Appendix J:
Transportation Supporting Information

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J.1 - Tracy Alliance Project Vehicle Miles Traveled Analysis Memorandum

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MEMORANDUM

From: Frederik Venter, PE

To: Robert Armijo, PE**,** City of Tracy

Date: April 15, 2022

Re: **Tracy Alliance And Northeast Annexation Area VMT Analysis**

Introduction

In 2018, the California state legislature, in approving Senate Bill (SB) 743, directed the Office of Planning and Research to develop guidelines for assessing transportation impacts based on vehicle miles traveled, or VMT. In response to SB 743, CEQA and its implementing guidelines (CEQA Guidelines) were significantly amended regarding the methods by which lead agencies are to evaluate a project's transportation impacts. As described in CEQA Guidelines Section 15064.3(a):

Generally, vehicle miles travelled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact.

This section of the Guidelines continues to set forth the criteria for analyzing transportation impacts. Currently, the City is studying their own thresholds, but none have been adopted.

In 2013, SB 743 was signed into law by California Governor Jerry Brown with a goal of reducing Greenhouse Gas (GHG) emissions, promoting the development of infill land use projects and multimodal transportation networks, and to promote a diversity of land uses within developments. One significant outcome resulting from this statue is the removal of automobile delay and congestion, commonly known as level of service (LOS), as a basis for determining significant transportation impacts under the California Environmental Quality Act (CEQA).

The Governor's Office of Planning and Research (OPR) has documented recommended analysis guidelines for SB 743 in its *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018) which provides for Vehicle Miles Traveled (VMT) as the principal measure to replace LOS for determining significant transportation impacts. VMT is a measure of total vehicular travel that accounts for the number of vehicle trips and the length of those trips. OPR selected VMT, in part, because jurisdictions are already familiar with this metric. VMT is already used in CEQA to study other potential impacts such as GHG, air quality, and energy impacts and is used in planning for regional Sustainable Communities Strategies (SCS).

VMT also allows for an analysis of a project's impact throughout the jurisdiction rather than only in the vicinity of the proposed project allowing for a better understanding of the full extent of a project's transportation-related impact. It should be noted that SB 743 still allows the City of Tracy to use LOS for other planning purposes outside the scope of CEQA.

Understanding how the local roadway network functions from an engineering standpoint is still critical to local land use agencies to monitor traffic flow, identify safety issues, establish fees and manage congestion. However, for the purposes of evaluating environmental impacts under CEQA, the new regulations have removed congestion from the range of required subjects analyzed within CEQA documents.

VMT Findings

The Tracy Alliance and Northeast Annexation Area project was evaluated using the City of Tracy VMT Calculator. For the surrounding industrial land use area, the City's draft threshold is 9.4 VMT per employee. The evaluation tool estimated that the proposed project would generate 16.9 VMT per employee. Per OPR guidance, the VMT analysis excludes truck trips. As a result, the proposed project would exceed the threshold.

Per the City's draft VMT threshold and SB 743 guidelines, the proposed project's potential increase in VMT would result in a significant transportation impact. For projects that would cause a VMT impact, VMT reduction strategies such as introducing Transportation Demand Management (TDM), or additional multimodal infrastructure can, according to research literature and case studies, be used to potentially mitigate the VMT impact. **Table 1** lists the potential TDM measures that could partially mitigate the proposed project's VMT impact and, also, shows the estimated maximum TDM reduction that each strategy could achieve.

In addition to the opportunity to mitigate, to the extent feasible, the proposed project's VMT impacts via implementation of a TDM program, the City also is currently working to establish a VMT banking program through which, once adopted, would provide another way to mitigate, to the extent feasible, project VMT impacts. The VMT Mitigation Banking Fee Program is a programmatic approach to respond to the need for feasible VMT mitigation programs. Programmatic approaches that rely on collectively funding larger projects allow a project to provide an amount of mitigation commensurate with its respective impact, include only a single payment without the complexity of ongoing management issues that often occur in connection with TDM programs, and do not require ongoing mitigation monitoring. Programmatic approaches can also provide a public benefit in terms of funding transportation improvements that would not otherwise be constructed, resulting in improvements to congestion, a reduction in greenhouse gas (GHG) emissions, increased transportation choices, and additional opportunities for active transportation.

The California Air Pollution Control Officers Association (CAPCOA) states that for suburban communities such as Tracy, a feasible reduction of 15 percent could be achieved. The City, in its discretion, has elected to utilize this 15 percent threshold as the amount by which the proposed project would need to mitigate. In other words, each relevant applicant would need to reduce its VMT that would otherwise occur in connection with implementation of the relevant individual development proposal by 15 percent (as compared to what would occur without mitigation).

Following is a list of TDM measures (along with the assumed reduction) that would be incorporated into a project-specific TDM program in connection with each individual development proposal:

1. Communication and Information Strategies – 4 percent reduction
2. Telecommuting for administrative staff (5 percent of staff population) – 1 percent reduction
3. Designated parking spaces for carpool vehicles – 1 percent reduction

4. Provide a transit stop along the project frontage on Grant Line Road (if agreed to by the City) – 2 percent reduction
5. Provide bike lanes and sidewalks along the project frontage – 1 percent reduction
6. Provide on-site bike racks and showers – 1 percent reduction

As noted above, the City is currently pursuing a VMT Mitigation Banking Fee Program; the draft program currently calculates the cost per one (1) VMT reduction as $633.11. However, the VMT Mitigation Banking Fee Program has not yet been finalized and adopted; accordingly, the applicable fee would be the amount provided for under the Mitigation Banking Fee Program adopted by the City Council and effective at the time the applicant obtains building permits.

TDM 1 through 6 above provide an estimated 10% reduction in VMT. Therefore, the project shall mitigate the remaining 5% with a VMT Banking Fee payment. The 5% VMT reduction required equates to 0.845 VMT per employee that needs to be mitigated. The payment calculation is shown below with additional detail shown in **Table 2**. The total payment is $1,794,316.04.

*VMT Banking Fee = 3,354 employees * 0.845 VMT/employee * $633.11/VMT = $1,794,316.04*

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Table 1 – TDM Measures

Transportation Demand Management Measure	Description	Max VMT Reduction
Transit Strategies		
Parking Cash-Out	Provide employees a choice of forgoing current parking for a cash payment to be determined by the employer. The higher the cash payment, the higher the reduction.	2.0%
Transit Stops	Coordinate with local transit agency to provide bus stop near the site. Real time transportation information displays support on-the-go decision making to support sustainable trip making.	2%
Implement Neighborhood Shuttle	Implement project-operated or project-sponsored neighborhood shuttle serving residents, employees, and visitors of the project site	5%
Transit Subsidies	Involves the subsidization of transit fare for residents and employees of the project site. This strategy assumes transit service is already present in the project area.	5%
	Pays for employees to use local transit. This could either be a discounted ticket or a full-reimbursed transit ticket.	
Communication & Information Strategies		
Travel Behavior Change Program	Involves the development of a travel behavior change program that targets individuals' attitudes, goals, and travel behaviors, educating participants on the impacts of their travel choices and the opportunities to alter their habits. Provide a web site that allows employees to research other modes of transportation for commuting. Employee-focused travel behavior change program that targets individuals' attitudes, goals, and travel behaviors, educating participants on the impacts of their travel choices and the opportunities to alter their habits. DIBS	4%
Promotions & Marketing	Involves the use of marketing and promotional tools to educate and inform travelers about site-specific transportation options and the effects of their travel choices with passive educational and promotional materials. Marketing and public information campaign to promote awareness of TDM program with an on-site coordinator to monitor program. DIBS	
Commuting Strategies		
Employer Sponsored Vanpool or Shuttle	Implementation of employer-sponsored employee vanpool or shuttle providing new opportunities for access to connect employees to the project site.	5%
Preferential Carpool / Vanpool Parking Spaces	Reserved carpool / vanpool spaces closer to the building entrance.	1%
Emergency Ride Home (ERH) Program	Provides an occasional subsidized ride to commuters who use alternative modes. Guaranteed ride home for people if they need to go home in the middle of the day due to an emergency or stay late and need a ride at a time when transit service is not available. DIBS	4%
On-site Childcare	Provides on-site childcare to remove the need to drive a child to daycare at a separate location.	2%
Telecommuting Alternative work schedule	Four-Ten work schedule results in 20% weekly VMT reduction, 10% trip reduction equals 15% VMT reduction	20%
Shared Mobility Strategies		
Ride Share Program	Increases vehicle occupancy by providing ride-share matching services, designating preferred parking for ride-share participants, designing adequate passenger loading/unloading and waiting areas for ride-share vehicles, and providing a website or message board to connect riders and coordinate rides. Need a point peron form the business on-site	5%
Employee/Employer Car Share	Implement car sharing to allow people to have on-demand access to a vehicle, as-needed. This may include providing membership to an existing program located within 1/4 mile, contracting with a third-party vendor to extend membership-based service to an area, or implementing a project-specific fleet that supports the residents and employees on -site.	1%
	Provide an on-site car vehicle for employees to use for short trips. This allows for employees to run errands or travel for lunch.	1%
Designated Parking Spaces for Car Share Vehicles	Reserved car share spaces closer to the building entrance.	1%
Bicycle Infrastructure Strategies		
Bike Share Program	Participate in a bike share program/On site bike share program	1%

Table 1 (Cont.) – TDM Measures

Transportation Demand Management Measure	Description	Max VMT Reduction
Bicycle Infrastructure Strategies		
Implement/Improve On-street Bicycle Facility	Implements or provides funding for improvements to corridors and crossings for bike networks identified within a one-half mile buffer area of the project boundary, to support safe and comfortable bicycle travel.	1%
Include Bike Parking Per City Code	Implements short and long-term bicycle parking to support safe and comfortable bicycle travel by providing parking facilities at destinations	
Include Secure Bike Parking and Showers	Implements additional end-of-trip bicycle facilities to support safe and comfortable bicycle travel.	
Bicycle Repair Station / Services	On-site bicycle repair tools and space to use them supports on-going use of bicycles for transportation.	
Neighborhood Enhancement Strategies		
Pedestrian Network Improvements	Implements pedestrian network improvements throughout and around the project site that encourages people to walk.	2%
Miscellaneous Strategies		

Notes:
1. DIBS is a transportation program designed by the San Joaquin Council of Governments to incentivize carpooling or alternative modes of transportation. The website is located here: https://www.dibsmyway.com/

Table 2 – VMT Banking Fee

	Alliance	Suvik	Zuriakat	Total
Project Building Area (ksf)	1,849.5	1,023.7	479.2	3,352.4
Employees per ksf	1	1	1	-
Project Employees	1,850	1,024	480	3,354
Project VMT/EMP	16.9	16.9	16.9	-
Project Total Employee VMT	31,265.0	17,305.6	8,112.0	56,682.6
TDM %	10%	10%	10%	-
Banking Fee %	5%	5%	5%	-
Project Total Employee VMT Reduction for Fee Calculation	1,563.3	865.3	405.6	2,834.1
Project Total Employee VMT/EMP Reduction for Fee Calculation	0.845	0.845	0.845	-
Banking Fee	**$ 989,709.21**	**$ 547,817.42**	**$ 256,789.42**	**$ 1,794,316.04**

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J.2 - Transportation Impact Analysis

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TRANSPORTATION IMPACT ANALYSIS - DRAFT

TRACY ALLIANCE AND NORTHEAST AREA ANNEXATION

TRACY, CALIFORNIA

Prepared for:

CITY OF TRACY CALIFORNIA
Think Inside the Triangle™

Prepared by:

Kimley»Horn

April 2022
097298010

TRANSPORTATION IMPACT ANALYSIS - DRAFT

FOR

TRACY ALLIANCE AND NORTHEAST ANNEXATION AREA

Prepared for:
City of Tracy
333 Civic Center Drive
Tracy, CA 95376

Prepared by:
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FIGURES

TABLES

1. EXECUTIVE SUMMARY

This report presents the Transportation Impact Analysis (TIA) findings for Vehicle Miles Traveled, and the Traffic Operations Analysis for Levels of Service per the City General Plan and Citywide Transportation Master Plan (TMP) for the Tracy Alliance Business Park and the adjacent Northeast Annexation Area (both defined as the "Project") located in the City of Tracy in San Joaquin County, California.

The Project proposes to construct new warehousing facilities located on the northeast quadrant of the intersection of Paradise Avenue and Grant Line. The proposed Project is located immediately east of the Northeast Industrial (NEI) Specific Plan Area and the existing land use includes farmland.

In the vicinity of the Project, Paradise Avenue and the Future Chrisman Road will realign the existing roadway network to accommodate the future Chrisman Road interchange with I-205. It is assumed in this analysis that the full realignment and installation of these roadway facilities would not occur until Cumulative Conditions. As part of the Seefried development to the west, a portion of Chrisman Road will be built between Grant Lane Road and just east of Pescadero Road and these improvements are incorporated in the analysis.

The following lists the size and land use type of each proposed building on the Project site:

- Tracy Alliance:
  - Building A – 978,500 Square feet of high-cube warehouse
  - Building B – 64,000 Square feet of warehousing
  - Building C – 807,000 Square feet of high-cube warehouse
- Suvik Farms – 1,023,660 Square feet of high-cube warehouse
- Zuriakat Parcel – 479,160 Square feet of high-cube warehouse

The study evaluates the following scenarios for traffic analysis:

- Project Vehicle Miles Traveled - CEQA
- Scenario 1: Background Conditions
- Scenario 2: Background Plus Project Conditions
- Scenario 3: Cumulative Conditions
- Scenario 4: Cumulative Plus Project Conditions

Study Intersections and Freeway Segments

The study intersections identified below were selected based on the proposed trip generation and estimated trip distribution. The Project trip distribution was developed based on traffic patterns in the study area, the local travel demand model, and knowledge of the study area.

Study Intersections

#	Intersection	#	Intersection
1	Grant Line Rd & Best Buy Dwy/Project Dwy 1	10	I-205 WB Ramps & N. MacArthur Dr
2	Grant Line Rd & Project Driveway 2	11	I-205 EB Ramps & N. MacArthur Dr
3	Grant Line Rd & Paradise Ave	12	Pescadero Ave & N. MacArthur Dr
4	Paradise & Ryder Dwy/Project Dwy 3	13	Grant Line Rd & N. MacArthur Dr
5	Paradise & Ryder Dwy/Project Dwy 4	14	11th St & N. MacArthur Dr
6	Paradise & Project Dwy 5	15	11th St & Chrisman Rd
7	Chrisman Rd & N. Paradise Ave (Future)	16	I-205 WB Ramps & Chrisman Rd (Cumulative)
8	Chrisman Rd & Pescadero Ave (Future)	17	I-205 EB Ramps & Chrisman Rd (Cumulative)
9	Grant Line Rd & Chrisman Rd	18	Chrisman Rd & S. Paradise Ave

1. *For study intersections with turning movement counts, data was collected during typical weekdays when weather was fair and local schools were in session. No holidays occurred during the weeks of data collection.*

Trip Generation Estimates

City of Tracy Model rates were utilized to determine AM and PM peak hour trip rates. Since the model does not provide Daily average rates and AM and PM distributions, ITE was supplemented using the following Land Use Code:

- Land Use 150 – Warehousing
- Land Use 154 – High-Cube Transload and Short-Term Storage Warehouse

These facilities are the most accurate land use assumptions because they incorporate trips for both the office space and the warehouse space.

Building B was assumed to be a warehousing facility, and not a high-cube warehouse. ITE states that a high-cube warehouse is a building that typically has at least 200,000 gross square feet of floor area and Building B does not meet this requirement.

The proposed Tracy Alliance project is expected to generate a gross of 2,611 daily trips, 225 trips (156 in / 69 out) during the AM peak hour, and 271 trips (83 in / 188 out) during the PM peak hour.

The proposed Suvik and Zuriakat projects are expected to generate a gross of 2,104 daily trips, 181 trips (125 in / 56 out) during the AM peak hour, and 210 trips (65 in / 145 out) during the PM peak hour.

It was assumed that no trips credits can be applied to the proposed land uses; therefore, the Project is anticipated to generate a total of 4,715 daily trips, 406 trips (281 in / 125 out) during the AM peak hour, and 481 trips (148 in / 333 out) during the PM peak hour.

Project Trip Generation

Land Uses	Project Size	DAILY	AM PEAK HOUR				PM PEAK HOUR			
		Total	Total Peak Hour	IN	/	OUT	Total Peak Hour	IN	/	OUT
Trip Generation Rates										
Project Use										
High-Cube Warehouse[1]	- ksf	1.40	0.12	69%	/	31%	0.14	31%	/	69%
Warehousing[2]	- ksf	1.74	0.17	77%	/	23%	0.33	27%	/	73%
Trips Generated										
Tracy Alliance Parcels										
Building A	**978.5 ksf**	**1,370**	**117**	**81**	**/**	**36**	**137**	**42**	**/**	**95**
	Passenger Cars[3]	*932*	*81*	*56*	*/*	*25*	*107*	*33*	*/*	*74*
	Trucks[3]	*438*	*36*	*25*	*/*	*11*	*30*	*9*	*/*	*21*
Building B	**64.0 ksf**	**111**	**11**	**8**	**/**	**3**	**21**	**6**	**/**	**15**
	Passenger Cars[3]	*75*	*8*	*6*	*/*	*2*	*16*	*5*	*/*	*11*
	Trucks[3]	*36*	*3*	*2*	*/*	*1*	*5*	*1*	*/*	*4*
Building C	**807.0 ksf**	**1,130**	**97**	**67**	**/**	**30**	**113**	**35**	**/**	**78**
	Passenger Cars[3]	*768*	*67*	*46*	*/*	*21*	*88*	*27*	*/*	*61*
	Trucks[3]	*362*	*30*	*21*	*/*	*9*	*25*	*8*	*/*	*17*
Tracy Alliance Parcels Total Trips	***1,849.5 ksf***	***2,611***	***225***	***156***	***/***	***69***	***271***	***83***	***/***	***188***
	Passenger Cars	***1,775***	***156***	***108***	***/***	***48***	***211***	***65***	***/***	***146***
	Trucks	***836***	***69***	***48***	***/***	***21***	***60***	***18***	***/***	***42***
Suvik Farms Parcels	**1,023.7 ksf**	**1,433**	**123**	**85**	**/**	**38**	**143**	**44**	**/**	**99**
	Passenger Cars[3]	*974*	*85*	*59*	*/*	*26*	*112*	*34*	*/*	*78*
	Trucks[3]	*459*	*38*	*26*	*/*	*12*	*31*	*10*	*/*	*21*
Zuriakat Parcels	**479.2 ksf**	**671**	**58**	**40**	**/**	**18**	**67**	**21**	**/**	**46**
	Passenger Cars[3]	*456*	*40*	*28*	*/*	*12*	*52*	*16*	*/*	*36*
	Trucks[3]	*215*	*18*	*12*	*/*	*6*	*15*	*5*	*/*	*10*
Suvik and Zuriakat Parcels Total Trips	***1,502.9 ksf***	***2,104***	***181***	***125***	***/***	***56***	***210***	***65***	***/***	***145***
	Passenger Cars	***1,430***	***125***	***87***	***/***	***38***	***164***	***50***	***/***	***114***
	Trucks	***674***	***56***	***38***	***/***	***18***	***46***	***15***	***/***	***31***
	TOTAL TRIPS	***4,715***	***406***	***281***	***/***	***125***	***481***	***148***	***/***	***333***
	PASSENGER CAR	***3,205***	***281***	***195***	***/***	***86***	***375***	***115***	***/***	***260***
	TRUCKS	***1,510***	***125***	***86***	***/***	***39***	***106***	***33***	***/***	***73***

Notes:

1. City of Tracy rates used for High-Cube Warehouse AM and PM peak hour rates in addition to trip generation LU 154 average daily rate and AM and PM distribution (Institute of Transportation Engineers (ITE), "Trip Generation," 10th Edition, 2017).

2. City of Tracy model rates were utilized for the AM and PM peak hour rates in addition to trip generation LU 150 average daily rate and AM and PM distribution (Institute of Transportation Engineers (ITE), "Trip Generation," 10th Edition, 2017).

3. ITE guidance for high-cube and warehousing facilities used, 2016.

Source: Kimley-Horn and Associates, Inc., 2021

Deficiencies and Improvement Measures

Based on the analysis, the Project will trigger deficient operations at the following intersection during the Background Plus Project Conditions:

- Intersection #13 – MacArthur Drive and Grant Line Road (PM Peak Hour)
    - Improvement: Westbound right turn lane with right turn overlap signal phase

The Project will also trigger deficient operations at the following intersections during the Cumulative Plus Project Conditions:

- Intersection #9 – Grant Line and Chrisman Road (PM Peak Hours) – Optimize the signal cycle length at this intersection.
- Intersection #13 – Grant Line Road and MacArthur Road (AM and PM Peak Hours) – Optimize the signal cycle length at this intersection.

  Intersection #15 – Chrisman Road and Eleventh Street (AM and PM Peak Hours) – It is recommended that an additional second westbound left turn lane be constructed and the signal timing to be modified to allow lagging phase for the eastbound left turn and northbound left turn.

Fair Share

Fair share improvement contributions were reviewed at the following intersections:

- MacArthur Drive / Grant Line Road (Intersection #13): Background Plus Project Conditions - add westbound right turn pocket, **5.93%**
- Chrisman Road / Eleventh Street (Intersection #15): Cumulative Conditions – add 2nd westbound left turn lane, **17.02%**
- Chrisman Road / Paradise Avenue (Not a study intersection): Cumulative Conditions – add signal, **5.35%**

2. INTRODUCTION

This report presents the Transportation Impact Analysis (TIA) findings for the Tracy Alliance Business Park and Northeast Annexation Area (the "Project") located in San Joaquin County, California.

The Project proposes to construct new warehousing units located in the northeast quadrant of the intersection of Paradise Avenue and Grant Line Road. The proposed Project is located east of the Northeast Industrial Specific Plan Area (NEI) and existing land use includes farmland.

In addition to the Project, it is anticipated that Paradise Avenue and the Future Chrisman Road will realign the existing roadway network to accommodate the future interchange at I-205. It was assumed that the realignment would not occur until Cumulative Conditions.

The following lists the size and type of each building proposed by the Project:

- Tracy Alliance:
  - Building A – 978,500 Square feet of high-cube warehouse
  - Building B – 64,000 Square feet of warehousing
  - Building C – 807,000 Square feet of high-cube warehouse
- Suvik Farms – 1,023,660 Square feet of high-cube warehouse
- Zuriakat Parcel – 479,160 Square feet of high-cube warehouse

This study complies with traffic impact study guidelines and criteria set forth by the California Environmental Quality Act (CEQA), the City of Tracy, and the California Department of Transportation (Caltrans).

Figure 1 shows the locations of the proposed warehouses on the Background roadway network, while **Figure 2** shows the locations of the proposed warehouses on the Cumulative roadway network.

Figure 3 provides the proposed site plan for Tracy Alliance.

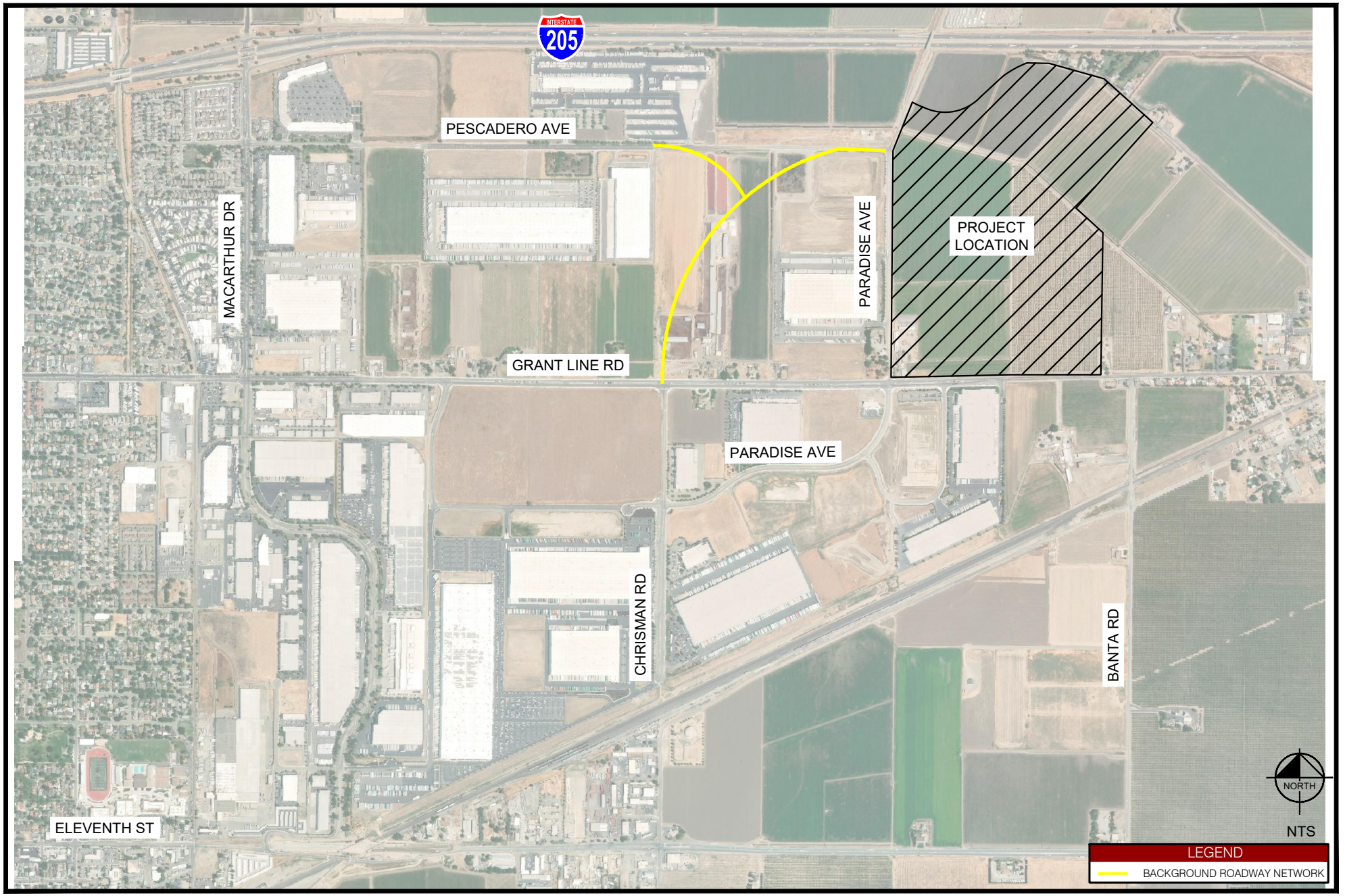

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Figure 1
Project Location Map
Background Conditions

April 2022

Tracy Alliance & North East Annexation Area TIA

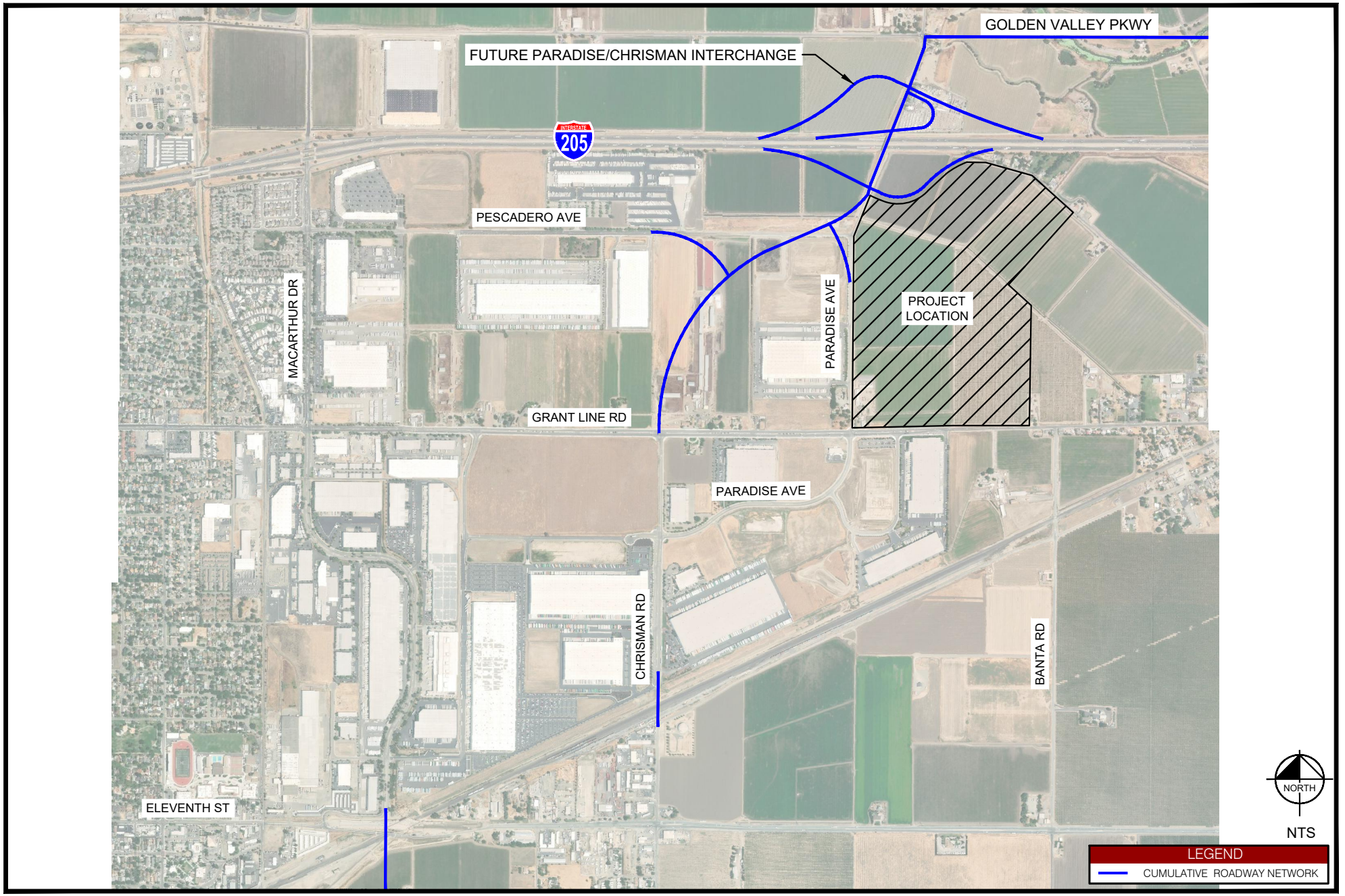

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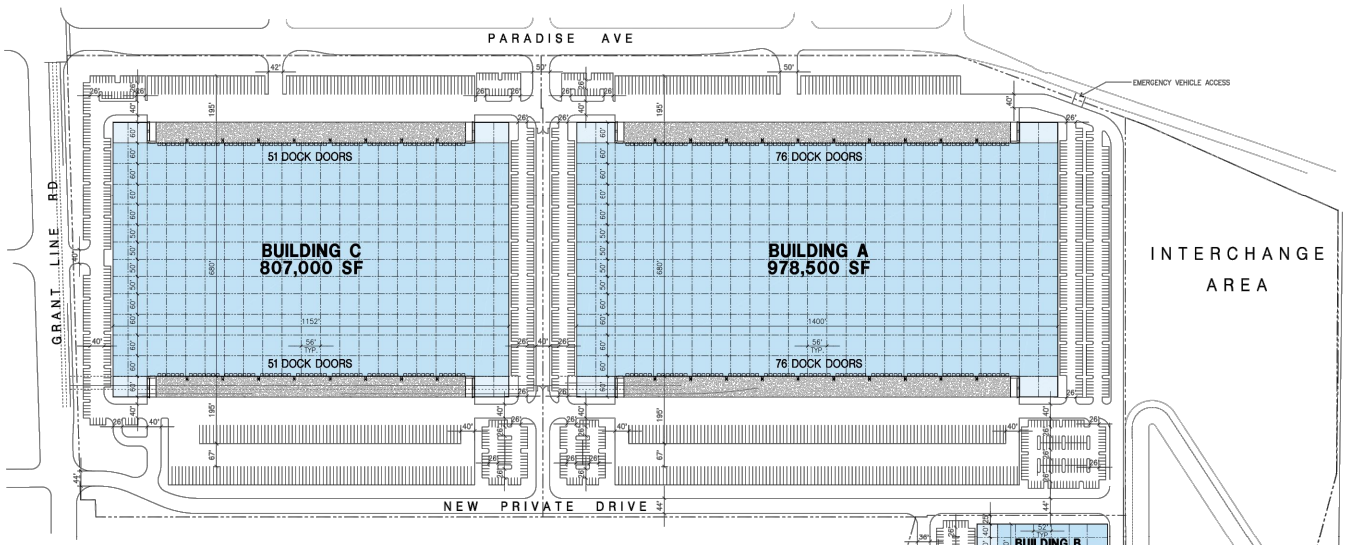
Figure 2
Project Location Map
Cumulative Conditions

April 2022

Tracy Alliance & North East Annexation Area TIA

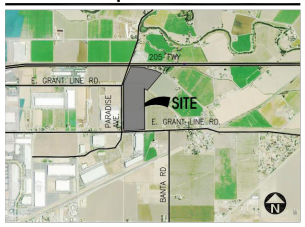
CAUTION: IF THIS SHEET IS NOT 30"X42", IT IS A REDUCED PRINT



Tabulation

	BLDG. A	BLDG. B	BLDG.C	BASIN & INTERCHANGE	Total
SITE AREA					
in s.f.	2,229,875	216,735	1,827,669	1,086,917	5,360,196 s.f.
in acres	51.17	4.98	41.96	24.95	123.1 acre
BUILDING AREA					
Office	30,000	2,000	25,000		57,000 s.f.
Warehouse	948,500	62,000	782,000		1,792,500 s.f.
TOTAL	978,500	64,000	807,000		1,849,500 s.f.
COVERAGE	43.9%	29.5%	44.2%		
AUTO PARKING REQUIRED					
Office 1/250 s.f.	120	8	100		228 stalls
Whse: 1st 20k @ 1/1,000 s.f.	20	20	20		60 stalls
2nd 20k @ 1/2,000 s.f.	10	10	10		30 stalls
Above 40k @ 1/4,000 s.f.	227	6	186		419 stalls
TOTAL	377	44	316		737 stalls
AUTO PARKING PROVIDED					
Standard (9' x 20')	657	57	420		1134 stalls
TRAILER PARKING PROVIDED					
Trailer (10' x 55')	319	0	253		572 stalls
MAXIMUM FLOOR AREA RATIO					
F.A.R. - 50%					
SETBACKS					
Building	Landscape				
Front - 25'	15'				
Side - 15'	5'				
Rear - 15'	5'				
ZONING ORDINANCE FOR CITY					
Zoning Designation - Northeast Industrial Specific Plan					

Aerial Map



north

1" = 130'
0 130' 260' 390'

Note: This is a conceptual plan. It is based on preliminary information which is not fully verified and may be incomplete. It is meant as a comparative aid in examining alternate development strategies and any quantities indicated are subject to revision as more reliable information becomes available.

Legend

- POTENTIAL OFFICE
- WAREHOUSE
- ▼ DRIVE THRU DOOR

HPA architecture

18831 Bardeen Ave. - Ste. #100
Irvine, CA 92612
(949) 863-1770
www.hparchs.com

Conceptual Site Plan

Paradise Rd and Grant Line Rd

Tracy, CA

RIDGE CAPITAL

December 17, 2020 / Job #18470
Scheme 17

Kimley»Horn

Figure 3
Project Site Plan

Traffic Operations Analysis Organization

This transportation operations analysis includes the following chapters:

Chapter 2 discusses the methodology, assumptions, analysis, and findings of the Project specific vehicle miles traveled evaluation.

Chapter 3 describes the existing pedestrian, bike, transit, and motorist transportation system in the Project vicinity, as well as Background operating conditions at study intersections.

Chapter 5 discusses the proposed Project's trip generation characteristics as well as methodologies and assumptions used to estimate trip credits and net Project traffic added to study intersections. Transportation improvements proposed by the Project are also presented.

Chapter 6 discusses Cumulative Conditions with and without the Project.

Chapter 7 discusses the fair share analysis.

Chapter 8 discusses the NEI truck route study completed for the Seefried project

A technical appendix is also attached containing traffic count data and intersection level of service analysis output sheets.

Operating Conditions and Criteria for Intersections

Analysis of potential deficiencies caused by the Project at roadway intersections is based on the concept of Level of Service (LOS). The LOS of an intersection is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity. Levels of Service for this study were determined using methods defined in the *Highway Capacity Manual (HCM)* and *Synchro 10* traffic analysis software.

HCM methodologies include procedures for analyzing side-street stop-controlled (SSSC), all-way stop-controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement. Conversely, the AWSC and signalized intersection procedures define LOS as a function of average control delay for the overall intersection. **Table 1** relates the operational characteristics associated with each LOS category for signalized and unsignalized intersections.

Table 1 – Intersection Level of Service Definitions

Level of Service	Description	Signalized (Avg. control delay per vehicle sec/veh.)	Unsignalized (Avg. control delay per vehicle sec/veh.)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream	Less than 10	less than 10
B	Stable traffic. Traffic flows smoothly with few delays.	less than or equal to 10 to 20	less than or equal to 10 to 15
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	less than or equal to 20 to 35	less than or equal to 15 to 25
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	less than or equal to 35 to 55	less than or equal to 25 to 35
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	less than or equal to 55 to 80	less than or equal to 35 to 50
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	greater than or equal to 80	greater than or equal to 50
Sources: Transportation Research Board, *Highway Capacity Manual 6th Edition*, National Research Council.			

Project related deficiencies are determined by comparing conditions without the proposed Project to those with the proposed Project. Project related deficiencies at study intersections are created when traffic from the proposed Project causes the LOS to fall below the maintaining agency's LOS threshold or causes deficient intersections to deteriorate further.

Roadway facilities evaluated in this study are located in and maintained by two agencies: the City of Tracy and the California Department of Transportation (District 10). It was determined that Eleventh Street is a CMP roadway network; however, the SJCOG 2020 Regional Congestion Management Plan (RCMP) does not identify any intersections along Eleventh Street as CMP study intersections. Therefore, no RCMP intersections were analyzed.

After review of the TMP Each agency has developed unique level of service standards, which are summarized below:

City of Tracy

The City of Tracy has established a minimum LOS D traffic operation standard. For intersections within ¼ mile of a freeway, the City of Tracy has established a minimum LOS E standard.

If an intersection already operates at a LOS E or F in existing conditions either a Deficiency Plan is required, or roadways are allowed to be "grandfathered" at their existing LOS.

California Department of Transportation (Caltrans)

Caltrans has identified a level of service objective of C/D (i.e., on the "cusp" between levels of service C and D) as the acceptable service level for signalized intersections. SB 743 requires that Project VMT be analyzed for determination of significant impacts. For the purposes of this analysis, Project related deficiencies at study intersections are defined to occur when the addition of Project traffic:

2. Causes operations to deteriorate from an acceptable level (LOS C) to an unacceptable level (LOS D or worse).
3. Causes the existing measure of effectiveness (average delay) to deteriorate at a State-operated intersection operating at worse than LOS C.

The LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled - Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated.

Under some circumstances, Caltrans will work with local agencies to determine an acceptable LOS standard on a case-by-case basis when the study roadway facility is constrained, and the LOS C objective is infeasible.

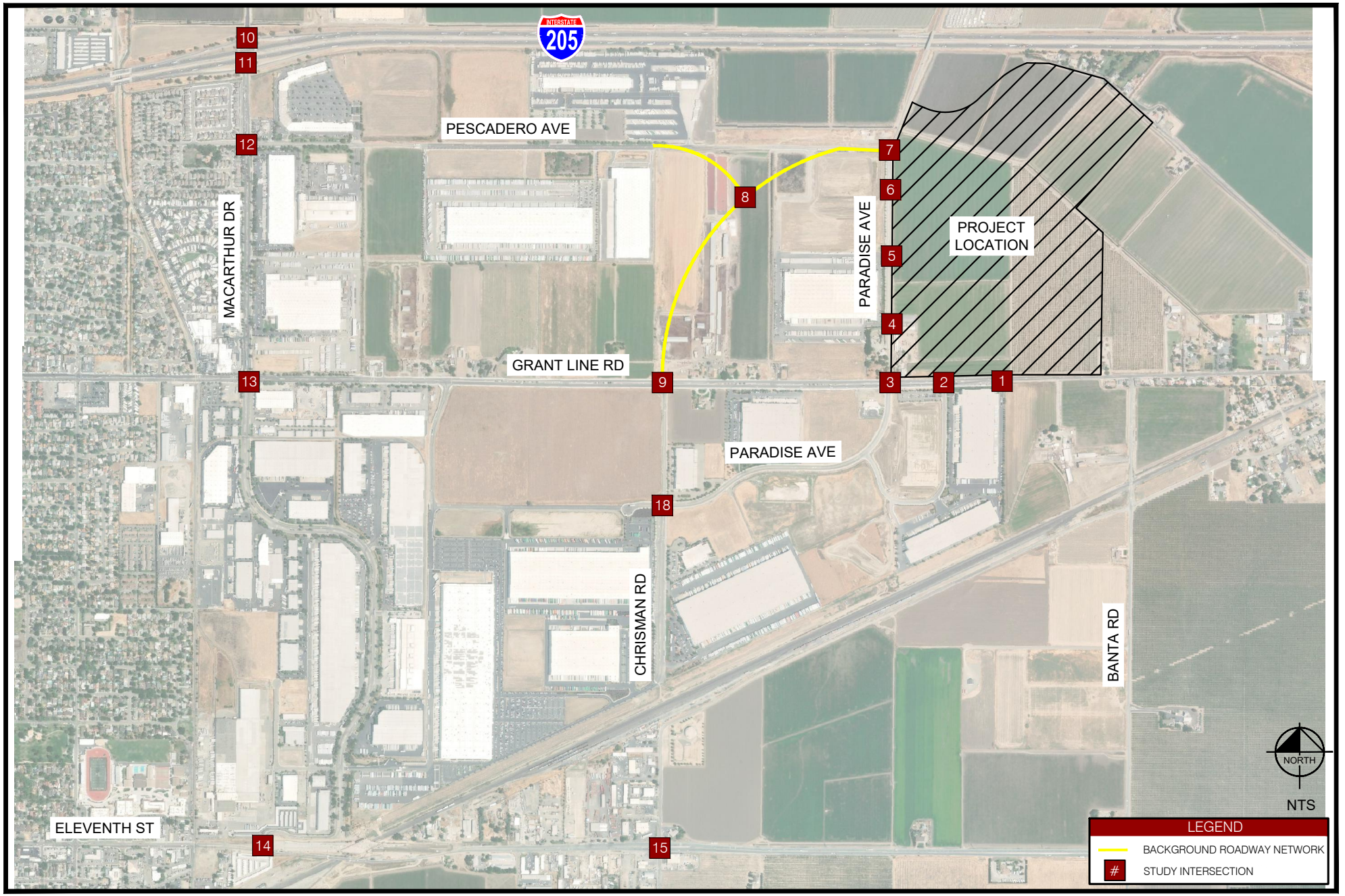
Study Intersections and Freeway Segments

The proposed Project would generate new vehicular trips that would increase traffic volumes on the nearby street network. To assess changes in traffic conditions, the intersections listed in **Table 2**, were selected for evaluation in consultation with the City of Tracy:

Table 2 – Study Intersections

#	Intersection	#	Intersection
1	Grant Line Rd & Best Buy Dwy/Project Dwy 1	10	I-205 WB Ramps & N. MacArthur Dr
2	Grant Line Rd & Project Driveway 2	11	I-205 EB Ramps & N. MacArthur Dr
3	Grant Line Rd & Paradise Ave	12	Pescadero Ave & N. MacArthur Dr
4	Paradise & Ryder Dwy/Project Dwy 3	13	Grant Line Rd & N. MacArthur Dr
5	Paradise & Ryder Dwy/Project Dwy 4	14	11th St & N. MacArthur Dr
6	Paradise & Project Dwy 5	15	11th St & Chrisman Rd
7	Chrisman Rd & N. Paradise Ave (Future)	16	I-205 WB Ramps & Chrisman Rd (Cumulative)
8	Chrisman Rd & Pescadero Ave (Future)	17	I-205 EB Ramps & Chrisman Rd (Cumulative)
9	Grant Line Rd & Chrisman Rd	18	Chrisman Rd & S. Paradise Ave

Figure 4 illustrates the location of these intersections on the Background Conditions roadway network. The study intersections locations on the Cumulative Conditions roadway network is provided in **Figure 5**.



Kimley»Horn

Figure 4
Study Intersections
Background Conditions

April 2022

Tracy Alliance & North East Annexation Area TIA

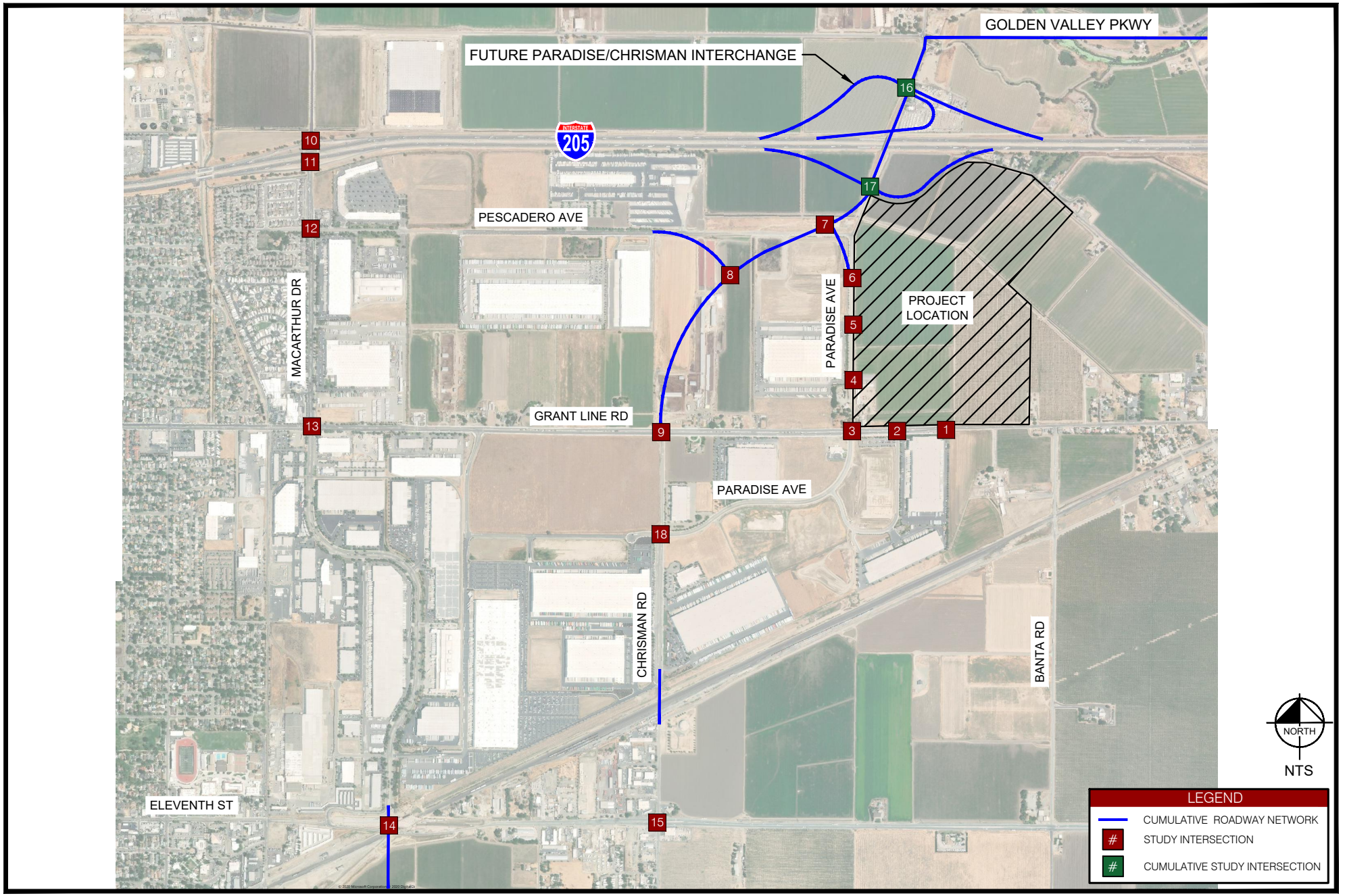


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Figure 5
Study Intersections
Cumulative Conditions

April 2022

Tracy Alliance & North East Annexation Area TIA

3. BACKGROUND CONDITIONS

This report does not analyze level of service (LOS) for the Existing Conditions because it is anticipated that Chrisman Road will be constructed and Pescadero Avenue will be realigned before this Project is constructed. Therefore, Background was taken as the base year to reflect the improvements and developments proposed by the NEI Specific Plan.

Background Roadway Network

Below is a description of the existing and proposed roadways within the study area:

Paradise Avenue is a north-south two-lane undivided minor arterial with left turn pockets and a speed limit of 40 miles per hour. Paradise Avenue provides regional access to/from the north east region of Tracy. The current land uses near the Project include Ryder Distribution and farmland and no bike or bus facilities are present along Paradise Avenue.

No Background improvements are anticipated for Paradise Avenue.

Pescadero Avenue is an east-west two-lane undivided minor arterial with left turn pockets and a two-way left turn lane. Pescadero Avenue extends from MacArthur Drive to Paradise Avenuenue with a speed limit of 35 miles per hour. No bike or bus facilities are present along Pescadero Avenue.

It is anticipated that Pescadero Avenue will be realigned in the Background and will no longer connect to Paradise Avenue. Instead, Pescadero Avenue will intersect with the new N. Chrisman Road alignment with signal control.

Grant Line Road is an east-west four-lane divided major arterial and a speed limit of 45 miles per hour (within the Project vicinity). Grant Line Road extends from Byron Road to 11th Street in Banta and provides local and regional access to/from the City of Tracy. Bike and bus facilities are present along Grant Line Road.

No Background improvements are anticipated for Grant Line Road.

Chrisman Road is a north-south two-lane divided major arterial and a speed limit of 40 miles per hour. N. Chrisman road currently extends from Grant Line Road to the railroad and from the railroad to 11th Street, where it becomes S. Chrisman Road. No connection is present at the railroad and North Chrisman only provides access to warehousing and distribution centers.

It is anticipated that N. Chrisman Road will be extended north of Grant Line Road and intersect with the existing Paradise Avenue in Background conditions. This extension is anticipated to be a two-lane divided major arterial. In addition, Pescadero Avenue will be realigned to connect to the N. Chrisman Road extension.

MacArthur Drive is a north-south major arterial that extends from I-205 to the Governor Edmund G Brown California Aqueduct. Within the Project vicinity, N. MacArthur Drive is a two-lane divided major arterial from I-205 to Stonebridge Drive and a two-lane undivided major arterial from Stonebridge Drive to 11th Street. The current speed limit is 40 miles per hour and bus and bike facilities are present along MacArthur Drive.

No Background improvements are anticipated for N. MacArthur Drive.

11th Street is an east-west major undivided arterial with left turn pockets and two-way left turn lanes and a speed limit of 45 miles per hour (within the Project vicinity). 11th Street extends from I-205 (to the east) to I-5 (to the west) and provides regional and local access to/from the City of Tracy. Within the City of Tracy, bus and bike facilities are present along 11th Street.

No Background improvements are anticipated for 11th Street.

Multimodal Facilities

Transit Facilities

The City of Tracy provides regional and city-wide transit services through their bus service TRACER. Route 90 and 97 operate along Grant Line Road near the Project site; however, according to the Tracer bus routes map, no bus stops are provided east of East Street. These existing bus stops are more than the recommended ½ mile distance typically recommended by the industry, and no trip or VMT reductions can be assumed.

Pedestrians Facilities

Grant Line Road provides sidewalk facilities on both sides of the road up until the Project frontage. No sidewalks exist along the Project frontage along Paradise Avenue either. Sidewalks have not been developed at this location because the land is undeveloped.

Bicycle Facilities

Existing Class I, II, and III bikeway facilities (within ½ mile of the Project) are discussed below:

Class I facilities are paved bicycle paths that are physically separated from the vehicular travel lane. No Class I facilities exist near the Project site.

Class II facilities are striped bike lanes along the street. Class II facilities exist along Grant Line Road in eastbound and westbound directions, west of Paradise Avenue.

Class III bicycle facilities are bike routes denoted by signs that are shared with vehicles along the roadway. No Class III facilities exist near the Project site.

Existing Peak-Hour Turning Movement Volumes

Existing traffic counts were used and anticipated growth in development trips added to calculate the future traffic volumes and subsequent traffic conditions. Due to recent events with COVID-19, traditional traffic counts were not able to be collected for all study intersections. Therefore, Streetlight Data was utilized to provide turning movement counts at study intersections that did not have counts within the past two years. Streetlight uses calibrated, anonymized Bluetooth data to estimate vehicle volumes. Streetlight Data has been collected throughout Tracy and independently verified with existing, traditional turning movement counts. For purposes of this study, the data collection represents an average of all Tuesdays, Wednesdays and Thursdays during October 2019, January 2020 and February 2020, excluding holiday weeks. Limitations to Streetlight Data include the lack of peak hour factors, heavy vehicle percentages and bicycle and

pedestrian counts and data sampling. Peak hour factors were estimated based on *Highway Capacity Manual*, 6th Edition, methodology found in Chapter 19. Heavy vehicle percentages were estimated based on existing counts in the vicinity, and pedestrian crossings were conservatively estimated at 5 per peak hour.

Table 3 provides the type of counts used for the existing study intersections.

Table 3 – Count Data References

#	Intersection	Count Type[1]	Date of Count (if available)
1	Grant Line Rd & Best Buy Dwy/Project Dwy 1	SL	N/A
2	Grant Line Rd & Project Driveway 2	SL	N/A
3	Grant Line Rd & Paradise Avenue	SL	N/A
4	Paradise & Ryder Dwy/Project Dwy 3	SL	N/A
5	Paradise & Ryder Dwy/Project Dwy 4	SL	N/A
6	Paradise & Project Dwy 5	SL	N/A
7	Chrisman Rd & N. Paradise Ave (Future)	TMC	February 2019[2]
8	Chrisman Rd & Pescadero Ave (Future)	Does Not Exist	
9	Grant Line Rd & Chrisman Rd	TMC	February 2019
10	I-205 WB Ramps & N. MacArthur Dr	SL	N/A
11	I-205 EB Ramps & N. MacArthur Dr	SL	N/A
12	Pescadero Ave & N. MacArthur Dr	SL	N/A
13	Grant Line Rd & N. MacArthur Dr	SL	N/A
14	11th St & N. MacArthur Dr	SL	N/A
15	11th St & Chrisman Rd	SL	N/A
15	I-205 WB Ramps & Chrisman Rd (Cumulative)	Does Not Exist	
17	I-205 EB Ramps & Chrisman Rd (Cumulative)	Does Not Exist	
18	Chrisman Rd & S. Paradise Ave	SL	N/A

Notes:
1. SL – Streetlight, TMC – Traditional Turning Movement Counts
2. Count data refers to counts collected at the existing Pescadero Ave & Paradise Ave intersection.

Streetlight does not have data for the driveways Best Buy and Ryder Distribution center for Intersections #1, #4, and #5; however, trips produced by these sites are on the existing roadway network and effect intersection operations. Therefore, trip generation was completed for these sites to estimate driveway trips at these intersections and the existing roadway volumes were then balanced based on the driveway trip estimations.

For Intersections #7 and #9, weekday intersection turning movement volumes were collected on February 29, 2019.

These counts included vehicles, bicycles, and pedestrians. Volumes for intersections were collected during the AM and PM peak periods of 7:00-9:00 AM and 4:00-6:00 PM, respectively. All traffic counts were collected when local schools were in session and the weather was fair.

Peak hour volumes at each intersection's respective peak were conservatively used in this analysis, therefore, some volume imbalances were observed between study intersections. Where imbalances occurred, volumes were conservatively increased above what was counted.

Field observations were conducted on the count data collection days to observe queues and existing conditions. Data and field visits indicate that peak traffic flow occurs for extended periods of time (typically from 7:00-9:00 AM and 4:00-7:00 PM). The highest one-hour morning (AM) and one-hour afternoon/evening (PM) peaks were selected for analysis, consistent with County, City, and State guidelines.

U-turns are analyzed (and illustrated in all figures) as left-turns since HCM methodologies do not support analysis of U-turns. Intersection volume data sheets for all traffic counts are provided in **Appendix B**.

Background Conditions Traffic Volumes

Background Projects & Network Improvements

Table 4 provides information on the background projects that analyzed to develop Background Condition volumes.

