 0.02 | 0.01 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
6: Shady St & Caldwell Ave

20 Year plus Project
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 63 | 960 | 24 | 83 | 849 | 15 | 36 | 0 | 47 | 18 | 1 | 12 |
| Future Volume (veh/h) | 63 | 960 | 24 | 83 | 849 | 15 | 36 | 0 | 47 | 18 | 1 | 12 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 67 | 1021 | 26 | 88 | 903 | 16 | 38 | 0 | 50 | 19 | 1 | 13 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 127 | 2035 | 52 | 148 | 2113 | 37 | 60 | 0 | 78 | 81 | 4 | 75 |
| Arrive On Green | 0.07 | 0.40 | 0.40 | 0.08 | 0.41 | 0.41 | 0.08 | 0.00 | 0.08 | 0.05 | 0.05 | 0.05 |
| Sat Flow, veh/h | 1774 | 5096 | 130 | 1774 | 5143 | 91 | 717 | 0 | 943 | 1689 | 89 | 1557 |
| Grp Volume(v), veh/h | 67 | 679 | 368 | 88 | 595 | 324 | 88 | 0 | 0 | 20 | 0 | 13 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1836 | 1774 | 1695 | 1844 | 1660 | 0 | 0 | 1778 | 0 | 1557 |
| Q Serve(g_s), s | 1.9 | 7.8 | 7.8 | 2.5 | 6.5 | 6.5 | 2.7 | 0.0 | 0.0 | 0.6 | 0.0 | 0.4 |
| Cycle Q Clear(g_c), s | 1.9 | 7.8 | 7.8 | 2.5 | 6.5 | 6.5 | 2.7 | 0.0 | 0.0 | 0.6 | 0.0 | 0.4 |
| Prop In Lane | 1.00 | | 0.07 | 1.00 | | 0.05 | 0.43 | | 0.57 | 0.95 | | 1.00 |
| Lane Grp Cap(c), veh/h | 127 | 1354 | 733 | 148 | 1393 | 757 | 138 | 0 | 0 | 86 | 0 | 75 |
| V/C Ratio(X) | 0.53 | 0.50 | 0.50 | 0.60 | 0.43 | 0.43 | 0.64 | 0.00 | 0.00 | 0.23 | 0.00 | 0.17 |
| Avail Cap(c_a), veh/h | 226 | 1761 | 954 | 243 | 1794 | 976 | 1058 | 0 | 0 | 1133 | 0 | 992 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.2 | 11.7 | 11.7 | 22.9 | 10.9 | 10.9 | 23.0 | 0.0 | 0.0 | 23.7 | 0.0 | 23.7 |
| Incr Delay (d2), s/veh | 1.3 | 0.8 | 1.5 | 1.4 | 0.6 | 1.1 | 3.6 | 0.0 | 0.0 | 1.0 | 0.0 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 3.7 | 4.2 | 1.3 | 3.1 | 3.5 | 1.4 | 0.0 | 0.0 | 0.3 | 0.0 | 0.2 |
| LnGrp Delay(d),s/veh | 24.4 | 12.5 | 13.2 | 24.3 | 11.5 | 12.0 | 26.6 | 0.0 | 0.0 | 24.8 | 0.0 | 24.5 |
| LnGrp LOS | C | B | B | C | B | B | C | | | C | | C |
| Approach Vol, veh/h | | 1114 | | | 1007 | | | 88 | | | | 33 |
| Approach Delay, s/veh | | 13.4 | | | 12.8 | | | 26.6 | | | | 24.6 |
| Approach LOS | | B | | | B | | | C | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.3 | 26.7 | | 7.5 | 7.7 | 27.3 | | 9.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 7.1 | 26.9 | | 33.0 | 6.6 | 27.4 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.5 | 9.8 | | 2.6 | 3.9 | 8.5 | | 4.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.8 | | 0.1 | 0.0 | 10.3 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 13.8 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

20 Year plus Project
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 309 | 811 | 261 | 569 | 346 | 1135 | 143 | 199 | 1382 | 123 |
| v/c Ratio | 0.46 | 0.65 | 0.51 | 0.56 | 1.80 | 0.66 | 0.23 | 0.73 | 0.75 | 0.19 |
| Control Delay | 50.0 | 39.9 | 56.0 | 43.2 | 414.6 | 38.7 | 8.1 | 74.5 | 39.6 | 5.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.0 | 39.9 | 56.0 | 43.2 | 414.6 | 38.7 | 8.1 | 74.5 | 39.6 | 5.1 |
| Queue Length 50th (ft) | 118 | 199 | 106 | 147 | -225 | 296 | 11 | 84 | 361 | 0 |
| Queue Length 95th (ft) | #227 | 215 | #179 | 152 | #324 | 348 | 58 | #185 | 451 | 39 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 678 | 1879 | 516 | 1812 | 192 | 1728 | 612 | 271 | 1846 | 646 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.46 | 0.43 | 0.51 | 0.31 | 1.80 | 0.66 | 0.23 | 0.73 | 0.75 | 0.19 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

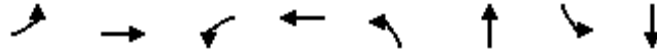
HCM 2010 Signalized Intersection Summary
7: Mooney Blvd & Caldwell Ave

20 Year plus Project
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 294 | 523 | 247 | 248 | 425 | 116 | 329 | 1078 | 136 | 189 | 1313 | 117 |
| Future Volume (veh/h) | 294 | 523 | 247 | 248 | 425 | 116 | 329 | 1078 | 136 | 189 | 1313 | 117 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 309 | 551 | 260 | 261 | 447 | 122 | 346 | 1135 | 143 | 199 | 1382 | 123 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 366 | 867 | 397 | 167 | 788 | 208 | 596 | 2351 | 731 | 167 | 1690 | 516 |
| Arrive On Green | 0.11 | 0.25 | 0.25 | 0.05 | 0.20 | 0.20 | 0.17 | 0.46 | 0.46 | 0.05 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3405 | 1558 | 3442 | 4005 | 1058 | 3442 | 5085 | 1580 | 3442 | 5085 | 1553 |
| Grp Volume(v), veh/h | 309 | 548 | 263 | 261 | 376 | 193 | 346 | 1135 | 143 | 199 | 1382 | 123 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1573 | 1721 | 1695 | 1672 | 1721 | 1695 | 1580 | 1721 | 1695 | 1553 |
| Q Serve(g_s), s | 11.5 | 18.7 | 19.4 | 6.3 | 13.0 | 13.6 | 12.0 | 20.1 | 5.1 | 6.3 | 32.4 | 7.5 |
| Cycle Q Clear(g_c), s | 11.5 | 18.7 | 19.4 | 6.3 | 13.0 | 13.6 | 12.0 | 20.1 | 5.1 | 6.3 | 32.4 | 7.5 |
| Prop In Lane | 1.00 | | 0.99 | 1.00 | | 0.63 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 366 | 863 | 400 | 167 | 667 | 329 | 596 | 2351 | 731 | 167 | 1690 | 516 |
| V/C Ratio(X) | 0.84 | 0.64 | 0.66 | 1.56 | 0.56 | 0.59 | 0.58 | 0.48 | 0.20 | 1.19 | 0.82 | 0.24 |
| Avail Cap(c_a), veh/h | 366 | 1278 | 593 | 167 | 1226 | 605 | 596 | 2351 | 731 | 167 | 1690 | 516 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.88 | 0.88 | 0.88 | 0.78 | 0.78 | 0.78 | 0.68 | 0.68 | 0.68 | 0.87 | 0.87 | 0.87 |
| Uniform Delay (d), s/veh | 57.0 | 43.1 | 43.3 | 61.8 | 47.2 | 47.4 | 49.4 | 24.2 | 11.2 | 61.8 | 39.8 | 31.5 |
| Incr Delay (d2), s/veh | 14.0 | 1.3 | 3.1 | 275.8 | 1.1 | 2.5 | 0.7 | 0.5 | 0.4 | 126.5 | 3.9 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.2 | 8.9 | 8.8 | 9.4 | 6.2 | 6.5 | 5.8 | 9.5 | 2.8 | 5.9 | 15.7 | 3.3 |
| LnGrp Delay(d),s/veh | 71.0 | 44.4 | 46.5 | 337.6 | 48.3 | 49.9 | 50.1 | 24.7 | 11.6 | 188.4 | 43.7 | 32.4 |
| LnGrp LOS | E | D | D | F | D | D | D | C | B | F | D | C |
| Approach Vol, veh/h | | 1120 | | | 830 | | | 1624 | | | 1704 | |
| Approach Delay, s/veh | | 52.2 | | | 139.7 | | | 28.9 | | | 59.8 | |
| Approach LOS | | D | | | F | | | C | | | E | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.0 | 66.5 | 12.0 | 39.5 | 28.9 | 49.6 | 19.5 | 32.0 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6.3 | 44.2 | 6.3 | * 49 | 7.3 | * 43 | 8.3 | * 47 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.3 | 22.1 | 8.3 | 21.4 | 14.0 | 34.4 | 13.5 | 15.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 14.6 | 0.0 | 9.9 | 0.0 | 7.5 | 0.0 | 6.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 61.3 | | | | | | | | | |
| HCM 2010 LOS | | | E | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
8: Caldwell Ave & Fairway St

20 Year plus Project
Timing Plan: P.M. Peak























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 144 | 994 | 211 | 926 | 114 | 252 | 218 | 121 |
| v/c Ratio | 0.82 | 0.68 | 1.20 | 0.63 | 0.22 | 0.48 | 0.60 | 0.28 |
| Control Delay | 67.8 | 24.6 | 163.6 | 23.2 | 12.8 | 7.8 | 20.9 | 9.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 67.8 | 24.6 | 163.6 | 23.2 | 12.8 | 7.8 | 20.9 | 9.3 |
| Queue Length 50th (ft) | 53 | 110 | -92 | 98 | 28 | 11 | 56 | 11 |
| Queue Length 95th (ft) | #200 | #257 | #295 | 214 | 52 | 56 | 94 | 43 |
| Internal Link Dist (ft) | | 794 | | 417 | | 405 | | 363 |
| Turn Bay Length (ft) | 200 | | 285 | | 120 | | 55 | |
| Base Capacity (vph) | 176 | 1468 | 176 | 1471 | 517 | 950 | 365 | 898 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.82 | 0.68 | 1.20 | 0.63 | 0.22 | 0.27 | 0.60 | 0.13 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
8: Caldwell Ave & Fairway St

20 Year plus Project
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 137 | 833 | 111 | 200 | 743 | 137 | 108 | 32 | 207 | 207 | 32 | 83 |
| Future Volume (veh/h) | 137 | 833 | 111 | 200 | 743 | 137 | 108 | 32 | 207 | 207 | 32 | 83 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 144 | 877 | 117 | 211 | 782 | 144 | 114 | 34 | 218 | 218 | 34 | 87 |
| Adj No. of Lanes | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 181 | 1243 | 165 | 181 | 1187 | 217 | 511 | 49 | 314 | 412 | 119 | 305 |
| Arrive On Green | 0.10 | 0.27 | 0.27 | 0.10 | 0.27 | 0.27 | 0.08 | 0.22 | 0.22 | 0.12 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 4526 | 601 | 1774 | 4322 | 790 | 1774 | 218 | 1398 | 1774 | 458 | 1173 |
| Grp Volume(v), veh/h | 144 | 656 | 338 | 211 | 612 | 314 | 114 | 0 | 252 | 218 | 0 | 121 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1695 | 1736 | 1774 | 1695 | 1722 | 1774 | 0 | 1616 | 1774 | 0 | 1631 |
| Q Serve(g_s), s | 5.1 | 11.1 | 11.2 | 6.5 | 10.2 | 10.3 | 3.0 | 0.0 | 9.2 | 5.7 | 0.0 | 3.8 |
| Cycle Q Clear(g_c), s | 5.1 | 11.1 | 11.2 | 6.5 | 10.2 | 10.3 | 3.0 | 0.0 | 9.2 | 5.7 | 0.0 | 3.8 |
| Prop In Lane | 1.00 | | 0.35 | 1.00 | | 0.46 | 1.00 | | 0.87 | 1.00 | | 0.72 |
| Lane Grp Cap(c), veh/h | 181 | 931 | 477 | 181 | 931 | 473 | 511 | 0 | 363 | 412 | 0 | 425 |
| V/C Ratio(X) | 0.80 | 0.70 | 0.71 | 1.17 | 0.66 | 0.66 | 0.22 | 0.00 | 0.70 | 0.53 | 0.00 | 0.29 |
| Avail Cap(c_a), veh/h | 181 | 1009 | 516 | 181 | 1009 | 512 | 574 | 0 | 860 | 412 | 0 | 868 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 28.0 | 20.8 | 20.9 | 28.7 | 20.5 | 20.5 | 16.5 | 0.0 | 22.8 | 15.9 | 0.0 | 18.9 |
| Incr Delay (d2), s/veh | 20.2 | 3.2 | 6.3 | 119.7 | 2.5 | 5.0 | 0.5 | 0.0 | 6.5 | 2.4 | 0.0 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.5 | 5.6 | 6.2 | 9.1 | 5.1 | 5.5 | 1.5 | 0.0 | 4.7 | 3.0 | 0.0 | 1.8 |
| LnGrp Delay(d),s/veh | 48.2 | 24.1 | 27.2 | 148.4 | 23.0 | 25.6 | 16.9 | 0.0 | 29.2 | 18.3 | 0.0 | 19.9 |
| LnGrp LOS | D | C | C | F | C | C | B | | C | B | | B |
| Approach Vol, veh/h | | 1138 | | | 1137 | | | 366 | | | | 339 |
| Approach Delay, s/veh | | 28.1 | | | 47.0 | | | 25.4 | | | | 18.8 |
| Approach LOS | | C | | | D | | | C | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.5 | 23.5 | 10.5 | 19.3 | 10.5 | 23.5 | 8.2 | 21.6 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | 3.0 | 5.0 | 4.0 | 6.0 | 3.0 | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 19.0 | 7.5 | 34.0 | 6.5 | 19.0 | 7.5 | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.5 | 13.2 | 7.7 | 11.2 | 7.1 | 12.3 | 5.0 | 5.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.3 | 0.0 | 3.3 | 0.0 | 4.6 | 0.1 | 1.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 33.9 | | | | | | | | |
| HCM 2010 LOS | | | | C | | | | | | | | |

Queues
9: Stonebrook St & Caldwell Ave

20 Year plus Project
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|-------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 77 | 1279 | 162 | 962 | 70 | 257 | 51 | 28 | 53 |
| v/c Ratio | 0.49 | 0.70 | 1.03 | 0.50 | 0.28 | 0.60 | 0.41 | 0.08 | 0.15 |
| Control Delay | 44.8 | 16.1 | 120.2 | 12.4 | 28.9 | 15.7 | 37.1 | 25.1 | 3.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 44.8 | 16.1 | 120.2 | 12.4 | 28.9 | 15.7 | 37.1 | 25.1 | 3.9 |
| Queue Length 50th (ft) | 34 | 203 | ~78 | 133 | 28 | 32 | 21 | 11 | 0 |
| Queue Length 95th (ft) | #89 | 344 | #216 | 231 | 62 | 98 | 53 | 31 | 16 |
| Internal Link Dist (ft) | | 1064 | | 2595 | | 1465 | | 519 | |
| Turn Bay Length (ft) | 235 | | 300 | | | | | | 200 |
| Base Capacity (vph) | 164 | 1880 | 157 | 1929 | 638 | 822 | 317 | 864 | 777 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.47 | 0.68 | 1.03 | 0.50 | 0.11 | 0.31 | 0.16 | 0.03 | 0.07 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

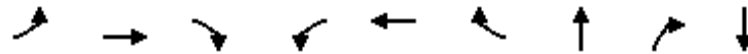
HCM 2010 Signalized Intersection Summary
 9: Stonebrook St & Caldwell Ave

20 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 71 | 1054 | 122 | 149 | 787 | 98 | 64 | 5 | 232 | 47 | 26 | 49 |
| Future Volume (veh/h) | 71 | 1054 | 122 | 149 | 787 | 98 | 64 | 5 | 232 | 47 | 26 | 49 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 77 | 1146 | 133 | 162 | 855 | 107 | 70 | 5 | 252 | 51 | 28 | 53 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 113 | 1542 | 179 | 153 | 1599 | 200 | 384 | 7 | 357 | 186 | 432 | 367 |
| Arrive On Green | 0.06 | 0.48 | 0.48 | 0.09 | 0.51 | 0.51 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1774 | 3188 | 369 | 1774 | 3161 | 396 | 1312 | 31 | 1537 | 1118 | 1863 | 1583 |
| Grp Volume(v), veh/h | 77 | 635 | 644 | 162 | 479 | 483 | 70 | 0 | 257 | 51 | 28 | 53 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1787 | 1774 | 1770 | 1787 | 1312 | 0 | 1568 | 1118 | 1863 | 1583 |
| Q Serve(g_s), s | 3.2 | 21.9 | 22.0 | 6.5 | 13.9 | 13.9 | 3.3 | 0.0 | 11.4 | 3.3 | 0.9 | 2.0 |
| Cycle Q Clear(g_c), s | 3.2 | 21.9 | 22.0 | 6.5 | 13.9 | 13.9 | 4.2 | 0.0 | 11.4 | 14.7 | 0.9 | 2.0 |
| Prop In Lane | 1.00 | | 0.21 | 1.00 | | 0.22 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 113 | 856 | 864 | 153 | 895 | 904 | 384 | 0 | 364 | 186 | 432 | 367 |
| V/C Ratio(X) | 0.68 | 0.74 | 0.75 | 1.06 | 0.53 | 0.53 | 0.18 | 0.00 | 0.71 | 0.27 | 0.06 | 0.14 |
| Avail Cap(c_a), veh/h | 160 | 924 | 934 | 153 | 917 | 926 | 670 | 0 | 705 | 430 | 838 | 712 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.7 | 15.7 | 15.8 | 34.6 | 12.6 | 12.6 | 24.3 | 0.0 | 26.7 | 33.4 | 22.6 | 23.1 |
| Incr Delay (d2), s/veh | 2.7 | 5.0 | 5.1 | 90.4 | 1.8 | 1.8 | 0.5 | 0.0 | 5.3 | 1.7 | 0.1 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 11.8 | 11.9 | 7.0 | 7.1 | 7.2 | 1.3 | 0.0 | 5.5 | 1.1 | 0.5 | 0.9 |
| LnGrp Delay(d),s/veh | 37.4 | 20.7 | 20.8 | 125.0 | 14.5 | 14.5 | 24.8 | 0.0 | 32.0 | 35.1 | 22.8 | 23.5 |
| LnGrp LOS | D | C | C | F | B | B | C | | C | D | C | C |
| Approach Vol, veh/h | | 1356 | | | 1124 | | | 327 | | | 132 | |
| Approach Delay, s/veh | | 21.7 | | | 30.4 | | | 30.4 | | | 27.8 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.5 | 42.6 | | 22.5 | 8.8 | 44.3 | | 22.5 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.0 | | 5.0 | 4.0 | 6.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 39.5 | | 34.0 | 6.8 | 39.2 | | 34.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.5 | 24.0 | | 13.4 | 5.2 | 15.9 | | 16.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 12.6 | | 3.5 | 0.0 | 13.3 | | 0.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 26.3 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |

Queues
10: West St & Caldwell Ave

20 Year plus Project
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 157 | 910 | 67 | 137 | 855 | 67 | 257 | 50 | 296 |
| v/c Ratio | 0.66 | 0.66 | 0.10 | 0.65 | 0.65 | 0.11 | 0.61 | 0.10 | 0.64 |
| Control Delay | 45.2 | 21.0 | 4.2 | 47.1 | 21.5 | 4.5 | 28.9 | 1.4 | 26.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.2 | 21.0 | 4.2 | 47.1 | 21.5 | 4.5 | 28.9 | 1.4 | 26.4 |
| Queue Length 50th (ft) | 64 | 160 | 0 | 57 | 153 | 0 | 98 | 0 | 98 |
| Queue Length 95th (ft) | #159 | 266 | 21 | #148 | 255 | 22 | 165 | 7 | 172 |
| Internal Link Dist (ft) | | 2595 | | | 1244 | | 367 | | 412 |
| Turn Bay Length (ft) | 300 | | 110 | 290 | | 100 | | 50 | |
| Base Capacity (vph) | 262 | 1464 | 700 | 225 | 1396 | 671 | 792 | 823 | 825 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.60 | 0.62 | 0.10 | 0.61 | 0.61 | 0.10 | 0.32 | 0.06 | 0.36 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
10: West St & Caldwell Ave

20 Year plus Project
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  |  |
| Traffic Volume (veh/h) | 144 | 837 | 62 | 126 | 787 | 62 | 43 | 193 | 46 | 34 | 140 | 98 |
| Future Volume (veh/h) | 144 | 837 | 62 | 126 | 787 | 62 | 43 | 193 | 46 | 34 | 140 | 98 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 157 | 910 | 67 | 137 | 855 | 67 | 47 | 210 | 50 | 37 | 152 | 107 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 198 | 1375 | 615 | 174 | 1328 | 594 | 122 | 402 | 411 | 94 | 231 | 147 |
| Arrive On Green | 0.11 | 0.39 | 0.39 | 0.10 | 0.38 | 0.38 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1774 | 3539 | 1583 | 203 | 1550 | 1583 | 108 | 891 | 566 |
| Grp Volume(v), veh/h | 157 | 910 | 67 | 137 | 855 | 67 | 257 | 0 | 50 | 296 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1583 | 1774 | 1770 | 1583 | 1753 | 0 | 1583 | 1565 | 0 | 0 |
| Q Serve(g_s), s | 5.3 | 12.9 | 1.6 | 4.6 | 12.1 | 1.7 | 0.0 | 0.0 | 1.5 | 3.4 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 5.3 | 12.9 | 1.6 | 4.6 | 12.1 | 1.7 | 7.4 | 0.0 | 1.5 | 10.8 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.18 | | 1.00 | 0.12 | | 0.36 |
| Lane Grp Cap(c), veh/h | 198 | 1375 | 615 | 174 | 1328 | 594 | 524 | 0 | 411 | 472 | 0 | 0 |
| V/C Ratio(X) | 0.79 | 0.66 | 0.11 | 0.79 | 0.64 | 0.11 | 0.49 | 0.00 | 0.12 | 0.63 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 291 | 1618 | 724 | 250 | 1537 | 688 | 992 | 0 | 856 | 929 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 26.4 | 15.4 | 11.9 | 26.9 | 15.7 | 12.4 | 19.4 | 0.0 | 17.3 | 20.5 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.1 | 2.1 | 0.3 | 6.1 | 2.0 | 0.3 | 1.5 | 0.0 | 0.3 | 2.9 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.9 | 6.6 | 0.8 | 2.5 | 6.3 | 0.8 | 3.9 | 0.0 | 0.7 | 4.9 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 31.5 | 17.4 | 12.2 | 33.0 | 17.7 | 12.7 | 20.9 | 0.0 | 17.6 | 23.4 | 0.0 | 0.0 |
| LnGrp LOS | C | B | B | C | B | B | C | | B | C | | |
| Approach Vol, veh/h | | 1134 | | | 1059 | | | 307 | | | 296 | |
| Approach Delay, s/veh | | 19.1 | | | 19.3 | | | 20.4 | | | 23.4 | |
| Approach LOS | | B | | | B | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.0 | 30.2 | | 20.8 | 10.8 | 29.4 | | 20.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 6.5 | | 5.0 | 4.0 | 6.5 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 8.6 | 27.9 | | 33.0 | 10.0 | 26.5 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.6 | 14.9 | | 9.4 | 7.3 | 14.1 | | 12.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.8 | | 3.3 | 0.0 | 8.1 | | 3.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 19.8 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
11: County Center Dr & Cameron Ave

20 Year plus Project
Timing Plan: P.M. Peak















| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 78 | 426 | 300 | 42 | 439 | 201 |
| v/c Ratio | 0.21 | 0.64 | 0.29 | 0.05 | 0.74 | 0.20 |
| Control Delay | 16.8 | 7.4 | 5.9 | 2.2 | 17.1 | 5.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 16.8 | 7.4 | 5.9 | 2.2 | 17.1 | 5.3 |
| Queue Length 50th (ft) | 14 | 0 | 26 | 0 | 53 | 16 |
| Queue Length 95th (ft) | 48 | 57 | 85 | 10 | #254 | 57 |
| Internal Link Dist (ft) | 1226 | | 772 | | | 355 |
| Turn Bay Length (ft) | | 100 | | 160 | 145 | |
| Base Capacity (vph) | 840 | 959 | 1532 | 1283 | 884 | 1532 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.09 | 0.44 | 0.20 | 0.03 | 0.50 | 0.13 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 11: County Center Dr & Cameron Ave

20 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  | | |
|------------------------------|---|---|---|---|---|---|---|------|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT | | |
| Lane Configurations |  |  |  |  |  |  | | |
| Traffic Volume (veh/h) | 73 | 396 | 279 | 39 | 408 | 187 | | |
| Future Volume (veh/h) | 73 | 396 | 279 | 39 | 408 | 187 | | |
| Number | 3 | 18 | 2 | 12 | 1 | 6 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 0.98 | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 78 | 426 | 300 | 42 | 439 | 201 | | |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 529 | 472 | 1012 | 842 | 598 | 1012 | | |
| Arrive On Green | 0.30 | 0.30 | 0.54 | 0.54 | 0.54 | 0.54 | | |
| Sat Flow, veh/h | 1774 | 1583 | 1863 | 1551 | 1034 | 1863 | | |
| Grp Volume(v), veh/h | 78 | 426 | 300 | 42 | 439 | 201 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1583 | 1863 | 1551 | 1034 | 1863 | | |
| Q Serve(g_s), s | 1.8 | 14.7 | 5.0 | 0.7 | 22.8 | 3.1 | | |
| Cycle Q Clear(g_c), s | 1.8 | 14.7 | 5.0 | 0.7 | 27.8 | 3.1 | | |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 529 | 472 | 1012 | 842 | 598 | 1012 | | |
| V/C Ratio(X) | 0.15 | 0.90 | 0.30 | 0.05 | 0.73 | 0.20 | | |
| Avail Cap(c_a), veh/h | 562 | 502 | 1082 | 901 | 637 | 1082 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 14.6 | 19.1 | 7.1 | 6.1 | 14.6 | 6.6 | | |
| Incr Delay (d2), s/veh | 0.1 | 18.7 | 0.2 | 0.0 | 4.1 | 0.1 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 0.9 | 8.8 | 2.5 | 0.3 | 7.1 | 1.6 | | |
| LnGrp Delay(d),s/veh | 14.8 | 37.9 | 7.2 | 6.1 | 18.8 | 6.7 | | |
| LnGrp LOS | B | D | A | A | B | A | | |
| Approach Vol, veh/h | 504 | | 342 | | | 640 | | |
| Approach Delay, s/veh | 34.3 | | 7.1 | | | 15.0 | | |
| Approach LOS | C | | A | | | B | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | | | 6 | | 8 |
| Phs Duration (G+Y+Rc), s | | 35.4 | | | | 35.4 | | 21.5 |
| Change Period (Y+Rc), s | | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | | | 33.0 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | | 7.0 | | | | 29.8 | | 16.7 |
| Green Ext Time (p_c), s | | 1.8 | | | | 1.1 | | 0.3 |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 19.7 | | | | | |
| HCM 2010 LOS | | | B | | | | | |

Queues
12: Mooney Blvd & Cameron Ave

20 Year plus Project
Timing Plan: P.M. Peak






























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|-------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 213 | 360 | 159 | 431 | 71 | 1090 | 143 | 343 | 1226 | 173 |
| v/c Ratio | 0.72 | 0.43 | 0.91 | 0.58 | 0.42 | 0.67 | 0.23 | 0.71 | 0.56 | 0.22 |
| Control Delay | 62.8 | 37.1 | 102.2 | 20.5 | 62.9 | 39.0 | 2.6 | 58.5 | 29.4 | 3.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 62.8 | 37.1 | 102.2 | 20.5 | 62.9 | 39.0 | 2.6 | 58.5 | 29.4 | 3.6 |
| Queue Length 50th (ft) | 155 | 123 | 124 | 70 | 27 | 262 | 0 | 130 | 254 | 0 |
| Queue Length 95th (ft) | #330 | 131 | #255 | 89 | 53 | #415 | 21 | #241 | #424 | 38 |
| Internal Link Dist (ft) | | 395 | | 1342 | | 1110 | | | 1348 | |
| Turn Bay Length (ft) | 155 | | 300 | | 210 | | 150 | 185 | | 150 |
| Base Capacity (vph) | 294 | 1349 | 175 | 1332 | 171 | 1636 | 632 | 482 | 2195 | 786 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.72 | 0.27 | 0.91 | 0.32 | 0.42 | 0.67 | 0.23 | 0.71 | 0.56 | 0.22 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 12: Mooney Blvd & Cameron Ave

20 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   | |  |   | |  |   |  |   |   |  |
| Traffic Volume (veh/h) | 209 | 305 | 48 | 156 | 181 | 241 | 70 | 1068 | 140 | 336 | 1201 | 170 |
| Future Volume (veh/h) | 209 | 305 | 48 | 156 | 181 | 241 | 70 | 1068 | 140 | 336 | 1201 | 170 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 213 | 311 | 49 | 159 | 185 | 246 | 71 | 1090 | 143 | 343 | 1226 | 173 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 211 | 732 | 114 | 176 | 376 | 336 | 662 | 1843 | 572 | 338 | 1335 | 415 |
| Arrive On Green | 0.12 | 0.24 | 0.24 | 0.10 | 0.21 | 0.21 | 0.19 | 0.36 | 0.36 | 0.10 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 3069 | 478 | 1774 | 1770 | 1579 | 3442 | 5085 | 1579 | 3442 | 5085 | 1580 |
| Grp Volume(v), veh/h | 213 | 178 | 182 | 159 | 185 | 246 | 71 | 1090 | 143 | 343 | 1226 | 173 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1778 | 1774 | 1770 | 1579 | 1721 | 1695 | 1579 | 1721 | 1695 | 1580 |
| Q Serve(g_s), s | 14.3 | 10.2 | 10.4 | 10.6 | 11.0 | 17.4 | 2.0 | 20.9 | 7.6 | 11.8 | 28.1 | 10.9 |
| Cycle Q Clear(g_c), s | 14.3 | 10.2 | 10.4 | 10.6 | 11.0 | 17.4 | 2.0 | 20.9 | 7.6 | 11.8 | 28.1 | 10.9 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 211 | 422 | 424 | 176 | 376 | 336 | 662 | 1843 | 572 | 338 | 1335 | 415 |
| V/C Ratio(X) | 1.01 | 0.42 | 0.43 | 0.90 | 0.49 | 0.73 | 0.11 | 0.59 | 0.25 | 1.01 | 0.92 | 0.42 |
| Avail Cap(c_a), veh/h | 211 | 684 | 687 | 176 | 649 | 579 | 662 | 1843 | 572 | 338 | 1335 | 415 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.09 | 0.09 | 0.09 | 0.64 | 0.64 | 0.64 |
| Uniform Delay (d), s/veh | 52.8 | 38.7 | 38.8 | 53.5 | 41.5 | 44.1 | 40.0 | 31.0 | 26.8 | 54.1 | 43.0 | 36.6 |
| Incr Delay (d2), s/veh | 63.9 | 1.2 | 1.3 | 40.7 | 2.3 | 7.1 | 0.0 | 0.1 | 0.1 | 42.4 | 7.9 | 2.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 10.7 | 5.1 | 5.3 | 7.2 | 5.6 | 8.2 | 1.0 | 9.8 | 3.3 | 7.6 | 14.1 | 5.0 |
| LnGrp Delay(d),s/veh | 116.7 | 39.9 | 40.1 | 94.2 | 43.9 | 51.2 | 40.0 | 31.2 | 26.9 | 96.6 | 50.9 | 38.6 |
| LnGrp LOS | F | D | D | F | D | D | D | C | C | F | D | D |
| Approach Vol, veh/h | | 573 | | | 590 | | | 1304 | | | 1742 | |
| Approach Delay, s/veh | | 68.5 | | | 60.5 | | | 31.2 | | | 58.7 | |
| Approach LOS | | E | | | E | | | C | | | E | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 17.5 | 49.9 | 17.6 | 35.0 | 29.5 | 37.9 | 20.7 | 31.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | 6.4 | 6.4 | * 6.4 | 6.4 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 12 | 25.7 | * 12 | 46.4 | 6.0 | * 32 | 14.3 | * 44 | | | | |
| Max Q Clear Time (g_c+I1), s | 13.8 | 22.9 | 12.6 | 12.4 | 4.0 | 30.1 | 16.3 | 19.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.6 | 0.0 | 3.8 | 0.0 | 1.3 | 0.0 | 5.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 51.8 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 95 | 699 | 52 | 323 | 541 | 82 | 94 | 99 | 405 | 53 | 165 | 75 |
| Future Vol, veh/h | 95 | 699 | 52 | 323 | 541 | 82 | 94 | 99 | 405 | 53 | 165 | 75 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | 145 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 98 | 721 | 54 | 333 | 558 | 85 | 97 | 102 | 418 | 55 | 170 | 77 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 643 | 0 | 0 | 775 | 0 | 0 | 2334 | 2253 | 748 | 2471 | 2238 | 601 |
| Stage 1 | - | - | - | - | - | - | 944 | 944 | - | 1267 | 1267 | - |
| Stage 2 | - | - | - | - | - | - | 1390 | 1309 | - | 1204 | 971 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 942 | - | - | 841 | - | - | ~ 26 | ~ 41 | ~ 412 | ~ 20 | ~ 42 | 500 |
| Stage 1 | - | - | - | - | - | - | 315 | 341 | - | 207 | 240 | - |
| Stage 2 | - | - | - | - | - | - | 176 | 229 | - | 225 | 331 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 942 | - | - | 841 | - | - | ~ 22 | ~ 412 | - | ~ 23 | 500 | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 22 | - | - | ~ 23 | - | - |
| Stage 1 | - | - | - | - | - | - | 282 | 306 | - | 185 | ~ 145 | - |
| Stage 2 | - | - | - | - | - | - | - | 138 | - | - | 297 | - |

| Approach | EB | WB | NB | SB |
|----------------------|----|-----|----|----|
| HCM Control Delay, s | 1 | 4.1 | | |
| HCM LOS | | | - | - |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | NBLn3 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | SBLn3 |
|-----------------------|-------|----------|--------|-------|-----|-----|-------|-----|-----|-------|-----------|-----------|
| Capacity (veh/h) | - | 22 | 141 | 942 | - | - | 841 | - | - | - | 23 | 42 |
| HCM Lane V/C Ratio | - | 2.32 | 3.323 | 0.104 | - | - | 0.396 | - | - | - | 3.698 | 3.866 |
| HCM Control Delay (s) | - | \$ 974.4 | 1111.3 | 9.3 | - | - | 12.1 | - | - | - | \$ 1561.6 | \$ 1487.2 |
| HCM Lane LOS | - | F | F | A | - | - | B | - | - | - | F | F |
| HCM 95th %tile Q(veh) | - | 6.5 | 44.9 | 0.3 | - | - | 1.9 | - | - | - | 10.7 | 18.4 |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | | ↕ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 192 | 701 | 18 | 10 | 540 | 10 | 9 | 6 | 2 | 6 | 8 | 208 |
| Future Vol, veh/h | 192 | 701 | 18 | 10 | 540 | 10 | 9 | 6 | 2 | 6 | 8 | 208 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 90 | - | - | - | - | - | 110 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 198 | 723 | 19 | 10 | 557 | 10 | 9 | 6 | 2 | 6 | 8 | 214 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 567 | 0 | 0 | 742 | 0 | 0 | 1822 | 1716 | 733 | 1715 | 1720 | 562 |
| Stage 1 | - | - | - | - | - | - | 1129 | 1129 | - | 582 | 582 | - |
| Stage 2 | - | - | - | - | - | - | 693 | 587 | - | 1133 | 1138 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1005 | - | - | 865 | - | - | 60 | 90 | 421 | 71 | 89 | 526 |
| Stage 1 | - | - | - | - | - | - | 248 | 279 | - | 499 | 499 | - |
| Stage 2 | - | - | - | - | - | - | 434 | 497 | - | 247 | 276 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1005 | - | - | 865 | - | - | 27 | 71 | 421 | 56 | 71 | 526 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 27 | 71 | - | 56 | 71 | - |
| Stage 1 | - | - | - | - | - | - | 199 | 224 | - | 401 | 493 | - |
| Stage 2 | - | - | - | - | - | - | 250 | 491 | - | 192 | 222 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|----|--|--|-----|--|--|-------|--|--|------|--|--|
| HCM Control Delay, s | 2 | | | 0.2 | | | 152.2 | | | 23.9 | | |
| HCM LOS | | | | | | | F | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|-------|
| Capacity (veh/h) | 40 | 1005 | - | - | 865 | - | - | 56 | 425 |
| HCM Lane V/C Ratio | 0.438 | 0.197 | - | - | 0.012 | - | - | 0.11 | 0.524 |
| HCM Control Delay (s) | 152.2 | 9.5 | - | - | 9.2 | - | - | 77.1 | 22.4 |
| HCM Lane LOS | F | A | - | - | A | - | - | F | C |
| HCM 95th %tile Q(veh) | 1.5 | 0.7 | - | - | 0 | - | - | 0.4 | 3 |

Queues
15: Court St & Cameron Ave

20 Year plus Project
Timing Plan: P.M. Peak























| Lane Group | EBL | EBT | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 382 | 390 | 111 | 4 | 12 | 85 | 283 | 272 |
| v/c Ratio | 0.64 | 0.64 | 0.13 | 0.02 | 0.01 | 0.25 | 0.31 | 0.49 |
| Control Delay | 12.6 | 12.6 | 3.6 | 14.0 | 13.6 | 15.8 | 4.0 | 6.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 12.6 | 12.6 | 3.6 | 14.0 | 13.6 | 15.8 | 4.0 | 6.1 |
| Queue Length 50th (ft) | 47 | 48 | 5 | 1 | 1 | 13 | 1 | 0 |
| Queue Length 95th (ft) | 140 | 143 | 24 | 7 | 6 | 53 | 26 | 51 |
| Internal Link Dist (ft) | | 563 | 789 | | 604 | | 1556 | |
| Turn Bay Length (ft) | 260 | | | 225 | | 195 | | 200 |
| Base Capacity (vph) | 1212 | 1226 | 1740 | 636 | 2117 | 834 | 1844 | 971 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.32 | 0.32 | 0.06 | 0.01 | 0.01 | 0.10 | 0.15 | 0.28 |

Intersection Summary

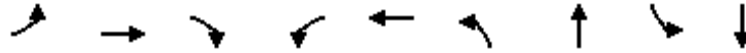
HCM 2010 Signalized Intersection Summary
 15: Court St & Cameron Ave

20 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 639 | 64 | 6 | 2 | 55 | 45 | 4 | 11 | 0 | 78 | 9 | 501 |
| Future Volume (veh/h) | 639 | 64 | 6 | 2 | 55 | 45 | 4 | 11 | 0 | 78 | 9 | 501 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 752 | 0 | 0 | 2 | 60 | 49 | 4 | 12 | 0 | 85 | 10 | 545 |
| Adj No. of Lanes | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 2 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 1564 | 754 | 0 | 127 | 387 | 309 | 487 | 1026 | 0 | 646 | 540 | 918 |
| Arrive On Green | 0.40 | 0.00 | 0.00 | 0.40 | 0.40 | 0.40 | 0.29 | 0.29 | 0.00 | 0.29 | 0.29 | 0.29 |
| Sat Flow, veh/h | 2558 | 1863 | 0 | 7 | 957 | 762 | 850 | 3632 | 0 | 1397 | 1863 | 3167 |
| Grp Volume(v), veh/h | 752 | 0 | 0 | 111 | 0 | 0 | 4 | 12 | 0 | 85 | 10 | 545 |
| Grp Sat Flow(s),veh/h/ln | 1279 | 1863 | 0 | 1726 | 0 | 0 | 850 | 1770 | 0 | 1397 | 1863 | 1583 |
| Q Serve(g_s), s | 5.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 1.4 | 0.1 | 4.4 |
| Cycle Q Clear(g_c), s | 6.6 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | 0.2 | 0.1 | 0.0 | 1.4 | 0.1 | 4.4 |
| Prop In Lane | 1.00 | | 0.00 | 0.02 | | 0.44 | 1.00 | | 0.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 1564 | 754 | 0 | 823 | 0 | 0 | 487 | 1026 | 0 | 646 | 540 | 918 |
| V/C Ratio(X) | 0.48 | 0.00 | 0.00 | 0.13 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.13 | 0.02 | 0.59 |
| Avail Cap(c_a), veh/h | 5775 | 3820 | 0 | 3652 | 0 | 0 | 832 | 2460 | 0 | 1211 | 1294 | 2201 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 7.1 | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 | 7.6 | 7.5 | 0.0 | 8.0 | 7.5 | 9.0 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.5 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.1 | 2.0 |
| LnGrp Delay(d),s/veh | 7.3 | 0.0 | 0.0 | 5.7 | 0.0 | 0.0 | 7.6 | 7.5 | 0.0 | 8.1 | 7.5 | 9.6 |
| LnGrp LOS | A | | | A | | | A | A | | A | A | A |
| Approach Vol, veh/h | | 752 | | | 111 | | | 16 | | | 640 | |
| Approach Delay, s/veh | | 7.3 | | | 5.7 | | | 7.5 | | | 9.4 | |
| Approach LOS | | A | | | A | | | A | | | A | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 13.1 | | 16.4 | | 13.1 | | 16.4 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 20.5 | | 60.5 | | 20.5 | | 60.5 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.2 | | 8.6 | | 6.4 | | 3.2 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 3.3 | | 2.2 | | 0.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 8.0 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
16: Demaree St & Visalia Pkwy

20 Year plus Project
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 19 | 299 | 59 | 109 | 472 | 67 | 705 | 162 | 641 |
| v/c Ratio | 0.16 | 0.63 | 0.12 | 0.65 | 0.38 | 0.43 | 0.68 | 0.75 | 0.51 |
| Control Delay | 48.4 | 37.1 | 0.5 | 62.5 | 18.4 | 51.9 | 30.9 | 64.3 | 25.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.4 | 37.1 | 0.5 | 62.5 | 18.4 | 51.9 | 30.9 | 64.3 | 25.9 |
| Queue Length 50th (ft) | 10 | 151 | 0 | 61 | 70 | 37 | 176 | 91 | 153 |
| Queue Length 95th (ft) | 38 | 260 | 0 | #170 | 146 | 91 | 273 | #244 | 245 |
| Internal Link Dist (ft) | | 776 | | | 1573 | | 775 | | 800 |
| Turn Bay Length (ft) | 145 | | 245 | 180 | | 300 | | 305 | |
| Base Capacity (vph) | 127 | 722 | 689 | 177 | 1453 | 195 | 1421 | 217 | 1475 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.15 | 0.41 | 0.09 | 0.62 | 0.32 | 0.34 | 0.50 | 0.75 | 0.43 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 16: Demaree St & Visalia Pkwy

20 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 18 | 284 | 56 | 104 | 283 | 165 | 64 | 539 | 131 | 154 | 553 | 56 |
| Future Volume (veh/h) | 18 | 284 | 56 | 104 | 283 | 165 | 64 | 539 | 131 | 154 | 553 | 56 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 19 | 299 | 59 | 109 | 298 | 174 | 67 | 567 | 138 | 162 | 582 | 59 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 47 | 428 | 364 | 139 | 611 | 347 | 108 | 839 | 204 | 200 | 1132 | 115 |
| Arrive On Green | 0.03 | 0.23 | 0.23 | 0.08 | 0.28 | 0.28 | 0.06 | 0.30 | 0.30 | 0.11 | 0.35 | 0.35 |
| Sat Flow, veh/h | 1774 | 1863 | 1583 | 1774 | 2166 | 1230 | 1774 | 2826 | 686 | 1774 | 3246 | 328 |
| Grp Volume(v), veh/h | 19 | 299 | 59 | 109 | 242 | 230 | 67 | 354 | 351 | 162 | 317 | 324 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1583 | 1774 | 1770 | 1627 | 1774 | 1770 | 1742 | 1774 | 1770 | 1805 |
| Q Serve(g_s), s | 0.8 | 10.8 | 2.2 | 4.4 | 8.3 | 8.6 | 2.7 | 12.9 | 12.9 | 6.5 | 10.4 | 10.4 |
| Cycle Q Clear(g_c), s | 0.8 | 10.8 | 2.2 | 4.4 | 8.3 | 8.6 | 2.7 | 12.9 | 12.9 | 6.5 | 10.4 | 10.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.76 | 1.00 | | 0.39 | 1.00 | | 0.18 |
| Lane Grp Cap(c), veh/h | 47 | 428 | 364 | 139 | 499 | 459 | 108 | 526 | 517 | 200 | 617 | 630 |
| V/C Ratio(X) | 0.41 | 0.70 | 0.16 | 0.78 | 0.48 | 0.50 | 0.62 | 0.67 | 0.68 | 0.81 | 0.51 | 0.52 |
| Avail Cap(c_a), veh/h | 153 | 867 | 737 | 214 | 884 | 813 | 236 | 867 | 854 | 262 | 894 | 912 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.0 | 25.8 | 22.5 | 33.1 | 21.8 | 21.9 | 33.5 | 22.6 | 22.6 | 31.6 | 18.9 | 18.9 |
| Incr Delay (d2), s/veh | 2.1 | 6.2 | 0.6 | 4.4 | 2.2 | 2.6 | 2.1 | 2.9 | 3.0 | 10.2 | 1.3 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 6.2 | 1.0 | 2.3 | 4.3 | 4.2 | 1.4 | 6.7 | 6.7 | 3.8 | 5.2 | 5.4 |
| LnGrp Delay(d),s/veh | 37.1 | 32.0 | 23.1 | 37.5 | 24.1 | 24.5 | 35.6 | 25.5 | 25.6 | 41.8 | 20.2 | 20.2 |
| LnGrp LOS | D | C | C | D | C | C | D | C | C | D | C | C |
| Approach Vol, veh/h | | 377 | | | 581 | | | 772 | | | 803 | |
| Approach Delay, s/veh | | 30.9 | | | 26.8 | | | 26.4 | | | 24.5 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.4 | 28.7 | 9.9 | 22.0 | 8.7 | 32.5 | 6.1 | 25.8 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 7.0 | * 4.2 | 5.2 | * 4.2 | 7.0 | * 4.2 | 5.2 | | | | |
| Max Green Setting (Gmax), s | * 11 | 35.8 | * 8.8 | 34.0 | * 9.7 | 36.9 | * 6.3 | 36.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.5 | 14.9 | 6.4 | 12.8 | 4.7 | 12.4 | 2.8 | 10.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.8 | 0.0 | 4.0 | 0.0 | 6.6 | 0.0 | 6.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 26.6 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↵ | ↕↗ | | ↵ | ↕↗ | | | ↕↗ | | | ↕↗ | |
| Traffic Vol, veh/h | 30 | 466 | 4 | 5 | 491 | 48 | 2 | 0 | 1 | 51 | 1 | 41 |
| Future Vol, veh/h | 30 | 466 | 4 | 5 | 491 | 48 | 2 | 0 | 1 | 51 | 1 | 41 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 33 | 507 | 4 | 5 | 534 | 52 | 2 | 0 | 1 | 55 | 1 | 45 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 586 | 0 | 0 | 511 | 0 | 0 | 853 | 1171 | 256 | 890 | 1147 | 293 |
| Stage 1 | - | - | - | - | - | - | 575 | 575 | - | 570 | 570 | - |
| Stage 2 | - | - | - | - | - | - | 278 | 596 | - | 320 | 577 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 985 | - | - | 1050 | - | - | 253 | 191 | 743 | 237 | 198 | 703 |
| Stage 1 | - | - | - | - | - | - | 470 | 501 | - | 474 | 504 | - |
| Stage 2 | - | - | - | - | - | - | 705 | 490 | - | 666 | 500 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 985 | - | - | 1050 | - | - | 229 | 184 | 743 | 230 | 190 | 703 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 229 | 184 | - | 230 | 190 | - |
| Stage 1 | - | - | - | - | - | - | 454 | 484 | - | 458 | 501 | - |
| Stage 2 | - | - | - | - | - | - | 656 | 488 | - | 643 | 483 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.5 | | | 0.1 | | | 17.2 | | | 20.9 | | |
| HCM LOS | | | | | | | C | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 298 | 985 | - | - | 1050 | - | - | 326 |
| HCM Lane V/C Ratio | 0.011 | 0.033 | - | - | 0.005 | - | - | 0.31 |
| HCM Control Delay (s) | 17.2 | 8.8 | - | - | 8.4 | - | - | 20.9 |
| HCM Lane LOS | | C | A | - | - | A | - | C |
| HCM 95th %tile Q(veh) | | 0 | 0.1 | - | - | 0 | - | 1.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 12.4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↖ | ↗ | ↖ | | ↖ | ↗ |
| Traffic Vol, veh/h | 114 | 537 | 574 | 190 | 125 | 123 |
| Future Vol, veh/h | 114 | 537 | 574 | 190 | 125 | 123 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 190 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 124 | 584 | 624 | 207 | 136 | 134 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|-------|------|
| Conflicting Flow All | 831 | 0 | 0 | 1268 | 416 |
| Stage 1 | - | - | - | 728 | - |
| Stage 2 | - | - | - | 540 | - |
| Critical Hdwy | 4.14 | - | - | 6.84 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | 5.84 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.84 | - |
| Follow-up Hdwy | 2.22 | - | - | 3.52 | 3.32 |
| Pot Cap-1 Maneuver | 797 | - | - | 160 | 585 |
| Stage 1 | - | - | - | 439 | - |
| Stage 2 | - | - | - | 548 | - |
| Platoon blocked, % | | - | - | | |
| Mov Cap-1 Maneuver | 797 | - | - | ~ 135 | 585 |
| Mov Cap-2 Maneuver | - | - | - | ~ 135 | - |
| Stage 1 | - | - | - | 371 | - |
| Stage 2 | - | - | - | 548 | - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.8 | 0 | 78.5 |
| HCM LOS | | | F |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 797 | - | - | - | 135 | 585 |
| HCM Lane V/C Ratio | 0.155 | - | - | - | 1.006 | 0.229 |
| HCM Control Delay (s) | 10.3 | - | - | - | 143 | 13 |
| HCM Lane LOS | B | - | - | - | F | B |
| HCM 95th %tile Q(veh) | 0.5 | - | - | - | 7.2 | 0.9 |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

| Intersection | | | | | | | | | | | | |
|--------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 256.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↕ | | ↖ | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 79 | 503 | 74 | 161 | 544 | 32 | 131 | 0 | 260 | 135 | 0 | 68 |
| Future Vol, veh/h | 79 | 503 | 74 | 161 | 544 | 32 | 131 | 0 | 260 | 135 | 0 | 68 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 86 | 547 | 80 | 175 | 591 | 35 | 142 | 0 | 283 | 147 | 0 | 74 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 627 | 0 | 0 | 627 | 0 | 0 | 1405 | 1736 | 314 | 1406 | 1759 | 314 |
| Stage 1 | - | - | - | - | - | - | 759 | 759 | - | 960 | 960 | - |
| Stage 2 | - | - | - | - | - | - | 646 | 977 | - | 446 | 799 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 951 | - | - | 951 | - | - | ~ 99 | 87 | 682 | ~ 99 | 84 | 682 |
| Stage 1 | - | - | - | - | - | - | 365 | 413 | - | 276 | 333 | - |
| Stage 2 | - | - | - | - | - | - | 427 | 327 | - | 561 | 396 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 950 | - | - | 951 | - | - | ~ 71 | 64 | 682 | ~ 46 | 62 | 681 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 71 | 64 | - | ~ 46 | 62 | - |
| Stage 1 | - | - | - | - | - | - | 332 | 375 | - | 251 | 271 | - |
| Stage 2 | - | - | - | - | - | - | 311 | 267 | - | 299 | 360 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|----------|--|--|-----------|--|--|
| HCM Control Delay, s | 1.1 | | | 2.1 | | | \$ 695.3 | | | \$ 1162.8 | | |
| HCM LOS | | | | | | | F | | | F | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|----------|------|-----|-----|-------|-----|-----|-----------|
| Capacity (veh/h) | 176 | 950 | - | - | 951 | - | - | 67 |
| HCM Lane V/C Ratio | 2.415 | 0.09 | - | - | 0.184 | - | - | 3.293 |
| HCM Control Delay (s) | \$ 695.3 | 9.2 | - | - | 9.6 | - | - | \$ 1162.8 |
| HCM Lane LOS | F | A | - | - | A | - | - | F |
| HCM 95th %tile Q(veh) | 35.6 | 0.3 | - | - | 0.7 | - | - | 22.8 |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Queues
20: Mooney Blvd & Visalia Pkwy

20 Year plus Project
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|-------|-------|------|------|------|
| Lane Group Flow (vph) | 134 | 516 | 297 | 299 | 288 | 1307 | 183 | 986 | 67 |
| v/c Ratio | 1.15 | 0.77 | 0.82 | 0.28 | 1.53 | 1.32 | 0.86 | 0.65 | 0.11 |
| Control Delay | 174.1 | 40.0 | 59.5 | 24.4 | 298.9 | 185.9 | 84.4 | 37.4 | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 174.1 | 40.0 | 59.5 | 24.4 | 298.9 | 185.9 | 84.4 | 37.4 | 0.4 |
| Queue Length 50th (ft) | ~111 | 134 | 201 | 70 | ~286 | ~626 | 130 | 225 | 0 |
| Queue Length 95th (ft) | #236 | 196 | 280 | 97 | #455 | #765 | #340 | 298 | 0 |
| Internal Link Dist (ft) | | 765 | | 337 | | 252 | | 1110 | |
| Turn Bay Length (ft) | 180 | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 117 | 689 | 469 | 1294 | 188 | 987 | 213 | 1509 | 619 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.15 | 0.75 | 0.63 | 0.23 | 1.53 | 1.32 | 0.86 | 0.65 | 0.11 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

20 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 125 | 283 | 197 | 276 | 214 | 64 | 268 | 974 | 242 | 170 | 917 | 62 |
| Future Volume (veh/h) | 125 | 283 | 197 | 276 | 214 | 64 | 268 | 974 | 242 | 170 | 917 | 62 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 134 | 304 | 212 | 297 | 230 | 69 | 288 | 1047 | 260 | 183 | 986 | 67 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 118 | 346 | 235 | 328 | 800 | 234 | 305 | 1008 | 249 | 97 | 1174 | 361 |
| Arrive On Green | 0.07 | 0.17 | 0.17 | 0.18 | 0.30 | 0.30 | 0.17 | 0.36 | 0.36 | 0.05 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1774 | 2008 | 1362 | 1774 | 2694 | 788 | 1774 | 2813 | 695 | 1774 | 5085 | 1561 |
| Grp Volume(v), veh/h | 134 | 267 | 249 | 297 | 149 | 150 | 288 | 657 | 650 | 183 | 986 | 67 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1601 | 1774 | 1770 | 1712 | 1774 | 1770 | 1739 | 1774 | 1695 | 1561 |
| Q Serve(g_s), s | 7.3 | 16.2 | 16.8 | 18.0 | 7.1 | 7.4 | 17.7 | 39.4 | 39.4 | 6.0 | 20.3 | 2.9 |
| Cycle Q Clear(g_c), s | 7.3 | 16.2 | 16.8 | 18.0 | 7.1 | 7.4 | 17.7 | 39.4 | 39.4 | 6.0 | 20.3 | 2.9 |
| Prop In Lane | 1.00 | | 0.85 | 1.00 | | 0.46 | 1.00 | | 0.40 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 118 | 305 | 276 | 328 | 526 | 509 | 305 | 634 | 623 | 97 | 1174 | 361 |
| V/C Ratio(X) | 1.14 | 0.88 | 0.90 | 0.91 | 0.28 | 0.29 | 0.94 | 1.04 | 1.04 | 1.89 | 0.84 | 0.19 |
| Avail Cap(c_a), veh/h | 118 | 307 | 278 | 471 | 660 | 638 | 305 | 634 | 623 | 97 | 1174 | 361 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.77 | 0.77 | 0.77 |
| Uniform Delay (d), s/veh | 51.3 | 44.4 | 44.6 | 43.9 | 29.7 | 29.8 | 45.0 | 35.3 | 35.3 | 52.0 | 40.4 | 19.9 |
| Incr Delay (d2), s/veh | 124.9 | 25.9 | 32.5 | 13.0 | 0.9 | 0.9 | 36.4 | 45.2 | 47.9 | 429.4 | 5.7 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.6 | 10.1 | 9.9 | 10.0 | 3.6 | 3.6 | 11.7 | 27.2 | 27.2 | 14.5 | 10.1 | 1.6 |
| LnGrp Delay(d),s/veh | 176.2 | 70.2 | 77.1 | 56.9 | 30.5 | 30.7 | 81.4 | 80.5 | 83.2 | 481.4 | 46.1 | 20.8 |
| LnGrp LOS | F | E | E | E | C | C | F | F | F | F | D | C |
| Approach Vol, veh/h | | 650 | | | 596 | | | 1595 | | | 1236 | |
| Approach Delay, s/veh | | 94.7 | | | 43.7 | | | 81.8 | | | 109.2 | |
| Approach LOS | | F | | | D | | | F | | | F | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.7 | 46.2 | 26.7 | 25.4 | 25.7 | 32.2 | 13.0 | 39.1 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | 6.4 | * 6.4 | 6.8 | * 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 31.1 | 29.2 | * 19 | 11.7 | * 25 | * 7.3 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.0 | 41.4 | 20.0 | 18.8 | 19.7 | 22.3 | 9.3 | 9.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.3 | 0.2 | 0.0 | 2.5 | 0.0 | 3.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 86.6 | | | | | | | | | |
| HCM 2010 LOS | | | F | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 15.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↖ | ↑↑ | ↑↑ | | ↖ | ↖ |
| Traffic Vol, veh/h | 286 | 219 | 56 | 33 | 184 | 345 |
| Future Vol, veh/h | 286 | 219 | 56 | 33 | 184 | 345 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 311 | 238 | 61 | 36 | 200 | 375 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 97 | 0 | - | 0 | 820 49 |
| Stage 1 | - | - | - | - | 79 - |
| Stage 2 | - | - | - | - | 741 - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 3.32 |
| Pot Cap-1 Maneuver | 1494 | - | - | - | 313 1009 |
| Stage 1 | - | - | - | - | 935 - |
| Stage 2 | - | - | - | - | 432 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1494 | - | - | - | 248 1009 |
| Mov Cap-2 Maneuver | - | - | - | - | 248 - |
| Stage 1 | - | - | - | - | 741 - |
| Stage 2 | - | - | - | - | 432 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 4.6 | 0 | 28.1 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1494 | - | - | - | 248 | 1009 |
| HCM Lane V/C Ratio | 0.208 | - | - | - | 0.806 | 0.372 |
| HCM Control Delay (s) | 8 | - | - | - | 60.6 | 10.7 |
| HCM Lane LOS | A | - | - | - | F | B |
| HCM 95th %tile Q(veh) | 0.8 | - | - | - | 6.2 | 1.7 |

Queues
22: Mooney Blvd & Midvalley Ave

20 Year plus Project
Timing Plan: P.M. Peak























| Lane Group | EBT | EBR | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 43 | 11 | 320 | 8 | 1324 | 76 | 1153 | 81 |
| v/c Ratio | 0.15 | 0.02 | 0.76 | 0.05 | 0.92 | 0.46 | 0.63 | 0.09 |
| Control Delay | 19.5 | 0.1 | 26.6 | 33.9 | 34.7 | 43.4 | 17.5 | 1.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.5 | 0.1 | 26.6 | 33.9 | 34.7 | 43.4 | 17.5 | 1.5 |
| Queue Length 50th (ft) | 14 | 0 | 76 | 3 | 257 | 29 | 135 | 0 |
| Queue Length 95th (ft) | 35 | 0 | 154 | 18 | #600 | #101 | #487 | 11 |
| Internal Link Dist (ft) | 1563 | | 335 | | 1230 | | 639 | |
| Turn Bay Length (ft) | | 25 | | 475 | | 465 | | 140 |
| Base Capacity (vph) | 625 | 909 | 783 | 166 | 1432 | 166 | 1823 | 860 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.01 | 0.41 | 0.05 | 0.92 | 0.46 | 0.63 | 0.09 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 22: Mooney Blvd & Midvalley Ave

20 Year plus Project
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 39 | 3 | 11 | 171 | 0 | 140 | 8 | 1208 | 77 | 74 | 1118 | 79 |
| Future Volume (veh/h) | 39 | 3 | 11 | 171 | 0 | 140 | 8 | 1208 | 77 | 74 | 1118 | 79 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 40 | 3 | 11 | 176 | 0 | 144 | 8 | 1245 | 79 | 76 | 1153 | 81 |
| Adj No. of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 372 | 24 | 415 | 271 | 12 | 164 | 22 | 1280 | 81 | 119 | 1535 | 672 |
| Arrive On Green | 0.26 | 0.26 | 0.26 | 0.26 | 0.00 | 0.26 | 0.01 | 0.38 | 0.38 | 0.07 | 0.43 | 0.43 |
| Sat Flow, veh/h | 1033 | 93 | 1583 | 722 | 45 | 627 | 1774 | 3375 | 214 | 1774 | 3539 | 1549 |
| Grp Volume(v), veh/h | 43 | 0 | 11 | 320 | 0 | 0 | 8 | 652 | 672 | 76 | 1153 | 81 |
| Grp Sat Flow(s),veh/h/ln | 1127 | 0 | 1583 | 1394 | 0 | 0 | 1774 | 1770 | 1819 | 1774 | 1770 | 1549 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.4 | 13.3 | 0.0 | 0.0 | 0.3 | 24.8 | 24.9 | 2.9 | 18.8 | 2.1 |
| Cycle Q Clear(g_c), s | 2.0 | 0.0 | 0.4 | 15.3 | 0.0 | 0.0 | 0.3 | 24.8 | 24.9 | 2.9 | 18.8 | 2.1 |
| Prop In Lane | 0.93 | | 1.00 | 0.55 | | 0.45 | 1.00 | | 0.12 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 397 | 0 | 415 | 447 | 0 | 0 | 22 | 671 | 690 | 119 | 1535 | 672 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.03 | 0.72 | 0.00 | 0.00 | 0.36 | 0.97 | 0.97 | 0.64 | 0.75 | 0.12 |
| Avail Cap(c_a), veh/h | 700 | 0 | 794 | 769 | 0 | 0 | 155 | 671 | 690 | 155 | 1535 | 672 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.4 | 0.0 | 18.8 | 24.7 | 0.0 | 0.0 | 33.6 | 20.9 | 21.0 | 31.2 | 16.3 | 11.6 |
| Incr Delay (d2), s/veh | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 3.7 | 28.3 | 28.5 | 2.1 | 3.2 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.0 | 0.2 | 5.9 | 0.0 | 0.0 | 0.2 | 17.2 | 17.8 | 1.5 | 9.8 | 1.0 |
| LnGrp Delay(d),s/veh | 19.4 | 0.0 | 18.8 | 25.5 | 0.0 | 0.0 | 37.3 | 49.3 | 49.4 | 33.3 | 19.5 | 11.9 |
| LnGrp LOS | B | | B | C | | | D | D | D | C | B | B |
| Approach Vol, veh/h | | 54 | | | 320 | | | 1332 | | | 1310 | |
| Approach Delay, s/veh | | 19.3 | | | 25.5 | | | 49.3 | | | 19.8 | |
| Approach LOS | | B | | | C | | | D | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.3 | 32.8 | | 25.5 | 6.5 | 36.5 | | 25.5 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | | * 7.5 | * 5.7 | 6.8 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | * 6 | 26.0 | | * 34 | * 6 | 26.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.9 | 26.9 | | 4.0 | 2.3 | 20.8 | | 17.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.0 | | 0.1 | 0.0 | 4.6 | | 0.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 33.4 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 41 | 5 | 32 | 2 | 4 | 41 | 165 | 1323 | 69 | 32 | 1367 | 70 |
| Future Vol, veh/h | 41 | 5 | 32 | 2 | 4 | 41 | 165 | 1323 | 69 | 32 | 1367 | 70 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 470 | - | - | 485 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 43 | 5 | 34 | 2 | 4 | 43 | 174 | 1393 | 73 | 34 | 1439 | 74 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 2591 | 3358 | 757 | 2568 | 3359 | 733 | 1513 | 0 | 0 | 1466 | 0 | 0 |
| Stage 1 | 1544 | 1544 | - | 1778 | 1778 | - | - | - | - | - | - | - |
| Stage 2 | 1047 | 1814 | - | 790 | 1581 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | ~ 12 | 8 | 350 | 13 | 8 | 363 | 438 | - | - | 456 | - | - |
| Stage 1 | 120 | 175 | - | 85 | 134 | - | - | - | - | - | - | - |
| Stage 2 | 244 | 128 | - | 350 | 167 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | ~ 4 | 350 | - | ~ 4 | 363 | 438 | - | - | 456 | - | - |
| Mov Cap-2 Maneuver | - | ~ 4 | - | - | ~ 4 | - | - | - | - | - | - | - |
| Stage 1 | 72 | 162 | - | 51 | 81 | - | - | - | - | - | - | - |
| Stage 2 | 123 | 77 | - | 283 | 154 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|----|----|----|-----|
| HCM Control Delay, s | | | 2 | 0.3 |
| HCM LOS | - | - | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-----|-----|
| Capacity (veh/h) | 438 | - | - | - | 456 | - | - |
| HCM Lane V/C Ratio | 0.397 | - | - | - | 0.074 | - | - |
| HCM Control Delay (s) | 18.5 | - | - | - | 13.5 | - | - |
| HCM Lane LOS | C | - | - | - | B | - | - |
| HCM 95th %tile Q(veh) | 1.9 | - | - | - | 0.2 | - | - |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Queues
25: Mooney Blvd & Ave 268

20 Year plus Project
Timing Plan: P.M. Peak





















| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 269 | 34 | 135 | 1280 | 68 | 1292 |
| v/c Ratio | 0.76 | 0.09 | 0.73 | 0.82 | 0.40 | 0.91 |
| Control Delay | 38.0 | 13.0 | 59.1 | 27.1 | 40.3 | 34.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.0 | 13.0 | 59.1 | 27.1 | 40.3 | 34.2 |
| Queue Length 50th (ft) | 105 | 4 | 64 | 297 | 32 | 308 |
| Queue Length 95th (ft) | #189 | 25 | #153 | #476 | 70 | #475 |
| Internal Link Dist (ft) | 298 | 1139 | | 1140 | | 2537 |
| Turn Bay Length (ft) | | | 470 | | 475 | |
| Base Capacity (vph) | 426 | 455 | 194 | 1564 | 208 | 1415 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.63 | 0.07 | 0.70 | 0.82 | 0.33 | 0.91 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
25: Mooney Blvd & Ave 268

20 Year plus Project
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 163 | 1 | 84 | 10 | 1 | 20 | 124 | 1164 | 14 | 63 | 1177 | 12 |
| Future Volume (veh/h) | 163 | 1 | 84 | 10 | 1 | 20 | 124 | 1164 | 14 | 63 | 1177 | 12 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 177 | 1 | 91 | 11 | 1 | 22 | 135 | 1265 | 15 | 68 | 1279 | 13 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 292 | 7 | 111 | 153 | 41 | 233 | 170 | 1601 | 19 | 110 | 1484 | 15 |
| Arrive On Green | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.10 | 0.45 | 0.45 | 0.06 | 0.41 | 0.41 |
| Sat Flow, veh/h | 937 | 34 | 496 | 389 | 182 | 1046 | 1774 | 3581 | 42 | 1774 | 3589 | 36 |
| Grp Volume(v), veh/h | 269 | 0 | 0 | 34 | 0 | 0 | 135 | 625 | 655 | 68 | 630 | 662 |
| Grp Sat Flow(s),veh/h/ln | 1467 | 0 | 0 | 1617 | 0 | 0 | 1774 | 1770 | 1854 | 1774 | 1770 | 1856 |
| Q Serve(g_s), s | 11.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.4 | 21.7 | 21.8 | 2.7 | 23.4 | 23.4 |
| Cycle Q Clear(g_c), s | 12.5 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | 5.4 | 21.7 | 21.8 | 2.7 | 23.4 | 23.4 |
| Prop In Lane | 0.66 | | 0.34 | 0.32 | | 0.65 | 1.00 | | 0.02 | 1.00 | | 0.02 |
| Lane Grp Cap(c), veh/h | 410 | 0 | 0 | 427 | 0 | 0 | 170 | 791 | 829 | 110 | 731 | 767 |
| V/C Ratio(X) | 0.66 | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 | 0.80 | 0.79 | 0.79 | 0.62 | 0.86 | 0.86 |
| Avail Cap(c_a), veh/h | 531 | 0 | 0 | 551 | 0 | 0 | 204 | 791 | 829 | 219 | 744 | 781 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.5 | 0.0 | 0.0 | 22.2 | 0.0 | 0.0 | 31.9 | 17.0 | 17.0 | 33.0 | 19.3 | 19.3 |
| Incr Delay (d2), s/veh | 3.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 13.6 | 7.7 | 7.4 | 2.1 | 12.5 | 12.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.4 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 3.3 | 12.3 | 12.8 | 1.4 | 13.9 | 14.5 |
| LnGrp Delay(d),s/veh | 29.6 | 0.0 | 0.0 | 22.3 | 0.0 | 0.0 | 45.4 | 24.7 | 24.4 | 35.1 | 31.8 | 31.3 |
| LnGrp LOS | C | | | C | | | D | C | C | D | C | C |
| Approach Vol, veh/h | | 269 | | | 34 | | | 1415 | | | 1360 | |
| Approach Delay, s/veh | | 29.6 | | | 22.3 | | | 26.6 | | | 31.7 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.2 | 40.1 | | 21.8 | 12.6 | 37.7 | | 21.8 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 7.9 | | * 5.7 | * 5.7 | 7.9 | | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 8.9 | 29.7 | | * 22 | * 8.3 | 30.3 | | * 22 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.7 | 23.8 | | 14.5 | 7.4 | 25.4 | | 3.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.2 | | 1.4 | 0.0 | 4.4 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 29.1 | | | | | | | | |
| HCM 2010 LOS | | | | C | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.2 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 571 | 124 | 0 | 554 | 0 | 25 |
| Future Vol, veh/h | 571 | 124 | 0 | 554 | 0 | 25 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 595 | 129 | 0 | 577 | 0 | 26 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|------|
| Conflicting Flow All | 0 | 0 | - | - | - | 362 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 635 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 635 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 10.9 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 635 | - | - | - |
| HCM Lane V/C Ratio | 0.041 | - | - | - |
| HCM Control Delay (s) | 10.9 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↕ | | ↖ | ↕ | | | | ↖ | | | ↖ |
| Traffic Vol, veh/h | 19 | 659 | 84 | 90 | 550 | 23 | 0 | 0 | 25 | 0 | 0 | 46 |
| Future Vol, veh/h | 19 | 659 | 84 | 90 | 550 | 23 | 0 | 0 | 25 | 0 | 0 | 46 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | - | 150 | - | - | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 92 | 92 | 96 | 96 | 92 | 92 | 92 | 96 | 92 | 96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 20 | 686 | 91 | 98 | 573 | 24 | 0 | 0 | 27 | 0 | 0 | 48 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|---|------|--------|---|------|
| Conflicting Flow All | 597 | 0 | 0 | 777 | 0 | 0 | - | - | 389 | - | - | 299 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | - | - | 6.94 | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | - | - | 3.32 | - | - | 3.32 |
| Pot Cap-1 Maneuver | 976 | - | - | 835 | - | - | 0 | 0 | 610 | 0 | 0 | 697 |
| Stage 1 | - | - | - | - | - | - | 0 | 0 | - | 0 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 0 | 0 | - | 0 | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 976 | - | - | 835 | - | - | - | - | 610 | - | - | 697 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.2 | | | 1.4 | | | 11.2 | | | 10.5 | | |
| HCM LOS | | | | | | | B | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 610 | 976 | - | - | 835 | - | - | 697 |
| HCM Lane V/C Ratio | 0.045 | 0.02 | - | - | 0.117 | - | - | 0.069 |
| HCM Control Delay (s) | 11.2 | 8.8 | - | - | 9.9 | - | - | 10.5 |
| HCM Lane LOS | B | A | - | - | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0.1 | - | - | 0.4 | - | - | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.3 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 705 | 0 | 0 | 663 | 0 | 42 |
| Future Vol, veh/h | 705 | 0 | 0 | 663 | 0 | 42 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 766 | 0 | 0 | 721 | 0 | 46 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|------|
| Conflicting Flow All | 0 | 0 | - | - | - | 383 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 615 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 615 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 11.3 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 615 | - | - | - |
| HCM Lane V/C Ratio | 0.074 | - | - | - |
| HCM Control Delay (s) | 11.3 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↑↑ | ↑↑ | | ↑ | ↑ |
| Traffic Vol, veh/h | 246 | 501 | 398 | 3 | 4 | 265 |
| Future Vol, veh/h | 246 | 501 | 398 | 3 | 4 | 265 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 265 | 539 | 428 | 3 | 4 | 285 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 431 | 0 | - | 0 | 1230 216 |
| Stage 1 | - | - | - | - | 430 - |
| Stage 2 | - | - | - | - | 800 - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 3.32 |
| Pot Cap-1 Maneuver | 1125 | - | - | - | 170 789 |
| Stage 1 | - | - | - | - | 624 - |
| Stage 2 | - | - | - | - | 403 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1125 | - | - | - | 113 789 |
| Mov Cap-2 Maneuver | - | - | - | - | 113 - |
| Stage 1 | - | - | - | - | 414 - |
| Stage 2 | - | - | - | - | 403 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 3.6 | 0 | 12.5 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1125 | - | - | - | 113 | 789 |
| HCM Lane V/C Ratio | 0.235 | - | - | - | 0.038 | 0.361 |
| HCM Control Delay (s) | 9.2 | 0.8 | - | - | 38.1 | 12.1 |
| HCM Lane LOS | A | A | - | - | E | B |
| HCM 95th %tile Q(veh) | 0.9 | - | - | - | 0.1 | 1.7 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | | ↕↔ | | | ↕↕ | ↗ |
| Traffic Vol, veh/h | 0 | 0 | 93 | 0 | 0 | 128 | 0 | 1173 | 46 | 0 | 1224 | 166 |
| Future Vol, veh/h | 0 | 0 | 93 | 0 | 0 | 128 | 0 | 1173 | 46 | 0 | 1224 | 166 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | - | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 101 | 0 | 0 | 139 | 0 | 1275 | 50 | 0 | 1330 | 180 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|---|--------|---|--------|------|--------|---|---|---|---|---|
| Conflicting Flow All | - | - | 665 | - | - | 663 | - | 0 | 0 | - | - | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | - | - | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | - | - | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 403 | 0 | 0 | 404 | 0 | - | - | 0 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | 0 | - | - | 0 | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | 0 | - | - | 0 | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 403 | - | - | 404 | - | - | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|------|--|----|--|----|--|
| HCM Control Delay, s | 16.9 | | 18.5 | | 0 | | 0 | |
| HCM LOS | C | | C | | | | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1WBLn1 | SBT | SBR | |
|-----------------------|-----|-----|------------|-------|-----|---|
| Capacity (veh/h) | - | - | 403 | 404 | - | - |
| HCM Lane V/C Ratio | - | - | 0.251 | 0.344 | - | - |
| HCM Control Delay (s) | - | - | 16.9 | 18.5 | - | - |
| HCM Lane LOS | - | - | C | C | - | - |
| HCM 95th %tile Q(veh) | - | - | 1 | 1.5 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | ↗ | ↕↔ | | ↗ | ↕↕ | ↗ |
| Traffic Vol, veh/h | 0 | 0 | 122 | 0 | 0 | 106 | 229 | 1113 | 45 | 78 | 1116 | 123 |
| Future Vol, veh/h | 0 | 0 | 122 | 0 | 0 | 106 | 229 | 1113 | 45 | 78 | 1116 | 123 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | 150 | - | - | 150 | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 133 | 0 | 0 | 115 | 249 | 1210 | 49 | 85 | 1213 | 134 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|---|--------|---|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | - | - | 607 | - | - | 630 | 1347 | 0 | 0 | 1259 | 0 | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 439 | 0 | 0 | 424 | 507 | - | - | 548 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 439 | - | - | 424 | 507 | - | - | 548 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | | | |
|----------------------|------|--|------|--|-----|--|-----|--|--|--|
| HCM Control Delay, s | 16.7 | | 16.6 | | 3.1 | | 0.8 | | | |
| HCM LOS | C | | C | | | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 507 | - | - | 439 | 424 | 548 | - | - |
| HCM Lane V/C Ratio | 0.491 | - | - | 0.302 | 0.272 | 0.155 | - | - |
| HCM Control Delay (s) | 18.8 | - | - | 16.7 | 16.6 | 12.8 | - | - |
| HCM Lane LOS | C | - | - | C | C | B | - | - |
| HCM 95th %tile Q(veh) | 2.7 | - | - | 1.3 | 1.1 | 0.5 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | ↗ | | | ↗ | ↗ | ↕↔ | | ↗ | ↕↕ | ↗ |
| Traffic Vol, veh/h | 0 | 0 | 122 | 0 | 0 | 234 | 229 | 1067 | 91 | 78 | 1116 | 123 |
| Future Vol, veh/h | 0 | 0 | 122 | 0 | 0 | 234 | 229 | 1067 | 91 | 78 | 1116 | 123 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | 150 | - | - | 150 | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 133 | 0 | 0 | 254 | 249 | 1160 | 99 | 85 | 1213 | 134 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|---|--------|---|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | - | - | 607 | - | - | 630 | 1347 | 0 | 0 | 1259 | 0 | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.94 | - | - | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.32 | - | - | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 439 | 0 | 0 | 424 | 507 | - | - | 548 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 439 | - | - | 424 | 507 | - | - | 548 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | | | |
|----------------------|------|--|------|--|-----|--|-----|--|--|--|
| HCM Control Delay, s | 16.7 | | 25.4 | | 3.1 | | 0.8 | | | |
| HCM LOS | C | | D | | | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 507 | - | - | 439 | 424 | 548 | - | - |
| HCM Lane V/C Ratio | 0.491 | - | - | 0.302 | 0.6 | 0.155 | - | - |
| HCM Control Delay (s) | 18.8 | - | - | 16.7 | 25.4 | 12.8 | - | - |
| HCM Lane LOS | C | - | - | C | D | B | - | - |
| HCM 95th %tile Q(veh) | 2.7 | - | - | 1.3 | 3.8 | 0.5 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.7 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 65 | 89 | 193 | 0 | 0 | 118 |
| Future Vol, veh/h | 65 | 89 | 193 | 0 | 0 | 118 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 71 | 97 | 210 | 0 | 0 | 128 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 210 | 0 | - | 0 | 449 210 |
| Stage 1 | - | - | - | - | 210 - |
| Stage 2 | - | - | - | - | 239 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1361 | - | - | - | 568 830 |
| Stage 1 | - | - | - | - | 825 - |
| Stage 2 | - | - | - | - | 801 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1361 | - | - | - | 537 830 |
| Mov Cap-2 Maneuver | - | - | - | - | 537 - |
| Stage 1 | - | - | - | - | 780 - |
| Stage 2 | - | - | - | - | 801 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 3.3 | 0 | 10.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1361 | - | - | - | 830 |
| HCM Lane V/C Ratio | 0.052 | - | - | - | 0.155 |
| HCM Control Delay (s) | 7.8 | 0 | - | - | 10.1 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | 0.5 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.2 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | |
| Traffic Vol, veh/h | 51 | 38 | 106 | 0 | 0 | 87 |
| Future Vol, veh/h | 51 | 38 | 106 | 0 | 0 | 87 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 55 | 41 | 115 | 0 | 0 | 95 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 115 | 0 | - | 0 | 266 115 |
| Stage 1 | - | - | - | - | 115 - |
| Stage 2 | - | - | - | - | 151 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1474 | - | - | - | 723 937 |
| Stage 1 | - | - | - | - | 910 - |
| Stage 2 | - | - | - | - | 877 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1474 | - | - | - | 696 937 |
| Mov Cap-2 Maneuver | - | - | - | - | 696 - |
| Stage 1 | - | - | - | - | 875 - |
| Stage 2 | - | - | - | - | 877 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 4.3 | 0 | 9.3 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1474 | - | - | - | 937 |
| HCM Lane V/C Ratio | 0.038 | - | - | - | 0.101 |
| HCM Control Delay (s) | 7.5 | 0 | - | - | 9.3 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.1 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↕ | ↕ | | ↕ | |
| Traffic Vol, veh/h | 20 | 18 | 55 | 0 | 0 | 51 |
| Future Vol, veh/h | 20 | 18 | 55 | 0 | 0 | 51 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 22 | 20 | 60 | 0 | 0 | 55 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 60 | 0 | - | 0 | 124 60 |
| Stage 1 | - | - | - | - | 60 - |
| Stage 2 | - | - | - | - | 64 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1544 | - | - | - | 871 1005 |
| Stage 1 | - | - | - | - | 963 - |
| Stage 2 | - | - | - | - | 959 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1544 | - | - | - | 859 1005 |
| Mov Cap-2 Maneuver | - | - | - | - | 859 - |
| Stage 1 | - | - | - | - | 950 - |
| Stage 2 | - | - | - | - | 959 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 3.9 | 0 | 8.8 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1544 | - | - | - | 1005 |
| HCM Lane V/C Ratio | 0.014 | - | - | - | 0.055 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 8.8 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.2 |

Intersection

Int Delay, s/veh 3.6

Movement EBL EBT WBT WBR SBL SBR

| | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | | ↕ | ↕ | | ↕ | |
| Traffic Vol, veh/h | 0 | 18 | 24 | 0 | 0 | 31 |
| Future Vol, veh/h | 0 | 18 | 24 | 0 | 0 | 31 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 20 | 26 | 0 | 0 | 34 |

Major/Minor Major1 Major2 Minor2

| | | | | | | |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 26 | 0 | - | 0 | 46 | 26 |
| Stage 1 | - | - | - | - | 26 | - |
| Stage 2 | - | - | - | - | 20 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1588 | - | - | - | 964 | 1050 |
| Stage 1 | - | - | - | - | 997 | - |
| Stage 2 | - | - | - | - | 1003 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1588 | - | - | - | 964 | 1050 |
| Mov Cap-2 Maneuver | - | - | - | - | 964 | - |
| Stage 1 | - | - | - | - | 997 | - |
| Stage 2 | - | - | - | - | 1003 | - |

Approach EB WB SB

HCM Control Delay, s 0 0 8.5
 HCM LOS A

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

| | | | | | |
|-----------------------|------|---|---|---|-------|
| Capacity (veh/h) | 1588 | - | - | - | 1050 |
| HCM Lane V/C Ratio | - | - | - | - | 0.032 |
| HCM Control Delay (s) | 0 | - | - | - | 8.5 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.6 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | T | | | T | | T |
| Traffic Vol, veh/h | 42 | 31 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 42 | 31 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 46 | 34 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1022 | 1084 | 1622 | - | - | - |
| Mov Cap-2 Maneuver | 1022 | - | - | - | - | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 8.7 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1622 | - | 1047 | - | - |
| HCM Lane V/C Ratio | - | - | 0.076 | - | - |
| HCM Control Delay (s) | 0 | - | 8.7 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |



















Appendix M – Mitigated Conditions Level of Service Work Sheets

Existing plus Project Impacts and Mitigation Measures

| Location | Impact | Mitigation Measure | Notes |
|---|--|--|-------------------------------------|
| Intersection #5: Caldwell Avenue/Dans Street | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS E during the a.m. and p.m. peak hours. | The installation of a traffic signal will improve the LOS to acceptable levels during both the a.m. and p.m. peak hour. Traffic Signal warrants are satisfied in the a.m. peak hour. It has been previously recommended that the intersection remain in its current configuration due to the fact that the increase in delay is not expected to noticeably change. Should the City decide to install a traffic signal, the project will pay its fair share. It should be noted that the peak hour signal warrants are satisfied in the a.m. peak hour. | Project to provide contribution |
| Intersection #14: Cameron Ave/West Street | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operation at LOS F during the p.m. peak hour. | The installation of a traffic signal will improve the LOS to acceptable levels during the p.m. peak hour. Traffic Signal warrants are satisfied in the p.m. peak hour. | TIF-eligible project |
| Intersection # 17: Visalia Parkway/Dans Street | Addition of project traffic will cause the LOS to drop from LOS D to LOS F in the a.m. peak hour. | The installation of a traffic signal will improve the LOS to acceptable levels during the a.m. peak hour. Traffic Signal warrants are satisfied in the a.m. and p.m. peak hour. | Project to provide contribution |
| Intersection #18: Visalia Parkway/County Center Drive | Addition of project traffic will cause the LOS to drop from LOS D to LOS F in the p.m. peak hour. | The installation of a traffic signal will improve the LOS to acceptable levels during the p.m. peak hour. | Project to provide contribution |
| Intersection #20: Visalia Parkway/Mooney Boulevard | Addition of project traffic will cause the LOS to drop from LOS D to LOS E in the p.m. peak hour. Project traffic will also exacerbate the queues for NBL in the a.m. and p.m. peak hours, as well as the SBL during the p.m. peak hour. | The intersection should be widened to include the minimum: Eastbound: 2 left-turn lanes, 1 through lane, 1 right turn-lane Westbound: 2 left-turn lanes, 1 through lane, and 1 shared through-right lane Northbound: 2 left-turn lanes, 1 through lane, and 1 shared through-right lane Southbound: 1 left-turn lane, 3 through lanes, and 1 right-turn lane. Signal timings should also be optimized. <i>This mitigation requires Caltrans approval and coordination.</i> | Intersection included in City's CIP |
| Intersection #23: Mooney Boulevard/Avenue 272 | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS F during the a.m. and p.m. peak hours. | The installation of a traffic signal will improve the LOS to acceptable levels during the p.m. peak hour. Traffic Signal warrants are satisfied in the a.m. peak hour. <i>Requires Caltrans approval and coordination .</i> | TIF-eligible project |




















HCM 2010 Signalized Intersection Summary
 5: Dans St & Caldwell Ave

Existing plus Project w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | | |  |
| Traffic Volume (veh/h) | 33 | 611 | 67 | 49 | 599 | 28 | 47 | 0 | 78 | 8 | 0 | 17 |
| Future Volume (veh/h) | 33 | 611 | 67 | 49 | 599 | 28 | 47 | 0 | 78 | 8 | 0 | 17 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 37 | 687 | 75 | 55 | 673 | 31 | 53 | 0 | 88 | 9 | 0 | 19 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 614 | 1808 | 197 | 93 | 930 | 43 | 153 | 14 | 120 | 127 | 31 | 140 |
| Arrive On Green | 0.35 | 0.56 | 0.56 | 0.05 | 0.27 | 0.27 | 0.12 | 0.00 | 0.12 | 0.12 | 0.00 | 0.12 |
| Sat Flow, veh/h | 1774 | 3212 | 350 | 1774 | 3444 | 159 | 466 | 111 | 958 | 281 | 249 | 1119 |
| Grp Volume(v), veh/h | 37 | 378 | 384 | 55 | 346 | 358 | 141 | 0 | 0 | 28 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1792 | 1774 | 1770 | 1833 | 1534 | 0 | 0 | 1650 | 0 | 0 |
| Q Serve(g_s), s | 0.7 | 6.2 | 6.2 | 1.6 | 9.2 | 9.2 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.7 | 6.2 | 6.2 | 1.6 | 9.2 | 9.2 | 4.6 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.20 | 1.00 | | 0.09 | 0.38 | | 0.62 | 0.32 | | 0.68 |
| Lane Grp Cap(c), veh/h | 614 | 996 | 1009 | 93 | 478 | 495 | 287 | 0 | 0 | 297 | 0 | 0 |
| V/C Ratio(X) | 0.06 | 0.38 | 0.38 | 0.59 | 0.72 | 0.72 | 0.49 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 614 | 1085 | 1098 | 222 | 694 | 718 | 622 | 0 | 0 | 628 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 11.4 | 6.3 | 6.3 | 24.1 | 17.2 | 17.2 | 21.9 | 0.0 | 0.0 | 20.3 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.2 | 0.2 | 0.2 | 5.8 | 2.1 | 2.0 | 1.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 3.0 | 3.1 | 0.9 | 4.8 | 5.0 | 2.1 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 11.6 | 6.6 | 6.6 | 29.9 | 19.3 | 19.3 | 23.2 | 0.0 | 0.0 | 20.4 | 0.0 | 0.0 |
| LnGrp LOS | B | A | A | C | B | B | C | | | C | | |
| Approach Vol, veh/h | | 799 | | | 759 | | | 141 | | | | 28 |
| Approach Delay, s/veh | | 6.8 | | | 20.1 | | | 23.2 | | | | 20.4 |
| Approach LOS | | A | | | C | | | C | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.2 | 33.8 | | 11.0 | 22.5 | 18.5 | | 11.0 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 6.5 | 31.9 | | 18.1 | 18.0 | 20.4 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.6 | 8.2 | | 6.6 | 2.7 | 11.2 | | 2.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.4 | | 0.6 | 0.0 | 2.7 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 14.2 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |



