Table 4 – Background Projects

Project	Characteristics	Square Footage	Location
Seefried	High-Cube Warehouse	1,028,000	7351 E. Grant Line Road
California Highway Patrol (CHP) Facility	CHP Headquarters	28,162	1175 East Pescadero Avenue
Home Depot Distribution Truck Parking Lot	Northeast Industrial – Light Industrial	804,118	No address available. APN: 213-07-089
Interstate Truck Center	Truck Center	52516	1310 E. Pescadero Avenue
Central Plastics Industrial Building	Northeast Industrial – Light Industrial	60,456	1480 Pescadero Avenue
NEI Phase 3 (Big Bird)	Warehouse	3,485,401	1500 E. Grant Line Road

Source: Kimley Horn. 2020. Tracy Alliance and Northeast Area Annexation Transportation Impact Analysis (prepared for the City of Tracy).

It was also assumed that the interim Chrisman Road extension would also be constructed north of Grant Line Road as a part of the Seefried project. Refer to **Figure 1** for the alignment of Chrisman Road extension in Background Conditions.

Background lane geometry is provided in **Figure 6**, while Background peak hour volumes are provided in **Figure 7**.

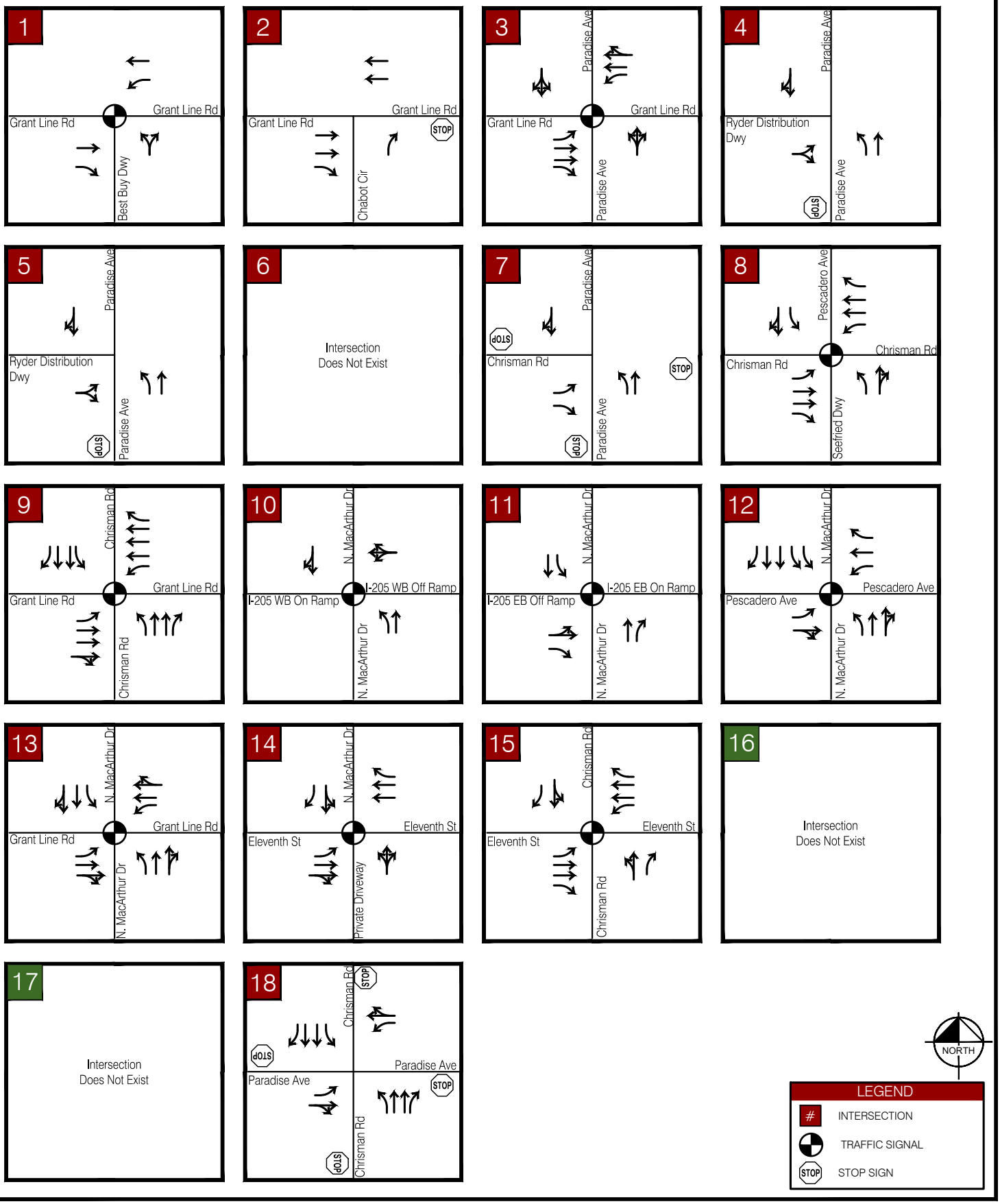

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Figure 6
Traffic Control and Geometry
Background Conditions

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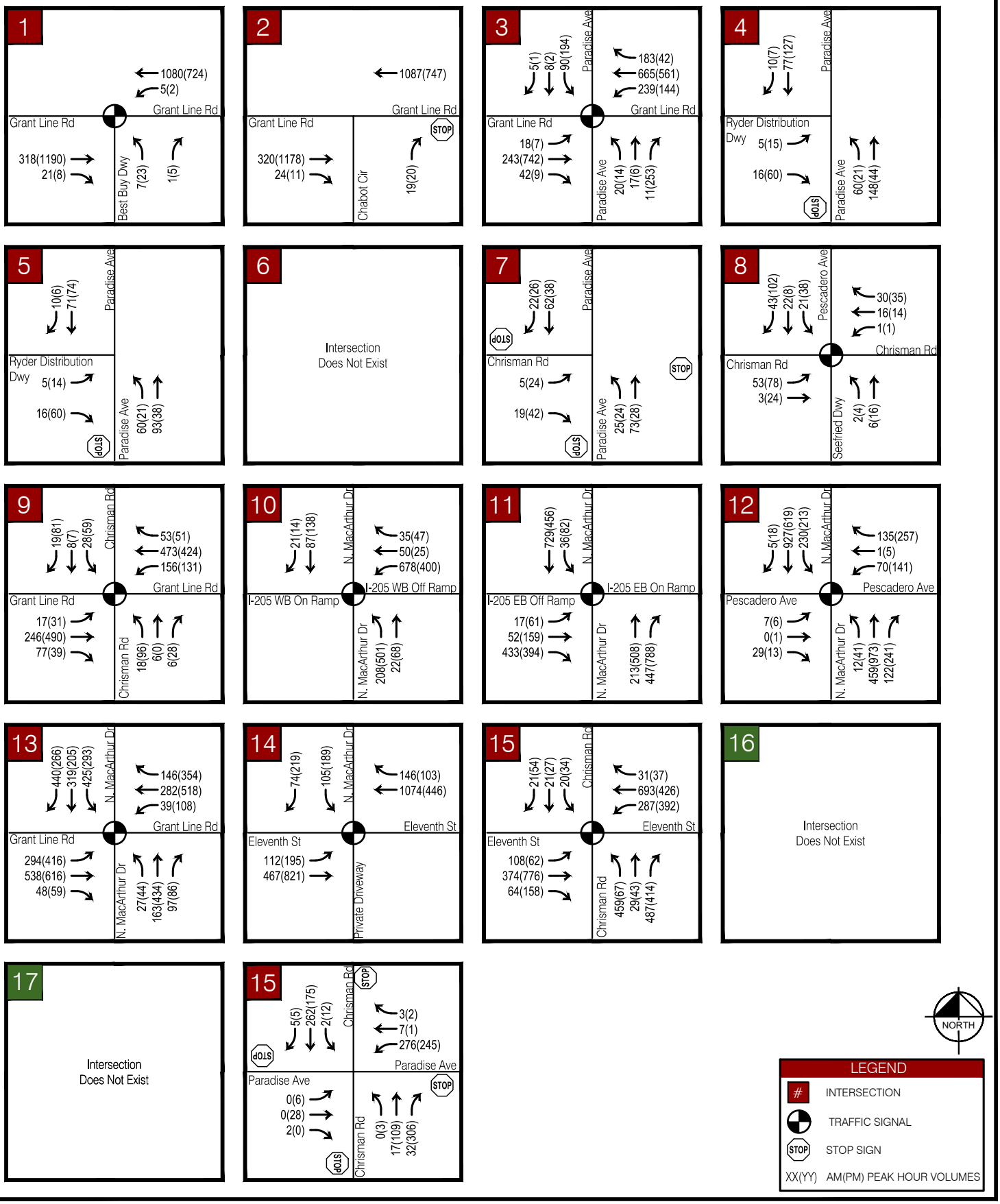

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April 2022

Figure 7
Peak Hour Volumes
Background Conditions

Tracy Alliance & North East Annexation Area TIA

Background Conditions Level of Service at Study Intersections

Traffic operations were evaluated at the study intersections based on Background conditions lane geometry, traffic control, and peak hour traffic volumes.

Results of the analysis are presented in **Table 5** and Synchro output sheets are provided in **Appendix C** .

As provided in **Table 5** , the following intersections will operate at an unacceptable LOS:

- Intersection #13 (Grant Line Road and N. MacArthur Drive)
- Intersection #18 (Chrisman Rd & S. Paradise Ave)

No improvements are proposed for this deficiency in the Background Conditions.

Table 5 – Background Conditions Intersection Level of Service

#	Intersection	Maintaining Agency[1]	Control Type	Background Conditions					
				AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS
1	Grant Line Rd & Best Buy Dwy/Project Dwy 1	Tracy	Signal	-	16.4	B	-	24.8	C
2	Grant Line Rd & Chabot Ct/Project Dwy 2	Tracy	SSSC	-	0.1	A	-	0.1	A
	Worst Approach			*NB*	*9.4*	*A*	*NB*	*14.1*	*B*
3	Grant Line Rd & N. Paradise Ave	Tracy	Signal	-	33.4	C	-	34.6	C
4	Paradise Ave & Ryder Dwy/Project Dwy 3	Tracy	SSSC	-	2.1	A	-	3.2	A
	Worst Approach			*EB*	*9.5*	*A*	*EB*	*9.7*	*A*
5	Paradise Ave & Ryder Dwy/Project Dwy 4	Tracy	SSSC	-	2.6	A	-	4.0	A
	Worst Approach			*EB*	*9.4*	*A*	*EB*	*9.3*	*A*
6	Paradise Avenue & Project Dwy 5	Intersection Does Not Exist							
	Worst Approach								
7	Chrisman Rd & N. Paradise Ave	Tracy	AWSC	-	7.9	A	-	7.7	A
8	Chrisman Rd & Pescadero Ave (Future)	Tracy	Signal	-	15.8	B	-	15.4	B
9	Grant Line Rd & Chrisman Rd	Tracy	Signal	-	18.8	B	-	24.2	C
10	I-205 WB Ramps & N. MacArthur Dr	Caltrans	Signal	-	28.2	C	-	31.7	C
11	I-205 EB Ramps & N. MacArthur Dr	Caltrans	Signal	-	23.5	C	-	52.6	D
12	Pescadero Ave & N. MacArthur Dr	Tracy	Signal	-	20.6	C	-	26.7	C
13	Grant Line Rd & N. MacArthur Dr	Tracy	Signal	-	**66.7**	**E**	-	**86.5**	**F**
14	11th St & N. MacArthur Dr	Tracy	Signal	-	11.6	B	-	19.6	B
15	11TH St & Chrisman Rd	Tracy	Signal	-	38.6	D	-	29.0	C
16	I-205 WB Ramps & Chrisman Rd	Intersection Does Not Exist							
17	I-205 EB Ramps & Chrisman Rd	Intersection Does Not Exist							
18	Chrisman Rd & S. Paradise Ave[7]	Tracy	AWSC	-	14.8	B	-	**57.0**	**F**

Notes:

1. *LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled - Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated.*
2. *Analysis performed using HCM 6th Edition methodologies.*
3. *Delay indicated in seconds/vehicle.*
4. *Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control*
5. *Tracy LOS standard is D unless the intersection is within ¼ mile of the freeway*
6. *Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.*
7. *Due to limitations of HCM, Intersection #18 cannot be analyzed with more than three approaches as an All Way Stop. Therefore, only three lanes were assumed for the northbound and southbound approach. The proposed geometry has been provided in **Figure 6**.*

4. PROPOSED PROJECT

The following lists the size and type of each building proposed by the Project:

- Tracy Alliance:
  - Building A – 978,500 Square feet of high-cube warehouse
  - Building B – 64,000 Square feet of warehousing
  - Building C – 807,000 Square feet of high-cube warehouse
- Suvik Farms – 1,023,660 Square feet of high-cube warehouse
- Zuriakat Parcel – 479,160 Square feet of high-cube warehouse

The Project site plan is shown in **Figure 3**. The following Project access locations are assumed for the Background and Cumulative Conditions (Tracy Alliance):

- Grant Line Road
  - One signalized full access driveway
  - One right in/right out driveway
- Paradise Avenue (Background)
  - One signalized full access driveway
  - Two unsignalized full access driveways

Multimodal Improvements

Transit Improvements

Transit improvements are not anticipated with the implementation of the Project

Pedestrian & Bicycle Improvements

As part of the Project's frontage improvements, it is anticipated that the Project will construct a Class I path (that will accommodate both pedestrians and bicycles) per the TMP for both Grant Line Road and Paradise Avenue.

Trip Generation Estimates

For purposes of determining the worst-case effects of traffic on the surrounding street network, Project trips are typically estimated between the hours of 7:00-9:00 AM and 4:00-6:00 PM on a weekday. While the Project itself may generate more traffic during other times of the day, the peak of "adjacent street traffic" represents the time period when the uses contribute to the greatest amount of congestion, and consequently Project related operational deficiencies.

Gross Project Trip Generation

City of Tracy Model rates were utilized to determine AM and PM peak hour trip rates. Since the model does not provide Daily average rates and AM and PM distributions, ITE was supplemented using the following Land Use Code:

- Land Use 150 – Warehousing
- Land Use 154 – High-Cube Transload and Short-Term Storage Warehouse

These facilities are the most accurate land use assumptions per ITE, because warehousing land uses are primarily devoted to the storage of materials, but it may also include office and maintenance areas.

The proposed Tracy Alliance project is expected to generate a gross of 2,611 daily trips, 225 trips (156 in / 69 out) during the AM peak hour, and 271 trips (83 in / 188 out) during the PM peak hour.

The proposed Suvik and Zuriakat projects are expected to generate a gross of 2,104 daily trips, 181 trips (125 in / 56 out) during the AM peak hour, and 210 trips (65 in / 145 out) during the PM peak hour.

It was assumed that no trips credits can be applied to the proposed land uses; therefore, the Project is anticipated to generate a total of 4,715 daily trips, 406 trips (281 in / 125 out) during the AM peak hour, and 481 trips (148 in / 333 out) during the PM peak hour.

Table 6 – Project Trip Generation

Land Uses	Project Size	DAILY	AM PEAK HOUR				PM PEAK HOUR			
		Total	Total Peak Hour	IN	/	OUT	Total Peak Hour	IN	/	OUT
Trip Generation Rates										
Project Use										
High-Cube Warehouse[1]	- ksf	1.40	0.12	69%	/	31%	0.14	31%	/	69%
Warehousing[2]	- ksf	1.74	0.17	77%	/	23%	0.33	27%	/	73%
Trips Generated										
Tracy Alliance Parcels										
Building A	**978.5 ksf**	**1,370**	**117**	**81**	**/**	**36**	**137**	**42**	**/**	**95**
	Passenger Cars[3]	*932*	*81*	*56*	*/*	*25*	*107*	*33*	*/*	*74*
	Trucks[3]	*438*	*36*	*25*	*/*	*11*	*30*	*9*	*/*	*21*
Building B	**64.0 ksf**	**111**	**11**	**8**	**/**	**3**	**21**	**6**	**/**	**15**
	Passenger Cars[3]	*75*	*8*	*6*	*/*	*2*	*16*	*5*	*/*	*11*
	Trucks[3]	*36*	*3*	*2*	*/*	*1*	*5*	*1*	*/*	*4*
Building C	**807.0 ksf**	**1,130**	**97**	**67**	**/**	**30**	**113**	**35**	**/**	**78**
	Passenger Cars[3]	*768*	*67*	*46*	*/*	*21*	*88*	*27*	*/*	*61*
	Trucks[3]	*362*	*30*	*21*	*/*	*9*	*25*	*8*	*/*	*17*
Tracy Alliance Parcels Total Trips	***1,849.5 ksf***	***2,611***	***225***	***156***	***/***	***69***	***271***	***83***	***/***	***188***
	Passenger Cars	***1,775***	***156***	***108***	***/***	***48***	***211***	***65***	***/***	***146***
	Trucks	***836***	***69***	***48***	***/***	***21***	***60***	***18***	***/***	***42***
Suvik Farms Parcels	**1,023.7 ksf**	**1,433**	**123**	**85**	**/**	**38**	**143**	**44**	**/**	**99**
	Passenger Cars[3]	*974*	*85*	*59*	*/*	*26*	*112*	*34*	*/*	*78*
	Trucks[3]	*459*	*38*	*26*	*/*	*12*	*31*	*10*	*/*	*21*
Zuriakat Parcels	**479.2 ksf**	**671**	**58**	**40**	**/**	**18**	**67**	**21**	**/**	**46**
	Passenger Cars[3]	*456*	*40*	*28*	*/*	*12*	*52*	*16*	*/*	*36*
	Trucks[3]	*215*	*18*	*12*	*/*	*6*	*15*	*5*	*/*	*10*
Suvik and Zuriakat Parcels Total Trips	***1,502.9 ksf***	***2,104***	***181***	***125***	***/***	***56***	***210***	***65***	***/***	***145***
	Passenger Cars	***1,430***	***125***	***87***	***/***	***38***	***164***	***50***	***/***	***114***
	Trucks	***674***	***56***	***38***	***/***	***18***	***46***	***15***	***/***	***31***
	TOTAL TRIPS	***4,715***	***406***	***281***	***/***	***125***	***481***	***148***	***/***	***333***
	PASSENGER CAR	***3,205***	***281***	***195***	***/***	***86***	***375***	***115***	***/***	***260***
	TRUCKS	***1,510***	***125***	***86***	***/***	***39***	***106***	***33***	***/***	***73***

Notes:

1. City of Tracy rates used for High-Cube Warehouse AM and PM peak hour rates in addition to trip generation LU 154 average daily rate and AM and PM distribution (Institute of Transportation Engineers (ITE), "Trip Generation," 10th Edition, 2017).

2. City of Tracy model rates were utilized for the AM and PM peak hour rates in addition to trip generation LU 150 average daily rate and AM and PM distribution (Institute of Transportation Engineers (ITE), "Trip Generation," 10th Edition, 2017).

3. ITE guidance for high-cube and warehousing facilities used, 2016.

Source: Kimley-Horn and Associates, Inc., 2022

Trip Distribution and Assignment

Two trip distributions were created for the following scenarios because of changes in the road network where the Chrisman Road I-205 interchange is assumed to be implemented in the Cumulative conditions, consistent with the City of Tracy Transportation Master Plan:

- Background Plus Project
- Cumulative Plus Project

The trip distribution was developed based on knowledge of the study area and existing traffic counts and the City of Tracy Travel Demand Model assignment.

Background Conditions Trip Distribution and Assignment

The Background Conditions distribution assumes network improvements according to background projects within the NEI Specific Plan. Road network improvements assumed for Background conditions are indicated in **Section 3** .

The following provides the Background trip distribution assumptions used for passenger car Project trips:

- 11% to/from the east along I-205
- 15% to/from the west along I-205
- 2% to/from the north along Paradise Avenue
- 32% to/from the west along Grant Line Road
- 20% to/from the east Grant Line Road
- 20% to/from the west along 11th Street

The following provides the Background trip distribution assumptions used for truck Project trips:

- 34% to/from the east along I-205
- 33% to/from the west along I-205
- 15% to/from the east along 11th Street
- 18% to/from the south along Chrisman Road

It should be noted that truck traffic is not permitted along Grant Line Road into the County. The distribution and assignment assume that trucks would need to travel along either Eleventh Street or Chrisman Road to access Southbound Interstate 5.

Figure 8 and **Figure 9** graphically illustrates the assumed distribution for passenger cars and trucks, respectively, in relation to the Project site and study intersections.

Figure 10 and **Figure 11** provide the net Project trip assignment for passenger cars and trucks, respectively, that would occur at study intersections during the AM and PM peak hour Background Plus Project Conditions.

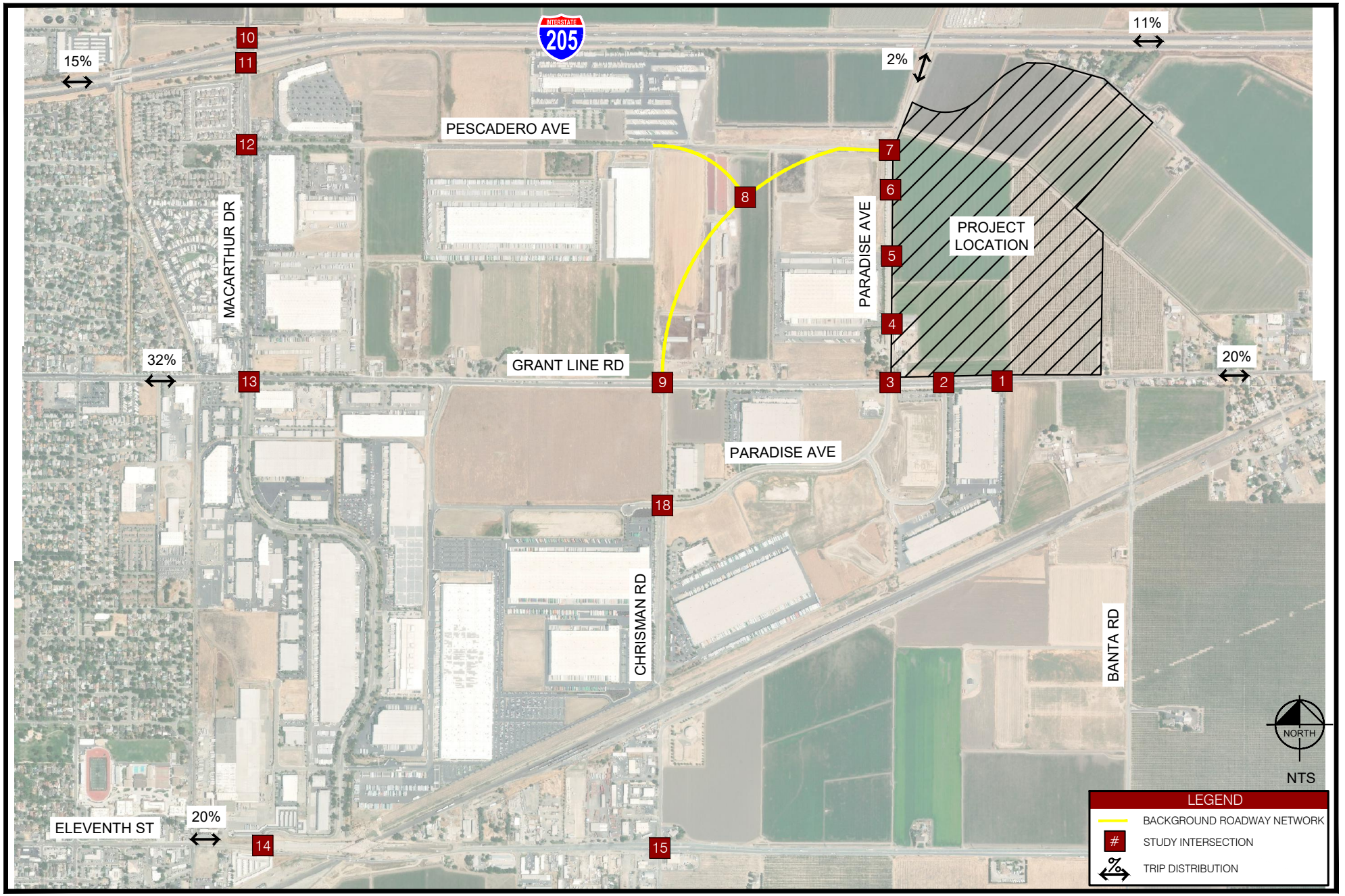

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Figure 8
Passenger Car Trip Distribution
Background Plus Project Conditions

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Tracy Alliance & North East Annexation Area TIA

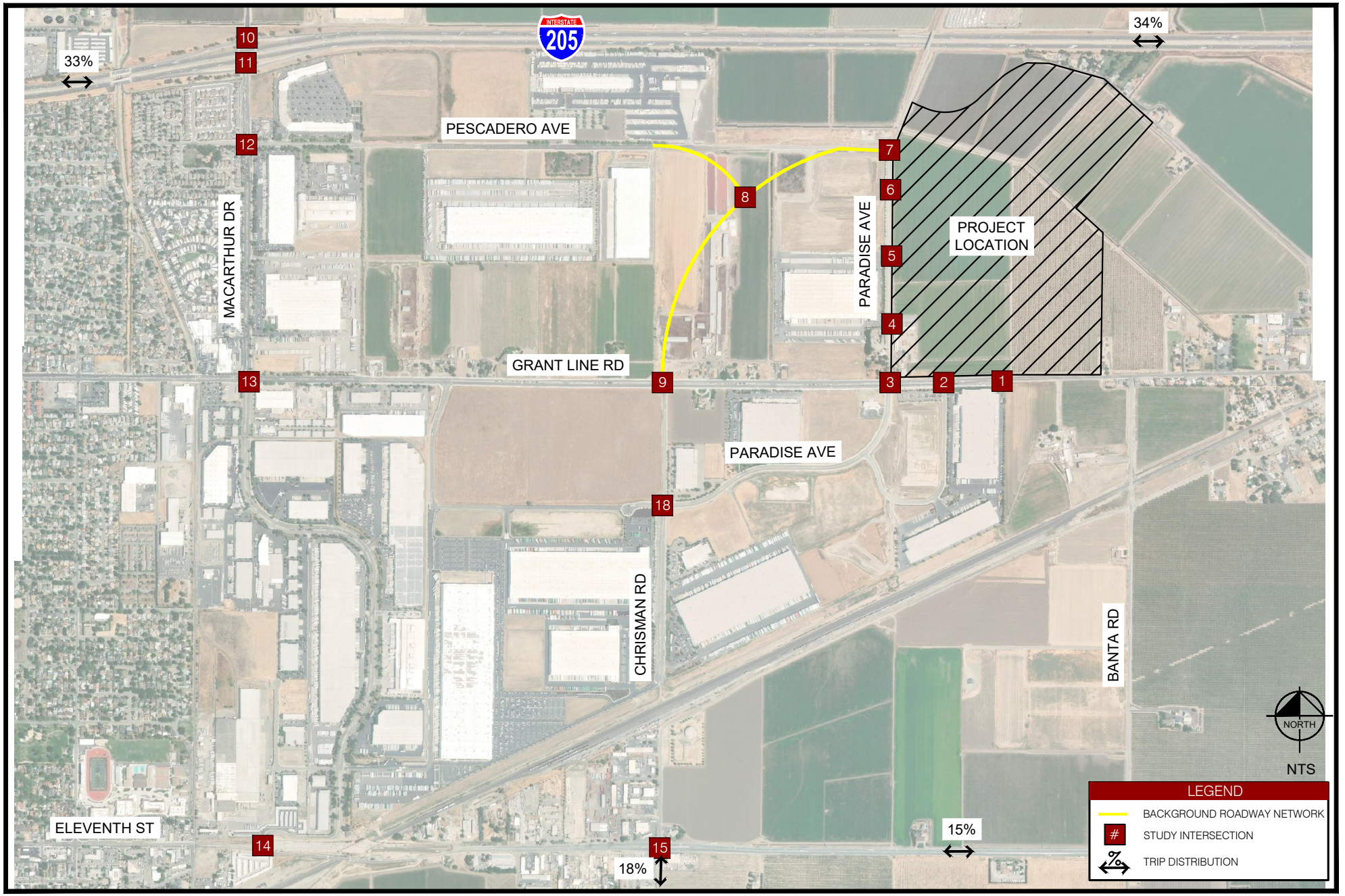

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Figure 9
Truck Trip Distribution
Background Plus Project Conditions

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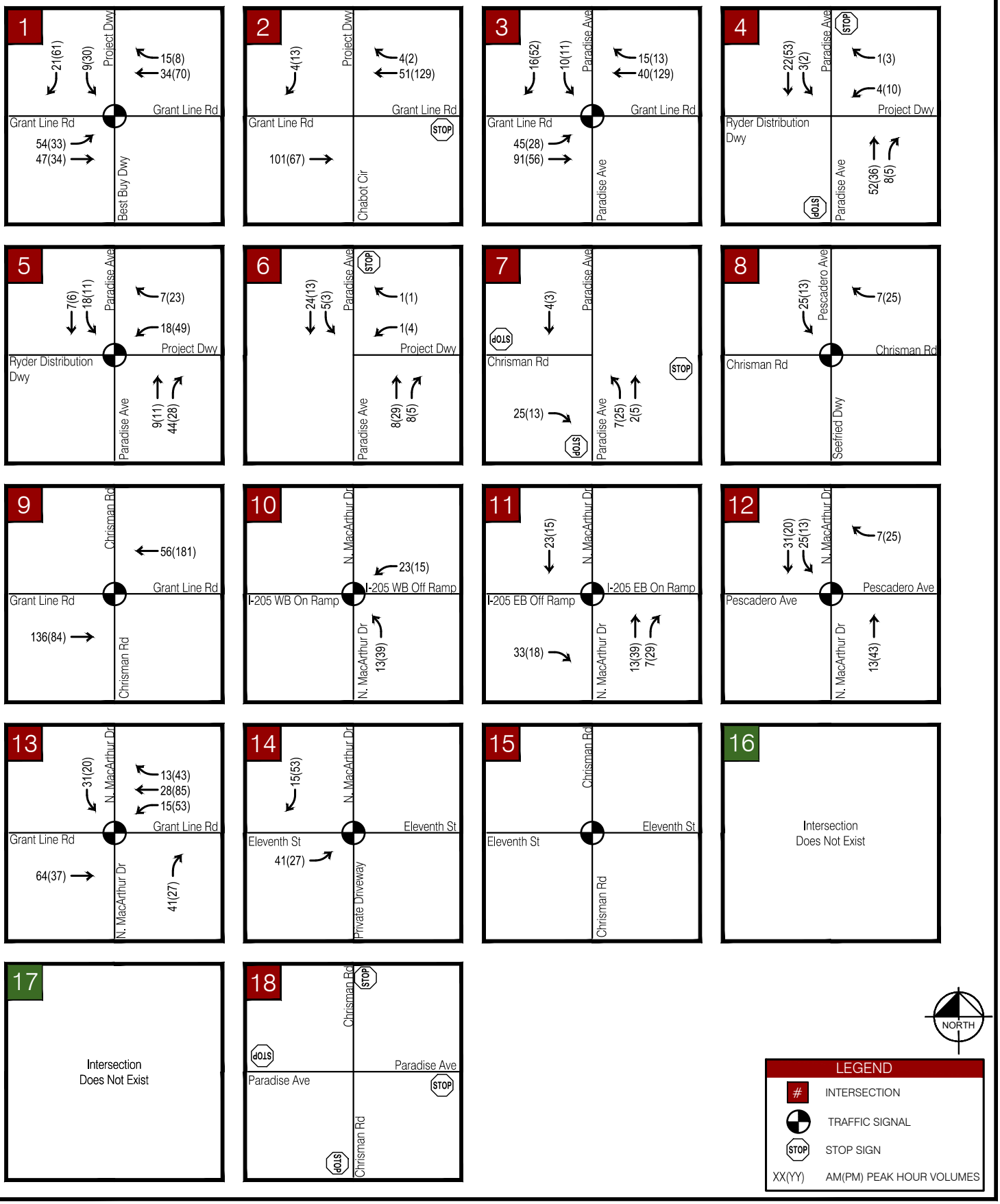

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Figure 10
Passenger Car Trip Assignment
Background Plus Project Conditions
Tracy Alliance & North East Annexation Area TIA

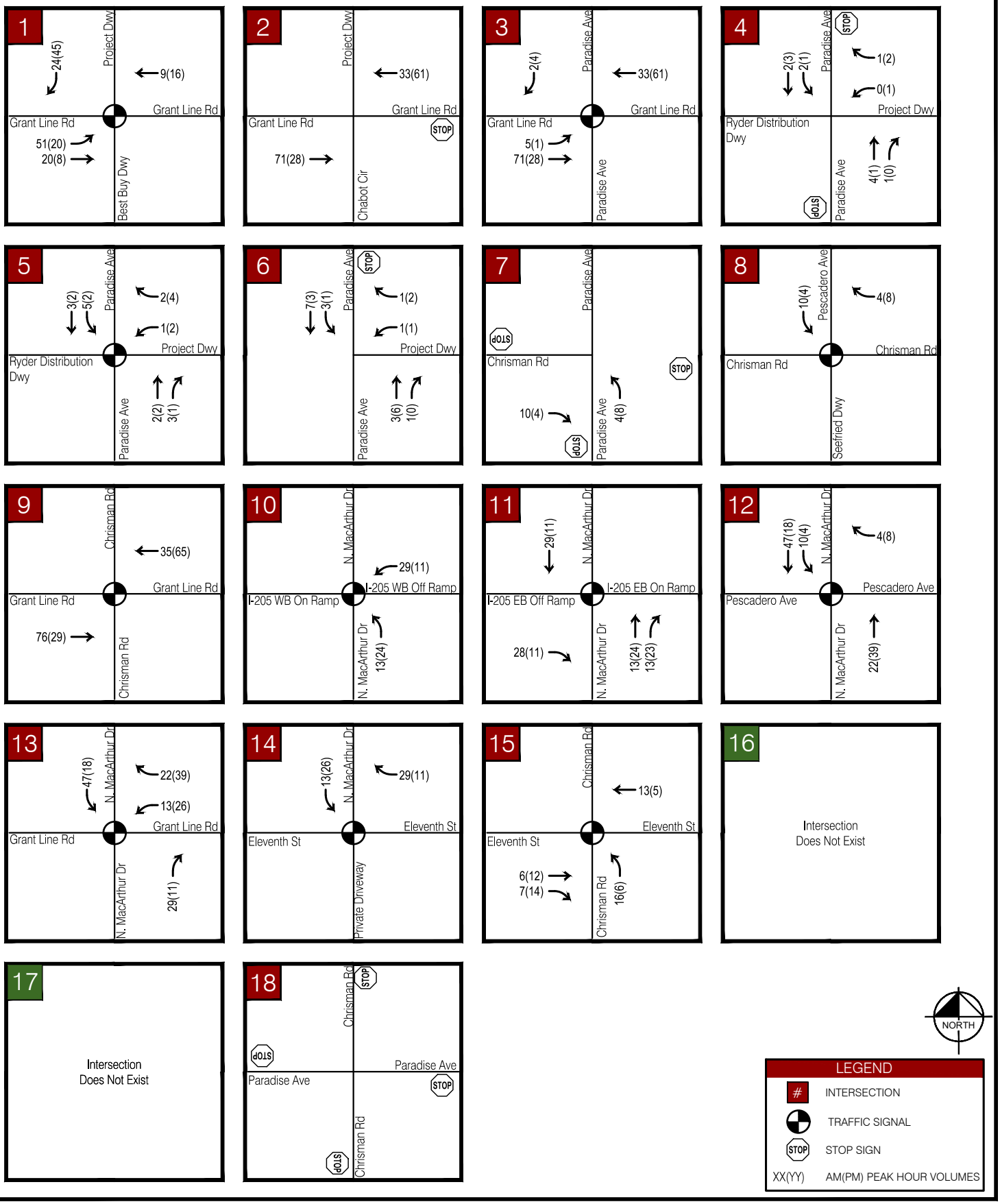

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Figure 11
Truck Trip Assignment
Background Roadway Conditions
Tracy Alliance & North East Annexation Area TIA

Cumulative Conditions Trip Distribution and Assignment

The Cumulative Conditions distribution assumes network improvements according to the Tracy Transportation Master Plan 2035 Horizon year. Road network improvements assumed for Cumulative conditions are indicated in **Section 6** of the report.

The following provides the Cumulative trip distribution assumptions for passenger car Project trips:

- 11% to/from the east along I-205
- 35% to/from the west along I-205
- 2% to/from the north along Paradise Avenue
- 10% to/from the west along Grant Line Road
- 10% to/from the east Grant Line Road
- 20% to/from the west along 11th Street
- 1% to/from the south along the MacArthur Extension
- 11% to/from the south along Chrisman Road

The following provides the Cumulative trip distribution assumptions used for truck Project trips:

- 34% to/from the east along I-205
- 33% to/from the west along I-205
- 15% to/from the east along 11th Street
- 18% to/from the south along Chrisman Road

It should be noted that truck traffic is not permitted along Grant Line Road into the County. The distribution and assignment assumes that trucks would need to travel along either Eleventh Street or Chrisman Road to access Southbound Interstate 5.

Figure 12 and **Figure 13** graphically illustrates the assumed distribution for passenger cars and trucks, respectively, in relation to the Project site and study intersections.

Figure 14 and **Figure 15** provide the net Project trip assignment for passenger cars and trucks, respectively, that would occur at study intersections during the AM and PM peak hour Background Plus Project Conditions.

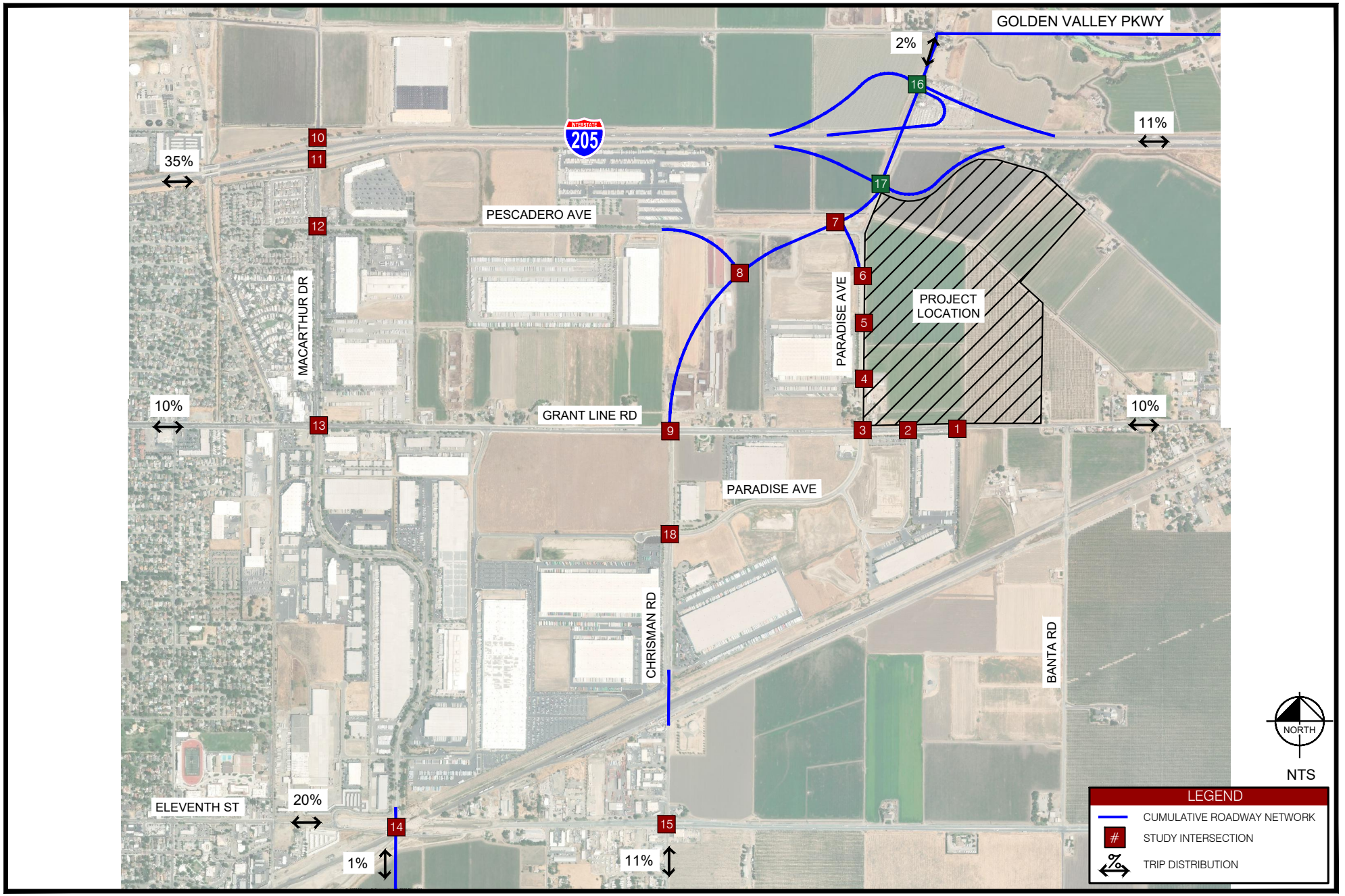

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Figure 12
Passenger Car Trip Distribution
Cumulative Plus Project Conditions

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Tracy Alliance & North East Annexation Area TIA

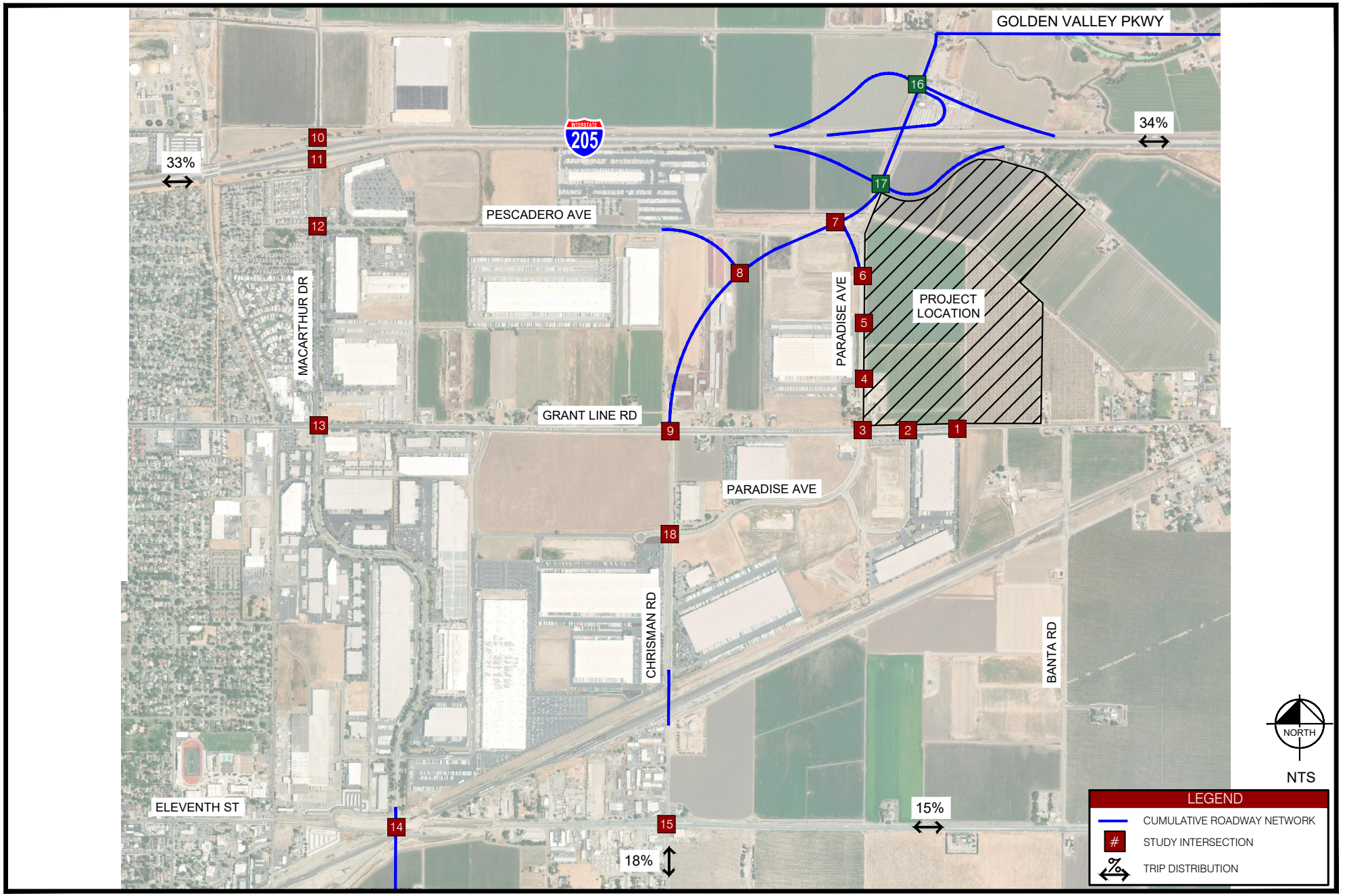

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Figure 13
Truck Trip Distribution
Cumulative Plus Project Conditions

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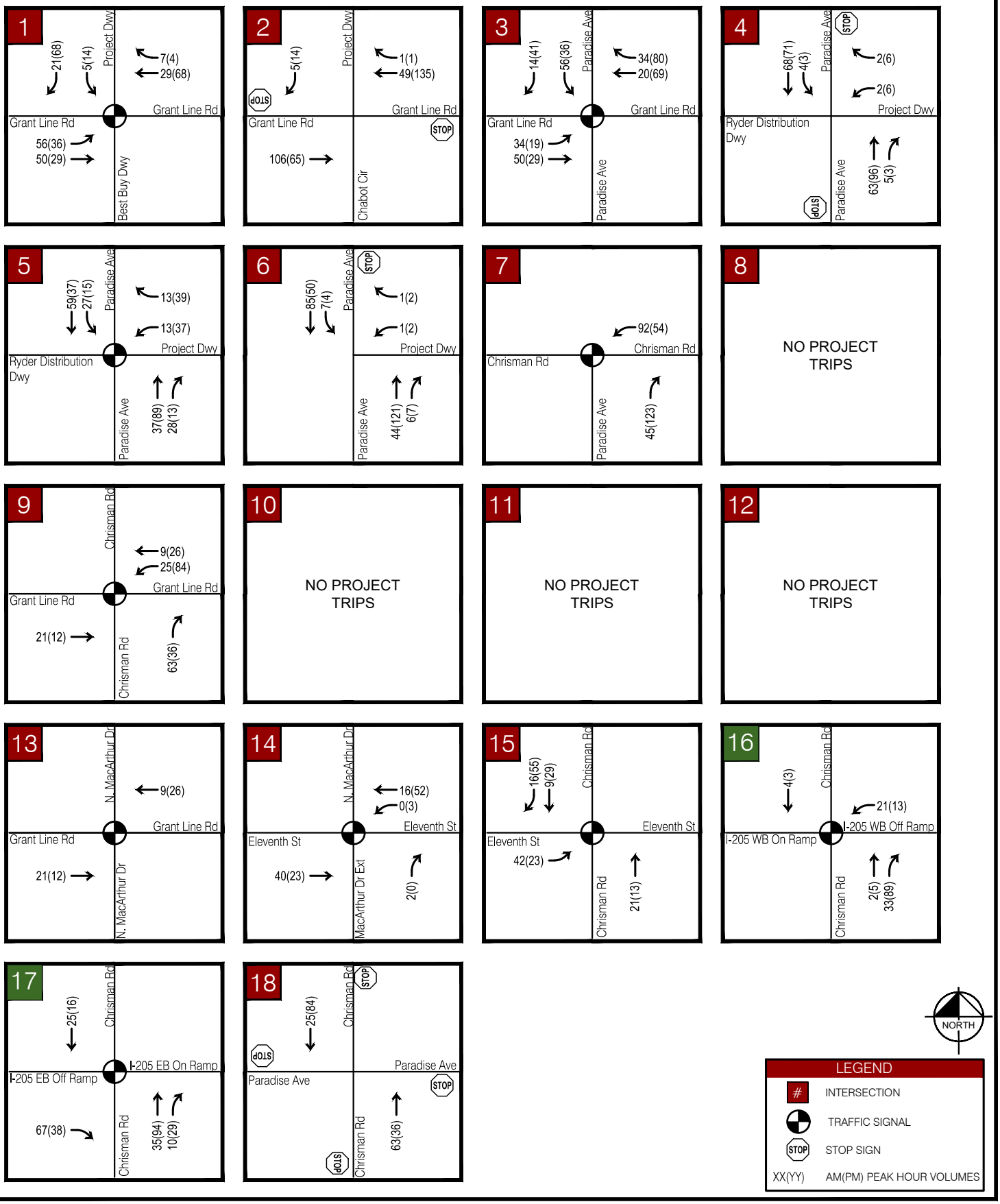

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Figure 14
Passenger Car Trip Assignment
Cumulative Plus Project Conditions
Tracy Alliance & North East Annexation Area TIA

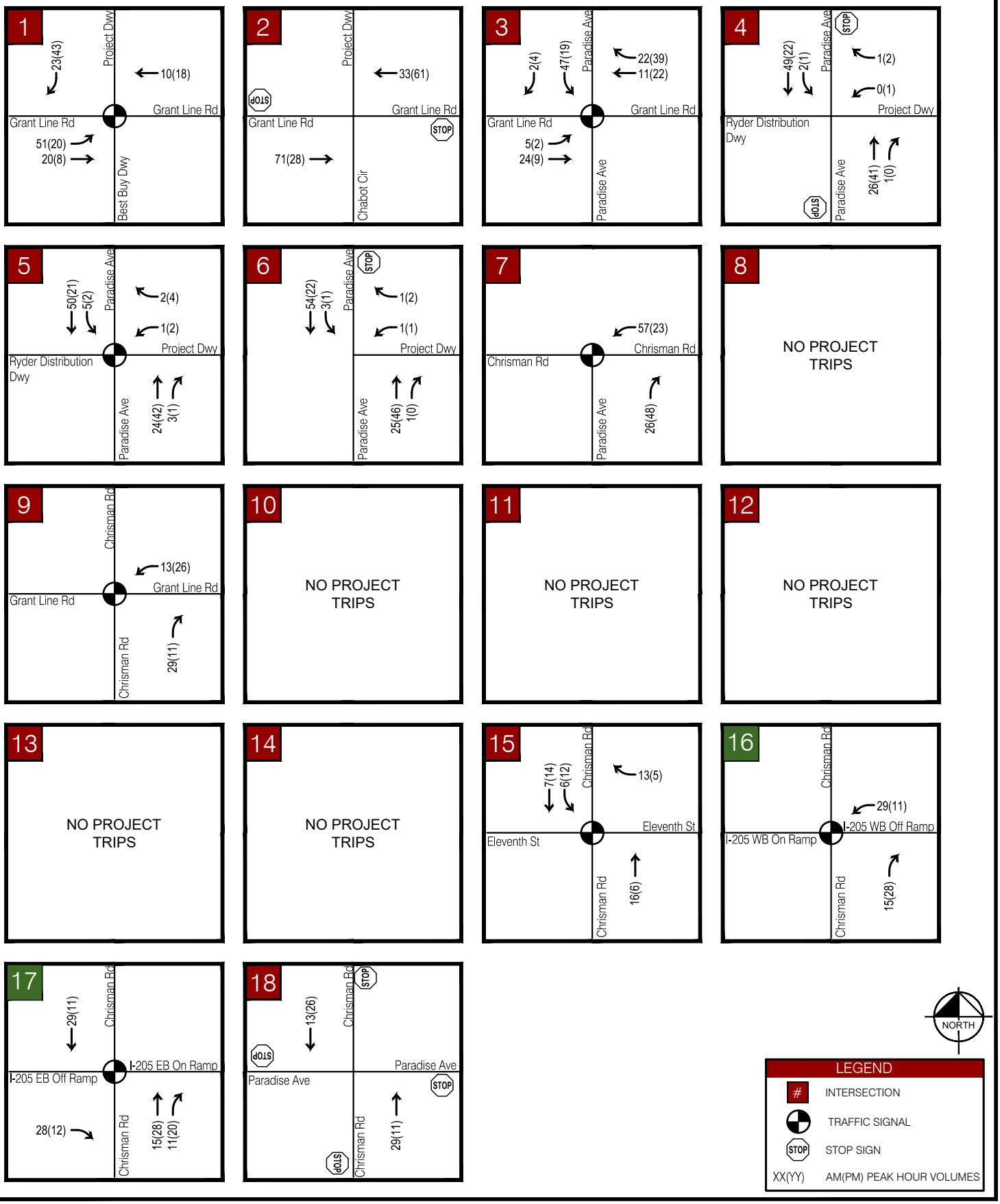

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Figure 15
Truck Trip Assignment
Cumulative Plus Project Conditions
Tracy Alliance & North East Annexation Area TIA

5. BACKGROUND PLUS PROJECT CONDITIONS

Background Plus Project Conditions Intersection Level of Service

Traffic operations were evaluated at the study intersections under Background plus Project conditions. **Figure 16** shows the Background Plus Project lane geometry and traffic control and **Figure 17** shows the Existing Plus Project peak hour traffic volumes for the full Project.

Results of the full Project analysis are presented in **Table 7** and Synchro output sheets are provided in **Appendix D**. Results from the analysis of the Tracy Alliance Parcels only are presented in **Table 8** and Synchro output sheets are provided in **Appendix E**.

A phased approach for developed for this project and the detail is provided in **Table 8**. In this phasing approach it was assumed that Alliance would be constructed in the short term while the Suvik and Zuriakat parcels would develop in the Cumulative Conditions.

Failing intersections from the full Project analysis in **Table 7** were analyzed without Suvik and Zuriakat to determine if only the Alliance Buildings would degrade intersections below acceptable levels of service.

As provided in **Table 8**, the following intersections are failing in the Background Plus Project Conditions and improvements have been provided in **Table 9**:

- Intersection #11 – I-205 EB Ramps & N. MacArthur Drive (PM Peak Hour)
    - Implement the TMP improvements at this intersection to accommodate City traffic. It is not recommended to make improvements (ie. an additional northbound right) to accommodate cut-through traffic because this will induce more cut-through traffic. The improvements are triggered by any of the first buildings on the site. The Project is responsible for implementation of these improvements, but the Project obtain fee credits because these improvements are included in the City's traffic impact fee (TIF) program.
    - The TMP improvements include lane additions at both ramp terminals and the addition of a second I-205 Westbound on-ramp. The two ramp terminals cannot be improved independently. The westbound ramp terminal would improve with the addition of these lanes.
- Intersection #13 – MacArthur Drive and Grant Line Road (PM Peak Hour)
    - Improvement: Westbound right turn lane with right turn overlap signal phase. This improvement is anticipated to be constructed by NEI Phase 3 and the proposed Project shall pay a fair share as indicated in **Section 7**.
- Intersection #18 – Chrisman Road & S. Paradise Avenue (PM Peak Hour)
    - The Project does not send any traffic to this intersection in Background Conditions and does not have to make any improvements

With these improvements, the deficient intersections operate at either an acceptable LOS, or better than the base conditions. Synchro output sheets for the mitigated scenario is provided in **Appendix F**.