HCM 2010 Signalized Intersection Summary
 14: West St & Cameron Ave

Existing plus Project w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  | |
| Traffic Volume (veh/h) | 90 | 322 | 9 | 0 | 333 | 5 | 24 | 6 | 8 | 3 | 3 | 55 |
| Future Volume (veh/h) | 90 | 322 | 9 | 0 | 333 | 5 | 24 | 6 | 8 | 3 | 3 | 55 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 110 | 393 | 11 | 0 | 406 | 6 | 29 | 7 | 10 | 4 | 4 | 67 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 180 | 1039 | 29 | 6 | 584 | 9 | 267 | 29 | 26 | 427 | 10 | 168 |
| Arrive On Green | 0.10 | 0.58 | 0.58 | 0.00 | 0.32 | 0.32 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| Sat Flow, veh/h | 1774 | 1802 | 50 | 1774 | 1831 | 27 | 569 | 263 | 231 | 1386 | 90 | 1503 |
| Grp Volume(v), veh/h | 110 | 0 | 404 | 0 | 0 | 412 | 46 | 0 | 0 | 4 | 0 | 71 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1853 | 1774 | 0 | 1858 | 1063 | 0 | 0 | 1386 | 0 | 1592 |
| Q Serve(g_s), s | 1.7 | 0.0 | 3.4 | 0.0 | 0.0 | 5.6 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 |
| Cycle Q Clear(g_c), s | 1.7 | 0.0 | 3.4 | 0.0 | 0.0 | 5.6 | 1.7 | 0.0 | 0.0 | 0.1 | 0.0 | 1.2 |
| Prop In Lane | 1.00 | | 0.03 | 1.00 | | 0.01 | 0.63 | | 0.22 | 1.00 | | 0.94 |
| Lane Grp Cap(c), veh/h | 180 | 0 | 1068 | 6 | 0 | 593 | 322 | 0 | 0 | 427 | 0 | 178 |
| V/C Ratio(X) | 0.61 | 0.00 | 0.38 | 0.00 | 0.00 | 0.69 | 0.14 | 0.00 | 0.00 | 0.01 | 0.00 | 0.40 |
| Avail Cap(c_a), veh/h | 307 | 0 | 1155 | 307 | 0 | 1158 | 1056 | 0 | 0 | 1136 | 0 | 993 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 12.4 | 0.0 | 3.3 | 0.0 | 0.0 | 8.6 | 12.2 | 0.0 | 0.0 | 11.4 | 0.0 | 11.9 |
| Incr Delay (d2), s/veh | 3.3 | 0.0 | 0.2 | 0.0 | 0.0 | 1.5 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 0.0 | 1.7 | 0.0 | 0.0 | 3.1 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 |
| LnGrp Delay(d),s/veh | 15.8 | 0.0 | 3.5 | 0.0 | 0.0 | 10.1 | 12.4 | 0.0 | 0.0 | 11.4 | 0.0 | 13.4 |
| LnGrp LOS | B | | A | | | B | B | | | B | | B |
| Approach Vol, veh/h | | 514 | | | 412 | | | 46 | | | | 75 |
| Approach Delay, s/veh | | 6.1 | | | 10.1 | | | 12.4 | | | | 13.3 |
| Approach LOS | | A | | | B | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 0.0 | 21.1 | | 7.7 | 7.4 | 13.7 | | 7.7 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 18.0 | | 18.0 | 5.0 | 18.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 0.0 | 5.4 | | 3.7 | 3.7 | 7.6 | | 3.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.8 | | 0.1 | 0.0 | 1.6 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 8.5 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |

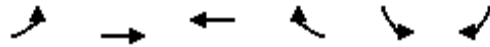
HCM 2010 Signalized Intersection Summary
 17: Visalia Pkwy & Dans St

Existing plus Project w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  | |
| Traffic Volume (veh/h) | 160 | 310 | 3 | 1 | 299 | 114 | 5 | 0 | 3 | 62 | 0 | 124 |
| Future Volume (veh/h) | 160 | 310 | 3 | 1 | 299 | 114 | 5 | 0 | 3 | 62 | 0 | 124 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 203 | 392 | 4 | 1 | 378 | 144 | 6 | 0 | 4 | 78 | 0 | 157 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Peak Hour Factor | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 259 | 926 | 9 | 4 | 461 | 176 | 278 | 30 | 121 | 185 | 22 | 205 |
| Arrive On Green | 0.15 | 0.50 | 0.50 | 0.00 | 0.36 | 0.36 | 0.20 | 0.00 | 0.20 | 0.20 | 0.00 | 0.20 |
| Sat Flow, veh/h | 1774 | 1841 | 19 | 1774 | 1286 | 490 | 765 | 153 | 612 | 401 | 113 | 1035 |
| Grp Volume(v), veh/h | 203 | 0 | 396 | 1 | 0 | 522 | 10 | 0 | 0 | 235 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1859 | 1774 | 0 | 1776 | 1529 | 0 | 0 | 1550 | 0 | 0 |
| Q Serve(g_s), s | 5.0 | 0.0 | 6.1 | 0.0 | 0.0 | 12.1 | 0.0 | 0.0 | 0.0 | 4.6 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 5.0 | 0.0 | 6.1 | 0.0 | 0.0 | 12.1 | 0.2 | 0.0 | 0.0 | 6.4 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 0.28 | 0.60 | | 0.40 | 0.33 | | 0.67 |
| Lane Grp Cap(c), veh/h | 259 | 0 | 935 | 4 | 0 | 636 | 430 | 0 | 0 | 413 | 0 | 0 |
| V/C Ratio(X) | 0.78 | 0.00 | 0.42 | 0.26 | 0.00 | 0.82 | 0.02 | 0.00 | 0.00 | 0.57 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 411 | 0 | 1169 | 196 | 0 | 901 | 698 | 0 | 0 | 715 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 18.7 | 0.0 | 7.1 | 22.6 | 0.0 | 13.2 | 14.7 | 0.0 | 0.0 | 17.1 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.2 | 0.0 | 0.3 | 31.2 | 0.0 | 4.2 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.8 | 0.0 | 3.2 | 0.0 | 0.0 | 6.5 | 0.1 | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 23.8 | 0.0 | 7.4 | 53.8 | 0.0 | 17.4 | 14.7 | 0.0 | 0.0 | 18.3 | 0.0 | 0.0 |
| LnGrp LOS | C | | A | D | | B | B | | | B | | |
| Approach Vol, veh/h | | 599 | | | 523 | | | 10 | | | 235 | |
| Approach Delay, s/veh | | 13.0 | | | 17.5 | | | 14.7 | | | 18.3 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.6 | 27.3 | | 13.5 | 11.1 | 20.7 | | 13.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 28.5 | | 18.0 | 10.5 | 23.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 8.1 | | 2.2 | 7.0 | 14.1 | | 8.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.1 | | 0.0 | 0.2 | 2.1 | | 1.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 15.6 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 18: Visalia Pkwy & County Center Dr

Existing plus Project w/ Mitigations
 Timing Plan: A.M. Peak



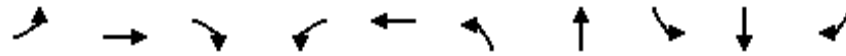
| Movement | EBL | EBT | WBT | WBR | SBL | SBR | | |
|------------------------------|------|------|------|------|------|------|---|------|
| Lane Configurations | | | | | | | | |
| Traffic Volume (veh/h) | 75 | 311 | 352 | 73 | 89 | 134 | | |
| Future Volume (veh/h) | 75 | 311 | 352 | 73 | 89 | 134 | | |
| Number | 5 | 2 | 6 | 16 | 3 | 18 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 93 | 384 | 435 | 90 | 110 | 165 | | |
| Adj No. of Lanes | 1 | 1 | 1 | 0 | 1 | 1 | | |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 149 | 1096 | 567 | 117 | 285 | 254 | | |
| Arrive On Green | 0.08 | 0.59 | 0.38 | 0.38 | 0.16 | 0.16 | | |
| Sat Flow, veh/h | 1774 | 1863 | 1498 | 310 | 1774 | 1583 | | |
| Grp Volume(v), veh/h | 93 | 384 | 0 | 525 | 110 | 165 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 0 | 1808 | 1774 | 1583 | | |
| Q Serve(g_s), s | 1.8 | 3.8 | 0.0 | 9.1 | 2.0 | 3.5 | | |
| Cycle Q Clear(g_c), s | 1.8 | 3.8 | 0.0 | 9.1 | 2.0 | 3.5 | | |
| Prop In Lane | 1.00 | | | 0.17 | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 149 | 1096 | 0 | 685 | 285 | 254 | | |
| V/C Ratio(X) | 0.62 | 0.35 | 0.00 | 0.77 | 0.39 | 0.65 | | |
| Avail Cap(c_a), veh/h | 292 | 1715 | 0 | 1140 | 891 | 795 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 15.9 | 3.8 | 0.0 | 9.8 | 13.5 | 14.1 | | |
| Incr Delay (d2), s/veh | 4.2 | 0.2 | 0.0 | 1.8 | 0.9 | 2.8 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 1.1 | 2.0 | 0.0 | 4.9 | 1.0 | 1.7 | | |
| LnGrp Delay(d),s/veh | 20.1 | 4.0 | 0.0 | 11.6 | 14.3 | 16.9 | | |
| LnGrp LOS | C | A | | B | B | B | | |
| Approach Vol, veh/h | | 477 | 525 | | 275 | | | |
| Approach Delay, s/veh | | 7.1 | 11.6 | | 15.9 | | | |
| Approach LOS | | A | B | | B | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | | 5 | 6 | | 8 |
| Phs Duration (G+Y+Rc), s | | 25.6 | | | 7.5 | 18.1 | | 10.3 |
| Change Period (Y+Rc), s | | 4.5 | | | 4.5 | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | | 5.9 | 22.6 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | | 5.8 | | | 3.8 | 11.1 | | 5.5 |
| Green Ext Time (p_c), s | | 2.2 | | | 0.0 | 2.5 | | 0.7 |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 10.8 | | | | | |
| HCM 2010 LOS | | | B | | | | | |

Queues

20: Mooney Blvd & Visalia Pkwy

Existing plus Project w/ Mitigations

Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 62 | 205 | 157 | 215 | 202 | 183 | 913 | 105 | 523 | 47 |
| v/c Ratio | 0.24 | 0.47 | 0.32 | 0.56 | 0.19 | 0.68 | 0.94 | 0.80 | 0.38 | 0.09 |
| Control Delay | 41.7 | 30.3 | 5.3 | 42.0 | 20.8 | 53.4 | 48.5 | 81.2 | 26.6 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.7 | 30.3 | 5.3 | 42.0 | 20.8 | 53.4 | 48.5 | 81.2 | 26.6 | 0.3 |
| Queue Length 50th (ft) | 15 | 90 | 0 | 52 | 40 | 46 | 228 | 52 | 76 | 0 |
| Queue Length 95th (ft) | 39 | 144 | 32 | 101 | 60 | #113 | #454 | #165 | 134 | 0 |
| Internal Link Dist (ft) | | 765 | | | 339 | | 250 | | 1110 | |
| Turn Bay Length (ft) | 180 | | 150 | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 255 | 824 | 792 | 480 | 1784 | 268 | 973 | 131 | 1392 | 550 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.24 | 0.25 | 0.20 | 0.45 | 0.11 | 0.68 | 0.94 | 0.80 | 0.38 | 0.09 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



















HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

Existing plus Project w/ Mitigations
 Timing Plan: A.M. Peak

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|------|-------|------|-------|------|-------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 53 | 176 | 135 | 185 | 163 | 10 | 157 | 695 | 90 | 90 | 450 | 40 |
| Future Volume (veh/h) | 53 | 176 | 135 | 185 | 163 | 10 | 157 | 695 | 90 | 90 | 450 | 40 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 62 | 205 | 157 | 215 | 190 | 12 | 183 | 808 | 105 | 105 | 523 | 47 |
| Adj No. of Lanes | 2 | 1 | 1 | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 205 | 348 | 296 | 309 | 734 | 46 | 281 | 957 | 124 | 134 | 1512 | 471 |
| Arrive On Green | 0.06 | 0.19 | 0.19 | 0.09 | 0.22 | 0.22 | 0.08 | 0.30 | 0.30 | 0.08 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3442 | 1863 | 1583 | 3442 | 3382 | 212 | 3442 | 3150 | 409 | 1774 | 5085 | 1583 |
| Grp Volume(v), veh/h | 62 | 205 | 157 | 215 | 99 | 103 | 183 | 454 | 459 | 105 | 523 | 47 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1863 | 1583 | 1721 | 1770 | 1825 | 1721 | 1770 | 1790 | 1774 | 1695 | 1583 |
| Q Serve(g_s), s | 1.2 | 7.2 | 6.4 | 4.3 | 3.3 | 3.4 | 3.7 | 17.2 | 17.2 | 4.2 | 5.8 | 1.5 |
| Cycle Q Clear(g_c), s | 1.2 | 7.2 | 6.4 | 4.3 | 3.3 | 3.4 | 3.7 | 17.2 | 17.2 | 4.2 | 5.8 | 1.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.12 | 1.00 | | 0.23 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 205 | 348 | 296 | 309 | 384 | 396 | 281 | 537 | 544 | 134 | 1512 | 471 |
| V/C Ratio(X) | 0.30 | 0.59 | 0.53 | 0.70 | 0.26 | 0.26 | 0.65 | 0.84 | 0.84 | 0.78 | 0.35 | 0.10 |
| Avail Cap(c_a), veh/h | 289 | 931 | 791 | 544 | 1016 | 1047 | 304 | 555 | 561 | 149 | 1573 | 490 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 32.2 | 26.5 | 26.2 | 31.6 | 23.2 | 23.2 | 31.8 | 23.3 | 23.3 | 32.4 | 19.7 | 18.2 |
| Incr Delay (d2), s/veh | 0.3 | 4.8 | 4.5 | 1.1 | 1.0 | 1.0 | 3.1 | 14.7 | 14.5 | 18.7 | 0.6 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 4.2 | 3.2 | 2.1 | 1.7 | 1.8 | 1.9 | 10.5 | 10.6 | 2.7 | 2.7 | 0.7 |
| LnGrp Delay(d),s/veh | 32.5 | 31.4 | 30.7 | 32.6 | 24.2 | 24.2 | 34.9 | 37.9 | 37.8 | 51.2 | 20.2 | 18.6 |
| LnGrp LOS | C | C | C | C | C | C | C | D | D | D | C | B |
| Approach Vol, veh/h | | 424 | | | 417 | | | 1096 | | | 675 | |
| Approach Delay, s/veh | | 31.3 | | | 28.6 | | | 37.4 | | | 24.9 | |
| Approach LOS | | C | | | C | | | D | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.1 | 28.5 | 12.1 | 19.7 | 11.5 | 28.0 | 9.9 | 21.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | * 5.7 | 6.4 | * 5.7 | 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 22.4 | * 11 | 35.7 | * 6.3 | 22.1 | * 6 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.2 | 19.2 | 6.3 | 9.2 | 5.7 | 7.8 | 3.2 | 5.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.5 | 0.2 | 4.2 | 0.0 | 6.2 | 0.0 | 2.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 31.8 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |



















HCM 2010 Signalized Intersection Summary
 23: Mooney Blvd & Ave 272

Existing plus Project w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 32 | 7 | 143 | 29 | 18 | 17 | 48 | 824 | 22 | 10 | 650 | 35 |
| Future Volume (veh/h) | 32 | 7 | 143 | 29 | 18 | 17 | 48 | 824 | 22 | 10 | 650 | 35 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 35 | 8 | 155 | 32 | 20 | 18 | 52 | 896 | 24 | 11 | 707 | 38 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 166 | 29 | 229 | 254 | 138 | 79 | 102 | 1343 | 36 | 26 | 1156 | 62 |
| Arrive On Green | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.06 | 0.38 | 0.38 | 0.01 | 0.34 | 0.34 |
| Sat Flow, veh/h | 185 | 158 | 1235 | 490 | 748 | 429 | 1774 | 3521 | 94 | 1774 | 3416 | 184 |
| Grp Volume(v), veh/h | 198 | 0 | 0 | 70 | 0 | 0 | 52 | 450 | 470 | 11 | 366 | 379 |
| Grp Sat Flow(s),veh/h/ln | 1577 | 0 | 0 | 1667 | 0 | 0 | 1774 | 1770 | 1846 | 1774 | 1770 | 1830 |
| Q Serve(g_s), s | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 6.8 | 6.8 | 0.2 | 5.6 | 5.6 |
| Cycle Q Clear(g_c), s | 3.7 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.9 | 6.8 | 6.8 | 0.2 | 5.6 | 5.6 |
| Prop In Lane | 0.18 | | 0.78 | 0.46 | | 0.26 | 1.00 | | 0.05 | 1.00 | | 0.10 |
| Lane Grp Cap(c), veh/h | 423 | 0 | 0 | 471 | 0 | 0 | 102 | 675 | 704 | 26 | 599 | 619 |
| V/C Ratio(X) | 0.47 | 0.00 | 0.00 | 0.15 | 0.00 | 0.00 | 0.51 | 0.67 | 0.67 | 0.43 | 0.61 | 0.61 |
| Avail Cap(c_a), veh/h | 1002 | 0 | 0 | 1012 | 0 | 0 | 281 | 1016 | 1060 | 275 | 1010 | 1045 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 12.2 | 0.0 | 0.0 | 11.1 | 0.0 | 0.0 | 14.7 | 8.3 | 8.3 | 15.7 | 8.9 | 8.9 |
| Incr Delay (d2), s/veh | 0.8 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 3.8 | 1.1 | 1.1 | 10.7 | 1.0 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.6 | 3.5 | 3.6 | 0.2 | 2.8 | 2.9 |
| LnGrp Delay(d),s/veh | 13.0 | 0.0 | 0.0 | 11.3 | 0.0 | 0.0 | 18.6 | 9.4 | 9.4 | 26.5 | 9.9 | 9.9 |
| LnGrp LOS | B | | | B | | | B | A | A | C | A | A |
| Approach Vol, veh/h | | 198 | | | 70 | | | 972 | | | 756 | |
| Approach Delay, s/veh | | 13.0 | | | 11.3 | | | 9.9 | | | 10.1 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.0 | 16.8 | | 10.5 | 6.4 | 15.4 | | 10.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 18.5 | | 18.0 | 5.1 | 18.4 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 8.8 | | 5.7 | 2.9 | 7.6 | | 3.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 3.5 | | 0.8 | 0.0 | 2.9 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 10.3 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |




















HCM 2010 Signalized Intersection Summary
5: Dans St & Caldwell Ave

Existing plus Project w/ Mitigations
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  | |
| Traffic Volume (veh/h) | 24 | 974 | 42 | 34 | 782 | 20 | 17 | 0 | 32 | 18 | 0 | 35 |
| Future Volume (veh/h) | 24 | 974 | 42 | 34 | 782 | 20 | 17 | 0 | 32 | 18 | 0 | 35 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 25 | 1015 | 44 | 35 | 815 | 21 | 18 | 0 | 33 | 19 | 0 | 36 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 55 | 1565 | 68 | 74 | 1632 | 42 | 195 | 6 | 97 | 193 | 6 | 98 |
| Arrive On Green | 0.03 | 0.45 | 0.45 | 0.04 | 0.46 | 0.46 | 0.09 | 0.00 | 0.09 | 0.09 | 0.00 | 0.09 |
| Sat Flow, veh/h | 1774 | 3456 | 150 | 1774 | 3523 | 91 | 492 | 67 | 1025 | 484 | 61 | 1034 |
| Grp Volume(v), veh/h | 25 | 520 | 539 | 35 | 409 | 427 | 51 | 0 | 0 | 55 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1836 | 1774 | 1770 | 1844 | 1585 | 0 | 0 | 1579 | 0 | 0 |
| Q Serve(g_s), s | 0.5 | 7.5 | 7.5 | 0.6 | 5.3 | 5.3 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.5 | 7.5 | 7.5 | 0.6 | 5.3 | 5.3 | 0.9 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.08 | 1.00 | | 0.05 | 0.35 | | 0.65 | 0.35 | | 0.65 |
| Lane Grp Cap(c), veh/h | 55 | 801 | 831 | 74 | 820 | 854 | 298 | 0 | 0 | 297 | 0 | 0 |
| V/C Ratio(X) | 0.45 | 0.65 | 0.65 | 0.47 | 0.50 | 0.50 | 0.17 | 0.00 | 0.00 | 0.19 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 276 | 1256 | 1303 | 276 | 1256 | 1309 | 983 | 0 | 0 | 983 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 15.6 | 7.0 | 7.0 | 15.4 | 6.1 | 6.2 | 13.9 | 0.0 | 0.0 | 13.9 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.7 | 0.9 | 0.9 | 4.7 | 0.5 | 0.5 | 0.3 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 3.8 | 3.9 | 0.4 | 2.6 | 2.7 | 0.4 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 21.4 | 7.8 | 7.8 | 20.0 | 6.6 | 6.6 | 14.1 | 0.0 | 0.0 | 14.2 | 0.0 | 0.0 |
| LnGrp LOS | C | A | A | C | A | A | B | | | B | | |
| Approach Vol, veh/h | | 1084 | | | 871 | | | 51 | | | | 55 |
| Approach Delay, s/veh | | 8.1 | | | 7.2 | | | 14.1 | | | | 14.2 |
| Approach LOS | | A | | | A | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.9 | 19.4 | | 7.6 | 5.5 | 19.7 | | 7.6 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 23.3 | | 18.1 | 5.1 | 23.3 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.6 | 9.5 | | 2.9 | 2.5 | 7.3 | | 3.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.3 | | 0.2 | 0.0 | 4.3 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 8.0 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |




















HCM 2010 Signalized Intersection Summary
 14: West St & Cameron Ave

Existing plus Project w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  | |
| Traffic Volume (veh/h) | 183 | 656 | 17 | 9 | 506 | 9 | 8 | 6 | 2 | 6 | 7 | 198 |
| Future Volume (veh/h) | 183 | 656 | 17 | 9 | 506 | 9 | 8 | 6 | 2 | 6 | 7 | 198 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 189 | 676 | 18 | 9 | 522 | 9 | 8 | 6 | 2 | 6 | 7 | 204 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 244 | 874 | 23 | 21 | 654 | 11 | 169 | 101 | 20 | 434 | 10 | 279 |
| Arrive On Green | 0.14 | 0.48 | 0.48 | 0.01 | 0.36 | 0.36 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1774 | 1806 | 48 | 1774 | 1825 | 31 | 219 | 554 | 110 | 1402 | 53 | 1538 |
| Grp Volume(v), veh/h | 189 | 0 | 694 | 9 | 0 | 531 | 16 | 0 | 0 | 6 | 0 | 211 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1854 | 1774 | 0 | 1856 | 883 | 0 | 0 | 1402 | 0 | 1591 |
| Q Serve(g_s), s | 4.3 | 0.0 | 12.9 | 0.2 | 0.0 | 10.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.2 |
| Cycle Q Clear(g_c), s | 4.3 | 0.0 | 12.9 | 0.2 | 0.0 | 10.8 | 5.3 | 0.0 | 0.0 | 0.1 | 0.0 | 5.2 |
| Prop In Lane | 1.00 | | 0.03 | 1.00 | | 0.02 | 0.50 | | 0.12 | 1.00 | | 0.97 |
| Lane Grp Cap(c), veh/h | 244 | 0 | 898 | 21 | 0 | 665 | 289 | 0 | 0 | 434 | 0 | 289 |
| V/C Ratio(X) | 0.77 | 0.00 | 0.77 | 0.43 | 0.00 | 0.80 | 0.06 | 0.00 | 0.00 | 0.01 | 0.00 | 0.73 |
| Avail Cap(c_a), veh/h | 436 | 0 | 1262 | 212 | 0 | 1029 | 640 | 0 | 0 | 782 | 0 | 684 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 17.4 | 0.0 | 8.9 | 20.5 | 0.0 | 12.1 | 14.3 | 0.0 | 0.0 | 14.1 | 0.0 | 16.2 |
| Incr Delay (d2), s/veh | 5.2 | 0.0 | 2.0 | 13.1 | 0.0 | 2.5 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.5 | 0.0 | 6.9 | 0.2 | 0.0 | 5.9 | 0.2 | 0.0 | 0.0 | 0.1 | 0.0 | 2.6 |
| LnGrp Delay(d),s/veh | 22.6 | 0.0 | 10.9 | 33.7 | 0.0 | 14.6 | 14.4 | 0.0 | 0.0 | 14.1 | 0.0 | 19.7 |
| LnGrp LOS | C | | B | C | | B | B | | | B | | B |
| Approach Vol, veh/h | | 883 | | | 540 | | | 16 | | | | 217 |
| Approach Delay, s/veh | | 13.4 | | | 14.9 | | | 14.4 | | | | 19.6 |
| Approach LOS | | B | | | B | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.0 | 24.8 | | 12.1 | 10.3 | 19.5 | | 12.1 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 28.5 | | 18.0 | 10.3 | 23.2 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 14.9 | | 7.3 | 6.3 | 12.8 | | 7.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 3.6 | | 0.0 | 0.2 | 2.2 | | 0.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 14.7 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

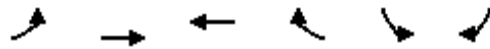
HCM 2010 Signalized Intersection Summary
 17: Visalia Pkwy & Dans St

Existing plus Project w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Traffic Volume (veh/h) | 29 | 455 | 4 | 5 | 480 | 48 | 2 | 0 | 1 | 50 | 1 | 40 |
| Future Volume (veh/h) | 29 | 455 | 4 | 5 | 480 | 48 | 2 | 0 | 1 | 50 | 1 | 40 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 33 | 511 | 4 | 6 | 539 | 54 | 2 | 0 | 1 | 56 | 1 | 45 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 71 | 857 | 7 | 14 | 719 | 72 | 269 | 30 | 53 | 257 | 1 | 63 |
| Arrive On Green | 0.04 | 0.46 | 0.46 | 0.01 | 0.43 | 0.43 | 0.10 | 0.00 | 0.10 | 0.10 | 0.10 | 0.10 |
| Sat Flow, veh/h | 1774 | 1846 | 14 | 1774 | 1663 | 167 | 804 | 312 | 558 | 819 | 15 | 658 |
| Grp Volume(v), veh/h | 33 | 0 | 515 | 6 | 0 | 593 | 3 | 0 | 0 | 102 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1860 | 1774 | 0 | 1829 | 1675 | 0 | 0 | 1491 | 0 | 0 |
| Q Serve(g_s), s | 0.6 | 0.0 | 6.4 | 0.1 | 0.0 | 8.5 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.6 | 0.0 | 6.4 | 0.1 | 0.0 | 8.5 | 0.0 | 0.0 | 0.0 | 2.1 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 0.09 | 0.67 | | 0.33 | 0.55 | | 0.44 |
| Lane Grp Cap(c), veh/h | 71 | 0 | 864 | 14 | 0 | 791 | 352 | 0 | 0 | 321 | 0 | 0 |
| V/C Ratio(X) | 0.47 | 0.00 | 0.60 | 0.42 | 0.00 | 0.75 | 0.01 | 0.00 | 0.00 | 0.32 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 289 | 0 | 1386 | 289 | 0 | 1363 | 1040 | 0 | 0 | 1039 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 14.7 | 0.0 | 6.2 | 15.4 | 0.0 | 7.4 | 12.8 | 0.0 | 0.0 | 13.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 4.7 | 0.0 | 0.7 | 18.0 | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.0 | 3.3 | 0.1 | 0.0 | 4.4 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 19.4 | 0.0 | 6.9 | 33.5 | 0.0 | 8.9 | 12.8 | 0.0 | 0.0 | 14.3 | 0.0 | 0.0 |
| LnGrp LOS | B | | A | C | | A | B | | | B | | |
| Approach Vol, veh/h | | 548 | | | 599 | | | 3 | | | 102 | |
| Approach Delay, s/veh | | 7.6 | | | 9.1 | | | 12.8 | | | 14.3 | |
| Approach LOS | | A | | | A | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.8 | 19.0 | | 7.5 | 5.7 | 18.0 | | 7.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 23.3 | | 18.1 | 5.1 | 23.3 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.1 | 8.4 | | 2.0 | 2.6 | 10.5 | | 4.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.6 | | 0.0 | 0.0 | 3.0 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 8.9 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 18: Visalia Pkwy & County Center Dr

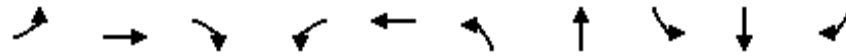
Existing plus Project w/ Mitigations
 Timing Plan: P.M. Peak



| Movement | EBL | EBT | WBT | WBR | SBL | SBR | | |
|------------------------------|------|------|------|------|------|------|---|------|
| Lane Configurations | | | | | | | | |
| Traffic Volume (veh/h) | 85 | 424 | 453 | 153 | 104 | 92 | | |
| Future Volume (veh/h) | 85 | 424 | 453 | 153 | 104 | 92 | | |
| Number | 5 | 2 | 6 | 16 | 3 | 18 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 96 | 476 | 509 | 172 | 117 | 103 | | |
| Adj No. of Lanes | 1 | 1 | 1 | 0 | 1 | 1 | | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 145 | 1234 | 625 | 211 | 202 | 181 | | |
| Arrive On Green | 0.08 | 0.66 | 0.47 | 0.47 | 0.11 | 0.11 | | |
| Sat Flow, veh/h | 1774 | 1863 | 1333 | 450 | 1774 | 1583 | | |
| Grp Volume(v), veh/h | 96 | 476 | 0 | 681 | 117 | 103 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 0 | 1783 | 1774 | 1583 | | |
| Q Serve(g_s), s | 2.1 | 4.7 | 0.0 | 13.2 | 2.5 | 2.5 | | |
| Cycle Q Clear(g_c), s | 2.1 | 4.7 | 0.0 | 13.2 | 2.5 | 2.5 | | |
| Prop In Lane | 1.00 | | | 0.25 | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 145 | 1234 | 0 | 836 | 202 | 181 | | |
| V/C Ratio(X) | 0.66 | 0.39 | 0.00 | 0.81 | 0.58 | 0.57 | | |
| Avail Cap(c_a), veh/h | 242 | 1754 | 0 | 1236 | 798 | 712 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 17.9 | 3.1 | 0.0 | 9.2 | 16.9 | 16.9 | | |
| Incr Delay (d2), s/veh | 5.1 | 0.2 | 0.0 | 2.7 | 2.6 | 2.8 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 1.2 | 2.3 | 0.0 | 7.1 | 1.4 | 1.2 | | |
| LnGrp Delay(d),s/veh | 23.0 | 3.3 | 0.0 | 11.9 | 19.5 | 19.7 | | |
| LnGrp LOS | C | A | | B | B | B | | |
| Approach Vol, veh/h | | 572 | 681 | | 220 | | | |
| Approach Delay, s/veh | | 6.6 | 11.9 | | 19.6 | | | |
| Approach LOS | | A | B | | B | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | | 5 | 6 | | 8 |
| Phs Duration (G+Y+Rc), s | | 31.2 | | | 7.8 | 23.4 | | 9.1 |
| Change Period (Y+Rc), s | | 4.5 | | | 4.5 | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | | 37.9 | | | 5.5 | 27.9 | | 18.1 |
| Max Q Clear Time (g_c+I1), s | | 6.7 | | | 4.1 | 15.2 | | 4.5 |
| Green Ext Time (p_c), s | | 3.0 | | | 0.0 | 3.7 | | 0.5 |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 11.0 | | | | | |
| HCM 2010 LOS | | | B | | | | | |

Queues
20: Mooney Blvd & Visalia Pkwy

Existing plus Project w/ Mitigations
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 115 | 274 | 188 | 254 | 256 | 268 | 1153 | 175 | 858 | 57 |
| v/c Ratio | 0.67 | 0.67 | 0.38 | 0.70 | 0.27 | 0.41 | 0.98 | 0.74 | 0.60 | 0.10 |
| Control Delay | 75.5 | 51.0 | 5.7 | 62.3 | 28.6 | 44.8 | 61.9 | 70.4 | 41.0 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 75.5 | 51.0 | 5.7 | 62.3 | 28.6 | 44.8 | 61.9 | 70.4 | 41.0 | 0.3 |
| Queue Length 50th (ft) | 45 | 195 | 0 | 98 | 68 | 94 | ~515 | 129 | 213 | 0 |
| Queue Length 95th (ft) | #87 | 272 | 45 | 142 | 96 | 137 | #653 | #293 | 283 | 0 |
| Internal Link Dist (ft) | | 765 | | | 337 | | 302 | | 1110 | |
| Turn Bay Length (ft) | 180 | | 150 | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 171 | 503 | 572 | 418 | 1186 | 655 | 1173 | 236 | 1425 | 583 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.67 | 0.54 | 0.33 | 0.61 | 0.22 | 0.41 | 0.98 | 0.74 | 0.60 | 0.10 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



















HCM 2010 Signalized Intersection Summary
20: Mooney Blvd & Visalia Pkwy

Existing plus Project w/ Mitigations
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 107 | 255 | 175 | 236 | 183 | 55 | 249 | 865 | 207 | 163 | 798 | 53 |
| Future Volume (veh/h) | 107 | 255 | 175 | 236 | 183 | 55 | 249 | 865 | 207 | 163 | 798 | 53 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 115 | 274 | 188 | 254 | 197 | 59 | 268 | 930 | 223 | 175 | 858 | 57 |
| Adj No. of Lanes | 2 | 1 | 1 | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 168 | 354 | 297 | 312 | 640 | 186 | 988 | 1175 | 281 | 167 | 1081 | 332 |
| Arrive On Green | 0.05 | 0.19 | 0.19 | 0.09 | 0.24 | 0.24 | 0.29 | 0.41 | 0.41 | 0.09 | 0.21 | 0.21 |
| Sat Flow, veh/h | 3442 | 1863 | 1562 | 3442 | 2697 | 785 | 3442 | 2833 | 678 | 1774 | 5085 | 1561 |
| Grp Volume(v), veh/h | 115 | 274 | 188 | 254 | 127 | 129 | 268 | 580 | 573 | 175 | 858 | 57 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1863 | 1562 | 1721 | 1770 | 1712 | 1721 | 1770 | 1742 | 1774 | 1695 | 1561 |
| Q Serve(g_s), s | 3.9 | 16.8 | 13.3 | 8.7 | 7.1 | 7.4 | 7.2 | 34.3 | 34.4 | 11.3 | 19.2 | 2.9 |
| Cycle Q Clear(g_c), s | 3.9 | 16.8 | 13.3 | 8.7 | 7.1 | 7.4 | 7.2 | 34.3 | 34.4 | 11.3 | 19.2 | 2.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.46 | 1.00 | | 0.39 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 168 | 354 | 297 | 312 | 420 | 406 | 988 | 734 | 722 | 167 | 1081 | 332 |
| V/C Ratio(X) | 0.68 | 0.78 | 0.63 | 0.81 | 0.30 | 0.32 | 0.27 | 0.79 | 0.79 | 1.05 | 0.79 | 0.17 |
| Avail Cap(c_a), veh/h | 172 | 503 | 422 | 419 | 605 | 585 | 988 | 734 | 722 | 167 | 1081 | 332 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 0.88 | 0.88 |
| Uniform Delay (d), s/veh | 56.1 | 46.2 | 44.8 | 53.6 | 37.6 | 37.7 | 33.1 | 30.6 | 30.6 | 54.3 | 44.8 | 25.1 |
| Incr Delay (d2), s/veh | 8.5 | 11.0 | 6.7 | 6.5 | 1.2 | 1.3 | 0.1 | 8.5 | 8.7 | 78.4 | 5.3 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.1 | 9.7 | 6.3 | 4.4 | 3.6 | 3.7 | 3.4 | 18.5 | 18.3 | 9.2 | 9.5 | 1.6 |
| LnGrp Delay(d),s/veh | 64.6 | 57.2 | 51.5 | 60.1 | 38.8 | 39.0 | 33.1 | 39.1 | 39.3 | 132.8 | 50.1 | 26.1 |
| LnGrp LOS | E | E | D | E | D | D | C | D | D | F | D | C |
| Approach Vol, veh/h | | 577 | | | 510 | | | 1421 | | | 1090 | |
| Approach Delay, s/veh | | 56.8 | | | 49.5 | | | 38.1 | | | 62.1 | |
| Approach LOS | | E | | | D | | | D | | | E | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 17.0 | 56.6 | 17.3 | 29.2 | 41.3 | 32.3 | 11.6 | 34.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | 6.4 | * 6.4 | 6.8 | * 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 11 | 37.1 | 14.6 | * 32 | 22.9 | * 26 | * 6 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 13.3 | 36.4 | 10.7 | 18.8 | 9.2 | 21.2 | 5.9 | 9.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.6 | 0.2 | 4.0 | 0.4 | 3.3 | 0.0 | 3.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 50.0 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 23: Mooney Blvd & Ave 272

Existing plus Project w/ Mitigations
 Timing Plan: P.M. Peak



















| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 39 | 4 | 27 | 2 | 3 | 36 | 137 | 1120 | 57 | 29 | 1157 | 63 |
| Future Volume (veh/h) | 39 | 4 | 27 | 2 | 3 | 36 | 137 | 1120 | 57 | 29 | 1157 | 63 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 41 | 4 | 28 | 2 | 3 | 38 | 144 | 1179 | 60 | 31 | 1218 | 66 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 217 | 11 | 54 | 99 | 13 | 130 | 434 | 1829 | 93 | 65 | 1605 | 87 |
| Arrive On Green | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.53 | 0.53 | 0.04 | 0.47 | 0.47 |
| Sat Flow, veh/h | 835 | 124 | 596 | 48 | 141 | 1432 | 1774 | 3427 | 174 | 1774 | 3415 | 185 |
| Grp Volume(v), veh/h | 73 | 0 | 0 | 43 | 0 | 0 | 144 | 608 | 631 | 31 | 631 | 653 |
| Grp Sat Flow(s),veh/h/ln | 1555 | 0 | 0 | 1621 | 0 | 0 | 1774 | 1770 | 1832 | 1774 | 1770 | 1830 |
| Q Serve(g_s), s | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 9.7 | 9.7 | 0.7 | 11.7 | 11.7 |
| Cycle Q Clear(g_c), s | 1.7 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.5 | 9.7 | 9.7 | 0.7 | 11.7 | 11.7 |
| Prop In Lane | 0.56 | | 0.38 | 0.05 | | 0.88 | 1.00 | | 0.10 | 1.00 | | 0.10 |
| Lane Grp Cap(c), veh/h | 282 | 0 | 0 | 242 | 0 | 0 | 434 | 944 | 978 | 65 | 832 | 860 |
| V/C Ratio(X) | 0.26 | 0.00 | 0.00 | 0.18 | 0.00 | 0.00 | 0.33 | 0.64 | 0.65 | 0.48 | 0.76 | 0.76 |
| Avail Cap(c_a), veh/h | 814 | 0 | 0 | 820 | 0 | 0 | 484 | 1036 | 1072 | 227 | 1036 | 1071 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 17.2 | 0.0 | 0.0 | 16.9 | 0.0 | 0.0 | 6.6 | 6.6 | 6.6 | 18.8 | 8.7 | 8.7 |
| Incr Delay (d2), s/veh | 0.5 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.4 | 1.2 | 1.2 | 5.4 | 2.6 | 2.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.8 | 4.9 | 5.0 | 0.4 | 6.2 | 6.4 |
| LnGrp Delay(d),s/veh | 17.6 | 0.0 | 0.0 | 17.3 | 0.0 | 0.0 | 7.0 | 7.8 | 7.8 | 24.2 | 11.2 | 11.2 |
| LnGrp LOS | B | | | B | | | A | A | A | C | B | B |
| Approach Vol, veh/h | | 73 | | | 43 | | | 1383 | | | 1315 | |
| Approach Delay, s/veh | | 17.6 | | | 17.3 | | | 7.7 | | | 11.5 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.0 | 25.7 | | 8.1 | 8.5 | 23.2 | | 8.1 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 23.3 | | 18.1 | 5.1 | 23.3 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.7 | 11.7 | | 3.7 | 3.5 | 13.7 | | 3.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.4 | | 0.2 | 0.0 | 5.0 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.9 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |

Five-Year plus Phase 1 Project Impacts and Mitigation Measures

| Location | Impact | Mitigation Measure | Notes |
|--|--|---|-------------------------------------|
| Intersection #5: Caldwell Avenue/Dans Street | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS E and F during the a.m. and p.m. peak hours. | Same as Existing plus Project Mitigation. | Project to provide contribution |
| Intersection #13: Cameron Avenue/Stonebrook Street | Addition of project traffic will cause the LOS to drop from LOS D to LOS E in the a.m. and p.m. peak hour. | The installation of a traffic signal will improve the LOS to acceptable levels during the a.m. and p.m. peak hour. Signal warrants are satisfied for the p.m. peak hour. | TIF-eligible project |
| Intersection #14: Cameron Ave/West Street | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS F during the p.m. peak hour. | Same as Existing plus Project Mitigation. | TIF-eligible project |
| Intersection # 17: Visalia Parkway/Dans Street | Addition of project traffic will cause the LOS to drop from LOS D to LOS E in the a.m. and p.m. peak hour. | Same as Existing plus Project Mitigation. | Project to provide contribution |
| Intersection #18: Visalia Parkway/County Center Drive | Addition of project traffic will cause the LOS to drop from LOS D to LOS E in the a.m. peak hour, and the delay will increase by more than 5.0 seconds during the p.m. peak hour when the intersecion already operates at LOS F. | Same as Existing plus Project Mitigation. Signal warrants are satisfied for the p.m. peak hour. | Project to provide contribution |
| Intersection #19: Visalia Parkway/Main Site Access-Target Driveway | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS F during the a.m. and p.m. peak hour. | The installation of a traffic signal will improve the LOS to acceptable levels during the a.m. and p.m. peak hour. The project can pay for its fair share of the improvement. | Project to provide contribution |
| Intersection #20: Visalia Parkway/Mooney Boulevard | Addition of project traffic will increase the queue of the northbound left-turn in the a.m. and p.m. peak hour. | Same as Existing plus Project Mitigation. | Intersection included in City's CIP |
| Intersection #23: Mooney Boulevard/Avenue 272 | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS F during the a.m. and p.m. peak hours. | Same as Existing plus Project Mitigation. | TIF-eligible project |












HCM 2010 Signalized Intersection Summary
5: Dans St & Caldwell Ave

5 Year plus Phase 1 w/ Mitigations
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  | |
| Traffic Volume (veh/h) | 33 | 679 | 67 | 49 | 660 | 28 | 47 | 0 | 78 | 8 | 0 | 17 |
| Future Volume (veh/h) | 33 | 679 | 67 | 49 | 660 | 28 | 47 | 0 | 78 | 8 | 0 | 17 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 36 | 738 | 73 | 53 | 717 | 30 | 51 | 0 | 85 | 9 | 0 | 18 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 76 | 1200 | 119 | 105 | 1336 | 56 | 229 | 7 | 121 | 205 | 23 | 140 |
| Arrive On Green | 0.04 | 0.37 | 0.37 | 0.06 | 0.39 | 0.39 | 0.13 | 0.00 | 0.13 | 0.13 | 0.00 | 0.13 |
| Sat Flow, veh/h | 1774 | 3247 | 321 | 1774 | 3461 | 145 | 521 | 52 | 955 | 374 | 180 | 1108 |
| Grp Volume(v), veh/h | 36 | 402 | 409 | 53 | 366 | 381 | 136 | 0 | 0 | 27 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1798 | 1774 | 1770 | 1836 | 1529 | 0 | 0 | 1661 | 0 | 0 |
| Q Serve(g_s), s | 0.6 | 5.6 | 5.6 | 0.9 | 4.9 | 4.9 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.6 | 5.6 | 5.6 | 0.9 | 4.9 | 4.9 | 2.6 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.18 | 1.00 | | 0.08 | 0.37 | | 0.62 | 0.33 | | 0.67 |
| Lane Grp Cap(c), veh/h | 76 | 654 | 665 | 105 | 683 | 709 | 357 | 0 | 0 | 368 | 0 | 0 |
| V/C Ratio(X) | 0.47 | 0.61 | 0.62 | 0.50 | 0.54 | 0.54 | 0.38 | 0.00 | 0.00 | 0.07 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 298 | 1072 | 1089 | 298 | 1072 | 1112 | 1057 | 0 | 0 | 1057 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 14.2 | 7.8 | 7.8 | 13.9 | 7.2 | 7.2 | 12.7 | 0.0 | 0.0 | 11.8 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 4.4 | 0.9 | 0.9 | 3.7 | 0.7 | 0.6 | 0.7 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 2.9 | 2.9 | 0.5 | 2.5 | 2.6 | 1.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 18.6 | 8.8 | 8.7 | 17.5 | 7.9 | 7.9 | 13.4 | 0.0 | 0.0 | 11.9 | 0.0 | 0.0 |
| LnGrp LOS | B | A | A | B | A | A | B | | | B | | |
| Approach Vol, veh/h | | 847 | | | 800 | | | 136 | | | | 27 |
| Approach Delay, s/veh | | 9.2 | | | 8.5 | | | 13.4 | | | | 11.9 |
| Approach LOS | | A | | | A | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.3 | 15.7 | | 8.3 | 5.8 | 16.2 | | 8.3 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 18.4 | | 18.0 | 5.1 | 18.4 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.9 | 7.6 | | 4.6 | 2.6 | 6.9 | | 2.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 3.4 | | 0.6 | 0.0 | 3.2 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.2 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |




















HCM 2010 Signalized Intersection Summary
 13: Stonebrook St & Cameron Ave

5 Year plus Phase 1 w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  | | |
|------------------------------|---|---|---|---|---|---|---|---|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR | | |
| Lane Configurations |  | |  |  |  |  | | |
| Traffic Volume (veh/h) | 274 | 12 | 352 | 407 | 33 | 236 | | |
| Future Volume (veh/h) | 274 | 12 | 352 | 407 | 33 | 236 | | |
| Number | 2 | 12 | 1 | 6 | 7 | 14 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | | 1.00 | 1.00 | | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 298 | 13 | 383 | 442 | 36 | 257 | | |
| Adj No. of Lanes | 1 | 0 | 1 | 1 | 1 | 1 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 402 | 18 | 459 | 1095 | 369 | 329 | | |
| Arrive On Green | 0.23 | 0.23 | 0.26 | 0.59 | 0.21 | 0.21 | | |
| Sat Flow, veh/h | 1772 | 77 | 1774 | 1863 | 1774 | 1583 | | |
| Grp Volume(v), veh/h | 0 | 311 | 383 | 442 | 36 | 257 | | |
| Grp Sat Flow(s),veh/h/ln | 0 | 1849 | 1774 | 1863 | 1774 | 1583 | | |
| Q Serve(g_s), s | 0.0 | 6.9 | 9.0 | 5.6 | 0.7 | 6.8 | | |
| Cycle Q Clear(g_c), s | 0.0 | 6.9 | 9.0 | 5.6 | 0.7 | 6.8 | | |
| Prop In Lane | | 0.04 | 1.00 | | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 0 | 419 | 459 | 1095 | 369 | 329 | | |
| V/C Ratio(X) | 0.00 | 0.74 | 0.83 | 0.40 | 0.10 | 0.78 | | |
| Avail Cap(c_a), veh/h | 0 | 756 | 624 | 1608 | 725 | 647 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 0.0 | 15.8 | 15.4 | 4.9 | 14.1 | 16.5 | | |
| Incr Delay (d2), s/veh | 0.0 | 2.6 | 7.1 | 0.2 | 0.1 | 4.0 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 0.0 | 3.8 | 5.3 | 2.9 | 0.4 | 3.3 | | |
| LnGrp Delay(d),s/veh | 0.0 | 18.4 | 22.5 | 5.1 | 14.2 | 20.5 | | |
| LnGrp LOS | | B | C | A | B | C | | |
| Approach Vol, veh/h | 311 | | | 825 | 293 | | | |
| Approach Delay, s/veh | 18.4 | | | 13.2 | 19.7 | | | |
| Approach LOS | B | | | B | B | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | 1 | 2 | | 4 | | 6 | | |
| Phs Duration (G+Y+Rc), s | 15.9 | 14.5 | | 13.7 | | 30.4 | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | |
| Max Green Setting (Gmax), s | 15.5 | 18.0 | | 18.0 | | 38.0 | | |
| Max Q Clear Time (g_c+I1), s | 11.0 | 8.9 | | 8.8 | | 7.6 | | |
| Green Ext Time (p_c), s | 0.5 | 1.1 | | 0.7 | | 2.6 | | |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 15.7 | | | | | |
| HCM 2010 LOS | | | B | | | | | |



















HCM 2010 Signalized Intersection Summary
 14: West St & Cameron Ave

5 Year plus Phase 1 w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  | |
| Traffic Volume (veh/h) | 104 | 376 | 11 | 0 | 403 | 6 | 27 | 7 | 8 | 3 | 3 | 35 |
| Future Volume (veh/h) | 104 | 376 | 11 | 0 | 403 | 6 | 27 | 7 | 8 | 3 | 3 | 35 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 113 | 409 | 12 | 0 | 438 | 7 | 29 | 8 | 9 | 3 | 3 | 38 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 182 | 1079 | 32 | 6 | 628 | 10 | 264 | 18 | 20 | 395 | 11 | 138 |
| Arrive On Green | 0.10 | 0.60 | 0.60 | 0.00 | 0.34 | 0.34 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 |
| Sat Flow, veh/h | 1774 | 1799 | 53 | 1774 | 1828 | 29 | 686 | 189 | 213 | 1385 | 117 | 1480 |
| Grp Volume(v), veh/h | 113 | 0 | 421 | 0 | 0 | 445 | 46 | 0 | 0 | 3 | 0 | 41 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1852 | 1774 | 0 | 1858 | 1088 | 0 | 0 | 1385 | 0 | 1597 |
| Q Serve(g_s), s | 1.8 | 0.0 | 3.4 | 0.0 | 0.0 | 6.1 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| Cycle Q Clear(g_c), s | 1.8 | 0.0 | 3.4 | 0.0 | 0.0 | 6.1 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| Prop In Lane | 1.00 | | 0.03 | 1.00 | | 0.02 | 0.63 | | 0.20 | 1.00 | | 0.93 |
| Lane Grp Cap(c), veh/h | 182 | 0 | 1111 | 6 | 0 | 638 | 302 | 0 | 0 | 395 | 0 | 148 |
| V/C Ratio(X) | 0.62 | 0.00 | 0.38 | 0.00 | 0.00 | 0.70 | 0.15 | 0.00 | 0.00 | 0.01 | 0.00 | 0.28 |
| Avail Cap(c_a), veh/h | 454 | 0 | 1486 | 303 | 0 | 1332 | 1065 | 0 | 0 | 1118 | 0 | 981 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 12.6 | 0.0 | 3.0 | 0.0 | 0.0 | 8.3 | 13.1 | 0.0 | 0.0 | 12.1 | 0.0 | 12.4 |
| Incr Delay (d2), s/veh | 3.4 | 0.0 | 0.2 | 0.0 | 0.0 | 1.4 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.1 | 0.0 | 1.7 | 0.0 | 0.0 | 3.3 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| LnGrp Delay(d),s/veh | 16.0 | 0.0 | 3.2 | 0.0 | 0.0 | 9.7 | 13.3 | 0.0 | 0.0 | 12.1 | 0.0 | 13.4 |
| LnGrp LOS | B | | A | | | A | B | | | B | | B |
| Approach Vol, veh/h | | 534 | | | 445 | | | 46 | | | | 44 |
| Approach Delay, s/veh | | 6.0 | | | 9.7 | | | 13.3 | | | | 13.3 |
| Approach LOS | | A | | | A | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 0.0 | 22.1 | | 7.2 | 7.5 | 14.6 | | 7.2 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 23.5 | | 18.0 | 7.5 | 21.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 0.0 | 5.4 | | 3.6 | 3.8 | 8.1 | | 2.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.2 | | 0.1 | 0.1 | 2.0 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 8.1 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 17: Visalia Pkwy & Dans St

5 Year plus Phase 1 w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | | |  |
| Traffic Volume (veh/h) | 160 | 379 | 3 | 2 | 375 | 114 | 5 | 0 | 4 | 62 | 0 | 124 |
| Future Volume (veh/h) | 160 | 379 | 3 | 2 | 375 | 114 | 5 | 0 | 4 | 62 | 0 | 124 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 174 | 412 | 3 | 2 | 408 | 124 | 5 | 0 | 4 | 67 | 0 | 135 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 223 | 905 | 7 | 5 | 504 | 153 | 264 | 36 | 129 | 188 | 20 | 181 |
| Arrive On Green | 0.13 | 0.49 | 0.49 | 0.00 | 0.37 | 0.37 | 0.18 | 0.00 | 0.18 | 0.18 | 0.00 | 0.18 |
| Sat Flow, veh/h | 1774 | 1847 | 13 | 1774 | 1372 | 417 | 721 | 204 | 739 | 401 | 113 | 1036 |
| Grp Volume(v), veh/h | 174 | 0 | 415 | 2 | 0 | 532 | 9 | 0 | 0 | 202 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1860 | 1774 | 0 | 1789 | 1664 | 0 | 0 | 1550 | 0 | 0 |
| Q Serve(g_s), s | 3.9 | 0.0 | 6.0 | 0.0 | 0.0 | 10.9 | 0.0 | 0.0 | 0.0 | 3.5 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.9 | 0.0 | 6.0 | 0.0 | 0.0 | 10.9 | 0.2 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 0.23 | 0.56 | | 0.44 | 0.33 | | 0.67 |
| Lane Grp Cap(c), veh/h | 223 | 0 | 912 | 5 | 0 | 657 | 429 | 0 | 0 | 389 | 0 | 0 |
| V/C Ratio(X) | 0.78 | 0.00 | 0.46 | 0.41 | 0.00 | 0.81 | 0.02 | 0.00 | 0.00 | 0.52 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 327 | 0 | 1075 | 218 | 0 | 924 | 798 | 0 | 0 | 796 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 17.2 | 0.0 | 6.8 | 20.2 | 0.0 | 11.6 | 13.9 | 0.0 | 0.0 | 15.8 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 7.2 | 0.0 | 0.4 | 47.2 | 0.0 | 3.7 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.3 | 0.0 | 3.1 | 0.1 | 0.0 | 6.0 | 0.1 | 0.0 | 0.0 | 2.2 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 24.4 | 0.0 | 7.2 | 67.4 | 0.0 | 15.3 | 13.9 | 0.0 | 0.0 | 16.9 | 0.0 | 0.0 |
| LnGrp LOS | C | | A | E | | B | B | | | B | | |
| Approach Vol, veh/h | | 589 | | | 534 | | | 9 | | | 202 | |
| Approach Delay, s/veh | | 12.2 | | | 15.5 | | | 13.9 | | | 16.9 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.6 | 24.4 | | 11.6 | 9.6 | 19.4 | | 11.6 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 23.5 | | 18.0 | 7.5 | 21.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 8.0 | | 2.2 | 5.9 | 12.9 | | 7.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.0 | | 0.0 | 0.1 | 2.0 | | 0.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 14.3 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
 18: Visalia Pkwy & County Center Dr

5 Year plus Phase 1 w/ Mitigations
 Timing Plan: A.M. Peak



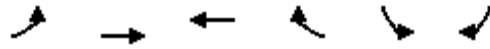
| Lane Group | EBL | EBT | WBT | SBL | SBR |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph) | 98 | 397 | 561 | 126 | 163 |
| v/c Ratio | 0.31 | 0.31 | 0.57 | 0.29 | 0.32 |
| Control Delay | 26.4 | 5.2 | 14.2 | 19.7 | 5.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 26.4 | 5.2 | 14.2 | 19.7 | 5.9 |
| Queue Length 50th (ft) | 27 | 42 | 117 | 32 | 0 |
| Queue Length 95th (ft) | #83 | 94 | #243 | 72 | 38 |
| Internal Link Dist (ft) | | 936 | 1674 | 772 | |
| Turn Bay Length (ft) | 200 | | | 190 | |
| Base Capacity (vph) | 315 | 1379 | 1055 | 875 | 865 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.31 | 0.29 | 0.53 | 0.14 | 0.19 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 18: Visalia Pkwy & County Center Dr

5 Year plus Phase 1 w/ Mitigations
 Timing Plan: A.M. Peak






















| Movement | EBL | EBT | WBT | WBR | SBL | SBR | | |
|------------------------------|------|------|------|------|------|------|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (veh/h) | 90 | 365 | 413 | 103 | 116 | 150 | | |
| Future Volume (veh/h) | 90 | 365 | 413 | 103 | 116 | 150 | | |
| Number | 5 | 2 | 6 | 16 | 7 | 14 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 98 | 397 | 449 | 112 | 126 | 163 | | |
| Adj No. of Lanes | 1 | 1 | 1 | 0 | 1 | 1 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 151 | 1119 | 570 | 142 | 283 | 253 | | |
| Arrive On Green | 0.09 | 0.60 | 0.40 | 0.40 | 0.16 | 0.16 | | |
| Sat Flow, veh/h | 1774 | 1863 | 1440 | 359 | 1774 | 1583 | | |
| Grp Volume(v), veh/h | 98 | 397 | 0 | 561 | 126 | 163 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 0 | 1799 | 1774 | 1583 | | |
| Q Serve(g_s), s | 2.0 | 4.1 | 0.0 | 10.3 | 2.4 | 3.6 | | |
| Cycle Q Clear(g_c), s | 2.0 | 4.1 | 0.0 | 10.3 | 2.4 | 3.6 | | |
| Prop In Lane | 1.00 | | | 0.20 | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 151 | 1119 | 0 | 712 | 283 | 253 | | |
| V/C Ratio(X) | 0.65 | 0.35 | 0.00 | 0.79 | 0.44 | 0.64 | | |
| Avail Cap(c_a), veh/h | 260 | 1636 | 0 | 1101 | 850 | 759 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 16.6 | 3.8 | 0.0 | 10.0 | 14.3 | 14.8 | | |
| Incr Delay (d2), s/veh | 4.6 | 0.2 | 0.0 | 2.1 | 1.1 | 2.7 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 1.2 | 2.0 | 0.0 | 5.4 | 1.2 | 3.3 | | |
| LnGrp Delay(d),s/veh | 21.2 | 4.0 | 0.0 | 12.1 | 15.4 | 17.5 | | |
| LnGrp LOS | C | A | | B | B | B | | |
| Approach Vol, veh/h | | 495 | 561 | | 289 | | | |
| Approach Delay, s/veh | | 7.4 | 12.1 | | 16.6 | | | |
| Approach LOS | | A | B | | B | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | 4 | 5 | 6 | | |
| Phs Duration (G+Y+Rc), s | | 27.1 | | 10.5 | 7.7 | 19.4 | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 | | |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 5.5 | 23.0 | | |
| Max Q Clear Time (g_c+I1), s | | 6.1 | | 5.6 | 4.0 | 12.3 | | |
| Green Ext Time (p_c), s | | 2.3 | | 0.7 | 0.0 | 2.6 | | |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 11.3 | | | | | |
| HCM 2010 LOS | | | B | | | | | |

HCM 2010 Signalized Intersection Summary
 19: Main Site Access/Target Dwy & Visalia Pkwy

5 Year plus Phase 1 w/ Mitigations

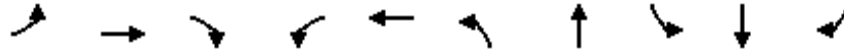
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  |  | |  | |
| Traffic Volume (veh/h) | 67 | 376 | 62 | 119 | 370 | 13 | 90 | 0 | 244 | 7 | 0 | 15 |
| Future Volume (veh/h) | 67 | 376 | 62 | 119 | 370 | 13 | 90 | 0 | 244 | 7 | 0 | 15 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 73 | 409 | 67 | 129 | 402 | 14 | 98 | 0 | 265 | 8 | 0 | 16 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 131 | 739 | 120 | 187 | 954 | 33 | 560 | 0 | 383 | 213 | 54 | 242 |
| Arrive On Green | 0.07 | 0.24 | 0.24 | 0.11 | 0.27 | 0.27 | 0.24 | 0.00 | 0.24 | 0.24 | 0.00 | 0.24 |
| Sat Flow, veh/h | 1774 | 3049 | 496 | 1774 | 3490 | 121 | 1407 | 0 | 1583 | 276 | 223 | 999 |
| Grp Volume(v), veh/h | 73 | 236 | 240 | 129 | 203 | 213 | 98 | 0 | 265 | 24 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1775 | 1774 | 1770 | 1841 | 1407 | 0 | 1583 | 1498 | 0 | 0 |
| Q Serve(g_s), s | 1.3 | 3.8 | 3.9 | 2.3 | 3.1 | 3.1 | 1.4 | 0.0 | 5.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 1.3 | 3.8 | 3.9 | 2.3 | 3.1 | 3.1 | 1.8 | 0.0 | 5.0 | 0.4 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.28 | 1.00 | | 0.07 | 1.00 | | 1.00 | 0.33 | | 0.67 |
| Lane Grp Cap(c), veh/h | 131 | 429 | 430 | 187 | 484 | 504 | 560 | 0 | 383 | 508 | 0 | 0 |
| V/C Ratio(X) | 0.56 | 0.55 | 0.56 | 0.69 | 0.42 | 0.42 | 0.18 | 0.00 | 0.69 | 0.05 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 270 | 969 | 972 | 297 | 995 | 1036 | 984 | 0 | 867 | 931 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 14.7 | 10.9 | 10.9 | 14.2 | 9.8 | 9.8 | 10.1 | 0.0 | 11.3 | 9.6 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 3.6 | 1.1 | 1.1 | 4.5 | 0.6 | 0.6 | 0.1 | 0.0 | 2.2 | 0.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 2.0 | 2.0 | 1.3 | 1.5 | 1.6 | 0.7 | 0.0 | 2.4 | 0.2 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 18.3 | 12.0 | 12.1 | 18.7 | 10.4 | 10.4 | 10.2 | 0.0 | 13.6 | 9.6 | 0.0 | 0.0 |
| LnGrp LOS | B | B | B | B | B | B | B | | B | A | | |
| Approach Vol, veh/h | | 549 | | | 545 | | | 363 | | | | 24 |
| Approach Delay, s/veh | | 12.9 | | | 12.4 | | | 12.7 | | | | 9.6 |
| Approach LOS | | B | | | B | | | B | | | | A |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.0 | 12.5 | | 12.5 | 6.9 | 13.5 | | 12.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.5 | 18.0 | | 18.0 | 5.0 | 18.5 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.3 | 5.9 | | 7.0 | 3.3 | 5.1 | | 2.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.1 | | 1.1 | 0.0 | 1.8 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 12.6 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
20: Mooney Blvd & Visalia Pkwy

5 Year plus Phase 1 w/ Mitigations

Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 313 | 221 | 177 | 253 | 238 | 186 | 843 | 86 | 657 | 113 |
| v/c Ratio | 1.19 | 0.50 | 0.32 | 0.61 | 0.24 | 0.74 | 0.89 | 0.67 | 0.48 | 0.19 |
| Control Delay | 153.9 | 31.2 | 2.9 | 42.5 | 21.8 | 59.3 | 44.0 | 66.8 | 28.4 | 0.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 153.9 | 31.2 | 2.9 | 42.5 | 21.8 | 59.3 | 44.0 | 66.8 | 28.4 | 0.7 |
| Queue Length 50th (ft) | ~99 | 99 | 0 | 63 | 47 | 48 | 211 | 43 | 101 | 0 |
| Queue Length 95th (ft) | #227 | 166 | 21 | 120 | 73 | #127 | #440 | #143 | 178 | 0 |
| Internal Link Dist (ft) | | 765 | | | 339 | | 249 | | 1110 | |
| Turn Bay Length (ft) | 180 | | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 263 | 785 | 799 | 531 | 1756 | 250 | 943 | 129 | 1369 | 590 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.19 | 0.28 | 0.22 | 0.48 | 0.14 | 0.74 | 0.89 | 0.67 | 0.48 | 0.19 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.































Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



















HCM 2010 Signalized Intersection Summary
20: Mooney Blvd & Visalia Pkwy

5 Year plus Phase 1 w/ Mitigations
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |   |  |  |   |   | |   |   | |   |    |  |
| Traffic Volume (veh/h) | 288 | 203 | 163 | 233 | 207 | 12 | 171 | 669 | 107 | 79 | 604 | 104 |
| Future Volume (veh/h) | 288 | 203 | 163 | 233 | 207 | 12 | 171 | 669 | 107 | 79 | 604 | 104 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 313 | 221 | 177 | 253 | 225 | 13 | 186 | 727 | 116 | 86 | 657 | 113 |
| Adj No. of Lanes | 2 | 1 | 1 | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 301 | 369 | 314 | 349 | 722 | 41 | 279 | 890 | 142 | 121 | 1415 | 441 |
| Arrive On Green | 0.09 | 0.20 | 0.20 | 0.10 | 0.21 | 0.21 | 0.08 | 0.29 | 0.29 | 0.07 | 0.28 | 0.28 |
| Sat Flow, veh/h | 3442 | 1863 | 1583 | 3442 | 3402 | 195 | 3442 | 3058 | 488 | 1774 | 5085 | 1583 |
| Grp Volume(v), veh/h | 313 | 221 | 177 | 253 | 116 | 122 | 186 | 421 | 422 | 86 | 657 | 113 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1863 | 1583 | 1721 | 1770 | 1828 | 1721 | 1770 | 1776 | 1774 | 1695 | 1583 |
| Q Serve(g_s), s | 6.3 | 7.8 | 7.3 | 5.1 | 4.0 | 4.0 | 3.8 | 15.9 | 16.0 | 3.4 | 7.7 | 4.0 |
| Cycle Q Clear(g_c), s | 6.3 | 7.8 | 7.3 | 5.1 | 4.0 | 4.0 | 3.8 | 15.9 | 16.0 | 3.4 | 7.7 | 4.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.11 | 1.00 | | 0.27 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 301 | 369 | 314 | 349 | 376 | 388 | 279 | 515 | 517 | 121 | 1415 | 441 |
| V/C Ratio(X) | 1.04 | 0.60 | 0.56 | 0.72 | 0.31 | 0.31 | 0.67 | 0.82 | 0.82 | 0.71 | 0.46 | 0.26 |
| Avail Cap(c_a), veh/h | 301 | 893 | 759 | 606 | 1006 | 1039 | 286 | 542 | 544 | 148 | 1558 | 485 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 32.9 | 26.3 | 26.1 | 31.4 | 24.0 | 24.0 | 32.2 | 23.8 | 23.8 | 32.9 | 21.6 | 20.2 |
| Incr Delay (d2), s/veh | 63.2 | 4.7 | 4.8 | 1.1 | 1.4 | 1.3 | 4.4 | 13.0 | 13.0 | 8.0 | 1.0 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.6 | 4.5 | 3.6 | 2.5 | 2.1 | 2.2 | 2.0 | 9.6 | 9.6 | 1.9 | 3.7 | 1.9 |
| LnGrp Delay(d),s/veh | 96.1 | 31.1 | 31.0 | 32.5 | 25.3 | 25.3 | 36.6 | 36.8 | 36.8 | 40.9 | 22.6 | 21.5 |
| LnGrp LOS | F | C | C | C | C | C | D | D | D | D | C | C |
| Approach Vol, veh/h | | 711 | | | 491 | | | 1029 | | | 856 | |
| Approach Delay, s/veh | | 59.7 | | | 29.0 | | | 36.8 | | | 24.3 | |
| Approach LOS | | E | | | C | | | D | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.6 | 27.8 | 13.0 | 20.7 | 11.6 | 26.9 | 12.0 | 21.7 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | * 5.7 | 6.4 | * 5.7 | 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 22.1 | * 13 | 34.6 | * 6 | 22.1 | * 6.3 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.4 | 18.0 | 7.1 | 9.8 | 5.8 | 9.7 | 8.3 | 6.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 3.0 | 0.2 | 4.5 | 0.0 | 7.2 | 0.0 | 3.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 37.3 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |



















HCM 2010 Signalized Intersection Summary
23: Mooney Blvd & Ave 272

5 Year plus Phase 1 w/ Mitigations
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 33 | 7 | 149 | 30 | 19 | 16 | 50 | 1004 | 23 | 9 | 801 | 36 |
| Future Volume (veh/h) | 33 | 7 | 149 | 30 | 19 | 16 | 50 | 1004 | 23 | 9 | 801 | 36 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 36 | 8 | 162 | 33 | 21 | 17 | 54 | 1091 | 25 | 10 | 871 | 39 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 147 | 30 | 231 | 242 | 138 | 75 | 102 | 1546 | 35 | 23 | 1355 | 61 |
| Arrive On Green | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.06 | 0.44 | 0.44 | 0.01 | 0.39 | 0.39 |
| Sat Flow, veh/h | 178 | 159 | 1241 | 535 | 741 | 402 | 1774 | 3537 | 81 | 1774 | 3451 | 154 |
| Grp Volume(v), veh/h | 206 | 0 | 0 | 71 | 0 | 0 | 54 | 546 | 570 | 10 | 447 | 463 |
| Grp Sat Flow(s),veh/h/ln | 1579 | 0 | 0 | 1677 | 0 | 0 | 1774 | 1770 | 1848 | 1774 | 1770 | 1835 |
| Q Serve(g_s), s | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 9.3 | 9.3 | 0.2 | 7.6 | 7.6 |
| Cycle Q Clear(g_c), s | 4.5 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 1.1 | 9.3 | 9.3 | 0.2 | 7.6 | 7.6 |
| Prop In Lane | 0.17 | | 0.79 | 0.46 | | 0.24 | 1.00 | | 0.04 | 1.00 | | 0.08 |
| Lane Grp Cap(c), veh/h | 408 | 0 | 0 | 454 | 0 | 0 | 102 | 773 | 808 | 23 | 695 | 721 |
| V/C Ratio(X) | 0.51 | 0.00 | 0.00 | 0.16 | 0.00 | 0.00 | 0.53 | 0.71 | 0.71 | 0.43 | 0.64 | 0.64 |
| Avail Cap(c_a), veh/h | 874 | 0 | 0 | 888 | 0 | 0 | 244 | 1110 | 1160 | 244 | 1110 | 1152 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.1 | 0.0 | 0.0 | 12.8 | 0.0 | 0.0 | 17.0 | 8.5 | 8.5 | 18.2 | 9.2 | 9.2 |
| Incr Delay (d2), s/veh | 1.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 4.2 | 1.2 | 1.1 | 11.8 | 1.0 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.1 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.7 | 4.7 | 4.9 | 0.2 | 3.8 | 3.9 |
| LnGrp Delay(d),s/veh | 15.1 | 0.0 | 0.0 | 13.0 | 0.0 | 0.0 | 21.2 | 9.7 | 9.7 | 30.0 | 10.2 | 10.1 |
| LnGrp LOS | B | | | B | | | C | A | A | C | B | B |
| Approach Vol, veh/h | | 206 | | | 71 | | | 1170 | | | 920 | |
| Approach Delay, s/veh | | 15.1 | | | 13.0 | | | 10.2 | | | 10.4 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.0 | 20.7 | | 11.4 | 6.6 | 19.1 | | 11.4 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 23.3 | | 18.1 | 5.1 | 23.3 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 11.3 | | 6.5 | 3.1 | 9.6 | | 3.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.9 | | 0.9 | 0.0 | 4.2 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 10.8 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |












HCM 2010 Signalized Intersection Summary
5: Dans St & Caldwell Ave

5 Year plus Phase 1 w/ Mitigations
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  | |
| Traffic Volume (veh/h) | 24 | 1069 | 42 | 34 | 869 | 20 | 17 | 0 | 32 | 18 | 0 | 35 |
| Future Volume (veh/h) | 24 | 1069 | 42 | 34 | 869 | 20 | 17 | 0 | 32 | 18 | 0 | 35 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 25 | 1114 | 44 | 35 | 905 | 21 | 18 | 0 | 33 | 19 | 0 | 36 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 55 | 1641 | 65 | 73 | 1707 | 40 | 187 | 7 | 95 | 185 | 6 | 96 |
| Arrive On Green | 0.03 | 0.47 | 0.47 | 0.04 | 0.48 | 0.48 | 0.09 | 0.00 | 0.09 | 0.09 | 0.00 | 0.09 |
| Sat Flow, veh/h | 1774 | 3471 | 137 | 1774 | 3533 | 82 | 486 | 73 | 1026 | 478 | 67 | 1034 |
| Grp Volume(v), veh/h | 25 | 568 | 590 | 35 | 453 | 473 | 51 | 0 | 0 | 55 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1839 | 1774 | 1770 | 1846 | 1585 | 0 | 0 | 1580 | 0 | 0 |
| Q Serve(g_s), s | 0.5 | 8.6 | 8.6 | 0.7 | 6.1 | 6.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.5 | 8.6 | 8.6 | 0.7 | 6.1 | 6.1 | 0.9 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.07 | 1.00 | | 0.04 | 0.35 | | 0.65 | 0.35 | | 0.65 |
| Lane Grp Cap(c), veh/h | 55 | 837 | 869 | 73 | 855 | 892 | 289 | 0 | 0 | 287 | 0 | 0 |
| V/C Ratio(X) | 0.46 | 0.68 | 0.68 | 0.48 | 0.53 | 0.53 | 0.18 | 0.00 | 0.00 | 0.19 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 264 | 1201 | 1248 | 264 | 1201 | 1253 | 940 | 0 | 0 | 940 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 16.4 | 7.0 | 7.0 | 16.1 | 6.2 | 6.2 | 14.6 | 0.0 | 0.0 | 14.6 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.8 | 1.0 | 0.9 | 4.7 | 0.5 | 0.5 | 0.3 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 4.3 | 4.5 | 0.4 | 3.0 | 3.1 | 0.5 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 22.2 | 8.0 | 8.0 | 20.8 | 6.7 | 6.7 | 14.9 | 0.0 | 0.0 | 14.9 | 0.0 | 0.0 |
| LnGrp LOS | C | A | A | C | A | A | B | | | B | | |
| Approach Vol, veh/h | | 1183 | | | 961 | | | 51 | | | | 55 |
| Approach Delay, s/veh | | 8.3 | | | 7.2 | | | 14.9 | | | | 14.9 |
| Approach LOS | | A | | | A | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.9 | 20.7 | | 7.7 | 5.6 | 21.1 | | 7.7 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 23.3 | | 18.1 | 5.1 | 23.3 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.7 | 10.6 | | 2.9 | 2.5 | 8.1 | | 3.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.6 | | 0.2 | 0.0 | 4.7 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 8.1 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |





















HCM 2010 Signalized Intersection Summary
 13: Stonebrook St & Cameron Ave

5 Year plus Phase 1 w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  | | |
|------------------------------|---|---|---|---|---|---|---|---|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR | | |
| Lane Configurations |  | |  |  |  |  | | |
| Traffic Volume (veh/h) | 649 | 39 | 274 | 577 | 12 | 353 | | |
| Future Volume (veh/h) | 649 | 39 | 274 | 577 | 12 | 353 | | |
| Number | 2 | 12 | 1 | 6 | 7 | 14 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | | 1.00 | 1.00 | | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 669 | 40 | 282 | 595 | 12 | 364 | | |
| Adj No. of Lanes | 1 | 0 | 1 | 1 | 1 | 1 | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 739 | 44 | 323 | 1235 | 399 | 356 | | |
| Arrive On Green | 0.42 | 0.42 | 0.18 | 0.66 | 0.23 | 0.23 | | |
| Sat Flow, veh/h | 1740 | 104 | 1774 | 1863 | 1774 | 1583 | | |
| Grp Volume(v), veh/h | 0 | 709 | 282 | 595 | 12 | 364 | | |
| Grp Sat Flow(s),veh/h/ln | 0 | 1844 | 1774 | 1863 | 1774 | 1583 | | |
| Q Serve(g_s), s | 0.0 | 28.9 | 12.4 | 12.7 | 0.4 | 18.1 | | |
| Cycle Q Clear(g_c), s | 0.0 | 28.9 | 12.4 | 12.7 | 0.4 | 18.1 | | |
| Prop In Lane | | 0.06 | 1.00 | | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 0 | 784 | 323 | 1235 | 399 | 356 | | |
| V/C Ratio(X) | 0.00 | 0.90 | 0.87 | 0.48 | 0.03 | 1.02 | | |
| Avail Cap(c_a), veh/h | 0 | 938 | 386 | 1457 | 399 | 356 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 0.0 | 21.6 | 32.0 | 6.7 | 24.3 | 31.2 | | |
| Incr Delay (d2), s/veh | 0.0 | 10.8 | 17.0 | 0.3 | 0.0 | 53.3 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 0.0 | 16.9 | 7.6 | 6.5 | 0.2 | 13.1 | | |
| LnGrp Delay(d),s/veh | 0.0 | 32.4 | 49.0 | 7.0 | 24.3 | 84.5 | | |
| LnGrp LOS | | C | D | A | C | F | | |
| Approach Vol, veh/h | 709 | | | 877 | 376 | | | |
| Approach Delay, s/veh | 32.4 | | | 20.5 | 82.5 | | | |
| Approach LOS | C | | | C | F | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | 1 | 2 | | 4 | | 6 | | |
| Phs Duration (G+Y+Rc), s | 19.2 | 38.7 | | 22.6 | | 57.8 | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | |
| Max Green Setting (Gmax), s | 17.5 | 40.9 | | 18.1 | | 62.9 | | |
| Max Q Clear Time (g_c+I1), s | 14.4 | 30.9 | | 20.1 | | 14.7 | | |
| Green Ext Time (p_c), s | 0.2 | 3.3 | | 0.0 | | 4.0 | | |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 36.7 | | | | | |
| HCM 2010 LOS | | | D | | | | | |



















HCM 2010 Signalized Intersection Summary
 14: West St & Cameron Ave

5 Year plus Phase 1 w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  |  |
| Traffic Volume (veh/h) | 185 | 735 | 20 | 10 | 579 | 9 | 11 | 6 | 3 | 6 | 7 | 200 |
| Future Volume (veh/h) | 185 | 735 | 20 | 10 | 579 | 9 | 11 | 6 | 3 | 6 | 7 | 200 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 191 | 758 | 21 | 10 | 597 | 9 | 11 | 6 | 3 | 6 | 7 | 206 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 243 | 941 | 26 | 23 | 728 | 11 | 158 | 73 | 20 | 402 | 9 | 276 |
| Arrive On Green | 0.14 | 0.52 | 0.52 | 0.01 | 0.40 | 0.40 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1774 | 1804 | 50 | 1774 | 1830 | 28 | 222 | 409 | 111 | 1400 | 52 | 1539 |
| Grp Volume(v), veh/h | 191 | 0 | 779 | 10 | 0 | 606 | 20 | 0 | 0 | 6 | 0 | 213 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1854 | 1774 | 0 | 1857 | 742 | 0 | 0 | 1400 | 0 | 1591 |
| Q Serve(g_s), s | 4.9 | 0.0 | 16.4 | 0.3 | 0.0 | 13.8 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 |
| Cycle Q Clear(g_c), s | 4.9 | 0.0 | 16.4 | 0.3 | 0.0 | 13.8 | 6.1 | 0.0 | 0.0 | 0.2 | 0.0 | 6.0 |
| Prop In Lane | 1.00 | | 0.03 | 1.00 | | 0.01 | 0.55 | | 0.15 | 1.00 | | 0.97 |
| Lane Grp Cap(c), veh/h | 243 | 0 | 967 | 23 | 0 | 738 | 251 | 0 | 0 | 402 | 0 | 286 |
| V/C Ratio(X) | 0.79 | 0.00 | 0.81 | 0.43 | 0.00 | 0.82 | 0.08 | 0.00 | 0.00 | 0.01 | 0.00 | 0.75 |
| Avail Cap(c_a), veh/h | 357 | 0 | 1311 | 188 | 0 | 1137 | 531 | 0 | 0 | 687 | 0 | 610 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.7 | 0.0 | 9.3 | 23.1 | 0.0 | 12.7 | 16.3 | 0.0 | 0.0 | 16.0 | 0.0 | 18.3 |
| Incr Delay (d2), s/veh | 6.9 | 0.0 | 2.7 | 12.3 | 0.0 | 2.9 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 3.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.9 | 0.0 | 9.0 | 0.2 | 0.0 | 7.5 | 0.2 | 0.0 | 0.0 | 0.1 | 0.0 | 2.9 |
| LnGrp Delay(d),s/veh | 26.6 | 0.0 | 12.0 | 35.4 | 0.0 | 15.6 | 16.4 | 0.0 | 0.0 | 16.0 | 0.0 | 22.2 |
| LnGrp LOS | C | | B | D | | B | B | | | B | | C |
| Approach Vol, veh/h | | 970 | | | 616 | | | 20 | | | 219 | |
| Approach Delay, s/veh | | 14.9 | | | 15.9 | | | 16.4 | | | 22.0 | |
| Approach LOS | | B | | | B | | | B | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.1 | 29.1 | | 13.0 | 11.0 | 23.3 | | 13.0 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 33.4 | | 18.1 | 9.5 | 28.9 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.3 | 18.4 | | 8.1 | 6.9 | 15.8 | | 8.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.5 | | 0.0 | 0.1 | 3.0 | | 0.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 16.1 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 17: Visalia Pkwy & Dans St

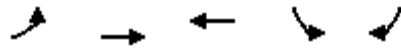
5 Year plus Phase 1 w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | | |  |
| Traffic Volume (veh/h) | 29 | 553 | 4 | 6 | 565 | 45 | 2 | 0 | 1 | 48 | 1 | 40 |
| Future Volume (veh/h) | 29 | 553 | 4 | 6 | 565 | 45 | 2 | 0 | 1 | 48 | 1 | 40 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 32 | 601 | 4 | 7 | 614 | 49 | 2 | 0 | 1 | 52 | 1 | 43 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 68 | 909 | 6 | 17 | 786 | 63 | 255 | 28 | 50 | 241 | 1 | 60 |
| Arrive On Green | 0.04 | 0.49 | 0.49 | 0.01 | 0.46 | 0.46 | 0.09 | 0.00 | 0.09 | 0.09 | 0.09 | 0.09 |
| Sat Flow, veh/h | 1774 | 1848 | 12 | 1774 | 1700 | 136 | 808 | 308 | 558 | 808 | 16 | 669 |
| Grp Volume(v), veh/h | 32 | 0 | 605 | 7 | 0 | 663 | 3 | 0 | 0 | 96 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1861 | 1774 | 0 | 1835 | 1674 | 0 | 0 | 1493 | 0 | 0 |
| Q Serve(g_s), s | 0.6 | 0.0 | 8.1 | 0.1 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.6 | 0.0 | 8.1 | 0.1 | 0.0 | 10.0 | 0.1 | 0.0 | 0.0 | 2.1 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 0.07 | 0.67 | | 0.33 | 0.54 | | 0.45 |
| Lane Grp Cap(c), veh/h | 68 | 0 | 915 | 17 | 0 | 849 | 333 | 0 | 0 | 303 | 0 | 0 |
| V/C Ratio(X) | 0.47 | 0.00 | 0.66 | 0.42 | 0.00 | 0.78 | 0.01 | 0.00 | 0.00 | 0.32 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 274 | 0 | 1312 | 274 | 0 | 1294 | 984 | 0 | 0 | 983 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 15.6 | 0.0 | 6.3 | 16.3 | 0.0 | 7.5 | 13.7 | 0.0 | 0.0 | 14.6 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 4.9 | 0.0 | 0.8 | 15.8 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.0 | 4.2 | 0.1 | 0.0 | 5.4 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 20.5 | 0.0 | 7.2 | 32.1 | 0.0 | 9.2 | 13.7 | 0.0 | 0.0 | 15.2 | 0.0 | 0.0 |
| LnGrp LOS | C | | A | C | | A | B | | | B | | |
| Approach Vol, veh/h | | 637 | | | 670 | | | 3 | | | | 96 |
| Approach Delay, s/veh | | 7.8 | | | 9.5 | | | 13.7 | | | | 15.2 |
| Approach LOS | | A | | | A | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.8 | 20.8 | | 7.5 | 5.8 | 19.8 | | 7.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 23.3 | | 18.1 | 5.1 | 23.3 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.1 | 10.1 | | 2.1 | 2.6 | 12.0 | | 4.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 3.0 | | 0.0 | 0.0 | 3.2 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.1 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |

Queues
18: Visalia Pkwy & County Center Dr

5 Year plus Phase 1 w/ Mitigations

Timing Plan: P.M. Peak



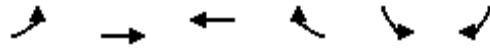
| Lane Group | EBL | EBT | WBT | SBL | SBR |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph) | 114 | 541 | 775 | 157 | 122 |
| v/c Ratio | 0.55 | 0.45 | 0.82 | 0.48 | 0.31 |
| Control Delay | 43.2 | 6.5 | 22.1 | 29.8 | 7.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 43.2 | 6.5 | 22.1 | 29.8 | 7.8 |
| Queue Length 50th (ft) | 45 | 75 | 225 | 58 | 0 |
| Queue Length 95th (ft) | #128 | 158 | #495 | 114 | 39 |
| Internal Link Dist (ft) | | 936 | 1674 | 772 | |
| Turn Bay Length (ft) | 200 | | | 190 | |
| Base Capacity (vph) | 207 | 1464 | 1180 | 577 | 598 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.55 | 0.37 | 0.66 | 0.27 | 0.20 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 18: Visalia Pkwy & County Center Dr

5 Year plus Phase 1 w/ Mitigations
 Timing Plan: P.M. Peak






















| Movement | EBL | EBT | WBT | WBR | SBL | SBR | | |
|------------------------------|------|------|------|------|------|------|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (veh/h) | 105 | 498 | 513 | 200 | 144 | 112 | | |
| Future Volume (veh/h) | 105 | 498 | 513 | 200 | 144 | 112 | | |
| Number | 5 | 2 | 6 | 16 | 7 | 14 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 114 | 541 | 558 | 217 | 157 | 122 | | |
| Adj No. of Lanes | 1 | 1 | 1 | 0 | 1 | 1 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 146 | 1279 | 657 | 256 | 237 | 212 | | |
| Arrive On Green | 0.08 | 0.69 | 0.51 | 0.51 | 0.13 | 0.13 | | |
| Sat Flow, veh/h | 1774 | 1863 | 1278 | 497 | 1774 | 1583 | | |
| Grp Volume(v), veh/h | 114 | 541 | 0 | 775 | 157 | 122 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 0 | 1775 | 1774 | 1583 | | |
| Q Serve(g_s), s | 3.2 | 6.4 | 0.0 | 18.9 | 4.2 | 3.6 | | |
| Cycle Q Clear(g_c), s | 3.2 | 6.4 | 0.0 | 18.9 | 4.2 | 3.6 | | |
| Prop In Lane | 1.00 | | | 0.28 | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 146 | 1279 | 0 | 913 | 237 | 212 | | |
| V/C Ratio(X) | 0.78 | 0.42 | 0.00 | 0.85 | 0.66 | 0.58 | | |
| Avail Cap(c_a), veh/h | 230 | 1781 | 0 | 1307 | 641 | 572 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 22.5 | 3.5 | 0.0 | 10.5 | 20.6 | 20.4 | | |
| Incr Delay (d2), s/veh | 8.7 | 0.2 | 0.0 | 3.8 | 3.1 | 2.5 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 1.9 | 3.2 | 0.0 | 10.0 | 2.3 | 3.3 | | |
| LnGrp Delay(d),s/veh | 31.2 | 3.7 | 0.0 | 14.3 | 23.8 | 22.8 | | |
| LnGrp LOS | C | A | | B | C | C | | |
| Approach Vol, veh/h | | 655 | 775 | | 279 | | | |
| Approach Delay, s/veh | | 8.5 | 14.3 | | 23.3 | | | |
| Approach LOS | | A | B | | C | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | 4 | 5 | 6 | | |
| Phs Duration (G+Y+Rc), s | | 38.9 | | 11.2 | 8.6 | 30.3 | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 | | |
| Max Green Setting (Gmax), s | | 47.9 | | 18.1 | 6.5 | 36.9 | | |
| Max Q Clear Time (g_c+I1), s | | 8.4 | | 6.2 | 5.2 | 20.9 | | |
| Green Ext Time (p_c), s | | 3.6 | | 0.6 | 0.0 | 4.9 | | |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 13.5 | | | | | |
| HCM 2010 LOS | | | B | | | | | |