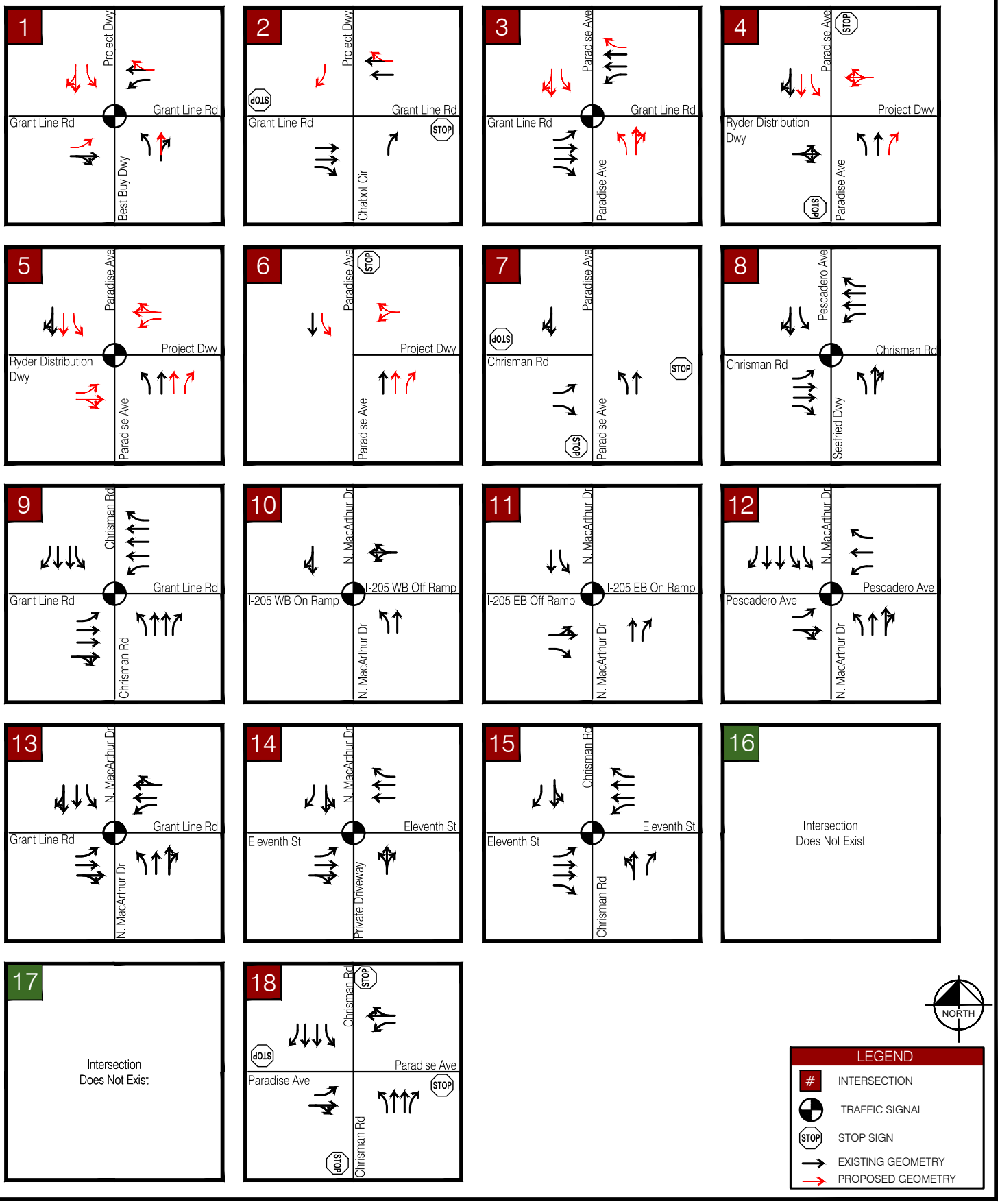

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Figure 16
Traffic Control and Geometry
Background Plus Project Conditions
Tracy Alliance & North East Annexation Area TIA

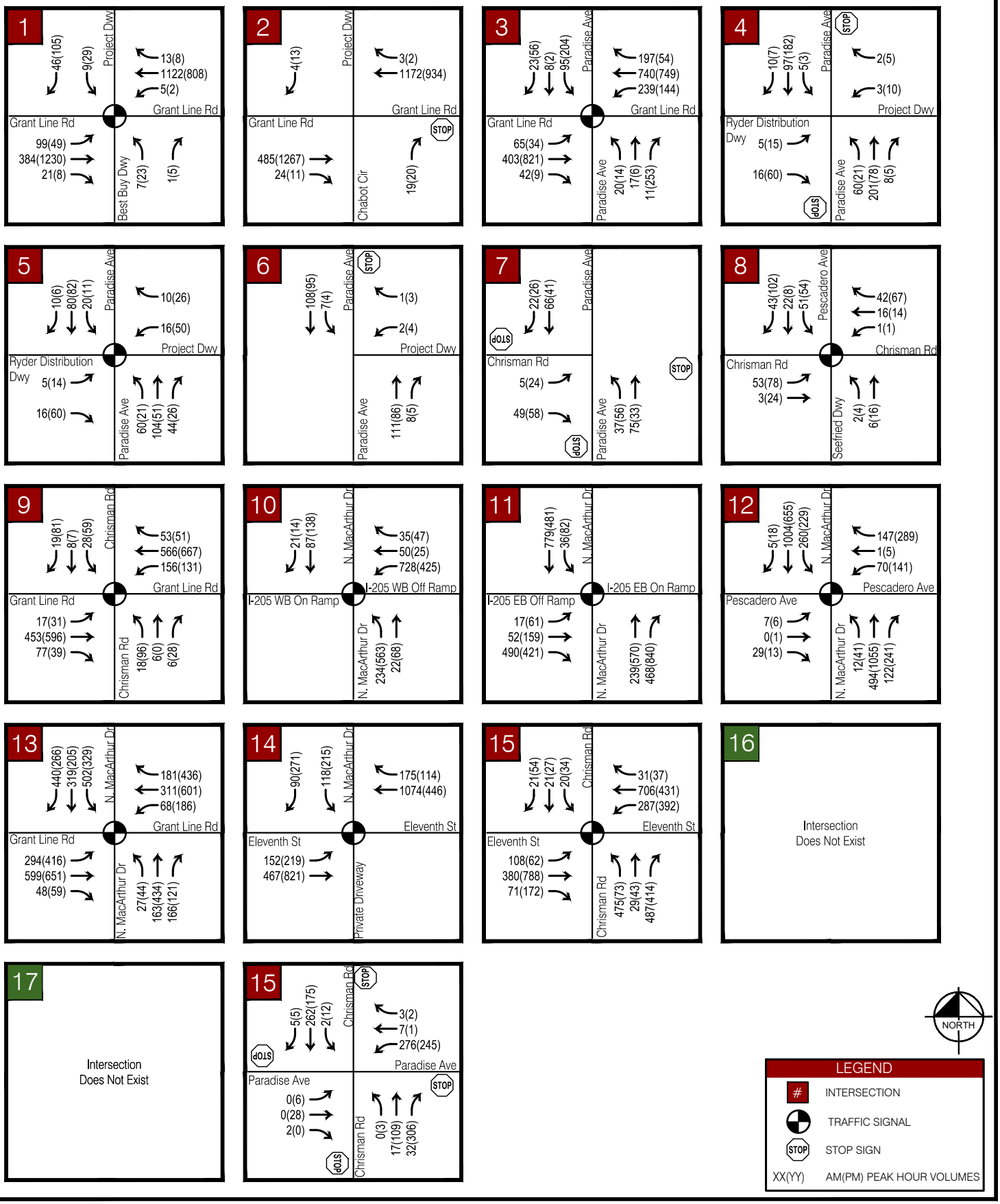

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Figure 17
Peak Hour Volumes
Background Plus Project Conditions
Tracy Alliance & North East Annexation Area TIA

Table 7 – Background Plus Project Conditions Intersection Level of Service (Full Project)

#	Intersection	Maintaining Agency[1]	Control Type	Background Conditions						Background Plus Project Conditions (Full Project)					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS
1	Grant Line Rd & Best Buy Dwy/Project Dwy 1	Tracy	Signal	-	16.4	B	-	24.8	C	-	27.5	C	-	28.0	C
2	Grant Line Rd & Chabot Ct/Project Dwy 2	Tracy	SSSC	-	0.1	A	-	0.1	A	-	0.1	A	-	0.2	A
	Worst Approach			*NB*	*9.4*	*A*	*NB*	*14.1*	*B*	*SB*	*13.6*	*B*	*NB*	*14.9*	*B*
3	Grant Line Rd & N. Paradise Ave	Tracy	Signal	-	33.4	C	-	34.6	C	-	26.2	C	-	33.0	C
4	Paradise Ave & Ryder Dwy/Project Dwy 3	Tracy	SSSC	-	2.1	A	-	3.2	A	-	1.9	A	-	2.8	A
	Worst Approach			*EB*	*9.5*	*A*	*EB*	*9.7*	*A*	*WB*	*11.1*	*B*	*WB*	*10.1*	*B*
5	Paradise Ave & Ryder Dwy/Project Dwy 4	Tracy	SSSC/ Signal	-	2.6	A	-	4.0	A	-	12.0	B	-	13.3	B
	Worst Approach			*EB*	*9.4*	*A*	*EB*	*9.3*	*A*						
6	Paradise Ave & Project Dwy 5	Tracy	SSSC	Intersection Does Not Exist						-	0.4	A	-	0.5	A
	Worst Approach									*WB*	*10.4*	*B*	*WB*	*9.7*	*A*
7	Chrisman Rd & N. Paradise Ave	Tracy	AWSC	-	7.9	A	-	7.7	A	-	8.0	A	-	7.9	A
8	Chrisman Rd & Pescadero Ave (Future)	Tracy	Signal	-	15.8	B	-	15.4	B	-	15.7	B	-	16.0	B
9	Grant Line Rd & Chrisman Rd	Tracy	Signal	-	18.8	B	-	24.2	C	-	19.8	B	-	25.6	C
10	I-205 WB Ramps & N. MacArthur Dr	Caltrans	Signal	-	28.2	C	-	31.7	C	-	48.6	D	-	50.7	D
11	I-205 EB Ramps & N. MacArthur Dr	Caltrans	Signal	-	23.5	C	-	52.6	D	-	35.7	D	**-**	**65.5**	**E**
12	Pescadero Ave & N. MacArthur Dr	Tracy	Signal	-	20.6	C	-	26.7	C	-	21.8	C	-	31.9	C
13	Grant Line Rd & N. MacArthur Dr	Tracy	Signal	**-**	**66.7**	**E**	-	**86.5**	**F**	-	**96.4**	**F**	**-**	**99.4**	**F**
14	11th St & N. MacArthur Dr	Tracy	Signal	-	11.6	B	-	19.6	B	-	12.4	B	-	23.0	C
15	11th St & Chrisman Rd	Tracy	Signal	-	38.6	D	-	29.0	C	-	40.8	D	-	29.5	C
16	I-205 WB Ramps & Chrisman Rd	Caltrans	Signal	Intersection Does Not Exist											
17	I-205 EB Ramps & Chrisman Rd	Caltrans	Signal	Intersection Does Not Exist											
18	Chrisman Rd & S. Paradise Ave	Tracy	AWSC	-	14.8	B	**-**	**57.0**	**F**	-	14.8	B	**-**	**57.0**	**F**

Notes:

1. LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled - Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated

2. Analysis performed using HCM 6th Edition methodologies.

3. Delay indicated in seconds/vehicle.

4. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control

5. Tracy LOS standard is D unless the intersection is within ¼ mile of the freeway.

*6. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.*

*7. Due to limitations of HCM, Intersection #18 cannot be analyzed with more than three approaches as an All Way Stop. Therefore, only three lanes were assumed for the northbound and southbound approach. The proposed geometry has been provided in **Figure 16** .*

Table 8 – Background Plus Project Conditions Intersection Level of Service (without Suivak and Zuriakat)

#	Intersection	Maintaining Agency[1]	Control Type	Background Plus Project Conditions (Full Project)						Background Plus Project Conditions (Alliance Buildings Only)					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS
11	I-205 EB Ramps & N. MacArthur Dr	Caltrans	Signal	-	35.7	D	-	**65.5**	**E**				-	**59.8**	**E**
13	Grant Line Rd & N. MacArthur Dr	Tracy	Signal	-	**96.4**	**F**	-	**99.4**	**F**	-	**77.1**	**E**	-	**91.8**	**F**

Notes:

1. LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled - Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated

2. Analysis performed using HCM 6th Edition methodologies.

3. Delay indicated in seconds/vehicle.

4. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control

5. Tracy LOS standard is D unless the intersection is within ¼ mile of the freeway.

*6. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.*

7. Intersection 18 is failing in Table 7. The Project does not send any traffic to this intersection in Background Conditions and does not have to make any improvements.

Table 9 – Recommended Improvements for Background Plus Project Conditions Intersection Level of Service

#	Intersection	Maintaining Agency[1]	Control Type	Background Plus Project Conditions				Improved Background Plus Project Conditions				Proposed Improvement
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
11	I-205 EB Ramps & N. MacArthur Dr	Caltrans	Signal			**59.8**	**E**			**58.9**	**E**	Implement TMP geometry
13	Grant Line Rd & N. MacArthur Dr	Tracy	Signal	**77.1**	**E**	**91.8**	**F**	37.4	D	**58.7**	**E**	WB right turn lane with overlap signal phase

Notes:

1. LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled - Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated

2. Analysis performed using HCM 6th Edition methodologies.

3. Delay indicated in seconds/vehicle.

4. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control

5. Tracy LOS standard is D unless the intersection is within ¼ mile of the freeway

*6. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold.***

7. Intersection 13 is still deficient; however, this deficiency is no longer a Project caused deficiency.

8. Intersection 18 is failing in Table 7. The Project does not send any traffic to this intersection in Background Conditions and does not have to make any improvements.

6. CUMULATIVE CONDITIONS

Traffic operations were evaluated under the following cumulative conditions:

- Cumulative (2035) Conditions
- Cumulative (2035) Plus Project Conditions

Cumulative Transportation Network Improvements

As documented in the TMP and the NEI Specific Plan, there are significant vehicular capacity improvements planned in the Project study area by the year 2035. The following provides the improvements that are anticipated to occur within the Project study area:

- Chrisman Road Extension
  - North of Grant Line Road
  - Between Grant Line and 11th Street
- Signalization at the intersection of Future Chrisman Road and Paradise Avenue
- Future interchange at I-205 and Paradise/Chrisman Rd
- Widening improvements at the I-205 and MacArthur Drive interchange
- Construction of Golden Valley Parkway

The interchange geometry was determined using the *Final Traffic Operations Analysis Report (TOAR)* published by Fehr and Peers. Volumes were developed using the TMP 2035 model**. Figure 18** illustrates the intersection geometry and traffic control used in the Cumulative (2035) conditions analysis. It is assumed that signal timing changes will be implemented prior 2035 to service traffic pattern changes and increases.

Cumulative Conditions Volumes

Cumulative volume growth in the study area was determined based on an evaluation of the City's travel demand model forecasts.

Year 2035 turning movement volumes were extrapolated from the TMP 2035 Horizon Year turning movement figures. For intersections without 2035 data, volumes were estimated using the intersection turning movement volumes provided in the TMP. Adjustments to the 2035 Horizon Year turning movement figures were made for the new NEI Phase 3 project proposed along Grant Line Road.

Cumulative peak hour traffic volumes are shown in **Figure 19**.

Cumulative Conditions Intersection Level of Service

Traffic operations were evaluated at the study intersections based on Cumulative lane geometry and traffic control as shown in **Figure 18** and Cumulative peak hour traffic volumes as shown in **Figure 19**.

As provided in **Table 10**, the following intersections are failing in the Cumulative Conditions:

- Intersection #13 – MacArthur Drive and Grant Line Road (AM & PM Peak Hour)
- Intersection #15 – 11th Street and Chrisman Road (PM Peak Hour)

Intersection #18 is planned to have signal control once signal warrants are met and the Project will pay a fair share cost towards installation of the signal consistent with other project conditions of approval in the vicinity of the intersection. Project traffic is anticipated to travel through the intersection once Chrisman Road is a through route south to Eleven Street. Fair share analysis is indicated in **Section 7**.

No improvements were recommended for the Cumulative Conditions. Synchro output sheets are provided in **Appendix G**.

Table 10 – Cumulative Conditions Intersection Level of Service

#	Intersection	Maintaining Agency[1]	Control Type	Cumulative Conditions					
				AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS
1	Grant Line Rd & Best Buy Dwy/Project Dwy 1	Tracy	Signal	-	4.0	A	-	7.8	A
2	Grant Line Rd & Chabot Ct/Project Dwy 2	Tracy	SSSC	-	0.2	A	-	0.2	A
	Worst Approach			*NB*	*9.6*	*A*	*NB*	*13.1*	*B*
3	Grant Line Rd & N. Paradise Ave	Tracy	Signal	-	23.5	C	-	27.0	C
4	Paradise Ave & Ryder Dwy/Project Dwy 3	Tracy	SSSC	-	1.0	A	-	1.5	A
	Worst Approach			*EB*	*11.4*	*B*	*EB*	*10.7*	*B*
5	Paradise Ave & Ryder Dwy/Project Dwy 4	Tracy	SSSC	-	0.9	A	-	1.5	A
	Worst Approach			*EB*	*11.1*	*B*	EB	10.1	B
6	Paradise Ave & Project Dwy 5	Tracy	SSSC	Intersection Does Not Exist					
	Worst Approach								
7	Chrisman Rd & N. Paradise Ave	Tracy	Signal	-	8.4	A	-	10.9	B
8	Chrisman Rd & Pescadero Ave (Future)	Tracy	Signal	-	15.4	B	-	45.3	D
9	Grant Line Rd & Chrisman Rd	Tracy	Signal	-	22.9	C	-	46.7	D
10	I-205 WB Ramps & N. MacArthur Dr	Caltrans	Signal	-	12.2	B	-	20.3	C
11	I-205 EB Ramps & N. MacArthur Dr	Caltrans	Signal	-	22.2	C	-	23.2	C
12	Pescadero Ave & N. MacArthur Dr	Tracy	Signal	-	18.6	C	-	27.2	C
13	Grant Line Rd & N. MacArthur Dr	Tracy	Signal	**-**	**55.5**	**E**	**-**	**57.2**	**E**
14	11th St & N. MacArthur Dr	Tracy	Signal	-	29.8	C	-	46.1	D
15	11th St & Chrisman Rd	Tracy	Signal	-	52.8	D	**-**	**59.3**	**E**
16	I-205 WB Ramps & Chrisman Rd	Caltrans	Signal	-	5.9	A	-	3.8	A
17	I-205 EB Ramps & Chrisman Rd	Caltrans	Signal	-	10.3	B	-	28.6	C
18	Chrisman Rd & S. Paradise Ave	Tracy	Signal	-	14.2	B	-	15.0	B

Notes:

1. LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled - Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated

1. Analysis performed using HCM 6th Edition methodologies.

2. Delay indicated in seconds/vehicle.

3. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control

4. Tracy LOS standard is D

*5. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold.***

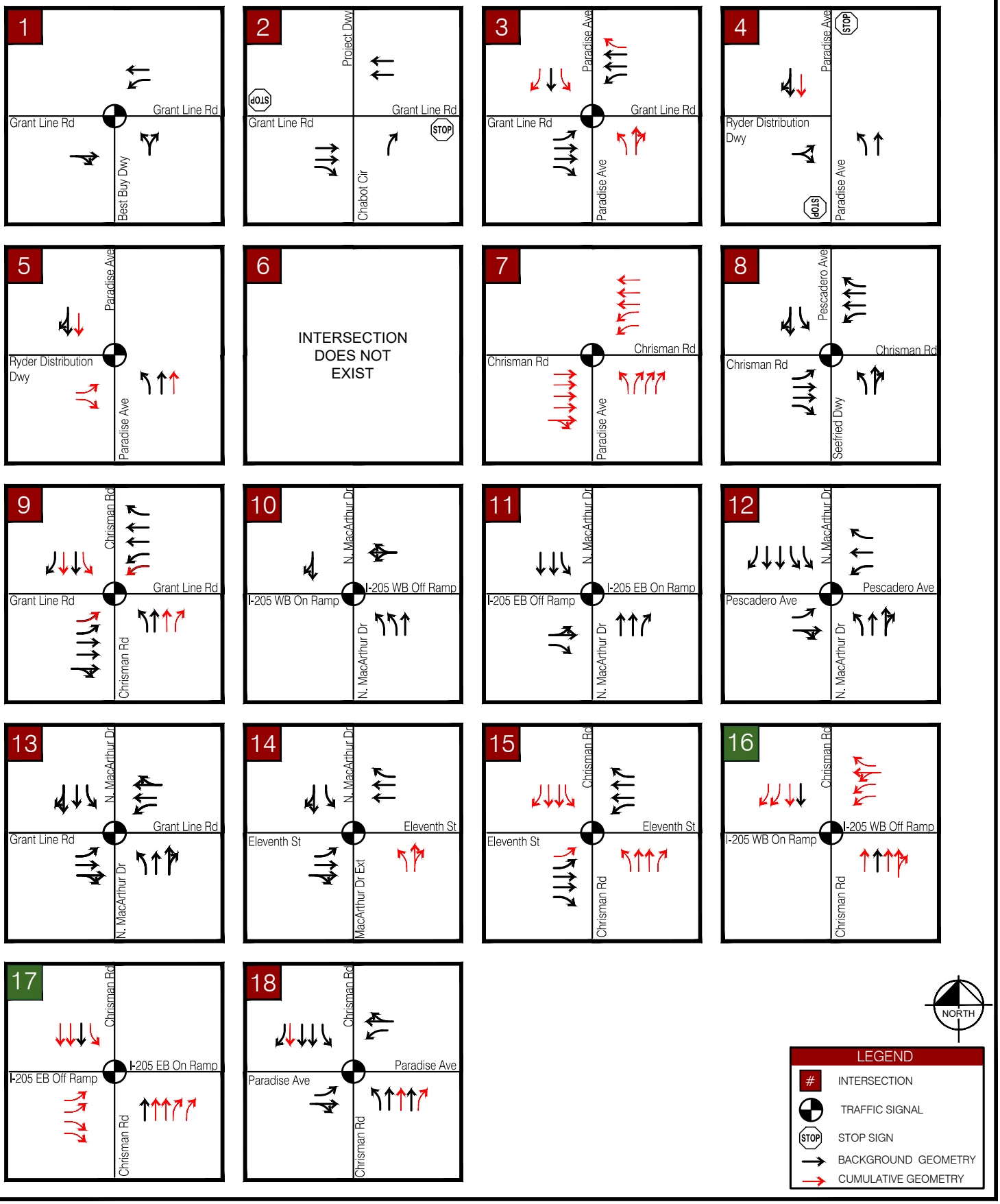

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Figure 18
Cumlative Conditions
Traffic Control and Geometry

Tracy Alliance & North East Annexation Area TIA

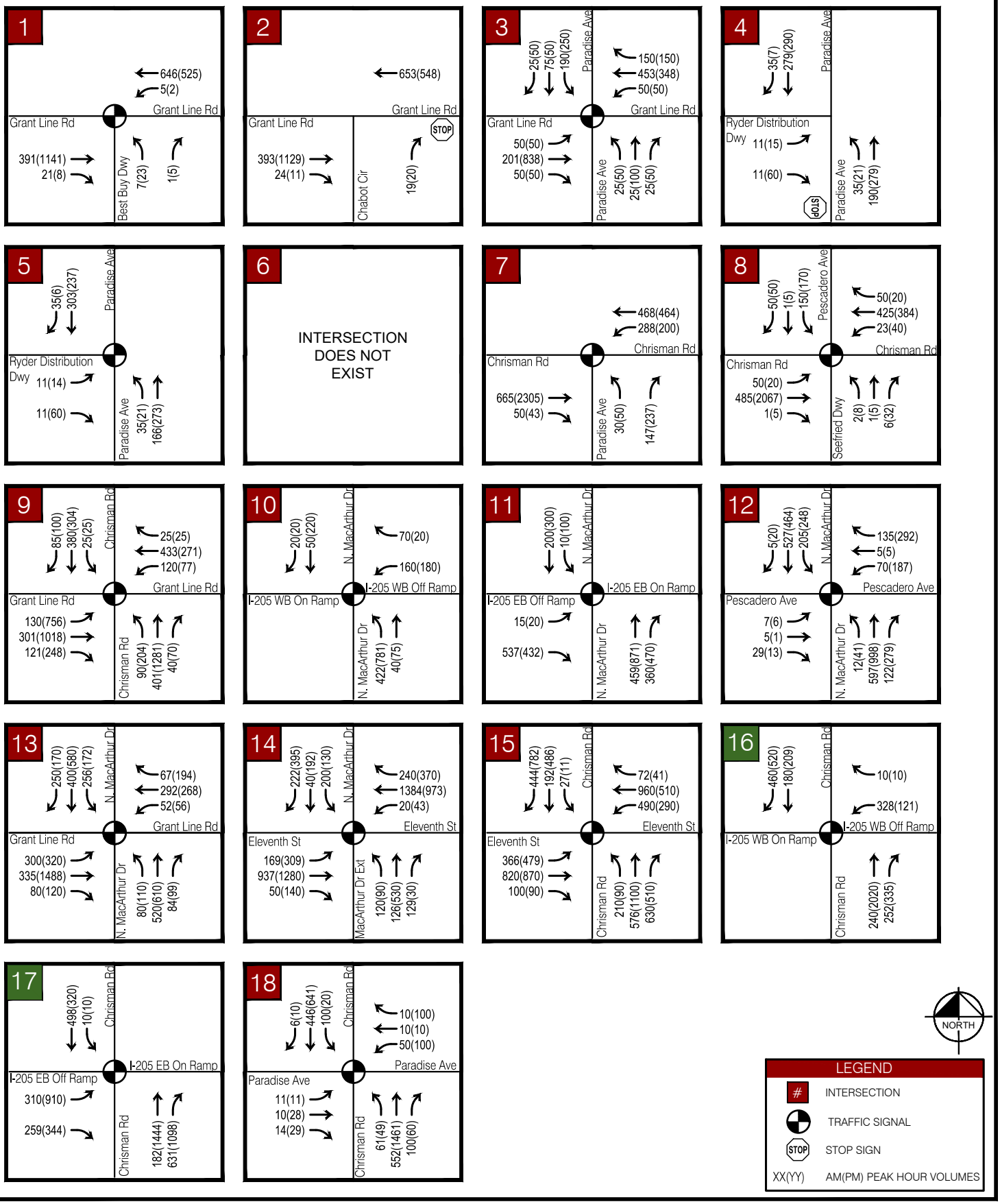

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Figure 19
Peak Hour Volumes
Cumulative Conditions

Tracy Alliance & North East Annexation Area TIA

Cumulative Plus Project Conditions Intersection Level of Service

Traffic operations were evaluated at the study intersections based on Cumulative Plus Project Conditions. Cumulative Plus Project lane geometry and traffic control is shown in **Figure 20** and Cumulative Plus Project peak hour traffic volumes are shown in **Figure 21**.

The following intersections operate at an unacceptable LOS under Cumulative conditions and improvements have been provided:

- Intersection #9 – Grant Line and Chrisman Road (PM Peak Hours) – Retime the signal to meet vehicle demand.
- Intersection #13 – Grant Line Road and MacArthur Road (AM and PM Peak Hours) – Optimize the signal cycle length at this intersection.
- Intersection #15 – Chrisman Road and Eleventh Street (AM and PM Peak Hours) – It is recommended that an additional second westbound left turn lane be constructed and the signal timing to be modified to allow lagging phase for the eastbound left turn and northbound left turn.

Cumulative Plus Project analysis results are presented in **Table 11** and Improved Cumulative Plus Project analysis results are shown in **Table 12**. Cumulative Plus Project Synchro output sheets are provided in **Appendix H** and Improved Cumulative Plus Project Synchro output sheets are provided in **Appendix** I.

It should be noted that for Intersection #18, the reported delay slightly improved with the addition of the project trips on non-critical movements. The reason for this occurrence is because the trips were added to the through lane movements, which had a lower movement delay than the average intersection delay, and thereby decreases the overall average delay.

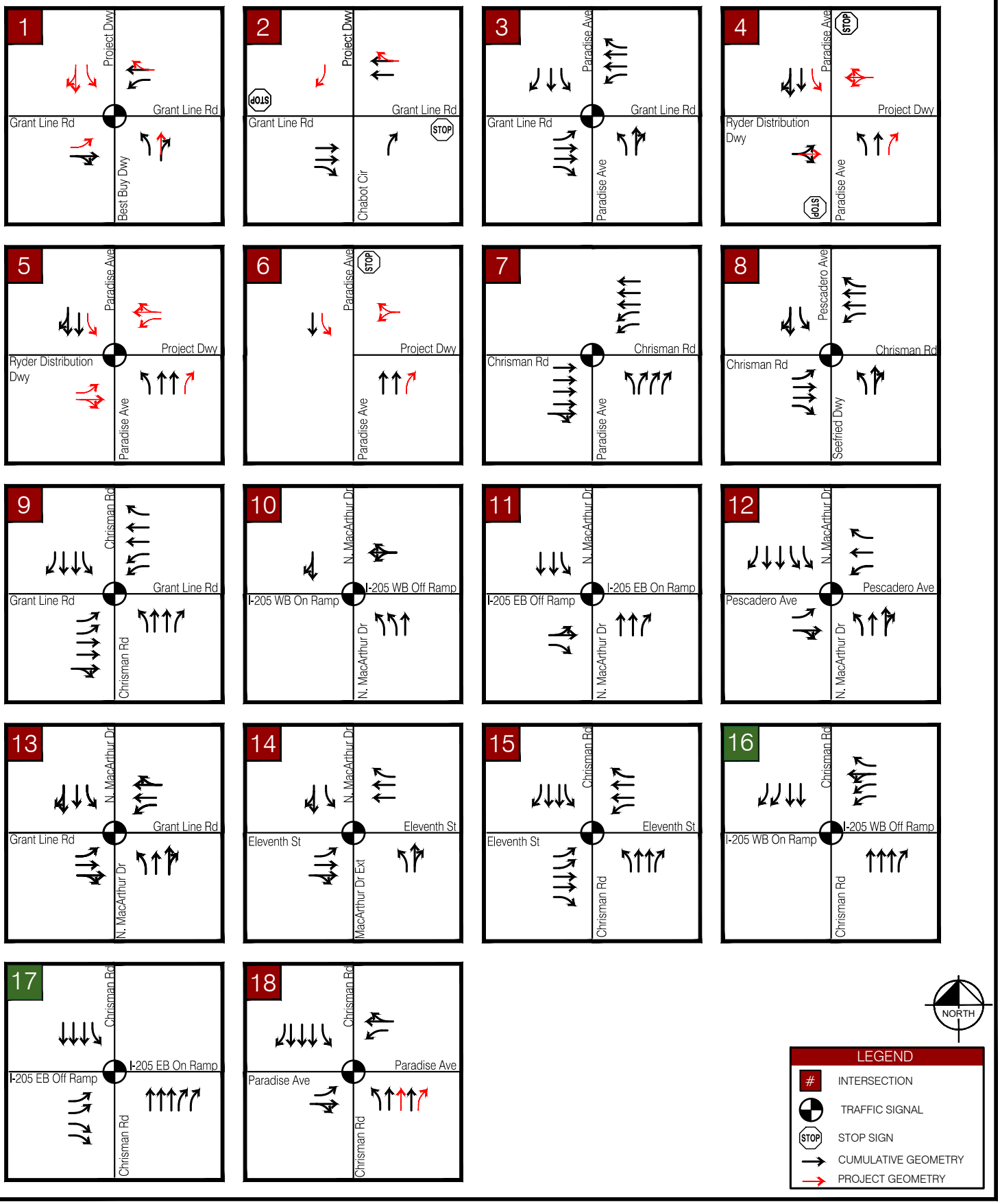

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Figure 20
Cumulative Plus Project Conditions
Traffic Control and Geometry

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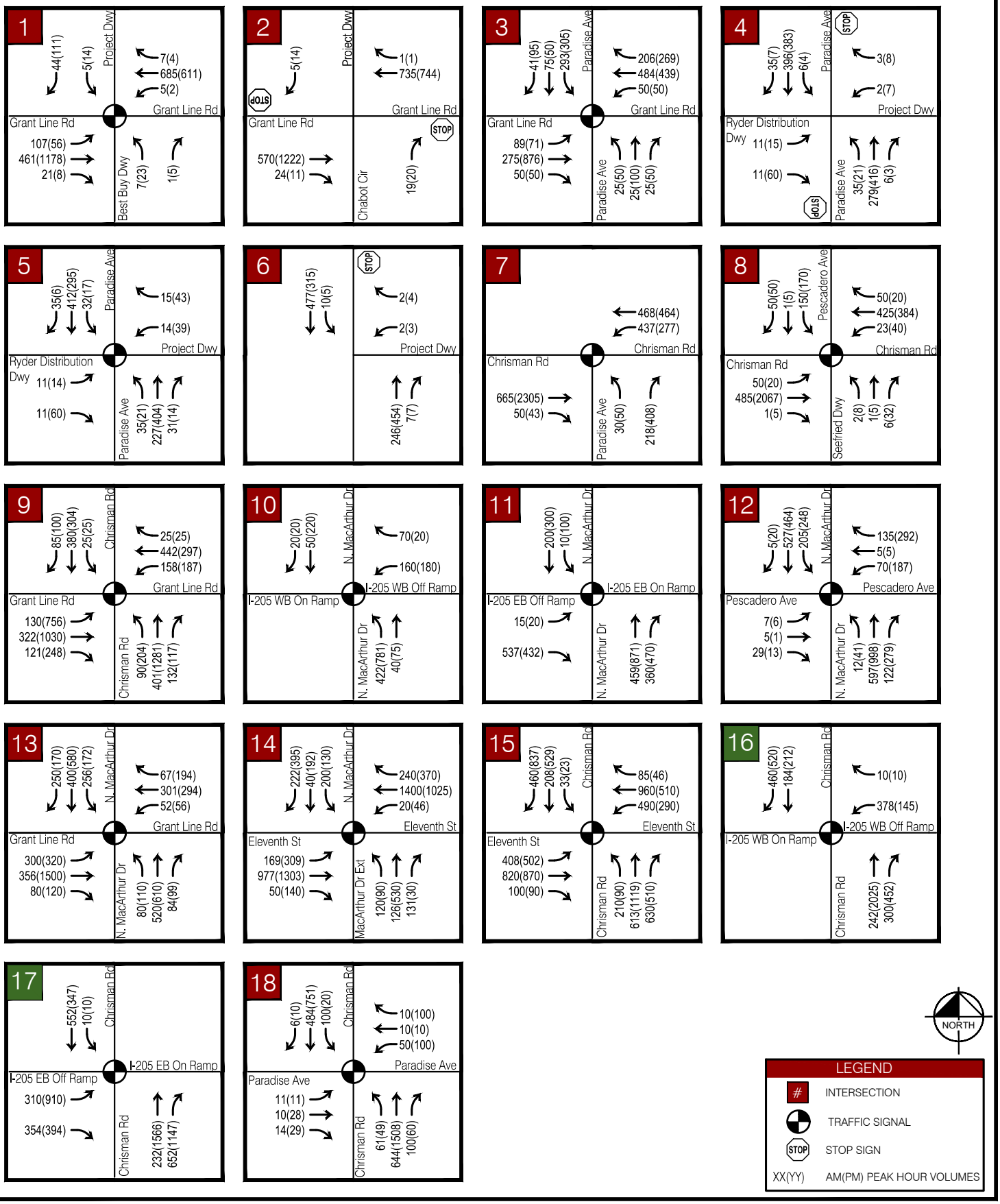

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April 2022

Figure 21
Peak Hour Volumes
Cumulative Plus Project Conditions
Tracy Alliance & North East Annexation Area TIA

Table 11 – Cumulative Plus Project Conditions Intersection Level of Service

#	Intersection	Maintaining Agency[1]	Control Type	Cumulative Conditions						Cumulative Plus Project Conditions					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS
1	Grant Line Rd & Best Buy Dwy/Project Dwy 1	Tracy	Signal	-	4.0	A	-	7.8	A	-	15.9	B	-	21.8	C
2	Grant Line Rd & Chabot Ct/Project Dwy 2	Tracy	SSSC	-	0.2	A	-	0.2	A	-	0.2	A	-	0.2	A
	Worst Approach			*NB*	*9.6*	*A*	*NB*	*13.1*	*B*	*SB*	*10.7*	*B*	*NB*	*13.7*	*B*
3	Grant Line Rd & N. Paradise Ave	Tracy	Signal	-	23.5	C	-	27.0	C	-	27.0	C	-	30.9	C
4	Paradise Ave & Ryder Dwy/Project Dwy 3	Tracy	SSSC	-	1.0	A	-	1.5	A	-	0.9	A	-	1.4	A
	Worst Approach			*EB*	*11.4*	*B*	*EB*	*10.7*	*B*	*EB*	*14.3*	*B*	*WB*	*13.6*	*B*
5	Paradise Ave & Ryder Dwy/Project Dwy 4	Tracy	SSSC/ Signal	-	0.9	A	-	1.5	A	-	10.1	B	-	11.4	B
	Worst Approach			*EB*	*11.4*	*B*	EB	10.1	B						
6	Paradise Avenue & Project Dwy 5	Tracy	SSSC	Intersection Does Not Exist						-	0.2	A	-	0.2	A
	Worst Approach									*WB*	*13.6*	*B*	*WB*	*13.4*	*B*
7	Chrisman Rd & N. Paradise Ave	Tracy	AWSC	-	8.4	A	-	10.9	B	-	10.6	B	-	15.2	B
8	Chrisman Rd & Pescadero Ave (Future)	Tracy	Signal	-	15.4	B	-	45.3	D	-	15.4	B	-	45.3	D
9	Grant Line Rd & Chrisman Rd	Tracy	Signal	-	22.9	C	-	46.7	D	-	23.3	C	**-**	**57.1**	**E**
10	I-205 WB Ramps & N. MacArthur Dr	Caltrans	Signal	-	12.2	B	-	20.3	C	-	12.2	B	-	20.3	C
11	I-205 EB Ramps & N. MacArthur Dr	Caltrans	Signal	-	22.2	C	-	23.2	C	-	22.2	C	-	23.2	C
12	Pescadero Ave & N. MacArthur Dr	Tracy	Signal	-	18.6	C	-	27.2	C	-	18.6	B	-	27.2	C
13	Grant Line Rd & N. MacArthur Dr	Tracy	Signal	**-**	**55.5**	**E**	**-**	**57.2**	**E**	**-**	**55.6**	**E**	**-**	**57.5**	**E**
14	11th St & N. MacArthur Dr	Tracy	Signal	-	29.8	C	-	46.1	D	-	31.3	C	-	49.2	D
15	11th St & Chrisman Rd	Tracy	Signal	-	52.8	D	**-**	**59.3**	**E**	**-**	**56.5**	**E**	**-**	**60.9**	**E**
16	I-205 WB Ramps & Chrisman Rd	Tracy	Signal	-	5.9	A	-	3.8	A	-	6.2	A	-	4.0	A
17	I-205 EB Ramps & Chrisman Rd	Tracy	Signal	-	10.3	B	-	28.6	C	-	19.4	B	-	29.8	C
18	Chrisman Rd & S. Paradise Ave	Tracy	Signal	-	14.2	B	-	15.0	B	-	13.9	B	-	14.5	B

Notes:

1. LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled - Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated

2. Analysis performed using HCM 6th Edition methodologies.

3. Delay indicated in seconds/vehicle.

4. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control

5. Tracy LOS standard is D

6. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in ***bold.***

Table 12 – Improved Cumulative Plus Project Conditions Intersection Level of Service

#	Intersection	Maintaining Agency[1]	Control Type	Cumulative Plus Project Conditions				Improved Cumulative Plus Project Conditions				Proposed Improvements
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
9	Grant Line Rd & Chrisman Rd	Tracy	Signal			**57.1**	**E**			49.0	D	Optimize Cycle Length
13	Grant Line Rd & MacArthur Dr	Tracy	Signal	**55.6**	**E**	**57.5**	**E**	30.7	C	48.0	D	Optimize Cycle Length
15	11th St & Chrisman Rd	Tracy	Signal	**56.5**	**E**	**60.9**	**E**	41.1	D	50.7	D	Provide an additional westbound left turn lane

Notes:

1. LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines (Vehicle Miles Traveled - Focused Transportation Impact Study Guidelines); however, no LOS thresholds are stated

2. Analysis performed using HCM 6th Edition methodologies.

3. Delay indicated in seconds/vehicle.

4. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control

5. Tracy LOS standard is D; Caltrans LOS standard is C/D

*6. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold.***

7. FAIR SHARE ANALYSIS

According to Appendix B of the *Caltrans Guide for the Preparation of Traffic Impact Studies* (2002), fair share is calculated when:

- A project has impacts that do not immediately warrant mitigation, but their cumulative effects are significant and will require mitigating in the future.
- A project has an immediate impact and the lead agency has assumed responsibility for addressing operational improvements.

To calculate fair share, Equation C-1 from Appendix B of the *Caltrans Guide for the Preparation of Traffic Impact Studies* (2002) was utilized at the following intersections using an average percentage of AM and PM traffic:

- MacArthur Drive / Grant Line Road (Intersection #13): Background Plus Project Conditions - add westbound right turn pocket, **5.93%**
- Chrisman Road / Eleventh Street (Intersection #15): Cumulative Conditions – add 2nd westbound left turn lane, **5.35%**
- Chrisman Road / S. Paradise Avenue (Intersection #18): Cumulative Conditions – add signal, **17.02%**

More information has been provided in **Appendix J**.

8. NEI TRUCK ROUTE STUDY

A STAA truck route study was conducted for the NEI Specific Plan area as part of the Seefried Project, shown in **Figure 22**. An NEI Truck Route Map, which defines STAA truck routing, indicates the existing and interim truck routes. Truck routes from the TMP and the interim routes & proposed signage are shown in **Figure 23**, while the ultimate routes and proposed signage are shown in **Figure 24**. The interim truck routes (excluding the Chrisman Road interchange) would provide access to the primarily existing truck routes and the Chrisman road extension to Paradise Avenue, and the ultimate truck routes would provide access to the future interchange. For site access and improvement at all intersections and on the roadways, the design shall include turning radii that accommodate STAA trucks. See **Appendix K** for STAA truck turning templates.

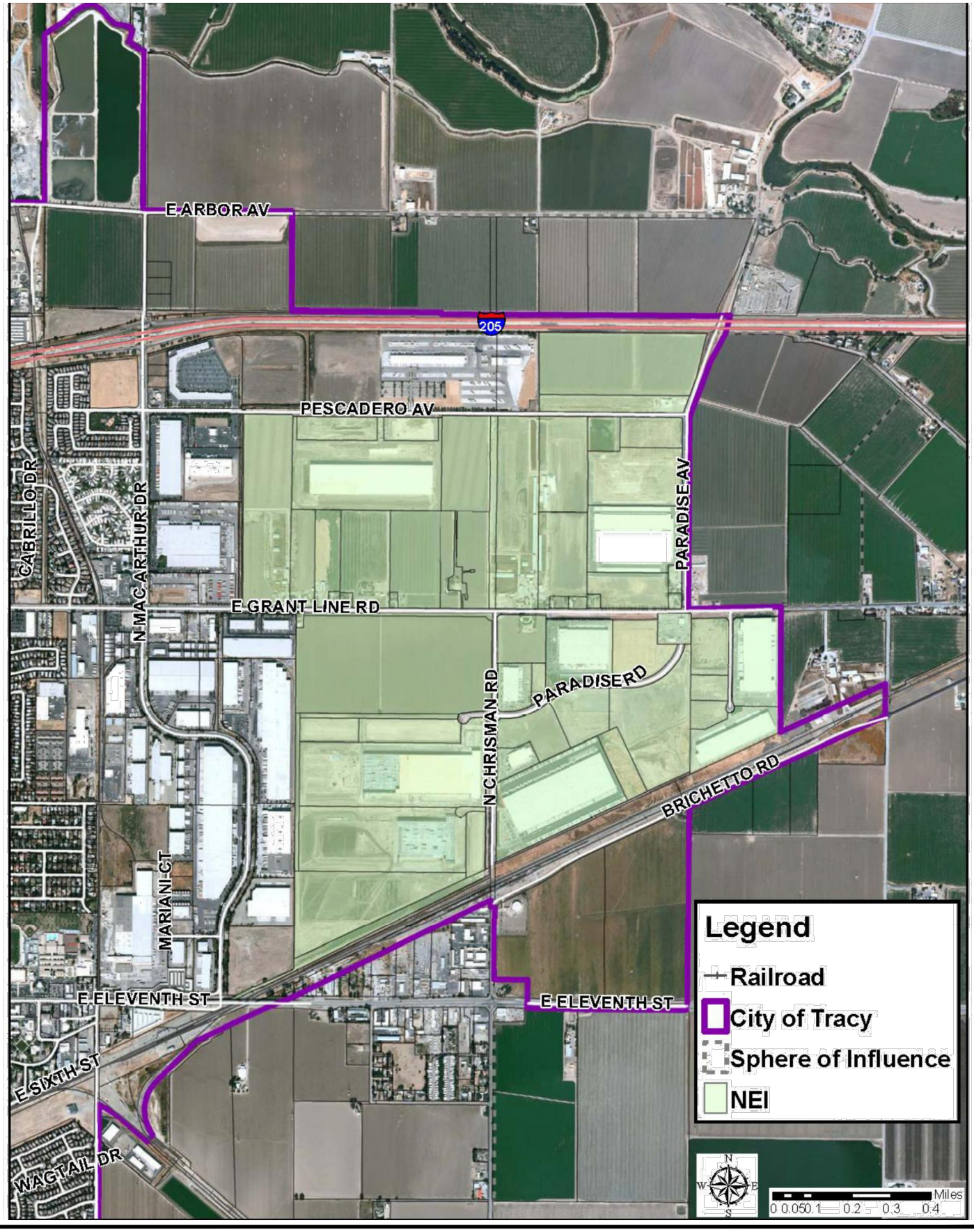

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FIGURE 22
NEI SPECIFIC PLAN MAP

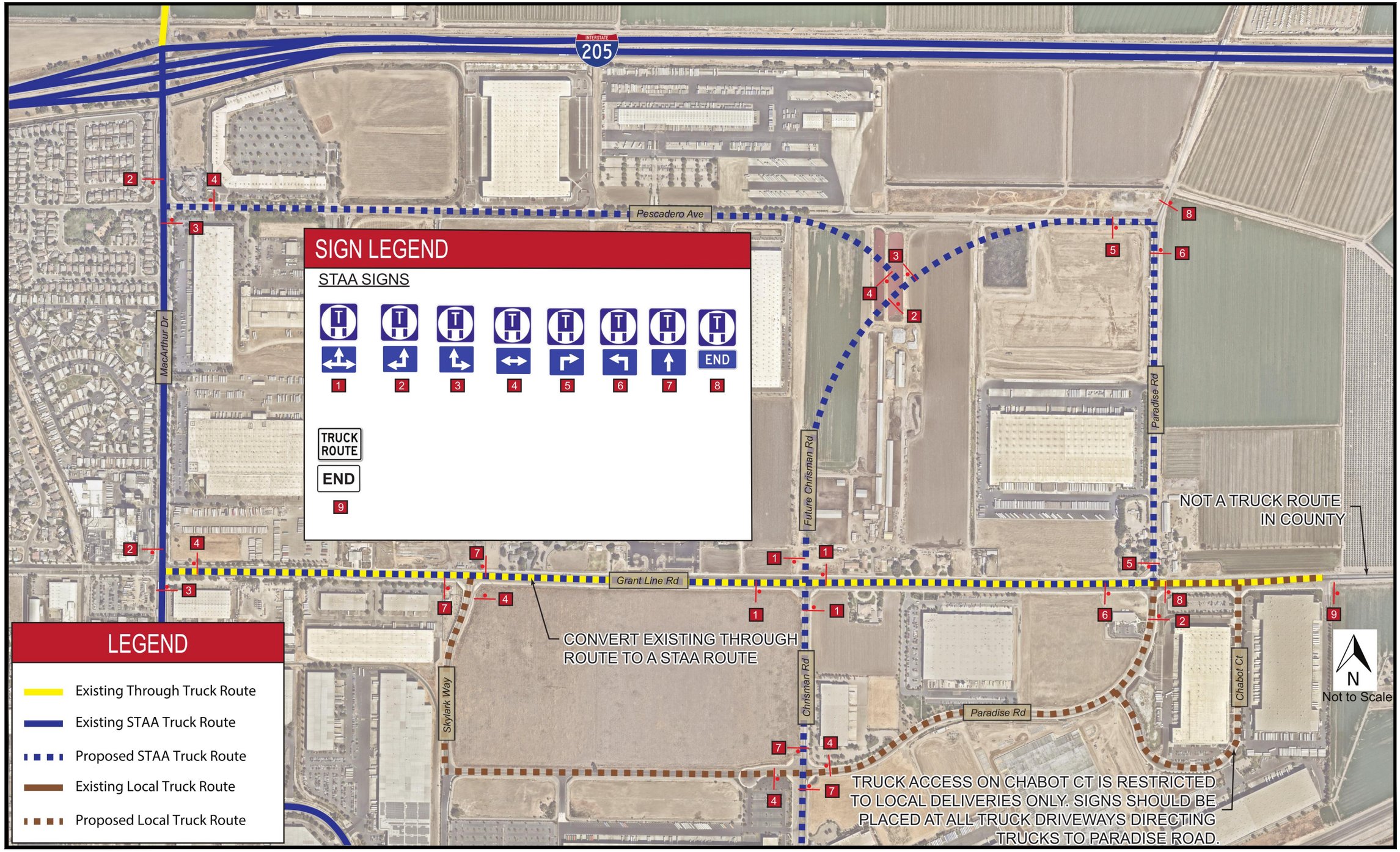

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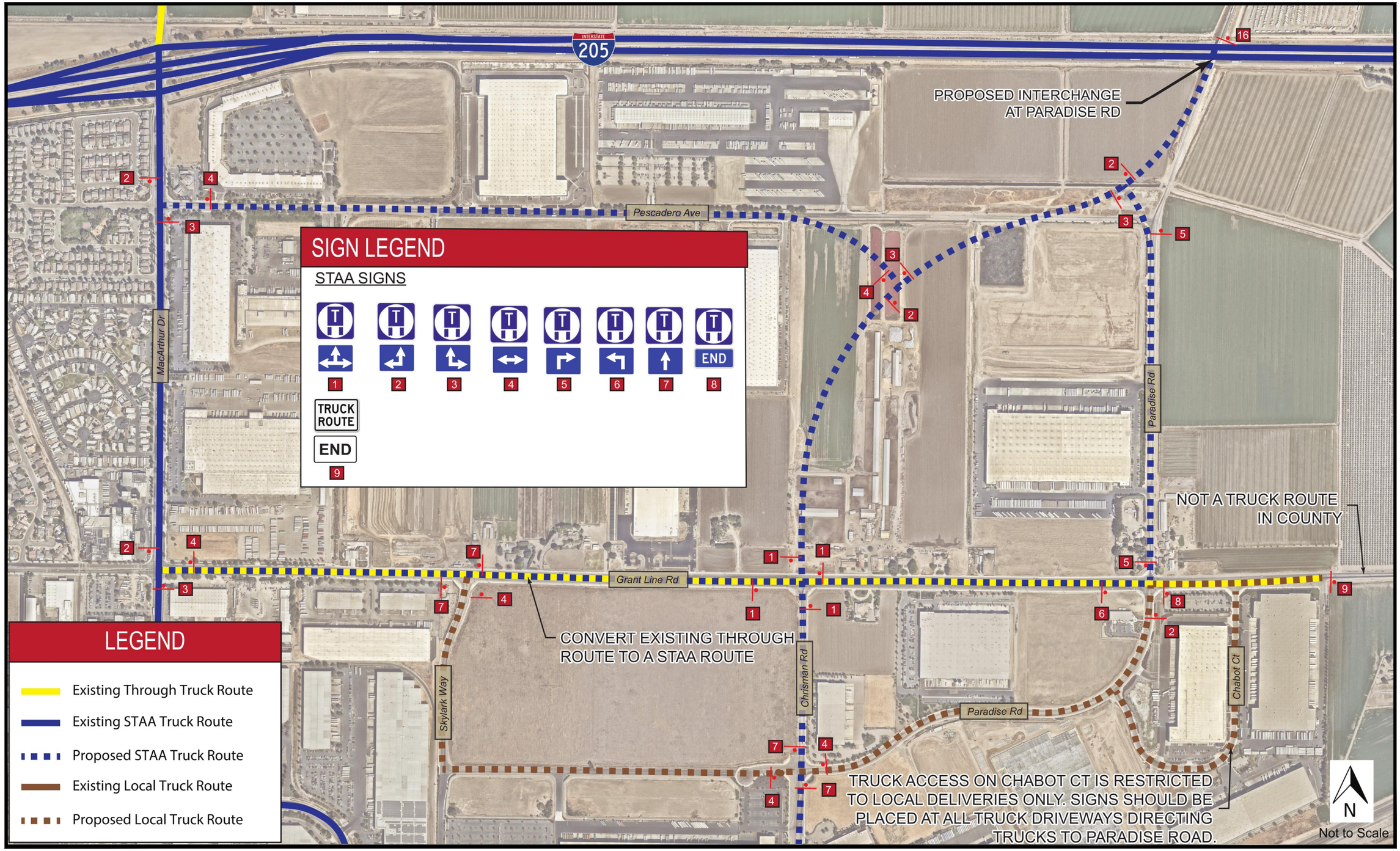
FIGURE 23
INTERIM NEI TRUCK ROUTE MAP



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April 2022

FIGURE 24
ULTIMATE NEI TRUCK ROUTE MAP

Tracy Alliance and North East Industrial Annexation TIA

9. CONCLUSION

This TIA analyzed the impacts of the Alliance and Northeast Area Annexation project on the roadway network. Project improvements have been recommended for both Background and Cumulative Conditions and have been provided in **Table 13** and **Table 14**, respectively.

Table 13 – Background Plus Project Improvements Summary

#	Intersection	Improvements
11	I-205 EB Ramps & N. MacArthur Dr (PM Peak Hour)	The Project will implement the TMP improvements at this intersection to accommodate City traffic. It is not recommended to make improvements to accommodate cut-through traffic (ie. an additional northbound right) because this will induce more cut-through traffic. The improvements are triggered by any of the first buildings on the site. The Project is responsible for implementation of these improvements, but the Project obtain fee credits because these improvements are included in the City's traffic impact fee (TIF) program. The TMP improvements include lane additions at both ramp terminals and the addition of a second I-205 Westbound on-ramp. The two ramp terminals cannot be improved independently. The westbound ramp terminal would improve with the addition of these lanes.
13	MacArthur Dr & Grant Line Rd (PM Peak Hour)	The Project will pay a fair share for the westbound right turn lane with right turn overlap signal phase. Fair Share: **5.93%**

Table 14 – Cumulative Plus Project Improvements Summary

#	Intersection	Improvements
15	Chrisman Rd & Eleventh St (AM and PM Peak hours)	The Project will pay a fair share for an additional second westbound left turn lane and the signal timing to be modified to allow lagging phase for the eastbound left turn and northbound left turn. **Fair Share: 5.35%**
18	Chrisman Rd & S. Paradise Ave	The Project will pay a fair share for the construction of a signal. **Fair Share: 17.02%**

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10. APPENDIX

A. STREETLIGHT WHITE PAPER

B. EXISTING TRAFFIC COUNTS

C. BACKGROUND CONDITIONS SYNCHRO OUTPUT SHEETS

D. BACKGROUND PLUS FULL PROJECT CONDITIONS SYNCHRO OUTPUT SHEETS

E. BACKGROUND PLUS ALLIANCE ONLY CONDITIONS SYNCHRO OUTPUT SHEETS

F. BACKGROUND PLUS PROJECT CONDITIONS (IMPROVEMENTS) SYNCHRO OUTPUT SHEETS

G. CUMULATIVE CONDITIONS SYNCHRO OUTPUT SHEETS

H. CUMULATIVE PLUS PROJECT CONDITIONS SYNCHRO OUTPUT SHEETS

I. CUMULATIVE PLUS PROJECT CONDITIONS (IMPROVEMENTS) SYNCHRO OUTPUT SHEETS

J. FAIR SHARE CALCULATIONS

K. NEI TRUCK ROUTE STUDY TURNING TEMPLATES

A. STREETLIGHT WHITE PAPER

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Proposed Methodology for Developing Intersection Turning Movement Volumes Using Historical Counts and Big Data

MAY 2020

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INTRODUCTION

The purpose of this white paper is to establish an acceptable methodology for the development of accurate, affordable, and defensible turning movement volumes despite the existing and potentially long-term inability to collect new traffic count data due to COVID-19. This paper proposes an analytical approach to determining methodology based on the availability of historical data. Where data is outdated, limited, or unavailable, this paper discusses how a big data model can be applied to derive volume estimates. A decision tree is provided to help identify the most appropriate method for developing existing conditions turning movement volumes.

Background

On January 22, 2020, the U.S. reported its first domestic case of Coronavirus (COVID-19)[1]. Widespread infection over the next two months caused state and local officials to enact various public health initiatives to curb the spread of COVID-19. On March 3, 2020, California Governor Newsom declared a state of emergency for California. In response, many school districts and universities began to close or shift to distance learning. In addition, large tech firms in the San Francisco Bay Area began having employees work from home. On March 16, 2020, multiple county public health officials in the greater Bay Area enacted the country's first shelter-in-place orders, prohibiting all non-essential travel. On March 19, 2020, Governor Newsom signed an executive order for a California-wide shelter-in-place[2]. Transportation, traffic, and congestion saw immediate effects.

The effects of the statewide–and eventually nationwide–shutdown of all non-essential travel disrupted the typical methodology for execution of traffic studies. Namely, traffic volume data collected after March 3, 2020, may no longer be representative of typical roadway conditions. Traffic trends reported by Google[3] and INRIX[4], show a nationwide reduction in traffic of 30 percent with reductions as high as 50 percent in the San Francisco Bay Area.

As the spread of COVID-19 declines and travel restrictions lift, an initial increase in traffic can be expected. It is likely, however, that traffic volumes post-COVID-19 will remain lower than volumes observed in January and February of 2020 for a variety of reasons. These reasons include the fact that many local agencies plan to take a staged approach to raising restrictions, significant unemployment and other economic considerations, and potential changes in travel behavior (e.g., new preference for telecommuting, continued nervousness over the outbreak, etc.). It may take an extended period of months, or even years, for traffic volumes to return to or exceed what was observed immediately prior to COVID-19. Like the Great Recession of 2008, the current disruption will make for challenging infrastructure planning as current traffic volumes continue to be lower than historical count data, leaving agencies to determine the conditions and timing for when count data is appropriate for use in preparing operations analyses and making important infrastructure investments.