HCM 2010 Signalized Intersection Summary
 19: Main Site Access/Target Dwy & Visalia Pkwy

5 Year plus Phase 1 w/ Mitigations

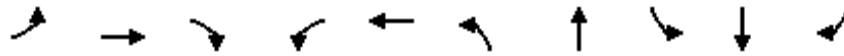
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  |  | |  | |
| Traffic Volume (veh/h) | 107 | 498 | 74 | 161 | 478 | 29 | 131 | 0 | 260 | 135 | 0 | 68 |
| Future Volume (veh/h) | 107 | 498 | 74 | 161 | 478 | 29 | 131 | 0 | 260 | 135 | 0 | 68 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 116 | 541 | 80 | 175 | 520 | 32 | 142 | 0 | 283 | 147 | 0 | 74 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 157 | 816 | 120 | 227 | 1028 | 63 | 550 | 0 | 454 | 305 | 28 | 96 |
| Arrive On Green | 0.09 | 0.26 | 0.26 | 0.13 | 0.30 | 0.30 | 0.29 | 0.00 | 0.29 | 0.29 | 0.00 | 0.29 |
| Sat Flow, veh/h | 1774 | 3096 | 456 | 1774 | 3387 | 208 | 1318 | 0 | 1583 | 567 | 98 | 335 |
| Grp Volume(v), veh/h | 116 | 309 | 312 | 175 | 271 | 281 | 142 | 0 | 283 | 221 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1782 | 1774 | 1770 | 1826 | 1318 | 0 | 1583 | 999 | 0 | 0 |
| Q Serve(g_s), s | 2.7 | 6.5 | 6.6 | 4.0 | 5.3 | 5.3 | 0.0 | 0.0 | 6.5 | 5.7 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.7 | 6.5 | 6.6 | 4.0 | 5.3 | 5.3 | 3.6 | 0.0 | 6.5 | 9.3 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.26 | 1.00 | | 0.11 | 1.00 | | 1.00 | 0.67 | | 0.33 |
| Lane Grp Cap(c), veh/h | 157 | 466 | 470 | 227 | 537 | 554 | 550 | 0 | 454 | 429 | 0 | 0 |
| V/C Ratio(X) | 0.74 | 0.66 | 0.67 | 0.77 | 0.51 | 0.51 | 0.26 | 0.00 | 0.62 | 0.51 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 401 | 759 | 764 | 444 | 801 | 826 | 737 | 0 | 679 | 602 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 18.7 | 13.8 | 13.8 | 17.7 | 12.0 | 12.0 | 12.0 | 0.0 | 13.0 | 14.5 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 6.7 | 1.6 | 1.6 | 5.5 | 0.7 | 0.7 | 0.2 | 0.0 | 1.4 | 1.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 3.4 | 3.4 | 2.3 | 2.7 | 2.8 | 1.3 | 0.0 | 3.0 | 2.5 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 25.4 | 15.4 | 15.4 | 23.2 | 12.8 | 12.8 | 12.2 | 0.0 | 14.4 | 15.5 | 0.0 | 0.0 |
| LnGrp LOS | C | B | B | C | B | B | B | | B | B | | |
| Approach Vol, veh/h | | 737 | | | 727 | | | 425 | | | 221 | |
| Approach Delay, s/veh | | 17.0 | | | 15.3 | | | 13.7 | | | 15.5 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.9 | 15.6 | | 16.5 | 8.2 | 17.2 | | 16.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 10.5 | 18.0 | | 18.0 | 9.5 | 19.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.0 | 8.6 | | 8.5 | 4.7 | 7.3 | | 11.3 | | | | |
| Green Ext Time (p_c), s | 0.2 | 2.5 | | 1.3 | 0.1 | 2.4 | | 0.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 15.6 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
20: Mooney Blvd & Visalia Pkwy

5 Year plus Phase 1 w/ Mitigations

Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 492 | 322 | 233 | 280 | 293 | 269 | 1103 | 144 | 1085 | 155 |
| v/c Ratio | 0.96 | 0.73 | 0.43 | 0.76 | 0.43 | 0.65 | 0.83 | 0.76 | 0.58 | 0.23 |
| Control Delay | 94.7 | 62.3 | 7.1 | 78.5 | 48.8 | 70.8 | 48.3 | 89.1 | 40.8 | 5.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 94.7 | 62.3 | 7.1 | 78.5 | 48.8 | 70.8 | 48.3 | 89.1 | 40.8 | 5.5 |
| Queue Length 50th (ft) | 250 | 292 | 0 | 139 | 121 | 131 | 522 | 136 | 313 | 0 |
| Queue Length 95th (ft) | #364 | 376 | 64 | 187 | 154 | 181 | #707 | #281 | 406 | 49 |
| Internal Link Dist (ft) | | 765 | | | 337 | | 245 | | 1110 | |
| Turn Bay Length (ft) | 180 | | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 510 | 548 | 624 | 437 | 950 | 416 | 1327 | 189 | 1884 | 680 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.96 | 0.59 | 0.37 | 0.64 | 0.31 | 0.65 | 0.83 | 0.76 | 0.58 | 0.23 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



















HCM 2010 Signalized Intersection Summary
20: Mooney Blvd & Visalia Pkwy

5 Year plus Phase 1 w/ Mitigations
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 458 | 299 | 217 | 260 | 212 | 60 | 250 | 786 | 240 | 134 | 1009 | 144 |
| Future Volume (veh/h) | 458 | 299 | 217 | 260 | 212 | 60 | 250 | 786 | 240 | 134 | 1009 | 144 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 492 | 322 | 233 | 280 | 228 | 65 | 269 | 845 | 258 | 144 | 1085 | 155 |
| Adj No. of Lanes | 2 | 1 | 1 | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 512 | 400 | 336 | 327 | 453 | 126 | 761 | 1156 | 353 | 157 | 1488 | 457 |
| Arrive On Green | 0.15 | 0.21 | 0.21 | 0.10 | 0.17 | 0.17 | 0.22 | 0.43 | 0.43 | 0.09 | 0.29 | 0.29 |
| Sat Flow, veh/h | 3442 | 1863 | 1563 | 3442 | 2728 | 758 | 3442 | 2672 | 815 | 1774 | 5085 | 1562 |
| Grp Volume(v), veh/h | 492 | 322 | 233 | 280 | 146 | 147 | 269 | 559 | 544 | 144 | 1085 | 155 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1863 | 1563 | 1721 | 1770 | 1717 | 1721 | 1770 | 1718 | 1774 | 1695 | 1562 |
| Q Serve(g_s), s | 21.3 | 24.6 | 20.6 | 12.0 | 11.2 | 11.7 | 9.9 | 39.3 | 39.4 | 12.1 | 28.8 | 7.9 |
| Cycle Q Clear(g_c), s | 21.3 | 24.6 | 20.6 | 12.0 | 11.2 | 11.7 | 9.9 | 39.3 | 39.4 | 12.1 | 28.8 | 7.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.44 | 1.00 | | 0.47 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 512 | 400 | 336 | 327 | 294 | 285 | 761 | 765 | 743 | 157 | 1488 | 457 |
| V/C Ratio(X) | 0.96 | 0.80 | 0.69 | 0.86 | 0.50 | 0.52 | 0.35 | 0.73 | 0.73 | 0.92 | 0.73 | 0.34 |
| Avail Cap(c_a), veh/h | 512 | 549 | 460 | 438 | 484 | 469 | 761 | 765 | 743 | 157 | 1488 | 457 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.82 | 0.82 | 0.82 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.77 | 0.77 | 0.77 |
| Uniform Delay (d), s/veh | 63.4 | 55.9 | 54.3 | 66.9 | 56.8 | 57.0 | 49.3 | 35.3 | 35.3 | 67.8 | 47.7 | 18.8 |
| Incr Delay (d2), s/veh | 26.5 | 9.8 | 6.4 | 9.5 | 3.7 | 4.2 | 0.1 | 6.1 | 6.3 | 39.4 | 2.4 | 1.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 12.0 | 13.8 | 9.5 | 6.1 | 5.8 | 5.9 | 4.7 | 20.6 | 20.0 | 7.6 | 13.8 | 4.7 |
| LnGrp Delay(d),s/veh | 89.9 | 65.7 | 60.7 | 76.4 | 60.6 | 61.2 | 49.4 | 41.4 | 41.6 | 107.2 | 50.1 | 20.4 |
| LnGrp LOS | F | E | E | E | E | E | D | D | D | F | D | C |
| Approach Vol, veh/h | | 1047 | | | 573 | | | 1372 | | | 1384 | |
| Approach Delay, s/veh | | 76.0 | | | 68.5 | | | 43.1 | | | 52.7 | |
| Approach LOS | | E | | | E | | | D | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 19.0 | 71.7 | 20.7 | 38.6 | 40.0 | 50.7 | 28.0 | 31.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | 6.4 | * 6.4 | 6.8 | * 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 13 | 48.8 | 19.1 | * 44 | 18.2 | * 44 | * 22 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 14.1 | 41.4 | 14.0 | 26.6 | 11.9 | 30.8 | 23.3 | 13.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.1 | 0.2 | 5.6 | 0.3 | 10.5 | 0.0 | 3.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 57.3 | | | | | | | | | |
| HCM 2010 LOS | | | E | | | | | | | | | |
| Notes | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 23: Mooney Blvd & Ave 272

5 Year plus Phase 1 w/ Mitigations
 Timing Plan: P.M. Peak






















| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 37 | 4 | 28 | 2 | 3 | 34 | 143 | 1338 | 60 | 27 | 1376 | 61 |
| Future Volume (veh/h) | 37 | 4 | 28 | 2 | 3 | 34 | 143 | 1338 | 60 | 27 | 1376 | 61 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 39 | 4 | 29 | 2 | 3 | 36 | 151 | 1408 | 63 | 28 | 1448 | 64 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 171 | 11 | 49 | 77 | 12 | 112 | 194 | 2164 | 97 | 57 | 1899 | 84 |
| Arrive On Green | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.11 | 0.63 | 0.63 | 0.03 | 0.55 | 0.55 |
| Sat Flow, veh/h | 801 | 136 | 632 | 47 | 152 | 1433 | 1774 | 3451 | 154 | 1774 | 3453 | 152 |
| Grp Volume(v), veh/h | 72 | 0 | 0 | 41 | 0 | 0 | 151 | 721 | 750 | 28 | 740 | 772 |
| Grp Sat Flow(s),veh/h/ln | 1570 | 0 | 0 | 1632 | 0 | 0 | 1774 | 1770 | 1836 | 1774 | 1770 | 1836 |
| Q Serve(g_s), s | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.3 | 13.2 | 13.2 | 0.8 | 16.6 | 16.8 |
| Cycle Q Clear(g_c), s | 2.1 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | 4.3 | 13.2 | 13.2 | 0.8 | 16.6 | 16.8 |
| Prop In Lane | 0.54 | | 0.40 | 0.05 | | 0.88 | 1.00 | | 0.08 | 1.00 | | 0.08 |
| Lane Grp Cap(c), veh/h | 230 | 0 | 0 | 201 | 0 | 0 | 194 | 1110 | 1151 | 57 | 973 | 1009 |
| V/C Ratio(X) | 0.31 | 0.00 | 0.00 | 0.20 | 0.00 | 0.00 | 0.78 | 0.65 | 0.65 | 0.49 | 0.76 | 0.76 |
| Avail Cap(c_a), veh/h | 633 | 0 | 0 | 637 | 0 | 0 | 328 | 1492 | 1547 | 176 | 1340 | 1390 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.8 | 0.0 | 0.0 | 22.4 | 0.0 | 0.0 | 22.3 | 6.0 | 6.0 | 24.4 | 8.9 | 9.0 |
| Incr Delay (d2), s/veh | 0.8 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 6.6 | 0.6 | 0.6 | 6.4 | 1.7 | 1.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 2.4 | 6.4 | 6.7 | 0.5 | 8.5 | 8.8 |
| LnGrp Delay(d),s/veh | 23.5 | 0.0 | 0.0 | 22.9 | 0.0 | 0.0 | 28.9 | 6.7 | 6.7 | 30.9 | 10.7 | 10.7 |
| LnGrp LOS | C | | | C | | | C | A | A | C | B | B |
| Approach Vol, veh/h | | 72 | | | 41 | | | 1622 | | | 1540 | |
| Approach Delay, s/veh | | 23.5 | | | 22.9 | | | 8.7 | | | 11.1 | |
| Approach LOS | | C | | | C | | | A | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.1 | 36.7 | | 8.5 | 10.1 | 32.7 | | 8.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 43.3 | | 18.1 | 9.5 | 38.9 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.8 | 15.2 | | 4.1 | 6.3 | 18.8 | | 3.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.6 | | 0.2 | 0.1 | 9.5 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 10.3 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Ten-Year plus Project Impacts and Mitigation Measures

| Location | Impact | Mitigation Measure | Notes |
|--|---|---|-------------------------------------|
| Intersection #3: Mooney Boulevard/Sunnyside Avenue | Addition of project traffic will exacerbate the delay by more than 5.0 as the intersection is already operating at LOS E during the p.m. peak hour. | Optimization of signal timings will improve the LOS to acceptable levels during the p.m. peak hour. <i>Requires Caltrans approval and coordination.</i> | Project to provide contribution |
| Intersection #4: Mooney Boulevard/Orchard Avenue | Addition of project traffic will exacerbate the delay by more than 5.0 as the intersection is already operating at LOS E during the p.m. peak hour. | Optimization of signal timings will improve the LOS to acceptable levels during the p.m. peak hour. <i>Requires Caltrans approval and coordination.</i> | Project to provide contribution |
| Intersection #5: Caldwell Avenue/Dans Street | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS F during the a.m. and p.m. peak hours. | Same as Existing plus Project Mitigation. | Project to provide contribution |
| Intersection #7: Mooney Boulevard/Caldwell Avenue | Addition of project traffic will increase the queue of the northbound left-turn in the p.m. peak hour. | Optimization of signal timings will mitigate the queue lengths during the p.m. peak hour. <i>Requires Caltrans approval and coordination.</i> | Project to provide contribution |
| Intersection #13: Cameron Avenue/Stonebrook Street | Addition of project traffic will cause the LOS to drop from LOS D to LOS E in the a.m. peak hour and LOS F in the p.m. peak hour. | Same as Five-Year plus Phase 1 Mitigation. | TIF-eligible project |
| Intersection #14: Cameron Ave/West Street | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS F during the p.m. peak hour. | Same as Existing plus Project Mitigation. | TIF-eligible project |
| Intersection #18: Visalia Parkway/County Center Drive | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS E during the p.m. peak hour. | Same as Existing plus Project Mitigation. | Project to provide contribution |
| Intersection #19: Visalia Parkway/Main Site Access-Target Driveway | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS F during the a.m. and p.m. peak hour. | Same as Five-Year plus Phase 1 Mitigation. | Project to provide contribution |
| Intersection #20: Visalia Parkway/Mooney Boulevard | Addition of project traffic will cause the LOS to drop from LOS D to LOS F in the p.m. peak hour. The NBL and SBL queues are also expected to exceed storage lengths. | Same as Existing plus Project Mitigation. | Intersection included in City's CIP |
| Intersection #23: Mooney Boulevard/Avenue 272 | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS F during the a.m. and p.m. peak hours. | Same as Existing plus Project Mitigation. | TIF-eligible project |

HCM 2010 Signalized Intersection Summary
3: Mooney Blvd & Sunnyside Ave























10 Year plus Project w/ Mitigations
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 44 | 0 | 14 | 10 | 0 | 32 | 40 | 763 | 10 | 88 | 696 | 54 |
| Future Volume (veh/h) | 44 | 0 | 14 | 10 | 0 | 32 | 40 | 763 | 10 | 88 | 696 | 54 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 46 | 0 | 15 | 11 | 0 | 34 | 42 | 803 | 11 | 93 | 733 | 57 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 99 | 0 | 225 | 30 | 0 | 163 | 93 | 1557 | 21 | 152 | 1609 | 124 |
| Arrive On Green | 0.06 | 0.00 | 0.14 | 0.02 | 0.00 | 0.10 | 0.05 | 0.30 | 0.30 | 0.09 | 0.33 | 0.33 |
| Sat Flow, veh/h | 1774 | 0 | 1577 | 1774 | 0 | 1580 | 1774 | 5167 | 71 | 1774 | 4814 | 372 |
| Grp Volume(v), veh/h | 46 | 0 | 15 | 11 | 0 | 34 | 42 | 527 | 287 | 93 | 515 | 275 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1577 | 1774 | 0 | 1580 | 1774 | 1695 | 1848 | 1774 | 1695 | 1796 |
| Q Serve(g_s), s | 1.3 | 0.0 | 0.4 | 0.3 | 0.0 | 1.0 | 1.2 | 6.7 | 6.7 | 2.6 | 6.2 | 6.2 |
| Cycle Q Clear(g_c), s | 1.3 | 0.0 | 0.4 | 0.3 | 0.0 | 1.0 | 1.2 | 6.7 | 6.7 | 2.6 | 6.2 | 6.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.04 | 1.00 | | 0.21 |
| Lane Grp Cap(c), veh/h | 99 | 0 | 225 | 30 | 0 | 163 | 93 | 1021 | 557 | 152 | 1133 | 600 |
| V/C Ratio(X) | 0.46 | 0.00 | 0.07 | 0.37 | 0.00 | 0.21 | 0.45 | 0.52 | 0.52 | 0.61 | 0.45 | 0.46 |
| Avail Cap(c_a), veh/h | 216 | 0 | 1167 | 206 | 0 | 1160 | 226 | 1499 | 817 | 319 | 1676 | 888 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.7 | 0.0 | 19.2 | 25.2 | 0.0 | 21.3 | 23.8 | 15.0 | 15.0 | 22.9 | 13.5 | 13.6 |
| Incr Delay (d2), s/veh | 1.2 | 0.0 | 0.1 | 2.7 | 0.0 | 0.5 | 1.3 | 0.8 | 1.4 | 1.5 | 0.6 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 0.2 | 0.2 | 0.0 | 0.5 | 0.6 | 3.2 | 3.6 | 1.3 | 2.9 | 3.2 |
| LnGrp Delay(d),s/veh | 24.9 | 0.0 | 19.3 | 27.9 | 0.0 | 21.7 | 25.1 | 15.8 | 16.4 | 24.4 | 14.1 | 14.6 |
| LnGrp LOS | C | | B | C | | C | C | B | B | C | B | B |
| Approach Vol, veh/h | | 61 | | | 45 | | | 856 | | | 883 | |
| Approach Delay, s/veh | | 23.5 | | | 23.2 | | | 16.4 | | | 15.3 | |
| Approach LOS | | C | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.1 | 22.0 | 6.6 | 13.1 | 8.4 | 23.7 | 8.6 | 11.1 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | * 5.7 | 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 9.3 | 22.9 | * 6 | * 38 | * 6.6 | 25.6 | * 6.3 | * 38 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.6 | 8.7 | 2.3 | 2.4 | 3.2 | 8.2 | 3.3 | 3.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.7 | 0.0 | 0.0 | 0.0 | 7.4 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 16.3 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



















HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

10 Year plus Project w/ Mitigations
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 3 | 0 | 1 | 18 | 0 | 23 | 10 | 753 | 27 | 63 | 633 | 5 |
| Future Volume (veh/h) | 3 | 0 | 1 | 18 | 0 | 23 | 10 | 753 | 27 | 63 | 633 | 5 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 3 | 0 | 1 | 19 | 0 | 24 | 11 | 793 | 28 | 66 | 666 | 5 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 22 | 0 | 82 | 43 | 0 | 103 | 1481 | 3286 | 1020 | 87 | 1312 | 408 |
| Arrive On Green | 0.01 | 0.00 | 0.05 | 0.02 | 0.00 | 0.07 | 0.43 | 0.65 | 0.65 | 0.05 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 0 | 1548 | 1774 | 0 | 1583 | 3442 | 5085 | 1578 | 1774 | 5085 | 1581 |
| Grp Volume(v), veh/h | 3 | 0 | 1 | 19 | 0 | 24 | 11 | 793 | 28 | 66 | 666 | 5 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1548 | 1774 | 0 | 1583 | 1721 | 1695 | 1578 | 1774 | 1695 | 1581 |
| Q Serve(g_s), s | 0.2 | 0.0 | 0.1 | 1.1 | 0.0 | 1.5 | 0.2 | 6.9 | 0.4 | 3.9 | 11.7 | 0.2 |
| Cycle Q Clear(g_c), s | 0.2 | 0.0 | 0.1 | 1.1 | 0.0 | 1.5 | 0.2 | 6.9 | 0.4 | 3.9 | 11.7 | 0.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 22 | 0 | 82 | 43 | 0 | 103 | 1481 | 3286 | 1020 | 87 | 1312 | 408 |
| V/C Ratio(X) | 0.14 | 0.00 | 0.01 | 0.44 | 0.00 | 0.23 | 0.01 | 0.24 | 0.03 | 0.76 | 0.51 | 0.01 |
| Avail Cap(c_a), veh/h | 101 | 0 | 619 | 101 | 0 | 633 | 1481 | 3286 | 1020 | 101 | 1312 | 408 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.96 | 0.96 | 0.96 | 0.99 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 51.3 | 0.0 | 47.1 | 50.5 | 0.0 | 46.6 | 17.1 | 7.8 | 2.5 | 49.3 | 33.3 | 29.0 |
| Incr Delay (d2), s/veh | 1.1 | 0.0 | 0.0 | 2.6 | 0.0 | 0.8 | 0.0 | 0.2 | 0.0 | 19.8 | 1.4 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 0.0 | 0.0 | 0.6 | 0.0 | 0.7 | 0.1 | 3.2 | 0.3 | 2.4 | 5.7 | 0.1 |
| LnGrp Delay(d),s/veh | 52.4 | 0.0 | 47.1 | 53.1 | 0.0 | 47.4 | 17.1 | 8.0 | 2.5 | 69.2 | 34.6 | 29.0 |
| LnGrp LOS | D | | D | D | | D | B | A | A | E | C | C |
| Approach Vol, veh/h | | 4 | | | 43 | | | 832 | | | 737 | |
| Approach Delay, s/veh | | 51.1 | | | 49.9 | | | 7.9 | | | 37.7 | |
| Approach LOS | | D | | | D | | | A | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.8 | 74.3 | 8.3 | 11.7 | 51.6 | 33.5 | 7.0 | 12.9 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 6 | 27.1 | 6.0 | * 42 | 6.0 | * 27 | 6.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.9 | 8.9 | 3.1 | 2.1 | 2.2 | 13.7 | 2.2 | 3.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.6 | 0.0 | 0.0 | 0.0 | 5.6 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 22.7 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
5: Dans St & Caldwell Ave

10 Year plus Project w/ Mitigations
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  | |
| Traffic Volume (veh/h) | 40 | 732 | 81 | 59 | 719 | 34 | 57 | 0 | 95 | 10 | 0 | 21 |
| Future Volume (veh/h) | 40 | 732 | 81 | 59 | 719 | 34 | 57 | 0 | 95 | 10 | 0 | 21 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 45 | 822 | 91 | 66 | 808 | 38 | 64 | 0 | 107 | 11 | 0 | 24 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 90 | 1263 | 140 | 120 | 1414 | 66 | 213 | 17 | 152 | 177 | 37 | 177 |
| Arrive On Green | 0.05 | 0.39 | 0.39 | 0.07 | 0.41 | 0.41 | 0.16 | 0.00 | 0.16 | 0.16 | 0.00 | 0.16 |
| Sat Flow, veh/h | 1774 | 3206 | 355 | 1774 | 3441 | 162 | 467 | 106 | 958 | 277 | 236 | 1121 |
| Grp Volume(v), veh/h | 45 | 454 | 459 | 66 | 415 | 431 | 171 | 0 | 0 | 35 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1791 | 1774 | 1770 | 1833 | 1531 | 0 | 0 | 1634 | 0 | 0 |
| Q Serve(g_s), s | 0.9 | 7.4 | 7.4 | 1.3 | 6.4 | 6.4 | 2.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.9 | 7.4 | 7.4 | 1.3 | 6.4 | 6.4 | 3.7 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.20 | 1.00 | | 0.09 | 0.37 | | 0.63 | 0.31 | | 0.69 |
| Lane Grp Cap(c), veh/h | 90 | 697 | 706 | 120 | 727 | 753 | 382 | 0 | 0 | 392 | 0 | 0 |
| V/C Ratio(X) | 0.50 | 0.65 | 0.65 | 0.55 | 0.57 | 0.57 | 0.45 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 285 | 1142 | 1156 | 275 | 1132 | 1173 | 910 | 0 | 0 | 911 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 16.4 | 8.8 | 8.8 | 16.0 | 8.0 | 8.0 | 14.1 | 0.0 | 0.0 | 12.8 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 4.3 | 1.0 | 1.0 | 3.9 | 0.7 | 0.7 | 0.8 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 3.7 | 3.8 | 0.8 | 3.3 | 3.4 | 1.7 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 20.7 | 9.8 | 9.8 | 20.0 | 8.8 | 8.7 | 14.9 | 0.0 | 0.0 | 12.9 | 0.0 | 0.0 |
| LnGrp LOS | C | A | A | B | A | A | B | | | B | | |
| Approach Vol, veh/h | | 958 | | | 912 | | | 171 | | | 35 | |
| Approach Delay, s/veh | | 10.3 | | | 9.6 | | | 14.9 | | | 12.9 | |
| Approach LOS | | B | | | A | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.9 | 18.5 | | 10.1 | 6.3 | 19.1 | | 10.1 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.5 | 22.9 | | 18.1 | 5.7 | 22.7 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.3 | 9.4 | | 5.7 | 2.9 | 8.4 | | 2.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.5 | | 0.7 | 0.0 | 4.2 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 10.4 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

10 Year plus Project w/ Mitigations
Timing Plan: A.M. Peak














| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 160 | 522 | 122 | 495 | 137 | 633 | 104 | 65 | 580 | 81 |
| v/c Ratio | 0.59 | 0.54 | 0.45 | 0.53 | 0.69 | 0.24 | 0.12 | 0.38 | 0.23 | 0.10 |
| Control Delay | 66.4 | 41.8 | 61.9 | 46.2 | 77.7 | 20.2 | 3.3 | 66.2 | 21.3 | 1.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 66.4 | 41.8 | 61.9 | 46.2 | 77.7 | 20.2 | 3.3 | 66.2 | 21.3 | 1.1 |
| Queue Length 50th (ft) | 68 | 129 | 51 | 136 | 59 | 103 | 0 | 27 | 94 | 0 |
| Queue Length 95th (ft) | 103 | 134 | 82 | 139 | #102 | 183 | 28 | 53 | 170 | 7 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 279 | 1873 | 274 | 1813 | 200 | 2627 | 866 | 172 | 2494 | 830 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.57 | 0.28 | 0.45 | 0.27 | 0.69 | 0.24 | 0.12 | 0.38 | 0.23 | 0.10 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.





















HCM 2010 Signalized Intersection Summary
 13: Stonebrook St & Cameron Ave

10 Year plus Project w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  | | |
|------------------------------|---|---|---|---|---|---|---|---|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR | | |
| Lane Configurations |  | |  |  |  |  | | |
| Traffic Volume (veh/h) | 274 | 5 | 383 | 414 | 6 | 241 | | |
| Future Volume (veh/h) | 274 | 5 | 383 | 414 | 6 | 241 | | |
| Number | 2 | 12 | 1 | 6 | 7 | 14 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | | 1.00 | 1.00 | | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 298 | 5 | 416 | 450 | 7 | 262 | | |
| Adj No. of Lanes | 1 | 0 | 1 | 1 | 1 | 1 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 399 | 7 | 498 | 1113 | 367 | 327 | | |
| Arrive On Green | 0.22 | 0.22 | 0.28 | 0.60 | 0.21 | 0.21 | | |
| Sat Flow, veh/h | 1827 | 31 | 1774 | 1863 | 1774 | 1583 | | |
| Grp Volume(v), veh/h | 0 | 303 | 416 | 450 | 7 | 262 | | |
| Grp Sat Flow(s),veh/h/ln | 0 | 1857 | 1774 | 1863 | 1774 | 1583 | | |
| Q Serve(g_s), s | 0.0 | 7.0 | 10.1 | 5.9 | 0.1 | 7.2 | | |
| Cycle Q Clear(g_c), s | 0.0 | 7.0 | 10.1 | 5.9 | 0.1 | 7.2 | | |
| Prop In Lane | | 0.02 | 1.00 | | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 0 | 406 | 498 | 1113 | 367 | 327 | | |
| V/C Ratio(X) | 0.00 | 0.75 | 0.83 | 0.40 | 0.02 | 0.80 | | |
| Avail Cap(c_a), veh/h | 0 | 727 | 791 | 1743 | 695 | 620 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 0.0 | 16.8 | 15.5 | 4.9 | 14.5 | 17.3 | | |
| Incr Delay (d2), s/veh | 0.0 | 2.7 | 4.4 | 0.2 | 0.0 | 4.5 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 0.0 | 3.8 | 5.5 | 3.1 | 0.1 | 3.5 | | |
| LnGrp Delay(d),s/veh | 0.0 | 19.5 | 19.9 | 5.1 | 14.5 | 21.9 | | |
| LnGrp LOS | | B | B | A | B | C | | |
| Approach Vol, veh/h | 303 | | | 866 | 269 | | | |
| Approach Delay, s/veh | 19.5 | | | 12.3 | 21.7 | | | |
| Approach LOS | B | | | B | C | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | 1 | 2 | | 4 | | 6 | | |
| Phs Duration (G+Y+Rc), s | 17.4 | 14.5 | | 14.0 | | 32.0 | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | |
| Max Green Setting (Gmax), s | 20.5 | 18.0 | | 18.0 | | 43.0 | | |
| Max Q Clear Time (g_c+I1), s | 12.1 | 9.0 | | 9.2 | | 7.9 | | |
| Green Ext Time (p_c), s | 0.9 | 1.0 | | 0.6 | | 2.7 | | |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 15.5 | | | | | |
| HCM 2010 LOS | | | B | | | | | |

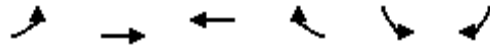
HCM 2010 Signalized Intersection Summary
 14: West St & Cameron Ave

10 Year plus Project w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  |  |
| Traffic Volume (veh/h) | 92 | 333 | 9 | 0 | 344 | 5 | 25 | 6 | 8 | 3 | 3 | 55 |
| Future Volume (veh/h) | 92 | 333 | 9 | 0 | 344 | 5 | 25 | 6 | 8 | 3 | 3 | 55 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 100 | 362 | 10 | 0 | 374 | 5 | 27 | 7 | 9 | 3 | 3 | 60 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 172 | 1025 | 28 | 6 | 568 | 8 | 275 | 24 | 23 | 430 | 8 | 162 |
| Arrive On Green | 0.10 | 0.57 | 0.57 | 0.00 | 0.31 | 0.31 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| Sat Flow, veh/h | 1774 | 1803 | 50 | 1774 | 1834 | 25 | 594 | 225 | 217 | 1387 | 76 | 1515 |
| Grp Volume(v), veh/h | 100 | 0 | 372 | 0 | 0 | 379 | 43 | 0 | 0 | 3 | 0 | 63 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1853 | 1774 | 0 | 1858 | 1036 | 0 | 0 | 1387 | 0 | 1590 |
| Q Serve(g_s), s | 1.5 | 0.0 | 3.0 | 0.0 | 0.0 | 4.9 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| Cycle Q Clear(g_c), s | 1.5 | 0.0 | 3.0 | 0.0 | 0.0 | 4.9 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| Prop In Lane | 1.00 | | 0.03 | 1.00 | | 0.01 | 0.63 | | 0.21 | 1.00 | | 0.95 |
| Lane Grp Cap(c), veh/h | 172 | 0 | 1054 | 6 | 0 | 576 | 322 | 0 | 0 | 430 | 0 | 170 |
| V/C Ratio(X) | 0.58 | 0.00 | 0.35 | 0.00 | 0.00 | 0.66 | 0.13 | 0.00 | 0.00 | 0.01 | 0.00 | 0.37 |
| Avail Cap(c_a), veh/h | 480 | 0 | 1570 | 320 | 0 | 1407 | 1105 | 0 | 0 | 1182 | 0 | 1032 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 12.0 | 0.0 | 3.2 | 0.0 | 0.0 | 8.3 | 12.0 | 0.0 | 0.0 | 11.1 | 0.0 | 11.5 |
| Incr Delay (d2), s/veh | 3.1 | 0.0 | 0.2 | 0.0 | 0.0 | 1.3 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 0.0 | 1.5 | 0.0 | 0.0 | 2.6 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| LnGrp Delay(d),s/veh | 15.1 | 0.0 | 3.4 | 0.0 | 0.0 | 9.6 | 12.2 | 0.0 | 0.0 | 11.1 | 0.0 | 12.9 |
| LnGrp LOS | B | | A | | | A | B | | | B | | B |
| Approach Vol, veh/h | | 472 | | | 379 | | | 43 | | | | 66 |
| Approach Delay, s/veh | | 5.9 | | | 9.6 | | | 12.2 | | | | 12.8 |
| Approach LOS | | A | | | A | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 0.0 | 20.3 | | 7.5 | 7.2 | 13.1 | | 7.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 23.5 | | 18.0 | 7.5 | 21.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 0.0 | 5.0 | | 3.6 | 3.5 | 6.9 | | 3.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.9 | | 0.1 | 0.1 | 1.7 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 8.1 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 18: Visalia Pkwy & County Center Dr




















10 Year plus Project w/ Mitigations
 Timing Plan: A.M. Peak



| Movement | EBL | EBT | WBT | WBR | SBL | SBR | | |
|------------------------------|------|------|------|------|------|------|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (veh/h) | 87 | 350 | 399 | 81 | 98 | 155 | | |
| Future Volume (veh/h) | 87 | 350 | 399 | 81 | 98 | 155 | | |
| Number | 5 | 2 | 6 | 16 | 7 | 14 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 95 | 380 | 434 | 88 | 107 | 168 | | |
| Adj No. of Lanes | 1 | 1 | 1 | 0 | 1 | 1 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 151 | 1094 | 566 | 115 | 288 | 257 | | |
| Arrive On Green | 0.09 | 0.59 | 0.38 | 0.38 | 0.16 | 0.16 | | |
| Sat Flow, veh/h | 1774 | 1863 | 1504 | 305 | 1774 | 1583 | | |
| Grp Volume(v), veh/h | 95 | 380 | 0 | 522 | 107 | 168 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 0 | 1809 | 1774 | 1583 | | |
| Q Serve(g_s), s | 1.9 | 3.8 | 0.0 | 9.1 | 1.9 | 3.6 | | |
| Cycle Q Clear(g_c), s | 1.9 | 3.8 | 0.0 | 9.1 | 1.9 | 3.6 | | |
| Prop In Lane | 1.00 | | | 0.17 | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 151 | 1094 | 0 | 681 | 288 | 257 | | |
| V/C Ratio(X) | 0.63 | 0.35 | 0.00 | 0.77 | 0.37 | 0.65 | | |
| Avail Cap(c_a), veh/h | 302 | 1713 | 0 | 1129 | 890 | 794 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 15.9 | 3.8 | 0.0 | 9.8 | 13.4 | 14.1 | | |
| Incr Delay (d2), s/veh | 4.2 | 0.2 | 0.0 | 1.8 | 0.8 | 2.8 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 1.1 | 2.0 | 0.0 | 4.8 | 1.0 | 3.2 | | |
| LnGrp Delay(d),s/veh | 20.1 | 4.0 | 0.0 | 11.7 | 14.2 | 16.9 | | |
| LnGrp LOS | C | A | | B | B | B | | |
| Approach Vol, veh/h | | 475 | 522 | | 275 | | | |
| Approach Delay, s/veh | | 7.2 | 11.7 | | 15.9 | | | |
| Approach LOS | | A | B | | B | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | 4 | 5 | 6 | | |
| Phs Duration (G+Y+Rc), s | | 25.6 | | 10.3 | 7.6 | 18.0 | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 | | |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 6.1 | 22.4 | | |
| Max Q Clear Time (g_c+I1), s | | 5.8 | | 5.6 | 3.9 | 11.1 | | |
| Green Ext Time (p_c), s | | 2.2 | | 0.6 | 0.0 | 2.4 | | |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 10.9 | | | | | |
| HCM 2010 LOS | | | B | | | | | |

HCM 2010 Signalized Intersection Summary
 19: Main Site Access/Target Dwy & Visalia Pkwy

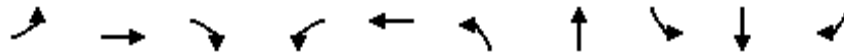
10 Year plus Project w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  |  | |  | |
| Traffic Volume (veh/h) | 37 | 395 | 62 | 119 | 382 | 14 | 90 | 0 | 244 | 7 | 0 | 15 |
| Future Volume (veh/h) | 37 | 395 | 62 | 119 | 382 | 14 | 90 | 0 | 244 | 7 | 0 | 15 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 40 | 429 | 67 | 129 | 415 | 15 | 98 | 0 | 265 | 8 | 0 | 16 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 82 | 762 | 118 | 186 | 1067 | 38 | 556 | 0 | 382 | 211 | 54 | 241 |
| Arrive On Green | 0.05 | 0.25 | 0.25 | 0.10 | 0.31 | 0.31 | 0.24 | 0.00 | 0.24 | 0.24 | 0.00 | 0.24 |
| Sat Flow, veh/h | 1774 | 3072 | 477 | 1774 | 3484 | 126 | 1407 | 0 | 1583 | 277 | 222 | 998 |
| Grp Volume(v), veh/h | 40 | 246 | 250 | 129 | 210 | 220 | 98 | 0 | 265 | 24 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1779 | 1774 | 1770 | 1841 | 1407 | 0 | 1583 | 1497 | 0 | 0 |
| Q Serve(g_s), s | 0.7 | 4.0 | 4.1 | 2.3 | 3.1 | 3.1 | 1.4 | 0.0 | 5.1 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.7 | 4.0 | 4.1 | 2.3 | 3.1 | 3.1 | 1.8 | 0.0 | 5.1 | 0.4 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 0.07 | 1.00 | | 1.00 | 0.33 | | 0.67 |
| Lane Grp Cap(c), veh/h | 82 | 439 | 441 | 186 | 542 | 564 | 556 | 0 | 382 | 506 | 0 | 0 |
| V/C Ratio(X) | 0.49 | 0.56 | 0.57 | 0.69 | 0.39 | 0.39 | 0.18 | 0.00 | 0.69 | 0.05 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 267 | 958 | 963 | 267 | 958 | 996 | 973 | 0 | 857 | 921 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 15.5 | 10.9 | 10.9 | 14.4 | 9.1 | 9.1 | 10.2 | 0.0 | 11.5 | 9.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 4.4 | 1.1 | 1.1 | 4.6 | 0.5 | 0.4 | 0.1 | 0.0 | 2.3 | 0.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 2.1 | 2.2 | 1.4 | 1.6 | 1.7 | 0.8 | 0.0 | 2.4 | 0.2 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 19.8 | 12.0 | 12.1 | 19.0 | 9.5 | 9.5 | 10.4 | 0.0 | 13.8 | 9.7 | 0.0 | 0.0 |
| LnGrp LOS | B | B | B | B | A | A | B | | B | A | | |
| Approach Vol, veh/h | | 536 | | | 559 | | | 363 | | | 24 | |
| Approach Delay, s/veh | | 12.6 | | | 11.7 | | | 12.8 | | | 9.7 | |
| Approach LOS | | B | | | B | | | B | | | A | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.0 | 12.7 | | 12.5 | 6.0 | 14.7 | | 12.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 18.0 | | 18.0 | 5.0 | 18.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.3 | 6.1 | | 7.1 | 2.7 | 5.1 | | 2.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.2 | | 1.1 | 0.0 | 1.9 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 12.3 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
20: Mooney Blvd & Visalia Pkwy

10 Year plus Project w/ Mitigations

Timing Plan: A.M. Peak



| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 62 | 201 | 157 | 217 | 203 | 177 | 910 | 99 | 523 | 47 |
| v/c Ratio | 0.24 | 0.47 | 0.32 | 0.57 | 0.19 | 0.69 | 0.93 | 0.76 | 0.37 | 0.08 |
| Control Delay | 41.6 | 30.3 | 5.3 | 42.0 | 20.9 | 54.9 | 47.8 | 74.9 | 26.3 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.6 | 30.3 | 5.3 | 42.0 | 20.9 | 54.9 | 47.8 | 74.9 | 26.3 | 0.3 |
| Queue Length 50th (ft) | 15 | 88 | 0 | 53 | 40 | 44 | 226 | 49 | 75 | 0 |
| Queue Length 95th (ft) | 41 | 149 | 37 | 106 | 64 | #119 | #487 | #165 | 141 | 0 |
| Internal Link Dist (ft) | | 765 | | | 339 | | 252 | | 1110 | |
| Turn Bay Length (ft) | 180 | | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 255 | 825 | 793 | 481 | 1786 | 255 | 974 | 131 | 1413 | 556 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.24 | 0.24 | 0.20 | 0.45 | 0.11 | 0.69 | 0.93 | 0.76 | 0.37 | 0.08 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



















HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

10 Year plus Project w/ Mitigations
 Timing Plan: A.M. Peak

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|------|-------|------|-------|------|-------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 57 | 185 | 144 | 200 | 176 | 11 | 163 | 741 | 97 | 91 | 481 | 43 |
| Future Volume (veh/h) | 57 | 185 | 144 | 200 | 176 | 11 | 163 | 741 | 97 | 91 | 481 | 43 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 62 | 201 | 157 | 217 | 191 | 12 | 177 | 805 | 105 | 99 | 523 | 47 |
| Adj No. of Lanes | 2 | 1 | 1 | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 205 | 344 | 292 | 312 | 729 | 46 | 282 | 961 | 125 | 129 | 1503 | 468 |
| Arrive On Green | 0.06 | 0.18 | 0.18 | 0.09 | 0.22 | 0.22 | 0.08 | 0.31 | 0.31 | 0.07 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3442 | 1863 | 1583 | 3442 | 3383 | 211 | 3442 | 3149 | 411 | 1774 | 5085 | 1583 |
| Grp Volume(v), veh/h | 62 | 201 | 157 | 217 | 99 | 104 | 177 | 452 | 458 | 99 | 523 | 47 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1863 | 1583 | 1721 | 1770 | 1825 | 1721 | 1770 | 1790 | 1774 | 1695 | 1583 |
| Q Serve(g_s), s | 1.2 | 7.0 | 6.4 | 4.3 | 3.3 | 3.4 | 3.5 | 16.9 | 16.9 | 3.9 | 5.7 | 1.5 |
| Cycle Q Clear(g_c), s | 1.2 | 7.0 | 6.4 | 4.3 | 3.3 | 3.4 | 3.5 | 16.9 | 16.9 | 3.9 | 5.7 | 1.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.12 | 1.00 | | 0.23 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 205 | 344 | 292 | 312 | 381 | 393 | 282 | 540 | 546 | 129 | 1503 | 468 |
| V/C Ratio(X) | 0.30 | 0.58 | 0.54 | 0.70 | 0.26 | 0.26 | 0.63 | 0.84 | 0.84 | 0.77 | 0.35 | 0.10 |
| Avail Cap(c_a), veh/h | 291 | 938 | 797 | 549 | 1024 | 1055 | 291 | 559 | 566 | 150 | 1607 | 500 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 31.9 | 26.4 | 26.2 | 31.3 | 23.1 | 23.1 | 31.5 | 23.0 | 23.0 | 32.3 | 19.6 | 18.1 |
| Incr Delay (d2), s/veh | 0.3 | 4.8 | 4.6 | 1.1 | 1.0 | 1.0 | 2.9 | 14.1 | 13.9 | 15.1 | 0.6 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 4.0 | 3.2 | 2.1 | 1.7 | 1.8 | 1.8 | 10.3 | 10.4 | 2.4 | 2.7 | 0.7 |
| LnGrp Delay(d),s/veh | 32.2 | 31.2 | 30.8 | 32.3 | 24.1 | 24.2 | 34.4 | 37.1 | 36.9 | 47.4 | 20.2 | 18.5 |
| LnGrp LOS | C | C | C | C | C | C | C | D | D | D | C | B |
| Approach Vol, veh/h | | 420 | | | 420 | | | 1087 | | | 669 | |
| Approach Delay, s/veh | | 31.2 | | | 28.4 | | | 36.6 | | | 24.1 | |
| Approach LOS | | C | | | C | | | D | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.8 | 28.4 | 12.1 | 19.5 | 11.5 | 27.8 | 9.9 | 21.7 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | * 5.7 | 6.4 | * 5.7 | 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6 | 22.4 | * 11 | 35.7 | * 6 | 22.4 | * 6 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.9 | 18.9 | 6.3 | 9.0 | 5.5 | 7.7 | 3.2 | 5.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.7 | 0.2 | 4.1 | 0.0 | 6.3 | 0.0 | 2.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 31.2 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 23: Mooney Blvd & Ave 272

10 Year plus Project w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 33 | 8 | 157 | 32 | 20 | 18 | 53 | 896 | 24 | 10 | 706 | 37 |
| Future Volume (veh/h) | 33 | 8 | 157 | 32 | 20 | 18 | 53 | 896 | 24 | 10 | 706 | 37 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 36 | 9 | 171 | 35 | 22 | 20 | 58 | 974 | 26 | 11 | 767 | 40 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 151 | 32 | 245 | 248 | 142 | 85 | 109 | 1444 | 39 | 26 | 1243 | 65 |
| Arrive On Green | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.06 | 0.41 | 0.41 | 0.01 | 0.36 | 0.36 |
| Sat Flow, veh/h | 168 | 162 | 1251 | 515 | 722 | 434 | 1774 | 3522 | 94 | 1774 | 3422 | 178 |
| Grp Volume(v), veh/h | 216 | 0 | 0 | 77 | 0 | 0 | 58 | 489 | 511 | 11 | 396 | 411 |
| Grp Sat Flow(s),veh/h/ln | 1580 | 0 | 0 | 1671 | 0 | 0 | 1774 | 1770 | 1846 | 1774 | 1770 | 1831 |
| Q Serve(g_s), s | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 8.0 | 8.0 | 0.2 | 6.5 | 6.5 |
| Cycle Q Clear(g_c), s | 4.5 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 1.1 | 8.0 | 8.0 | 0.2 | 6.5 | 6.5 |
| Prop In Lane | 0.17 | | 0.79 | 0.45 | | 0.26 | 1.00 | | 0.05 | 1.00 | | 0.10 |
| Lane Grp Cap(c), veh/h | 428 | 0 | 0 | 475 | 0 | 0 | 109 | 726 | 757 | 26 | 643 | 665 |
| V/C Ratio(X) | 0.50 | 0.00 | 0.00 | 0.16 | 0.00 | 0.00 | 0.53 | 0.67 | 0.67 | 0.43 | 0.62 | 0.62 |
| Avail Cap(c_a), veh/h | 912 | 0 | 0 | 924 | 0 | 0 | 314 | 1159 | 1209 | 254 | 1099 | 1137 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.3 | 0.0 | 0.0 | 12.0 | 0.0 | 0.0 | 16.2 | 8.6 | 8.6 | 17.4 | 9.3 | 9.3 |
| Incr Delay (d2), s/veh | 0.9 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 4.0 | 1.1 | 1.1 | 10.9 | 1.0 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.1 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.7 | 4.0 | 4.2 | 0.2 | 3.3 | 3.4 |
| LnGrp Delay(d),s/veh | 14.2 | 0.0 | 0.0 | 12.2 | 0.0 | 0.0 | 20.2 | 9.7 | 9.6 | 28.3 | 10.3 | 10.2 |
| LnGrp LOS | B | | | B | | | C | A | A | C | B | B |
| Approach Vol, veh/h | | 216 | | | 77 | | | 1058 | | | 818 | |
| Approach Delay, s/veh | | 14.2 | | | 12.2 | | | 10.2 | | | 10.5 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.0 | 19.1 | | 11.5 | 6.7 | 17.4 | | 11.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 23.3 | | 18.1 | 6.3 | 22.1 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 10.0 | | 6.5 | 3.1 | 8.5 | | 3.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.6 | | 0.9 | 0.0 | 3.6 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 10.8 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
3: Mooney Blvd & Sunnyside Ave























10 Year plus Project w/ Mitigations
Timing Plan: P.M. Peak

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|------|-------|-------|------|-------|-------|-------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 115 | 5 | 49 | 17 | 2 | 117 | 59 | 1280 | 19 | 73 | 1461 | 70 |
| Future Volume (veh/h) | 115 | 5 | 49 | 17 | 2 | 117 | 59 | 1280 | 19 | 73 | 1461 | 70 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 124 | 5 | 53 | 18 | 2 | 126 | 63 | 1376 | 20 | 78 | 1571 | 75 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 134 | 10 | 107 | 187 | 3 | 160 | 518 | 2851 | 41 | 99 | 1539 | 73 |
| Arrive On Green | 0.08 | 0.07 | 0.07 | 0.11 | 0.10 | 0.10 | 0.29 | 0.55 | 0.55 | 0.06 | 0.31 | 0.31 |
| Sat Flow, veh/h | 1774 | 138 | 1466 | 1774 | 25 | 1562 | 1774 | 5162 | 75 | 1774 | 4964 | 237 |
| Grp Volume(v), veh/h | 124 | 0 | 58 | 18 | 0 | 128 | 63 | 904 | 492 | 78 | 1073 | 573 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1604 | 1774 | 0 | 1587 | 1774 | 1695 | 1847 | 1774 | 1695 | 1811 |
| Q Serve(g_s), s | 7.6 | 0.0 | 3.8 | 1.0 | 0.0 | 8.7 | 2.9 | 17.9 | 17.9 | 4.8 | 34.1 | 34.1 |
| Cycle Q Clear(g_c), s | 7.6 | 0.0 | 3.8 | 1.0 | 0.0 | 8.7 | 2.9 | 17.9 | 17.9 | 4.8 | 34.1 | 34.1 |
| Prop In Lane | 1.00 | | 0.91 | 1.00 | | 0.98 | 1.00 | | 0.04 | 1.00 | | 0.13 |
| Lane Grp Cap(c), veh/h | 134 | 0 | 117 | 187 | 0 | 163 | 518 | 1872 | 1020 | 99 | 1051 | 561 |
| V/C Ratio(X) | 0.93 | 0.00 | 0.50 | 0.10 | 0.00 | 0.79 | 0.12 | 0.48 | 0.48 | 0.79 | 1.02 | 1.02 |
| Avail Cap(c_a), veh/h | 134 | 0 | 588 | 187 | 0 | 548 | 518 | 1872 | 1020 | 102 | 1051 | 561 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.82 | 0.82 | 0.82 | 0.85 | 0.85 | 0.85 |
| Uniform Delay (d), s/veh | 50.5 | 0.0 | 49.1 | 44.5 | 0.0 | 48.2 | 28.6 | 15.0 | 15.0 | 51.3 | 38.0 | 38.0 |
| Incr Delay (d2), s/veh | 55.0 | 0.0 | 2.4 | 0.1 | 0.0 | 6.1 | 0.0 | 0.7 | 1.3 | 25.7 | 30.9 | 40.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.8 | 0.0 | 1.8 | 0.5 | 0.0 | 4.1 | 1.4 | 8.5 | 9.4 | 3.0 | 20.4 | 23.3 |
| LnGrp Delay(d),s/veh | 105.5 | 0.0 | 51.5 | 44.5 | 0.0 | 54.3 | 28.6 | 15.8 | 16.4 | 76.9 | 68.9 | 78.4 |
| LnGrp LOS | F | | D | D | | D | C | B | B | E | F | F |
| Approach Vol, veh/h | | 182 | | | 146 | | | 1459 | | | 1724 | |
| Approach Delay, s/veh | | 88.3 | | | 53.1 | | | 16.5 | | | 72.4 | |
| Approach LOS | | F | | | D | | | B | | | E | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.9 | 67.2 | 17.3 | 13.7 | 38.5 | 40.5 | 14.0 | 17.0 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | 6.4 | * 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 6.3 | 33.9 | * 6 | * 40 | 6.1 | * 34 | * 8.3 | * 38 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.8 | 19.9 | 3.0 | 5.8 | 4.9 | 36.1 | 9.6 | 10.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.5 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 49.2 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave



















10 Year plus Project w/ Mitigations
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 19 | 2 | 37 | 62 | 9 | 76 | 67 | 1161 | 51 | 165 | 1370 | 38 |
| Future Volume (veh/h) | 19 | 2 | 37 | 62 | 9 | 76 | 67 | 1161 | 51 | 165 | 1370 | 38 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 20 | 2 | 39 | 66 | 10 | 81 | 71 | 1235 | 54 | 176 | 1457 | 40 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 73 | 8 | 159 | 84 | 20 | 161 | 1007 | 2709 | 824 | 202 | 1771 | 549 |
| Arrive On Green | 0.04 | 0.11 | 0.11 | 0.05 | 0.11 | 0.11 | 0.29 | 0.53 | 0.53 | 0.11 | 0.35 | 0.35 |
| Sat Flow, veh/h | 1774 | 77 | 1493 | 1774 | 176 | 1423 | 3442 | 5085 | 1546 | 1774 | 5085 | 1577 |
| Grp Volume(v), veh/h | 20 | 0 | 41 | 66 | 0 | 91 | 71 | 1235 | 54 | 176 | 1457 | 40 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1569 | 1774 | 0 | 1598 | 1721 | 1695 | 1546 | 1774 | 1695 | 1577 |
| Q Serve(g_s), s | 1.3 | 0.0 | 2.9 | 4.4 | 0.0 | 6.4 | 1.8 | 18.0 | 1.4 | 11.7 | 31.4 | 2.0 |
| Cycle Q Clear(g_c), s | 1.3 | 0.0 | 2.9 | 4.4 | 0.0 | 6.4 | 1.8 | 18.0 | 1.4 | 11.7 | 31.4 | 2.0 |
| Prop In Lane | 1.00 | | 0.95 | 1.00 | | 0.89 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 73 | 0 | 167 | 84 | 0 | 181 | 1007 | 2709 | 824 | 202 | 1771 | 549 |
| V/C Ratio(X) | 0.28 | 0.00 | 0.25 | 0.78 | 0.00 | 0.50 | 0.07 | 0.46 | 0.07 | 0.87 | 0.82 | 0.07 |
| Avail Cap(c_a), veh/h | 89 | 0 | 549 | 93 | 0 | 563 | 1007 | 2709 | 824 | 211 | 1771 | 549 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.80 | 0.80 | 0.80 | 0.78 | 0.78 | 0.78 |
| Uniform Delay (d), s/veh | 55.8 | 0.0 | 49.2 | 56.5 | 0.0 | 50.0 | 30.7 | 17.3 | 6.3 | 52.3 | 35.7 | 26.1 |
| Incr Delay (d2), s/veh | 0.8 | 0.0 | 0.3 | 27.8 | 0.0 | 1.6 | 0.0 | 0.4 | 0.1 | 23.0 | 3.5 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 1.3 | 2.8 | 0.0 | 2.9 | 0.8 | 8.5 | 0.9 | 7.1 | 15.3 | 0.9 |
| LnGrp Delay(d),s/veh | 56.6 | 0.0 | 49.5 | 84.3 | 0.0 | 51.6 | 30.7 | 17.7 | 6.4 | 75.3 | 39.2 | 26.3 |
| LnGrp LOS | E | | D | F | | D | C | B | A | E | D | C |
| Approach Vol, veh/h | | 61 | | | 157 | | | 1360 | | | 1673 | |
| Approach Delay, s/veh | | 51.8 | | | 65.4 | | | 18.0 | | | 42.7 | |
| Approach LOS | | D | | | E | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 19.4 | 70.3 | 11.4 | 18.9 | 41.5 | 48.2 | 10.6 | 19.7 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 14 | 33.5 | 6.3 | * 42 | 6.0 | * 42 | 6.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 13.7 | 20.0 | 6.4 | 4.9 | 3.8 | 33.4 | 3.3 | 8.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.1 | 0.0 | 0.1 | 0.0 | 7.0 | 0.0 | 0.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 33.6 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
5: Dans St & Caldwell Ave

10 Year plus Project w/ Mitigations
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  | |
| Traffic Volume (veh/h) | 29 | 1169 | 51 | 41 | 936 | 24 | 21 | 0 | 39 | 22 | 0 | 42 |
| Future Volume (veh/h) | 29 | 1169 | 51 | 41 | 936 | 24 | 21 | 0 | 39 | 22 | 0 | 42 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 30 | 1218 | 53 | 43 | 975 | 25 | 22 | 0 | 41 | 23 | 0 | 44 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 64 | 1683 | 73 | 86 | 1760 | 45 | 177 | 10 | 103 | 176 | 9 | 104 |
| Arrive On Green | 0.04 | 0.49 | 0.49 | 0.05 | 0.50 | 0.50 | 0.10 | 0.00 | 0.10 | 0.10 | 0.00 | 0.10 |
| Sat Flow, veh/h | 1774 | 3456 | 150 | 1774 | 3523 | 90 | 456 | 100 | 1035 | 450 | 94 | 1041 |
| Grp Volume(v), veh/h | 30 | 623 | 648 | 43 | 490 | 510 | 63 | 0 | 0 | 67 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1836 | 1774 | 1770 | 1844 | 1590 | 0 | 0 | 1585 | 0 | 0 |
| Q Serve(g_s), s | 0.6 | 10.3 | 10.3 | 0.9 | 7.1 | 7.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.6 | 10.3 | 10.3 | 0.9 | 7.1 | 7.1 | 1.2 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.08 | 1.00 | | 0.05 | 0.35 | | 0.65 | 0.34 | | 0.66 |
| Lane Grp Cap(c), veh/h | 64 | 862 | 895 | 86 | 884 | 921 | 290 | 0 | 0 | 289 | 0 | 0 |
| V/C Ratio(X) | 0.47 | 0.72 | 0.72 | 0.50 | 0.55 | 0.55 | 0.22 | 0.00 | 0.00 | 0.23 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 245 | 1115 | 1157 | 245 | 1115 | 1161 | 873 | 0 | 0 | 873 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 17.5 | 7.5 | 7.5 | 17.2 | 6.4 | 6.4 | 15.6 | 0.0 | 0.0 | 15.6 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.3 | 1.7 | 1.6 | 4.5 | 0.5 | 0.5 | 0.4 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 5.2 | 5.4 | 0.5 | 3.5 | 3.7 | 0.6 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 22.8 | 9.2 | 9.1 | 21.7 | 6.9 | 6.9 | 15.9 | 0.0 | 0.0 | 16.0 | 0.0 | 0.0 |
| LnGrp LOS | C | A | A | C | A | A | B | | | B | | |
| Approach Vol, veh/h | | 1301 | | | 1043 | | | 63 | | | | 67 |
| Approach Delay, s/veh | | 9.5 | | | 7.5 | | | 15.9 | | | | 16.0 |
| Approach LOS | | A | | | A | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.3 | 22.5 | | 8.2 | 5.8 | 23.0 | | 8.2 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 23.3 | | 18.1 | 5.1 | 23.3 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.9 | 12.3 | | 3.2 | 2.6 | 9.1 | | 3.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.7 | | 0.2 | 0.0 | 5.0 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.0 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

10 Year plus Project w/ Mitigations
Timing Plan: P.M. Peak














| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 286 | 754 | 242 | 527 | 325 | 1062 | 133 | 184 | 1291 | 114 |
| v/c Ratio | 0.56 | 0.66 | 0.67 | 0.57 | 0.97 | 0.50 | 0.19 | 0.66 | 0.63 | 0.16 |
| Control Delay | 60.3 | 45.2 | 69.9 | 48.4 | 104.5 | 32.7 | 8.2 | 74.0 | 36.8 | 5.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 60.3 | 45.2 | 69.9 | 48.4 | 104.5 | 32.7 | 8.2 | 74.0 | 36.8 | 5.4 |
| Queue Length 50th (ft) | 124 | 204 | 110 | 149 | 154 | 258 | 10 | 85 | 340 | 0 |
| Queue Length 95th (ft) | 181 | 222 | 156 | 157 | #253 | 361 | 61 | 125 | 462 | 41 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 507 | 1720 | 359 | 1682 | 335 | 2124 | 718 | 318 | 2038 | 694 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.56 | 0.44 | 0.67 | 0.31 | 0.97 | 0.50 | 0.19 | 0.58 | 0.63 | 0.16 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.




















HCM 2010 Signalized Intersection Summary
 13: Stonebrook St & Cameron Ave

10 Year plus Project w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  | | |
|------------------------------|---|---|---|---|---|---|---|---|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR | | |
| Lane Configurations |  | |  |  |  |  | | |
| Traffic Volume (veh/h) | 682 | 13 | 284 | 601 | 7 | 388 | | |
| Future Volume (veh/h) | 682 | 13 | 284 | 601 | 7 | 388 | | |
| Number | 2 | 12 | 1 | 6 | 7 | 14 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | | 1.00 | 1.00 | | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 703 | 13 | 293 | 620 | 7 | 400 | | |
| Adj No. of Lanes | 1 | 0 | 1 | 1 | 1 | 1 | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 770 | 14 | 334 | 1240 | 397 | 355 | | |
| Arrive On Green | 0.42 | 0.42 | 0.19 | 0.67 | 0.22 | 0.22 | | |
| Sat Flow, veh/h | 1823 | 34 | 1774 | 1863 | 1774 | 1583 | | |
| Grp Volume(v), veh/h | 0 | 716 | 293 | 620 | 7 | 400 | | |
| Grp Sat Flow(s),veh/h/ln | 0 | 1857 | 1774 | 1863 | 1774 | 1583 | | |
| Q Serve(g_s), s | 0.0 | 29.6 | 13.1 | 13.6 | 0.3 | 18.3 | | |
| Cycle Q Clear(g_c), s | 0.0 | 29.6 | 13.1 | 13.6 | 0.3 | 18.3 | | |
| Prop In Lane | | 0.02 | 1.00 | | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 0 | 784 | 334 | 1240 | 397 | 355 | | |
| V/C Ratio(X) | 0.00 | 0.91 | 0.88 | 0.50 | 0.02 | 1.13 | | |
| Avail Cap(c_a), veh/h | 0 | 902 | 402 | 1430 | 397 | 355 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 0.0 | 22.2 | 32.2 | 6.8 | 24.7 | 31.7 | | |
| Incr Delay (d2), s/veh | 0.0 | 12.4 | 16.9 | 0.3 | 0.0 | 87.0 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 0.0 | 17.8 | 8.0 | 7.0 | 0.1 | 16.5 | | |
| LnGrp Delay(d),s/veh | 0.0 | 34.5 | 49.2 | 7.2 | 24.7 | 118.7 | | |
| LnGrp LOS | | C | D | A | C | F | | |
| Approach Vol, veh/h | 716 | | | 913 | 407 | | | |
| Approach Delay, s/veh | 34.5 | | | 20.6 | 117.1 | | | |
| Approach LOS | C | | | C | F | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | 1 | 2 | | 4 | | 6 | | |
| Phs Duration (G+Y+Rc), s | 19.9 | 39.0 | | 22.8 | | 58.9 | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | |
| Max Green Setting (Gmax), s | 18.5 | 39.7 | | 18.3 | | 62.7 | | |
| Max Q Clear Time (g_c+I1), s | 15.1 | 31.6 | | 20.3 | | 15.6 | | |
| Green Ext Time (p_c), s | 0.3 | 2.9 | | 0.0 | | 4.2 | | |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 44.8 | | | | | |
| HCM 2010 LOS | | | D | | | | | |

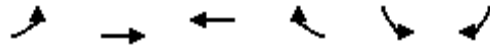
HCM 2010 Signalized Intersection Summary
 14: West St & Cameron Ave

10 Year plus Project w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  | |
| Traffic Volume (veh/h) | 187 | 678 | 18 | 9 | 523 | 9 | 8 | 6 | 2 | 6 | 7 | 203 |
| Future Volume (veh/h) | 187 | 678 | 18 | 9 | 523 | 9 | 8 | 6 | 2 | 6 | 7 | 203 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 193 | 699 | 19 | 9 | 539 | 9 | 8 | 6 | 2 | 6 | 7 | 209 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 246 | 892 | 24 | 21 | 671 | 11 | 163 | 98 | 20 | 424 | 9 | 283 |
| Arrive On Green | 0.14 | 0.49 | 0.49 | 0.01 | 0.37 | 0.37 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1774 | 1805 | 49 | 1774 | 1826 | 30 | 214 | 533 | 107 | 1402 | 52 | 1540 |
| Grp Volume(v), veh/h | 193 | 0 | 718 | 9 | 0 | 548 | 16 | 0 | 0 | 6 | 0 | 216 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1854 | 1774 | 0 | 1857 | 854 | 0 | 0 | 1402 | 0 | 1591 |
| Q Serve(g_s), s | 4.6 | 0.0 | 13.9 | 0.2 | 0.0 | 11.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.6 |
| Cycle Q Clear(g_c), s | 4.6 | 0.0 | 13.9 | 0.2 | 0.0 | 11.5 | 5.6 | 0.0 | 0.0 | 0.2 | 0.0 | 5.6 |
| Prop In Lane | 1.00 | | 0.03 | 1.00 | | 0.02 | 0.50 | | 0.12 | 1.00 | | 0.97 |
| Lane Grp Cap(c), veh/h | 246 | 0 | 916 | 21 | 0 | 682 | 281 | 0 | 0 | 424 | 0 | 293 |
| V/C Ratio(X) | 0.79 | 0.00 | 0.78 | 0.43 | 0.00 | 0.80 | 0.06 | 0.00 | 0.00 | 0.01 | 0.00 | 0.74 |
| Avail Cap(c_a), veh/h | 346 | 0 | 1214 | 204 | 0 | 1066 | 604 | 0 | 0 | 746 | 0 | 658 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.1 | 0.0 | 9.1 | 21.4 | 0.0 | 12.4 | 14.8 | 0.0 | 0.0 | 14.6 | 0.0 | 16.8 |
| Incr Delay (d2), s/veh | 7.6 | 0.0 | 2.5 | 13.2 | 0.0 | 2.5 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 3.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.8 | 0.0 | 7.6 | 0.2 | 0.0 | 6.3 | 0.2 | 0.0 | 0.0 | 0.1 | 0.0 | 2.8 |
| LnGrp Delay(d),s/veh | 25.8 | 0.0 | 11.6 | 34.6 | 0.0 | 14.9 | 14.9 | 0.0 | 0.0 | 14.6 | 0.0 | 20.4 |
| LnGrp LOS | C | | B | C | | B | B | | | B | | C |
| Approach Vol, veh/h | | 911 | | | 557 | | | 16 | | | | 222 |
| Approach Delay, s/veh | | 14.6 | | | 15.2 | | | 14.9 | | | | 20.2 |
| Approach LOS | | B | | | B | | | B | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.0 | 26.0 | | 12.5 | 10.5 | 20.5 | | 12.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 28.5 | | 18.0 | 8.5 | 25.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 15.9 | | 7.6 | 6.6 | 13.5 | | 7.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 3.7 | | 0.0 | 0.1 | 2.5 | | 0.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 15.5 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 18: Visalia Pkwy & County Center Dr




















10 Year plus Project w/ Mitigations
 Timing Plan: P.M. Peak



| Movement | EBL | EBT | WBT | WBR | SBL | SBR | | |
|------------------------------|------|------|------|------|------|------|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (veh/h) | 98 | 476 | 509 | 170 | 114 | 106 | | |
| Future Volume (veh/h) | 98 | 476 | 509 | 170 | 114 | 106 | | |
| Number | 5 | 2 | 6 | 16 | 7 | 14 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 107 | 517 | 553 | 185 | 124 | 115 | | |
| Adj No. of Lanes | 1 | 1 | 1 | 0 | 1 | 1 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 146 | 1267 | 665 | 223 | 212 | 189 | | |
| Arrive On Green | 0.08 | 0.68 | 0.50 | 0.50 | 0.12 | 0.12 | | |
| Sat Flow, veh/h | 1774 | 1863 | 1337 | 447 | 1774 | 1583 | | |
| Grp Volume(v), veh/h | 107 | 517 | 0 | 738 | 124 | 115 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 0 | 1784 | 1774 | 1583 | | |
| Q Serve(g_s), s | 2.6 | 5.5 | 0.0 | 15.9 | 3.0 | 3.1 | | |
| Cycle Q Clear(g_c), s | 2.6 | 5.5 | 0.0 | 15.9 | 3.0 | 3.1 | | |
| Prop In Lane | 1.00 | | | 0.25 | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 146 | 1267 | 0 | 888 | 212 | 189 | | |
| V/C Ratio(X) | 0.73 | 0.41 | 0.00 | 0.83 | 0.59 | 0.61 | | |
| Avail Cap(c_a), veh/h | 217 | 1781 | 0 | 1308 | 716 | 639 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 20.1 | 3.2 | 0.0 | 9.7 | 18.7 | 18.8 | | |
| Incr Delay (d2), s/veh | 7.0 | 0.2 | 0.0 | 3.0 | 2.6 | 3.1 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 1.6 | 2.8 | 0.0 | 8.3 | 1.6 | 2.8 | | |
| LnGrp Delay(d),s/veh | 27.1 | 3.4 | 0.0 | 12.7 | 21.3 | 21.9 | | |
| LnGrp LOS | C | A | | B | C | C | | |
| Approach Vol, veh/h | | 624 | 738 | | 239 | | | |
| Approach Delay, s/veh | | 7.5 | 12.7 | | 21.6 | | | |
| Approach LOS | | A | B | | C | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | 4 | 5 | 6 | | |
| Phs Duration (G+Y+Rc), s | | 35.0 | | 9.9 | 8.2 | 26.8 | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 | | |
| Max Green Setting (Gmax), s | | 42.9 | | 18.1 | 5.5 | 32.9 | | |
| Max Q Clear Time (g_c+I1), s | | 7.5 | | 5.1 | 4.6 | 17.9 | | |
| Green Ext Time (p_c), s | | 3.4 | | 0.5 | 0.0 | 4.4 | | |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.0 | | | | | |
| HCM 2010 LOS | | | B | | | | | |

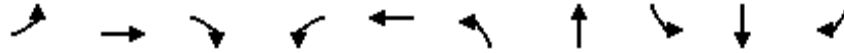
HCM 2010 Signalized Intersection Summary
 19: Main Site Access/Target Dwy & Visalia Pkwy

10 Year plus Project w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  |  | |  | |
| Traffic Volume (veh/h) | 75 | 486 | 74 | 161 | 526 | 30 | 131 | 0 | 260 | 135 | 0 | 68 |
| Future Volume (veh/h) | 75 | 486 | 74 | 161 | 526 | 30 | 131 | 0 | 260 | 135 | 0 | 68 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 82 | 528 | 80 | 175 | 572 | 33 | 142 | 0 | 283 | 147 | 0 | 74 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 131 | 804 | 121 | 227 | 1072 | 62 | 552 | 0 | 454 | 307 | 28 | 96 |
| Arrive On Green | 0.07 | 0.26 | 0.26 | 0.13 | 0.32 | 0.32 | 0.29 | 0.00 | 0.29 | 0.29 | 0.00 | 0.29 |
| Sat Flow, veh/h | 1774 | 3084 | 466 | 1774 | 3401 | 196 | 1320 | 0 | 1583 | 568 | 98 | 335 |
| Grp Volume(v), veh/h | 82 | 302 | 306 | 175 | 297 | 308 | 142 | 0 | 283 | 221 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1781 | 1774 | 1770 | 1828 | 1320 | 0 | 1583 | 1002 | 0 | 0 |
| Q Serve(g_s), s | 1.9 | 6.3 | 6.4 | 4.0 | 5.8 | 5.8 | 0.0 | 0.0 | 6.5 | 5.6 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 1.9 | 6.3 | 6.4 | 4.0 | 5.8 | 5.8 | 3.6 | 0.0 | 6.5 | 9.2 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.26 | 1.00 | | 0.11 | 1.00 | | 1.00 | 0.67 | | 0.33 |
| Lane Grp Cap(c), veh/h | 131 | 461 | 464 | 227 | 558 | 576 | 552 | 0 | 454 | 431 | 0 | 0 |
| V/C Ratio(X) | 0.63 | 0.66 | 0.66 | 0.77 | 0.53 | 0.53 | 0.26 | 0.00 | 0.62 | 0.51 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 298 | 765 | 770 | 447 | 914 | 944 | 744 | 0 | 685 | 609 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 18.7 | 13.7 | 13.7 | 17.6 | 11.7 | 11.7 | 11.9 | 0.0 | 12.9 | 14.4 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 4.9 | 1.6 | 1.6 | 5.4 | 0.8 | 0.8 | 0.2 | 0.0 | 1.4 | 0.9 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.1 | 3.2 | 3.3 | 2.3 | 2.9 | 3.0 | 1.3 | 0.0 | 3.0 | 2.4 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 23.6 | 15.3 | 15.3 | 23.0 | 12.5 | 12.5 | 12.1 | 0.0 | 14.3 | 15.3 | 0.0 | 0.0 |
| LnGrp LOS | C | B | B | C | B | B | B | | B | B | | |
| Approach Vol, veh/h | | 690 | | | 780 | | | 425 | | | 221 | |
| Approach Delay, s/veh | | 16.3 | | | 14.9 | | | 13.6 | | | 15.3 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.8 | 15.4 | | 16.4 | 7.6 | 17.6 | | 16.4 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 10.5 | 18.0 | | 18.0 | 7.0 | 21.5 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.0 | 8.4 | | 8.5 | 3.9 | 7.8 | | 11.2 | | | | |
| Green Ext Time (p_c), s | 0.2 | 2.4 | | 1.3 | 0.0 | 2.9 | | 0.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 15.1 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
20: Mooney Blvd & Visalia Pkwy

10 Year plus Project w/ Mitigations
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 125 | 289 | 200 | 274 | 276 | 277 | 1228 | 180 | 919 | 61 |
| v/c Ratio | 0.75 | 0.71 | 0.40 | 0.78 | 0.29 | 0.62 | 0.95 | 0.85 | 0.50 | 0.09 |
| Control Delay | 87.8 | 56.8 | 7.5 | 72.5 | 32.8 | 60.3 | 56.3 | 88.7 | 34.6 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 87.8 | 56.8 | 7.5 | 72.5 | 32.8 | 60.3 | 56.3 | 88.7 | 34.6 | 0.3 |
| Queue Length 50th (ft) | 54 | 225 | 0 | 116 | 83 | 115 | -582 | 149 | 227 | 0 |
| Queue Length 95th (ft) | #105 | 312 | 60 | #175 | 117 | 163 | #723 | #298 | 283 | 0 |
| Internal Link Dist (ft) | | 765 | | | 337 | | 251 | | 1110 | |
| Turn Bay Length (ft) | 180 | | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 166 | 481 | 552 | 370 | 1096 | 446 | 1286 | 212 | 1834 | 682 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.75 | 0.60 | 0.36 | 0.74 | 0.25 | 0.62 | 0.95 | 0.85 | 0.50 | 0.09 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy



















10 Year plus Project w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 116 | 269 | 186 | 255 | 198 | 59 | 258 | 918 | 224 | 167 | 855 | 57 |
| Future Volume (veh/h) | 116 | 269 | 186 | 255 | 198 | 59 | 258 | 918 | 224 | 167 | 855 | 57 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 125 | 289 | 200 | 274 | 213 | 63 | 277 | 987 | 241 | 180 | 919 | 61 |
| Adj No. of Lanes | 2 | 1 | 1 | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 167 | 362 | 303 | 325 | 664 | 191 | 659 | 1153 | 281 | 192 | 1612 | 495 |
| Arrive On Green | 0.05 | 0.19 | 0.19 | 0.09 | 0.25 | 0.25 | 0.19 | 0.41 | 0.41 | 0.11 | 0.32 | 0.32 |
| Sat Flow, veh/h | 3442 | 1863 | 1563 | 3442 | 2705 | 778 | 3442 | 2823 | 687 | 1774 | 5085 | 1562 |
| Grp Volume(v), veh/h | 125 | 289 | 200 | 274 | 137 | 139 | 277 | 618 | 610 | 180 | 919 | 61 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1863 | 1563 | 1721 | 1770 | 1713 | 1721 | 1770 | 1740 | 1774 | 1695 | 1562 |
| Q Serve(g_s), s | 4.7 | 19.2 | 15.4 | 10.2 | 8.3 | 8.6 | 9.2 | 41.2 | 41.5 | 13.1 | 19.6 | 2.8 |
| Cycle Q Clear(g_c), s | 4.7 | 19.2 | 15.4 | 10.2 | 8.3 | 8.6 | 9.2 | 41.2 | 41.5 | 13.1 | 19.6 | 2.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.45 | 1.00 | | 0.39 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 167 | 362 | 303 | 325 | 434 | 421 | 659 | 723 | 711 | 192 | 1612 | 495 |
| V/C Ratio(X) | 0.75 | 0.80 | 0.66 | 0.84 | 0.32 | 0.33 | 0.42 | 0.85 | 0.86 | 0.94 | 0.57 | 0.12 |
| Avail Cap(c_a), veh/h | 167 | 481 | 404 | 363 | 558 | 540 | 659 | 723 | 711 | 192 | 1612 | 495 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.82 | 0.82 | 0.82 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.68 | 0.68 | 0.68 |
| Uniform Delay (d), s/veh | 61.1 | 50.0 | 48.4 | 57.9 | 40.1 | 40.3 | 46.2 | 35.0 | 35.0 | 57.5 | 37.0 | 19.6 |
| Incr Delay (d2), s/veh | 12.9 | 10.7 | 6.1 | 13.7 | 1.2 | 1.3 | 0.2 | 12.3 | 12.8 | 36.2 | 1.0 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.5 | 10.9 | 7.2 | 5.5 | 4.2 | 4.2 | 4.4 | 22.6 | 22.5 | 8.3 | 9.3 | 1.5 |
| LnGrp Delay(d),s/veh | 73.9 | 60.6 | 54.5 | 71.7 | 41.3 | 41.6 | 46.4 | 47.3 | 47.9 | 93.7 | 38.0 | 20.0 |
| LnGrp LOS | E | E | D | E | D | D | D | D | D | F | D | B |
| Approach Vol, veh/h | | 614 | | | 550 | | | 1505 | | | 1160 | |
| Approach Delay, s/veh | | 61.3 | | | 56.5 | | | 47.3 | | | 45.7 | |
| Approach LOS | | E | | | E | | | D | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 19.8 | 59.9 | 18.7 | 31.6 | 31.7 | 48.0 | 12.0 | 38.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | 6.4 | * 6.4 | 6.8 | * 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 14 | 44.0 | 13.7 | * 34 | 16.9 | * 41 | * 6.3 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 15.1 | 43.5 | 12.2 | 21.2 | 11.2 | 21.6 | 6.7 | 10.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.4 | 0.1 | 4.0 | 0.3 | 12.5 | 0.0 | 3.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 50.4 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
23: Mooney Blvd & Ave 272

10 Year plus Project w/ Mitigations
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 40 | 4 | 30 | 2 | 3 | 38 | 150 | 1217 | 63 | 31 | 1257 | 66 |
| Future Volume (veh/h) | 40 | 4 | 30 | 2 | 3 | 38 | 150 | 1217 | 63 | 31 | 1257 | 66 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 42 | 4 | 32 | 2 | 3 | 40 | 158 | 1281 | 66 | 33 | 1323 | 69 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 184 | 11 | 54 | 83 | 12 | 123 | 204 | 2030 | 104 | 66 | 1763 | 92 |
| Arrive On Green | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.11 | 0.59 | 0.59 | 0.04 | 0.52 | 0.52 |
| Sat Flow, veh/h | 794 | 131 | 643 | 43 | 138 | 1448 | 1774 | 3425 | 176 | 1774 | 3423 | 178 |
| Grp Volume(v), veh/h | 78 | 0 | 0 | 45 | 0 | 0 | 158 | 661 | 686 | 33 | 683 | 709 |
| Grp Sat Flow(s),veh/h/ln | 1568 | 0 | 0 | 1628 | 0 | 0 | 1774 | 1770 | 1832 | 1774 | 1770 | 1831 |
| Q Serve(g_s), s | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.1 | 11.5 | 11.5 | 0.9 | 14.4 | 14.5 |
| Cycle Q Clear(g_c), s | 2.1 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | 4.1 | 11.5 | 11.5 | 0.9 | 14.4 | 14.5 |
| Prop In Lane | 0.54 | | 0.41 | 0.04 | | 0.89 | 1.00 | | 0.10 | 1.00 | | 0.10 |
| Lane Grp Cap(c), veh/h | 250 | 0 | 0 | 217 | 0 | 0 | 204 | 1049 | 1086 | 66 | 912 | 943 |
| V/C Ratio(X) | 0.31 | 0.00 | 0.00 | 0.21 | 0.00 | 0.00 | 0.78 | 0.63 | 0.63 | 0.50 | 0.75 | 0.75 |
| Avail Cap(c_a), veh/h | 686 | 0 | 0 | 690 | 0 | 0 | 356 | 1433 | 1483 | 191 | 1268 | 1312 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.7 | 0.0 | 0.0 | 20.4 | 0.0 | 0.0 | 20.3 | 6.3 | 6.3 | 22.3 | 9.1 | 9.1 |
| Incr Delay (d2), s/veh | 0.7 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 6.2 | 0.6 | 0.6 | 5.8 | 1.6 | 1.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 2.3 | 5.7 | 5.9 | 0.5 | 7.2 | 7.5 |
| LnGrp Delay(d),s/veh | 21.5 | 0.0 | 0.0 | 20.9 | 0.0 | 0.0 | 26.6 | 6.9 | 6.9 | 28.1 | 10.7 | 10.7 |
| LnGrp LOS | C | | | C | | | C | A | A | C | B | B |
| Approach Vol, veh/h | | 78 | | | 45 | | | 1505 | | | 1425 | |
| Approach Delay, s/veh | | 21.5 | | | 20.9 | | | 9.0 | | | 11.1 | |
| Approach LOS | | C | | | C | | | A | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.3 | 32.5 | | 8.5 | 9.9 | 28.9 | | 8.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 38.3 | | 18.1 | 9.5 | 33.9 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.9 | 13.5 | | 4.1 | 6.1 | 16.5 | | 3.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.8 | | 0.2 | 0.1 | 7.9 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 10.4 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |























Twenty-Year plus Project Impacts and Mitigation Measures

| Location | Impact | Mitigation Measure | Notes |
|--|--|--|---------------------------------|
| Intersection #3: Mooney Boulevard/Sunnyside Avenue | Addition of project traffic will cause the LOS to drop from LOS D to LOS E in the p.m. peak hour. | Same as Ten-Year plus Project Mitigation. | Project to provide contribution |
| Intersection #4: Mooney Boulevard/Orchard Avenue | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS E during the a.m. and p.m. peak hours. | Same as Ten-Year plus Project Mitigation. | Project to provide contribution |
| Intersection #5: Caldwell Avenue/Dans Street | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS F during the a.m. and p.m. peak hours. | Same as Existing plus Project Mitigation. | Project to provide contribution |
| Intersection #7: Mooney Boulevard/Caldwell Avenue | Addition of project traffic will increase the queue of the northbound left-turn in the p.m. peak hour. | Same as Ten-Year plus Project Mitigation. | Project to provide contribution |
| Intersection #11: Cameron Avenue/County Center Drive | Addition of project traffic will exceed the storage length for the SBL in the p.m. peak hour. | Optimization of signal timings will mitigate the queue lengths during the p.m. peak hour. | Project to provide contribution |
| Intersection #13: Cameron Avenue/Stonebrook Street | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS F during the a.m. and p.m. peak hours. The queue is also expected to exceed the storage length for the NBL in the p.m. peak hour. | Same as Five-Year plus Phase 1 Mitigation. Additionally, the NBL storage length should be increased. | TIF-eligible project |
| Intersection #14: Cameron Ave/West Street | Addition of project traffic will cause the LOS to drop from LOS D to LOS F in the a.m. peak hour, and in the p.m. peak hour, the project will exacerbate the delay by more than 5.0 seconds as the intersection is already operation at LOS F during the p.m. peak hour. | Same as Existing plus Project Mitigation. | TIF-eligible project |
| Intersection #18: Visalia Parkway/County Center Drive | Addition of project traffic will cause the LOS to drop from LOS D to LOS E in the a.m. peak hour, and in the p.m. peak hour, the the project will exacerbate the delay by more than 5.0 seconds as the intersection is already operation at LOS E during the p.m. peak hour. | Same as Existing plus Project Mitigation. | Project to provide contribution |
| Intersection #19: Visalia Parkway/Main Site Access-Target Driveway | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS E and F during the a.m. and p.m. peak hours. | Same as Five-Year plus Phase 1 Mitigation. | Project to provide contribution |

| | | | |
|---|---|---|-------------------------------------|
| Intersection #20: Visalia Parkway/Mooney Boulevard | Addition of project traffic will cause the LOS to drop from acceptable levels to unacceptable levels in the a.m. and p.m. peak hour. | Same as Existing plus Project Mitigation. | Intersection included in City's CIP |
| Intersection #21: Visalia Parkway/Stonebrook Street | Addition of project traffic will cause the LOS to drop from LOS D to LOS F in the p.m. peak hour. | The installation of a traffic signal will improve the LOS to acceptable levels during the p.m. peak hour. | Project to provide contribution |
| Intersection #23: Mooney Boulevard/Avenue 272 | Addition of project traffic will exacerbate the delay by more than 5.0 seconds as the intersection is already operating at LOS F during the a.m. and p.m. peak hours. | Same as Existing plus Project Mitigation. | TIF-eligible project |
| Intersection #29: Visalia Parkway/Costco Driveway | Addition of project traffic will cause the LOS to drop from LOS D to LOS E in the p.m. peak hour. | Design planned raised median to provide refuge lane for southbound left turn movement. | NA |























HCM 2010 Signalized Intersection Summary
3: Mooney Blvd & Sunnyside Ave

20 Year plus Project w/ Mitigations
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 45 | 0 | 14 | 10 | 0 | 34 | 41 | 790 | 10 | 92 | 720 | 56 |
| Future Volume (veh/h) | 45 | 0 | 14 | 10 | 0 | 34 | 41 | 790 | 10 | 92 | 720 | 56 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 47 | 0 | 15 | 11 | 0 | 36 | 43 | 832 | 11 | 97 | 758 | 59 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 100 | 0 | 228 | 30 | 0 | 165 | 94 | 1583 | 21 | 153 | 1633 | 126 |
| Arrive On Green | 0.06 | 0.00 | 0.14 | 0.02 | 0.00 | 0.10 | 0.05 | 0.31 | 0.31 | 0.09 | 0.34 | 0.34 |
| Sat Flow, veh/h | 1774 | 0 | 1577 | 1774 | 0 | 1580 | 1774 | 5170 | 68 | 1774 | 4813 | 373 |
| Grp Volume(v), veh/h | 47 | 0 | 15 | 11 | 0 | 36 | 43 | 545 | 298 | 97 | 533 | 284 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1577 | 1774 | 0 | 1580 | 1774 | 1695 | 1848 | 1774 | 1695 | 1796 |
| Q Serve(g_s), s | 1.4 | 0.0 | 0.4 | 0.3 | 0.0 | 1.1 | 1.2 | 7.0 | 7.0 | 2.8 | 6.5 | 6.5 |
| Cycle Q Clear(g_c), s | 1.4 | 0.0 | 0.4 | 0.3 | 0.0 | 1.1 | 1.2 | 7.0 | 7.0 | 2.8 | 6.5 | 6.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.04 | 1.00 | | 0.21 |
| Lane Grp Cap(c), veh/h | 100 | 0 | 228 | 30 | 0 | 165 | 94 | 1038 | 566 | 153 | 1150 | 609 |
| V/C Ratio(X) | 0.47 | 0.00 | 0.07 | 0.37 | 0.00 | 0.22 | 0.46 | 0.53 | 0.53 | 0.63 | 0.46 | 0.47 |
| Avail Cap(c_a), veh/h | 206 | 0 | 1141 | 202 | 0 | 1140 | 226 | 1487 | 811 | 313 | 1655 | 876 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 24.1 | 0.0 | 19.5 | 25.6 | 0.0 | 21.6 | 24.2 | 15.1 | 15.1 | 23.2 | 13.6 | 13.7 |
| Incr Delay (d2), s/veh | 1.3 | 0.0 | 0.1 | 2.8 | 0.0 | 0.5 | 1.3 | 0.8 | 1.5 | 1.6 | 0.6 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 0.2 | 0.2 | 0.0 | 0.5 | 0.6 | 3.4 | 3.8 | 1.4 | 3.1 | 3.4 |
| LnGrp Delay(d),s/veh | 25.3 | 0.0 | 19.6 | 28.4 | 0.0 | 22.1 | 25.5 | 15.9 | 16.6 | 24.9 | 14.2 | 14.7 |
| LnGrp LOS | C | | B | C | | C | C | B | B | C | B | B |
| Approach Vol, veh/h | | 62 | | | 47 | | | 886 | | | 914 | |
| Approach Delay, s/veh | | 23.9 | | | 23.6 | | | 16.6 | | | 15.5 | |
| Approach LOS | | C | | | C | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.2 | 22.5 | 6.6 | 13.3 | 8.5 | 24.3 | 8.7 | 11.2 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | * 5.7 | 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 9.3 | 23.1 | * 6 | * 38 | * 6.7 | 25.7 | * 6.1 | * 38 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.8 | 9.0 | 2.3 | 2.4 | 3.2 | 8.5 | 3.4 | 3.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.9 | 0.0 | 0.0 | 0.0 | 7.6 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 16.5 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |



