Purpose and Need

There is a need in the transportation planning and traffic operations field to analyze existing conditions scenarios at intersections with accuracy. The ability to analyze the future effects of ongoing or planned developments on our transportation infrastructure now hinges on our ability to produce intersection turning movement volumes that represent a pre-COVID-19 scenario, which cannot be accomplished by collecting new counts.

[1] https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html
[2] https://covid19.ca.gov/img/Executive-Order-N-33-20.pdf
[3] https://www.google.com/covid19/mobility/
[4] https://inrix.com/blog/2020/03/covid19-us-traffic-volume-synopsis/

The purpose of this white paper is to establish an acceptable methodology for the development of accurate, affordable, and defensible turning movement volumes despite the current inability to collect new traffic count data because of COVID-19.

Organization

This paper is organized into three chapters:

1. Introduction: introduces the need for a new methodology for determining existing turning movement volumes at intersections and a background for why this is necessary.
2. Data Collection Methods: discusses the merits and limitations of various methods for deriving turning movement volumes.
3. Proposed Methodology: proposes the preferred methodology for deriving turning movement volumes at intersections based on available historical data using a decision tree.

DATA COLLECTION METHODS

The purpose of this chapter is to provide a brief background on the available data collection methods that can be used to obtain turning movement volumes and the inherent variability and possible sources of error from each one. Understanding the limitations of collected data, regardless of source, is a prerequisite to using that data in an analysis.

Traffic Counts

Historically, existing conditions intersection turning movement volumes for analysis in a traffic study have been counted on-site during peak hours on a single representative day of the year, which is assumed to represent the average or most common and predictable traffic conditions. This approach typically counts a fair-weather Tuesday, Wednesday, or Thursday on a week without any holidays or major events while nearby schools are in session. The exception for this approach would be projects where peak trip generation is expected to occur at another time, such as on a weekend or holiday, and generate a large share of vehicle trips on the nearby roadways at its peak period of trip generation. A ski resort, regional park, event venue, or sports stadium are examples of this exception where a weekend, late evening, specific event, or holiday count may be needed to supplement or replace a weekday count.

Industry best practice is to calibrate the collected turning movement volumes using daily, monthly, and seasonal adjustment factors based on nearby continuous count locations (when such locations are available). Monthly averages for daily traffic can fluctuate by 15 percent or more from the annual average daily traffic[5] (AADT). However, adjustments to reflect AADT conditions are rarely applied during the normal course of data collection, resulting in inherent differences as compared to average annual conditions. This source of error is important when considering the validity and use of supplementary traffic count data such as big data.

The strength of this traditional count method is that an actual count of every vehicle (and often bicycle and pedestrian) is conducted on-site to establish an up-to-date snapshot in time of traffic conditions. Because these counts are conducted on-site, other qualitative observations can be made at the intersection regarding operations, delay, or queueing. Also, data can be collected at 5-minute or 15-minute granularities to inform proper calibration of traffic simulation models, or so that analyses can be performed on the peak 15-minute period. When available, this method of determining existing conditions intersection counts is the typical standard of practice.

Big Data

The widespread accessibility of geolocation services included in modern electronics like cell phones and vehicles allows for continuous sampling of a transportation network's users. While adhering to strict privacy laws that preserve the anonymity of individual users, this data can be extremely useful for transportation planners in understanding travel trends across space and time. While there may be many big data products useful for estimating traffic volumes, the methodology in this paper was developed based on StreetLight as a big data solution. This paper is not intended to exclude any other similar products. The main limitation of big data is that it does not sample 100 percent of the target population because not every vehicle on the road as geolocation services available or enabled for query. For example, an intersection turning movement count on a Thursday morning from 8:00 AM – 9:00 AM may show 100 vehicles making a northbound right turn. Of the 100 vehicles making that turn, it is likely that some do not have location services in their car, and likely that some drivers do not have location services on their cell phones. Of the vehicles that have location services in a vehicle or cell phone, depending on the permissions of the individual user in allowing use of their location data, even fewer vehicles may be counted. Therefore, big data may show only 15 counts making that

[5] https://dot.ca.gov/programs/traffic-operations/census

northbound right turn at that time. The error of big data volume estimates comes from the conversion of a big data "count" to total vehicle volume on a roadway.

There are many approaches to adjusting and modeling big data to derive traffic volumes at an intersection. The essence of the process is to develop control points where the population (volume) size is known, then determine ratios between sample size and population size, and finally to apply these ratios to other data. There are many geographic models and methodologies for performing this kind of conversion, but regardless of method, the accuracy of control point data and the assumptions built into applying this ratio to other locations are major factors for introducing error between estimated and "actual" average turning movement volumes.

StreetLight Data

Every month, StreetLight collects and indexes anonymized location records. These records come from smart phones and embedded vehicle GPS devices. Using other contextual sources including census, parcel, and digital roadway network data, StreetLight refines the raw data to estimate complete transportation metrics. These metrics are further calibrated and validated using permanent traffic counters and embedded roadway sensors. Because StreetLight data is a continuous sample of existing traffic conditions, averages and estimates are not limited to peak hours on one typical count day. Instead, StreetLight aggregates average traffic patterns over an entire week, month, or year to develop an accurate AADT volume estimate at each study intersection.

A Word of Caution

When comparing results from traffic counts and big data models, the comparison of these two data sources may show even greater (or less) variability than is inherent in either model alone. Traffic count data shows volumes for a single day of the year and is assumed to represent average traffic conditions at an intersection for the entire year (although, as discussed previously, there is inherent error in this approach). A big data model meanwhile grows an average of small samples from the entire year and presents an estimate of average traffic conditions at an intersection. At the end of the day, both methods are estimates that have inherent error. A comparison of intersection volumes derived using both methods may show only one percent variation, but they may still be 10 (and nine) percent from the actual annual average. Similarly, a comparison could show a 20 percent variation; however, each source may only vary from the actual annual average volumes by 10 percent. The potential for the compounding of errors is an important consideration when evaluating big data's validity, especially given the common bias of transportation professionals to represent single day traffic count data as an accurate reflection of annual averages.

PROPOSED METHODOLOGY

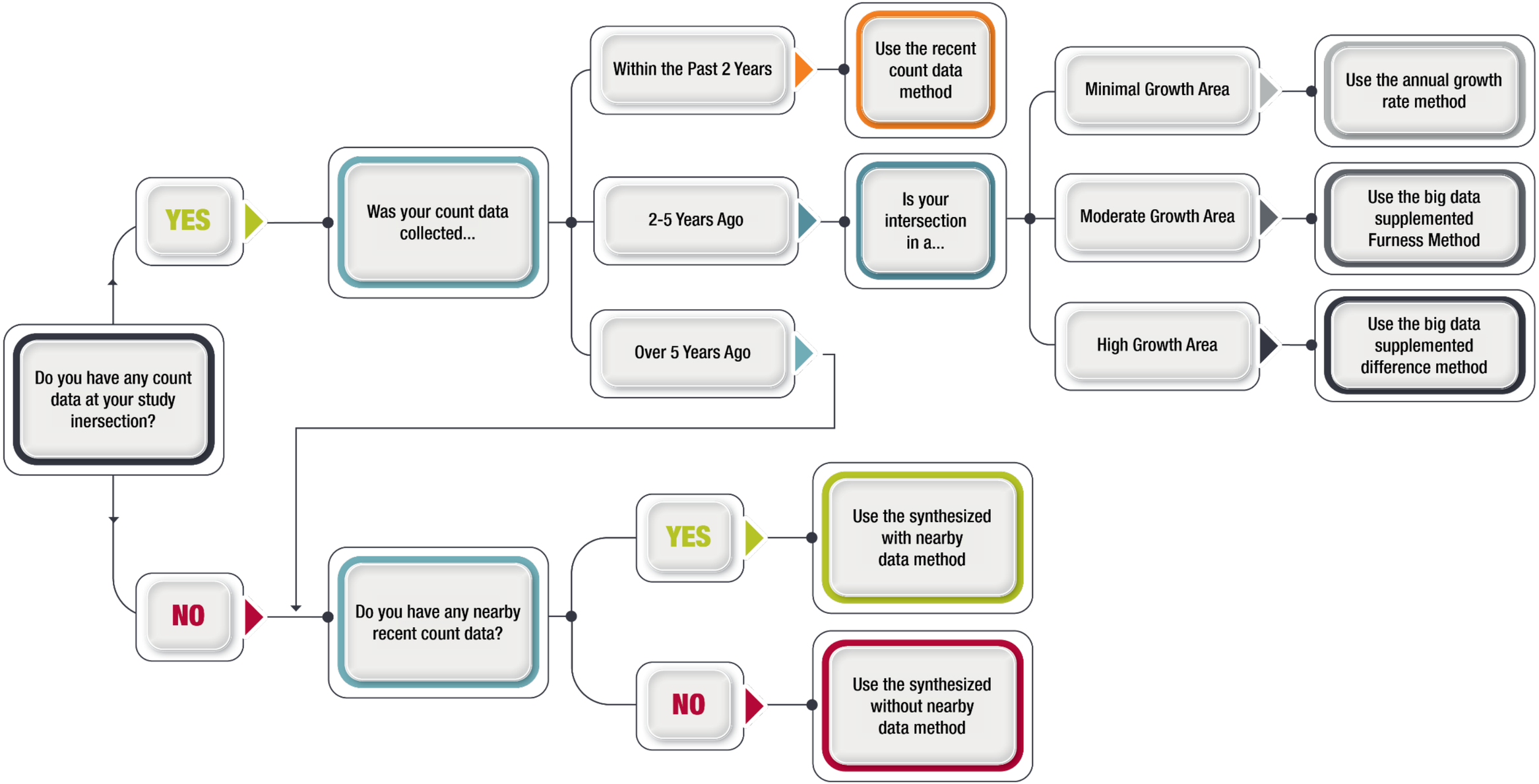
This chapter proposes methodologies for developing intersection turning movement volumes at a study intersection. The decision to use one method over another will depend on what data is available for the study intersection and how this data may need to be supplemented by a big data model. Exhibit 1 shows a decision tree to help identify the appropriate method for an analysis. A description of each method presented in the decision tree is also provided in this chapter.

The scenarios and methods described in this chapter are listed in order of preference. If a big data tool provides the capability to utilize calibration data, this is recommended to be undertaken to the extent possible. Generating specific hourly turning movement volumes "from scratch" (commonly referred to as "synthesizing") from a model is inherently difficult and the confidence in the model outputs directly correlates to the confidence in the data provided to the model for calibration.

Before undertaking the approach to synthesize traffic count data from big data, other sources of data should be reviewed. Depending on the circumstances, it may be preferable to use older traffic count data than would have been permissible prior to the COVID-19 outbreak. Possible sources of turning movement counts may include:

- Previous Studies – many intersections, especially in higher growth areas, have been studied recently and counted multiple times. Publicly available reports may already have counts at this location and be available at no additional cost.
- Local Jurisdiction Data – cities, counties, and state DOTs often collect turning movement counts for monitoring traffic conditions within their jurisdictional boundary. Master plans, TIFs, retiming studies, corridor studies, and other operations studies include count data. Requests to the governing jurisdictions should be made for any available data. This may include recent traffic studies completed and submitted to the jurisdiction by other firms. Because the data they provide can enhance the accuracy and quality of the study, most jurisdictions will not hesitate to provide this data.
- Local Count Firms – Many local count firms are offering to provide historical count data at reduced costs. If data cannot be obtained after exhausting previous studies and local jurisdiction resources, subconsultants and other industry partners should be considered.

Exhibit 1: Decision tree identifying appropriate methodology for derivation of existing conditions study intersection volume



Recent Count Data Method

For locations with recently collected intersection turning movement counts, it remains the best practice to use this data "as is" in a study. Many jurisdictions will allow the use of previously collected data if it's not older than two-years. However, this approach may vary, and as with any traffic study, confirmation from the governing jurisdiction for how recent a count must be to be used without adjustment should be obtained prior to using the count. The acceptable data time frame will likely be a range from one to three years.

If the accuracy of a recent count is called into question because of a change in circumstance, such as a new transportation improvement or the introduction of a major land use nearby between the time of the count and the present, there are several ways to adjust the count data including:

- In collaboration with the jurisdiction, identify all projects that have been completed and opened between the time of the count and the present where their studies added traffic to the study intersection. (Again, this is for recent counts taken within the past two-years. This list should be relatively short; otherwise, this method may become cost prohibitive). Add the opening day projected traffic added by these projects to the recent count using typical analyses methods.
- Identify growth using big data by comparing the volumes at the time of the count to the volumes in present conditions. If there is no growth shown, then this validates the use of the count "as is." If growth is shown, say one percent growth over 18 months, then this can be used to grow the recent count to an existing conditions volume.
- An agreed upon minimum annual growth rate can be applied to the count, conservatively increasing the counts to an acceptable existing conditions volume.
- In cases where travel patterns have changed in response to a new transportation facility, it is possible to use travel demand model data. This option, however, should be carefully considered, given that it would typically be preferential to use big data under these circumstances.

Peak hour factors, truck percentages, pedestrian, bicycle, and time of the peak hour should be taken from the recent count unless judgement suggests these have significantly changed (e.g., a new land use, like a school, could change these parameters).

Older Count Data Methods

If the big data source is available for a period of time less than desired (i.e., it doesn't date back to the count data year), it is acceptable to use a shorter time frame to determine a growth rate if it is determined to be representative of the conditions. Depending on the quality of the data, it may be appropriate to use daily volumes instead of peak period volumes as the basis for the growth rate. For locations where intersection turning movement counts collected in the past five years are available, the changing context of the area should inform the selection of the methodology. In the context of trip generation, determine if the surrounding area experienced a minimal growth, moderate growth, or high growth between the time of the two- to five-year-old count and present conditions. The definitions of these three categories are described as:

- Minimal Growth Area – An intersection in a minimal growth area will maintain the same context (urban, suburban, rural) and same land uses between the time of the old count and present day. While specific parcels and ownership may have changed, the zoning, land use intensity, and overall traffic have not changed. Any traffic volume growth at the intersection can be attributed to minimal infill development, or increased pass through traffic. Examples of a no growth area include a completely built-out area of a city with no increase in land use

intensity, a completed suburban community with no densification, or a rural agricultural setting with no change in land use.

- Moderate Growth Area – A moderate growth area will maintain the same context (urban, suburban, rural) with increasing land use intensity and development between the time of the old count and present day. While traffic volumes are increasing due to new development near the intersection, the overall zoning and traffic distribution stays steady between the time of the count and present day. A growth area has already established urban/suburban/rural land uses and zoning that do not change; however, the region is also not yet fully developed.
- High Growth Area – A high growth area will have experienced a change in context (i.e., rural to suburban or suburban to urban), often resulting from rezoning of land for completely new development. Due to rezoning, traffic patterns at the intersection may significantly change with respect to time of day and directional distribution. Examples of high growth areas are vacant land being developed into a new master planned community, the recent construction of a major transit hub in a suburban area with resultant mixed-use development and high-density multifamily housing, or an old zoned industrial park rezoned and developed into a commercial retail city node.

Minimal Growth Area – Annual Growth Rate Method

In a minimal growth area, the recommended method for growing an older turning movement count is to apply a historical annual growth rate. While the annual growth in minimal growth areas is typically less than one percent per year in many areas, an annual growth assumption of one percent is a reasonable, albeit conservative, short-term growth basis. Because zoning, land use intensity, and context are not changing in these areas, the traffic distribution captured in an old count may reasonably be assumed constant, and a nominal growth rate method is adequate to capture minor variations in land use intensities (a business hires more workers, etc.).

Peak hour factors, truck percentages, pedestrian, bicycle, and time of the peak hour can reasonably be based on this count data.

Moderate Growth Area – Big Data Supplemented Furness Method

Big data average daily volume estimates should be collected for each approach of the study intersection for 3-6 months around the date of the historical count. Big data average daily volume estimates should then be collected for the 3-6 months prior to existing conditions. Given the effects of COVID-19, this is recommended to include October 2019, January 2020, and February 2020. Because of the nature of big data, it is important to capture a large enough sample while still controlling for "typical" weekdays. For this reason, data should be limited to Tuesdays, Wednesdays, and Thursdays.

Using the count data, the historic big data volume, and the present big data volume, the NCHRP 765 iterative directional method, commonly referred to as the Furness Method, should be applied to the old count to iteratively grow traffic volumes to existing conditions. This process provides corrective factoring to the directional distribution of traffic at the intersection that may not have been captured otherwise in the application of an average annual growth rate.

It may be appropriate to provide minor manual adjustments to peak hour factors, truck percentages, pedestrian, bicycle, and time of the peak hour based on changes in travel patterns that result from the application of the Furness Method. In general, however, it is not anticipated that this would be necessary.

High Growth Area – Big Data Supplemented Difference Method

Big data average ***peak hour*** turning movement volume estimates should be collected for each movement of the study intersection for 3-6 months around the date of the historical count. Big data average ***peak hour*** volume estimates should then be collected for the 3-6 months prior to existing conditions. Given the effects of COVID-19, this is recommended to

include October 2019, January 2020, and February 2020. Because of the nature of big data, it is important to capture a large enough sample while still controlling for "typical" weekdays. For this reason, data should be limited to Tuesdays, Wednesdays, and Thursdays.

Using the count data, the historic big data hourly turning movement volumes and the present hourly big data turning movement volumes, the difference method should be applied as follows:

- The difference between existing big data turning movement volumes and historic big data turning movement volumes should be calculated for each movement
- The difference in big data volumes should be added directly to the historic count

Peak hour factors, truck percentages, pedestrian, bicycle, and time of the peak hour should be reviewed for appropriateness and manually updated based on reasonable manual adjustments that are supported by the changes made to count data based on the method described above. It may also be appropriate to supplement this data with alternative sources depending on the magnitude of change.

Care needs to be used when applying this methodology to determine when the initial count data is of such poor quality, or the changes so significant, that a full synthesis of the traffic count data might be preferable.

Synthesized Traffic Count Data with Nearby Traffic Data Method

When no turning movement count data is available at the study intersection, or this data is more than five years old, but you have recent daily traffic volumes, then a calibrated big data model may be used to synthesize traffic count data.

Peak hour factors, truck percentages, pedestrian, bicycle, and time of the peak hour should be taken from the nearby calibration data when possible. As appropriate, other datasets or methodologies may be used to supplement this information.

Synthesized Traffic Count Data without Nearby Traffic Data Method

When traffic data is not available at or nearby the study area intersection, then the final recourse is to synthesize intersection turning movement volumes using big data without additional calibration data. The big data should be used to determine average hourly volume on a Tuesday, Wednesday, or Thursday for the most recent 3-6 months (pre-COVID-19). At a minimum this should include October 2019, January 2019, and February 2019.

Truck percentage, pedestrian, or bicycle data may need to be derived from local published rates or other collected data. State and Federal transportation agencies and other professional organizations may provide helpful resources on how to estimate this data when it is not available based on facility type, location, and other factors.

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B. EXISTING TRAFFIC COUNTS

Day Type

1: Weekday (Tu-Th)

TURNING MOVEMENT COUNTS

Day Part	W. Grant Line_A EB Left	EB Thru	EB Right	E. Grant Line Rd_A WB Left	WB Thru	WB Right	S. Chabot Ct_A NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
00: All Day (12am-12am)	-	6,995	395	364	7,193	-	229	-	414	-	-	-	15,590
01: 12am (12am-1am)	-	77	8	5	22	-	-	-	6	-	-	-	118
02: 1am (1am-2am)	-	47	7	7	25	-	-	-	8	-	-	-	94
03: 2am (2am-3am)	-	52	-	2	56	-	-	-	12	-	-	-	122
04: 3am (3am-4am)	-	48	7	13	195	-	-	-	-	-	-	-	263
05: 4am (4am-5am)	-	225	9	21	403	-	4	-	4	-	-	-	666
06: 5am (5am-6am)	-	260	15	65	479	-	5	-	4	-	-	-	828
07: 6am (6am-7am)	-	119	14	30	747	-	18	-	15	-	-	-	943
08: 7am (7am-8am)	-	292	24	21	892	-	13	-	19	-	-	-	1,261
09: 8am (8am-9am)	-	193	23	30	497	-	10	-	18	-	-	-	771
10: 9am (9am-10am)	-	156	32	27	348	-	-	-	20	-	-	-	583
11: 10am (10am-11am)	-	196	33	19	276	-	12	-	12	-	-	-	548
12: 11am (11am-12noon)	-	263	27	10	270	-	27	-	24	-	-	-	621
13: 12pm (12noon-1pm)	-	260	48	24	222	-	20	-	27	-	-	-	601
14: 1pm (1pm-2pm)	-	363	35	20	263	-	15	-	32	-	-	-	728
15: 2pm (2pm-3pm)	-	552	27	3	292	-	19	-	56	-	-	-	949
16: 3pm (3pm-4pm)	-	771	27	14	374	-	21	-	52	-	-	-	1,259
17: 4pm (4pm-5pm)	-	840	25	9	373	-	7	-	37	-	-	-	1,291
18: 5pm (5pm-6pm)	-	978	11	8	595	-	8	-	20	-	-	-	1,620
19: 6pm (6pm-7pm)	-	649	11	6	344	-	11	-	31	-	-	-	1,052
20: 7pm (7pm-8pm)	-	238	3	3	161	-	3	-	7	-	-	-	415
21: 8pm (8pm-9pm)	-	193	-	10	131	-	8	-	6	-	-	-	348
22: 9pm (9pm-10pm)	-	90	6	3	108	-	12	-	13	-	-	-	232
23: 10pm (10pm-11pm)	-	67	-	4	73	-	4	-	4	-	-	-	152
24: 11pm (11pm-12am)	-	75	5	5	45	-	-	-	-	-	-	-	130

TURNING MOVEMENT PERCENTAGE

Day Part	W. Grant Line_A EB Left	EB Thru	EB Right	E. Grant Line Rd_A WB Left	WB Thru	WB Right	S. Chabot Ct_A NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right
00: All Day (12am-12am)	0%	95%	5%	5%	95%	0%	36%	0%	64%	-	-	-
01: 12am (12am-1am)	0%	91%	9%	19%	81%	0%	0%	0%	100%	-	-	-
02: 1am (1am-2am)	0%	87%	13%	22%	78%	0%	0%	0%	100%	-	-	-
03: 2am (2am-3am)	0%	100%	0%	3%	97%	0%	0%	0%	100%	-	-	-
04: 3am (3am-4am)	0%	87%	13%	6%	94%	0%	-	-	-	-	-	-
05: 4am (4am-5am)	0%	96%	4%	5%	95%	0%	50%	0%	50%	-	-	-
06: 5am (5am-6am)	0%	95%	5%	12%	88%	0%	56%	0%	44%	-	-	-
07: 6am (6am-7am)	0%	89%	11%	4%	96%	0%	55%	0%	45%	-	-	-
08: 7am (7am-8am)	0%	92%	8%	2%	98%	0%	41%	0%	59%	-	-	-
09: 8am (8am-9am)	0%	89%	11%	6%	94%	0%	36%	0%	64%	-	-	-
10: 9am (9am-10am)	0%	83%	17%	7%	93%	0%	0%	0%	100%	-	-	-
11: 10am (10am-11am)	0%	86%	14%	6%	94%	0%	50%	0%	50%	-	-	-
12: 11am (11am-12noon)	0%	91%	9%	4%	96%	0%	53%	0%	47%	-	-	-
13: 12pm (12noon-1pm)	0%	84%	16%	10%	90%	0%	43%	0%	57%	-	-	-
14: 1pm (1pm-2pm)	0%	91%	9%	7%	93%	0%	32%	0%	68%	-	-	-
15: 2pm (2pm-3pm)	0%	95%	5%	1%	99%	0%	25%	0%	75%	-	-	-
16: 3pm (3pm-4pm)	0%	97%	3%	4%	96%	0%	29%	0%	71%	-	-	-
17: 4pm (4pm-5pm)	0%	97%	3%	2%	98%	0%	16%	0%	84%	-	-	-
18: 5pm (5pm-6pm)	0%	99%	1%	1%	99%	0%	29%	0%	71%	-	-	-
19: 6pm (6pm-7pm)	0%	98%	2%	2%	98%	0%	26%	0%	74%	-	-	-
20: 7pm (7pm-8pm)	0%	99%	1%	2%	98%	0%	30%	0%	70%	-	-	-
21: 8pm (8pm-9pm)	0%	100%	0%	7%	93%	0%	57%	0%	43%	-	-	-
22: 9pm (9pm-10pm)	0%	94%	6%	3%	97%	0%	48%	0%	52%	-	-	-
23: 10pm (10pm-11pm)	0%	100%	0%	5%	95%	0%	50%	0%	50%	-	-	-
24: 11pm (11pm-12am)	0%	94%	6%	10%	90%	0%	-	-	-	-	-	-

Prepared by National Data & Surveying Services

Paradise Rd & Pescadero Ave

Peak Hour Turning Movement Count

ID: 19-08103-002
City: Tracy

Day: Thursday
Date: 02/28/2019

PEAK HOURS	COUNT PERIODS
07:45 AM - 08:45 AM	07:00 AM - 09:00 AM
NONE	NONE
04:15 PM - 05:15 PM	04:00 PM - 06:00 PM

Paradise Rd — SOUTHBOUND

AM	1	17	0	0	31	AM
NOON	0	0	0	0	0	NOON
PM	7	25	0	0	22	PM

Pescadero Ave — EASTBOUND

AM	NOON	PM		
56	0	55	⇦	
0	0	0	↶	0
3	0	2	↱	1
0	0	0	→	0
36	0	58	↴	1
AM	NOON	PM		

Pescadero Ave — WESTBOUND

PM	NOON	AM		
0	0	0	↰	0
0	0	0	←	0
0	0	0	↰	0
0	0	0	↰	0
0	0	0	⇨	
PM	NOON	AM		

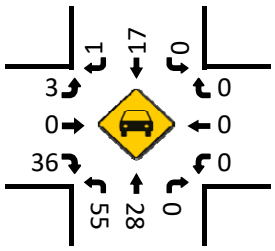
	0	1	0	0
	0	1	1	0

CONTROL			
Signalized			
TEV	140 AM	0 NOON	160 PM
PHF	0.90		0.83

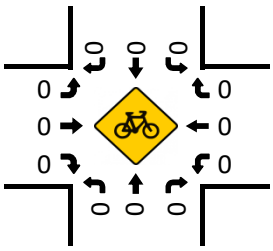
Paradise Rd — NORTHBOUND

PM	83	0	48	20	0	PM
NOON	0	0	0	0	0	NOON
AM	53	0	55	28	0	AM

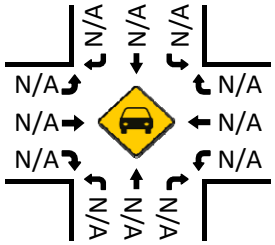
Total Vehicles (AM)



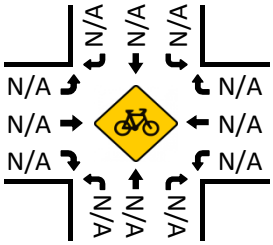
Bikes (AM)



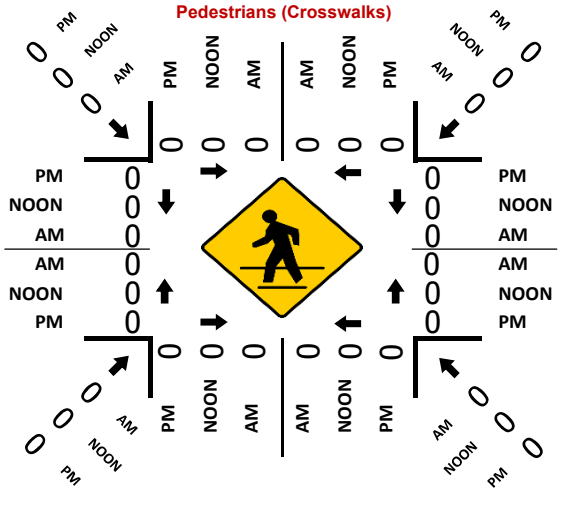
Total Vehicles (Noon)



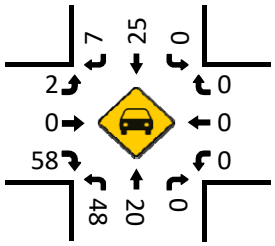
Bikes (NOON)



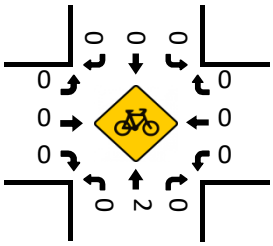
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



Prepared by National Data & Surveying Services

Chrisman Rd & Grant Line Rd

Peak Hour Turning Movement Count

ID: 19-08103-001
City: Tracy

Day: Thursday
Date: 02/28/2019

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	NONE
PM	04:00 PM - 06:00 PM

Chrisman Rd — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

Grant Line Rd — EASTBOUND

AM	NOON	PM	
305	0	301	⇦
0	0	0	↶ 0
0	0	0	↱ 1
217	0	359	→ 3
77	0	39	↴ 0
AM	NOON	PM	

CONTROL

Signalized

TEV	675 AM	0 NOON	773 PM
PHF	0.80		0.85

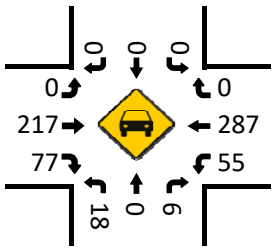
WESTBOUND — Grant Line Rd

PM	NOON	AM	
0	0	0	↰ 0
205	0	287	← 3
45	0	55	↰ 1
1	0	15	↰ 0
388	0	238	⇨
PM	NOON	AM	

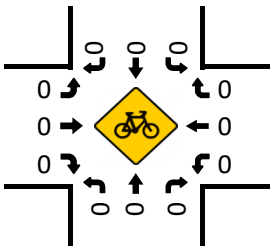
Chrisman Rd — NORTHBOUND

PM	84	0	96	0	28	PM
NOON	0	0	0	0	0	NOON
AM	132	0	18	0	6	AM

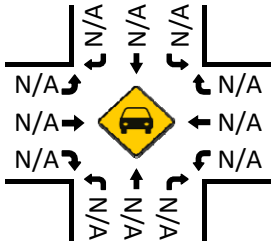
Total Vehicles (AM)



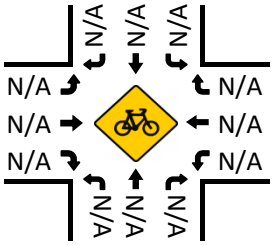
Bikes (AM)



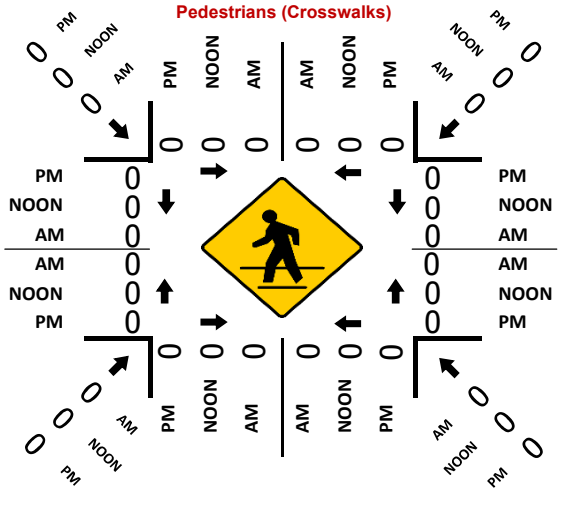
Total Vehicles (Noon)



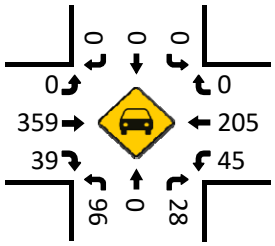
Bikes (NOON)



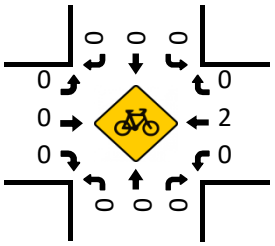
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



Day Type

1: Weekday (Tu-Th)

TURNING MOVEMENT COUNTS

Day Part	EB Left	EB Thru	EB Right	205 WB Ramp_A WB Left	WB Thru	WB Right	MacArthur Dr NB Left	NB Thru	NB Right	N. MacArthur Dr_A SB Left	SB Thru	SB Right	Total
00: All Day (12am-12am)	-	-	-	5,685	880	639	4,595	680	-	-	924	306	13,709
01: 12am (12am-1am)	-	-	-	25	7	4	36	1	-	-	3	2	78
02: 1am (1am-2am)	-	-	-	25	5	5	31	2	-	-	4	-	72
03: 2am (2am-3am)	-	-	-	31	10	3	47	7	-	-	6	2	106
04: 3am (3am-4am)	-	-	-	78	40	7	129	1	-	-	1	9	265
05: 4am (4am-5am)	-	-	-	263	45	8	141	5	-	-	13	8	483
06: 5am (5am-6am)	-	-	-	422	58	30	144	28	-	-	11	20	713
07: 6am (6am-7am)	-	-	-	315	43	53	160	15	-	-	38	25	649
08: 7am (7am-8am)	-	-	-	544	50	35	170	21	-	-	82	21	923
09: 8am (8am-9am)	-	-	-	364	45	44	233	25	-	-	28	22	761
10: 9am (9am-10am)	-	-	-	283	60	31	200	18	-	-	32	19	643
11: 10am (10am-11am)	-	-	-	259	55	62	246	27	-	-	47	20	716
12: 11am (11am-12noon)	-	-	-	228	51	28	261	30	-	-	52	22	672
13: 12pm (12noon-1pm)	-	-	-	285	59	40	277	51	-	-	59	15	786
14: 1pm (1pm-2pm)	-	-	-	289	48	27	270	40	-	-	55	16	745
15: 2pm (2pm-3pm)	-	-	-	335	46	42	239	56	-	-	70	20	808
16: 3pm (3pm-4pm)	-	-	-	416	34	43	315	92	-	-	91	18	1,009
17: 4pm (4pm-5pm)	-	-	-	309	25	47	337	63	-	-	133	14	928
18: 5pm (5pm-6pm)	-	-	-	339	67	44	333	52	-	-	62	14	911
19: 6pm (6pm-7pm)	-	-	-	268	40	23	324	54	-	-	47	12	768
20: 7pm (7pm-8pm)	-	-	-	167	26	22	198	25	-	-	39	6	483
21: 8pm (8pm-9pm)	-	-	-	150	28	12	153	24	-	-	32	8	407
22: 9pm (9pm-10pm)	-	-	-	152	27	16	182	29	-	-	14	10	430
23: 10pm (10pm-11pm)	-	-	-	92	11	6	79	8	-	-	4	1	201
24: 11pm (11pm-12am)	-	-	-	40	15	9	69	3	-	-	4	2	142

TURNING MOVEMENT PERCENTAGE

Day Part	EB Left	EB Thru	EB Right	205 WB Ramp_A WB Left	WB Thru	WB Right	MacArthur Dr NB Left	NB Thru	NB Right	N. MacArthur Dr_A SB Left	SB Thru	SB Right
00: All Day (12am-12am)	-	-	-	79%	12%	9%	87%	13%	0%	0%	75%	25%
01: 12am (12am-1am)	-	-	-	69%	19%	11%	97%	3%	0%	0%	60%	40%
02: 1am (1am-2am)	-	-	-	71%	14%	14%	94%	6%	0%	0%	100%	0%
03: 2am (2am-3am)	-	-	-	70%	23%	7%	87%	13%	0%	0%	75%	25%
04: 3am (3am-4am)	-	-	-	62%	32%	6%	99%	1%	0%	0%	10%	90%
05: 4am (4am-5am)	-	-	-	83%	14%	3%	97%	3%	0%	0%	62%	38%
06: 5am (5am-6am)	-	-	-	83%	11%	6%	84%	16%	0%	0%	35%	65%
07: 6am (6am-7am)	-	-	-	77%	10%	13%	91%	9%	0%	0%	60%	40%
08: 7am (7am-8am)	-	-	-	86%	8%	6%	89%	11%	0%	0%	80%	20%
09: 8am (8am-9am)	-	-	-	80%	10%	10%	90%	10%	0%	0%	56%	44%
10: 9am (9am-10am)	-	-	-	76%	16%	8%	92%	8%	0%	0%	63%	37%
11: 10am (10am-11am)	-	-	-	69%	15%	16%	90%	10%	0%	0%	70%	30%
12: 11am (11am-12noon)	-	-	-	74%	17%	9%	90%	10%	0%	0%	70%	30%
13: 12pm (12noon-1pm)	-	-	-	74%	15%	10%	84%	16%	0%	0%	80%	20%
14: 1pm (1pm-2pm)	-	-	-	79%	13%	7%	87%	13%	0%	0%	77%	23%
15: 2pm (2pm-3pm)	-	-	-	79%	11%	10%	81%	19%	0%	0%	78%	22%
16: 3pm (3pm-4pm)	-	-	-	84%	7%	9%	77%	23%	0%	0%	83%	17%
17: 4pm (4pm-5pm)	-	-	-	81%	7%	12%	84%	16%	0%	0%	90%	10%
18: 5pm (5pm-6pm)	-	-	-	75%	15%	10%	86%	14%	0%	0%	82%	18%
19: 6pm (6pm-7pm)	-	-	-	81%	12%	7%	86%	14%	0%	0%	80%	20%
20: 7pm (7pm-8pm)	-	-	-	78%	12%	10%	89%	11%	0%	0%	87%	13%
21: 8pm (8pm-9pm)	-	-	-	79%	15%	6%	86%	14%	0%	0%	80%	20%
22: 9pm (9pm-10pm)	-	-	-	78%	14%	8%	86%	14%	0%	0%	58%	42%
23: 10pm (10pm-11pm)	-	-	-	84%	10%	6%	91%	9%	0%	0%	80%	20%
24: 11pm (11pm-12am)	-	-	-	63%	23%	14%	96%	4%	0%	0%	67%	33%

Day Type

1: Weekday (Tu-Th)

TURNING MOVEMENT COUNTS

	EB 205_A						MacAurthur Dr_2			MacArthur Dr			
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
00: All Day (12am-12am)	601	1,674	4,517	-	-	-	-	4,748	7,248	500	6,199	-	25,487
01: 12am (12am-1am)	2	23	32	-	-	-	-	33	65	2	24	-	181
02: 1am (1am-2am)	2	20	48	-	-	-	-	29	98	3	24	-	224
03: 2am (2am-3am)	2	11	31	-	-	-	-	42	191	2	32	-	311
04: 3am (3am-4am)	5	13	28	-	-	-	-	110	91	1	72	-	320
05: 4am (4am-5am)	4	15	89	-	-	-	-	104	147	5	274	-	638
06: 5am (5am-6am)	10	21	163	-	-	-	-	146	242	5	439	-	1,026
07: 6am (6am-7am)	7	36	226	-	-	-	-	157	278	15	331	-	1,050
08: 7am (7am-8am)	17	52	281	-	-	-	-	183	422	36	605	-	1,596
09: 8am (8am-9am)	20	67	281	-	-	-	-	229	302	17	370	-	1,286
10: 9am (9am-10am)	15	48	197	-	-	-	-	203	287	18	298	-	1,066
11: 10am (10am-11am)	29	57	179	-	-	-	-	239	280	36	275	-	1,095
12: 11am (11am-12noon)	23	87	224	-	-	-	-	264	313	22	254	-	1,187
13: 12pm (12noon-1pm)	41	81	247	-	-	-	-	294	359	19	319	-	1,360
14: 1pm (1pm-2pm)	41	95	342	-	-	-	-	268	386	31	309	-	1,472
15: 2pm (2pm-3pm)	82	126	286	-	-	-	-	262	606	33	384	-	1,779
16: 3pm (3pm-4pm)	63	162	227	-	-	-	-	402	627	69	471	-	2,021
17: 4pm (4pm-5pm)	61	159	293	-	-	-	-	370	681	82	378	-	2,024
18: 5pm (5pm-6pm)	51	131	319	-	-	-	-	364	563	33	383	-	1,844
19: 6pm (6pm-7pm)	52	132	268	-	-	-	-	343	486	25	303	-	1,609
20: 7pm (7pm-8pm)	22	106	270	-	-	-	-	216	256	22	190	-	1,082
21: 8pm (8pm-9pm)	33	98	188	-	-	-	-	146	214	17	166	-	862
22: 9pm (9pm-10pm)	16	66	147	-	-	-	-	185	146	10	162	-	732
23: 10pm (10pm-11pm)	6	47	77	-	-	-	-	84	112	7	95	-	428
24: 11pm (11pm-12am)	8	28	65	-	-	-	-	71	87	3	37	-	299

TURNING MOVEMENT PERCENTAGE

	EB 205_A						MacAurthur Dr_2			MacArthur Dr		
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right
00: All Day (12am-12am)	9%	25%	67%	-	-	-	0%	40%	60%	7%	93%	0%
01: 12am (12am-1am)	4%	40%	56%	-	-	-	0%	34%	66%	8%	92%	0%
02: 1am (1am-2am)	3%	29%	69%	-	-	-	0%	23%	77%	11%	89%	0%
03: 2am (2am-3am)	5%	25%	70%	-	-	-	0%	18%	82%	6%	94%	0%
04: 3am (3am-4am)	11%	28%	61%	-	-	-	0%	55%	45%	1%	99%	0%
05: 4am (4am-5am)	4%	14%	82%	-	-	-	0%	41%	59%	2%	98%	0%
06: 5am (5am-6am)	5%	11%	84%	-	-	-	0%	38%	62%	1%	99%	0%
07: 6am (6am-7am)	3%	13%	84%	-	-	-	0%	36%	64%	4%	96%	0%
08: 7am (7am-8am)	5%	15%	80%	-	-	-	0%	30%	70%	6%	94%	0%
09: 8am (8am-9am)	5%	18%	76%	-	-	-	0%	43%	57%	4%	96%	0%
10: 9am (9am-10am)	6%	18%	76%	-	-	-	0%	41%	59%	6%	94%	0%
11: 10am (10am-11am)	11%	22%	68%	-	-	-	0%	46%	54%	12%	88%	0%
12: 11am (11am-12noon)	7%	26%	67%	-	-	-	0%	46%	54%	8%	92%	0%
13: 12pm (12noon-1pm)	11%	22%	67%	-	-	-	0%	45%	55%	6%	94%	0%
14: 1pm (1pm-2pm)	9%	20%	72%	-	-	-	0%	41%	59%	9%	91%	0%
15: 2pm (2pm-3pm)	17%	26%	58%	-	-	-	0%	30%	70%	8%	92%	0%
16: 3pm (3pm-4pm)	14%	36%	50%	-	-	-	0%	39%	61%	13%	87%	0%
17: 4pm (4pm-5pm)	12%	31%	57%	-	-	-	0%	35%	65%	18%	82%	0%
18: 5pm (5pm-6pm)	10%	26%	64%	-	-	-	0%	39%	61%	8%	92%	0%
19: 6pm (6pm-7pm)	12%	29%	59%	-	-	-	0%	41%	59%	8%	92%	0%
20: 7pm (7pm-8pm)	6%	27%	68%	-	-	-	0%	46%	54%	10%	90%	0%
21: 8pm (8pm-9pm)	10%	31%	59%	-	-	-	0%	41%	59%	9%	91%	0%
22: 9pm (9pm-10pm)	7%	29%	64%	-	-	-	0%	56%	44%	6%	94%	0%
23: 10pm (10pm-11pm)	5%	36%	59%	-	-	-	0%	43%	57%	7%	93%	0%
24: 11pm (11pm-12am)	8%	28%	64%	-	-	-	0%	45%	55%	8%	93%	0%

Day Type

1: Weekday (Tu-Th)

TURNING MOVEMENT COUNTS

	W. Pescadero_A			E. Pescadero_A			S. MacAurthur_A			MacArthur Dr_2			
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
00: All Day (12am-12am)	166	54	176	1,532	49	2,636	353	7,944	1,950	3,002	7,249	303	25,414
01: 12am (12am-1am)	-	1	1	22	-	23	3	69	3	18	39	-	179
02: 1am (1am-2am)	-	1	2	11	-	20	-	110	8	31	34	6	223
03: 2am (2am-3am)	5	-	-	5	2	77	1	161	10	14	42	-	317
04: 3am (3am-4am)	10	-	6	8	1	47	-	137	8	15	81	1	314
05: 4am (4am-5am)	13	1	19	15	-	81	2	136	36	108	259	-	670
06: 5am (5am-6am)	7	1	3	61	-	72	2	278	46	213	410	1	1,094
07: 6am (6am-7am)	12	1	4	45	1	104	7	275	35	116	432	5	1,037
08: 7am (7am-8am)	7	-	29	46	1	118	12	420	51	183	712	5	1,584
09: 8am (8am-9am)	7	1	5	33	4	104	20	390	82	204	441	6	1,297
10: 9am (9am-10am)	5	4	5	45	5	100	16	347	63	146	338	10	1,084
11: 10am (10am-11am)	7	2	4	60	1	110	7	391	93	138	301	11	1,125
12: 11am (11am-12noon)	7	3	3	77	4	120	23	416	100	145	312	9	1,219
13: 12pm (12noon-1pm)	7	2	6	69	2	152	15	445	99	153	392	10	1,352
14: 1pm (1pm-2pm)	7	2	15	70	2	128	22	462	95	183	439	18	1,443
15: 2pm (2pm-3pm)	5	10	16	78	3	174	24	560	133	177	458	32	1,670
16: 3pm (3pm-4pm)	15	-	12	90	3	230	39	639	191	202	475	12	1,908
17: 4pm (4pm-5pm)	6	1	13	95	5	211	41	718	203	190	422	18	1,923
18: 5pm (5pm-6pm)	12	4	7	116	4	159	19	623	258	160	471	45	1,878
19: 6pm (6pm-7pm)	12	5	12	186	3	203	25	498	209	123	385	26	1,687
20: 7pm (7pm-8pm)	9	7	3	132	1	99	24	282	129	163	249	36	1,134
21: 8pm (8pm-9pm)	5	4	5	127	1	87	20	223	67	96	223	25	883
22: 9pm (9pm-10pm)	3	3	2	77	6	116	21	167	39	125	164	20	743
23: 10pm (10pm-11pm)	4	-	1	25	-	49	4	122	16	49	112	6	388
24: 11pm (11pm-12am)	1	-	2	30	-	52	4	77	4	22	66	6	264

TURNING MOVEMENT PERCENTAGE

	W. Pescadero_A			E. Pescadero_A			S. MacAurthur_A			MacArthur Dr_2		
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right
00: All Day (12am-12am)	42%	14%	44%	36%	1%	63%	3%	78%	19%	28%	69%	3%
01: 12am (12am-1am)	0%	50%	50%	49%	0%	51%	4%	92%	4%	32%	68%	0%
02: 1am (1am-2am)	0%	33%	67%	35%	0%	65%	0%	93%	7%	44%	48%	8%
03: 2am (2am-3am)	100%	0%	0%	6%	2%	92%	1%	94%	6%	25%	75%	0%
04: 3am (3am-4am)	63%	0%	38%	14%	2%	84%	0%	94%	6%	15%	84%	1%
05: 4am (4am-5am)	39%	3%	58%	16%	0%	84%	1%	78%	21%	29%	71%	0%
06: 5am (5am-6am)	64%	9%	27%	46%	0%	54%	1%	85%	14%	34%	66%	0%
07: 6am (6am-7am)	71%	6%	24%	30%	1%	69%	2%	87%	11%	21%	78%	1%
08: 7am (7am-8am)	19%	0%	81%	28%	1%	72%	2%	87%	11%	20%	79%	1%
09: 8am (8am-9am)	54%	8%	38%	23%	3%	74%	4%	79%	17%	31%	68%	1%
10: 9am (9am-10am)	36%	29%	36%	30%	3%	67%	4%	81%	15%	30%	68%	2%
11: 10am (10am-11am)	54%	15%	31%	35%	1%	64%	1%	80%	19%	31%	67%	2%
12: 11am (11am-12noon)	54%	23%	23%	38%	2%	60%	4%	77%	19%	31%	67%	2%
13: 12pm (12noon-1pm)	47%	13%	40%	31%	1%	68%	3%	80%	18%	28%	71%	2%
14: 1pm (1pm-2pm)	29%	8%	63%	35%	1%	64%	4%	80%	16%	29%	69%	3%
15: 2pm (2pm-3pm)	16%	32%	52%	31%	1%	68%	3%	78%	19%	27%	69%	5%
16: 3pm (3pm-4pm)	56%	0%	44%	28%	1%	71%	4%	74%	22%	29%	69%	2%
17: 4pm (4pm-5pm)	30%	5%	65%	31%	2%	68%	4%	75%	21%	30%	67%	3%
18: 5pm (5pm-6pm)	52%	17%	30%	42%	1%	57%	2%	69%	29%	24%	70%	7%
19: 6pm (6pm-7pm)	41%	17%	41%	47%	1%	52%	3%	68%	29%	23%	72%	5%
20: 7pm (7pm-8pm)	47%	37%	16%	57%	0%	43%	6%	65%	30%	36%	56%	8%
21: 8pm (8pm-9pm)	36%	29%	36%	59%	0%	40%	6%	72%	22%	28%	65%	7%
22: 9pm (9pm-10pm)	38%	38%	25%	39%	3%	58%	9%	74%	17%	40%	53%	6%
23: 10pm (10pm-11pm)	80%	0%	20%	34%	0%	66%	3%	86%	11%	29%	67%	4%
24: 11pm (11pm-12am)	33%	0%	67%	37%	0%	63%	5%	91%	5%	23%	70%	6%

Day Type

1: Weekday (Tu-Th)

TURNING MOVEMENT COUNTS

Day Part	W. 11th Street_A			E 11th Street_A						N. MacArthur_A			Total
	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	
00: All Day (12am-12am)	1,217	7,478	-	-	7,224	1,692	-	-	-	1,682	-	1,294	20,587
01: 12am (12am-1am)	4	20	-	-	28	14	-	-	-	26	-	11	103
02: 1am (1am-2am)	1	15	-	-	30	15	-	-	-	12	-	5	78
03: 2am (2am-3am)	3	17	-	-	27	25	-	-	-	20	-	9	101
04: 3am (3am-4am)	7	13	-	-	169	26	-	-	-	19	-	10	244
05: 4am (4am-5am)	44	35	-	-	242	81	-	-	-	17	-	32	451
06: 5am (5am-6am)	24	66	-	-	299	72	-	-	-	21	-	36	518
07: 6am (6am-7am)	34	154	-	-	444	78	-	-	-	56	-	18	784
08: 7am (7am-8am)	15	467	-	-	1,074	125	-	-	-	96	-	54	1,831
09: 8am (8am-9am)	61	306	-	-	461	107	-	-	-	55	-	33	1,023
10: 9am (9am-10am)	39	240	-	-	356	76	-	-	-	50	-	49	810
11: 10am (10am-11am)	52	290	-	-	326	72	-	-	-	75	-	35	850
12: 11am (11am-12noon)	43	315	-	-	316	86	-	-	-	81	-	55	896
13: 12pm (12noon-1pm)	47	357	-	-	300	78	-	-	-	80	-	61	923
14: 1pm (1pm-2pm)	69	389	-	-	309	107	-	-	-	89	-	73	1,036
15: 2pm (2pm-3pm)	93	537	-	-	323	91	-	-	-	126	-	74	1,244
16: 3pm (3pm-4pm)	165	1,022	-	-	454	151	-	-	-	203	-	95	2,090
17: 4pm (4pm-5pm)	133	821	-	-	446	92	-	-	-	169	-	129	1,790
18: 5pm (5pm-6pm)	114	756	-	-	563	100	-	-	-	122	-	91	1,746
19: 6pm (6pm-7pm)	139	585	-	-	351	76	-	-	-	102	-	113	1,366
20: 7pm (7pm-8pm)	75	421	-	-	248	72	-	-	-	73	-	106	995
21: 8pm (8pm-9pm)	32	335	-	-	195	55	-	-	-	84	-	132	833
22: 9pm (9pm-10pm)	23	167	-	-	154	37	-	-	-	38	-	44	463
23: 10pm (10pm-11pm)	16	80	-	-	77	19	-	-	-	34	-	9	235
24: 11pm (11pm-12am)	7	50	-	-	50	12	-	-	-	30	-	25	174

TURNING MOVEMENT PERCENTAGE

Day Part	W. 11th Street_A			E 11th Street_A						N. MacArthur_A		
	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right
00: All Day (12am-12am)	14%	86%	0%	0%	81%	19%	-	-	-	57%	0%	43%
01: 12am (12am-1am)	17%	83%	0%	0%	67%	33%	-	-	-	70%	0%	30%
02: 1am (1am-2am)	6%	94%	0%	0%	67%	33%	-	-	-	71%	0%	29%
03: 2am (2am-3am)	15%	85%	0%	0%	52%	48%	-	-	-	69%	0%	31%
04: 3am (3am-4am)	35%	65%	0%	0%	87%	13%	-	-	-	66%	0%	34%
05: 4am (4am-5am)	56%	44%	0%	0%	75%	25%	-	-	-	35%	0%	65%
06: 5am (5am-6am)	27%	73%	0%	0%	81%	19%	-	-	-	37%	0%	63%
07: 6am (6am-7am)	18%	82%	0%	0%	85%	15%	-	-	-	76%	0%	24%
08: 7am (7am-8am)	3%	97%	0%	0%	90%	10%	-	-	-	64%	0%	36%
09: 8am (8am-9am)	17%	83%	0%	0%	81%	19%	-	-	-	63%	0%	38%
10: 9am (9am-10am)	14%	86%	0%	0%	82%	18%	-	-	-	51%	0%	49%
11: 10am (10am-11am)	15%	85%	0%	0%	82%	18%	-	-	-	68%	0%	32%
12: 11am (11am-12noon)	12%	88%	0%	0%	79%	21%	-	-	-	60%	0%	40%
13: 12pm (12noon-1pm)	12%	88%	0%	0%	79%	21%	-	-	-	57%	0%	43%
14: 1pm (1pm-2pm)	15%	85%	0%	0%	74%	26%	-	-	-	55%	0%	45%
15: 2pm (2pm-3pm)	15%	85%	0%	0%	78%	22%	-	-	-	63%	0%	37%
16: 3pm (3pm-4pm)	14%	86%	0%	0%	75%	25%	-	-	-	68%	0%	32%
17: 4pm (4pm-5pm)	14%	86%	0%	0%	83%	17%	-	-	-	57%	0%	43%
18: 5pm (5pm-6pm)	13%	87%	0%	0%	85%	15%	-	-	-	57%	0%	43%
19: 6pm (6pm-7pm)	19%	81%	0%	0%	82%	18%	-	-	-	47%	0%	53%
20: 7pm (7pm-8pm)	15%	85%	0%	0%	78%	23%	-	-	-	41%	0%	59%
21: 8pm (8pm-9pm)	9%	91%	0%	0%	78%	22%	-	-	-	39%	0%	61%
22: 9pm (9pm-10pm)	12%	88%	0%	0%	81%	19%	-	-	-	46%	0%	54%
23: 10pm (10pm-11pm)	17%	83%	0%	0%	80%	20%	-	-	-	79%	0%	21%
24: 11pm (11pm-12am)	12%	88%	0%	0%	81%	19%	-	-	-	55%	0%	45%

Day Type

1: Weekday (Tu-Th)

TURNING MOVEMENT COUNTS

Day Part	W. 11th Street_A			E 11th Street_A						N. MacArthur_A			Total
	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	
00: All Day (12am-12am)	1,217	7,478	-	-	7,224	1,692	-	-	-	1,682	-	1,294	20,587
01: 12am (12am-1am)	4	20	-	-	28	14	-	-	-	26	-	11	103
02: 1am (1am-2am)	1	15	-	-	30	15	-	-	-	12	-	5	78
03: 2am (2am-3am)	3	17	-	-	27	25	-	-	-	20	-	9	101
04: 3am (3am-4am)	7	13	-	-	169	26	-	-	-	19	-	10	244
05: 4am (4am-5am)	44	35	-	-	242	81	-	-	-	17	-	32	451
06: 5am (5am-6am)	24	66	-	-	299	72	-	-	-	21	-	36	518
07: 6am (6am-7am)	34	154	-	-	444	78	-	-	-	56	-	18	784
08: 7am (7am-8am)	15	467	-	-	1,074	125	-	-	-	96	-	54	1,831
09: 8am (8am-9am)	61	306	-	-	461	107	-	-	-	55	-	33	1,023
10: 9am (9am-10am)	39	240	-	-	356	76	-	-	-	50	-	49	810
11: 10am (10am-11am)	52	290	-	-	326	72	-	-	-	75	-	35	850
12: 11am (11am-12noon)	43	315	-	-	316	86	-	-	-	81	-	55	896
13: 12pm (12noon-1pm)	47	357	-	-	300	78	-	-	-	80	-	61	923
14: 1pm (1pm-2pm)	69	389	-	-	309	107	-	-	-	89	-	73	1,036
15: 2pm (2pm-3pm)	93	537	-	-	323	91	-	-	-	126	-	74	1,244
16: 3pm (3pm-4pm)	165	1,022	-	-	454	151	-	-	-	203	-	95	2,090
17: 4pm (4pm-5pm)	133	821	-	-	446	92	-	-	-	169	-	129	1,790
18: 5pm (5pm-6pm)	114	756	-	-	563	100	-	-	-	122	-	91	1,746
19: 6pm (6pm-7pm)	139	585	-	-	351	76	-	-	-	102	-	113	1,366
20: 7pm (7pm-8pm)	75	421	-	-	248	72	-	-	-	73	-	106	995
21: 8pm (8pm-9pm)	32	335	-	-	195	55	-	-	-	84	-	132	833
22: 9pm (9pm-10pm)	23	167	-	-	154	37	-	-	-	38	-	44	463
23: 10pm (10pm-11pm)	16	80	-	-	77	19	-	-	-	34	-	9	235
24: 11pm (11pm-12am)	7	50	-	-	50	12	-	-	-	30	-	25	174