HCM 2010 Signalized Intersection Summary
 4: Mooney Blvd & Orchard Ave

20 Year plus Project w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 3 | 0 | 1 | 19 | 0 | 24 | 11 | 783 | 28 | 66 | 657 | 5 |
| Future Volume (veh/h) | 3 | 0 | 1 | 19 | 0 | 24 | 11 | 783 | 28 | 66 | 657 | 5 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 3 | 0 | 1 | 20 | 0 | 25 | 12 | 824 | 29 | 69 | 692 | 5 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 23 | 0 | 83 | 45 | 0 | 105 | 1474 | 3272 | 1016 | 88 | 1312 | 408 |
| Arrive On Green | 0.01 | 0.00 | 0.05 | 0.03 | 0.00 | 0.07 | 0.43 | 0.64 | 0.64 | 0.05 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1774 | 0 | 1548 | 1774 | 0 | 1583 | 3442 | 5085 | 1578 | 1774 | 5085 | 1581 |
| Grp Volume(v), veh/h | 3 | 0 | 1 | 20 | 0 | 25 | 12 | 824 | 29 | 69 | 692 | 5 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1548 | 1774 | 0 | 1583 | 1721 | 1695 | 1578 | 1774 | 1695 | 1581 |
| Q Serve(g_s), s | 0.2 | 0.0 | 0.1 | 1.2 | 0.0 | 1.6 | 0.2 | 7.2 | 0.4 | 4.0 | 12.3 | 0.2 |
| Cycle Q Clear(g_c), s | 0.2 | 0.0 | 0.1 | 1.2 | 0.0 | 1.6 | 0.2 | 7.2 | 0.4 | 4.0 | 12.3 | 0.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 23 | 0 | 83 | 45 | 0 | 105 | 1474 | 3272 | 1016 | 88 | 1312 | 408 |
| V/C Ratio(X) | 0.13 | 0.00 | 0.01 | 0.45 | 0.00 | 0.24 | 0.01 | 0.25 | 0.03 | 0.78 | 0.53 | 0.01 |
| Avail Cap(c_a), veh/h | 101 | 0 | 619 | 101 | 0 | 633 | 1474 | 3272 | 1016 | 101 | 1312 | 408 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.98 | 0.98 | 0.98 |
| Uniform Delay (d), s/veh | 51.2 | 0.0 | 47.0 | 50.5 | 0.0 | 46.5 | 17.2 | 8.0 | 2.5 | 49.3 | 33.4 | 29.0 |
| Incr Delay (d2), s/veh | 1.0 | 0.0 | 0.0 | 2.6 | 0.0 | 0.9 | 0.0 | 0.2 | 0.0 | 23.7 | 1.5 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 0.0 | 0.0 | 0.6 | 0.0 | 0.7 | 0.1 | 3.4 | 0.3 | 2.6 | 5.9 | 0.1 |
| LnGrp Delay(d),s/veh | 52.2 | 0.0 | 47.0 | 53.0 | 0.0 | 47.4 | 17.2 | 8.1 | 2.5 | 73.1 | 34.9 | 29.0 |
| LnGrp LOS | D | | D | D | | D | B | A | A | E | C | C |
| Approach Vol, veh/h | | 4 | | | 45 | | | 865 | | | 766 | |
| Approach Delay, s/veh | | 50.9 | | | 49.9 | | | 8.1 | | | 38.3 | |
| Approach LOS | | D | | | D | | | A | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.9 | 74.0 | 8.4 | 11.8 | 51.4 | 33.5 | 7.0 | 13.1 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 6 | 27.1 | 6.0 | * 42 | 6.0 | * 27 | 6.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.0 | 9.2 | 3.2 | 2.1 | 2.2 | 14.3 | 2.2 | 3.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.8 | 0.0 | 0.0 | 0.0 | 5.6 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 23.1 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
5: Dans St & Caldwell Ave

20 Year plus Project w/ Mitigations
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | | |  |
| Traffic Volume (veh/h) | 49 | 880 | 99 | 72 | 865 | 41 | 69 | 0 | 115 | 12 | 0 | 25 |
| Future Volume (veh/h) | 49 | 880 | 99 | 72 | 865 | 41 | 69 | 0 | 115 | 12 | 0 | 25 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 53 | 957 | 108 | 78 | 940 | 45 | 75 | 0 | 125 | 13 | 0 | 27 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 98 | 1328 | 150 | 128 | 1485 | 71 | 204 | 21 | 172 | 171 | 42 | 199 |
| Arrive On Green | 0.06 | 0.42 | 0.42 | 0.07 | 0.43 | 0.43 | 0.18 | 0.00 | 0.18 | 0.18 | 0.00 | 0.18 |
| Sat Flow, veh/h | 1774 | 3199 | 361 | 1774 | 3438 | 165 | 457 | 117 | 958 | 298 | 235 | 1107 |
| Grp Volume(v), veh/h | 53 | 529 | 536 | 78 | 484 | 501 | 200 | 0 | 0 | 40 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1790 | 1774 | 1770 | 1833 | 1533 | 0 | 0 | 1640 | 0 | 0 |
| Q Serve(g_s), s | 1.2 | 10.1 | 10.1 | 1.7 | 8.7 | 8.7 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 1.2 | 10.1 | 10.1 | 1.7 | 8.7 | 8.7 | 4.9 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.20 | 1.00 | | 0.09 | 0.37 | | 0.62 | 0.32 | | 0.67 |
| Lane Grp Cap(c), veh/h | 98 | 735 | 743 | 128 | 764 | 792 | 397 | 0 | 0 | 412 | 0 | 0 |
| V/C Ratio(X) | 0.54 | 0.72 | 0.72 | 0.61 | 0.63 | 0.63 | 0.50 | 0.00 | 0.00 | 0.10 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 223 | 1000 | 1012 | 241 | 1018 | 1054 | 798 | 0 | 0 | 803 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 18.6 | 9.9 | 9.9 | 18.2 | 9.0 | 9.0 | 15.6 | 0.0 | 0.0 | 14.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 4.5 | 1.6 | 1.6 | 4.6 | 0.9 | 0.8 | 1.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 5.2 | 5.2 | 1.0 | 4.4 | 4.5 | 2.2 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 23.2 | 11.5 | 11.5 | 22.9 | 9.9 | 9.8 | 16.6 | 0.0 | 0.0 | 14.1 | 0.0 | 0.0 |
| LnGrp LOS | C | B | B | C | A | A | B | | | B | | |
| Approach Vol, veh/h | | 1118 | | | 1063 | | | 200 | | | | 40 |
| Approach Delay, s/veh | | 12.1 | | | 10.8 | | | 16.6 | | | | 14.1 |
| Approach LOS | | B | | | B | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.4 | 21.3 | | 11.8 | 6.7 | 22.0 | | 11.8 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.5 | 22.9 | | 18.1 | 5.1 | 23.3 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.7 | 12.1 | | 6.9 | 3.2 | 10.7 | | 2.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.7 | | 0.9 | 0.0 | 4.7 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 11.9 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

20 Year plus Project w/ Mitigations
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 174 | 561 | 132 | 536 | 145 | 677 | 112 | 71 | 618 | 87 |
| v/c Ratio | 0.61 | 0.56 | 0.47 | 0.55 | 0.76 | 0.26 | 0.13 | 0.40 | 0.25 | 0.11 |
| Control Delay | 66.4 | 42.1 | 62.1 | 46.1 | 84.4 | 21.3 | 4.0 | 66.4 | 22.1 | 1.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 66.4 | 42.1 | 62.1 | 46.1 | 84.4 | 21.3 | 4.0 | 66.4 | 22.1 | 1.6 |
| Queue Length 50th (ft) | 73 | 141 | 55 | 147 | 63 | 117 | 0 | 30 | 105 | 0 |
| Queue Length 95th (ft) | 111 | 146 | 88 | 150 | #114 | 196 | 35 | 56 | 180 | 12 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 289 | 1843 | 283 | 1813 | 192 | 2558 | 846 | 182 | 2445 | 816 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.60 | 0.30 | 0.47 | 0.30 | 0.76 | 0.26 | 0.13 | 0.39 | 0.25 | 0.11 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
7: Mooney Blvd & Caldwell Ave

20 Year plus Project w/ Mitigations
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 165 | 400 | 133 | 125 | 439 | 70 | 138 | 643 | 106 | 67 | 587 | 83 |
| Future Volume (veh/h) | 165 | 400 | 133 | 125 | 439 | 70 | 138 | 643 | 106 | 67 | 587 | 83 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 174 | 421 | 140 | 132 | 462 | 74 | 145 | 677 | 112 | 71 | 618 | 87 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 220 | 714 | 228 | 186 | 786 | 123 | 809 | 2696 | 838 | 147 | 1690 | 524 |
| Arrive On Green | 0.06 | 0.19 | 0.19 | 0.05 | 0.18 | 0.18 | 0.24 | 0.53 | 0.53 | 0.04 | 0.33 | 0.33 |
| Sat Flow, veh/h | 3442 | 3814 | 1217 | 3442 | 4432 | 695 | 3442 | 5085 | 1582 | 3442 | 5085 | 1578 |
| Grp Volume(v), veh/h | 174 | 372 | 189 | 132 | 351 | 185 | 145 | 677 | 112 | 71 | 618 | 87 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1641 | 1721 | 1695 | 1737 | 1721 | 1695 | 1582 | 1721 | 1695 | 1578 |
| Q Serve(g_s), s | 6.5 | 13.0 | 13.7 | 4.9 | 12.4 | 12.7 | 4.4 | 9.4 | 3.2 | 2.6 | 12.0 | 5.1 |
| Cycle Q Clear(g_c), s | 6.5 | 13.0 | 13.7 | 4.9 | 12.4 | 12.7 | 4.4 | 9.4 | 3.2 | 2.6 | 12.0 | 5.1 |
| Prop In Lane | 1.00 | | 0.74 | 1.00 | | 0.40 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 220 | 634 | 307 | 186 | 601 | 308 | 809 | 2696 | 838 | 147 | 1690 | 524 |
| V/C Ratio(X) | 0.79 | 0.59 | 0.61 | 0.71 | 0.58 | 0.60 | 0.18 | 0.25 | 0.13 | 0.48 | 0.37 | 0.17 |
| Avail Cap(c_a), veh/h | 220 | 1249 | 605 | 196 | 1226 | 628 | 809 | 2696 | 838 | 172 | 1690 | 524 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.98 | 0.98 | 0.98 | 0.97 | 0.97 | 0.97 | 0.96 | 0.96 | 0.96 | 0.99 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 60.0 | 48.3 | 48.5 | 60.5 | 49.1 | 49.2 | 39.7 | 16.6 | 7.3 | 60.8 | 33.0 | 30.7 |
| Incr Delay (d2), s/veh | 16.1 | 1.7 | 3.8 | 8.7 | 1.7 | 3.5 | 0.0 | 0.2 | 0.3 | 0.9 | 0.6 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.6 | 6.2 | 6.6 | 2.6 | 5.9 | 6.4 | 2.1 | 4.4 | 1.9 | 1.3 | 5.7 | 2.3 |
| LnGrp Delay(d),s/veh | 76.1 | 49.9 | 52.3 | 69.2 | 50.8 | 52.8 | 39.7 | 16.8 | 7.6 | 61.7 | 33.6 | 31.3 |
| LnGrp LOS | E | D | D | E | D | D | D | B | A | E | C | C |
| Approach Vol, veh/h | | 735 | | | 668 | | | 934 | | | 776 | |
| Approach Delay, s/veh | | 56.7 | | | 55.0 | | | 19.2 | | | 35.9 | |
| Approach LOS | | E | | | D | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.2 | 75.3 | 12.7 | 30.7 | 37.0 | 49.6 | 14.0 | 29.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 6.5 | 44.0 | 7.4 | * 48 | 7.3 | * 43 | 8.3 | * 47 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.6 | 11.4 | 6.9 | 15.7 | 6.4 | 14.0 | 8.5 | 14.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.8 | 0.0 | 6.8 | 0.0 | 9.2 | 0.0 | 6.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 39.9 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
11: County Center Dr & Cameron Ave

20 Year plus Project w/ Mitigations
Timing Plan: A.M. Peak



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 64 | 186 | 189 | 27 | 272 | 264 |
| v/c Ratio | 0.16 | 0.38 | 0.17 | 0.03 | 0.39 | 0.24 |
| Control Delay | 10.8 | 4.9 | 5.3 | 2.5 | 7.7 | 5.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 10.8 | 4.9 | 5.3 | 2.5 | 7.7 | 5.6 |
| Queue Length 50th (ft) | 7 | 0 | 14 | 0 | 23 | 20 |
| Queue Length 95th (ft) | 27 | 28 | 39 | 6 | 68 | 53 |
| Internal Link Dist (ft) | 1226 | | 772 | | | 355 |
| Turn Bay Length (ft) | | 100 | | 160 | 145 | |
| Base Capacity (vph) | 1072 | 1011 | 1239 | 1037 | 789 | 1239 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.18 | 0.15 | 0.03 | 0.34 | 0.21 |
| Intersection Summary | | | | | | |

Queues
13: Stonebrook St & Cameron Ave

20 Year plus Project w/ Mitigations
Timing Plan: A.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 36 | 367 | 422 | 484 | 59 | 238 | 149 | 24 | 220 |
| v/c Ratio | 0.22 | 0.75 | 0.77 | 0.44 | 0.42 | 0.39 | 0.38 | 0.17 | 0.43 |
| Control Delay | 34.1 | 34.6 | 34.2 | 12.1 | 41.5 | 13.1 | 4.7 | 34.4 | 18.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.1 | 34.6 | 34.2 | 12.1 | 41.5 | 13.1 | 4.7 | 34.4 | 18.0 |
| Queue Length 50th (ft) | 15 | 143 | 165 | 92 | 25 | 15 | 0 | 10 | 24 |
| Queue Length 95th (ft) | 43 | #290 | #332 | 247 | #70 | 51 | 24 | 33 | 54 |
| Internal Link Dist (ft) | | 978 | | 1708 | | 903 | | | 1465 |
| Turn Bay Length (ft) | 100 | | 100 | | 200 | | 200 | 150 | |
| Base Capacity (vph) | 168 | 537 | 583 | 1090 | 142 | 1019 | 573 | 142 | 1051 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.21 | 0.68 | 0.72 | 0.44 | 0.42 | 0.23 | 0.26 | 0.17 | 0.21 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.




















HCM 2010 Signalized Intersection Summary
 13: Stonebrook St & Cameron Ave

20 Year plus Project w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 33 | 316 | 22 | 388 | 422 | 23 | 54 | 82 | 274 | 22 | 107 | 96 |
| Future Volume (veh/h) | 33 | 316 | 22 | 388 | 422 | 23 | 54 | 82 | 274 | 22 | 107 | 96 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 36 | 343 | 24 | 422 | 459 | 25 | 59 | 89 | 298 | 24 | 116 | 104 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 67 | 413 | 29 | 484 | 831 | 45 | 94 | 272 | 463 | 49 | 223 | 183 |
| Arrive On Green | 0.04 | 0.24 | 0.24 | 0.27 | 0.47 | 0.47 | 0.05 | 0.15 | 0.15 | 0.03 | 0.12 | 0.12 |
| Sat Flow, veh/h | 1774 | 1721 | 120 | 1774 | 1751 | 95 | 1774 | 1863 | 3167 | 1774 | 1846 | 1518 |
| Grp Volume(v), veh/h | 36 | 0 | 367 | 422 | 0 | 484 | 59 | 89 | 298 | 24 | 111 | 109 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1841 | 1774 | 0 | 1846 | 1774 | 1863 | 1583 | 1774 | 1770 | 1595 |
| Q Serve(g_s), s | 1.1 | 0.0 | 10.9 | 13.0 | 0.0 | 10.7 | 1.9 | 2.5 | 5.1 | 0.8 | 3.4 | 3.7 |
| Cycle Q Clear(g_c), s | 1.1 | 0.0 | 10.9 | 13.0 | 0.0 | 10.7 | 1.9 | 2.5 | 5.1 | 0.8 | 3.4 | 3.7 |
| Prop In Lane | 1.00 | | 0.07 | 1.00 | | 0.05 | 1.00 | | 1.00 | 1.00 | | 0.95 |
| Lane Grp Cap(c), veh/h | 67 | 0 | 442 | 484 | 0 | 877 | 94 | 272 | 463 | 49 | 214 | 193 |
| V/C Ratio(X) | 0.53 | 0.00 | 0.83 | 0.87 | 0.00 | 0.55 | 0.63 | 0.33 | 0.64 | 0.49 | 0.52 | 0.57 |
| Avail Cap(c_a), veh/h | 182 | 0 | 577 | 633 | 0 | 1047 | 154 | 600 | 1020 | 154 | 570 | 514 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 27.1 | 0.0 | 20.7 | 19.9 | 0.0 | 10.7 | 26.6 | 22.0 | 23.1 | 27.5 | 23.7 | 23.8 |
| Incr Delay (d2), s/veh | 6.4 | 0.0 | 7.8 | 10.2 | 0.0 | 0.5 | 6.7 | 0.7 | 1.5 | 7.3 | 1.9 | 2.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 6.5 | 7.7 | 0.0 | 5.5 | 1.1 | 1.3 | 2.3 | 0.5 | 1.7 | 1.8 |
| LnGrp Delay(d),s/veh | 33.5 | 0.0 | 28.5 | 30.1 | 0.0 | 11.3 | 33.3 | 22.7 | 24.6 | 34.9 | 25.6 | 26.5 |
| LnGrp LOS | C | | C | C | | B | C | C | C | C | C | C |
| Approach Vol, veh/h | | 403 | | | 906 | | | 446 | | | 244 | |
| Approach Delay, s/veh | | 29.0 | | | 20.1 | | | 25.4 | | | 26.9 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.1 | 12.9 | 20.2 | 18.3 | 7.5 | 11.4 | 6.7 | 31.8 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 18.5 | 20.5 | 18.0 | 5.0 | 18.5 | 5.9 | 32.6 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.8 | 7.1 | 15.0 | 12.9 | 3.9 | 5.7 | 3.1 | 12.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.3 | 0.7 | 0.9 | 0.0 | 1.0 | 0.0 | 2.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 23.9 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

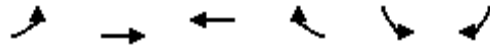
HCM 2010 Signalized Intersection Summary
 14: West St & Cameron Ave

20 Year plus Project w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  | |
| Traffic Volume (veh/h) | 92 | 392 | 9 | 0 | 460 | 5 | 26 | 6 | 8 | 3 | 3 | 183 |
| Future Volume (veh/h) | 92 | 392 | 9 | 0 | 460 | 5 | 26 | 6 | 8 | 3 | 3 | 183 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 100 | 426 | 10 | 0 | 500 | 5 | 28 | 7 | 9 | 3 | 3 | 199 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 155 | 1027 | 24 | 5 | 655 | 7 | 218 | 57 | 29 | 489 | 4 | 290 |
| Arrive On Green | 0.09 | 0.57 | 0.57 | 0.00 | 0.36 | 0.36 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| Sat Flow, veh/h | 1774 | 1812 | 43 | 1774 | 1841 | 18 | 302 | 309 | 157 | 1389 | 24 | 1559 |
| Grp Volume(v), veh/h | 100 | 0 | 436 | 0 | 0 | 505 | 44 | 0 | 0 | 3 | 0 | 202 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1854 | 1774 | 0 | 1859 | 768 | 0 | 0 | 1389 | 0 | 1583 |
| Q Serve(g_s), s | 2.0 | 0.0 | 4.8 | 0.0 | 0.0 | 8.7 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 4.3 |
| Cycle Q Clear(g_c), s | 2.0 | 0.0 | 4.8 | 0.0 | 0.0 | 8.7 | 4.4 | 0.0 | 0.0 | 0.1 | 0.0 | 4.3 |
| Prop In Lane | 1.00 | | 0.02 | 1.00 | | 0.01 | 0.64 | | 0.20 | 1.00 | | 0.99 |
| Lane Grp Cap(c), veh/h | 155 | 0 | 1051 | 5 | 0 | 661 | 305 | 0 | 0 | 489 | 0 | 294 |
| V/C Ratio(X) | 0.64 | 0.00 | 0.41 | 0.00 | 0.00 | 0.76 | 0.14 | 0.00 | 0.00 | 0.01 | 0.00 | 0.69 |
| Avail Cap(c_a), veh/h | 317 | 0 | 1198 | 244 | 0 | 1125 | 713 | 0 | 0 | 918 | 0 | 783 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 16.1 | 0.0 | 4.5 | 0.0 | 0.0 | 10.4 | 12.5 | 0.0 | 0.0 | 12.1 | 0.0 | 13.8 |
| Incr Delay (d2), s/veh | 4.4 | 0.0 | 0.3 | 0.0 | 0.0 | 1.9 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.2 | 0.0 | 2.5 | 0.0 | 0.0 | 4.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 2.1 |
| LnGrp Delay(d),s/veh | 20.5 | 0.0 | 4.7 | 0.0 | 0.0 | 12.2 | 12.7 | 0.0 | 0.0 | 12.1 | 0.0 | 16.7 |
| LnGrp LOS | C | | A | | | B | B | | | B | | B |
| Approach Vol, veh/h | | 536 | | | 505 | | | 44 | | | | 205 |
| Approach Delay, s/veh | | 7.7 | | | 12.2 | | | 12.7 | | | | 16.6 |
| Approach LOS | | A | | | B | | | B | | | | B |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 0.0 | 25.1 | | 11.3 | 7.7 | 17.4 | | 11.3 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 23.5 | | 18.0 | 6.5 | 22.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 0.0 | 6.8 | | 6.4 | 4.0 | 10.7 | | 6.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.2 | | 0.1 | 0.0 | 2.2 | | 0.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 11.0 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 18: Visalia Pkwy & County Center Dr




















20 Year plus Project w/ Mitigations
 Timing Plan: A.M. Peak



| Movement | EBL | EBT | WBT | WBR | SBL | SBR | | |
|------------------------------|------|------|------|------|------|------|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (veh/h) | 100 | 395 | 452 | 89 | 109 | 179 | | |
| Future Volume (veh/h) | 100 | 395 | 452 | 89 | 109 | 179 | | |
| Number | 5 | 2 | 6 | 16 | 7 | 14 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 109 | 429 | 491 | 97 | 118 | 195 | | |
| Adj No. of Lanes | 1 | 2 | 2 | 0 | 1 | 1 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 173 | 1866 | 849 | 167 | 334 | 298 | | |
| Arrive On Green | 0.10 | 0.53 | 0.29 | 0.29 | 0.19 | 0.19 | | |
| Sat Flow, veh/h | 1774 | 3632 | 3043 | 580 | 1774 | 1583 | | |
| Grp Volume(v), veh/h | 109 | 429 | 293 | 295 | 118 | 195 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1770 | 1760 | 1774 | 1583 | | |
| Q Serve(g_s), s | 1.9 | 2.1 | 4.5 | 4.5 | 1.8 | 3.6 | | |
| Cycle Q Clear(g_c), s | 1.9 | 2.1 | 4.5 | 4.5 | 1.8 | 3.6 | | |
| Prop In Lane | 1.00 | | | 0.33 | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 173 | 1866 | 509 | 507 | 334 | 298 | | |
| V/C Ratio(X) | 0.63 | 0.23 | 0.58 | 0.58 | 0.35 | 0.65 | | |
| Avail Cap(c_a), veh/h | 308 | 3130 | 1006 | 1001 | 1009 | 900 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 13.7 | 4.0 | 9.6 | 9.6 | 11.2 | 11.9 | | |
| Incr Delay (d2), s/veh | 3.8 | 0.1 | 1.0 | 1.1 | 0.6 | 2.4 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 1.1 | 1.0 | 2.3 | 2.3 | 0.9 | 3.3 | | |
| LnGrp Delay(d),s/veh | 17.5 | 4.1 | 10.7 | 10.7 | 11.8 | 14.3 | | |
| LnGrp LOS | B | A | B | B | B | B | | |
| Approach Vol, veh/h | | 538 | 588 | | 313 | | | |
| Approach Delay, s/veh | | 6.8 | 10.7 | | 13.4 | | | |
| Approach LOS | | A | B | | B | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | 4 | 5 | 6 | | |
| Phs Duration (G+Y+Rc), s | | 21.2 | | 10.5 | 7.6 | 13.6 | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 | | |
| Max Green Setting (Gmax), s | | 28.0 | | 18.0 | 5.5 | 18.0 | | |
| Max Q Clear Time (g_c+I1), s | | 4.1 | | 5.6 | 3.9 | 6.5 | | |
| Green Ext Time (p_c), s | | 2.7 | | 0.8 | 0.0 | 2.6 | | |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.8 | | | | | |
| HCM 2010 LOS | | | A | | | | | |

HCM 2010 Signalized Intersection Summary
 19: Main Site Access/Target Dwy & Visalia Pkwy

20 Year plus Project w/ Mitigations
 Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  |  | |  | |
| Traffic Volume (veh/h) | 38 | 409 | 62 | 119 | 396 | 14 | 90 | 0 | 244 | 7 | 0 | 15 |
| Future Volume (veh/h) | 38 | 409 | 62 | 119 | 396 | 14 | 90 | 0 | 244 | 7 | 0 | 15 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 41 | 445 | 67 | 129 | 430 | 15 | 98 | 0 | 265 | 8 | 0 | 16 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 84 | 780 | 117 | 185 | 1080 | 38 | 554 | 0 | 381 | 210 | 53 | 240 |
| Arrive On Green | 0.05 | 0.25 | 0.25 | 0.10 | 0.31 | 0.31 | 0.24 | 0.00 | 0.24 | 0.24 | 0.00 | 0.24 |
| Sat Flow, veh/h | 1774 | 3088 | 462 | 1774 | 3489 | 122 | 1407 | 0 | 1583 | 278 | 221 | 998 |
| Grp Volume(v), veh/h | 41 | 254 | 258 | 129 | 218 | 227 | 98 | 0 | 265 | 24 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1781 | 1774 | 1770 | 1841 | 1407 | 0 | 1583 | 1497 | 0 | 0 |
| Q Serve(g_s), s | 0.8 | 4.2 | 4.2 | 2.4 | 3.2 | 3.3 | 1.4 | 0.0 | 5.1 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.8 | 4.2 | 4.2 | 2.4 | 3.2 | 3.3 | 1.8 | 0.0 | 5.1 | 0.4 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.26 | 1.00 | | 0.07 | 1.00 | | 1.00 | 0.33 | | 0.67 |
| Lane Grp Cap(c), veh/h | 84 | 447 | 450 | 185 | 548 | 570 | 554 | 0 | 381 | 503 | 0 | 0 |
| V/C Ratio(X) | 0.49 | 0.57 | 0.57 | 0.70 | 0.40 | 0.40 | 0.18 | 0.00 | 0.70 | 0.05 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 291 | 950 | 956 | 291 | 950 | 988 | 965 | 0 | 850 | 913 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 15.6 | 10.9 | 11.0 | 14.5 | 9.1 | 9.1 | 10.3 | 0.0 | 11.6 | 9.8 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 4.3 | 1.1 | 1.2 | 4.7 | 0.5 | 0.5 | 0.2 | 0.0 | 2.3 | 0.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 2.2 | 2.2 | 1.4 | 1.6 | 1.7 | 0.8 | 0.0 | 2.4 | 0.2 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 19.9 | 12.1 | 12.1 | 19.2 | 9.6 | 9.6 | 10.5 | 0.0 | 13.9 | 9.8 | 0.0 | 0.0 |
| LnGrp LOS | B | B | B | B | A | A | B | | B | A | | |
| Approach Vol, veh/h | | 553 | | | 574 | | | 363 | | | | 24 |
| Approach Delay, s/veh | | 12.7 | | | 11.7 | | | 13.0 | | | | 9.8 |
| Approach LOS | | B | | | B | | | B | | | | A |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.0 | 13.0 | | 12.6 | 6.1 | 14.9 | | 12.6 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.5 | 18.0 | | 18.0 | 5.5 | 18.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.4 | 6.2 | | 7.1 | 2.8 | 5.3 | | 2.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.2 | | 1.1 | 0.0 | 1.9 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.3 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
20: Mooney Blvd & Visalia Pkwy

20 Year plus Project w/ Mitigations
Timing Plan: A.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 67 | 378 | 235 | 221 | 185 | 974 | 100 | 560 | 51 |
| v/c Ratio | 0.29 | 0.51 | 0.61 | 0.24 | 0.55 | 0.80 | 0.69 | 0.33 | 0.08 |
| Control Delay | 46.9 | 20.0 | 46.9 | 26.4 | 47.0 | 34.4 | 69.0 | 25.7 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 46.9 | 20.0 | 46.9 | 26.4 | 47.0 | 34.4 | 69.0 | 25.7 | 0.2 |
| Queue Length 50th (ft) | 18 | 55 | 64 | 52 | 51 | 248 | 55 | 84 | 0 |
| Queue Length 95th (ft) | 47 | 97 | 123 | 80 | 102 | #500 | #171 | 160 | 0 |
| Internal Link Dist (ft) | | 765 | | 339 | | 253 | | 1110 | |
| Turn Bay Length (ft) | 180 | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 234 | 1365 | 494 | 1608 | 425 | 1210 | 144 | 1675 | 657 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.29 | 0.28 | 0.48 | 0.14 | 0.44 | 0.80 | 0.69 | 0.33 | 0.08 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
20: Mooney Blvd & Visalia Pkwy

20 Year plus Project w/ Mitigations
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 62 | 195 | 153 | 216 | 191 | 12 | 170 | 791 | 105 | 92 | 515 | 47 |
| Future Volume (veh/h) | 62 | 195 | 153 | 216 | 191 | 12 | 170 | 791 | 105 | 92 | 515 | 47 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 67 | 212 | 166 | 235 | 208 | 13 | 185 | 860 | 114 | 100 | 560 | 51 |
| Adj No. of Lanes | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 196 | 364 | 271 | 319 | 757 | 47 | 265 | 1097 | 145 | 127 | 1748 | 544 |
| Arrive On Green | 0.06 | 0.19 | 0.19 | 0.09 | 0.22 | 0.22 | 0.08 | 0.35 | 0.35 | 0.07 | 0.34 | 0.34 |
| Sat Flow, veh/h | 3442 | 1934 | 1444 | 3442 | 3384 | 210 | 3442 | 3142 | 416 | 1774 | 5085 | 1583 |
| Grp Volume(v), veh/h | 67 | 193 | 185 | 235 | 108 | 113 | 185 | 484 | 490 | 100 | 560 | 51 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1608 | 1721 | 1770 | 1825 | 1721 | 1770 | 1789 | 1774 | 1695 | 1583 |
| Q Serve(g_s), s | 1.5 | 8.2 | 8.7 | 5.5 | 4.2 | 4.2 | 4.3 | 20.2 | 20.2 | 4.6 | 6.7 | 1.8 |
| Cycle Q Clear(g_c), s | 1.5 | 8.2 | 8.7 | 5.5 | 4.2 | 4.2 | 4.3 | 20.2 | 20.2 | 4.6 | 6.7 | 1.8 |
| Prop In Lane | 1.00 | | 0.90 | 1.00 | | 0.12 | 1.00 | | 0.23 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 196 | 333 | 302 | 319 | 396 | 408 | 265 | 618 | 625 | 127 | 1748 | 544 |
| V/C Ratio(X) | 0.34 | 0.58 | 0.61 | 0.74 | 0.27 | 0.28 | 0.70 | 0.78 | 0.78 | 0.79 | 0.32 | 0.09 |
| Avail Cap(c_a), veh/h | 255 | 734 | 667 | 539 | 880 | 908 | 463 | 665 | 673 | 157 | 1748 | 544 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 37.4 | 30.5 | 30.7 | 36.4 | 26.5 | 26.5 | 37.1 | 24.0 | 24.0 | 37.6 | 20.0 | 18.3 |
| Incr Delay (d2), s/veh | 0.4 | 4.9 | 6.0 | 1.2 | 1.1 | 1.1 | 1.2 | 9.3 | 9.2 | 14.9 | 0.5 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 4.5 | 4.4 | 2.7 | 2.2 | 2.3 | 2.1 | 11.4 | 11.5 | 2.8 | 3.2 | 0.8 |
| LnGrp Delay(d),s/veh | 37.8 | 35.4 | 36.7 | 37.7 | 27.5 | 27.5 | 38.3 | 33.3 | 33.2 | 52.6 | 20.4 | 18.7 |
| LnGrp LOS | D | D | D | D | C | C | D | C | C | D | C | B |
| Approach Vol, veh/h | | 445 | | | 456 | | | 1159 | | | 711 | |
| Approach Delay, s/veh | | 36.3 | | | 32.8 | | | 34.1 | | | 24.8 | |
| Approach LOS | | D | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.6 | 35.6 | 13.3 | 21.9 | 12.1 | 35.1 | 10.4 | 24.8 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | * 5.7 | 6.4 | * 5.7 | 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 7.3 | 31.0 | * 13 | 34.2 | * 11 | 27.2 | * 6.1 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.6 | 22.2 | 7.5 | 10.7 | 6.3 | 8.7 | 3.5 | 6.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.6 | 0.2 | 4.8 | 0.1 | 7.8 | 0.0 | 2.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 31.8 | | | | | | | | |
| HCM 2010 LOS | | | | C | | | | | | | | |
| Notes | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 21: Visalia Pkwy/Visalia Parkway & Stonebrook St




















20 Year plus Project w/ Mitigations
 Timing Plan: A.M. Peak



| Movement | EBL | EBT | WBT | WBR | SBL | SBR | | |
|------------------------------|------|------|------|------|------|------|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (veh/h) | 194 | 69 | 50 | 18 | 68 | 288 | | |
| Future Volume (veh/h) | 194 | 69 | 50 | 18 | 68 | 288 | | |
| Number | 5 | 2 | 6 | 16 | 7 | 14 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 211 | 75 | 54 | 20 | 74 | 313 | | |
| Adj No. of Lanes | 1 | 2 | 2 | 0 | 1 | 1 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 277 | 1512 | 306 | 108 | 478 | 427 | | |
| Arrive On Green | 0.16 | 0.43 | 0.12 | 0.12 | 0.27 | 0.27 | | |
| Sat Flow, veh/h | 1774 | 3632 | 2662 | 904 | 1774 | 1583 | | |
| Grp Volume(v), veh/h | 211 | 75 | 36 | 38 | 74 | 313 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1770 | 1703 | 1774 | 1583 | | |
| Q Serve(g_s), s | 3.4 | 0.4 | 0.5 | 0.6 | 0.9 | 5.3 | | |
| Cycle Q Clear(g_c), s | 3.4 | 0.4 | 0.5 | 0.6 | 0.9 | 5.3 | | |
| Prop In Lane | 1.00 | | | 0.53 | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 277 | 1512 | 211 | 203 | 478 | 427 | | |
| V/C Ratio(X) | 0.76 | 0.05 | 0.17 | 0.19 | 0.15 | 0.73 | | |
| Avail Cap(c_a), veh/h | 628 | 3936 | 1074 | 1033 | 1076 | 961 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 12.0 | 5.0 | 11.8 | 11.8 | 8.3 | 9.9 | | |
| Incr Delay (d2), s/veh | 4.3 | 0.0 | 0.4 | 0.4 | 0.1 | 2.5 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 2.0 | 0.2 | 0.3 | 0.3 | 0.5 | 4.7 | | |
| LnGrp Delay(d),s/veh | 16.3 | 5.0 | 12.1 | 12.2 | 8.4 | 12.3 | | |
| LnGrp LOS | B | A | B | B | A | B | | |
| Approach Vol, veh/h | | 286 | 74 | | 387 | | | |
| Approach Delay, s/veh | | 13.3 | 12.2 | | 11.6 | | | |
| Approach LOS | | B | B | | B | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | 4 | 5 | 6 | | |
| Phs Duration (G+Y+Rc), s | | 17.2 | | 12.5 | 9.1 | 8.0 | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 | | |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 10.5 | 18.0 | | |
| Max Q Clear Time (g_c+I1), s | | 2.4 | | 7.3 | 5.4 | 2.6 | | |
| Green Ext Time (p_c), s | | 0.4 | | 1.0 | 0.3 | 0.2 | | |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.3 | | | | | |
| HCM 2010 LOS | | | B | | | | | |

HCM 2010 Signalized Intersection Summary
23: Mooney Blvd & Ave 272

20 Year plus Project w/ Mitigations
Timing Plan: A.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 34 | 8 | 172 | 35 | 22 | 19 | 58 | 975 | 26 | 11 | 768 | 38 |
| Future Volume (veh/h) | 34 | 8 | 172 | 35 | 22 | 19 | 58 | 975 | 26 | 11 | 768 | 38 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 37 | 9 | 187 | 38 | 24 | 21 | 63 | 1060 | 28 | 12 | 835 | 41 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 142 | 32 | 261 | 249 | 146 | 87 | 113 | 1495 | 39 | 28 | 1292 | 63 |
| Arrive On Green | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.06 | 0.42 | 0.42 | 0.02 | 0.38 | 0.38 |
| Sat Flow, veh/h | 156 | 156 | 1268 | 543 | 708 | 424 | 1774 | 3523 | 93 | 1774 | 3434 | 169 |
| Grp Volume(v), veh/h | 233 | 0 | 0 | 83 | 0 | 0 | 63 | 532 | 556 | 12 | 430 | 446 |
| Grp Sat Flow(s),veh/h/ln | 1580 | 0 | 0 | 1675 | 0 | 0 | 1774 | 1770 | 1846 | 1774 | 1770 | 1833 |
| Q Serve(g_s), s | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 9.4 | 9.5 | 0.3 | 7.6 | 7.6 |
| Cycle Q Clear(g_c), s | 5.2 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 1.3 | 9.4 | 9.5 | 0.3 | 7.6 | 7.6 |
| Prop In Lane | 0.16 | | 0.80 | 0.46 | | 0.25 | 1.00 | | 0.05 | 1.00 | | 0.09 |
| Lane Grp Cap(c), veh/h | 435 | 0 | 0 | 483 | 0 | 0 | 113 | 751 | 784 | 28 | 666 | 690 |
| V/C Ratio(X) | 0.54 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 | 0.56 | 0.71 | 0.71 | 0.43 | 0.65 | 0.65 |
| Avail Cap(c_a), veh/h | 851 | 0 | 0 | 865 | 0 | 0 | 246 | 1081 | 1128 | 237 | 1072 | 1110 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.0 | 0.0 | 0.0 | 12.6 | 0.0 | 0.0 | 17.3 | 9.0 | 9.0 | 18.6 | 9.8 | 9.8 |
| Incr Delay (d2), s/veh | 1.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 4.2 | 1.2 | 1.2 | 10.3 | 1.1 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.4 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.8 | 4.8 | 5.0 | 0.2 | 3.9 | 4.0 |
| LnGrp Delay(d),s/veh | 15.1 | 0.0 | 0.0 | 12.8 | 0.0 | 0.0 | 21.5 | 10.3 | 10.2 | 28.9 | 10.9 | 10.8 |
| LnGrp LOS | B | | | B | | | C | B | B | C | B | B |
| Approach Vol, veh/h | | 233 | | | 83 | | | 1151 | | | 888 | |
| Approach Delay, s/veh | | 15.1 | | | 12.8 | | | 10.9 | | | 11.1 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.1 | 20.7 | | 12.4 | 6.9 | 18.9 | | 12.4 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 23.3 | | 18.1 | 5.3 | 23.1 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.3 | 11.5 | | 7.2 | 3.3 | 9.6 | | 3.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.7 | | 1.0 | 0.0 | 3.9 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 11.4 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.1 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↕↕ | ↕↔ | | ↔ | ↔ |
| Traffic Vol, veh/h | 119 | 263 | 335 | 3 | 0 | 58 |
| Future Vol, veh/h | 119 | 263 | 335 | 3 | 0 | 58 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 129 | 286 | 364 | 3 | 0 | 63 |





















| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 367 | 0 | - | 0 | 767 184 |
| Stage 1 | - | - | - | - | 366 - |
| Stage 2 | - | - | - | - | 401 - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 3.32 |
| Pot Cap-1 Maneuver | 1188 | - | - | - | 339 827 |
| Stage 1 | - | - | - | - | 672 - |
| Stage 2 | - | - | - | - | 645 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1188 | - | - | - | 295 827 |
| Mov Cap-2 Maneuver | - | - | - | - | 414 - |
| Stage 1 | - | - | - | - | 585 - |
| Stage 2 | - | - | - | - | 645 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 2.8 | 0 | 9.7 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1188 | - | - | - | - | 827 |
| HCM Lane V/C Ratio | 0.109 | - | - | - | - | 0.076 |
| HCM Control Delay (s) | 8.4 | 0.3 | - | - | 0 | 9.7 |
| HCM Lane LOS | A | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | - | 0.2 |























HCM 2010 Signalized Intersection Summary
 3: Mooney Blvd & Sunnyside Ave

20 Year plus Project w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 120 | 5 | 51 | 17 | 2 | 122 | 62 | 1325 | 20 | 76 | 1513 | 72 |
| Future Volume (veh/h) | 120 | 5 | 51 | 17 | 2 | 122 | 62 | 1325 | 20 | 76 | 1513 | 72 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 129 | 5 | 55 | 18 | 2 | 131 | 67 | 1425 | 22 | 82 | 1627 | 77 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 118 | 10 | 107 | 177 | 3 | 166 | 510 | 2871 | 44 | 102 | 1589 | 75 |
| Arrive On Green | 0.07 | 0.07 | 0.07 | 0.10 | 0.11 | 0.11 | 0.29 | 0.56 | 0.56 | 0.06 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1774 | 134 | 1470 | 1774 | 24 | 1563 | 1774 | 5157 | 80 | 1774 | 4967 | 235 |
| Grp Volume(v), veh/h | 129 | 0 | 60 | 18 | 0 | 133 | 67 | 937 | 510 | 82 | 1110 | 594 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1603 | 1774 | 0 | 1587 | 1774 | 1695 | 1846 | 1774 | 1695 | 1812 |
| Q Serve(g_s), s | 7.3 | 0.0 | 4.0 | 1.0 | 0.0 | 9.0 | 3.1 | 18.6 | 18.6 | 5.0 | 35.2 | 35.2 |
| Cycle Q Clear(g_c), s | 7.3 | 0.0 | 4.0 | 1.0 | 0.0 | 9.0 | 3.1 | 18.6 | 18.6 | 5.0 | 35.2 | 35.2 |
| Prop In Lane | 1.00 | | 0.92 | 1.00 | | 0.98 | 1.00 | | 0.04 | 1.00 | | 0.13 |
| Lane Grp Cap(c), veh/h | 118 | 0 | 117 | 177 | 0 | 168 | 510 | 1887 | 1028 | 102 | 1085 | 580 |
| V/C Ratio(X) | 1.10 | 0.00 | 0.51 | 0.10 | 0.00 | 0.79 | 0.13 | 0.50 | 0.50 | 0.81 | 1.02 | 1.02 |
| Avail Cap(c_a), veh/h | 118 | 0 | 573 | 177 | 0 | 548 | 510 | 1887 | 1028 | 102 | 1085 | 580 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.79 | 0.79 | 0.79 | 0.84 | 0.84 | 0.84 |
| Uniform Delay (d), s/veh | 51.3 | 0.0 | 49.1 | 45.0 | 0.0 | 48.0 | 29.0 | 14.9 | 14.9 | 51.2 | 37.4 | 37.4 |
| Incr Delay (d2), s/veh | 111.0 | 0.0 | 2.6 | 0.1 | 0.0 | 6.1 | 0.0 | 0.7 | 1.4 | 29.8 | 31.1 | 40.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.2 | 0.0 | 1.9 | 0.5 | 0.0 | 4.2 | 1.5 | 8.9 | 9.9 | 3.3 | 21.1 | 24.1 |
| LnGrp Delay(d),s/veh | 162.3 | 0.0 | 51.7 | 45.1 | 0.0 | 54.1 | 29.0 | 15.7 | 16.3 | 81.0 | 68.5 | 77.9 |
| LnGrp LOS | F | | D | D | | D | C | B | B | F | F | F |
| Approach Vol, veh/h | | 189 | | | 151 | | | 1514 | | | 1786 | |
| Approach Delay, s/veh | | 127.2 | | | 53.0 | | | 16.5 | | | 72.2 | |
| Approach LOS | | F | | | D | | | B | | | E | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.0 | 67.6 | 16.7 | 13.7 | 38.0 | 41.6 | 13.0 | 17.4 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | * 5.7 | * 5.7 | 6.4 | * 6.4 | * 5.7 | * 5.7 | | | | |
| Max Green Setting (Gmax), s | * 6.3 | 34.9 | * 6 | * 39 | 6.0 | * 35 | * 7.3 | * 38 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.0 | 20.6 | 3.0 | 6.0 | 5.1 | 37.2 | 9.3 | 11.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.9 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 51.1 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |



















HCM 2010 Signalized Intersection Summary
4: Mooney Blvd & Orchard Ave

20 Year plus Project w/ Mitigations
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 20 | 2 | 38 | 64 | 10 | 80 | 70 | 1206 | 54 | 173 | 1425 | 39 |
| Future Volume (veh/h) | 20 | 2 | 38 | 64 | 10 | 80 | 70 | 1206 | 54 | 173 | 1425 | 39 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 21 | 2 | 40 | 68 | 11 | 85 | 74 | 1283 | 57 | 184 | 1516 | 41 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 70 | 8 | 159 | 87 | 21 | 164 | 1002 | 2679 | 815 | 210 | 1771 | 549 |
| Arrive On Green | 0.04 | 0.11 | 0.11 | 0.05 | 0.12 | 0.12 | 0.29 | 0.53 | 0.53 | 0.12 | 0.35 | 0.35 |
| Sat Flow, veh/h | 1774 | 75 | 1494 | 1774 | 183 | 1416 | 3442 | 5085 | 1546 | 1774 | 5085 | 1577 |
| Grp Volume(v), veh/h | 21 | 0 | 42 | 68 | 0 | 96 | 74 | 1283 | 57 | 184 | 1516 | 41 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1569 | 1774 | 0 | 1600 | 1721 | 1695 | 1546 | 1774 | 1695 | 1577 |
| Q Serve(g_s), s | 1.4 | 0.0 | 2.9 | 4.5 | 0.0 | 6.8 | 1.9 | 19.2 | 1.5 | 12.2 | 33.2 | 2.1 |
| Cycle Q Clear(g_c), s | 1.4 | 0.0 | 2.9 | 4.5 | 0.0 | 6.8 | 1.9 | 19.2 | 1.5 | 12.2 | 33.2 | 2.1 |
| Prop In Lane | 1.00 | | 0.95 | 1.00 | | 0.89 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 70 | 0 | 167 | 87 | 0 | 185 | 1002 | 2679 | 815 | 210 | 1771 | 549 |
| V/C Ratio(X) | 0.30 | 0.00 | 0.25 | 0.78 | 0.00 | 0.52 | 0.07 | 0.48 | 0.07 | 0.88 | 0.86 | 0.07 |
| Avail Cap(c_a), veh/h | 89 | 0 | 549 | 93 | 0 | 564 | 1002 | 2679 | 815 | 211 | 1771 | 549 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.75 | 0.75 | 0.75 | 0.74 | 0.74 | 0.74 |
| Uniform Delay (d), s/veh | 56.0 | 0.0 | 49.2 | 56.4 | 0.0 | 49.9 | 30.8 | 18.0 | 6.5 | 52.0 | 36.3 | 26.2 |
| Incr Delay (d2), s/veh | 0.9 | 0.0 | 0.3 | 29.1 | 0.0 | 1.7 | 0.0 | 0.5 | 0.1 | 23.7 | 4.2 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 1.3 | 2.9 | 0.0 | 3.1 | 0.9 | 9.0 | 0.9 | 7.4 | 16.1 | 0.9 |
| LnGrp Delay(d),s/veh | 56.9 | 0.0 | 49.5 | 85.5 | 0.0 | 51.6 | 30.8 | 18.4 | 6.6 | 75.8 | 40.5 | 26.4 |
| LnGrp LOS | E | | D | F | | D | C | B | A | E | D | C |
| Approach Vol, veh/h | | 63 | | | 164 | | | 1414 | | | 1741 | |
| Approach Delay, s/veh | | 52.0 | | | 65.7 | | | 18.6 | | | 43.9 | |
| Approach LOS | | D | | | E | | | B | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 19.9 | 69.6 | 11.6 | 18.9 | 41.3 | 48.2 | 10.5 | 20.0 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.1 | 6.4 | * 6.4 | 5.7 | * 6.1 | | | | |
| Max Green Setting (Gmax), s | * 14 | 33.5 | 6.3 | * 42 | 6.0 | * 42 | 6.0 | * 42 | | | | |
| Max Q Clear Time (g_c+I1), s | 14.2 | 21.2 | 6.5 | 4.9 | 3.9 | 35.2 | 3.4 | 8.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.6 | 0.0 | 0.1 | 0.0 | 5.7 | 0.0 | 0.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 34.5 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
5: Dans St & Caldwell Ave

20 Year plus Project w/ Mitigations
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  | |
| Traffic Volume (veh/h) | 35 | 1405 | 62 | 50 | 1122 | 29 | 25 | 0 | 47 | 26 | 0 | 52 |
| Future Volume (veh/h) | 35 | 1405 | 62 | 50 | 1122 | 29 | 25 | 0 | 47 | 26 | 0 | 52 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 36 | 1464 | 65 | 52 | 1169 | 30 | 26 | 0 | 49 | 27 | 0 | 54 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 71 | 1939 | 86 | 93 | 2023 | 52 | 147 | 10 | 99 | 145 | 9 | 101 |
| Arrive On Green | 0.04 | 0.56 | 0.56 | 0.05 | 0.57 | 0.57 | 0.09 | 0.00 | 0.09 | 0.09 | 0.00 | 0.09 |
| Sat Flow, veh/h | 1774 | 3452 | 153 | 1774 | 3523 | 90 | 454 | 108 | 1060 | 437 | 100 | 1074 |
| Grp Volume(v), veh/h | 36 | 749 | 780 | 52 | 587 | 612 | 75 | 0 | 0 | 81 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1836 | 1774 | 1770 | 1844 | 1622 | 0 | 0 | 1612 | 0 | 0 |
| Q Serve(g_s), s | 0.9 | 14.9 | 15.0 | 1.3 | 9.8 | 9.8 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.9 | 14.9 | 15.0 | 1.3 | 9.8 | 9.8 | 1.9 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.08 | 1.00 | | 0.05 | 0.35 | | 0.65 | 0.33 | | 0.67 |
| Lane Grp Cap(c), veh/h | 71 | 994 | 1031 | 93 | 1016 | 1059 | 257 | 0 | 0 | 255 | 0 | 0 |
| V/C Ratio(X) | 0.51 | 0.75 | 0.76 | 0.56 | 0.58 | 0.58 | 0.29 | 0.00 | 0.00 | 0.32 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 203 | 1267 | 1315 | 203 | 1267 | 1321 | 701 | 0 | 0 | 701 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 21.7 | 7.7 | 7.7 | 21.4 | 6.3 | 6.3 | 19.8 | 0.0 | 0.0 | 19.9 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.5 | 1.9 | 1.9 | 5.1 | 0.5 | 0.5 | 0.6 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 7.6 | 7.9 | 0.8 | 4.7 | 4.9 | 0.9 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 27.2 | 9.6 | 9.7 | 26.4 | 6.8 | 6.8 | 20.5 | 0.0 | 0.0 | 20.6 | 0.0 | 0.0 |
| LnGrp LOS | C | A | A | C | A | A | C | | | C | | |
| Approach Vol, veh/h | | 1565 | | | 1251 | | | 75 | | | 81 | |
| Approach Delay, s/veh | | 10.1 | | | 7.6 | | | 20.5 | | | 20.6 | |
| Approach LOS | | B | | | A | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.9 | 30.5 | | 8.8 | 6.4 | 31.0 | | 8.8 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.3 | 33.1 | | 18.1 | 5.3 | 33.1 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.3 | 17.0 | | 3.9 | 2.9 | 11.8 | | 4.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 9.0 | | 0.3 | 0.0 | 7.6 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.6 | | | | | | | | | |
| HCM 2010 LOS | | | A | | | | | | | | | |

Queues
7: Mooney Blvd & Caldwell Ave

20 Year plus Project w/ Mitigations
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph) | 309 | 811 | 261 | 569 | 346 | 1135 | 143 | 199 | 1382 | 123 |
| v/c Ratio | 0.57 | 0.67 | 0.69 | 0.59 | 1.03 | 0.56 | 0.21 | 0.70 | 0.71 | 0.18 |
| Control Delay | 59.1 | 44.9 | 69.9 | 48.3 | 118.2 | 35.6 | 9.5 | 76.0 | 40.5 | 6.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 59.1 | 44.9 | 69.9 | 48.3 | 118.2 | 35.6 | 9.5 | 76.0 | 40.5 | 6.5 |
| Queue Length 50th (ft) | 132 | 221 | 119 | 163 | -173 | 295 | 16 | 91 | 390 | 1 |
| Queue Length 95th (ft) | #204 | 243 | 167 | 170 | #275 | 386 | 69 | 136 | 504 | 49 |
| Internal Link Dist (ft) | | 745 | | 794 | | 1348 | | | 581 | |
| Turn Bay Length (ft) | 345 | | 340 | | 265 | | 165 | 270 | | 270 |
| Base Capacity (vph) | 544 | 1700 | 378 | 1682 | 335 | 2015 | 687 | 303 | 1939 | 666 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.57 | 0.48 | 0.69 | 0.34 | 1.03 | 0.56 | 0.21 | 0.66 | 0.71 | 0.18 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
7: Mooney Blvd & Caldwell Ave

20 Year plus Project w/ Mitigations
Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 294 | 523 | 247 | 248 | 425 | 116 | 329 | 1078 | 136 | 189 | 1313 | 117 |
| Future Volume (veh/h) | 294 | 523 | 247 | 248 | 425 | 116 | 329 | 1078 | 136 | 189 | 1313 | 117 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 309 | 551 | 260 | 261 | 447 | 122 | 346 | 1135 | 143 | 199 | 1382 | 123 |
| Adj No. of Lanes | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 471 | 834 | 381 | 285 | 764 | 202 | 650 | 2175 | 676 | 247 | 1555 | 475 |
| Arrive On Green | 0.14 | 0.24 | 0.24 | 0.08 | 0.19 | 0.19 | 0.19 | 0.43 | 0.43 | 0.07 | 0.31 | 0.31 |
| Sat Flow, veh/h | 3442 | 3405 | 1557 | 3442 | 4005 | 1058 | 3442 | 5085 | 1580 | 3442 | 5085 | 1553 |
| Grp Volume(v), veh/h | 309 | 549 | 262 | 261 | 376 | 193 | 346 | 1135 | 143 | 199 | 1382 | 123 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1695 | 1572 | 1721 | 1695 | 1672 | 1721 | 1695 | 1580 | 1721 | 1695 | 1553 |
| Q Serve(g_s), s | 11.9 | 20.4 | 21.2 | 10.5 | 14.1 | 14.8 | 12.7 | 23.0 | 5.6 | 8.0 | 36.3 | 8.4 |
| Cycle Q Clear(g_c), s | 11.9 | 20.4 | 21.2 | 10.5 | 14.1 | 14.8 | 12.7 | 23.0 | 5.6 | 8.0 | 36.3 | 8.4 |
| Prop In Lane | 1.00 | | 0.99 | 1.00 | | 0.63 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 471 | 830 | 385 | 285 | 647 | 319 | 650 | 2175 | 676 | 247 | 1555 | 475 |
| V/C Ratio(X) | 0.66 | 0.66 | 0.68 | 0.92 | 0.58 | 0.60 | 0.53 | 0.52 | 0.21 | 0.81 | 0.89 | 0.26 |
| Avail Cap(c_a), veh/h | 471 | 1155 | 536 | 285 | 1138 | 561 | 650 | 2175 | 676 | 290 | 1555 | 475 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.88 | 0.88 | 0.88 | 0.78 | 0.78 | 0.78 | 0.68 | 0.68 | 0.68 | 0.86 | 0.86 | 0.86 |
| Uniform Delay (d), s/veh | 57.3 | 47.6 | 47.9 | 63.7 | 51.6 | 51.8 | 51.2 | 29.5 | 12.5 | 64.0 | 46.3 | 36.6 |
| Incr Delay (d2), s/veh | 2.3 | 1.5 | 3.6 | 26.6 | 1.3 | 2.8 | 0.3 | 0.6 | 0.5 | 9.9 | 7.0 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.8 | 9.8 | 9.6 | 6.1 | 6.7 | 7.1 | 6.1 | 10.8 | 3.2 | 4.1 | 18.0 | 3.7 |
| LnGrp Delay(d),s/veh | 59.6 | 49.2 | 51.5 | 90.3 | 52.8 | 54.6 | 51.5 | 30.1 | 13.0 | 73.9 | 53.3 | 37.8 |
| LnGrp LOS | E | D | D | F | D | D | D | C | B | E | D | D |
| Approach Vol, veh/h | | 1120 | | | 830 | | | 1624 | | | 1704 | |
| Approach Delay, s/veh | | 52.6 | | | 65.0 | | | 33.2 | | | 54.6 | |
| Approach LOS | | D | | | E | | | C | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.7 | 66.3 | 17.3 | 40.7 | 32.8 | 49.2 | 24.9 | 33.1 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.4 | 5.7 | * 6.4 | 6.4 | * 6.4 | 5.7 | * 6.4 | | | | |
| Max Green Setting (Gmax), s | * 12 | 44.7 | 11.6 | * 48 | 13.7 | * 43 | 12.3 | * 47 | | | | |
| Max Q Clear Time (g_c+I1), s | 10.0 | 25.0 | 12.5 | 23.2 | 14.7 | 38.3 | 13.9 | 16.8 | | | | |
| Green Ext Time (p_c), s | 0.1 | 13.4 | 0.0 | 9.4 | 0.0 | 4.0 | 0.0 | 6.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 49.2 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Queues
11: County Center Dr & Cameron Ave

20 Year plus Project w/ Mitigations
Timing Plan: P.M. Peak



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 78 | 426 | 300 | 42 | 439 | 201 |
| v/c Ratio | 0.21 | 0.65 | 0.29 | 0.05 | 0.72 | 0.19 |
| Control Delay | 19.8 | 8.1 | 5.5 | 1.8 | 14.8 | 4.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.8 | 8.1 | 5.5 | 1.8 | 14.8 | 4.9 |
| Queue Length 50th (ft) | 14 | 0 | 26 | 0 | 55 | 17 |
| Queue Length 95th (ft) | 64 | 71 | 82 | 9 | 195 | 55 |
| Internal Link Dist (ft) | 1226 | | 772 | | | 355 |
| Turn Bay Length (ft) | | 100 | | 160 | 145 | |
| Base Capacity (vph) | 1269 | 1230 | 1850 | 1540 | 1067 | 1850 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.35 | 0.16 | 0.03 | 0.41 | 0.11 |
| Intersection Summary | | | | | | |

Queues
13: Stonebrook St & Cameron Ave

20 Year plus Project w/ Mitigations
Timing Plan: P.M. Peak

























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 98 | 775 | 333 | 643 | 97 | 311 | 209 | 55 | 247 |
| v/c Ratio | 0.58 | 0.96 | 0.90 | 0.61 | 0.82 | 0.52 | 0.55 | 0.52 | 0.59 |
| Control Delay | 58.6 | 53.3 | 67.3 | 19.0 | 93.0 | 17.7 | 11.8 | 65.2 | 38.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.6 | 53.3 | 67.3 | 19.0 | 93.0 | 17.7 | 11.8 | 65.2 | 38.6 |
| Queue Length 50th (ft) | 61 | 476 | 212 | 277 | 64 | 34 | 0 | 35 | 62 |
| Queue Length 95th (ft) | 120 | #787 | #396 | 442 | #163 | 78 | 72 | #86 | 102 |
| Internal Link Dist (ft) | | 978 | | 1708 | | 903 | | | 1465 |
| Turn Bay Length (ft) | 100 | | 100 | | 200 | | 200 | 150 | |
| Base Capacity (vph) | 192 | 805 | 372 | 1050 | 119 | 756 | 446 | 109 | 677 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.51 | 0.96 | 0.90 | 0.61 | 0.82 | 0.41 | 0.47 | 0.50 | 0.36 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.




















HCM 2010 Signalized Intersection Summary
 13: Stonebrook St & Cameron Ave

20 Year plus Project w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 95 | 699 | 52 | 323 | 541 | 82 | 94 | 99 | 405 | 53 | 165 | 75 |
| Future Volume (veh/h) | 95 | 699 | 52 | 323 | 541 | 82 | 94 | 99 | 405 | 53 | 165 | 75 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 98 | 721 | 54 | 333 | 558 | 85 | 97 | 102 | 418 | 55 | 170 | 77 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 2 | 0 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 124 | 731 | 55 | 361 | 886 | 135 | 117 | 292 | 497 | 71 | 313 | 136 |
| Arrive On Green | 0.07 | 0.43 | 0.43 | 0.20 | 0.56 | 0.56 | 0.07 | 0.16 | 0.16 | 0.04 | 0.13 | 0.13 |
| Sat Flow, veh/h | 1774 | 1712 | 128 | 1774 | 1580 | 241 | 1774 | 1863 | 3167 | 1774 | 2404 | 1045 |
| Grp Volume(v), veh/h | 98 | 0 | 775 | 333 | 0 | 643 | 97 | 102 | 418 | 55 | 123 | 124 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1840 | 1774 | 0 | 1820 | 1774 | 1863 | 1583 | 1774 | 1770 | 1678 |
| Q Serve(g_s), s | 5.7 | 0.0 | 43.4 | 19.2 | 0.0 | 25.0 | 5.6 | 5.1 | 13.4 | 3.2 | 6.8 | 7.2 |
| Cycle Q Clear(g_c), s | 5.7 | 0.0 | 43.4 | 19.2 | 0.0 | 25.0 | 5.6 | 5.1 | 13.4 | 3.2 | 6.8 | 7.2 |
| Prop In Lane | 1.00 | | 0.07 | 1.00 | | 0.13 | 1.00 | | 1.00 | 1.00 | | 0.62 |
| Lane Grp Cap(c), veh/h | 124 | 0 | 786 | 361 | 0 | 1021 | 117 | 292 | 497 | 71 | 231 | 219 |
| V/C Ratio(X) | 0.79 | 0.00 | 0.99 | 0.92 | 0.00 | 0.63 | 0.83 | 0.35 | 0.84 | 0.78 | 0.53 | 0.57 |
| Avail Cap(c_a), veh/h | 189 | 0 | 786 | 366 | 0 | 1021 | 117 | 352 | 599 | 107 | 324 | 308 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.7 | 0.0 | 29.5 | 40.7 | 0.0 | 15.5 | 48.1 | 39.2 | 42.7 | 49.6 | 42.3 | 42.5 |
| Incr Delay (d2), s/veh | 12.0 | 0.0 | 28.6 | 28.1 | 0.0 | 1.2 | 36.1 | 0.7 | 9.0 | 17.9 | 1.9 | 2.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.2 | 0.0 | 28.2 | 12.2 | 0.0 | 12.9 | 3.9 | 2.7 | 6.5 | 1.9 | 3.4 | 3.5 |
| LnGrp Delay(d),s/veh | 59.7 | 0.0 | 58.1 | 68.8 | 0.0 | 16.8 | 84.2 | 39.9 | 51.7 | 67.5 | 44.3 | 44.8 |
| LnGrp LOS | E | | E | E | | B | F | D | D | E | D | D |
| Approach Vol, veh/h | | 873 | | | 976 | | | 617 | | | 302 | |
| Approach Delay, s/veh | | 58.3 | | | 34.5 | | | 54.9 | | | 48.7 | |
| Approach LOS | | E | | | C | | | D | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.6 | 20.8 | 25.7 | 49.0 | 11.4 | 18.1 | 11.8 | 62.9 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 6.3 | 19.7 | 21.5 | 44.5 | 6.9 | 19.1 | 11.1 | 54.9 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.2 | 15.4 | 21.2 | 45.4 | 7.6 | 9.2 | 7.7 | 27.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.1 | 4.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 48.1 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

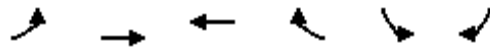
HCM 2010 Signalized Intersection Summary
 14: West St & Cameron Ave

20 Year plus Project w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | |  |  | |
| Traffic Volume (veh/h) | 192 | 701 | 18 | 10 | 540 | 10 | 9 | 6 | 2 | 6 | 8 | 208 |
| Future Volume (veh/h) | 192 | 701 | 18 | 10 | 540 | 10 | 9 | 6 | 2 | 6 | 8 | 208 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 198 | 723 | 19 | 10 | 557 | 10 | 9 | 6 | 2 | 6 | 8 | 214 |
| Adj No. of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 251 | 906 | 24 | 23 | 680 | 12 | 162 | 88 | 17 | 418 | 11 | 287 |
| Arrive On Green | 0.14 | 0.50 | 0.50 | 0.01 | 0.37 | 0.37 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| Sat Flow, veh/h | 1774 | 1807 | 47 | 1774 | 1823 | 33 | 217 | 469 | 92 | 1402 | 57 | 1535 |
| Grp Volume(v), veh/h | 198 | 0 | 742 | 10 | 0 | 567 | 17 | 0 | 0 | 6 | 0 | 222 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 0 | 1854 | 1774 | 0 | 1856 | 778 | 0 | 0 | 1402 | 0 | 1592 |
| Q Serve(g_s), s | 4.9 | 0.0 | 15.1 | 0.3 | 0.0 | 12.5 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 |
| Cycle Q Clear(g_c), s | 4.9 | 0.0 | 15.1 | 0.3 | 0.0 | 12.5 | 6.0 | 0.0 | 0.0 | 0.2 | 0.0 | 6.0 |
| Prop In Lane | 1.00 | | 0.03 | 1.00 | | 0.02 | 0.53 | | 0.12 | 1.00 | | 0.96 |
| Lane Grp Cap(c), veh/h | 251 | 0 | 930 | 23 | 0 | 692 | 267 | 0 | 0 | 418 | 0 | 298 |
| V/C Ratio(X) | 0.79 | 0.00 | 0.80 | 0.43 | 0.00 | 0.82 | 0.06 | 0.00 | 0.00 | 0.01 | 0.00 | 0.74 |
| Avail Cap(c_a), veh/h | 349 | 0 | 1168 | 196 | 0 | 1009 | 558 | 0 | 0 | 713 | 0 | 633 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 18.8 | 0.0 | 9.4 | 22.2 | 0.0 | 12.8 | 15.3 | 0.0 | 0.0 | 15.0 | 0.0 | 17.4 |
| Incr Delay (d2), s/veh | 8.0 | 0.0 | 3.2 | 12.2 | 0.0 | 3.5 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.9 | 0.0 | 8.4 | 0.2 | 0.0 | 7.0 | 0.2 | 0.0 | 0.0 | 0.1 | 0.0 | 2.9 |
| LnGrp Delay(d),s/veh | 26.7 | 0.0 | 12.5 | 34.4 | 0.0 | 16.3 | 15.4 | 0.0 | 0.0 | 15.0 | 0.0 | 21.1 |
| LnGrp LOS | C | | B | C | | B | B | | | B | | C |
| Approach Vol, veh/h | | 940 | | | 577 | | | 17 | | | | 228 |
| Approach Delay, s/veh | | 15.5 | | | 16.7 | | | 15.4 | | | | 20.9 |
| Approach LOS | | B | | | B | | | B | | | | C |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.1 | 27.2 | | 13.0 | 10.9 | 21.4 | | 13.0 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 28.5 | | 18.0 | 8.9 | 24.6 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.3 | 17.1 | | 8.0 | 6.9 | 14.5 | | 8.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 3.6 | | 0.0 | 0.1 | 2.4 | | 0.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 16.6 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 18: Visalia Pkwy & County Center Dr




















20 Year plus Project w/ Mitigations
 Timing Plan: P.M. Peak



| Movement | EBL | EBT | WBT | WBR | SBL | SBR | | |
|------------------------------|------|------|------|------|------|------|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (veh/h) | 114 | 537 | 574 | 190 | 125 | 123 | | |
| Future Volume (veh/h) | 114 | 537 | 574 | 190 | 125 | 123 | | |
| Number | 5 | 2 | 6 | 16 | 7 | 14 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 124 | 584 | 624 | 207 | 136 | 134 | | |
| Adj No. of Lanes | 1 | 2 | 2 | 0 | 1 | 1 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 178 | 2111 | 957 | 317 | 255 | 228 | | |
| Arrive On Green | 0.10 | 0.60 | 0.37 | 0.37 | 0.14 | 0.14 | | |
| Sat Flow, veh/h | 1774 | 3632 | 2707 | 866 | 1774 | 1583 | | |
| Grp Volume(v), veh/h | 124 | 584 | 422 | 409 | 136 | 134 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1770 | 1710 | 1774 | 1583 | | |
| Q Serve(g_s), s | 2.3 | 2.8 | 6.9 | 6.9 | 2.5 | 2.7 | | |
| Cycle Q Clear(g_c), s | 2.3 | 2.8 | 6.9 | 6.9 | 2.5 | 2.7 | | |
| Prop In Lane | 1.00 | | | 0.51 | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 178 | 2111 | 648 | 626 | 255 | 228 | | |
| V/C Ratio(X) | 0.70 | 0.28 | 0.65 | 0.65 | 0.53 | 0.59 | | |
| Avail Cap(c_a), veh/h | 435 | 3370 | 1021 | 987 | 921 | 822 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 15.1 | 3.4 | 9.1 | 9.2 | 13.8 | 13.9 | | |
| Incr Delay (d2), s/veh | 4.8 | 0.1 | 1.1 | 1.2 | 1.7 | 2.4 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 1.4 | 1.3 | 3.5 | 3.4 | 1.3 | 2.5 | | |
| LnGrp Delay(d),s/veh | 19.9 | 3.4 | 10.3 | 10.3 | 15.5 | 16.3 | | |
| LnGrp LOS | B | A | B | B | B | B | | |
| Approach Vol, veh/h | | 708 | 831 | | 270 | | | |
| Approach Delay, s/veh | | 6.3 | 10.3 | | 15.9 | | | |
| Approach LOS | | A | B | | B | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | 4 | 5 | 6 | | |
| Phs Duration (G+Y+Rc), s | | 25.2 | | 9.5 | 8.0 | 17.2 | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 | | |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 8.5 | 20.0 | | |
| Max Q Clear Time (g_c+I1), s | | 4.8 | | 4.7 | 4.3 | 8.9 | | |
| Green Ext Time (p_c), s | | 3.9 | | 0.6 | 0.1 | 3.8 | | |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 9.6 | | | | | |
| HCM 2010 LOS | | | A | | | | | |

HCM 2010 Signalized Intersection Summary
 19: Main Site Access/Target Dwy & Visalia Pkwy

20 Year plus Project w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  |  | |  | |
| Traffic Volume (veh/h) | 79 | 503 | 74 | 161 | 544 | 32 | 131 | 0 | 260 | 135 | 0 | 68 |
| Future Volume (veh/h) | 79 | 503 | 74 | 161 | 544 | 32 | 131 | 0 | 260 | 135 | 0 | 68 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 7 | 4 | 14 | 3 | 8 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1900 | 1863 | 1863 | 1900 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 86 | 547 | 80 | 175 | 591 | 35 | 142 | 0 | 283 | 147 | 0 | 74 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 134 | 822 | 120 | 227 | 1079 | 64 | 549 | 0 | 454 | 305 | 28 | 96 |
| Arrive On Green | 0.08 | 0.26 | 0.26 | 0.13 | 0.32 | 0.32 | 0.29 | 0.00 | 0.29 | 0.29 | 0.00 | 0.29 |
| Sat Flow, veh/h | 1774 | 3101 | 452 | 1774 | 3396 | 201 | 1317 | 0 | 1583 | 567 | 97 | 334 |
| Grp Volume(v), veh/h | 86 | 311 | 316 | 175 | 308 | 318 | 142 | 0 | 283 | 221 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1783 | 1774 | 1770 | 1827 | 1317 | 0 | 1583 | 998 | 0 | 0 |
| Q Serve(g_s), s | 2.0 | 6.6 | 6.7 | 4.0 | 6.1 | 6.1 | 0.0 | 0.0 | 6.5 | 5.7 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.0 | 6.6 | 6.7 | 4.0 | 6.1 | 6.1 | 3.6 | 0.0 | 6.5 | 9.3 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.25 | 1.00 | | 0.11 | 1.00 | | 1.00 | 0.67 | | 0.33 |
| Lane Grp Cap(c), veh/h | 134 | 469 | 472 | 227 | 562 | 580 | 549 | 0 | 454 | 428 | 0 | 0 |
| V/C Ratio(X) | 0.64 | 0.66 | 0.67 | 0.77 | 0.55 | 0.55 | 0.26 | 0.00 | 0.62 | 0.52 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 303 | 756 | 761 | 442 | 894 | 923 | 734 | 0 | 676 | 599 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 18.9 | 13.8 | 13.8 | 17.8 | 11.9 | 11.9 | 12.0 | 0.0 | 13.1 | 14.6 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.1 | 1.6 | 1.6 | 5.5 | 0.8 | 0.8 | 0.2 | 0.0 | 1.4 | 1.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.1 | 3.4 | 3.5 | 2.3 | 3.0 | 3.1 | 1.3 | 0.0 | 3.0 | 2.5 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 24.0 | 15.4 | 15.5 | 23.2 | 12.7 | 12.7 | 12.3 | 0.0 | 14.5 | 15.6 | 0.0 | 0.0 |
| LnGrp LOS | C | B | B | C | B | B | B | | B | B | | |
| Approach Vol, veh/h | | 713 | | | 801 | | | 425 | | | 221 | |
| Approach Delay, s/veh | | 16.5 | | | 15.0 | | | 13.7 | | | 15.6 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.9 | 15.7 | | 16.6 | 7.7 | 17.9 | | 16.6 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 10.5 | 18.0 | | 18.0 | 7.2 | 21.3 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.0 | 8.7 | | 8.5 | 4.0 | 8.1 | | 11.3 | | | | |
| Green Ext Time (p_c), s | 0.2 | 2.5 | | 1.3 | 0.0 | 2.9 | | 0.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 15.3 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Queues
20: Mooney Blvd & Visalia Pkwy

20 Year plus Project w/ Mitigations
Timing Plan: P.M. Peak
























| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 134 | 516 | 297 | 299 | 288 | 1307 | 183 | 986 | 67 |
| v/c Ratio | 0.84 | 0.74 | 0.76 | 0.34 | 0.64 | 0.94 | 0.84 | 0.49 | 0.09 |
| Control Delay | 104.8 | 48.5 | 72.4 | 38.7 | 65.0 | 53.0 | 90.4 | 33.6 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 104.8 | 48.5 | 72.4 | 38.7 | 65.0 | 53.0 | 90.4 | 33.6 | 0.3 |
| Queue Length 50th (ft) | 63 | 183 | 137 | 104 | 130 | ~626 | 162 | 249 | 0 |
| Queue Length 95th (ft) | #124 | 246 | 184 | 141 | 180 | #789 | #318 | 309 | 0 |
| Internal Link Dist (ft) | | 765 | | 337 | | 252 | | 1110 | |
| Turn Bay Length (ft) | 180 | | 175 | | 205 | | 290 | | 210 |
| Base Capacity (vph) | 159 | 760 | 468 | 1017 | 448 | 1396 | 218 | 2014 | 723 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.84 | 0.68 | 0.63 | 0.29 | 0.64 | 0.94 | 0.84 | 0.49 | 0.09 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
 20: Mooney Blvd & Visalia Pkwy

20 Year plus Project w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  |
| Traffic Volume (veh/h) | 125 | 283 | 197 | 276 | 214 | 64 | 268 | 974 | 242 | 170 | 917 | 62 |
| Future Volume (veh/h) | 125 | 283 | 197 | 276 | 214 | 64 | 268 | 974 | 242 | 170 | 917 | 62 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 134 | 304 | 212 | 297 | 230 | 69 | 288 | 1047 | 260 | 183 | 986 | 67 |
| Adj No. of Lanes | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 1 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 160 | 366 | 248 | 348 | 652 | 191 | 598 | 1196 | 296 | 196 | 1802 | 554 |
| Arrive On Green | 0.05 | 0.18 | 0.18 | 0.10 | 0.24 | 0.24 | 0.17 | 0.43 | 0.43 | 0.11 | 0.35 | 0.35 |
| Sat Flow, veh/h | 3442 | 2008 | 1362 | 3442 | 2694 | 787 | 3442 | 2813 | 695 | 1774 | 5085 | 1562 |
| Grp Volume(v), veh/h | 134 | 267 | 249 | 297 | 149 | 150 | 288 | 657 | 650 | 183 | 986 | 67 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1770 | 1601 | 1721 | 1770 | 1712 | 1721 | 1770 | 1739 | 1774 | 1695 | 1562 |
| Q Serve(g_s), s | 5.4 | 20.3 | 21.1 | 11.9 | 9.8 | 10.2 | 10.6 | 47.5 | 48.1 | 14.3 | 21.7 | 3.2 |
| Cycle Q Clear(g_c), s | 5.4 | 20.3 | 21.1 | 11.9 | 9.8 | 10.2 | 10.6 | 47.5 | 48.1 | 14.3 | 21.7 | 3.2 |
| Prop In Lane | 1.00 | | 0.85 | 1.00 | | 0.46 | 1.00 | | 0.40 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 160 | 323 | 292 | 348 | 428 | 414 | 598 | 752 | 739 | 196 | 1802 | 554 |
| V/C Ratio(X) | 0.84 | 0.83 | 0.85 | 0.85 | 0.35 | 0.36 | 0.48 | 0.87 | 0.88 | 0.93 | 0.55 | 0.12 |
| Avail Cap(c_a), veh/h | 160 | 359 | 325 | 470 | 518 | 501 | 598 | 752 | 739 | 196 | 1802 | 554 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.82 | 0.82 | 0.82 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.77 | 0.77 | 0.77 |
| Uniform Delay (d), s/veh | 66.2 | 55.1 | 55.4 | 61.9 | 43.9 | 44.1 | 52.2 | 36.8 | 37.0 | 61.7 | 36.2 | 19.0 |
| Incr Delay (d2), s/veh | 25.0 | 15.1 | 19.2 | 8.6 | 1.4 | 1.5 | 0.2 | 13.3 | 14.1 | 37.7 | 0.9 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.1 | 11.3 | 10.9 | 6.1 | 4.9 | 5.0 | 5.1 | 26.0 | 25.8 | 9.1 | 10.3 | 1.7 |
| LnGrp Delay(d),s/veh | 91.3 | 70.2 | 74.6 | 70.5 | 45.3 | 45.6 | 52.4 | 50.1 | 51.1 | 99.5 | 37.1 | 19.4 |
| LnGrp LOS | F | E | E | E | D | D | D | D | D | F | D | B |
| Approach Vol, veh/h | | 650 | | | 596 | | | 1595 | | | 1236 | |
| Approach Delay, s/veh | | 76.2 | | | 58.0 | | | 50.9 | | | 45.4 | |
| Approach LOS | | E | | | E | | | D | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 21.2 | 66.3 | 20.6 | 31.9 | 31.1 | 56.4 | 12.2 | 40.3 | | | | |
| Change Period (Y+Rc), s | * 5.7 | 6.8 | 6.4 | * 6.4 | 6.8 | * 6.8 | * 5.7 | 6.4 | | | | |
| Max Green Setting (Gmax), s | * 16 | 52.4 | 19.1 | * 28 | 18.3 | * 50 | * 6.5 | 41.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 16.3 | 50.1 | 13.9 | 23.1 | 12.6 | 23.7 | 7.4 | 12.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.1 | 0.3 | 2.4 | 0.3 | 16.2 | 0.0 | 3.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 54.3 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

HCM 2010 Signalized Intersection Summary
 21: Visalia Pkwy/Visalia Parkway & Stonebrook St



















20 Year plus Project w/ Mitigations
 Timing Plan: P.M. Peak



| Movement | EBL | EBT | WBT | WBR | SBL | SBR | | |
|------------------------------|------|------|------|------|------|------|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (veh/h) | 286 | 219 | 56 | 33 | 184 | 345 | | |
| Future Volume (veh/h) | 286 | 219 | 56 | 33 | 184 | 345 | | |
| Number | 5 | 2 | 6 | 16 | 7 | 14 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | | |
| Adj Flow Rate, veh/h | 311 | 238 | 61 | 36 | 200 | 375 | | |
| Adj No. of Lanes | 1 | 2 | 2 | 0 | 1 | 1 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 384 | 1633 | 281 | 154 | 537 | 479 | | |
| Arrive On Green | 0.22 | 0.46 | 0.13 | 0.13 | 0.30 | 0.30 | | |
| Sat Flow, veh/h | 1774 | 3632 | 2304 | 1208 | 1774 | 1583 | | |
| Grp Volume(v), veh/h | 311 | 238 | 48 | 49 | 200 | 375 | | |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1770 | 1770 | 1650 | 1774 | 1583 | | |
| Q Serve(g_s), s | 6.4 | 1.5 | 0.9 | 1.0 | 3.4 | 8.3 | | |
| Cycle Q Clear(g_c), s | 6.4 | 1.5 | 0.9 | 1.0 | 3.4 | 8.3 | | |
| Prop In Lane | 1.00 | | | 0.73 | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 384 | 1633 | 225 | 210 | 537 | 479 | | |
| V/C Ratio(X) | 0.81 | 0.15 | 0.21 | 0.23 | 0.37 | 0.78 | | |
| Avail Cap(c_a), veh/h | 488 | 3060 | 835 | 778 | 837 | 747 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 14.2 | 5.9 | 14.9 | 15.0 | 10.5 | 12.2 | | |
| Incr Delay (d2), s/veh | 7.9 | 0.0 | 0.5 | 0.6 | 0.4 | 2.9 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 4.0 | 0.7 | 0.5 | 0.5 | 1.7 | 7.1 | | |
| LnGrp Delay(d),s/veh | 22.1 | 6.0 | 15.4 | 15.5 | 10.9 | 15.0 | | |
| LnGrp LOS | C | A | B | B | B | B | | |
| Approach Vol, veh/h | | 549 | 97 | | 575 | | | |
| Approach Delay, s/veh | | 15.1 | 15.5 | | 13.6 | | | |
| Approach LOS | | B | B | | B | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assigned Phs | | 2 | | 4 | 5 | 6 | | |
| Phs Duration (G+Y+Rc), s | | 22.1 | | 16.1 | 12.8 | 9.4 | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 | | |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 10.5 | 18.0 | | |
| Max Q Clear Time (g_c+I1), s | | 3.5 | | 10.3 | 8.4 | 3.0 | | |
| Green Ext Time (p_c), s | | 1.4 | | 1.3 | 0.2 | 0.3 | | |
| Intersection Summary | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 14.4 | | | | | |
| HCM 2010 LOS | | | B | | | | | |

HCM 2010 Signalized Intersection Summary
 23: Mooney Blvd & Ave 272

20 Year plus Project w/ Mitigations
 Timing Plan: P.M. Peak

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 41 | 5 | 32 | 2 | 4 | 41 | 165 | 1323 | 69 | 32 | 1367 | 70 |
| Future Volume (veh/h) | 41 | 5 | 32 | 2 | 4 | 41 | 165 | 1323 | 69 | 32 | 1367 | 70 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1900 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 43 | 5 | 34 | 2 | 4 | 43 | 174 | 1393 | 73 | 34 | 1439 | 74 |
| Adj No. of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 166 | 12 | 53 | 74 | 13 | 116 | 222 | 2151 | 112 | 66 | 1852 | 95 |
| Arrive On Green | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.12 | 0.63 | 0.63 | 0.04 | 0.54 | 0.54 |
| Sat Flow, veh/h | 781 | 148 | 658 | 38 | 163 | 1440 | 1774 | 3422 | 179 | 1774 | 3426 | 176 |
| Grp Volume(v), veh/h | 82 | 0 | 0 | 49 | 0 | 0 | 174 | 719 | 747 | 34 | 742 | 771 |
| Grp Sat Flow(s),veh/h/ln | 1586 | 0 | 0 | 1641 | 0 | 0 | 1774 | 1770 | 1831 | 1774 | 1770 | 1832 |
| Q Serve(g_s), s | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.1 | 13.5 | 13.6 | 1.0 | 17.6 | 17.8 |
| Cycle Q Clear(g_c), s | 2.5 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 5.1 | 13.5 | 13.6 | 1.0 | 17.6 | 17.8 |
| Prop In Lane | 0.52 | | 0.41 | 0.04 | | 0.88 | 1.00 | | 0.10 | 1.00 | | 0.10 |
| Lane Grp Cap(c), veh/h | 231 | 0 | 0 | 202 | 0 | 0 | 222 | 1112 | 1151 | 66 | 957 | 990 |
| V/C Ratio(X) | 0.36 | 0.00 | 0.00 | 0.24 | 0.00 | 0.00 | 0.79 | 0.65 | 0.65 | 0.52 | 0.77 | 0.78 |
| Avail Cap(c_a), veh/h | 612 | 0 | 0 | 617 | 0 | 0 | 350 | 1441 | 1492 | 170 | 1262 | 1306 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.6 | 0.0 | 0.0 | 23.2 | 0.0 | 0.0 | 22.6 | 6.2 | 6.2 | 25.1 | 9.7 | 9.7 |
| Incr Delay (d2), s/veh | 0.9 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 6.0 | 0.6 | 0.6 | 6.1 | 2.2 | 2.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.2 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 2.8 | 6.6 | 6.8 | 0.6 | 9.0 | 9.4 |
| LnGrp Delay(d),s/veh | 24.5 | 0.0 | 0.0 | 23.8 | 0.0 | 0.0 | 28.6 | 6.8 | 6.8 | 31.3 | 11.9 | 11.9 |
| LnGrp LOS | C | | | C | | | C | A | A | C | B | B |
| Approach Vol, veh/h | | 82 | | | 49 | | | 1640 | | | 1547 | |
| Approach Delay, s/veh | | 24.5 | | | 23.8 | | | 9.1 | | | 12.3 | |
| Approach LOS | | C | | | C | | | A | | | B | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.5 | 37.9 | | 8.8 | 11.1 | 33.2 | | 8.8 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 43.3 | | 18.1 | 10.5 | 37.9 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.0 | 15.6 | | 4.5 | 7.1 | 19.8 | | 3.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.5 | | 0.3 | 0.1 | 9.0 | | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 11.2 | | | | | | | | |
| HCM 2010 LOS | | | | B | | | | | | | | |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.2 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↕↕ | ↕↔ | | ↔ | ↔ |
| Traffic Vol, veh/h | 246 | 501 | 398 | 3 | 4 | 265 |
| Future Vol, veh/h | 246 | 501 | 398 | 3 | 4 | 265 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 265 | 539 | 428 | 3 | 4 | 285 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 431 | 0 | - | 0 | 1230 216 |
| Stage 1 | - | - | - | - | 430 - |
| Stage 2 | - | - | - | - | 800 - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 3.32 |
| Pot Cap-1 Maneuver | 1125 | - | - | - | 170 789 |
| Stage 1 | - | - | - | - | 624 - |
| Stage 2 | - | - | - | - | 403 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1125 | - | - | - | 113 789 |
| Mov Cap-2 Maneuver | - | - | - | - | 238 - |
| Stage 1 | - | - | - | - | 414 - |
| Stage 2 | - | - | - | - | 403 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 3.6 | 0 | 12.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1125 | - | - | - | 238 | 789 |
| HCM Lane V/C Ratio | 0.235 | - | - | - | 0.018 | 0.361 |
| HCM Control Delay (s) | 9.2 | 0.8 | - | - | 20.4 | 12.1 |
| HCM Lane LOS | A | A | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.9 | - | - | - | 0.1 | 1.7 |