TURNING MOVEMENT PERCENTAGE

Day Part	W. 11th Street_A			E 11th Street_A						N. MacArthur_A		
	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right
00: All Day (12am-12am)	14%	86%	0%	0%	81%	19%	-	-	-	57%	0%	43%
01: 12am (12am-1am)	17%	83%	0%	0%	67%	33%	-	-	-	70%	0%	30%
02: 1am (1am-2am)	6%	94%	0%	0%	67%	33%	-	-	-	71%	0%	29%
03: 2am (2am-3am)	15%	85%	0%	0%	52%	48%	-	-	-	69%	0%	31%
04: 3am (3am-4am)	35%	65%	0%	0%	87%	13%	-	-	-	66%	0%	34%
05: 4am (4am-5am)	56%	44%	0%	0%	75%	25%	-	-	-	35%	0%	65%
06: 5am (5am-6am)	27%	73%	0%	0%	81%	19%	-	-	-	37%	0%	63%
07: 6am (6am-7am)	18%	82%	0%	0%	85%	15%	-	-	-	76%	0%	24%
08: 7am (7am-8am)	3%	97%	0%	0%	90%	10%	-	-	-	64%	0%	36%
09: 8am (8am-9am)	17%	83%	0%	0%	81%	19%	-	-	-	63%	0%	38%
10: 9am (9am-10am)	14%	86%	0%	0%	82%	18%	-	-	-	51%	0%	49%
11: 10am (10am-11am)	15%	85%	0%	0%	82%	18%	-	-	-	68%	0%	32%
12: 11am (11am-12noon)	12%	88%	0%	0%	79%	21%	-	-	-	60%	0%	40%
13: 12pm (12noon-1pm)	12%	88%	0%	0%	79%	21%	-	-	-	57%	0%	43%
14: 1pm (1pm-2pm)	15%	85%	0%	0%	74%	26%	-	-	-	55%	0%	45%
15: 2pm (2pm-3pm)	15%	85%	0%	0%	78%	22%	-	-	-	63%	0%	37%
16: 3pm (3pm-4pm)	14%	86%	0%	0%	75%	25%	-	-	-	68%	0%	32%
17: 4pm (4pm-5pm)	14%	86%	0%	0%	83%	17%	-	-	-	57%	0%	43%
18: 5pm (5pm-6pm)	13%	87%	0%	0%	85%	15%	-	-	-	57%	0%	43%
19: 6pm (6pm-7pm)	19%	81%	0%	0%	82%	18%	-	-	-	47%	0%	53%
20: 7pm (7pm-8pm)	15%	85%	0%	0%	78%	23%	-	-	-	41%	0%	59%
21: 8pm (8pm-9pm)	9%	91%	0%	0%	78%	22%	-	-	-	39%	0%	61%
22: 9pm (9pm-10pm)	12%	88%	0%	0%	81%	19%	-	-	-	46%	0%	54%
23: 10pm (10pm-11pm)	17%	83%	0%	0%	80%	20%	-	-	-	79%	0%	21%
24: 11pm (11pm-12am)	12%	88%	0%	0%	81%	19%	-	-	-	55%	0%	45%

Day Type

1: Weekday (Tu-Th)

TURNING MOVEMENT COUNTS

	W 11th St_A			E. 11th St_A			S. Chrisman_A			N. Chrisman_A			
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
00: All Day (12am-12am)	895	6,536	1,582	4,602	6,782	460	1,500	451	5,077	270	411	410	28,976
01: 12am (12am-1am)	1	32	6	22	39	1	4	1	15	-	2	1	124
02: 1am (1am-2am)	-	26	4	46	39	2	4	-	12	-	12	2	147
03: 2am (2am-3am)	1	37	2	11	39	-	11	-	4	1	8	2	116
04: 3am (3am-4am)	2	24	9	17	202	10	4	-	12	1	-	2	283
05: 4am (4am-5am)	5	40	11	51	331	8	8	4	26	-	-	-	484
06: 5am (5am-6am)	9	74	18	227	360	20	33	17	136	2	7	2	905
07: 6am (6am-7am)	14	138	55	476	501	47	79	7	259	9	60	1	1,646
08: 7am (7am-8am)	108	369	59	287	682	31	448	29	487	20	21	21	2,562
09: 8am (8am-9am)	65	269	40	220	438	35	81	19	341	15	18	34	1,575
10: 9am (9am-10am)	42	196	31	169	344	34	47	34	242	15	15	29	1,198
11: 10am (10am-11am)	38	264	62	149	322	22	51	31	265	24	18	13	1,259
12: 11am (11am-12noon)	49	246	63	162	297	19	61	25	225	14	18	13	1,192
13: 12pm (12noon-1pm)	50	301	64	176	276	32	52	22	204	18	19	15	1,229
14: 1pm (1pm-2pm)	39	364	68	209	318	31	62	28	253	12	15	22	1,421
15: 2pm (2pm-3pm)	74	509	64	212	297	27	58	20	406	19	15	32	1,733
16: 3pm (3pm-4pm)	106	705	427	256	399	25	134	44	604	27	39	37	2,803
17: 4pm (4pm-5pm)	62	767	148	392	421	37	62	43	414	34	27	54	2,461
18: 5pm (5pm-6pm)	81	686	112	419	475	40	120	39	393	20	29	37	2,451
19: 6pm (6pm-7pm)	49	528	100	274	305	13	60	27	316	16	19	36	1,743
20: 7pm (7pm-8pm)	36	343	87	202	227	21	36	42	178	8	8	26	1,214
21: 8pm (8pm-9pm)	26	308	86	282	207	8	29	10	120	9	14	13	1,112
22: 9pm (9pm-10pm)	17	144	40	187	146	12	13	4	92	6	35	9	705
23: 10pm (10pm-11pm)	8	96	15	108	72	-	12	6	82	1	3	9	412
24: 11pm (11pm-12am)	-	58	11	55	47	-	8	-	15	2	2	3	201

TURNING MOVEMENT PERCENTAGE

	W 11th St_A			E. 11th St_A			S. Chrisman_A			N. Chrisman_A		
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right
00: All Day (12am-12am)	10%	73%	18%	39%	57%	4%	21%	6%	72%	25%	38%	38%
01: 12am (12am-1am)	3%	82%	15%	35%	63%	2%	20%	5%	75%	0%	67%	33%
02: 1am (1am-2am)	0%	87%	13%	53%	45%	2%	25%	0%	75%	0%	86%	14%
03: 2am (2am-3am)	3%	93%	5%	22%	78%	0%	73%	0%	27%	9%	73%	18%
04: 3am (3am-4am)	6%	69%	26%	7%	88%	4%	25%	0%	75%	33%	0%	67%
05: 4am (4am-5am)	9%	71%	20%	13%	85%	2%	21%	11%	68%	-	-	-
06: 5am (5am-6am)	9%	73%	18%	37%	59%	3%	18%	9%	73%	18%	64%	18%
07: 6am (6am-7am)	7%	67%	27%	46%	49%	5%	23%	2%	75%	13%	86%	1%
08: 7am (7am-8am)	20%	69%	11%	29%	68%	3%	46%	3%	51%	32%	34%	34%
09: 8am (8am-9am)	17%	72%	11%	32%	63%	5%	18%	4%	77%	22%	27%	51%
10: 9am (9am-10am)	16%	73%	12%	31%	63%	6%	15%	11%	75%	25%	25%	49%
11: 10am (10am-11am)	10%	73%	17%	30%	65%	4%	15%	9%	76%	44%	33%	24%
12: 11am (11am-12noon)	14%	69%	18%	34%	62%	4%	20%	8%	72%	31%	40%	29%
13: 12pm (12noon-1pm)	12%	73%	15%	36%	57%	7%	19%	8%	73%	35%	37%	29%
14: 1pm (1pm-2pm)	8%	77%	14%	37%	57%	6%	18%	8%	74%	24%	31%	45%
15: 2pm (2pm-3pm)	11%	79%	10%	40%	55%	5%	12%	4%	84%	29%	23%	48%
16: 3pm (3pm-4pm)	9%	57%	34%	38%	59%	4%	17%	6%	77%	26%	38%	36%
17: 4pm (4pm-5pm)	6%	79%	15%	46%	50%	4%	12%	8%	80%	30%	23%	47%
18: 5pm (5pm-6pm)	9%	78%	13%	45%	51%	4%	22%	7%	71%	23%	34%	43%
19: 6pm (6pm-7pm)	7%	78%	15%	46%	52%	2%	15%	7%	78%	23%	27%	51%
20: 7pm (7pm-8pm)	8%	74%	19%	45%	50%	5%	14%	16%	70%	19%	19%	62%
21: 8pm (8pm-9pm)	6%	73%	20%	57%	42%	2%	18%	6%	75%	25%	39%	36%
22: 9pm (9pm-10pm)	8%	72%	20%	54%	42%	3%	12%	4%	84%	12%	70%	18%
23: 10pm (10pm-11pm)	7%	81%	13%	60%	40%	0%	12%	6%	82%	8%	23%	69%
24: 11pm (11pm-12am)	0%	84%	16%	54%	46%	0%	35%	0%	65%	29%	29%	43%

C. BACKGROUND CONDITIONS SYNCHRO OUTPUT SHEETS

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	318	21	5	1080	7	1
Future Volume (veh/h)	318	21	5	1080	7	1
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
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1752	1856	1856	1900	1900
Adj Flow Rate, veh/h	346	23	5	1174	8	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	10	3	3	0	0
Cap, veh/h	1242	994	729	1242	195	24
Arrive On Green	0.67	0.67	0.67	0.67	0.15	0.15
Sat Flow, veh/h	1856	1485	1005	1856	1325	166
Grp Volume(v), veh/h	346	23	5	1174	10	0
Grp Sat Flow(s),veh/h/ln	1856	1485	1005	1856	1656	0
Q Serve(g_s), s	4.1	0.3	0.1	31.0	0.3	0.0
Cycle Q Clear(g_c), s	4.1	0.3	4.2	31.0	0.3	0.0
Prop In Lane		1.00	1.00		0.80	0.10
Lane Grp Cap(c), veh/h	1242	994	729	1242	243	0
V/C Ratio(X)	0.28	0.02	0.01	0.94	0.04	0.00
Avail Cap(c_a), veh/h	1362	1090	794	1362	608	0
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	0.00
Uniform Delay (d), s/veh	3.7	3.0	4.5	8.1	19.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	12.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	8.9	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.7	3.0	4.5	20.5	20.0	0.0
LnGrp LOS	A	A	A	C	B	A
Approach Vol, veh/h	369			1179	10	
Approach Delay, s/veh	3.7			20.4	20.0	
Approach LOS	A			C	B	

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	41.5				41.5	13.0
Change Period (Y+Rc), s	5.0				5.0	5.0
Max Green Setting (Gmax), s	40.0				40.0	20.0
Max Q Clear Time (g_c+I1), s	6.1				33.0	2.3
Green Ext Time (p_c), s	1.2				3.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	320	24	0	1087	0	19
Future Vol, veh/h	320	24	0	1087	0	19
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, %	3	10	10	3	0	3
Mvmt Flow	348	26	0	1182	0	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	174
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.33
Pot Cap-1 Maneuver	-	-	0	-	0	836
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	836
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	836	-	-	-
HCM Lane V/C Ratio	0.025	-	-	-
HCM Control Delay (s)	9.4	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	243	42	239	665	183	20	17	11	90	8	5
Future Volume (veh/h)	18	243	42	239	665	183	20	17	11	90	8	5
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1856	1856	1856	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	20	264	46	260	723	199	22	18	12	98	9	5
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, %	10	10	10	3	3	3	10	10	10	10	10	10
Cap, veh/h	61	560	250	306	831	229	117	96	64	245	23	13
Arrive On Green	0.04	0.17	0.17	0.17	0.30	0.30	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1668	3328	1485	1767	2731	752	697	571	380	1457	134	74
Grp Volume(v), veh/h	20	264	46	260	467	455	52	0	0	112	0	0
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1767	1763	1720	1648	0	0	1666	0	0
Q Serve(g_s), s	0.8	5.1	1.9	10.2	17.9	17.9	1.9	0.0	0.0	4.3	0.0	0.0
Cycle Q Clear(g_c), s	0.8	5.1	1.9	10.2	17.9	17.9	1.9	0.0	0.0	4.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.44	0.42		0.23	0.87		0.04
Lane Grp Cap(c), veh/h	61	560	250	306	537	524	277	0	0	280	0	0
V/C Ratio(X)	0.33	0.47	0.18	0.85	0.87	0.87	0.19	0.00	0.00	0.40	0.00	0.00
Avail Cap(c_a), veh/h	936	1866	832	495	544	531	855	0	0	934	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	33.5	26.8	25.5	28.6	23.5	23.5	25.5	0.0	0.0	26.5	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.2	0.1	4.0	13.4	13.7	0.1	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	1.9	0.6	4.2	8.5	8.3	0.7	0.0	0.0	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	27.0	25.6	32.6	36.9	37.2	25.6	0.0	0.0	26.8	0.0	0.0
LnGrp LOS	C	C	C	C	D	D	C	A	A	C	A	A
Approach Vol, veh/h		330			1182			52			112	
Approach Delay, s/veh		27.3			36.1			25.6			26.8	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.3	18.0		18.0	8.6	27.7		17.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	40.0		37.0	40.0	22.0		40.0				
Max Q Clear Time (g_c+I1), s	12.2	7.1		3.9	2.8	19.9		6.3				
Green Ext Time (p_c), s	0.2	1.1		0.1	0.0	0.9		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			33.4									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	16	60	148	77	10
Future Vol, veh/h	5	16	60	148	77	10
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	-	280	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	6	18	67	164	86	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	390	92	97	0	-	0
Stage 1	92	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.5	6.3	4.2	-	-	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.39	2.29	-	-	-
Pot Cap-1 Maneuver	599	944	1448	-	-	-
Stage 1	912	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	571	944	1448	-	-	-
Mov Cap-2 Maneuver	571	-	-	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	735	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	2.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1448	-	817	-	-
HCM Lane V/C Ratio	0.046	-	0.029	-	-
HCM Control Delay (s)	7.6	-	9.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	16	60	93	71	10
Future Vol, veh/h	5	16	60	93	71	10
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	-	280	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	6	18	67	103	79	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	322	85	90	0	-	0
Stage 1	85	-	-	-	-	-
Stage 2	237	-	-	-	-	-
Critical Hdwy	6.5	6.3	4.2	-	-	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.39	2.29	-	-	-
Pot Cap-1 Maneuver	656	952	1456	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	784	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	626	952	1456	-	-	-
Mov Cap-2 Maneuver	626	-	-	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	784	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1456	-	847	-	-
HCM Lane V/C Ratio	0.046	-	0.028	-	-
HCM Control Delay (s)	7.6	-	9.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	19	25	73	62	22
Future Vol, veh/h	5	19	25	73	62	22
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	6	21	28	81	69	24
Number of Lanes	1	1	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	7.4	8	7.9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	74%
Vol Right, %	0%	0%	0%	100%	26%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	73	5	19	84
LT Vol	25	0	5	0	0
Through Vol	0	73	0	0	62
RT Vol	0	0	0	19	22
Lane Flow Rate	28	81	6	21	93
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.04	0.105	0.009	0.025	0.112
Departure Headway (Hd)	5.145	4.644	5.535	4.331	4.32
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	695	771	650	832	824
Service Time	2.881	2.38	3.235	2.031	2.378
HCM Lane V/C Ratio	0.04	0.105	0.009	0.025	0.113
HCM Control Delay	8.1	7.9	8.3	7.1	7.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0	0.1	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	3	0	1	16	30	2	6	0	21	22	43
Future Volume (veh/h)	53	3	0	1	16	30	2	6	0	21	22	43
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	53	3	0	1	16	30	2	6	0	21	22	43
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	84	599	267	5	435	194	5	106	0	115	67	132
Arrive On Green	0.05	0.18	0.00	0.00	0.13	0.13	0.00	0.06	0.00	0.07	0.13	0.13
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	1752	0	1668	530	1036
Grp Volume(v), veh/h	53	3	0	1	16	30	2	6	0	21	0	65
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1752	0	1668	0	1565
Q Serve(g_s), s	1.0	0.0	0.0	0.0	0.1	0.5	0.0	0.1	0.0	0.4	0.0	1.2
Cycle Q Clear(g_c), s	1.0	0.0	0.0	0.0	0.1	0.5	0.0	0.1	0.0	0.4	0.0	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.66
Lane Grp Cap(c), veh/h	84	599	267	5	435	194	5	106	0	115	0	199
V/C Ratio(X)	0.63	0.01	0.00	0.18	0.04	0.15	0.37	0.06	0.00	0.18	0.00	0.33
Avail Cap(c_a), veh/h	1685	6757	3014	267	3928	1752	267	1890	0	1031	0	2405
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.3	10.3	0.0	15.2	11.6	11.8	15.2	13.5	0.0	13.4	0.0	12.2
Incr Delay (d2), s/veh	7.6	0.0	0.0	15.4	0.0	0.4	36.6	0.2	0.0	0.8	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	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	10.3	0.0	30.6	11.6	12.2	51.8	13.8	0.0	14.2	0.0	13.1
LnGrp LOS	C	B	A	C	B	B	D	B	A	B	A	B
Approach Vol, veh/h		56			47			8			86	
Approach Delay, s/veh		21.3			12.4			23.3			13.4	
Approach LOS		C			B			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	11.3	5.2	9.0	6.6	9.8	7.2	6.9
Change Period (Y+Rc), s	5.1	5.8	5.1	5.1	5.1	5.8	5.1	5.1
Max Green Setting (Gmax), s	4.9	62.1	4.9	47.0	30.9	36.1	18.9	33.0
Max Q Clear Time (g_c+I1), s	2.0	2.0	2.0	3.2	3.0	2.5	2.4	2.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.1	0.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	246	77	156	473	53	18	0	6	28	8	19
Future Volume (veh/h)	17	246	77	156	473	53	18	0	6	28	8	19
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	21	308	96	195	591	66	22	0	8	35	10	24
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	66	767	227	278	1609	500	69	445	199	124	556	248
Arrive On Green	0.04	0.21	0.21	0.17	0.34	0.34	0.04	0.00	0.13	0.07	0.17	0.17
Sat Flow, veh/h	1668	3662	1083	1668	4782	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	21	266	138	195	591	66	22	0	8	35	10	24
Grp Sat Flow(s),veh/h/ln	1668	1594	1557	1668	1594	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	0.7	4.1	4.4	6.3	5.4	1.8	0.7	0.0	0.3	1.1	0.1	0.8
Cycle Q Clear(g_c), s	0.7	4.1	4.4	6.3	5.4	1.8	0.7	0.0	0.3	1.1	0.1	0.8
Prop In Lane	1.00		0.70	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	66	668	326	278	1609	500	69	445	199	124	556	248
V/C Ratio(X)	0.32	0.40	0.42	0.70	0.37	0.13	0.32	0.00	0.04	0.28	0.02	0.10
Avail Cap(c_a), veh/h	233	1614	788	320	2671	829	233	2103	938	291	2219	990
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	26.8	19.5	19.6	22.5	14.4	13.2	26.7	0.0	21.6	25.1	19.9	20.2
Incr Delay (d2), s/veh	1.0	0.1	0.3	5.6	0.1	0.0	1.0	0.0	0.0	1.2	0.0	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	0.3	1.3	1.4	2.6	1.6	0.5	0.3	0.0	0.1	0.4	0.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.8	19.7	20.0	28.2	14.4	13.2	27.7	0.0	21.6	26.3	19.9	20.4
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	B	C
Approach Vol, veh/h		425			852			30			69	
Approach Delay, s/veh		20.2			17.5			26.1			23.3	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.6	18.0	8.4	15.4	8.3	25.3	10.3	13.5
Change Period (Y+Rc), s	6.0	6.0	6.0	5.8	6.0	6.0	6.0	5.8
Max Green Setting (Gmax), s	11.6	29.0	8.0	38.2	8.0	32.0	10.0	36.2
Max Q Clear Time (g_c+I1), s	9.3	6.4	2.7	2.8	2.7	7.4	3.1	2.3
Green Ext Time (p_c), s	0.2	0.9	0.0	0.1	0.0	1.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	678	50	35	208	22	0	0	87	21
Future Volume (veh/h)	0	0	0	678	50	35	208	22	0	0	87	21
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1856	1900	1752	1752	0	0	1752	1752
Adj Flow Rate, veh/h				737	54	38	226	24	0	0	95	23
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	3	0	10	10	0	0	10	10
Cap, veh/h				784	57	40	282	615	0	0	138	34
Arrive On Green				0.50	0.50	0.50	0.17	0.35	0.00	0.00	0.10	0.10
Sat Flow, veh/h				1567	115	81	1668	1752	0	0	1363	330
Grp Volume(v), veh/h				829	0	0	226	24	0	0	0	118
Grp Sat Flow(s),veh/h/ln				1763	0	0	1668	1752	0	0	0	1692
Q Serve(g_s), s				27.1	0.0	0.0	7.9	0.6	0.0	0.0	0.0	4.1
Cycle Q Clear(g_c), s				27.1	0.0	0.0	7.9	0.6	0.0	0.0	0.0	4.1
Prop In Lane				0.89		0.05	1.00		0.00	0.00		0.19
Lane Grp Cap(c), veh/h				881	0	0	282	615	0	0	0	172
V/C Ratio(X)				0.94	0.00	0.00	0.80	0.04	0.00	0.00	0.00	0.69
Avail Cap(c_a), veh/h				1011	0	0	820	718	0	0	0	693
HCM Platoon Ratio				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	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				14.4	0.0	0.0	24.4	13.0	0.0	0.0	0.0	26.5
Incr Delay (d2), s/veh				14.2	0.0	0.0	4.0	0.0	0.0	0.0	0.0	1.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.9	0.0	0.0	3.1	0.2	0.0	0.0	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				28.6	0.0	0.0	28.3	13.0	0.0	0.0	0.0	28.3
LnGrp LOS				C	A	A	C	B	A	A	A	C
Approach Vol, veh/h					829			250			118	
Approach Delay, s/veh					28.6			26.9			28.3	
Approach LOS					C			C			C	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	26.3		15.2	11.1		34.7
Change Period (Y+Rc), s	4.9		4.9	4.9		4.2
Max Green Setting (Gmax), s	25.0		30.0	25.0		35.0
Max Q Clear Time (g_c+I1), s	2.6		9.9	6.1		29.1
Green Ext Time (p_c), s	0.0		0.6	0.1		1.4

Intersection Summary		
HCM 6th Ctrl Delay		28.2
HCM 6th LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	52	433	0	0	0	0	213	447	36	729	0
Future Volume (veh/h)	17	52	433	0	0	0	0	213	447	36	729	0
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1752	1856	1752				0	1752	1752	1752	1752	0
Adj Flow Rate, veh/h	18	57	471				0	232	486	39	792	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	10	3	10				0	10	10	10	10	0
Cap, veh/h	151	478	509				0	740	627	64	912	0
Arrive On Green	0.34	0.34	0.34				0.00	0.42	0.42	0.04	0.52	0.00
Sat Flow, veh/h	440	1393	1485				0	1752	1485	1668	1752	0
Grp Volume(v), veh/h	75	0	471				0	232	486	39	792	0
Grp Sat Flow(s),veh/h/ln	1834	0	1485				0	1752	1485	1668	1752	0
Q Serve(g_s), s	1.9	0.0	20.4				0.0	5.9	18.7	1.5	26.4	0.0
Cycle Q Clear(g_c), s	1.9	0.0	20.4				0.0	5.9	18.7	1.5	26.4	0.0
Prop In Lane	0.24		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	628	0	509				0	740	627	64	912	0
V/C Ratio(X)	0.12	0.00	0.93				0.00	0.31	0.78	0.61	0.87	0.00
Avail Cap(c_a), veh/h	687	0	557				0	1445	1225	375	1445	0
HCM Platoon Ratio	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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.0	0.0	21.1				0.0	12.8	16.5	31.6	14.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	19.8				0.0	0.3	3.0	8.9	4.5	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
%ile BackOfQ(50%),veh/ln	0.7	0.0	9.1				0.0	2.0	5.8	0.7	9.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	0.0	40.9				0.0	13.2	19.5	40.4	18.5	0.0
LnGrp LOS	B	A	D				A	B	B	D	B	A
Approach Vol, veh/h		546						718			831	
Approach Delay, s/veh		37.4						17.5			19.5	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	6.6	33.1	27.1	39.6
Change Period (Y+Rc), s	4.0	4.9	* 4.2	4.9
Max Green Setting (Gmax), s	15.0	55.0	* 25	55.0
Max Q Clear Time (g_c+I1), s	3.5	20.7	22.4	28.4
Green Ext Time (p_c), s	0.0	5.5	0.5	6.4

Intersection Summary	
HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	29	70	1	135	12	459	122	230	927	5
Future Volume (veh/h)	7	0	29	70	1	135	12	459	122	230	927	5
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	8	0	32	76	1	147	13	499	133	250	1008	5
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, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	29	0	302	160	504	403	46	900	401	427	1252	592
Arrive On Green	0.02	0.00	0.19	0.10	0.27	0.27	0.03	0.27	0.27	0.13	0.38	0.38
Sat Flow, veh/h	1767	0	1572	1668	1856	1485	1767	3328	1485	3237	3328	1572
Grp Volume(v), veh/h	8	0	32	76	1	147	13	499	133	250	1008	5
Grp Sat Flow(s),veh/h/ln	1767	0	1572	1668	1856	1485	1767	1664	1485	1618	1664	1572
Q Serve(g_s), s	0.3	0.0	1.0	2.6	0.0	4.8	0.4	7.7	4.3	4.3	16.2	0.1
Cycle Q Clear(g_c), s	0.3	0.0	1.0	2.6	0.0	4.8	0.4	7.7	4.3	4.3	16.2	0.1
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	29	0	302	160	504	403	46	900	401	427	1252	592
V/C Ratio(X)	0.27	0.00	0.11	0.47	0.00	0.36	0.28	0.55	0.33	0.59	0.80	0.01
Avail Cap(c_a), veh/h	237	0	895	419	1056	845	444	1393	621	813	1393	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	0.0	19.9	25.6	15.9	17.6	28.5	18.7	17.5	24.4	16.7	11.7
Incr Delay (d2), s/veh	1.8	0.0	0.2	0.8	0.0	0.2	1.2	0.8	0.7	0.5	3.5	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	0.4	1.0	0.0	1.5	0.2	2.7	1.4	1.5	5.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.8	0.0	20.1	26.4	15.9	17.8	29.8	19.5	18.1	24.9	20.2	11.7
LnGrp LOS	C	A	C	C	B	B	C	B	B	C	C	B
Approach Vol, veh/h		40			224			645			1263	
Approach Delay, s/veh		22.2			20.7			19.4			21.1	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	21.2	10.2	16.0	6.1	27.5	5.5	20.7
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5
Max Green Setting (Gmax), s	15.0	25.0	15.0	34.0	15.0	25.0	8.0	34.0
Max Q Clear Time (g_c+I1), s	6.3	9.7	4.6	3.0	2.4	18.2	2.3	6.8
Green Ext Time (p_c), s	0.3	4.4	0.0	0.1	0.0	4.3	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	538	48	39	282	146	27	163	97	425	319	440
Future Volume (veh/h)	294	538	48	39	282	146	27	163	97	425	319	440
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	320	585	52	42	307	159	29	177	105	462	347	478
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, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	336	1100	491	76	591	249	63	640	285	317	1154	545
Arrive On Green	0.19	0.31	0.31	0.05	0.17	0.17	0.04	0.19	0.19	0.19	0.35	0.35
Sat Flow, veh/h	1767	3526	1572	1668	3526	1485	1767	3328	1485	1668	3328	1572
Grp Volume(v), veh/h	320	585	52	42	307	159	29	177	105	462	347	478
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1668	1763	1485	1767	1664	1485	1668	1664	1572
Q Serve(g_s), s	14.1	10.8	1.9	1.9	6.3	7.9	1.3	3.6	4.9	15.0	6.0	22.5
Cycle Q Clear(g_c), s	14.1	10.8	1.9	1.9	6.3	7.9	1.3	3.6	4.9	15.0	6.0	22.5
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	336	1100	491	76	591	249	63	640	285	317	1154	545
V/C Ratio(X)	0.95	0.53	0.11	0.55	0.52	0.64	0.46	0.28	0.37	1.46	0.30	0.88
Avail Cap(c_a), veh/h	336	1341	598	317	1341	565	336	1266	565	317	1266	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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	22.4	19.3	36.8	29.9	30.6	37.3	27.2	27.7	31.9	18.8	24.2
Incr Delay (d2), s/veh	36.3	0.7	0.2	2.3	1.2	4.6	1.9	0.4	1.4	222.1	0.2	14.0
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	9.0	4.2	0.6	0.8	2.6	2.9	0.6	1.4	1.7	25.2	2.2	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.9	23.1	19.5	39.1	31.1	35.2	39.2	27.6	29.1	254.1	19.0	38.2
LnGrp LOS	E	C	B	D	C	D	D	C	C	F	B	D
Approach Vol, veh/h		957			508			311			1287	
Approach Delay, s/veh		37.9			33.1			29.2			110.5	
Approach LOS		D			C			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	20.7	8.6	29.6	7.8	32.8	20.0	18.2
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0
Max Green Setting (Gmax), s	15.0	30.0	15.0	30.0	15.0	30.0	15.0	30.0
Max Q Clear Time (g_c+I1), s	17.0	6.9	3.9	12.8	3.3	24.5	16.1	9.9
Green Ext Time (p_c), s	0.0	2.0	0.0	4.6	0.0	2.8	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	66.7
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	467	0	0	1074	146	0	0	0	105	0	74
Future Volume (veh/h)	112	467	0	0	1074	146	0	0	0	105	0	74
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	0	1856	1752	1752	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	122	508	0	0	1167	159	0	0	0	114	0	80
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, %	3	3	3	0	3	10	10	10	10	10	10	3
Cap, veh/h	219	2326	0	0	1597	672	0	305	0	364	0	274
Arrive On Green	0.12	0.66	0.00	0.00	0.45	0.45	0.00	0.00	0.00	0.17	0.00	0.17
Sat Flow, veh/h	1767	3618	0	0	3618	1485	0	1752	0	1328	0	1572
Grp Volume(v), veh/h	122	508	0	0	1167	159	0	0	0	114	0	80
Grp Sat Flow(s),veh/h/ln	1767	1763	0	0	1763	1485	0	1752	0	1328	0	1572
Q Serve(g_s), s	3.5	3.1	0.0	0.0	14.7	3.6	0.0	0.0	0.0	4.2	0.0	2.4
Cycle Q Clear(g_c), s	3.5	3.1	0.0	0.0	14.7	3.6	0.0	0.0	0.0	4.2	0.0	2.4
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	219	2326	0	0	1597	672	0	305	0	364	0	274
V/C Ratio(X)	0.56	0.22	0.00	0.00	0.73	0.24	0.00	0.00	0.00	0.31	0.00	0.29
Avail Cap(c_a), veh/h	977	3248	0	0	3248	1368	0	807	0	989	0	1014
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.4	3.7	0.0	0.0	12.1	9.1	0.0	0.0	0.0	20.2	0.0	19.5
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.7	0.2	0.0	0.0	0.0	0.2	0.0	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	1.4	0.6	0.0	0.0	4.6	0.9	0.0	0.0	0.0	1.2	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	3.7	0.0	0.0	12.8	9.3	0.0	0.0	0.0	20.4	0.0	19.7
LnGrp LOS	C	A	A	A	B	A	A	A	A	C	A	B
Approach Vol, veh/h		630			1326			0			194	
Approach Delay, s/veh		7.5			12.4			0.0			20.1	
Approach LOS		A			B						C	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		40.3		14.0	11.2	29.1		14.0				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		50.0		35.0	30.0	50.0		25.0				
Max Q Clear Time (g_c+I1), s		5.1		6.2	5.5	16.7		0.0				
Green Ext Time (p_c), s		2.4		0.6	0.2	7.9		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			11.6									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	374	64	287	693	31	459	29	487	20	21	21
Future Volume (veh/h)	108	374	64	287	693	31	459	29	487	20	21	21
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	117	407	70	312	753	34	499	32	0	22	23	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, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	185	729	325	353	1065	475	530	29		338	331	
Arrive On Green	0.11	0.22	0.22	0.21	0.32	0.32	0.36	0.36	0.00	0.36	0.36	0.00
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1257	81	1485	773	930	1485
Grp Volume(v), veh/h	117	407	70	312	753	34	531	0	0	45	0	0
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1338	0	1485	1702	0	1485
Q Serve(g_s), s	5.7	9.2	3.3	15.3	16.8	1.3	28.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.7	9.2	3.3	15.3	16.8	1.3	30.0	0.0	0.0	1.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.94		1.00	0.49		1.00
Lane Grp Cap(c), veh/h	185	729	325	353	1065	475	559	0		669	0	
V/C Ratio(X)	0.63	0.56	0.22	0.88	0.71	0.07	0.95	0.00		0.07	0.00	
Avail Cap(c_a), veh/h	989	1973	880	396	1973	880	559	0		669	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	35.8	29.3	27.0	32.2	25.2	20.0	28.6	0.0	0.0	18.0	0.0	0.0
Incr Delay (d2), s/veh	7.4	1.4	0.7	21.2	1.9	0.1	27.2	0.0	0.0	0.2	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	2.5	3.6	1.1	7.6	6.1	0.4	14.4	0.0	0.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.2	30.7	27.7	53.4	27.1	20.1	55.8	0.0	0.0	18.1	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	E	A		B	A	
Approach Vol, veh/h		594			1099			531	A		45	A
Approach Delay, s/veh		32.8			34.3			55.8			18.1	
Approach LOS		C			C			E			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.9	24.5		36.0	15.4	33.0		36.0
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s	20.0	50.0		30.0	50.0	50.0		30.0
Max Q Clear Time (g_c+I1), s	17.3	11.2		3.4	7.7	18.8		32.0
Green Ext Time (p_c), s	0.6	4.8		0.3	1.0	8.2		0.0

Intersection Summary	
HCM 6th Ctrl Delay	38.6
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	14.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	2	276	7	3	0	17	32	2	262	5
Future Vol, veh/h	0	0	2	276	7	3	0	17	32	2	262	5
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
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	0	0	2	310	8	3	0	19	36	2	294	6
Number of Lanes	1	1	0	1	1	0	1	2	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	8.8	16.2	9.3	14.3
HCM LOS	A	C	A	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	100%	100%	15%	100%	0%	0%	70%	0%	100%	0%
Vol Right, %	0%	0%	85%	0%	100%	0%	30%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	11	38	0	2	276	10	2	262	5
LT Vol	0	0	0	0	0	276	0	2	0	0
Through Vol	0	11	6	0	0	0	7	0	262	0
RT Vol	0	0	32	0	2	0	3	0	0	5
Lane Flow Rate	0	13	42	0	2	310	11	2	294	6
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0	0.023	0.071	0	0.004	0.547	0.018	0.004	0.493	0.008
Departure Headway (Hd)	6.638	6.638	6.033	6.718	6.011	6.352	5.641	6.535	6.03	5.323
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	539	593	0	595	571	636	551	601	676
Service Time	4.377	4.377	3.772	4.46	3.752	4.075	3.364	4.235	3.73	3.023
HCM Lane V/C Ratio	0	0.024	0.071	0	0.003	0.543	0.017	0.004	0.489	0.009
HCM Control Delay	9.4	9.5	9.2	9.5	8.8	16.5	8.5	9.3	14.5	8.1
HCM Lane LOS	N	A	A	N	A	C	A	A	B	A
HCM 95th-tile Q	0	0.1	0.2	0	0	3.3	0.1	0	2.7	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1190	8	2	724	23	5
Future Volume (veh/h)	1190	8	2	724	23	5
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
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1752	1856	1856	1900	1900
Adj Flow Rate, veh/h	1293	9	2	787	25	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	10	3	3	0	0
Cap, veh/h	1280	1024	124	1280	182	36
Arrive On Green	0.69	0.69	0.69	0.69	0.14	0.14
Sat Flow, veh/h	1856	1485	420	1856	1321	264
Grp Volume(v), veh/h	1293	9	2	787	31	0
Grp Sat Flow(s),veh/h/ln	1856	1485	420	1856	1638	0
Q Serve(g_s), s	40.0	0.1	0.0	13.3	1.0	0.0
Cycle Q Clear(g_c), s	40.0	0.1	40.0	13.3	1.0	0.0
Prop In Lane		1.00	1.00		0.81	0.16
Lane Grp Cap(c), veh/h	1280	1024	124	1280	226	0
V/C Ratio(X)	1.01	0.01	0.02	0.61	0.14	0.00
Avail Cap(c_a), veh/h	1280	1024	124	1280	565	0
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	0.00
Uniform Delay (d), s/veh	9.0	2.8	29.0	4.9	22.0	0.0
Incr Delay (d2), s/veh	27.7	0.0	0.0	0.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	0.0	0.0	2.2	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.7	2.8	29.0	5.5	22.1	0.0
LnGrp LOS	F	A	C	A	C	A
Approach Vol, veh/h	1302			789	31	
Approach Delay, s/veh	36.5			5.6	22.1	
Approach LOS	D			A	C	

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	45.0				45.0	13.0
Change Period (Y+Rc), s	5.0				5.0	5.0
Max Green Setting (Gmax), s	40.0				40.0	20.0
Max Q Clear Time (g_c+I1), s	42.0				42.0	3.0
Green Ext Time (p_c), s	0.0				0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1178	11	0	747	0	20
Future Vol, veh/h	1178	11	0	747	0	20
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, %	3	10	3	3	3	3
Mvmt Flow	1280	12	0	812	0	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	640
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.33
Pot Cap-1 Maneuver	-	-	0	-	0	416
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	416
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	416	-	-	-
HCM Lane V/C Ratio	0.052	-	-	-
HCM Control Delay (s)	14.1	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	742	9	144	561	42	14	6	253	194	2	1
Future Volume (veh/h)	7	742	9	144	561	42	14	6	253	194	2	1
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1856	1856	1856	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	8	807	10	157	610	46	15	7	275	211	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, %	10	10	10	3	3	3	10	10	10	10	10	10
Cap, veh/h	27	938	418	190	1240	93	17	8	310	250	2	1
Arrive On Green	0.02	0.28	0.28	0.11	0.37	0.37	0.22	0.22	0.22	0.15	0.15	0.15
Sat Flow, veh/h	1668	3328	1485	1767	3323	250	76	35	1387	1645	16	8
Grp Volume(v), veh/h	8	807	10	157	323	333	297	0	0	214	0	0
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1767	1763	1810	1498	0	0	1668	0	0
Q Serve(g_s), s	0.5	22.5	0.5	8.5	13.8	13.8	18.8	0.0	0.0	12.2	0.0	0.0
Cycle Q Clear(g_c), s	0.5	22.5	0.5	8.5	13.8	13.8	18.8	0.0	0.0	12.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.14	0.05		0.93	0.99		0.00
Lane Grp Cap(c), veh/h	27	938	418	190	658	676	335	0	0	254	0	0
V/C Ratio(X)	0.30	0.86	0.02	0.83	0.49	0.49	0.89	0.00	0.00	0.84	0.00	0.00
Avail Cap(c_a), veh/h	682	1360	607	361	658	676	566	0	0	682	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	47.6	33.3	25.4	42.8	23.5	23.6	36.8	0.0	0.0	40.3	0.0	0.0
Incr Delay (d2), s/veh	2.3	2.8	0.0	3.5	0.2	0.2	4.8	0.0	0.0	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	0.2	8.9	0.2	3.7	5.4	5.5	7.1	0.0	0.0	5.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.9	36.1	25.4	46.3	23.8	23.8	41.6	0.0	0.0	43.3	0.0	0.0
LnGrp LOS	D	D	C	D	C	C	D	A	A	D	A	A
Approach Vol, veh/h		825			813			297			214	
Approach Delay, s/veh		36.2			28.1			41.6			43.3	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.5	33.6		27.9	7.6	42.5		19.9				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	40.0		37.0	40.0	22.0		40.0				
Max Q Clear Time (g_c+I1), s	10.5	24.5		20.8	2.5	15.8		14.2				
Green Ext Time (p_c), s	0.1	3.1		1.1	0.0	1.3		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			34.6									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	60	21	44	127	7
Future Vol, veh/h	15	60	21	44	127	7
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	-	280	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	17	67	23	49	141	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	240	145	149	0	-	0
Stage 1	145	-	-	-	-	-
Stage 2	95	-	-	-	-	-
Critical Hdwy	6.5	6.3	4.2	-	-	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.39	2.29	-	-	-
Pot Cap-1 Maneuver	731	881	1385	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	909	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	719	881	1385	-	-	-
Mov Cap-2 Maneuver	719	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	909	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	2.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1385	-	843	-	-
HCM Lane V/C Ratio	0.017	-	0.099	-	-
HCM Control Delay (s)	7.6	-	9.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	60	21	38	74	6
Future Vol, veh/h	14	60	21	38	74	6
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	-	280	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	16	67	23	42	82	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	174	86	89	0	-	0
Stage 1	86	-	-	-	-	-
Stage 2	88	-	-	-	-	-
Critical Hdwy	6.5	6.3	4.2	-	-	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.39	2.29	-	-	-
Pot Cap-1 Maneuver	798	951	1457	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	916	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	785	951	1457	-	-	-
Mov Cap-2 Maneuver	785	-	-	-	-	-
Stage 1	903	-	-	-	-	-
Stage 2	916	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	2.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1457	-	914	-	-
HCM Lane V/C Ratio	0.016	-	0.09	-	-
HCM Control Delay (s)	7.5	-	9.3	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	42	24	28	38	26
Future Vol, veh/h	24	42	24	28	38	26
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	27	47	27	31	42	29
Number of Lanes	1	1	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	7.5	7.9	7.8
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	59%
Vol Right, %	0%	0%	0%	100%	41%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	28	24	42	64
LT Vol	24	0	24	0	0
Through Vol	0	28	0	0	38
RT Vol	0	0	0	42	26
Lane Flow Rate	27	31	27	47	71
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.039	0.041	0.039	0.053	0.084
Departure Headway (Hd)	5.215	4.714	5.271	4.07	4.277
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	682	754	672	866	828
Service Time	2.98	2.479	3.063	1.861	2.352
HCM Lane V/C Ratio	0.04	0.041	0.04	0.054	0.086
HCM Control Delay	8.2	7.7	8.3	7.1	7.8
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.1	0.2	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	24	0	1	14	35	4	16	0	38	8	102
Future Volume (veh/h)	78	24	0	1	14	35	4	16	0	38	8	102
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	78	24	0	1	14	35	4	16	0	38	8	102
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	190	756	337	5	380	169	7	144	0	147	18	231
Arrive On Green	0.11	0.23	0.00	0.00	0.11	0.11	0.00	0.08	0.00	0.09	0.17	0.17
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	1752	0	1668	109	1392
Grp Volume(v), veh/h	78	24	0	1	14	35	4	16	0	38	0	110
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1752	0	1668	0	1501
Q Serve(g_s), s	1.5	0.2	0.0	0.0	0.1	0.7	0.1	0.3	0.0	0.7	0.0	2.3
Cycle Q Clear(g_c), s	1.5	0.2	0.0	0.0	0.1	0.7	0.1	0.3	0.0	0.7	0.0	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.93
Lane Grp Cap(c), veh/h	190	756	337	5	380	169	7	144	0	147	0	249
V/C Ratio(X)	0.41	0.03	0.00	0.21	0.04	0.21	0.55	0.11	0.00	0.26	0.00	0.44
Avail Cap(c_a), veh/h	1470	5895	2629	233	3427	1529	233	1649	0	899	0	2012
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.4	10.5	0.0	17.5	13.8	14.1	17.4	14.9	0.0	14.9	0.0	13.2
Incr Delay (d2), s/veh	1.4	0.0	0.0	20.6	0.0	0.6	52.0	0.3	0.0	0.9	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	0.5	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.3	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.8	10.6	0.0	38.0	13.9	14.7	69.4	15.3	0.0	15.8	0.0	14.4
LnGrp LOS	B	B	A	D	B	B	E	B	A	B	A	B
Approach Vol, veh/h		102			50			20			148	
Approach Delay, s/veh		14.6			14.9			26.1			14.8	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	13.8	5.3	10.9	9.1	9.8	8.2	8.0
Change Period (Y+Rc), s	5.1	5.8	5.1	5.1	5.1	5.8	5.1	5.1
Max Green Setting (Gmax), s	4.9	62.1	4.9	47.0	30.9	36.1	18.9	33.0
Max Q Clear Time (g_c+I1), s	2.0	2.2	2.1	4.3	3.5	2.7	2.7	2.3
Green Ext Time (p_c), s	0.0	0.1	0.0	0.7	0.2	0.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	490	39	131	424	51	96	0	28	59	7	81
Future Volume (veh/h)	31	490	39	131	424	51	96	0	28	59	7	81
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	39	612	49	164	530	64	120	0	35	74	9	101
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	104	840	67	245	1293	402	183	614	274	190	628	280
Arrive On Green	0.06	0.19	0.19	0.15	0.27	0.27	0.11	0.00	0.18	0.11	0.19	0.19
Sat Flow, veh/h	1668	4517	359	1668	4782	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	39	431	230	164	530	64	120	0	35	74	9	101
Grp Sat Flow(s),veh/h/ln	1668	1594	1687	1668	1594	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	1.4	8.2	8.3	6.0	5.9	2.1	4.5	0.0	1.3	2.7	0.1	3.8
Cycle Q Clear(g_c), s	1.4	8.2	8.3	6.0	5.9	2.1	4.5	0.0	1.3	2.7	0.1	3.8
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	593	314	245	1293	402	183	614	274	190	628	280
V/C Ratio(X)	0.37	0.73	0.73	0.67	0.41	0.16	0.66	0.00	0.13	0.39	0.01	0.36
Avail Cap(c_a), veh/h	207	1433	758	284	2372	736	259	1868	833	259	1868	833
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	29.0	24.7	24.8	26.0	19.3	17.9	27.6	0.0	22.0	26.5	21.3	22.8
Incr Delay (d2), s/veh	0.8	0.6	1.3	4.8	0.1	0.1	1.5	0.0	0.1	1.3	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	0.6	2.8	3.0	2.5	1.9	0.7	1.7	0.0	0.4	1.0	0.1	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	25.4	26.0	30.9	19.4	18.0	29.1	0.0	22.1	27.8	21.3	23.6
LnGrp LOS	C	C	C	C	B	B	C	A	C	C	C	C
Approach Vol, veh/h		700			758			155			184	
Approach Delay, s/veh		25.8			21.8			27.5			25.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	18.0	13.1	18.0	10.0	23.4	13.3	17.7
Change Period (Y+Rc), s	6.0	6.0	6.0	5.8	6.0	6.0	6.0	5.8
Max Green Setting (Gmax), s	11.0	29.0	10.0	36.2	8.0	32.0	10.0	36.2
Max Q Clear Time (g_c+I1), s	10.0	10.3	6.5	5.8	3.4	7.9	4.7	3.3
Green Ext Time (p_c), s	0.1	1.5	0.1	0.3	0.0	1.5	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	24.2
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	400	25	47	501	68	0	0	138	14
Future Volume (veh/h)	0	0	0	400	25	47	501	68	0	0	138	14
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1856	1900	1752	1752	0	0	1752	1752
Adj Flow Rate, veh/h				435	27	51	545	74	0	0	150	15
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	3	0	10	10	0	0	10	10
Cap, veh/h				481	30	56	593	959	0	0	193	19
Arrive On Green				0.32	0.32	0.32	0.36	0.55	0.00	0.00	0.12	0.12
Sat Flow, veh/h				1484	92	174	1668	1752	0	0	1567	157
Grp Volume(v), veh/h				513	0	0	545	74	0	0	0	165
Grp Sat Flow(s),veh/h/ln				1750	0	0	1668	1752	0	0	0	1724
Q Serve(g_s), s				19.9	0.0	0.0	22.1	1.4	0.0	0.0	0.0	6.6
Cycle Q Clear(g_c), s				19.9	0.0	0.0	22.1	1.4	0.0	0.0	0.0	6.6
Prop In Lane				0.85		0.10	1.00		0.00	0.00		0.09
Lane Grp Cap(c), veh/h				567	0	0	593	959	0	0	0	212
V/C Ratio(X)				0.90	0.00	0.00	0.92	0.08	0.00	0.00	0.00	0.78
Avail Cap(c_a), veh/h				865	0	0	707	959	0	0	0	609
HCM Platoon Ratio				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	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				22.9	0.0	0.0	21.9	7.6	0.0	0.0	0.0	30.1
Incr Delay (d2), s/veh				6.6	0.0	0.0	15.0	0.0	0.0	0.0	0.0	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
%ile BackOfQ(50%),veh/ln				8.4	0.0	0.0	10.0	0.4	0.0	0.0	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.5	0.0	0.0	36.9	7.6	0.0	0.0	0.0	32.5
LnGrp LOS				C	A	A	D	A	A	A	A	C
Approach Vol, veh/h					513			619			165	
Approach Delay, s/veh					29.5			33.4			32.5	
Approach LOS					C			C			C	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	43.7		30.1	13.6		27.1
Change Period (Y+Rc), s	4.9		4.9	4.9		4.2
Max Green Setting (Gmax), s	25.0		30.0	25.0		35.0
Max Q Clear Time (g_c+I1), s	3.4		24.1	8.6		21.9
Green Ext Time (p_c), s	0.1		1.0	0.1		1.1

Intersection Summary		
HCM 6th Ctrl Delay		31.7
HCM 6th LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	159	394	0	0	0	0	508	788	82	456	0
Future Volume (veh/h)	61	159	394	0	0	0	0	508	788	82	456	0
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1752	1856	1752				0	1752	1752	1752	1752	0
Adj Flow Rate, veh/h	66	173	428				0	552	857	89	496	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	10	3	10				0	10	10	10	10	0
Cap, veh/h	127	332	372				0	965	818	113	1154	0
Arrive On Green	0.25	0.25	0.25				0.00	0.55	0.55	0.07	0.66	0.00
Sat Flow, veh/h	505	1325	1485				0	1752	1485	1668	1752	0
Grp Volume(v), veh/h	239	0	428				0	552	857	89	496	0
Grp Sat Flow(s),veh/h/ln	1830	0	1485				0	1752	1485	1668	1752	0
Q Serve(g_s), s	11.2	0.0	25.0				0.0	20.6	55.0	5.2	13.5	0.0
Cycle Q Clear(g_c), s	11.2	0.0	25.0				0.0	20.6	55.0	5.2	13.5	0.0
Prop In Lane	0.28		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	458	0	372				0	965	818	113	1154	0
V/C Ratio(X)	0.52	0.00	1.15				0.00	0.57	1.05	0.79	0.43	0.00
Avail Cap(c_a), veh/h	458	0	372				0	965	818	251	1154	0
HCM Platoon Ratio	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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.3	0.0	37.4				0.0	14.7	22.4	45.8	8.1	0.0
Incr Delay (d2), s/veh	0.5	0.0	94.7				0.0	1.0	44.8	11.5	0.4	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
%ile BackOfQ(50%),veh/ln	4.9	0.0	18.5				0.0	7.6	26.8	2.5	4.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	0.0	132.1				0.0	15.7	67.2	57.4	8.5	0.0
LnGrp LOS	C	A	F				A	B	F	E	A	A
Approach Vol, veh/h		667						1409			585	
Approach Delay, s/veh		96.5						47.0			15.9	
Approach LOS		F						D			B	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	10.7	59.9	29.2	70.6
Change Period (Y+Rc), s	4.0	4.9	* 4.2	4.9
Max Green Setting (Gmax), s	15.0	55.0	* 25	55.0
Max Q Clear Time (g_c+I1), s	7.2	57.0	27.0	15.5
Green Ext Time (p_c), s	0.1	0.0	0.0	3.5

Intersection Summary	
HCM 6th Ctrl Delay	52.6
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	1	13	141	5	257	41	973	241	213	619	18
Future Volume (veh/h)	6	1	13	141	5	257	41	973	241	213	619	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	7	1	14	153	5	279	45	1058	262	232	673	20
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, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	26	18	250	188	494	395	117	1158	516	360	1308	618
Arrive On Green	0.01	0.17	0.17	0.11	0.27	0.27	0.07	0.35	0.35	0.11	0.39	0.39
Sat Flow, veh/h	1767	106	1483	1668	1856	1485	1767	3328	1485	3237	3328	1572
Grp Volume(v), veh/h	7	0	15	153	5	279	45	1058	262	232	673	20
Grp Sat Flow(s),veh/h/ln	1767	0	1589	1668	1856	1485	1767	1664	1485	1618	1664	1572
Q Serve(g_s), s	0.3	0.0	0.6	6.4	0.1	12.1	1.7	21.6	9.9	4.9	10.9	0.6
Cycle Q Clear(g_c), s	0.3	0.0	0.6	6.4	0.1	12.1	1.7	21.6	9.9	4.9	10.9	0.6
Prop In Lane	1.00		0.93	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	26	0	267	188	494	395	117	1158	516	360	1308	618
V/C Ratio(X)	0.27	0.00	0.06	0.82	0.01	0.71	0.38	0.91	0.51	0.64	0.51	0.03
Avail Cap(c_a), veh/h	199	0	759	352	887	710	373	1170	522	683	1308	618
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	0.0	24.8	30.8	19.2	23.6	31.8	22.2	18.4	30.3	16.4	13.3
Incr Delay (d2), s/veh	2.1	0.0	0.1	3.3	0.0	0.9	0.8	11.1	1.1	0.7	0.5	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	2.6	0.1	4.0	0.7	9.2	3.3	1.8	3.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	0.0	24.9	34.1	19.2	24.4	32.6	33.3	19.5	31.0	16.9	13.3
LnGrp LOS	D	A	C	C	B	C	C	C	B	C	B	B
Approach Vol, veh/h		22			437			1365			925	
Approach Delay, s/veh		28.7			27.8			30.6			20.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	29.7	12.5	16.5	9.2	32.9	5.5	23.4
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5
Max Green Setting (Gmax), s	15.0	25.0	15.0	34.0	15.0	25.0	8.0	34.0
Max Q Clear Time (g_c+I1), s	10.9	23.6	8.4	2.6	3.7	12.9	2.3	14.1
Green Ext Time (p_c), s	0.3	1.1	0.0	0.0	0.0	4.5	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	416	616	59	108	518	354	44	434	86	293	205	266
Future Volume (veh/h)	416	616	59	108	518	354	44	434	86	293	205	266
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	452	670	64	117	563	385	48	472	93	318	223	289
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, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	271	1263	563	144	1027	433	79	640	285	256	1002	473
Arrive On Green	0.15	0.36	0.36	0.09	0.29	0.29	0.04	0.19	0.19	0.15	0.30	0.30
Sat Flow, veh/h	1767	3526	1572	1668	3526	1485	1767	3328	1485	1668	3328	1572
Grp Volume(v), veh/h	452	670	64	117	563	385	48	472	93	318	223	289
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1668	1763	1485	1767	1664	1485	1668	1664	1572
Q Serve(g_s), s	15.0	14.7	2.7	6.7	13.2	24.3	2.6	13.1	5.3	15.0	4.9	15.4
Cycle Q Clear(g_c), s	15.0	14.7	2.7	6.7	13.2	24.3	2.6	13.1	5.3	15.0	4.9	15.4
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	271	1263	563	144	1027	433	79	640	285	256	1002	473
V/C Ratio(X)	1.67	0.53	0.11	0.81	0.55	0.89	0.61	0.74	0.33	1.24	0.22	0.61
Avail Cap(c_a), veh/h	271	1263	563	256	1081	455	271	1021	455	256	1021	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	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	41.4	24.9	21.0	43.9	29.2	33.2	45.9	37.2	34.0	41.4	25.6	29.3
Incr Delay (d2), s/veh	316.2	0.7	0.2	4.1	0.8	19.5	2.8	2.9	1.1	137.8	0.2	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	30.1	5.9	0.9	2.8	5.4	10.5	1.2	5.4	1.9	15.7	1.9	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	357.6	25.5	21.1	48.0	30.1	52.6	48.7	40.0	35.2	179.2	25.8	32.2
LnGrp LOS	F	C	C	D	C	D	D	D	D	F	C	C
Approach Vol, veh/h		1186			1065			613			830	
Approach Delay, s/veh		151.9			40.2			40.0			86.8	
Approach LOS		F			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	24.3	13.5	40.0	9.4	34.9	20.0	33.5
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0
Max Green Setting (Gmax), s	15.0	30.0	15.0	30.0	15.0	30.0	15.0	30.0
Max Q Clear Time (g_c+I1), s	17.0	15.1	8.7	16.7	4.6	17.4	17.0	26.3
Green Ext Time (p_c), s	0.0	3.7	0.1	4.7	0.0	3.1	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	86.5
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	821	0	0	446	103	0	0	0	189	0	219
Future Volume (veh/h)	195	821	0	0	446	103	0	0	0	189	0	219
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	0	1856	1752	1752	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	212	892	0	0	485	112	0	0	0	205	0	238
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, %	3	3	3	0	3	10	10	10	10	10	10	3
Cap, veh/h	245	2550	0	0	1895	798	0	320	0	318	0	288
Arrive On Green	0.14	0.72	0.00	0.00	0.54	0.54	0.00	0.00	0.00	0.18	0.00	0.18
Sat Flow, veh/h	1767	3618	0	0	3618	1485	0	1752	0	1328	0	1572
Grp Volume(v), veh/h	212	892	0	0	485	112	0	0	0	205	0	238
Grp Sat Flow(s),veh/h/ln	1767	1763	0	0	1763	1485	0	1752	0	1328	0	1572
Q Serve(g_s), s	11.3	9.0	0.0	0.0	7.1	3.6	0.0	0.0	0.0	14.3	0.0	14.0
Cycle Q Clear(g_c), s	11.3	9.0	0.0	0.0	7.1	3.6	0.0	0.0	0.0	14.3	0.0	14.0
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	2550	0	0	1895	798	0	320	0	318	0	288
V/C Ratio(X)	0.86	0.35	0.00	0.00	0.26	0.14	0.00	0.00	0.00	0.64	0.00	0.83
Avail Cap(c_a), veh/h	285	2550	0	0	1895	798	0	520	0	469	0	467
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.5	4.9	0.0	0.0	11.9	11.1	0.0	0.0	0.0	37.9	0.0	37.8
Incr Delay (d2), s/veh	18.8	0.4	0.0	0.0	0.3	0.4	0.0	0.0	0.0	0.8	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	6.1	2.7	0.0	0.0	2.7	1.2	0.0	0.0	0.0	4.7	0.0	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	5.3	0.0	0.0	12.2	11.5	0.0	0.0	0.0	38.7	0.0	40.6
LnGrp LOS	E	A	A	A	B	B	A	A	A	D	A	D
Approach Vol, veh/h		1104			597			0			443	
Approach Delay, s/veh		15.7			12.1			0.0			39.7	
Approach LOS		B			B						D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		73.9		22.1	17.8	56.1		22.1				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		58.5		28.5	15.5	38.5		28.5				
Max Q Clear Time (g_c+I1), s		11.0		16.3	13.3	9.1		0.0				
Green Ext Time (p_c), s		4.8		1.2	0.1	2.8		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		19.6
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	776	158	392	426	37	67	43	414	34	27	54
Future Volume (veh/h)	62	776	158	392	426	37	67	43	414	34	27	54
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	67	843	172	426	463	40	73	47	0	37	29	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, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	164	1274	568	431	1805	805	179	88		166	108	
Arrive On Green	0.10	0.38	0.38	0.26	0.54	0.54	0.13	0.13	0.00	0.13	0.13	0.00
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	825	692	1485	739	854	1485
Grp Volume(v), veh/h	67	843	172	426	463	40	120	0	0	66	0	0
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1517	0	1485	1593	0	1485
Q Serve(g_s), s	2.9	16.2	6.3	19.7	5.7	1.0	2.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.9	16.2	6.3	19.7	5.7	1.0	5.6	0.0	0.0	2.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.61		1.00	0.56		1.00
Lane Grp Cap(c), veh/h	164	1274	568	431	1805	805	267	0		274	0	
V/C Ratio(X)	0.41	0.66	0.30	0.99	0.26	0.05	0.45	0.00		0.24	0.00	
Avail Cap(c_a), veh/h	1077	2148	958	431	2148	958	642	0		651	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	32.8	19.8	16.7	28.6	9.4	8.3	31.9	0.0	0.0	30.7	0.0	0.0
Incr Delay (d2), s/veh	3.4	1.3	0.6	40.5	0.2	0.1	4.3	0.0	0.0	1.6	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	1.3	5.7	2.0	11.7	1.6	0.3	2.3	0.0	0.0	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.2	21.0	17.3	69.1	9.6	8.4	36.1	0.0	0.0	32.3	0.0	0.0
LnGrp LOS	D	C	B	E	A	A	D	A		C	A	
Approach Vol, veh/h		1082			929			120	A		66	A
Approach Delay, s/veh		21.4			36.8			36.1			32.3	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	26.0	35.6		15.8	13.6	48.0		15.8				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	20.0	50.0		30.0	50.0	50.0		30.0				
Max Q Clear Time (g_c+I1), s	21.7	18.2		4.7	4.9	7.7		7.6				
Green Ext Time (p_c), s	0.0	11.4		0.5	0.5	5.1		1.0				

Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	57
Intersection LOS	F

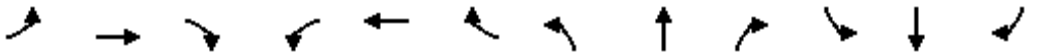
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	28	0	245	1	2	3	109	306	12	175	5
Future Vol, veh/h	6	28	0	245	1	2	3	109	306	12	175	5
Peak Hour Factor	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	9	44	0	383	2	3	5	170	478	19	273	8
Number of Lanes	1	1	0	1	1	0	1	2	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	13.6	52.7	77.9	24.6
HCM LOS	B	F	F	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	11%	0%	100%	0%	33%	0%	100%	0%
Vol Right, %	0%	0%	89%	0%	0%	0%	67%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	73	342	6	28	245	3	12	175	5
LT Vol	3	0	0	6	0	245	0	12	0	0
Through Vol	0	73	36	0	28	0	1	0	175	0
RT Vol	0	0	306	0	0	0	2	0	0	5
Lane Flow Rate	5	114	535	9	44	383	5	19	273	8
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.011	0.251	1.086	0.026	0.115	0.903	0.01	0.047	0.641	0.017
Departure Headway (Hd)	8.466	7.951	7.308	10.247	9.733	8.768	7.792	9.28	8.762	8.037
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	425	454	503	351	371	417	462	388	416	448
Service Time	6.169	5.655	5.011	7.947	7.433	6.468	5.492	6.98	6.462	5.737
HCM Lane V/C Ratio	0.012	0.251	1.064	0.026	0.119	0.918	0.011	0.049	0.656	0.018
HCM Control Delay	11.3	13.3	92.2	13.2	13.7	53.2	10.6	12.4	25.8	10.9
HCM Lane LOS	B	B	F	B	B	F	B	B	D	B
HCM 95th-tile Q	0	1	17.1	0.1	0.4	9.6	0	0.1	4.3	0.1

Kimley»Horn

D. BACKGROUND PLUS FULL PROJECT CONDITIONS SYNCHRO OUTPUT SHEETS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	384	21	5	1122	13	7	0	1	9	0	46
Future Volume (veh/h)	99	384	21	5	1122	13	7	0	1	9	0	46
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1129	1856	1856	1856	1856	1856	1752	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	99	384	21	5	1122	13	7	0	1	9	0	46
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	52	3	3	3	3	3	10	0	0	0	0	0
Cap, veh/h	112	1293	71	9	1177	14	12	0	101	16	0	103
Arrive On Green	0.10	0.74	0.74	0.01	0.64	0.64	0.01	0.00	0.06	0.01	0.00	0.06
Sat Flow, veh/h	1076	1743	95	1767	1831	21	1668	0	1610	1810	0	1610
Grp Volume(v), veh/h	99	0	405	5	0	1135	7	0	1	9	0	46
Grp Sat Flow(s),veh/h/ln	1076	0	1838	1767	0	1852	1668	0	1610	1810	0	1610
Q Serve(g_s), s	9.0	0.0	7.2	0.3	0.0	56.0	0.4	0.0	0.1	0.5	0.0	2.7
Cycle Q Clear(g_c), s	9.0	0.0	7.2	0.3	0.0	56.0	0.4	0.0	0.1	0.5	0.0	2.7
Prop In Lane	1.00		0.05	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	112	0	1364	9	0	1191	12	0	101	16	0	103
V/C Ratio(X)	0.89	0.00	0.30	0.55	0.00	0.95	0.59	0.00	0.01	0.56	0.00	0.44
Avail Cap(c_a), veh/h	119	0	1559	71	0	1439	67	0	325	73	0	341
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.8	0.0	4.2	49.2	0.0	16.3	49.0	0.0	43.6	48.9	0.0	44.6
Incr Delay (d2), s/veh	47.8	0.0	0.0	42.1	0.0	12.0	39.5	0.0	0.0	27.3	0.0	3.0
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	3.8	0.0	1.9	0.2	0.0	22.3	0.3	0.0	0.0	0.3	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.6	0.0	4.3	91.3	0.0	28.2	88.5	0.0	43.6	76.2	0.0	47.6
LnGrp LOS	F	A	A	F	A	C	F	A	D	E	A	D
Approach Vol, veh/h		504			1140			8			55	
Approach Delay, s/veh		21.4			28.5			82.9			52.3	
Approach LOS		C			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.5	78.5	4.7	11.4	14.3	68.7	4.9	11.2
Change Period (Y+Rc), s	4.0	5.0	4.0	* 5	4.0	5.0	4.0	5.0
Max Green Setting (Gmax), s	4.0	84.0	4.0	* 21	11.0	77.0	4.0	20.0
Max Q Clear Time (g_c+I1), s	2.3	9.2	2.4	4.7	11.0	58.0	2.5	2.1
Green Ext Time (p_c), s	0.0	1.4	0.0	0.1	0.0	5.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

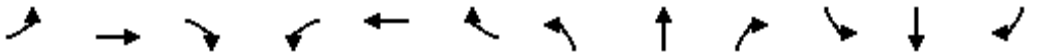
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	485	24	0	1172	3	0	0	19	0	0	4
Future Vol, veh/h	0	485	24	0	1172	3	0	0	19	0	0	4
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	-	-	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, %	0	17	10	0	6	0	0	0	3	0	0	0
Mvmt Flow	0	527	26	0	1274	3	0	0	21	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	264	-	-	639
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.96	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.33	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	731	0	0	424
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	731	-	-	424
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	10.1	13.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	731	-	-	-	-	424
HCM Lane V/C Ratio	0.028	-	-	-	-	0.01
HCM Control Delay (s)	10.1	-	-	-	-	13.6
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	403	42	239	740	197	20	17	11	95	8	23
Future Volume (veh/h)	65	403	42	239	740	197	20	17	11	95	8	23
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	71	438	46	260	804	214	22	18	12	103	9	25
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, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	140	685	306	302	1008	450	66	134	89	265	99	275
Arrive On Green	0.08	0.21	0.21	0.18	0.30	0.30	0.04	0.14	0.14	0.16	0.24	0.24
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	980	654	1668	410	1138
Grp Volume(v), veh/h	71	438	46	260	804	214	22	0	30	103	0	34
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	0	1634	1668	0	1547
Q Serve(g_s), s	2.9	8.7	1.8	10.9	16.1	8.5	0.9	0.0	1.2	4.0	0.0	1.2
Cycle Q Clear(g_c), s	2.9	8.7	1.8	10.9	16.1	8.5	0.9	0.0	1.2	4.0	0.0	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		0.74
Lane Grp Cap(c), veh/h	140	685	306	302	1008	450	66	0	223	265	0	375
V/C Ratio(X)	0.51	0.64	0.15	0.86	0.80	0.48	0.33	0.00	0.13	0.39	0.00	0.09
Avail Cap(c_a), veh/h	277	1702	759	461	2070	923	184	0	835	415	0	1005
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	31.7	26.3	23.5	28.8	23.2	20.6	33.8	0.0	27.5	27.3	0.0	21.3
Incr Delay (d2), s/veh	1.1	0.4	0.1	6.6	0.6	0.3	1.1	0.0	0.1	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	1.1	3.2	0.6	4.5	5.6	2.7	0.4	0.0	0.4	1.5	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	26.6	23.6	35.4	23.8	20.8	34.9	0.0	27.6	27.6	0.0	21.3
LnGrp LOS	C	C	C	D	C	C	C	A	C	C	A	C
Approach Vol, veh/h		555			1278			52			137	
Approach Delay, s/veh		27.2			25.6			30.7			26.1	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.1	20.9	16.5	15.9	12.1	27.9	8.9	23.5
Change Period (Y+Rc), s	6.0	6.0	5.0	6.0	6.0	6.0	6.0	* 6
Max Green Setting (Gmax), s	20.0	37.0	18.0	37.0	12.0	45.0	8.0	* 47
Max Q Clear Time (g_c+I1), s	12.9	10.7	6.0	3.2	4.9	18.1	2.9	3.2
Green Ext Time (p_c), s	0.2	1.8	0.1	0.1	0.0	3.8	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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	5	0	16	3	0	2	60	201	8	5	97	10
Future Vol, veh/h	5	0	16	3	0	2	60	201	8	5	97	10
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	-	300	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	10	10	10	0	0	50	10	10	13	40	10	10
Mvmt Flow	5	0	16	3	0	2	60	201	8	5	97	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	438	441	54	380	438	201	107	0	0	209	0	0
Stage 1	112	112	-	321	321	-	-	-	-	-	-	-
Stage 2	326	329	-	59	117	-	-	-	-	-	-	-
Critical Hdwy	7.45	6.65	7.05	7.3	6.5	6.95	4.25	-	-	4.7	-	-
Critical Hdwy Stg 1	6.65	5.65	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.25	5.65	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.595	4.095	3.395	3.5	4	3.775	2.295	-	-	2.58	-	-
Pot Cap-1 Maneuver	499	495	978	569	515	718	1430	-	-	1144	-	-
Stage 1	861	785	-	695	655	-	-	-	-	-	-	-
Stage 2	666	629	-	951	803	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	480	472	978	540	491	718	1430	-	-	1144	-	-
Mov Cap-2 Maneuver	480	472	-	540	491	-	-	-	-	-	-	-
Stage 1	825	782	-	666	627	-	-	-	-	-	-	-
Stage 2	636	603	-	931	800	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	11.1	1.7	0.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1430	-	-	784	599	1144	-	-
HCM Lane V/C Ratio	0.042	-	-	0.027	0.008	0.004	-	-
HCM Control Delay (s)	7.6	-	-	9.7	11.1	8.2	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	16	16	0	10	60	104	44	20	80	10
Future Volume (veh/h)	5	0	16	16	0	10	60	104	44	20	80	10
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1811	1752	1752	1752	1752	1796	1530	1752	1752
Adj Flow Rate, veh/h	5	0	16	16	0	10	60	104	44	20	80	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	6	10	10	10	10	7	25	10	10
Cap, veh/h	61	0	90	29	0	61	92	692	317	30	517	64
Arrive On Green	0.04	0.00	0.06	0.02	0.00	0.04	0.06	0.21	0.21	0.02	0.17	0.17
Sat Flow, veh/h	1668	0	1485	1725	0	1485	1668	3328	1522	1457	2984	366
Grp Volume(v), veh/h	5	0	16	16	0	10	60	104	44	20	44	46
Grp Sat Flow(s),veh/h/ln	1668	0	1485	1725	0	1485	1668	1664	1522	1457	1664	1686
Q Serve(g_s), s	0.1	0.0	0.2	0.2	0.0	0.2	0.8	0.6	0.5	0.3	0.5	0.5
Cycle Q Clear(g_c), s	0.1	0.0	0.2	0.2	0.0	0.2	0.8	0.6	0.5	0.3	0.5	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	61	0	90	29	0	61	92	692	317	30	289	292
V/C Ratio(X)	0.08	0.00	0.18	0.55	0.00	0.16	0.65	0.15	0.14	0.66	0.15	0.16
Avail Cap(c_a), veh/h	1302	0	2060	299	0	1159	362	2742	1254	253	1299	1316
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	10.7	0.0	10.3	11.3	0.0	10.7	10.7	7.5	7.5	11.2	8.1	8.1
Incr Delay (d2), s/veh	0.6	0.0	0.9	15.1	0.0	1.3	7.5	0.1	0.2	21.6	0.2	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	0.0	0.0	0.1	0.2	0.0	0.1	0.4	0.1	0.1	0.2	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.3	0.0	11.2	26.4	0.0	11.9	18.1	7.6	7.6	32.8	8.3	8.3
LnGrp LOS	B	A	B	C	A	B	B	A	A	C	A	A
Approach Vol, veh/h		21			26			208			110	
Approach Delay, s/veh		11.2			20.8			10.6			12.8	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.5	8.8	4.4	5.4	5.3	8.0	4.8	4.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	19.0	4.0	32.0	5.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	2.3	2.6	2.2	2.2	2.8	2.5	2.1	2.2
Green Ext Time (p_c), s	0.0	0.6	0.0	0.0	0.0	0.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	1	111	8	7	108
Future Vol, veh/h	2	1	111	8	7	108
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	-	-	250	600	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	50	100	10	13	43	10
Mvmt Flow	2	1	111	8	7	108

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	233	56	0	0	119	0
Stage 1	111	-	-	-	-	-
Stage 2	122	-	-	-	-	-
Critical Hdwy	7.35	8.4	-	-	4.745	-
Critical Hdwy Stg 1	6.55	-	-	-	-	-
Critical Hdwy Stg 2	6.15	-	-	-	-	-
Follow-up Hdwy	3.975	4.25	-	-	2.6085	-
Pot Cap-1 Maneuver	638	768	-	-	1231	-
Stage 1	786	-	-	-	-	-
Stage 2	786	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	634	768	-	-	1231	-
Mov Cap-2 Maneuver	634	-	-	-	-	-
Stage 1	786	-	-	-	-	-
Stage 2	781	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	673	1231	-
HCM Lane V/C Ratio	-	-	0.004	0.006	-
HCM Control Delay (s)	-	-	10.4	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	49	37	75	66	22
Future Vol, veh/h	5	49	37	75	66	22
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	6	54	41	83	73	24
Number of Lanes	1	1	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	7.5	8.2	8.1
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	75%
Vol Right, %	0%	0%	0%	100%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	75	5	49	88
LT Vol	37	0	5	0	0
Through Vol	0	75	0	0	66
RT Vol	0	0	0	49	22
Lane Flow Rate	41	83	6	54	98
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.059	0.109	0.009	0.066	0.119
Departure Headway (Hd)	5.205	4.705	5.588	4.384	4.396
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	684	757	644	822	804
Service Time	2.969	2.468	3.288	2.084	2.486
HCM Lane V/C Ratio	0.06	0.11	0.009	0.066	0.122
HCM Control Delay	8.3	8.1	8.3	7.4	8.1
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.2	0.4	0	0.2	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	3	0	1	16	42	2	6	0	51	22	43
Future Volume (veh/h)	53	3	0	1	16	42	2	6	0	51	22	43
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	53	3	0	1	16	42	2	6	0	51	22	43
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	83	591	264	5	428	191	5	105	0	137	74	145
Arrive On Green	0.05	0.18	0.00	0.00	0.13	0.13	0.00	0.06	0.00	0.08	0.14	0.14
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	1752	0	1668	530	1036
Grp Volume(v), veh/h	53	3	0	1	16	42	2	6	0	51	0	65
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1752	0	1668	0	1565
Q Serve(g_s), s	1.0	0.0	0.0	0.0	0.1	0.8	0.0	0.1	0.0	0.9	0.0	1.2
Cycle Q Clear(g_c), s	1.0	0.0	0.0	0.0	0.1	0.8	0.0	0.1	0.0	0.9	0.0	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.66
Lane Grp Cap(c), veh/h	83	591	264	5	428	191	5	105	0	137	0	219
V/C Ratio(X)	0.64	0.01	0.00	0.19	0.04	0.22	0.37	0.06	0.00	0.37	0.00	0.30
Avail Cap(c_a), veh/h	1659	6650	2966	263	3866	1724	263	1860	0	1015	0	2367
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.5	10.5	0.0	15.5	11.9	12.1	15.5	13.8	0.0	13.5	0.0	12.0
Incr Delay (d2), s/veh	7.7	0.0	0.0	15.9	0.0	0.6	37.9	0.2	0.0	1.7	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	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.2	10.5	0.0	31.4	11.9	12.7	53.4	14.0	0.0	15.2	0.0	12.7
LnGrp LOS	C	B	A	C	B	B	D	B	A	B	A	B
Approach Vol, veh/h		56			59			8			116	
Approach Delay, s/veh		21.6			12.8			23.8			13.8	
Approach LOS		C			B			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	11.3	5.2	9.5	6.7	9.8	7.7	7.0
Change Period (Y+Rc), s	5.1	5.8	5.1	5.1	5.1	5.8	5.1	5.1
Max Green Setting (Gmax), s	4.9	62.1	4.9	47.0	30.9	36.1	18.9	33.0
Max Q Clear Time (g_c+I1), s	2.0	2.0	2.0	3.2	3.0	2.8	2.9	2.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.1	0.2	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	453	77	156	566	53	18	6	6	28	8	19
Future Volume (veh/h)	17	453	77	156	566	53	18	6	6	28	8	19
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	21	566	96	195	708	66	22	8	8	35	10	24
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	66	855	143	276	1592	494	69	473	211	124	584	260
Arrive On Green	0.04	0.21	0.21	0.17	0.33	0.33	0.04	0.14	0.14	0.07	0.18	0.18
Sat Flow, veh/h	1668	4127	689	1668	4782	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	21	435	227	195	708	66	22	8	8	35	10	24
Grp Sat Flow(s),veh/h/ln	1668	1594	1628	1668	1594	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	0.7	7.3	7.4	6.4	6.7	1.8	0.7	0.1	0.3	1.1	0.1	0.8
Cycle Q Clear(g_c), s	0.7	7.3	7.4	6.4	6.7	1.8	0.7	0.1	0.3	1.1	0.1	0.8
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	66	661	337	276	1592	494	69	473	211	124	584	260
V/C Ratio(X)	0.32	0.66	0.67	0.71	0.44	0.13	0.32	0.02	0.04	0.28	0.02	0.09
Avail Cap(c_a), veh/h	231	1597	815	317	2643	820	231	2081	928	288	2196	979
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	27.0	21.1	21.1	22.8	15.1	13.5	27.0	21.4	21.4	25.3	19.7	20.0
Incr Delay (d2), s/veh	1.0	0.4	0.9	6.0	0.1	0.0	1.0	0.0	0.0	1.2	0.0	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	0.3	2.4	2.5	2.6	2.0	0.5	0.3	0.0	0.1	0.5	0.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.1	21.5	22.0	28.8	15.2	13.5	28.0	21.4	21.4	26.6	19.8	20.2
LnGrp LOS	C	C	C	C	B	B	C	C	C	C	B	C
Approach Vol, veh/h		683			969			38			69	
Approach Delay, s/veh		21.9			17.8			25.2			23.4	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.6	18.0	8.4	16.0	8.3	25.3	10.3	14.0
Change Period (Y+Rc), s	6.0	6.0	6.0	5.8	6.0	6.0	6.0	5.8
Max Green Setting (Gmax), s	11.6	29.0	8.0	38.2	8.0	32.0	10.0	36.2
Max Q Clear Time (g_c+I1), s	9.4	9.4	2.7	2.8	2.7	8.7	3.1	2.3
Green Ext Time (p_c), s	0.2	1.5	0.0	0.1	0.0	2.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	19.8
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	728	50	35	234	22	0	0	87	21
Future Volume (veh/h)	0	0	0	728	50	35	234	22	0	0	87	21
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1752	1900	1752	1752	0	0	1752	1752
Adj Flow Rate, veh/h				791	54	38	254	24	0	0	95	23
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	10	0	10	10	0	0	10	10
Cap, veh/h				764	52	37	307	620	0	0	134	32
Arrive On Green				0.51	0.51	0.51	0.18	0.35	0.00	0.00	0.10	0.10
Sat Flow, veh/h				1491	102	72	1668	1752	0	0	1363	330
Grp Volume(v), veh/h				883	0	0	254	24	0	0	0	118
Grp Sat Flow(s),veh/h/ln				1664	0	0	1668	1752	0	0	0	1692
Q Serve(g_s), s				35.0	0.0	0.0	10.0	0.6	0.0	0.0	0.0	4.6
Cycle Q Clear(g_c), s				35.0	0.0	0.0	10.0	0.6	0.0	0.0	0.0	4.6
Prop In Lane				0.90		0.04	1.00		0.00	0.00		0.19
Lane Grp Cap(c), veh/h				853	0	0	307	620	0	0	0	166
V/C Ratio(X)				1.03	0.00	0.00	0.83	0.04	0.00	0.00	0.00	0.71
Avail Cap(c_a), veh/h				853	0	0	733	641	0	0	0	620
HCM Platoon Ratio				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	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				16.6	0.0	0.0	26.8	14.4	0.0	0.0	0.0	29.8
Incr Delay (d2), s/veh				40.1	0.0	0.0	4.3	0.0	0.0	0.0	0.0	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
%ile BackOfQ(50%),veh/ln				20.3	0.0	0.0	4.0	0.2	0.0	0.0	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				56.8	0.0	0.0	31.1	14.5	0.0	0.0	0.0	31.9
LnGrp LOS				F	A	A	C	B	A	A	A	C
Approach Vol, veh/h					883			278			118	
Approach Delay, s/veh					56.8			29.6			31.9	
Approach LOS					E			C			C	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	29.1		17.5	11.6		39.2
Change Period (Y+Rc), s	4.9		4.9	4.9		4.2
Max Green Setting (Gmax), s	25.0		30.0	25.0		35.0
Max Q Clear Time (g_c+I1), s	2.6		12.0	6.6		37.0
Green Ext Time (p_c), s	0.0		0.7	0.1		0.0

Intersection Summary		
HCM 6th Ctrl Delay		48.6
HCM 6th LOS		D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	52	490	0	0	0	0	239	468	36	779	0
Future Volume (veh/h)	17	52	490	0	0	0	0	239	468	36	779	0
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752				0	1752	1752	1752	1752	0
Adj Flow Rate, veh/h	18	57	533				0	260	509	39	847	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	10	10	10				0	10	10	10	10	0
Cap, veh/h	139	441	498				0	791	670	62	950	0
Arrive On Green	0.34	0.34	0.34				0.00	0.45	0.45	0.04	0.54	0.00
Sat Flow, veh/h	415	1316	1485				0	1752	1485	1668	1752	0
Grp Volume(v), veh/h	75	0	533				0	260	509	39	847	0
Grp Sat Flow(s),veh/h/ln	1731	0	1485				0	1752	1485	1668	1752	0
Q Serve(g_s), s	2.2	0.0	25.0				0.0	7.1	21.3	1.7	31.9	0.0
Cycle Q Clear(g_c), s	2.2	0.0	25.0				0.0	7.1	21.3	1.7	31.9	0.0
Prop In Lane	0.24		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	581	0	498				0	791	670	62	950	0
V/C Ratio(X)	0.13	0.00	1.07				0.00	0.33	0.76	0.63	0.89	0.00
Avail Cap(c_a), veh/h	581	0	498				0	1293	1096	336	1293	0
HCM Platoon Ratio	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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.2	0.0	24.8				0.0	13.2	17.1	35.4	15.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	60.4				0.0	0.3	2.5	10.0	7.1	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
%ile BackOfQ(50%),veh/ln	0.8	0.0	16.3				0.0	2.5	6.7	0.8	11.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.2	0.0	85.2				0.0	13.5	19.6	45.4	22.2	0.0
LnGrp LOS	B	A	F				A	B	B	D	C	A
Approach Vol, veh/h		608						769			886	
Approach Delay, s/veh		76.8						17.5			23.2	
Approach LOS		E						B			C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	6.8	38.5		29.2		45.3
Change Period (Y+Rc), s	4.0	4.9		* 4.2		4.9
Max Green Setting (Gmax), s	15.0	55.0		* 25		55.0
Max Q Clear Time (g_c+I1), s	3.7	23.3		27.0		33.9
Green Ext Time (p_c), s	0.0	5.9		0.0		6.5

Intersection Summary	
HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	29	70	1	147	12	494	122	260	1004	5
Future Volume (veh/h)	7	0	29	70	1	147	12	494	122	260	1004	5
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	8	0	32	76	1	160	13	537	133	283	1091	5
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, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	29	0	299	158	498	398	46	940	419	420	1286	607
Arrive On Green	0.02	0.00	0.19	0.09	0.27	0.27	0.03	0.28	0.28	0.13	0.39	0.39
Sat Flow, veh/h	1767	0	1572	1668	1856	1485	1767	3328	1485	3237	3328	1572
Grp Volume(v), veh/h	8	0	32	76	1	160	13	537	133	283	1091	5
Grp Sat Flow(s),veh/h/ln	1767	0	1572	1668	1856	1485	1767	1664	1485	1618	1664	1572
Q Serve(g_s), s	0.3	0.0	1.0	2.6	0.0	5.4	0.4	8.4	4.3	5.1	18.3	0.1
Cycle Q Clear(g_c), s	0.3	0.0	1.0	2.6	0.0	5.4	0.4	8.4	4.3	5.1	18.3	0.1
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	29	0	299	158	498	398	46	940	419	420	1286	607
V/C Ratio(X)	0.27	0.00	0.11	0.48	0.00	0.40	0.28	0.57	0.32	0.67	0.85	0.01
Avail Cap(c_a), veh/h	231	0	875	410	1033	826	434	1362	608	795	1362	644
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	0.0	20.5	26.2	16.4	18.3	29.2	18.8	17.3	25.3	17.1	11.5
Incr Delay (d2), s/veh	1.8	0.0	0.2	0.8	0.0	0.2	1.2	0.8	0.6	0.7	5.3	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	0.4	1.0	0.0	1.7	0.2	2.9	1.4	1.8	6.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	0.0	20.6	27.0	16.4	18.6	30.4	19.5	17.9	26.0	22.4	11.5
LnGrp LOS	C	A	C	C	B	B	C	B	B	C	C	B
Approach Vol, veh/h		40			237			683			1379	
Approach Delay, s/veh		22.8			21.3			19.4			23.1	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	22.2	10.3	16.1	6.1	28.6	5.5	20.9
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5
Max Green Setting (Gmax), s	15.0	25.0	15.0	34.0	15.0	25.0	8.0	34.0
Max Q Clear Time (g_c+I1), s	7.1	10.4	4.6	3.0	2.4	20.3	2.3	7.4
Green Ext Time (p_c), s	0.3	4.5	0.0	0.1	0.0	3.3	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	21.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	599	48	68	311	181	27	163	166	502	319	440
Future Volume (veh/h)	294	599	48	68	311	181	27	163	166	502	319	440
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	320	651	52	74	338	197	29	177	180	546	347	478
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, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	321	1119	499	99	688	290	62	644	287	303	1131	534
Arrive On Green	0.18	0.32	0.32	0.06	0.20	0.20	0.04	0.19	0.19	0.18	0.34	0.34
Sat Flow, veh/h	1767	3526	1572	1668	3526	1485	1767	3328	1485	1668	3328	1572
Grp Volume(v), veh/h	320	651	52	74	338	197	29	177	180	546	347	478
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1668	1763	1485	1767	1664	1485	1668	1664	1572
Q Serve(g_s), s	15.0	12.8	1.9	3.6	7.1	10.2	1.3	3.7	9.2	15.0	6.3	23.8
Cycle Q Clear(g_c), s	15.0	12.8	1.9	3.6	7.1	10.2	1.3	3.7	9.2	15.0	6.3	23.8
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	321	1119	499	99	688	290	62	644	287	303	1131	534
V/C Ratio(X)	1.00	0.58	0.10	0.75	0.49	0.68	0.46	0.27	0.63	1.80	0.31	0.89
Avail Cap(c_a), veh/h	321	1280	571	303	1280	539	321	1209	539	303	1209	571
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	33.8	23.6	19.9	38.2	29.6	30.8	39.1	28.4	30.6	33.8	20.1	25.9
Incr Delay (d2), s/veh	49.5	0.8	0.2	4.2	0.9	4.7	2.0	0.4	3.8	374.0	0.3	16.8
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	10.4	5.0	0.7	1.6	3.0	3.9	0.6	1.5	3.5	37.2	2.3	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.2	24.5	20.1	42.4	30.5	35.6	41.1	28.8	34.4	407.8	20.4	42.6
LnGrp LOS	F	C	C	D	C	D	D	C	C	F	C	D
Approach Vol, veh/h		1023			609			386			1371	
Approach Delay, s/veh		42.6			33.6			32.3			182.4	
Approach LOS		D			C			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	21.5	9.9	31.2	7.9	33.6	20.0	21.1
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0
Max Green Setting (Gmax), s	15.0	30.0	15.0	30.0	15.0	30.0	15.0	30.0
Max Q Clear Time (g_c+I1), s	17.0	11.2	5.6	14.8	3.3	25.8	17.0	12.2
Green Ext Time (p_c), s	0.0	2.5	0.1	4.8	0.0	2.3	0.0	4.0

Intersection Summary	
HCM 6th Ctrl Delay	96.4
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	467	0	0	1074	175	0	0	0	118	0	90
Future Volume (veh/h)	152	467	0	0	1074	175	0	0	0	118	0	90
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	0	1856	1752	1752	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	165	508	0	0	1167	190	0	0	0	128	0	98
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, %	3	3	3	0	3	10	10	10	10	10	10	3
Cap, veh/h	234	2344	0	0	1594	671	0	304	0	360	0	273
Arrive On Green	0.13	0.66	0.00	0.00	0.45	0.45	0.00	0.00	0.00	0.17	0.00	0.17
Sat Flow, veh/h	1767	3618	0	0	3618	1485	0	1752	0	1328	0	1572
Grp Volume(v), veh/h	165	508	0	0	1167	190	0	0	0	128	0	98
Grp Sat Flow(s),veh/h/ln	1767	1763	0	0	1763	1485	0	1752	0	1328	0	1572
Q Serve(g_s), s	5.0	3.1	0.0	0.0	15.1	4.5	0.0	0.0	0.0	4.9	0.0	3.1
Cycle Q Clear(g_c), s	5.0	3.1	0.0	0.0	15.1	4.5	0.0	0.0	0.0	4.9	0.0	3.1
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	234	2344	0	0	1594	671	0	304	0	360	0	273
V/C Ratio(X)	0.71	0.22	0.00	0.00	0.73	0.28	0.00	0.00	0.00	0.36	0.00	0.36
Avail Cap(c_a), veh/h	950	3159	0	0	3159	1330	0	785	0	962	0	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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.2	3.7	0.0	0.0	12.5	9.6	0.0	0.0	0.0	21.1	0.0	20.3
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.0	0.7	0.2	0.0	0.0	0.0	0.2	0.0	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	2.0	0.6	0.0	0.0	4.8	1.2	0.0	0.0	0.0	1.5	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	3.7	0.0	0.0	13.2	9.8	0.0	0.0	0.0	21.3	0.0	20.6
LnGrp LOS	C	A	A	A	B	A	A	A	A	C	A	C
Approach Vol, veh/h		673			1357			0			226	
Approach Delay, s/veh		8.8			12.7			0.0			21.0	
Approach LOS		A			B						C	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		41.6		14.2	11.9	29.7		14.2				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		50.0		35.0	30.0	50.0		25.0				
Max Q Clear Time (g_c+I1), s		5.1		6.9	7.0	17.1		0.0				
Green Ext Time (p_c), s		2.4		0.8	0.3	8.1		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			12.4									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	380	71	287	706	31	475	29	487	20	21	21
Future Volume (veh/h)	108	380	71	287	706	31	475	29	487	20	21	21
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	117	413	77	312	767	34	516	32	0	22	23	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, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	184	743	331	353	1079	481	527	28		336	329	
Arrive On Green	0.11	0.22	0.22	0.21	0.32	0.32	0.35	0.35	0.00	0.35	0.35	0.00
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1259	78	1485	773	931	1485
Grp Volume(v), veh/h	117	413	77	312	767	34	548	0	0	45	0	0
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1337	0	1485	1704	0	1485
Q Serve(g_s), s	5.7	9.3	3.6	15.4	17.2	1.3	28.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.7	9.3	3.6	15.4	17.2	1.3	30.0	0.0	0.0	1.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.94		1.00	0.49		1.00
Lane Grp Cap(c), veh/h	184	743	331	353	1079	481	555	0		665	0	
V/C Ratio(X)	0.64	0.56	0.23	0.88	0.71	0.07	0.99	0.00		0.07	0.00	
Avail Cap(c_a), veh/h	983	1960	874	393	1960	874	555	0		665	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	36.1	29.2	27.0	32.5	25.2	19.8	29.4	0.0	0.0	18.2	0.0	0.0
Incr Delay (d2), s/veh	7.5	1.4	0.8	21.5	1.9	0.1	35.2	0.0	0.0	0.2	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	2.6	3.6	1.3	7.7	6.2	0.4	16.3	0.0	0.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	30.6	27.8	54.0	27.1	20.0	64.5	0.0	0.0	18.4	0.0	0.0
LnGrp LOS	D	C	C	D	C	B	E	A		B	A	
Approach Vol, veh/h		607			1113			548	A		45	A
Approach Delay, s/veh		32.8			34.4			64.5			18.4	
Approach LOS		C			C			E			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	24.0	24.9		36.0	15.4	33.5		36.0
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s	20.0	50.0		30.0	50.0	50.0		30.0
Max Q Clear Time (g_c+I1), s	17.4	11.3		3.4	7.7	19.2		32.0
Green Ext Time (p_c), s	0.6	5.0		0.3	1.0	8.4		0.0

Intersection Summary	
HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D

Notes

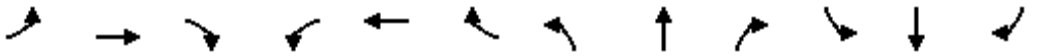
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	14.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	2	276	7	3	0	17	32	2	262	5
Future Vol, veh/h	0	0	2	276	7	3	0	17	32	2	262	5
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
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	0	0	2	310	8	3	0	19	36	2	294	6
Number of Lanes	1	1	0	1	1	0	1	2	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	8.8	16.2	9.3	14.3
HCM LOS	A	C	A	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	100%	100%	15%	100%	0%	0%	70%	0%	100%	0%
Vol Right, %	0%	0%	85%	0%	100%	0%	30%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	11	38	0	2	276	10	2	262	5
LT Vol	0	0	0	0	0	276	0	2	0	0
Through Vol	0	11	6	0	0	0	7	0	262	0
RT Vol	0	0	32	0	2	0	3	0	0	5
Lane Flow Rate	0	13	42	0	2	310	11	2	294	6
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0	0.023	0.071	0	0.004	0.547	0.018	0.004	0.493	0.008
Departure Headway (Hd)	6.638	6.638	6.033	6.718	6.011	6.352	5.641	6.535	6.03	5.323
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	539	593	0	595	571	636	551	601	676
Service Time	4.377	4.377	3.772	4.46	3.752	4.075	3.364	4.235	3.73	3.023
HCM Lane V/C Ratio	0	0.024	0.071	0	0.003	0.543	0.017	0.004	0.489	0.009
HCM Control Delay	9.4	9.5	9.2	9.5	8.8	16.5	8.5	9.3	14.5	8.1
HCM Lane LOS	N	A	A	N	A	C	A	A	B	A
HCM 95th-tile Q	0	0.1	0.2	0	0	3.3	0.1	0	2.7	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	1230	8	2	808	8	23	0	5	29	0	105
Future Volume (veh/h)	49	1230	8	2	808	8	23	0	5	29	0	105
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1292	1856	1856	1856	1856	1856	1752	1900	1900	1856	1900	1900
Adj Flow Rate, veh/h	49	1230	8	2	808	8	23	0	5	29	0	105
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	41	3	3	3	3	3	10	0	0	3	0	0
Cap, veh/h	56	1277	8	4	1193	12	97	0	207	37	0	133
Arrive On Green	0.05	0.69	0.69	0.00	0.65	0.65	0.06	0.00	0.13	0.02	0.00	0.08
Sat Flow, veh/h	1231	1841	12	1767	1834	18	1668	0	1610	1767	0	1610
Grp Volume(v), veh/h	49	0	1238	2	0	816	23	0	5	29	0	105
Grp Sat Flow(s),veh/h/ln	1231	0	1853	1767	0	1852	1668	0	1610	1767	0	1610
Q Serve(g_s), s	4.6	0.0	71.6	0.1	0.0	32.0	1.5	0.0	0.3	1.9	0.0	7.4
Cycle Q Clear(g_c), s	4.6	0.0	71.6	0.1	0.0	32.0	1.5	0.0	0.3	1.9	0.0	7.4
Prop In Lane	1.00		0.01	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	56	0	1285	4	0	1204	97	0	207	37	0	133
V/C Ratio(X)	0.88	0.00	0.96	0.53	0.00	0.68	0.24	0.00	0.02	0.78	0.00	0.79
Avail Cap(c_a), veh/h	138	0	1485	61	0	1341	244	0	402	91	0	250
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.1	0.0	16.4	57.8	0.0	12.7	52.2	0.0	44.2	56.5	0.0	52.2
Incr Delay (d2), s/veh	31.8	0.0	13.9	81.9	0.0	0.9	0.5	0.0	0.0	29.3	0.0	9.8
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	1.9	0.0	28.5	0.1	0.0	11.5	0.7	0.0	0.1	1.1	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.8	0.0	30.3	139.8	0.0	13.6	52.7	0.0	44.2	85.8	0.0	62.0
LnGrp LOS	F	A	C	F	A	B	D	A	D	F	A	E
Approach Vol, veh/h		1287			818			28			134	
Approach Delay, s/veh		32.5			13.9			51.2			67.2	
Approach LOS		C			B			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.2	85.5	11.7	14.6	9.3	80.5	6.4	19.9
Change Period (Y+Rc), s	4.0	5.0	5.0	* 5	4.0	5.0	4.0	5.0
Max Green Setting (Gmax), s	4.0	93.0	17.0	* 18	13.0	84.0	6.0	29.0
Max Q Clear Time (g_c+I1), s	2.1	73.6	3.5	9.4	6.6	34.0	3.9	2.3
Green Ext Time (p_c), s	0.0	6.9	0.0	0.3	0.0	3.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑↱				↱			↱
Traffic Vol, veh/h	0	1267	11	0	934	2	0	0	20	0	0	13
Future Vol, veh/h	0	1267	11	0	934	2	0	0	20	0	0	13
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	-	-	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, %	0	5	10	0	10	0	0	0	3	0	0	0
Mvmt Flow	0	1377	12	0	1015	2	0	0	22	0	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	689	-	-	509
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.96	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.33	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	386	0	0	515
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	386	-	-	515
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	14.9	12.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	386	-	-	-	-	515
HCM Lane V/C Ratio	0.056	-	-	-	-	0.027
HCM Control Delay (s)	14.9	-	-	-	-	12.2
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	821	9	144	749	54	14	6	253	204	2	56
Future Volume (veh/h)	34	821	9	144	749	54	14	6	253	204	2	56
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	34	821	9	144	749	54	14	6	253	204	2	56
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	85	965	430	174	1142	509	44	7	294	239	16	443
Arrive On Green	0.05	0.29	0.29	0.10	0.34	0.34	0.03	0.20	0.20	0.14	0.31	0.31
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	35	1455	1668	51	1441
Grp Volume(v), veh/h	34	821	9	144	749	54	14	0	259	204	0	58
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	0	1490	1668	0	1492
Q Serve(g_s), s	1.7	20.5	0.4	7.5	16.8	2.2	0.7	0.0	14.8	10.5	0.0	2.5
Cycle Q Clear(g_c), s	1.7	20.5	0.4	7.5	16.8	2.2	0.7	0.0	14.8	10.5	0.0	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Lane Grp Cap(c), veh/h	85	965	430	174	1142	509	44	0	301	239	0	459
V/C Ratio(X)	0.40	0.85	0.02	0.83	0.66	0.11	0.32	0.00	0.86	0.85	0.00	0.13
Avail Cap(c_a), veh/h	151	1394	622	189	1470	656	151	0	624	340	0	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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.6	29.6	22.4	38.8	24.6	19.8	42.2	0.0	34.0	36.9	0.0	22.0
Incr Delay (d2), s/veh	1.1	2.5	0.0	21.9	0.3	0.0	1.5	0.0	2.8	10.0	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	0.7	7.9	0.1	4.0	6.1	0.7	0.3	0.0	5.4	4.8	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	32.0	22.4	60.6	24.9	19.8	43.7	0.0	36.9	46.9	0.0	22.1
LnGrp LOS	D	C	C	E	C	B	D	A	D	D	A	C
Approach Vol, veh/h		864			947			273			262	
Approach Delay, s/veh		32.3			30.0			37.2			41.4	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.2	31.6	17.7	23.8	10.5	36.3	8.3	33.2
Change Period (Y+Rc), s	6.0	6.0	5.0	6.0	6.0	6.0	6.0	* 6
Max Green Setting (Gmax), s	10.0	37.0	18.0	37.0	8.0	39.0	8.0	* 47
Max Q Clear Time (g_c+I1), s	9.5	22.5	12.5	16.8	3.7	18.8	2.7	4.5
Green Ext Time (p_c), s	0.0	3.1	0.1	1.0	0.0	3.1	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

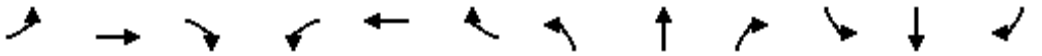
Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	0	60	10	0	5	21	78	5	3	182	7
Future Vol, veh/h	15	0	60	10	0	5	21	78	5	3	182	7
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	-	300	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	10	10	10	10	10	40	10	10	10	33	10	10
Mvmt Flow	15	0	60	10	0	5	21	78	5	3	182	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	317	317	95	217	315	78	189	0	0	83	0	0
Stage 1	192	192	-	120	120	-	-	-	-	-	-	-
Stage 2	125	125	-	97	195	-	-	-	-	-	-	-
Critical Hdwy	7.45	6.65	7.05	7.45	6.65	6.8	4.25	-	-	4.595	-	-
Critical Hdwy Stg 1	6.65	5.65	-	6.25	5.65	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.25	5.65	-	6.65	5.65	-	-	-	-	-	-	-
Follow-up Hdwy	3.595	4.095	3.395	3.595	4.095	3.68	2.295	-	-	2.5135	-	-
Pot Cap-1 Maneuver	606	583	920	711	585	878	1332	-	-	1326	-	-
Stage 1	772	724	-	863	779	-	-	-	-	-	-	-
Stage 2	857	775	-	878	722	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	594	573	920	656	574	878	1332	-	-	1326	-	-
Mov Cap-2 Maneuver	594	573	-	656	574	-	-	-	-	-	-	-
Stage 1	760	723	-	849	767	-	-	-	-	-	-	-
Stage 2	839	763	-	819	721	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	10.1	1.6	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1332	-	-	829	716	1326	-	-
HCM Lane V/C Ratio	0.016	-	-	0.09	0.021	0.002	-	-
HCM Control Delay (s)	7.7	-	-	9.8	10.1	7.7	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	0	60	50	0	26	21	51	26	11	82	6
Future Volume (veh/h)	14	0	60	50	0	26	21	51	26	11	82	6
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1633	1752	1752
Adj Flow Rate, veh/h	14	0	60	50	0	26	21	51	26	11	82	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	18	10	10
Cap, veh/h	153	0	211	78	0	144	36	558	249	18	497	36
Arrive On Green	0.09	0.00	0.14	0.05	0.00	0.10	0.02	0.17	0.17	0.01	0.16	0.16
Sat Flow, veh/h	1668	0	1485	1668	0	1485	1668	3328	1485	1555	3147	228
Grp Volume(v), veh/h	14	0	60	50	0	26	21	51	26	11	43	45
Grp Sat Flow(s),veh/h/ln	1668	0	1485	1668	0	1485	1668	1664	1485	1555	1664	1711
Q Serve(g_s), s	0.2	0.0	0.9	0.7	0.0	0.4	0.3	0.3	0.4	0.2	0.6	0.6
Cycle Q Clear(g_c), s	0.2	0.0	0.9	0.7	0.0	0.4	0.3	0.3	0.4	0.2	0.6	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	153	0	211	78	0	144	36	558	249	18	263	270
V/C Ratio(X)	0.09	0.00	0.28	0.64	0.00	0.18	0.58	0.09	0.10	0.60	0.16	0.17
Avail Cap(c_a), veh/h	1185	0	1757	395	0	1054	263	2495	1113	246	1248	1283
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	10.5	0.0	9.7	11.9	0.0	10.5	12.3	8.9	8.9	12.5	9.2	9.2
Incr Delay (d2), s/veh	0.3	0.0	0.7	8.4	0.0	0.6	13.8	0.1	0.2	27.8	0.3	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	0.1	0.0	0.3	0.4	0.0	0.1	0.2	0.1	0.1	0.2	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.8	0.0	10.4	20.3	0.0	11.1	26.1	9.0	9.1	40.2	9.5	9.5
LnGrp LOS	B	A	B	C	A	B	C	A	A	D	A	A
Approach Vol, veh/h		74			76			98			99	
Approach Delay, s/veh		10.5			17.1			12.7			12.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.3	8.3	5.2	7.6	4.5	8.0	6.3	6.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	19.0	6.0	30.0	4.0	19.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	2.2	2.4	2.7	2.9	2.3	2.6	2.2	2.4
Green Ext Time (p_c), s	0.0	0.2	0.0	0.3	0.0	0.3	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	3	86	5	4	95
Future Vol, veh/h	4	3	86	5	4	95
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	-	-	250	600	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	25	67	10	10	25	10
Mvmt Flow	4	3	86	5	4	95

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	189	43	0	0	91	0
Stage 1	86	-	-	-	-	-
Stage 2	103	-	-	-	-	-
Critical Hdwy	6.975	7.905	-	-	4.475	-
Critical Hdwy Stg 1	6.175	-	-	-	-	-
Critical Hdwy Stg 2	5.775	-	-	-	-	-
Follow-up Hdwy	3.7375	3.9365	-	-	2.4375	-
Pot Cap-1 Maneuver	736	852	-	-	1360	-
Stage 1	869	-	-	-	-	-
Stage 2	861	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	734	852	-	-	1360	-
Mov Cap-2 Maneuver	734	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	858	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	780	1360	-
HCM Lane V/C Ratio	-	-	0.009	0.003	-
HCM Control Delay (s)	-	-	9.7	7.7	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	58	56	33	41	26
Future Vol, veh/h	24	58	56	33	41	26
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	27	64	62	37	46	29
Number of Lanes	1	1	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	7.6	8.3	7.9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	61%
Vol Right, %	0%	0%	0%	100%	39%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	56	33	24	58	67
LT Vol	56	0	24	0	0
Through Vol	0	33	0	0	41
RT Vol	0	0	0	58	26
Lane Flow Rate	62	37	27	64	74
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.091	0.048	0.041	0.077	0.092
Departure Headway (Hd)	5.248	4.747	5.483	4.279	4.454
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	676	745	657	842	808
Service Time	3.037	2.535	3.186	1.983	2.461
HCM Lane V/C Ratio	0.092	0.05	0.041	0.076	0.092
HCM Control Delay	8.6	7.8	8.4	7.3	7.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0.1	0.2	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	24	0	1	14	67	4	16	0	54	8	102
Future Volume (veh/h)	78	24	0	1	14	67	4	16	0	54	8	102
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	78	24	0	1	14	67	4	16	0	54	8	102
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	123	638	285	5	397	177	7	147	0	157	19	242
Arrive On Green	0.07	0.19	0.00	0.00	0.12	0.12	0.00	0.08	0.00	0.09	0.17	0.17
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	1752	0	1668	109	1392
Grp Volume(v), veh/h	78	24	0	1	14	67	4	16	0	54	0	110
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1752	0	1668	0	1501
Q Serve(g_s), s	1.5	0.2	0.0	0.0	0.1	1.4	0.1	0.3	0.0	1.0	0.0	2.2
Cycle Q Clear(g_c), s	1.5	0.2	0.0	0.0	0.1	1.4	0.1	0.3	0.0	1.0	0.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.93
Lane Grp Cap(c), veh/h	123	638	285	5	397	177	7	147	0	157	0	261
V/C Ratio(X)	0.64	0.04	0.00	0.20	0.04	0.38	0.55	0.11	0.00	0.34	0.00	0.42
Avail Cap(c_a), veh/h	1537	6163	2749	244	3582	1598	244	1724	0	940	0	2104
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.1	11.0	0.0	16.7	13.1	13.6	16.7	14.2	0.0	14.2	0.0	12.4
Incr Delay (d2), s/veh	5.3	0.0	0.0	18.7	0.0	1.3	51.9	0.3	0.0	1.3	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	0.6	0.1	0.0	0.0	0.0	0.4	0.1	0.1	0.0	0.4	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.4	11.1	0.0	35.4	13.1	15.0	68.6	14.5	0.0	15.5	0.0	13.4
LnGrp LOS	C	B	A	D	B	B	E	B	A	B	A	B
Approach Vol, veh/h		102			82			20			164	
Approach Delay, s/veh		18.2			14.9			25.3			14.1	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	12.2	5.2	10.9	7.6	9.8	8.3	7.9
Change Period (Y+Rc), s	5.1	5.8	5.1	5.1	5.1	5.8	5.1	5.1
Max Green Setting (Gmax), s	4.9	62.1	4.9	47.0	30.9	36.1	18.9	33.0
Max Q Clear Time (g_c+I1), s	2.0	2.2	2.1	4.2	3.5	3.4	3.0	2.3
Green Ext Time (p_c), s	0.0	0.1	0.0	0.7	0.2	0.3	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	16.0
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	596	39	131	667	51	96	0	28	59	7	81
Future Volume (veh/h)	31	596	39	131	667	51	96	0	28	59	7	81
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	39	745	49	164	834	64	120	0	35	74	9	101
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	102	955	63	230	1364	423	190	571	255	239	670	299
Arrive On Green	0.06	0.21	0.21	0.14	0.29	0.29	0.11	0.00	0.17	0.14	0.20	0.20
Sat Flow, veh/h	1668	4586	300	1668	4782	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	39	517	277	164	834	64	120	0	35	74	9	101
Grp Sat Flow(s),veh/h/ln	1668	1594	1698	1668	1594	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	1.6	10.7	10.7	6.5	10.5	2.2	4.8	0.0	1.4	2.8	0.2	4.1
Cycle Q Clear(g_c), s	1.6	10.7	10.7	6.5	10.5	2.2	4.8	0.0	1.4	2.8	0.2	4.1
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	102	664	354	230	1364	423	190	571	255	239	670	299
V/C Ratio(X)	0.38	0.78	0.78	0.71	0.61	0.15	0.63	0.00	0.14	0.31	0.01	0.34
Avail Cap(c_a), veh/h	192	1329	708	264	2200	683	245	1732	772	245	1732	772
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	31.4	26.0	26.1	28.7	21.5	18.6	29.4	0.0	24.5	26.7	22.3	23.8
Incr Delay (d2), s/veh	0.9	0.8	1.5	7.5	0.2	0.1	1.3	0.0	0.1	0.7	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	0.6	3.7	4.0	2.9	3.5	0.7	1.9	0.0	0.5	1.1	0.1	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.3	26.8	27.5	36.2	21.7	18.6	30.7	0.0	24.5	27.4	22.3	24.5
LnGrp LOS	C	C	C	D	C	B	C	A	C	C	C	C
Approach Vol, veh/h		833			1062			155			184	
Approach Delay, s/veh		27.3			23.8			29.3			25.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.6	20.5	13.7	19.8	10.2	25.8	15.8	17.7
Change Period (Y+Rc), s	6.0	6.0	5.8	5.8	6.0	6.0	5.8	5.8
Max Green Setting (Gmax), s	11.6	29.0	10.2	36.2	8.0	32.0	10.2	36.2
Max Q Clear Time (g_c+I1), s	8.5	12.7	6.8	6.1	3.6	12.5	4.8	3.4
Green Ext Time (p_c), s	0.1	1.7	0.0	0.3	0.0	2.3	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	425	25	47	563	68	0	0	138	14
Future Volume (veh/h)	0	0	0	425	25	47	563	68	0	0	138	14
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1752	1900	1752	1752	0	0	1752	1752
Adj Flow Rate, veh/h				462	27	51	612	74	0	0	150	15
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	10	0	10	10	0	0	10	10
Cap, veh/h				495	29	55	604	946	0	0	186	19
Arrive On Green				0.35	0.35	0.35	0.36	0.54	0.00	0.00	0.12	0.12
Sat Flow, veh/h				1414	83	156	1668	1752	0	0	1567	157
Grp Volume(v), veh/h				540	0	0	612	74	0	0	0	165
Grp Sat Flow(s),veh/h/ln				1653	0	0	1668	1752	0	0	0	1724
Q Serve(g_s), s				26.1	0.0	0.0	30.0	1.7	0.0	0.0	0.0	7.7
Cycle Q Clear(g_c), s				26.1	0.0	0.0	30.0	1.7	0.0	0.0	0.0	7.7
Prop In Lane				0.86		0.09	1.00		0.00	0.00		0.09
Lane Grp Cap(c), veh/h				579	0	0	604	946	0	0	0	205
V/C Ratio(X)				0.93	0.00	0.00	1.01	0.08	0.00	0.00	0.00	0.80
Avail Cap(c_a), veh/h				698	0	0	604	946	0	0	0	520
HCM Platoon Ratio				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	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				26.0	0.0	0.0	26.4	9.2	0.0	0.0	0.0	35.6
Incr Delay (d2), s/veh				16.4	0.0	0.0	40.0	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
%ile BackOfQ(50%),veh/ln				12.1	0.0	0.0	17.5	0.6	0.0	0.0	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				42.4	0.0	0.0	66.4	9.2	0.0	0.0	0.0	38.4
LnGrp LOS				D	A	A	F	A	A	A	A	D
Approach Vol, veh/h					540			686			165	
Approach Delay, s/veh					42.4			60.3			38.4	
Approach LOS					D			E			D	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	49.7		34.9	14.8		33.2
Change Period (Y+Rc), s	4.9		4.9	4.9		4.2
Max Green Setting (Gmax), s	25.0		30.0	25.0		35.0
Max Q Clear Time (g_c+I1), s	3.7		32.0	9.7		28.1
Green Ext Time (p_c), s	0.1		0.0	0.1		0.9

Intersection Summary		
HCM 6th Ctrl Delay		50.7
HCM 6th LOS		D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	159	421	0	0	0	0	570	840	82	481	0
Future Volume (veh/h)	61	159	421	0	0	0	0	570	840	82	481	0
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752				0	1752	1752	1752	1752	0
Adj Flow Rate, veh/h	66	173	458				0	620	913	89	523	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	10	10	10				0	10	10	10	10	0
Cap, veh/h	119	313	372				0	965	818	113	1154	0
Arrive On Green	0.25	0.25	0.25				0.00	0.55	0.55	0.07	0.66	0.00
Sat Flow, veh/h	477	1251	1485				0	1752	1485	1668	1752	0
Grp Volume(v), veh/h	239	0	458				0	620	913	89	523	0
Grp Sat Flow(s),veh/h/ln	1728	0	1485				0	1752	1485	1668	1752	0
Q Serve(g_s), s	12.0	0.0	25.0				0.0	24.6	55.0	5.2	14.5	0.0
Cycle Q Clear(g_c), s	12.0	0.0	25.0				0.0	24.6	55.0	5.2	14.5	0.0
Prop In Lane	0.28		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	433	0	372				0	965	818	113	1154	0
V/C Ratio(X)	0.55	0.00	1.23				0.00	0.64	1.12	0.79	0.45	0.00
Avail Cap(c_a), veh/h	433	0	372				0	965	818	251	1154	0
HCM Platoon Ratio	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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.6	0.0	37.4				0.0	15.6	22.4	45.8	8.3	0.0
Incr Delay (d2), s/veh	0.9	0.0	125.8				0.0	1.7	68.5	11.5	0.4	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
%ile BackOfQ(50%),veh/ln	5.0	0.0	21.8				0.0	9.2	32.2	2.5	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	0.0	163.2				0.0	17.3	91.0	57.4	8.7	0.0
LnGrp LOS	C	A	F				A	B	F	E	A	A
Approach Vol, veh/h		697						1533			612	
Approach Delay, s/veh		118.7						61.2			15.8	
Approach LOS		F						E			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.7	59.9		29.2		70.6
Change Period (Y+Rc), s	4.0	4.9		* 4.2		4.9
Max Green Setting (Gmax), s	15.0	55.0		* 25		55.0
Max Q Clear Time (g_c+I1), s	7.2	57.0		27.0		16.5
Green Ext Time (p_c), s	0.1	0.0		0.0		3.7

Intersection Summary	
HCM 6th Ctrl Delay	65.5
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	1	13	141	5	289	41	1055	241	229	655	18
Future Volume (veh/h)	6	1	13	141	5	289	41	1055	241	229	655	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	7	1	14	153	5	314	45	1147	262	249	712	20
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, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	26	18	249	188	493	394	117	1164	519	360	1314	621
Arrive On Green	0.01	0.17	0.17	0.11	0.27	0.27	0.07	0.35	0.35	0.11	0.39	0.39
Sat Flow, veh/h	1767	106	1483	1668	1856	1485	1767	3328	1485	3237	3328	1572
Grp Volume(v), veh/h	7	0	15	153	5	314	45	1147	262	249	712	20
Grp Sat Flow(s),veh/h/ln	1767	0	1589	1668	1856	1485	1767	1664	1485	1618	1664	1572
Q Serve(g_s), s	0.3	0.0	0.6	6.4	0.1	14.1	1.7	24.4	10.0	5.3	11.8	0.6
Cycle Q Clear(g_c), s	0.3	0.0	0.6	6.4	0.1	14.1	1.7	24.4	10.0	5.3	11.8	0.6
Prop In Lane	1.00		0.93	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	26	0	266	188	493	394	117	1164	519	360	1314	621
V/C Ratio(X)	0.27	0.00	0.06	0.82	0.01	0.80	0.39	0.99	0.50	0.69	0.54	0.03
Avail Cap(c_a), veh/h	198	0	756	350	883	706	371	1164	519	679	1314	621
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	0.0	25.0	31.0	19.3	24.4	32.0	23.0	18.3	30.6	16.6	13.3
Incr Delay (d2), s/veh	2.1	0.0	0.1	3.3	0.0	1.4	0.8	22.8	1.1	0.9	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	0.2	2.6	0.1	4.7	0.7	12.1	3.3	2.0	4.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	0.0	25.1	34.3	19.3	25.8	32.7	45.8	19.4	31.5	17.2	13.3
LnGrp LOS	D	A	C	C	B	C	C	D	B	C	B	B
Approach Vol, veh/h		22			472			1454			981	
Approach Delay, s/veh		28.8			28.5			40.7			20.8	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	30.0	12.5	16.5	9.2	33.2	5.5	23.5
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5
Max Green Setting (Gmax), s	15.0	25.0	15.0	34.0	15.0	25.0	8.0	34.0
Max Q Clear Time (g_c+I1), s	7.3	26.4	8.4	2.6	3.7	13.8	2.3	16.1
Green Ext Time (p_c), s	0.3	0.0	0.0	0.0	0.0	4.6	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	416	651	59	186	601	436	44	434	121	329	205	266
Future Volume (veh/h)	416	651	59	186	601	436	44	434	121	329	205	266
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	452	708	64	202	653	474	48	472	132	358	223	289
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, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	266	1101	491	231	1060	446	78	643	287	251	996	471
Arrive On Green	0.15	0.31	0.31	0.14	0.30	0.30	0.04	0.19	0.19	0.15	0.30	0.30
Sat Flow, veh/h	1767	3526	1572	1668	3526	1485	1767	3328	1485	1668	3328	1572
Grp Volume(v), veh/h	452	708	64	202	653	474	48	472	132	358	223	289
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1668	1763	1485	1767	1664	1485	1668	1664	1572
Q Serve(g_s), s	15.0	17.2	2.9	11.8	15.9	30.0	2.7	13.3	7.9	15.0	5.0	15.7
Cycle Q Clear(g_c), s	15.0	17.2	2.9	11.8	15.9	30.0	2.7	13.3	7.9	15.0	5.0	15.7
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	266	1101	491	231	1060	446	78	643	287	251	996	471
V/C Ratio(X)	1.70	0.64	0.13	0.87	0.62	1.06	0.61	0.73	0.46	1.43	0.22	0.61
Avail Cap(c_a), veh/h	266	1101	491	251	1060	446	266	1001	446	251	1001	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	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	42.4	29.5	24.6	42.1	30.0	34.9	46.8	37.8	35.6	42.4	26.3	30.0
Incr Delay (d2), s/veh	331.3	1.6	0.2	24.1	1.4	60.0	2.9	2.8	2.0	213.9	0.2	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	30.7	7.1	1.1	6.4	6.8	18.0	1.2	5.5	3.0	20.9	1.9	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	373.7	31.1	24.8	66.2	31.3	94.9	49.7	40.6	37.6	256.3	26.4	33.1
LnGrp LOS	F	C	C	E	C	F	D	D	D	F	C	C
Approach Vol, veh/h		1224			1329			652			870	
Approach Delay, s/veh		157.3			59.3			40.7			123.2	
Approach LOS		F			E			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	24.8	18.8	36.2	9.4	35.4	20.0	35.0
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0
Max Green Setting (Gmax), s	15.0	30.0	15.0	30.0	15.0	30.0	15.0	30.0
Max Q Clear Time (g_c+I1), s	17.0	15.3	13.8	19.2	4.7	17.7	17.0	32.0
Green Ext Time (p_c), s	0.0	4.0	0.1	4.3	0.0	3.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	99.4
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	219	821	0	0	446	114	0	0	0	215	0	271
Future Volume (veh/h)	219	821	0	0	446	114	0	0	0	215	0	271
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	0	1856	1752	1752	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	238	892	0	0	485	124	0	0	0	234	0	295
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, %	3	3	3	0	3	10	10	10	10	10	10	3
Cap, veh/h	270	2434	0	0	1730	728	0	378	0	361	0	339
Arrive On Green	0.15	0.69	0.00	0.00	0.49	0.49	0.00	0.00	0.00	0.22	0.00	0.22
Sat Flow, veh/h	1767	3618	0	0	3618	1485	0	1752	0	1328	0	1572
Grp Volume(v), veh/h	238	892	0	0	485	124	0	0	0	234	0	295
Grp Sat Flow(s),veh/h/ln	1767	1763	0	0	1763	1485	0	1752	0	1328	0	1572
Q Serve(g_s), s	12.7	10.1	0.0	0.0	7.8	4.5	0.0	0.0	0.0	16.1	0.0	17.4
Cycle Q Clear(g_c), s	12.7	10.1	0.0	0.0	7.8	4.5	0.0	0.0	0.0	16.1	0.0	17.4
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	270	2434	0	0	1730	728	0	378	0	361	0	339
V/C Ratio(X)	0.88	0.37	0.00	0.00	0.28	0.17	0.00	0.00	0.00	0.65	0.00	0.87
Avail Cap(c_a), veh/h	285	2434	0	0	1730	728	0	520	0	469	0	467
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.8	6.2	0.0	0.0	14.4	13.6	0.0	0.0	0.0	35.8	0.0	36.3
Incr Delay (d2), s/veh	23.7	0.4	0.0	0.0	0.4	0.5	0.0	0.0	0.0	0.7	0.0	9.8
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	7.1	3.2	0.0	0.0	3.0	1.5	0.0	0.0	0.0	5.3	0.0	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.5	6.6	0.0	0.0	14.8	14.1	0.0	0.0	0.0	36.6	0.0	46.1
LnGrp LOS	E	A	A	A	B	B	A	A	A	D	A	D
Approach Vol, veh/h		1130			609			0			529	
Approach Delay, s/veh		18.6			14.7			0.0			41.9	
Approach LOS		B			B						D	

Timer - Assigned Phs	2		4	5	6		8					
Phs Duration (G+Y+Rc), s	70.8		25.2	19.2	51.6		25.2					
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5					
Max Green Setting (Gmax), s	58.5		28.5	15.5	38.5		28.5					
Max Q Clear Time (g_c+I1), s	12.1		19.4	14.7	9.8		0.0					
Green Ext Time (p_c), s	4.8		1.3	0.0	2.8		0.0					

Intersection Summary		
HCM 6th Ctrl Delay	23.0	
HCM 6th LOS	C	

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	788	172	392	431	37	73	43	414	34	27	54
Future Volume (veh/h)	62	788	172	392	431	37	73	43	414	34	27	54
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	67	857	187	426	468	40	79	47	0	37	29	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, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	164	1292	576	427	1817	810	185	81		164	107	
Arrive On Green	0.10	0.39	0.39	0.26	0.55	0.55	0.13	0.13	0.00	0.13	0.13	0.00
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	871	640	1485	732	848	1485
Grp Volume(v), veh/h	67	857	187	426	468	40	126	0	0	66	0	0
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1511	0	1485	1581	0	1485
Q Serve(g_s), s	3.0	16.6	6.9	20.0	5.8	1.0	3.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.0	16.6	6.9	20.0	5.8	1.0	6.0	0.0	0.0	2.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.63		1.00	0.56		1.00
Lane Grp Cap(c), veh/h	164	1292	576	427	1817	810	265	0		271	0	
V/C Ratio(X)	0.41	0.66	0.32	1.00	0.26	0.05	0.48	0.00		0.24	0.00	
Avail Cap(c_a), veh/h	1067	2128	949	427	2128	949	635	0		644	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	33.1	19.7	16.7	29.1	9.4	8.3	32.4	0.0	0.0	31.1	0.0	0.0
Incr Delay (d2), s/veh	3.5	1.3	0.7	43.1	0.2	0.1	4.7	0.0	0.0	1.7	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	1.3	5.8	2.2	12.1	1.6	0.3	2.5	0.0	0.0	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	21.0	17.4	72.2	9.5	8.3	37.1	0.0	0.0	32.7	0.0	0.0
LnGrp LOS	D	C	B	E	A	A	D	A		C	A	
Approach Vol, veh/h		1111			934			126	A		66	A
Approach Delay, s/veh		21.3			38.1			37.1			32.7	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	26.0	36.4		15.8	13.7	48.7		15.8
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s	20.0	50.0		30.0	50.0	50.0		30.0
Max Q Clear Time (g_c+I1), s	22.0	18.6		4.8	5.0	7.8		8.0
Green Ext Time (p_c), s	0.0	11.8		0.5	0.5	5.1		1.1

Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

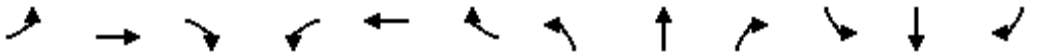
Intersection	
Intersection Delay, s/veh	57
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	28	0	245	1	2	3	109	306	12	175	5
Future Vol, veh/h	6	28	0	245	1	2	3	109	306	12	175	5
Peak Hour Factor	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	9	44	0	383	2	3	5	170	478	19	273	8
Number of Lanes	1	1	0	1	1	0	1	2	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	13.6	52.7	77.9	24.6
HCM LOS	B	F	F	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	11%	0%	100%	0%	33%	0%	100%	0%
Vol Right, %	0%	0%	89%	0%	0%	0%	67%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	73	342	6	28	245	3	12	175	5
LT Vol	3	0	0	6	0	245	0	12	0	0
Through Vol	0	73	36	0	28	0	1	0	175	0
RT Vol	0	0	306	0	0	0	2	0	0	5
Lane Flow Rate	5	114	535	9	44	383	5	19	273	8
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.011	0.251	1.086	0.026	0.115	0.903	0.01	0.047	0.641	0.017
Departure Headway (Hd)	8.466	7.951	7.308	10.247	9.733	8.768	7.792	9.28	8.762	8.037
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	425	454	503	351	371	417	462	388	416	448
Service Time	6.169	5.655	5.011	7.947	7.433	6.468	5.492	6.98	6.462	5.737
HCM Lane V/C Ratio	0.012	0.251	1.064	0.026	0.119	0.918	0.011	0.049	0.656	0.018
HCM Control Delay	11.3	13.3	92.2	13.2	13.7	53.2	10.6	12.4	25.8	10.9
HCM Lane LOS	B	B	F	B	B	F	B	B	D	B
HCM 95th-tile Q	0	1	17.1	0.1	0.4	9.6	0	0.1	4.3	0.1

E. BACKGROUND PLUS ALLIANCE ONLY CONDITIONS SYNCHRO OUTPUT SHEETS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	573	48	55	299	159	27	163	135	455	319	440
Future Volume (veh/h)	294	573	48	55	299	159	27	163	135	455	319	440
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	320	623	52	60	325	173	29	177	147	495	347	478
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, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	329	1097	489	92	634	267	63	642	286	311	1144	540
Arrive On Green	0.19	0.31	0.31	0.06	0.18	0.18	0.04	0.19	0.19	0.19	0.34	0.34
Sat Flow, veh/h	1767	3526	1572	1668	3526	1485	1767	3328	1485	1668	3328	1572
Grp Volume(v), veh/h	320	623	52	60	325	173	29	177	147	495	347	478
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1668	1763	1485	1767	1664	1485	1668	1664	1572
Q Serve(g_s), s	14.5	11.9	1.9	2.8	6.7	8.7	1.3	3.6	7.1	15.0	6.2	23.1
Cycle Q Clear(g_c), s	14.5	11.9	1.9	2.8	6.7	8.7	1.3	3.6	7.1	15.0	6.2	23.1
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	329	1097	489	92	634	267	63	642	286	311	1144	540
V/C Ratio(X)	0.97	0.57	0.11	0.65	0.51	0.65	0.46	0.28	0.51	1.59	0.30	0.88
Avail Cap(c_a), veh/h	329	1314	586	311	1314	553	329	1240	553	311	1240	586
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	23.2	19.8	37.3	29.8	30.6	38.1	27.7	29.1	32.8	19.4	24.9
Incr Delay (d2), s/veh	41.7	0.8	0.2	2.9	1.1	4.5	1.9	0.4	2.4	281.4	0.3	15.2
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	9.6	4.7	0.7	1.2	2.9	3.4	0.6	1.4	2.7	30.0	2.2	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	24.0	19.9	40.2	30.9	35.1	40.0	28.1	31.5	314.1	19.6	40.1
LnGrp LOS	E	C	B	D	C	D	D	C	C	F	B	D
Approach Vol, veh/h		995			558			353			1320	
Approach Delay, s/veh		40.0			33.2			30.5			137.5	
Approach LOS		D			C			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	21.0	9.4	30.0	7.9	33.2	20.0	19.5
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0
Max Green Setting (Gmax), s	15.0	30.0	15.0	30.0	15.0	30.0	15.0	30.0
Max Q Clear Time (g_c+I1), s	17.0	9.1	4.8	13.9	3.3	25.1	16.5	10.7
Green Ext Time (p_c), s	0.0	2.3	0.1	4.7	0.0	2.6	0.0	3.8

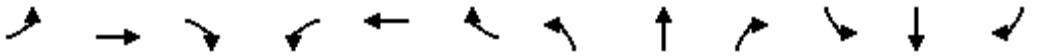
Intersection Summary	
HCM 6th Ctrl Delay	77.7
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

11: MACARTHUR DRIVE (N) & I-205 EAST OFF RAMP/I-205 EAST ON RAMP

Timing Plan: PM



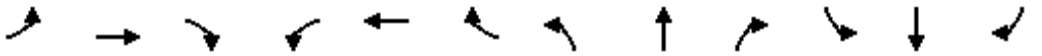
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	159	410	0	0	0	0	544	817	82	470	0
Future Volume (veh/h)	61	159	410	0	0	0	0	544	817	82	470	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752				0	1752	1752	1752	1752	0
Adj Flow Rate, veh/h	66	173	446				0	591	888	89	511	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	10	10	10				0	10	10	10	10	0
Cap, veh/h	119	313	372				0	965	818	113	1154	0
Arrive On Green	0.25	0.25	0.25				0.00	0.55	0.55	0.07	0.66	0.00
Sat Flow, veh/h	477	1251	1485				0	1752	1485	1668	1752	0
Grp Volume(v), veh/h	239	0	446				0	591	888	89	511	0
Grp Sat Flow(s),veh/h/ln	1728	0	1485				0	1752	1485	1668	1752	0
Q Serve(g_s), s	12.0	0.0	25.0				0.0	22.8	55.0	5.2	14.0	0.0
Cycle Q Clear(g_c), s	12.0	0.0	25.0				0.0	22.8	55.0	5.2	14.0	0.0
Prop In Lane	0.28		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	433	0	372				0	965	818	113	1154	0
V/C Ratio(X)	0.55	0.00	1.20				0.00	0.61	1.09	0.79	0.44	0.00
Avail Cap(c_a), veh/h	433	0	372				0	965	818	251	1154	0
HCM Platoon Ratio	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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.6	0.0	37.4				0.0	15.2	22.4	45.8	8.2	0.0
Incr Delay (d2), s/veh	0.9	0.0	113.1				0.0	1.4	57.4	11.5	0.4	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
%ile BackOfQ(50%),veh/ln	5.0	0.0	20.4				0.0	8.5	29.6	2.5	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	0.0	150.5				0.0	16.6	79.8	57.4	8.6	0.0
LnGrp LOS	C	A	F				A	B	F	E	A	A
Approach Vol, veh/h		685						1479			600	
Approach Delay, s/veh		109.7						54.5			15.8	
Approach LOS		F						D			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.7	59.9		29.2		70.6
Change Period (Y+Rc), s	4.0	4.9		* 4.2		4.9
Max Green Setting (Gmax), s	15.0	55.0		* 25		55.0
Max Q Clear Time (g_c+I1), s	7.2	57.0		27.0		16.0
Green Ext Time (p_c), s	0.1	0.0		0.0		3.6

Intersection Summary	
HCM 6th Ctrl Delay	59.8
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	416	638	59	152	566	386	44	434	106	307	205	266
Future Volume (veh/h)	416	638	59	152	566	386	44	434	106	307	205	266
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	452	693	64	165	615	420	48	472	115	334	223	289
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, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	266	1177	525	195	1058	445	78	641	286	252	995	470
Arrive On Green	0.15	0.33	0.33	0.12	0.30	0.30	0.04	0.19	0.19	0.15	0.30	0.30
Sat Flow, veh/h	1767	3526	1572	1668	3526	1485	1767	3328	1485	1668	3328	1572
Grp Volume(v), veh/h	452	693	64	165	615	420	48	472	115	334	223	289
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1668	1763	1485	1767	1664	1485	1668	1664	1572
Q Serve(g_s), s	15.0	16.2	2.8	9.6	14.7	27.5	2.7	13.3	6.7	15.0	5.0	15.7
Cycle Q Clear(g_c), s	15.0	16.2	2.8	9.6	14.7	27.5	2.7	13.3	6.7	15.0	5.0	15.7
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	266	1177	525	195	1058	445	78	641	286	252	995	470
V/C Ratio(X)	1.70	0.59	0.12	0.85	0.58	0.94	0.61	0.74	0.40	1.33	0.22	0.61
Avail Cap(c_a), veh/h	266	1177	525	252	1063	448	266	1003	448	252	1003	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	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	42.3	27.5	23.0	43.1	29.5	34.0	46.7	37.8	35.2	42.3	26.2	30.0
Incr Delay (d2), s/veh	329.2	1.0	0.2	15.3	1.1	28.9	2.9	2.8	1.6	172.4	0.2	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	30.6	6.6	1.1	4.8	6.3	13.2	1.2	5.5	2.5	18.0	1.9	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	371.4	28.5	23.2	58.4	30.6	62.9	49.6	40.7	36.7	214.7	26.4	33.0
LnGrp LOS	F	C	C	E	C	E	D	D	D	F	C	C
Approach Vol, veh/h		1209			1200			635			846	
Approach Delay, s/veh		156.4			45.8			40.6			103.0	
Approach LOS		F			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	24.6	16.6	38.2	9.4	35.2	20.0	34.9
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0
Max Green Setting (Gmax), s	15.0	30.0	15.0	30.0	15.0	30.0	15.0	30.0
Max Q Clear Time (g_c+I1), s	17.0	15.3	11.6	18.2	4.7	17.7	17.0	29.5
Green Ext Time (p_c), s	0.0	3.9	0.1	4.4	0.0	3.0	0.0	0.4

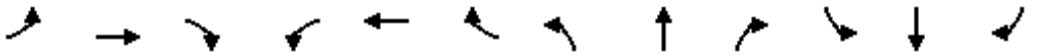
Intersection Summary	
HCM 6th Ctrl Delay	91.8
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Kimley»Horn

F. BACKGROUND PLUS PROJECT CONDITIONS (IMPROVEMENTS) SYNCHRO OUTPUT SHEETS



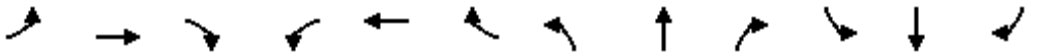
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	573	48	55	299	159	27	163	135	455	319	440
Future Volume (veh/h)	294	573	48	55	299	159	27	163	135	455	319	440
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	320	623	52	60	325	173	29	177	147	495	347	478
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, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	351	1044	466	81	516	682	59	459	205	523	1391	657
Arrive On Green	0.20	0.30	0.30	0.05	0.15	0.15	0.03	0.14	0.14	0.31	0.42	0.42
Sat Flow, veh/h	1767	3526	1572	1668	3526	1485	1767	3328	1485	1668	3328	1572
Grp Volume(v), veh/h	320	623	52	60	325	173	29	177	147	495	347	478
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1668	1763	1485	1767	1664	1485	1668	1664	1572
Q Serve(g_s), s	17.8	15.2	2.4	3.6	8.7	7.2	1.6	4.9	9.5	29.1	6.8	25.5
Cycle Q Clear(g_c), s	17.8	15.2	2.4	3.6	8.7	7.2	1.6	4.9	9.5	29.1	6.8	25.5
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	351	1044	466	81	516	682	59	459	205	523	1391	657
V/C Ratio(X)	0.91	0.60	0.11	0.74	0.63	0.25	0.50	0.39	0.72	0.95	0.25	0.73
Avail Cap(c_a), veh/h	423	1580	705	199	1159	953	106	1078	481	665	2205	1042
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	39.4	30.2	25.7	47.1	40.3	16.6	47.7	39.4	41.4	33.7	19.0	24.4
Incr Delay (d2), s/veh	19.7	0.9	0.2	4.9	2.2	0.3	2.4	0.9	7.8	18.4	0.2	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	9.4	6.3	0.9	1.6	3.9	2.4	0.7	2.0	3.9	13.8	2.5	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	31.1	25.9	52.0	42.5	16.9	50.1	40.3	49.3	52.1	19.1	27.1
LnGrp LOS	E	C	C	D	D	B	D	D	D	D	B	C
Approach Vol, veh/h		995			558			353			1320	
Approach Delay, s/veh		39.9			35.6			44.8			34.4	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.4	19.3	9.9	34.7	8.3	47.4	24.9	19.7
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0
Max Green Setting (Gmax), s	40.0	32.5	12.0	45.0	6.0	66.5	24.0	33.0
Max Q Clear Time (g_c+I1), s	31.1	11.5	5.6	17.2	3.6	27.5	19.8	10.7
Green Ext Time (p_c), s	0.4	2.3	0.0	5.8	0.0	8.2	0.1	4.0

Intersection Summary	
HCM 6th Ctrl Delay	37.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.



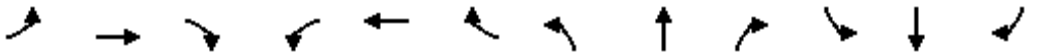
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	159	410	0	0	0	0	544	817	82	470	0
Future Volume (veh/h)	61	159	410	0	0	0	0	544	817	82	470	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752				0	1752	1752	1752	1752	0
Adj Flow Rate, veh/h	66	173	446				0	591	888	89	511	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	10	10	10				0	10	10	10	10	0
Cap, veh/h	119	313	372				0	1833	818	113	1154	0
Arrive On Green	0.25	0.25	0.25				0.00	0.55	0.55	0.07	0.66	0.00
Sat Flow, veh/h	477	1251	1485				0	3416	1485	1668	1752	0
Grp Volume(v), veh/h	239	0	446				0	591	888	89	511	0
Grp Sat Flow(s),veh/h/ln	1728	0	1485				0	1664	1485	1668	1752	0
Q Serve(g_s), s	12.0	0.0	25.0				0.0	9.7	55.0	5.2	14.0	0.0
Cycle Q Clear(g_c), s	12.0	0.0	25.0				0.0	9.7	55.0	5.2	14.0	0.0
Prop In Lane	0.28		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	433	0	372				0	1833	818	113	1154	0
V/C Ratio(X)	0.55	0.00	1.20				0.00	0.32	1.09	0.79	0.44	0.00
Avail Cap(c_a), veh/h	433	0	372				0	1833	818	251	1154	0
HCM Platoon Ratio	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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.6	0.0	37.4				0.0	12.2	22.4	45.8	8.2	0.0
Incr Delay (d2), s/veh	0.9	0.0	113.1				0.0	0.1	57.4	11.5	0.4	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
%ile BackOfQ(50%),veh/ln	5.0	0.0	20.4				0.0	3.3	29.6	2.5	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	0.0	150.5				0.0	12.4	79.8	57.4	8.6	0.0
LnGrp LOS	C	A	F				A	B	F	E	A	A
Approach Vol, veh/h		685						1479			600	
Approach Delay, s/veh		109.7						52.9			15.8	
Approach LOS		F						D			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.7	59.9		29.2		70.6
Change Period (Y+Rc), s	4.0	4.9		* 4.2		4.9
Max Green Setting (Gmax), s	15.0	55.0		* 25		55.0
Max Q Clear Time (g_c+I1), s	7.2	57.0		27.0		16.0
Green Ext Time (p_c), s	0.1	0.0		0.0		3.6

Intersection Summary	
HCM 6th Ctrl Delay	58.9
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	416	638	59	152	566	386	44	434	106	307	205	266
Future Volume (veh/h)	416	638	59	152	566	386	44	434	106	307	205	266
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	452	693	64	165	615	420	48	472	115	334	223	289
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, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	438	1299	579	188	824	641	64	583	260	331	1123	531
Arrive On Green	0.25	0.37	0.37	0.11	0.23	0.23	0.04	0.18	0.18	0.20	0.34	0.34
Sat Flow, veh/h	1767	3526	1572	1668	3526	1485	1767	3328	1485	1668	3328	1572
Grp Volume(v), veh/h	452	693	64	165	615	420	48	472	115	334	223	289
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1668	1763	1485	1767	1664	1485	1668	1664	1572
Q Serve(g_s), s	35.0	21.8	3.8	13.8	22.9	31.7	3.8	19.3	9.8	28.0	6.7	21.1
Cycle Q Clear(g_c), s	35.0	21.8	3.8	13.8	22.9	31.7	3.8	19.3	9.8	28.0	6.7	21.1
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	438	1299	579	188	824	641	64	583	260	331	1123	531
V/C Ratio(X)	1.03	0.53	0.11	0.88	0.75	0.66	0.75	0.81	0.44	1.01	0.20	0.54
Avail Cap(c_a), veh/h	438	1299	579	295	824	641	113	789	352	331	1237	584
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	53.1	35.1	29.4	61.7	50.2	31.8	67.5	56.0	52.1	56.6	33.2	38.0
Incr Delay (d2), s/veh	51.6	0.7	0.1	10.7	4.2	3.0	6.6	6.0	2.0	52.0	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	21.4	9.3	1.5	6.4	10.6	11.9	1.8	8.5	3.8	16.4	2.7	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.7	35.7	29.5	72.3	54.5	34.8	74.0	62.0	54.1	108.7	33.4	39.5
LnGrp LOS	F	D	C	E	D	C	E	E	D	F	C	D
Approach Vol, veh/h		1209			1200			635			846	
Approach Delay, s/veh		61.2			50.0			61.5			65.2	
Approach LOS		E			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.0	30.3	21.0	57.0	10.1	53.2	40.0	38.0
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0
Max Green Setting (Gmax), s	28.0	33.5	25.0	43.0	9.0	52.5	35.0	33.0
Max Q Clear Time (g_c+I1), s	30.0	21.3	15.8	23.8	5.8	23.1	37.0	33.7
Green Ext Time (p_c), s	0.0	3.5	0.2	5.7	0.0	4.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	58.7
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

G. CUMULATIVE CONDITIONS SYNCHRO OUTPUT SHEETS

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	391	21	5	646	7	1
Future Volume (veh/h)	391	21	5	646	7	1
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
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1752	1856	1856	1900	1900
Adj Flow Rate, veh/h	391	21	5	646	7	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	10	3	3	0	0
Cap, veh/h	877	702	10	1180	12	2
Arrive On Green	0.47	0.47	0.01	0.64	0.01	0.01
Sat Flow, veh/h	1856	1485	1767	1856	1287	184
Grp Volume(v), veh/h	391	21	5	646	9	0
Grp Sat Flow(s),veh/h/ln	1856	1485	1767	1856	1654	0
Q Serve(g_s), s	3.6	0.2	0.1	4.9	0.1	0.0
Cycle Q Clear(g_c), s	3.6	0.2	0.1	4.9	0.1	0.0
Prop In Lane		1.00	1.00		0.78	0.11
Lane Grp Cap(c), veh/h	877	702	10	1180	16	0
V/C Ratio(X)	0.45	0.03	0.52	0.55	0.56	0.00
Avail Cap(c_a), veh/h	1389	1111	278	1974	261	0
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	0.00
Uniform Delay (d), s/veh	4.5	3.6	12.6	2.6	12.5	0.0
Incr Delay (d2), s/veh	0.1	0.0	37.0	0.1	27.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.0	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.6	3.6	49.6	2.7	39.8	0.0
LnGrp LOS	A	A	D	A	D	A
Approach Vol, veh/h	412			651	9	
Approach Delay, s/veh	4.6			3.1	39.8	
Approach LOS	A			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	4.1	17.0				21.1	4.2
Change Period (Y+Rc), s	4.0	5.0				5.0	4.0
Max Green Setting (Gmax), s	4.0	19.0				27.0	4.0
Max Q Clear Time (g_c+I1), s	2.1	5.6				6.9	2.1
Green Ext Time (p_c), s	0.0	1.1				2.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.0
HCM 6th LOS	A

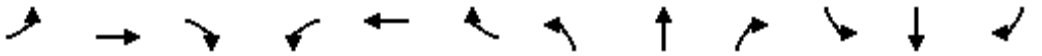
Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	393	24	0	653	0	19
Future Vol, veh/h	393	24	0	653	0	19
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	100	100	100	100	100	100
Heavy Vehicles, %	3	10	3	3	10	3
Mvmt Flow	393	24	0	653	0	19

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	197
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.33
Pot Cap-1 Maneuver	-	-	0	-	0	808
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	808
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)	808	-	-	-
HCM Lane V/C Ratio	0.024	-	-	-
HCM Control Delay (s)	9.6	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	201	50	50	453	150	25	25	25	190	75	25
Future Volume (veh/h)	50	201	50	50	453	150	25	25	25	190	75	25
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	50	201	50	50	453	150	25	25	25	190	75	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	123	635	283	123	635	283	75	146	146	316	543	460
Arrive On Green	0.07	0.19	0.19	0.07	0.19	0.19	0.04	0.18	0.18	0.19	0.31	0.31
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	804	804	1668	1752	1485
Grp Volume(v), veh/h	50	201	50	50	453	150	25	0	50	190	75	25
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	0	1607	1668	1752	1485
Q Serve(g_s), s	1.8	3.3	1.8	1.8	8.0	5.7	0.9	0.0	1.7	6.6	1.9	0.7
Cycle Q Clear(g_c), s	1.8	3.3	1.8	1.8	8.0	5.7	0.9	0.0	1.7	6.6	1.9	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	123	635	283	123	635	283	75	0	291	316	543	460
V/C Ratio(X)	0.40	0.32	0.18	0.40	0.71	0.53	0.33	0.00	0.17	0.60	0.14	0.05
Avail Cap(c_a), veh/h	238	1952	870	212	1899	847	212	0	942	529	1360	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	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	27.9	22.0	21.4	27.9	23.9	23.0	29.2	0.0	21.8	23.4	15.7	15.3
Incr Delay (d2), s/veh	0.8	0.1	0.1	0.8	0.6	0.6	1.0	0.0	0.1	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	0.7	1.1	0.6	0.7	2.8	1.8	0.4	0.0	0.6	2.4	0.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	22.1	21.5	28.7	24.5	23.6	30.2	0.0	21.9	24.1	15.7	15.3
LnGrp LOS	C	C	C	C	C	C	C	A	C	C	B	B
Approach Vol, veh/h		301			653			75			290	
Approach Delay, s/veh		23.1			24.6			24.7			21.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	18.0	17.0	17.4	10.7	18.0	8.8	25.6
Change Period (Y+Rc), s	6.0	6.0	5.0	6.0	6.0	6.0	6.0	* 6
Max Green Setting (Gmax), s	8.0	37.0	20.0	37.0	9.0	36.0	8.0	* 49
Max Q Clear Time (g_c+I1), s	3.8	5.3	8.6	3.7	3.8	10.0	2.9	3.9
Green Ext Time (p_c), s	0.0	0.8	0.2	0.1	0.0	2.0	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	11	35	190	279	35
Future Vol, veh/h	11	11	35	190	279	35
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	100	100	100	100	100	100
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	11	11	35	190	279	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	557	157	314	0	-	0
Stage 1	297	-	-	-	-	-
Stage 2	260	-	-	-	-	-
Critical Hdwy	6.75	7.05	4.25	-	-	-
Critical Hdwy Stg 1	5.95	-	-	-	-	-
Critical Hdwy Stg 2	5.55	-	-	-	-	-
Follow-up Hdwy	3.595	3.395	2.295	-	-	-
Pot Cap-1 Maneuver	459	839	1195	-	-	-
Stage 1	708	-	-	-	-	-
Stage 2	762	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	446	839	1195	-	-	-
Mov Cap-2 Maneuver	446	-	-	-	-	-
Stage 1	687	-	-	-	-	-
Stage 2	762	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1195	-	582	-	-
HCM Lane V/C Ratio	0.029	-	0.038	-	-
HCM Control Delay (s)	8.1	-	11.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	11	35	166	303	35
Future Vol, veh/h	11	11	35	166	303	35
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	-	280	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	11	11	35	166	303	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	474	169	338	0	-	0
Stage 1	321	-	-	-	-	-
Stage 2	153	-	-	-	-	-
Critical Hdwy	7	7.1	4.3	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.3	-	-	-
Pot Cap-1 Maneuver	500	821	1162	-	-	-
Stage 1	685	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	485	821	1162	-	-	-
Mov Cap-2 Maneuver	485	-	-	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	836	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1162	-	610	-	-
HCM Lane V/C Ratio	0.03	-	0.036	-	-
HCM Control Delay (s)	8.2	-	11.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	665	50	288	468	30	147
Future Volume (veh/h)	665	50	288	468	30	147
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
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	665	50	288	468	30	147
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10
Cap, veh/h	2073	153	499	2801	168	340
Arrive On Green	0.30	0.30	0.15	0.59	0.10	0.10
Sat Flow, veh/h	7167	503	3237	4940	1668	3385
Grp Volume(v), veh/h	550	165	288	468	30	147
Grp Sat Flow(s),veh/h/ln	1419	1661	1618	1594	1668	1128
Q Serve(g_s), s	2.3	2.4	2.6	1.4	0.5	1.3
Cycle Q Clear(g_c), s	2.3	2.4	2.6	1.4	0.5	1.3
Prop In Lane		0.30	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1722	504	499	2801	168	340
V/C Ratio(X)	0.32	0.33	0.58	0.17	0.18	0.43
Avail Cap(c_a), veh/h	7670	2245	726	8147	2511	5094
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	8.4	8.4	12.3	3.0	12.9	13.2
Incr Delay (d2), s/veh	0.1	0.4	1.1	0.0	0.5	0.9
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	0.5	0.7	0.1	0.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.5	8.8	13.3	3.0	13.4	14.1
LnGrp LOS	A	A	B	A	B	B
Approach Vol, veh/h	715			756	177	
Approach Delay, s/veh	8.6			6.9	14.0	
Approach LOS	A			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.8	15.3				24.1	7.1
Change Period (Y+Rc), s	4.0	5.8				5.8	4.0
Max Green Setting (Gmax), s	7.0	42.2				53.2	47.0
Max Q Clear Time (g_c+I1), s	4.6	4.4				3.4	3.3
Green Ext Time (p_c), s	0.2	5.1				3.3	0.7

Intersection Summary		
HCM 6th Ctrl Delay	8.4	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	485	1	23	425	50	2	1	6	150	1	50
Future Volume (veh/h)	50	485	1	23	425	50	2	1	6	150	1	50
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	50	485	1	23	425	50	2	1	6	150	1	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	158	1003	447	37	762	340	4	10	62	214	5	254
Arrive On Green	0.09	0.30	0.30	0.02	0.23	0.23	0.00	0.05	0.05	0.13	0.17	0.17
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	217	1301	1668	29	1460
Grp Volume(v), veh/h	50	485	1	23	425	50	2	0	7	150	0	51
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	0	1518	1668	0	1489
Q Serve(g_s), s	1.2	5.0	0.0	0.6	4.8	1.1	0.1	0.0	0.2	3.6	0.0	1.2
Cycle Q Clear(g_c), s	1.2	5.0	0.0	0.6	4.8	1.1	0.1	0.0	0.2	3.6	0.0	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.86	1.00		0.98
Lane Grp Cap(c), veh/h	158	1003	447	37	762	340	4	0	73	214	0	259
V/C Ratio(X)	0.32	0.48	0.00	0.62	0.56	0.15	0.51	0.00	0.10	0.70	0.00	0.20
Avail Cap(c_a), veh/h	1186	4512	2013	257	2659	1186	158	0	1187	878	0	1807
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	17.8	12.1	10.3	20.4	14.4	13.0	21.0	0.0	19.2	17.6	0.0	14.9
Incr Delay (d2), s/veh	1.1	0.4	0.0	15.3	0.6	0.2	75.2	0.0	0.6	4.1	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	0.4	1.4	0.0	0.3	1.5	0.3	0.1	0.0	0.1	1.4	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.0	12.4	10.3	35.7	15.0	13.2	96.2	0.0	19.8	21.7	0.0	15.3
LnGrp LOS	B	B	B	D	B	B	F	A	B	C	A	B
Approach Vol, veh/h		536			498			9			201	
Approach Delay, s/veh		13.0			15.8			36.8			20.1	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	18.5	5.2	12.4	9.1	15.5	10.5	7.1
Change Period (Y+Rc), s	5.1	5.8	5.1	5.1	5.1	5.8	5.1	5.1
Max Green Setting (Gmax), s	6.5	57.2	4.0	51.2	30.0	33.7	22.2	33.0
Max Q Clear Time (g_c+I1), s	2.6	7.0	2.1	3.2	3.2	6.8	5.6	2.2
Green Ext Time (p_c), s	0.0	3.4	0.0	0.3	0.1	2.9	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	301	121	120	433	25	90	401	40	25	380	85
Future Volume (veh/h)	130	301	121	120	433	25	90	401	40	25	380	85
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	130	301	121	120	433	25	90	401	40	25	380	85
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	373	924	287	455	728	325	169	753	336	94	603	269
Arrive On Green	0.12	0.19	0.19	0.14	0.22	0.22	0.10	0.23	0.23	0.06	0.18	0.18
Sat Flow, veh/h	3237	4782	1485	3237	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	130	301	121	120	433	25	90	401	40	25	380	85
Grp Sat Flow(s),veh/h/ln	1618	1594	1485	1618	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	2.3	3.4	4.4	2.1	7.3	0.8	3.2	6.6	1.3	0.9	6.6	3.1
Cycle Q Clear(g_c), s	2.3	3.4	4.4	2.1	7.3	0.8	3.2	6.6	1.3	0.9	6.6	3.1
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	373	924	287	455	728	325	169	753	336	94	603	269
V/C Ratio(X)	0.35	0.33	0.42	0.26	0.59	0.08	0.53	0.53	0.12	0.27	0.63	0.32
Avail Cap(c_a), veh/h	469	2249	698	521	1619	722	296	1983	885	269	1930	861
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	25.3	21.6	22.0	23.8	21.8	19.3	26.5	21.1	19.1	28.1	23.5	22.1
Incr Delay (d2), s/veh	0.2	0.1	0.4	0.3	0.3	0.0	1.0	0.2	0.1	1.5	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	0.8	1.1	1.4	0.7	2.5	0.3	1.2	2.3	0.4	0.4	2.4	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	21.6	22.4	24.1	22.1	19.3	27.5	21.3	19.2	29.6	24.6	22.7
LnGrp LOS	C	C	C	C	C	B	C	C	B	C	C	C
Approach Vol, veh/h		552			578			531			490	
Approach Delay, s/veh		22.7			22.4			22.2			24.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.7	18.0	12.3	17.0	13.2	19.6	9.5	19.9
Change Period (Y+Rc), s	6.0	6.0	6.0	5.8	6.0	6.0	6.0	5.8
Max Green Setting (Gmax), s	10.0	29.2	11.0	36.0	9.0	30.2	10.0	37.0
Max Q Clear Time (g_c+I1), s	4.3	6.4	5.2	8.6	4.3	9.3	2.9	8.6
Green Ext Time (p_c), s	0.2	1.0	0.1	2.7	0.1	1.1	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	160	0	70	422	40	0	0	50	20
Future Volume (veh/h)	0	0	0	160	0	70	422	40	0	0	50	20
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1752	1900	1752	1752	0	0	1752	1752
Adj Flow Rate, veh/h				160	0	70	422	40	0	0	50	20
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	10	0	10	10	0	0	10	10
Cap, veh/h				199	0	87	641	917	0	0	195	78
Arrive On Green				0.18	0.00	0.18	0.20	0.52	0.00	0.00	0.16	0.16
Sat Flow, veh/h				1118	0	489	3237	1752	0	0	1190	476
Grp Volume(v), veh/h				230	0	0	422	40	0	0	0	70
Grp Sat Flow(s),veh/h/ln				1608	0	0	1618	1752	0	0	0	1666
Q Serve(g_s), s				4.2	0.0	0.0	3.7	0.3	0.0	0.0	0.0	1.1
Cycle Q Clear(g_c), s				4.2	0.0	0.0	3.7	0.3	0.0	0.0	0.0	1.1
Prop In Lane				0.70		0.30	1.00		0.00	0.00		0.29
Lane Grp Cap(c), veh/h				286	0	0	641	917	0	0	0	274
V/C Ratio(X)				0.80	0.00	0.00	0.66	0.04	0.00	0.00	0.00	0.26
Avail Cap(c_a), veh/h				465	0	0	967	1272	0	0	0	443
HCM Platoon Ratio				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	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				12.0	0.0	0.0	11.3	3.5	0.0	0.0	0.0	11.1
Incr Delay (d2), s/veh				2.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	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
%ile BackOfQ(50%),veh/ln				1.2	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.0	0.0	0.0	12.1	3.5	0.0	0.0	0.0	11.3
LnGrp LOS				B	A	A	B	A	A	A	A	B
Approach Vol, veh/h					230			462			70	
Approach Delay, s/veh					14.0			11.4			11.3	
Approach LOS					B			B			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	20.8		10.9	9.9		9.6
Change Period (Y+Rc), s	4.9		4.9	4.9		4.2
Max Green Setting (Gmax), s	22.1		9.1	8.1		8.8
Max Q Clear Time (g_c+I1), s	2.3		5.7	3.1		6.2
Green Ext Time (p_c), s	0.0		0.5	0.0		0.1

Intersection Summary		
HCM 6th Ctrl Delay		12.2
HCM 6th LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	537	0	0	0	0	459	360	10	200	0
Future Volume (veh/h)	15	0	537	0	0	0	0	459	360	10	200	0
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752				0	1752	1752	1752	1752	0
Adj Flow Rate, veh/h	15	0	537				0	459	360	10	200	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10				0	10	10	10	10	0
Cap, veh/h	642	0	571				0	1073	479	22	1401	0
Arrive On Green	0.38	0.00	0.38				0.00	0.32	0.32	0.01	0.42	0.00
Sat Flow, veh/h	1668	0	1485				0	3416	1485	1668	3416	0
Grp Volume(v), veh/h	15	0	537				0	459	360	10	200	0
Grp Sat Flow(s),veh/h/ln	1668	0	1485				0	1664	1485	1668	1664	0
Q Serve(g_s), s	0.3	0.0	16.3				0.0	5.1	10.2	0.3	1.7	0.0
Cycle Q Clear(g_c), s	0.3	0.0	16.3				0.0	5.1	10.2	0.3	1.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	642	0	571				0	1073	479	22	1401	0
V/C Ratio(X)	0.02	0.00	0.94				0.00	0.43	0.75	0.46	0.14	0.00
Avail Cap(c_a), veh/h	642	0	571				0	1344	600	178	1985	0
HCM Platoon Ratio	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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.9	0.0	13.9				0.0	12.5	14.2	22.9	8.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	23.5				0.0	0.4	4.9	14.4	0.1	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
%ile BackOfQ(50%),veh/ln	0.1	0.0	7.8				0.0	1.5	3.3	0.2	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.9	0.0	37.4				0.0	12.8	19.1	37.3	8.4	0.0
LnGrp LOS	A	A	D				A	B	B	D	A	A
Approach Vol, veh/h		552						819			210	
Approach Delay, s/veh		36.7						15.6			9.8	
Approach LOS		D						B			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	4.6	20.0		22.2		24.6
Change Period (Y+Rc), s	4.0	4.9		* 4.2		4.9
Max Green Setting (Gmax), s	5.0	18.9		* 18		27.9
Max Q Clear Time (g_c+I1), s	2.3	12.2		18.3		3.7
Green Ext Time (p_c), s	0.0	2.9		0.0		1.2

Intersection Summary	
HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	5	29	70	5	135	12	597	122	205	527	5
Future Volume (veh/h)	7	5	29	70	5	135	12	597	122	205	527	5
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	7	5	29	70	5	135	12	597	122	205	527	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	26	45	260	153	495	396	43	939	419	417	1287	608
Arrive On Green	0.01	0.19	0.19	0.09	0.27	0.27	0.02	0.28	0.28	0.13	0.39	0.39
Sat Flow, veh/h	1767	237	1372	1668	1856	1485	1767	3328	1485	3237	3328	1572
Grp Volume(v), veh/h	7	0	34	70	5	135	12	597	122	205	527	5
Grp Sat Flow(s),veh/h/ln	1767	0	1609	1668	1856	1485	1767	1664	1485	1618	1664	1572
Q Serve(g_s), s	0.2	0.0	1.1	2.4	0.1	4.4	0.4	9.4	3.9	3.5	6.9	0.1
Cycle Q Clear(g_c), s	0.2	0.0	1.1	2.4	0.1	4.4	0.4	9.4	3.9	3.5	6.9	0.1
Prop In Lane	1.00		0.85	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	26	0	305	153	495	396	43	939	419	417	1287	608
V/C Ratio(X)	0.27	0.00	0.11	0.46	0.01	0.34	0.28	0.64	0.29	0.49	0.41	0.01
Avail Cap(c_a), veh/h	235	0	909	236	1064	852	235	1633	728	511	1716	811
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	0.0	20.2	25.9	16.2	17.8	28.8	18.9	16.9	24.4	13.4	11.3
Incr Delay (d2), s/veh	2.0	0.0	0.2	0.8	0.0	0.2	1.3	1.0	0.5	0.3	0.3	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	0.4	0.9	0.0	1.4	0.2	3.3	1.2	1.2	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.4	0.0	20.3	26.7	16.2	18.0	30.1	19.9	17.4	24.7	13.7	11.4
LnGrp LOS	C	A	C	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		41			210			731			737	
Approach Delay, s/veh		22.2			20.8			19.7			16.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	22.0	10.0	15.9	6.0	28.3	5.4	20.5
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5
Max Green Setting (Gmax), s	9.5	29.5	8.5	34.0	8.0	31.0	8.0	34.5
Max Q Clear Time (g_c+I1), s	5.5	11.4	4.4	3.1	2.4	8.9	2.2	6.4
Green Ext Time (p_c), s	0.1	5.5	0.0	0.1	0.0	4.7	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	335	80	52	292	67	80	520	84	256	400	250
Future Volume (veh/h)	300	335	80	52	292	67	80	520	84	256	400	250
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	300	335	80	52	292	67	80	520	84	256	400	250
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	347	1029	459	94	535	225	125	814	363	154	886	419
Arrive On Green	0.20	0.29	0.29	0.06	0.15	0.15	0.07	0.24	0.24	0.09	0.27	0.27
Sat Flow, veh/h	1767	3526	1572	1668	3526	1485	1767	3328	1485	1668	3328	1572
Grp Volume(v), veh/h	300	335	80	52	292	67	80	520	84	256	400	250
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1668	1763	1485	1767	1664	1485	1668	1664	1572
Q Serve(g_s), s	10.7	4.8	2.5	2.0	5.0	2.6	2.9	9.1	2.9	6.0	6.5	9.0
Cycle Q Clear(g_c), s	10.7	4.8	2.5	2.0	5.0	2.6	2.9	9.1	2.9	6.0	6.5	9.0
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	347	1029	459	94	535	225	125	814	363	154	886	419
V/C Ratio(X)	0.87	0.33	0.17	0.55	0.55	0.30	0.64	0.64	0.23	1.66	0.45	0.60
Avail Cap(c_a), veh/h	462	2223	991	231	1789	753	163	1715	765	154	1715	810
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	25.3	18.0	17.2	29.9	25.5	24.5	29.4	22.0	19.7	29.5	19.9	20.8
Incr Delay (d2), s/veh	10.2	0.3	0.3	1.9	1.5	1.2	2.0	1.4	0.6	325.3	0.6	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	5.0	1.8	0.9	0.8	2.1	0.9	1.2	3.3	1.0	16.1	2.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	18.3	17.5	31.8	27.0	25.7	31.5	23.4	20.2	354.8	20.5	23.2
LnGrp LOS	D	B	B	C	C	C	C	C	C	F	C	C
Approach Vol, veh/h		715			411			684			906	
Approach Delay, s/veh		25.4			27.4			24.0			115.7	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	21.4	8.7	24.0	9.6	22.8	17.8	14.9
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0
Max Green Setting (Gmax), s	6.0	33.5	9.0	41.0	6.0	33.5	17.0	33.0
Max Q Clear Time (g_c+I1), s	9.0	11.1	4.0	6.8	4.9	11.0	12.7	7.0
Green Ext Time (p_c), s	0.0	4.8	0.0	3.4	0.0	5.2	0.1	2.9

Intersection Summary	
HCM 6th Ctrl Delay	55.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	937	50	20	1384	240	120	126	129	200	40	222
Future Volume (veh/h)	169	937	50	20	1384	240	120	126	129	200	40	222
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1752	1856	1856	1856	1752	1752	1752
Adj Flow Rate, veh/h	169	937	50	20	1384	240	120	126	129	200	40	222
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	10	3	3	3	10	10	10
Cap, veh/h	183	2043	109	0	1583	667	149	212	189	235	295	263
Arrive On Green	0.10	0.60	0.60	0.00	0.45	0.45	0.08	0.12	0.12	0.14	0.18	0.18
Sat Flow, veh/h	1767	3404	182	0	3526	1485	1767	1763	1572	1668	1664	1485
Grp Volume(v), veh/h	169	485	502	0	1384	240	120	126	129	200	40	222
Grp Sat Flow(s),veh/h/ln	1767	1763	1823	0	1763	1485	1767	1763	1572	1668	1664	1485
Q Serve(g_s), s	8.9	14.3	14.3	0.0	33.4	10.0	6.3	6.4	7.4	11.0	1.9	13.6
Cycle Q Clear(g_c), s	8.9	14.3	14.3	0.0	33.4	10.0	6.3	6.4	7.4	11.0	1.9	13.6
Prop In Lane	1.00		0.10	0.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	1058	1094	0	1583	667	149	212	189	235	295	263
V/C Ratio(X)	0.93	0.46	0.46	0.00	0.87	0.36	0.81	0.59	0.68	0.85	0.14	0.84
Avail Cap(c_a), veh/h	183	1058	1094	0	1795	756	151	413	369	320	567	506
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	10.3	10.3	0.0	23.5	17.0	42.2	39.1	39.6	39.4	32.6	37.4
Incr Delay (d2), s/veh	45.1	0.3	0.3	0.0	4.7	0.3	26.4	1.0	1.6	14.7	0.1	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	6.1	5.0	5.2	0.0	13.9	3.3	3.8	2.8	2.9	5.4	0.8	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.8	10.7	10.6	0.0	28.1	17.3	68.6	40.1	41.2	54.1	32.6	40.2
LnGrp LOS	F	B	B	A	C	B	E	D	D	D	C	D
Approach Vol, veh/h		1156			1624			375			462	
Approach Delay, s/veh		21.8			26.5			49.6			45.6	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	60.8	11.9	21.1	14.2	46.6	17.2	15.8
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.5	4.5	4.0	4.5
Max Green Setting (Gmax), s	5.6	53.0	8.0	32.0	9.7	47.8	18.0	22.0
Max Q Clear Time (g_c+I1), s	10.0	16.3	8.3	15.6	10.9	35.4	13.0	9.4
Green Ext Time (p_c), s	0.0	4.6	0.0	1.0	0.0	6.7	0.3	0.8

Intersection Summary	
HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	366	820	100	490	960	72	210	576	630	27	192	444
Future Volume (veh/h)	366	820	100	490	960	72	210	576	630	27	192	444
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	366	820	100	490	960	72	210	576	0	27	192	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	436	896	599	518	1482	690	224	755		33	372	
Arrive On Green	0.13	0.27	0.27	0.31	0.45	0.45	0.13	0.23	0.00	0.02	0.11	0.00
Sat Flow, veh/h	3237	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	366	820	100	490	960	72	210	576	0	27	192	0
Grp Sat Flow(s),veh/h/ln	1618	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	14.0	30.2	5.4	36.3	28.4	3.5	15.8	20.5	0.0	2.0	6.9	0.0
Cycle Q Clear(g_c), s	14.0	30.2	5.4	36.3	28.4	3.5	15.8	20.5	0.0	2.0	6.9	0.0
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	436	896	599	518	1482	690	224	755		33	372	
V/C Ratio(X)	0.84	0.92	0.17	0.95	0.65	0.10	0.94	0.76		0.83	0.52	
Avail Cap(c_a), veh/h	512	921	611	541	1482	690	224	1079		79	790	
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	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.4	44.8	24.1	42.5	27.4	19.0	54.2	45.7	0.0	61.8	52.9	0.0
Incr Delay (d2), s/veh	12.8	14.0	0.3	26.2	1.4	0.1	42.7	5.8	0.0	38.0	4.0	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	6.3	13.8	1.9	17.8	10.7	1.2	9.1	8.8	0.0	1.2	3.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.2	58.8	24.4	68.8	28.7	19.2	96.8	51.6	0.0	99.8	56.9	0.0
LnGrp LOS	E	E	C	E	C	B	F	D		F	E	
Approach Vol, veh/h		1286			1522			786	A		219	A
Approach Delay, s/veh		58.2			41.2			63.7			62.2	
Approach LOS		E			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	40.0	21.0	20.1	23.0	62.3	6.5	34.7
Change Period (Y+Rc), s	6.0	6.0	4.0	6.0	6.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	11.3	35.0	17.0	30.0	20.0	56.0	6.0	41.0
Max Q Clear Time (g_c+I1), s	8.3	32.2	17.8	8.9	16.0	30.4	4.0	22.5
Green Ext Time (p_c), s	1.0	1.8	0.0	2.0	1.1	10.5	0.0	6.2

Intersection Summary	
HCM 6th Ctrl Delay	52.8
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	328	0	10	0	240	252	0	180	460
Future Volume (veh/h)	0	0	0	328	0	10	0	240	252	0	180	460
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	0	1752	1752	0	1752	1752
Adj Flow Rate, veh/h				328	0	10	0	240	252	0	180	460
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				10	10	10	0	10	10	0	10	10
Cap, veh/h				874	0	259	0	1781	553	0	1240	973
Arrive On Green				0.17	0.00	0.17	0.00	0.37	0.37	0.00	0.37	0.37
Sat Flow, veh/h				5005	0	1485	0	4940	1485	0	3416	2613
Grp Volume(v), veh/h				328	0	10	0	240	252	0	180	460
Grp Sat Flow(s),veh/h/ln				1668	0	1485	0	1594	1485	0	1664	1306
Q Serve(g_s), s				1.3	0.0	0.1	0.0	0.7	2.8	0.0	0.8	2.9
Cycle Q Clear(g_c), s				1.3	0.0	0.1	0.0	0.7	2.8	0.0	0.8	2.9
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				874	0	259	0	1781	553	0	1240	973
V/C Ratio(X)				0.38	0.00	0.04	0.00	0.13	0.46	0.00	0.15	0.47
Avail Cap(c_a), veh/h				4164	0	1235	0	9329	2896	0	6493	5097
HCM Platoon Ratio				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	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				7.9	0.0	7.4	0.0	4.5	5.1	0.0	4.5	5.2
Incr Delay (d2), s/veh				0.3	0.0	0.1	0.0	0.0	0.6	0.0	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
%ile BackOfQ(50%),veh/ln				0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				8.2	0.0	7.5	0.0	4.5	5.7	0.0	4.6	5.5
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					338			492			640	
Approach Delay, s/veh					8.1			5.1			5.3	
Approach LOS					A			A			A	

Timer - Assigned Phs	2		6		8	
Phs Duration (G+Y+Rc), s	13.9		13.9		7.8	
Change Period (Y+Rc), s	5.8		5.8		4.0	
Max Green Setting (Gmax), s	42.2		42.2		18.0	
Max Q Clear Time (g_c+I1), s	4.8		4.9		3.3	
Green Ext Time (p_c), s	2.5		3.2		1.1	

Intersection Summary		
HCM 6th Ctrl Delay		5.9
HCM 6th LOS		A

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	0	259	0	0	0	0	182	631	10	498	0
Future Volume (veh/h)	310	0	259	0	0	0	0	182	631	10	498	0
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1752	0	1752				0	1752	1752	1752	1752	0
Adj Flow Rate, veh/h	310	0	259				0	182	631	10	498	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	0	10				0	10	10	10	10	0
Cap, veh/h	428	0	345				0	1918	1048	18	2601	0
Arrive On Green	0.13	0.00	0.13				0.00	0.40	0.40	0.01	0.54	0.00
Sat Flow, veh/h	3237	0	2613				0	4940	2613	1668	4940	0
Grp Volume(v), veh/h	310	0	259				0	182	631	10	498	0
Grp Sat Flow(s),veh/h/ln	1618	0	1306				0	1594	1306	1668	1594	0
Q Serve(g_s), s	2.8	0.0	2.9				0.0	0.7	5.8	0.2	1.6	0.0
Cycle Q Clear(g_c), s	2.8	0.0	2.9				0.0	0.7	5.8	0.2	1.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	428	0	345				0	1918	1048	18	2601	0
V/C Ratio(X)	0.72	0.00	0.75				0.00	0.09	0.60	0.56	0.19	0.00
Avail Cap(c_a), veh/h	428	0	345				0	6828	3731	221	8093	0
HCM Platoon Ratio	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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.6	0.0	12.6				0.0	5.6	7.2	14.9	3.5	0.0
Incr Delay (d2), s/veh	6.0	0.0	8.8				0.0	0.0	0.6	25.0	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
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.1				0.0	0.1	1.0	0.2	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.6	0.0	21.5				0.0	5.7	7.7	39.8	3.5	0.0
LnGrp LOS	B	A	C				A	A	A	D	A	A
Approach Vol, veh/h		569						813			508	
Approach Delay, s/veh		19.9						7.3			4.3	
Approach LOS		B						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	4.3	17.9		8.0		22.3
Change Period (Y+Rc), s	4.0	5.8		4.0		5.8
Max Green Setting (Gmax), s	4.3	43.2		4.0		51.2
Max Q Clear Time (g_c+I1), s	2.2	7.8		4.9		3.6
Green Ext Time (p_c), s	0.0	4.4		0.0		3.6

Intersection Summary	
HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	10	14	50	10	10	61	552	100	100	446	6
Future Volume (veh/h)	11	10	14	50	10	10	61	552	100	100	446	6
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	11	10	14	50	10	10	61	552	100	100	446	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	48	86	121	138	149	149	159	1098	195	266	1592	494
Arrive On Green	0.03	0.13	0.13	0.08	0.19	0.19	0.10	0.27	0.27	0.16	0.33	0.33
Sat Flow, veh/h	1668	661	925	1668	804	804	1668	4083	726	1668	4782	1485
Grp Volume(v), veh/h	11	0	24	50	0	20	61	429	223	100	446	6
Grp Sat Flow(s),veh/h/ln	1668	0	1585	1668	0	1607	1668	1594	1621	1668	1594	1485
Q Serve(g_s), s	0.3	0.0	0.6	1.3	0.0	0.5	1.5	5.1	5.2	2.4	3.1	0.1
Cycle Q Clear(g_c), s	0.3	0.0	0.6	1.3	0.0	0.5	1.5	5.1	5.2	2.4	3.1	0.1
Prop In Lane	1.00		0.58	1.00		0.50	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	48	0	207	138	0	297	159	857	436	266	1592	494
V/C Ratio(X)	0.23	0.00	0.12	0.36	0.00	0.07	0.38	0.50	0.51	0.38	0.28	0.01
Avail Cap(c_a), veh/h	374	0	1527	336	0	1512	299	2285	1162	374	3642	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	17.1	19.4	0.0	15.0	19.0	13.8	13.8	16.8	11.0	10.0
Incr Delay (d2), s/veh	2.4	0.0	0.2	1.6	0.0	0.1	1.5	0.5	0.9	0.9	0.1	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	0.5	0.0	0.2	0.6	1.5	1.6	0.9	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	17.4	20.9	0.0	15.1	20.5	14.2	14.8	17.7	11.0	10.0
LnGrp LOS	C	A	B	C	A	B	C	B	B	B	B	A
Approach Vol, veh/h		35			70			713			552	
Approach Delay, s/veh		19.3			19.3			14.9			12.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	16.0	7.7	9.8	8.2	18.9	5.3	12.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	32.0	9.0	43.0	8.0	34.0	10.0	42.0
Max Q Clear Time (g_c+I1), s	7.1	7.2	3.3	2.6	3.5	5.1	2.3	2.5
Green Ext Time (p_c), s	0.1	4.2	0.0	0.1	0.0	3.3	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1141	8	2	525	23	5
Future Volume (veh/h)	1141	8	2	525	23	5
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
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1752	1856	1856	1900	1900
Adj Flow Rate, veh/h	1141	8	2	525	23	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	10	3	3	0	0
Cap, veh/h	1265	1012	4	1434	35	8
Arrive On Green	0.68	0.68	0.00	0.77	0.03	0.03
Sat Flow, veh/h	1856	1485	1767	1856	1298	282
Grp Volume(v), veh/h	1141	8	2	525	29	0
Grp Sat Flow(s),veh/h/ln	1856	1485	1767	1856	1636	0
Q Serve(g_s), s	22.9	0.1	0.1	4.0	0.8	0.0
Cycle Q Clear(g_c), s	22.9	0.1	0.1	4.0	0.8	0.0
Prop In Lane		1.00	1.00		0.79	0.17
Lane Grp Cap(c), veh/h	1265	1012	4	1434	44	0
V/C Ratio(X)	0.90	0.01	0.51	0.37	0.66	0.00
Avail Cap(c_a), veh/h	1815	1452	157	2145	145	0
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	0.00
Uniform Delay (d), s/veh	5.9	2.3	22.4	1.6	21.7	0.0
Incr Delay (d2), s/veh	3.8	0.0	76.3	0.1	15.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.1	0.0	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.7	2.3	98.7	1.7	36.9	0.0
LnGrp LOS	A	A	F	A	D	A
Approach Vol, veh/h	1149			527	29	
Approach Delay, s/veh	9.7			2.0	36.9	
Approach LOS	A			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	4.1	35.7				39.8	5.2
Change Period (Y+Rc), s	4.0	5.0				5.0	4.0
Max Green Setting (Gmax), s	4.0	44.0				52.0	4.0
Max Q Clear Time (g_c+I1), s	2.1	24.9				6.0	2.8
Green Ext Time (p_c), s	0.0	5.8				1.9	0.0

Intersection Summary		
HCM 6th Ctrl Delay	7.8	
HCM 6th LOS	A	

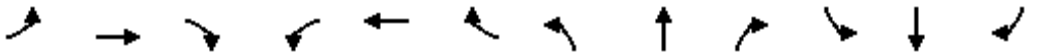
Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1129	11	0	548	0	20
Future Vol, veh/h	1129	11	0	548	0	20
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	100	100	100	100	100	100
Heavy Vehicles, %	10	10	3	3	3	3
Mvmt Flow	1129	11	0	548	0	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	565
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.33
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	13.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	466	-	-	-
HCM Lane V/C Ratio	0.043	-	-	-
HCM Control Delay (s)	13.1	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	838	50	50	348	150	50	100	50	250	50	50
Future Volume (veh/h)	50	838	50	50	348	150	50	100	50	250	50	50
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1856	1856	1856	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	50	838	50	50	348	150	50	100	50	250	50	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	3	3	3	10	10	10	10	10	10
Cap, veh/h	114	1012	451	121	1072	478	114	171	86	291	435	369
Arrive On Green	0.07	0.30	0.30	0.07	0.30	0.30	0.07	0.16	0.16	0.17	0.25	0.25
Sat Flow, veh/h	1668	3328	1485	1767	3526	1572	1668	1102	551	1668	1752	1485
Grp Volume(v), veh/h	50	838	50	50	348	150	50	0	150	250	50	50
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1767	1763	1572	1668	0	1653	1668	1752	1485
Q Serve(g_s), s	2.2	18.1	1.9	2.1	5.9	5.7	2.2	0.0	6.5	11.2	1.7	2.0
Cycle Q Clear(g_c), s	2.2	18.1	1.9	2.1	5.9	5.7	2.2	0.0	6.5	11.2	1.7	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	114	1012	451	121	1072	478	114	0	257	291	435	369
V/C Ratio(X)	0.44	0.83	0.11	0.41	0.32	0.31	0.44	0.00	0.58	0.86	0.11	0.14
Avail Cap(c_a), veh/h	195	1597	712	183	1646	734	195	0	793	433	1090	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	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	34.5	25.0	19.3	34.5	20.7	20.6	34.5	0.0	30.3	30.9	22.4	22.5
Incr Delay (d2), s/veh	1.0	1.1	0.0	0.8	0.1	0.1	1.0	0.0	0.8	7.6	0.0	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	0.9	6.5	0.6	0.9	2.2	1.9	0.9	0.0	2.5	4.8	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	26.0	19.4	35.3	20.8	20.8	35.5	0.0	31.0	38.5	22.5	22.6
LnGrp LOS	D	C	B	D	C	C	D	A	C	D	C	C
Approach Vol, veh/h		938			548			200			350	
Approach Delay, s/veh		26.2			22.1			32.2			34.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	29.4	18.4	18.0	11.3	29.4	11.3	25.2
Change Period (Y+Rc), s	6.0	6.0	5.0	6.0	6.0	6.0	6.0	* 6
Max Green Setting (Gmax), s	8.0	37.0	20.0	37.0	9.0	36.0	9.0	* 48
Max Q Clear Time (g_c+I1), s	4.1	20.1	13.2	8.5	4.2	7.9	4.2	4.0
Green Ext Time (p_c), s	0.0	3.4	0.2	0.5	0.0	1.5	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	60	21	279	290	7
Future Vol, veh/h	15	60	21	279	290	7
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	100	100	100	100	100	100
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	15	60	21	279	290	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	615	149	297	0	-	0
Stage 1	294	-	-	-	-	-
Stage 2	321	-	-	-	-	-
Critical Hdwy	6.75	7.05	4.25	-	-	-
Critical Hdwy Stg 1	5.95	-	-	-	-	-
Critical Hdwy Stg 2	5.55	-	-	-	-	-
Follow-up Hdwy	3.595	3.395	2.295	-	-	-
Pot Cap-1 Maneuver	423	849	1213	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	714	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	416	849	1213	-	-	-
Mov Cap-2 Maneuver	416	-	-	-	-	-
Stage 1	699	-	-	-	-	-
Stage 2	714	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1213	-	703	-	-
HCM Lane V/C Ratio	0.017	-	0.107	-	-
HCM Control Delay (s)	8	-	10.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	60	21	273	237	6
Future Vol, veh/h	14	60	21	273	237	6
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	-	280	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	14	60	21	273	237	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	419	122	243	0	-	0
Stage 1	240	-	-	-	-	-
Stage 2	179	-	-	-	-	-
Critical Hdwy	7	7.1	4.3	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.3	-	-	-
Pot Cap-1 Maneuver	542	881	1264	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	533	881	1264	-	-	-
Mov Cap-2 Maneuver	533	-	-	-	-	-
Stage 1	741	-	-	-	-	-
Stage 2	810	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1264	-	784	-	-
HCM Lane V/C Ratio	0.017	-	0.094	-	-
HCM Control Delay (s)	7.9	-	10.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2305	43	200	464	50	237
Future Volume (veh/h)	2305	43	200	464	50	237
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
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	2305	43	200	464	50	237
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10
Cap, veh/h	4146	77	318	3498	192	390
Arrive On Green	0.57	0.57	0.10	0.73	0.12	0.12
Sat Flow, veh/h	7600	136	3237	4940	1668	3385
Grp Volume(v), veh/h	1800	548	200	464	50	237
Grp Sat Flow(s),veh/h/ln	1419	1727	1618	1594	1668	1128
Q Serve(g_s), s	12.7	12.7	3.8	1.8	1.7	4.3
Cycle Q Clear(g_c), s	12.7	12.7	3.8	1.8	1.7	4.3
Prop In Lane		0.08	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3238	986	318	3498	192	390
V/C Ratio(X)	0.56	0.56	0.63	0.13	0.26	0.61
Avail Cap(c_a), veh/h	4105	1249	912	5106	1228	2490
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	8.6	8.6	27.7	2.6	25.8	26.9
Incr Delay (d2), s/veh	0.2	0.5	2.0	0.0	0.7	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.6	1.4	0.2	0.7	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.8	9.1	29.7	2.6	26.5	28.4
LnGrp LOS	A	A	C	A	C	C
Approach Vol, veh/h	2348			664	287	
Approach Delay, s/veh	8.9			10.7	28.1	
Approach LOS	A			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.3	42.2				52.5	11.4
Change Period (Y+Rc), s	4.0	5.8				5.8	4.0
Max Green Setting (Gmax), s	18.0	46.2				68.2	47.0
Max Q Clear Time (g_c+I1), s	5.8	14.7				3.8	6.3
Green Ext Time (p_c), s	0.5	21.7				3.3	1.1

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	2067	5	40	384	20	8	5	32	170	5	50
Future Volume (veh/h)	20	2067	5	40	384	20	8	5	32	170	5	50
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	20	2067	5	40	384	20	8	5	32	170	5	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	66	1994	889	49	1961	875	13	9	56	203	21	214
Arrive On Green	0.04	0.60	0.60	0.03	0.59	0.59	0.01	0.04	0.04	0.12	0.16	0.16
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	205	1311	1668	137	1369
Grp Volume(v), veh/h	20	2067	5	40	384	20	8	0	37	170	0	55
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	0	1516	1668	0	1505
Q Serve(g_s), s	1.2	60.9	0.1	2.4	5.4	0.6	0.5	0.0	2.4	10.1	0.0	3.3
Cycle Q Clear(g_c), s	1.2	60.9	0.1	2.4	5.4	0.6	0.5	0.0	2.4	10.1	0.0	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.86	1.00		0.91
Lane Grp Cap(c), veh/h	66	1994	889	49	1961	875	13	0	64	203	0	235
V/C Ratio(X)	0.30	1.04	0.01	0.81	0.20	0.02	0.60	0.00	0.57	0.84	0.00	0.23
Avail Cap(c_a), veh/h	509	1994	889	82	1961	875	97	0	507	312	0	697
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	47.5	20.4	8.2	49.1	9.7	8.7	50.3	0.0	47.8	43.7	0.0	37.6
Incr Delay (d2), s/veh	2.6	30.4	0.0	26.3	0.0	0.0	36.8	0.0	7.9	11.4	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	0.5	28.3	0.0	1.3	1.8	0.2	0.3	0.0	1.1	4.8	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	50.8	8.2	75.3	9.7	8.7	87.1	0.0	55.6	55.1	0.0	38.1
LnGrp LOS	D	F	A	E	A	A	F	A	E	E	A	D
Approach Vol, veh/h		2092			444			45			225	
Approach Delay, s/veh		50.7			15.6			61.2			51.0	
Approach LOS		D			B			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	66.7	5.9	21.0	9.1	65.7	17.5	9.4
Change Period (Y+Rc), s	5.1	5.8	5.1	5.1	5.1	5.8	5.1	5.1
Max Green Setting (Gmax), s	5.0	60.9	5.9	47.1	31.0	34.9	19.0	34.0
Max Q Clear Time (g_c+I1), s	4.4	62.9	2.5	5.3	3.2	7.4	12.1	4.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	2.5	0.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	45.3
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	756	1018	248	77	271	25	204	1281	70	25	304	100
Future Volume (veh/h)	756	1018	248	77	271	25	204	1281	70	25	304	100
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	756	1018	248	77	271	25	204	1281	70	25	304	100
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	809	1316	409	246	336	150	232	1355	604	78	1048	468
Arrive On Green	0.25	0.28	0.28	0.08	0.10	0.10	0.14	0.41	0.41	0.05	0.31	0.31
Sat Flow, veh/h	3237	4782	1485	3237	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	756	1018	248	77	271	25	204	1281	70	25	304	100
Grp Sat Flow(s),veh/h/ln	1618	1594	1485	1618	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	27.9	23.9	17.7	2.7	9.7	1.9	14.6	45.3	3.6	1.8	8.4	6.0
Cycle Q Clear(g_c), s	27.9	23.9	17.7	2.7	9.7	1.9	14.6	45.3	3.6	1.8	8.4	6.0
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	809	1316	409	246	336	150	232	1355	604	78	1048	468
V/C Ratio(X)	0.93	0.77	0.61	0.31	0.81	0.17	0.88	0.95	0.12	0.32	0.29	0.21
Avail Cap(c_a), veh/h	875	2037	632	265	791	353	410	1478	659	137	1048	468
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	44.8	40.7	38.5	53.4	53.7	50.2	51.6	34.9	22.5	56.3	31.5	30.7
Incr Delay (d2), s/veh	15.5	0.4	0.5	0.7	1.7	0.2	4.2	11.8	0.0	2.3	0.2	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	12.5	9.1	6.4	1.1	4.0	0.7	6.3	19.7	1.2	0.8	3.4	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	41.1	39.0	54.1	55.4	50.4	55.8	46.6	22.6	58.6	31.7	30.9
LnGrp LOS	E	D	D	D	E	D	E	D	C	E	C	C
Approach Vol, veh/h		2022			373			1555			429	
Approach Delay, s/veh		48.0			54.8			46.8			33.1	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	39.6	23.0	44.2	36.5	18.3	11.7	55.5
Change Period (Y+Rc), s	6.0	6.0	6.0	5.8	6.0	6.0	6.0	5.8
Max Green Setting (Gmax), s	10.0	52.0	30.0	34.2	33.0	29.0	10.0	54.2
Max Q Clear Time (g_c+I1), s	11.7	25.9	16.6	10.4	29.9	11.7	3.8	47.3
Green Ext Time (p_c), s	0.1	3.6	0.3	2.1	0.6	0.6	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	46.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	180	0	20	781	75	0	0	220	20
Future Volume (veh/h)	0	0	0	180	0	20	781	75	0	0	220	20
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1752	1900	1752	1752	0	0	1752	1752
Adj Flow Rate, veh/h				180	0	20	781	75	0	0	220	20
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	10	0	10	10	0	0	10	10
Cap, veh/h				210	0	23	935	1069	0	0	297	27
Arrive On Green				0.14	0.00	0.14	0.29	0.61	0.00	0.00	0.19	0.19
Sat Flow, veh/h				1483	0	165	3237	1752	0	0	1582	144
Grp Volume(v), veh/h				200	0	0	781	75	0	0	0	240
Grp Sat Flow(s),veh/h/ln				1648	0	0	1618	1752	0	0	0	1726
Q Serve(g_s), s				4.4	0.0	0.0	8.3	0.6	0.0	0.0	0.0	4.8
Cycle Q Clear(g_c), s				4.4	0.0	0.0	8.3	0.6	0.0	0.0	0.0	4.8
Prop In Lane				0.90		0.10	1.00		0.00	0.00		0.08
Lane Grp Cap(c), veh/h				234	0	0	935	1069	0	0	0	324
V/C Ratio(X)				0.86	0.00	0.00	0.83	0.07	0.00	0.00	0.00	0.74
Avail Cap(c_a), veh/h				234	0	0	979	1227	0	0	0	456
HCM Platoon Ratio				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	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				15.4	0.0	0.0	12.2	2.9	0.0	0.0	0.0	14.1
Incr Delay (d2), s/veh				24.5	0.0	0.0	6.0	0.0	0.0	0.0	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
%ile BackOfQ(50%),veh/ln				2.9	0.0	0.0	2.8	0.1	0.0	0.0	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				39.9	0.0	0.0	18.2	2.9	0.0	0.0	0.0	16.1
LnGrp LOS				D	A	A	B	A	A	A	A	B
Approach Vol, veh/h					200			856			240	
Approach Delay, s/veh					39.9			16.8			16.1	
Approach LOS					D			B			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	27.3		15.5	11.8		9.4
Change Period (Y+Rc), s	4.9		4.9	4.9		4.2
Max Green Setting (Gmax), s	25.7		11.1	9.7		5.2
Max Q Clear Time (g_c+I1), s	2.6		10.3	6.8		6.4
Green Ext Time (p_c), s	0.1		0.3	0.1		0.0

Intersection Summary		
HCM 6th Ctrl Delay		20.3
HCM 6th LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	432	0	0	0	0	871	470	100	300	0
Future Volume (veh/h)	20	0	432	0	0	0	0	871	470	100	300	0
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752				0	1752	1752	1752	1752	0
Adj Flow Rate, veh/h	20	0	432				0	871	470	100	300	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10				0	10	10	10	10	0
Cap, veh/h	529	0	470				0	1243	554	126	1732	0
Arrive On Green	0.32	0.00	0.32				0.00	0.37	0.37	0.08	0.52	0.00
Sat Flow, veh/h	1668	0	1485				0	3416	1485	1668	3416	0
Grp Volume(v), veh/h	20	0	432				0	871	470	100	300	0
Grp Sat Flow(s),veh/h/ln	1668	0	1485				0	1664	1485	1668	1664	0
Q Serve(g_s), s	0.5	0.0	15.7				0.0	12.4	16.2	3.3	2.7	0.0
Cycle Q Clear(g_c), s	0.5	0.0	15.7				0.0	12.4	16.2	3.3	2.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	529	0	470				0	1243	554	126	1732	0
V/C Ratio(X)	0.04	0.00	0.92				0.00	0.70	0.85	0.80	0.17	0.00
Avail Cap(c_a), veh/h	537	0	478				0	1304	582	209	1959	0
HCM Platoon Ratio	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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.2	0.0	18.4				0.0	14.9	16.1	25.4	7.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	22.1				0.0	1.8	11.4	10.8	0.1	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
%ile BackOfQ(50%),veh/ln	0.2	0.0	7.4				0.0	4.1	6.2	1.6	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.2	0.0	40.5				0.0	16.7	27.4	36.3	7.1	0.0
LnGrp LOS	B	A	D				A	B	C	D	A	A
Approach Vol, veh/h		452						1341			400	
Approach Delay, s/veh		39.3						20.4			14.4	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	8.2	25.8	21.9	34.0
Change Period (Y+Rc), s	4.0	4.9	* 4.2	4.9
Max Green Setting (Gmax), s	7.0	21.9	* 18	32.9
Max Q Clear Time (g_c+I1), s	5.3	18.2	17.7	4.7
Green Ext Time (p_c), s	0.0	2.7	0.1	2.0

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	1	13	187	5	292	41	998	279	248	464	20
Future Volume (veh/h)	6	1	13	187	5	292	41	998	279	248	464	20
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	6	1	13	187	5	292	41	998	279	248	464	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	22	18	235	223	520	416	108	1182	527	343	1331	629
Arrive On Green	0.01	0.16	0.16	0.13	0.28	0.28	0.06	0.36	0.36	0.11	0.40	0.40
Sat Flow, veh/h	1767	114	1476	1668	1856	1485	1767	3328	1485	3237	3328	1572
Grp Volume(v), veh/h	6	0	14	187	5	292	41	998	279	248	464	20
Grp Sat Flow(s),veh/h/ln	1767	0	1590	1668	1856	1485	1767	1664	1485	1618	1664	1572
Q Serve(g_s), s	0.3	0.0	0.6	8.2	0.1	13.2	1.7	20.8	11.2	5.6	7.3	0.6
Cycle Q Clear(g_c), s	0.3	0.0	0.6	8.2	0.1	13.2	1.7	20.8	11.2	5.6	7.3	0.6
Prop In Lane	1.00		0.93	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	22	0	254	223	520	416	108	1182	527	343	1331	629
V/C Ratio(X)	0.27	0.00	0.06	0.84	0.01	0.70	0.38	0.84	0.53	0.72	0.35	0.03
Avail Cap(c_a), veh/h	188	0	719	251	921	737	188	1249	557	345	1331	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	0.00	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	36.8	0.0	26.8	31.8	19.5	24.2	33.9	22.3	19.2	32.5	15.7	13.7
Incr Delay (d2), s/veh	2.4	0.0	0.1	18.1	0.0	0.8	0.8	5.5	1.2	6.4	0.2	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	4.3	0.1	4.4	0.7	8.1	3.7	2.4	2.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	0.0	26.9	49.8	19.5	25.0	34.7	27.8	20.4	38.9	16.0	13.7
LnGrp LOS	D	A	C	D	B	C	C	C	C	D	B	B
Approach Vol, veh/h		20			484			1318			732	
Approach Delay, s/veh		30.6			34.6			26.5			23.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	31.7	14.5	16.5	9.1	35.0	5.4	25.6
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5
Max Green Setting (Gmax), s	8.0	28.2	11.3	34.0	8.0	28.2	8.0	37.3
Max Q Clear Time (g_c+I1), s	7.6	22.8	10.2	2.6	3.7	9.3	2.3	15.2
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.0	3.9	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	27.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	1488	120	56	268	194	110	610	99	172	580	170
Future Volume (veh/h)	320	1488	120	56	268	194	110	610	99	172	580	170
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	320	1488	120	56	268	194	110	610	99	172	580	170
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	319	1576	703	79	1108	466	124	799	356	100	766	362
Arrive On Green	0.18	0.45	0.45	0.05	0.31	0.31	0.07	0.24	0.24	0.06	0.23	0.23
Sat Flow, veh/h	1767	3526	1572	1668	3526	1485	1767	3328	1485	1668	3328	1572
Grp Volume(v), veh/h	320	1488	120	56	268	194	110	610	99	172	580	170
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1668	1763	1485	1767	1664	1485	1668	1664	1572
Q Serve(g_s), s	18.0	40.3	4.6	3.3	5.6	10.3	6.2	17.0	5.4	6.0	16.2	9.3
Cycle Q Clear(g_c), s	18.0	40.3	4.6	3.3	5.6	10.3	6.2	17.0	5.4	6.0	16.2	9.3
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	319	1576	703	79	1108	466	124	799	356	100	766	362
V/C Ratio(X)	1.00	0.94	0.17	0.71	0.24	0.42	0.89	0.76	0.28	1.72	0.76	0.47
Avail Cap(c_a), veh/h	319	1589	709	100	1165	491	124	1084	483	100	1050	496
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	40.9	26.4	16.5	46.9	25.4	27.0	46.0	35.3	30.9	46.9	35.8	33.2
Incr Delay (d2), s/veh	51.5	12.0	0.2	9.7	0.2	1.0	47.1	3.2	0.7	360.3	3.1	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	12.1	18.0	1.6	1.6	2.4	3.7	4.3	7.0	2.0	12.5	6.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.4	38.4	16.7	56.5	25.6	28.0	93.2	38.5	31.6	407.3	39.0	34.8
LnGrp LOS	F	D	B	E	C	C	F	D	C	F	D	C
Approach Vol, veh/h		1928			518			819			922	
Approach Delay, s/veh		46.0			29.9			45.0			106.9	
Approach LOS		D			C			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	29.5	9.7	49.6	12.0	28.5	23.0	36.4
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0
Max Green Setting (Gmax), s	6.0	32.5	6.0	45.0	7.0	31.5	18.0	33.0
Max Q Clear Time (g_c+I1), s	8.0	19.0	5.3	42.3	8.2	18.2	20.0	12.3
Green Ext Time (p_c), s	0.0	4.5	0.0	2.3	0.0	4.7	0.0	3.6

Intersection Summary	
HCM 6th Ctrl Delay	57.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	309	1280	140	43	973	370	90	530	30	130	192	395
Future Volume (veh/h)	309	1280	140	43	973	370	90	530	30	130	192	395
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1856	1856	1752	1856	1856
Adj Flow Rate, veh/h	309	1280	140	43	973	370	90	530	30	130	192	395
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	10	3	10	3	3	3	10	3	3
Cap, veh/h	291	1390	151	52	1038	437	100	830	47	162	502	448
Arrive On Green	0.16	0.43	0.43	0.03	0.29	0.29	0.06	0.24	0.24	0.10	0.28	0.28
Sat Flow, veh/h	1767	3206	349	1668	3526	1485	1767	3392	192	1668	1763	1572
Grp Volume(v), veh/h	309	701	719	43	973	370	90	275	285	130	192	395
Grp Sat Flow(s),veh/h/ln	1767	1763	1793	1668	1763	1485	1767	1763	1821	1668	1763	1572
Q Serve(g_s), s	14.5	32.9	33.3	2.3	23.6	20.6	4.4	12.3	12.3	6.7	7.7	21.1
Cycle Q Clear(g_c), s	14.5	32.9	33.3	2.3	23.6	20.6	4.4	12.3	12.3	6.7	7.7	21.1
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	291	764	777	52	1038	437	100	431	446	162	502	448
V/C Ratio(X)	1.06	0.92	0.92	0.82	0.94	0.85	0.90	0.64	0.64	0.80	0.38	0.88
Avail Cap(c_a), veh/h	291	764	777	76	1043	439	100	461	476	266	642	572
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	36.7	23.4	23.5	42.3	30.2	29.1	41.2	29.7	29.7	38.9	25.2	30.0
Incr Delay (d2), s/veh	69.5	16.0	16.7	34.9	15.1	14.2	57.7	1.9	1.9	9.0	0.2	10.8
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	11.7	15.9	16.5	1.4	11.7	8.8	3.5	5.3	5.5	3.1	3.2	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	106.2	39.4	40.2	77.2	45.3	43.3	98.9	31.6	31.6	47.8	25.4	40.8
LnGrp LOS	F	D	D	E	D	D	F	C	C	D	C	D
Approach Vol, veh/h		1729			1386			650			717	
Approach Delay, s/veh		51.7			45.8			40.9			38.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	42.6	9.0	29.5	19.0	30.4	12.5	26.0
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.5	4.5	4.0	4.5
Max Green Setting (Gmax), s	4.0	37.0	5.0	32.0	14.5	26.0	14.0	23.0
Max Q Clear Time (g_c+I1), s	4.3	35.3	6.4	23.1	16.5	25.6	8.7	14.3
Green Ext Time (p_c), s	0.0	1.1	0.0	1.9	0.0	0.2	0.2	1.5

Intersection Summary	
HCM 6th Ctrl Delay	46.1
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	479	870	90	290	510	41	90	1100	510	11	486	782
Future Volume (veh/h)	479	870	90	290	510	41	90	1100	510	11	486	782
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	479	870	90	290	510	41	90	1100	0	11	486	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	542	907	505	270	887	411	112	1042		18	920	
Arrive On Green	0.17	0.27	0.27	0.16	0.27	0.27	0.07	0.31	0.00	0.01	0.28	0.00
Sat Flow, veh/h	3237	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	479	870	90	290	510	41	90	1100	0	11	486	0
Grp Sat Flow(s),veh/h/ln	1618	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	14.3	25.5	4.2	16.0	13.1	2.0	5.3	31.0	0.0	0.7	12.3	0.0
Cycle Q Clear(g_c), s	14.3	25.5	4.2	16.0	13.1	2.0	5.3	31.0	0.0	0.7	12.3	0.0
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	542	907	505	270	887	411	112	1042		18	920	
V/C Ratio(X)	0.88	0.96	0.18	1.08	0.57	0.10	0.80	1.06		0.63	0.53	
Avail Cap(c_a), veh/h	588	907	505	270	887	411	135	1042		168	1008	
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	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.3	35.5	23.0	41.5	31.5	26.6	45.5	34.0	0.0	48.8	30.4	0.0
Incr Delay (d2), s/veh	13.2	20.4	0.1	76.5	0.6	0.0	20.5	43.9	0.0	31.1	0.5	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	6.4	12.2	1.4	11.8	4.9	0.7	2.7	18.0	0.0	0.4	4.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	55.8	23.0	118.0	32.1	26.7	66.0	77.9	0.0	79.9	30.8	0.0
LnGrp LOS	D	E	C	F	C	C	E	F		E	C	
Approach Vol, veh/h		1439			841			1190	A		497	A
Approach Delay, s/veh		53.0			61.4			77.0			31.9	
Approach LOS		D			E			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	33.0	10.7	33.4	22.6	32.4	7.0	37.0
Change Period (Y+Rc), s	6.0	6.0	4.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	6.0	27.0	8.0	30.0	18.0	25.0	10.0	31.0
Max Q Clear Time (g_c+I1), s	8.0	27.5	7.3	14.3	16.3	15.1	2.7	33.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.0	0.3	1.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	59.3
HCM 6th LOS	E

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	121	0	10	0	2020	335	0	209	520
Future Volume (veh/h)	0	0	0	121	0	10	0	2020	335	0	209	520
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	0	1752	1752	0	1752	1752
Adj Flow Rate, veh/h				121	0	10	0	2020	335	0	209	520
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				10	10	10	0	10	10	0	10	10
Cap, veh/h				356	0	106	0	3414	1060	0	2376	1865
Arrive On Green				0.07	0.00	0.07	0.00	0.71	0.71	0.00	0.71	0.71
Sat Flow, veh/h				5005	0	1485	0	4940	1485	0	3416	2613
Grp Volume(v), veh/h				121	0	10	0	2020	335	0	209	520
Grp Sat Flow(s),veh/h/ln				1668	0	1485	0	1594	1485	0	1664	1306
Q Serve(g_s), s				1.0	0.0	0.3	0.0	9.5	3.8	0.0	0.9	3.2
Cycle Q Clear(g_c), s				1.0	0.0	0.3	0.0	9.5	3.8	0.0	0.9	3.2
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				356	0	106	0	3414	1060	0	2376	1865
V/C Ratio(X)				0.34	0.00	0.09	0.00	0.59	0.32	0.00	0.09	0.28
Avail Cap(c_a), veh/h				1977	0	587	0	4430	1375	0	3083	2420
HCM Platoon Ratio				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	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				20.1	0.0	19.8	0.0	3.2	2.4	0.0	2.0	2.3
Incr Delay (d2), s/veh				0.6	0.0	0.4	0.0	0.2	0.2	0.0	0.0	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
%ile BackOfQ(50%),veh/ln				0.4	0.0	0.1	0.0	0.4	0.4	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.7	0.0	20.2	0.0	3.4	2.6	0.0	2.0	2.4
LnGrp LOS				C	A	C	A	A	A	A	A	A
Approach Vol, veh/h					131			2355			729	
Approach Delay, s/veh					20.7			3.3			2.3	
Approach LOS					C			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	38.3		38.3		7.2			
Change Period (Y+Rc), s	5.8		5.8		4.0			
Max Green Setting (Gmax), s	42.2		42.2		18.0			
Max Q Clear Time (g_c+I1), s	11.5		5.2		3.0			
Green Ext Time (p_c), s	21.0		3.7		0.3			

Intersection Summary		
HCM 6th Ctrl Delay	3.8	
HCM 6th LOS	A	

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	910	0	344	0	0	0	0	1444	1098	10	320	0
Future Volume (veh/h)	910	0	344	0	0	0	0	1444	1098	10	320	0
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1752	0	1752				0	1752	1752	1752	1752	0
Adj Flow Rate, veh/h	910	0	344				0	1444	1098	10	320	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	0	10				0	10	10	10	10	0
Cap, veh/h	844	0	681				0	2581	1410	17	2892	0
Arrive On Green	0.26	0.00	0.26				0.00	0.54	0.54	0.01	0.60	0.00
Sat Flow, veh/h	3237	0	2613				0	4940	2613	1668	4940	0
Grp Volume(v), veh/h	910	0	344				0	1444	1098	10	320	0
Grp Sat Flow(s),veh/h/ln	1618	0	1306				0	1594	1306	1668	1594	0
Q Serve(g_s), s	19.0	0.0	8.2				0.0	14.5	24.3	0.4	2.1	0.0
Cycle Q Clear(g_c), s	19.0	0.0	8.2				0.0	14.5	24.3	0.4	2.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	844	0	681				0	2581	1410	17	2892	0
V/C Ratio(X)	1.08	0.00	0.50				0.00	0.56	0.78	0.60	0.11	0.00
Avail Cap(c_a), veh/h	844	0	681				0	2836	1549	92	3361	0
HCM Platoon Ratio	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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.9	0.0	22.9				0.0	11.1	13.3	35.9	6.1	0.0
Incr Delay (d2), s/veh	54.2	0.0	0.6				0.0	0.2	2.4	29.4	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
%ile BackOfQ(50%),veh/ln	18.2	0.0	2.4				0.0	4.2	6.1	0.3	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.1	0.0	23.5				0.0	11.3	15.7	65.3	6.1	0.0
LnGrp LOS	F	A	C				A	B	B	E	A	A
Approach Vol, veh/h		1254						2542			330	
Approach Delay, s/veh		65.3						13.2			7.9	
Approach LOS		E						B			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	4.7	45.1	23.0	49.9
Change Period (Y+Rc), s	4.0	5.8	4.0	5.8
Max Green Setting (Gmax), s	4.0	43.2	19.0	51.2
Max Q Clear Time (g_c+I1), s	2.4	26.3	21.0	4.1
Green Ext Time (p_c), s	0.0	13.0	0.0	2.2

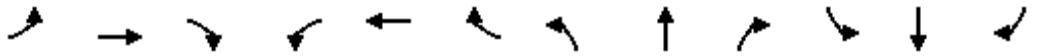
Intersection Summary	
HCM 6th Ctrl Delay	28.6
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	28	29	100	10	100	49	1461	60	20	641	10
Future Volume (veh/h)	11	28	29	100	10	100	49	1461	60	20	641	10
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	11	28	29	100	10	100	49	1461	60	20	641	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	47	97	100	185	28	282	126	2072	85	79	1969	611
Arrive On Green	0.03	0.12	0.12	0.11	0.21	0.21	0.08	0.44	0.44	0.05	0.41	0.41
Sat Flow, veh/h	1668	788	816	1668	137	1369	1668	4712	193	1668	4782	1485
Grp Volume(v), veh/h	11	0	57	100	0	110	49	989	532	20	641	10
Grp Sat Flow(s),veh/h/ln	1668	0	1605	1668	0	1505	1668	1594	1717	1668	1594	1485
Q Serve(g_s), s	0.4	0.0	1.9	3.3	0.0	3.6	1.6	14.5	14.5	0.7	5.2	0.2
Cycle Q Clear(g_c), s	0.4	0.0	1.9	3.3	0.0	3.6	1.6	14.5	14.5	0.7	5.2	0.2
Prop In Lane	1.00		0.51	1.00		0.91	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	47	0	197	185	0	310	126	1402	755	79	1969	611
V/C Ratio(X)	0.24	0.00	0.29	0.54	0.00	0.35	0.39	0.71	0.71	0.25	0.33	0.02
Avail Cap(c_a), veh/h	291	0	1174	291	0	1101	232	1777	957	291	2832	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	27.3	0.0	22.9	24.1	0.0	19.5	25.3	13.1	13.1	26.4	11.5	10.0
Incr Delay (d2), s/veh	2.5	0.0	0.8	2.4	0.0	0.7	1.9	0.9	1.7	1.6	0.1	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	0.2	0.0	0.7	1.3	0.0	1.2	0.6	4.2	4.7	0.3	1.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	0.0	23.7	26.6	0.0	20.2	27.2	14.0	14.8	28.0	11.6	10.0
LnGrp LOS	C	A	C	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h		68			210			1570			671	
Approach Delay, s/veh		24.7			23.2			14.7			12.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	29.2	10.4	11.1	8.3	27.6	5.6	15.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	32.0	10.0	42.0	8.0	34.0	10.0	42.0
Max Q Clear Time (g_c+I1), s	2.7	16.5	5.3	3.9	3.6	7.2	2.4	5.6
Green Ext Time (p_c), s	0.0	8.8	0.1	0.3	0.0	4.9	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	15.0
HCM 6th LOS	B

H. CUMULATIVE PLUS PROJECT CONDITIONS SYNCHRO OUTPUT SHEETS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	461	21	5	685	7	7	0	1	5	0	44
Future Volume (veh/h)	107	461	21	5	685	7	7	0	1	5	0	44
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1189	1856	1856	1856	1856	1856	1752	1752	1752	1856	1752	1752
Adj Flow Rate, veh/h	107	461	21	5	685	7	7	0	1	5	0	44
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	48	3	3	3	3	3	10	10	10	3	10	10
Cap, veh/h	117	930	42	9	789	8	12	0	124	9	0	121
Arrive On Green	0.10	0.53	0.53	0.01	0.43	0.43	0.01	0.00	0.08	0.01	0.00	0.08
Sat Flow, veh/h	1132	1761	80	1767	1833	19	1668	0	1485	1767	0	1485
Grp Volume(v), veh/h	107	0	482	5	0	692	7	0	1	5	0	44
Grp Sat Flow(s),veh/h/ln	1132	0	1841	1767	0	1852	1668	0	1485	1767	0	1485
Q Serve(g_s), s	4.5	0.0	8.0	0.1	0.0	16.2	0.2	0.0	0.0	0.1	0.0	1.3
Cycle Q Clear(g_c), s	4.5	0.0	8.0	0.1	0.0	16.2	0.2	0.0	0.0	0.1	0.0	1.3
Prop In Lane	1.00		0.04	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	117	0	973	9	0	797	12	0	124	9	0	121
V/C Ratio(X)	0.92	0.00	0.50	0.53	0.00	0.87	0.56	0.00	0.01	0.53	0.00	0.36
Avail Cap(c_a), veh/h	190	0	1389	148	0	1242	140	0	560	148	0	591
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	7.2	23.7	0.0	12.3	23.6	0.0	20.1	23.7	0.0	20.7
Incr Delay (d2), s/veh	29.6	0.0	0.1	38.5	0.0	2.6	34.6	0.0	0.0	38.5	0.0	1.8
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	1.9	0.0	1.8	0.1	0.0	5.0	0.2	0.0	0.0	0.2	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	0.0	7.3	62.2	0.0	15.0	58.2	0.0	20.1	62.2	0.0	22.6
LnGrp LOS	D	A	A	E	A	B	E	A	C	E	A	C
Approach Vol, veh/h		589			697			8			49	
Approach Delay, s/veh		15.2			15.3			53.4			26.6	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.3	30.2	4.4	8.9	8.9	25.5	4.3	9.0
Change Period (Y+Rc), s	4.0	5.0	4.0	* 5	4.0	5.0	4.0	5.0
Max Green Setting (Gmax), s	4.0	36.0	4.0	* 19	8.0	32.0	4.0	18.0
Max Q Clear Time (g_c+I1), s	2.1	10.0	2.2	3.3	6.5	18.2	2.1	2.0
Green Ext Time (p_c), s	0.0	1.7	0.0	0.1	0.0	2.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	570	24	0	735	1	0	0	19	0	0	5
Future Vol, veh/h	0	570	24	0	735	1	0	0	19	0	0	5
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	-	-	0	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	15	10	3	3	3	3	3	3	0	0	0
Mvmt Flow	0	570	24	0	735	1	0	0	19	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	285	-	-	368
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.96	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.33	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	709	0	0	635
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	709	-	-	635
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	10.2	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	709	-	-	-	-	635
HCM Lane V/C Ratio	0.027	-	-	-	-	0.008
HCM Control Delay (s)	10.2	-	-	-	-	10.7
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	275	50	50	484	206	25	25	25	293	75	41
Future Volume (veh/h)	89	275	50	50	484	206	25	25	25	293	75	41
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	89	275	50	50	484	206	25	25	25	293	75	41
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	159	737	329	119	658	294	74	137	137	338	550	466
Arrive On Green	0.10	0.22	0.22	0.07	0.20	0.20	0.04	0.17	0.17	0.20	0.31	0.31
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	804	804	1668	1752	1485
Grp Volume(v), veh/h	89	275	50	50	484	206	25	0	50	293	75	41
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	0	1607	1668	1752	1485
Q Serve(g_s), s	3.5	4.8	1.9	2.0	9.4	8.9	1.0	0.0	1.8	11.7	2.1	1.3
Cycle Q Clear(g_c), s	3.5	4.8	1.9	2.0	9.4	8.9	1.0	0.0	1.8	11.7	2.1	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	159	737	329	119	658	294	74	0	273	338	550	466
V/C Ratio(X)	0.56	0.37	0.15	0.42	0.74	0.70	0.34	0.00	0.18	0.87	0.14	0.09
Avail Cap(c_a), veh/h	218	1791	799	194	1743	777	194	0	865	485	1249	1058
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	29.7	22.7	21.6	30.5	25.9	25.7	31.9	0.0	24.4	26.5	16.9	16.6
Incr Delay (d2), s/veh	1.2	0.1	0.1	0.9	0.6	1.1	1.0	0.0	0.1	8.3	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	1.3	1.7	0.6	0.8	3.4	3.0	0.4	0.0	0.7	5.0	0.8	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	22.8	21.6	31.4	26.5	26.8	32.9	0.0	24.6	34.8	17.0	16.7
LnGrp LOS	C	C	C	C	C	C	C	A	C	C	B	B
Approach Vol, veh/h		414			740			75			409	
Approach Delay, s/veh		24.4			26.9			27.3			29.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	21.2	18.9	17.7	12.5	19.6	9.0	27.6
Change Period (Y+Rc), s	6.0	6.0	5.0	6.0	6.0	6.0	6.0	* 6
Max Green Setting (Gmax), s	8.0	37.0	20.0	37.0	9.0	36.0	8.0	* 49
Max Q Clear Time (g_c+I1), s	4.0	6.8	13.7	3.8	5.5	11.4	3.0	4.1
Green Ext Time (p_c), s	0.0	1.1	0.2	0.1	0.0	2.2	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

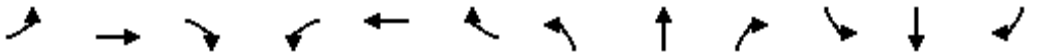
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	0	11	2	0	3	35	279	6	6	396	35
Future Vol, veh/h	11	0	11	2	0	3	35	279	6	6	396	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	-	-	-	-	-	-	0	-	300	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	10	10	10	10	10	33	10	10	17	33	10	10
Mvmt Flow	11	0	11	2	0	3	35	279	6	6	396	35

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	780	781	216	559	792	279	431	0	0	285	0	0
Stage 1	426	426	-	349	349	-	-	-	-	-	-	-
Stage 2	354	355	-	210	443	-	-	-	-	-	-	-
Critical Hdwy	7.45	6.65	7.05	7.45	6.65	6.695	4.25	-	-	4.595	-	-
Critical Hdwy Stg 1	6.65	5.65	-	6.25	5.65	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.25	5.65	-	6.65	5.65	-	-	-	-	-	-	-
Follow-up Hdwy	3.595	4.095	3.395	3.595	4.095	3.6135	2.295	-	-	2.5135	-	-
Pot Cap-1 Maneuver	287	313	768	411	309	680	1079	-	-	1098	-	-
Stage 1	560	568	-	647	616	-	-	-	-	-	-	-
Stage 2	643	612	-	753	558	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	278	301	768	393	298	680	1079	-	-	1098	-	-
Mov Cap-2 Maneuver	278	301	-	393	298	-	-	-	-	-	-	-
Stage 1	542	565	-	626	596	-	-	-	-	-	-	-
Stage 2	619	592	-	738	555	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.3	11.9	0.9	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1079	-	-	408	526	1098	-	-
HCM Lane V/C Ratio	0.032	-	-	0.054	0.01	0.005	-	-
HCM Control Delay (s)	8.4	-	-	14.3	11.9	8.3	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	0	11	14	0	15	35	227	31	32	412	35
Future Volume (veh/h)	11	0	11	14	0	15	35	227	31	32	412	35
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1796	1752	1752	1752	1752	1752	1663	1752	1752
Adj Flow Rate, veh/h	11	0	11	14	0	15	35	227	31	32	412	35
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	7	10	10	10	10	10	16	10	10
Cap, veh/h	59	0	88	25	0	57	57	903	403	50	834	71
Arrive On Green	0.04	0.00	0.06	0.01	0.00	0.04	0.03	0.27	0.27	0.03	0.27	0.27
Sat Flow, veh/h	1668	0	1485	1711	0	1485	1668	3328	1485	1584	3106	263
Grp Volume(v), veh/h	11	0	11	14	0	15	35	227	31	32	220	227
Grp Sat Flow(s),veh/h/ln	1668	0	1485	1711	0	1485	1668	1664	1485	1584	1664	1705
Q Serve(g_s), s	0.2	0.0	0.2	0.2	0.0	0.3	0.5	1.4	0.4	0.5	2.9	2.9
Cycle Q Clear(g_c), s	0.2	0.0	0.2	0.2	0.0	0.3	0.5	1.4	0.4	0.5	2.9	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	59	0	88	25	0	57	57	903	403	50	447	458
V/C Ratio(X)	0.19	0.00	0.13	0.55	0.00	0.26	0.61	0.25	0.08	0.64	0.49	0.50
Avail Cap(c_a), veh/h	1169	0	1850	266	0	1041	325	2333	1041	308	1167	1195
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	12.0	0.0	11.5	12.6	0.0	12.0	12.2	7.3	7.0	12.3	7.9	7.9
Incr Delay (d2), s/veh	1.5	0.0	0.6	17.5	0.0	2.4	10.0	0.1	0.1	12.5	0.8	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	0.1	0.0	0.1	0.2	0.0	0.1	0.3	0.2	0.1	0.3	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.5	0.0	12.1	30.0	0.0	14.4	22.2	7.5	7.0	24.8	8.8	8.8
LnGrp LOS	B	A	B	C	A	B	C	A	A	C	A	A
Approach Vol, veh/h		22			29			293			479	
Approach Delay, s/veh		12.8			21.9			9.2			9.8	
Approach LOS		B			C			A			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	11.0	4.4	5.5	4.9	10.9	4.9	5.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	18.0	4.0	32.0	5.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	2.5	3.4	2.2	2.2	2.5	4.9	2.2	2.3
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	2.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	2	246	7	10	477
Future Vol, veh/h	2	2	246	7	10	477
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	-	-	250	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	50	50	10	14	30	10
Mvmt Flow	2	2	246	7	10	477

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	743	123	0	0	253	0
Stage 1	246	-	-	-	-	-
Stage 2	497	-	-	-	-	-
Critical Hdwy	7.35	7.65	-	-	4.55	-
Critical Hdwy Stg 1	6.55	-	-	-	-	-
Critical Hdwy Stg 2	6.15	-	-	-	-	-
Follow-up Hdwy	3.975	3.775	-	-	2.485	-
Pot Cap-1 Maneuver	291	783	-	-	1147	-
Stage 1	661	-	-	-	-	-
Stage 2	503	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	288	783	-	-	1147	-
Mov Cap-2 Maneuver	288	-	-	-	-	-
Stage 1	661	-	-	-	-	-
Stage 2	498	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	421	1147	-
HCM Lane V/C Ratio	-	-	0.01	0.009	-
HCM Control Delay (s)	-	-	13.6	8.2	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	665	50	437	468	30	218
Future Volume (veh/h)	665	50	437	468	30	218
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
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	665	50	437	468	30	218
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10
Cap, veh/h	1931	142	607	2799	222	450
Arrive On Green	0.28	0.28	0.19	0.59	0.13	0.13
Sat Flow, veh/h	7167	503	3237	4940	1668	3385
Grp Volume(v), veh/h	550	165	437	468	30	218
Grp Sat Flow(s),veh/h/ln	1419	1661	1618	1594	1668	1128
Q Serve(g_s), s	2.7	2.8	4.4	1.6	0.6	2.1
Cycle Q Clear(g_c), s	2.7	2.8	4.4	1.6	0.6	2.1
Prop In Lane		0.30	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1603	469	607	2799	222	450
V/C Ratio(X)	0.34	0.35	0.72	0.17	0.14	0.48
Avail Cap(c_a), veh/h	6891	2017	652	7319	2256	4577
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	9.9	9.9	13.3	3.3	13.3	14.0
Incr Delay (d2), s/veh	0.1	0.4	3.6	0.0	0.3	0.8
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	0.7	1.4	0.1	0.2	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.0	10.4	16.8	3.3	13.6	14.8
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	715			905	248	
Approach Delay, s/veh	10.1			9.9	14.6	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.5	15.6				26.1	8.6
Change Period (Y+Rc), s	4.0	5.8				5.8	4.0
Max Green Setting (Gmax), s	7.0	42.2				53.2	47.0
Max Q Clear Time (g_c+I1), s	6.4	4.8				3.6	4.1
Green Ext Time (p_c), s	0.1	5.1				3.3	1.0

Intersection Summary			
HCM 6th Ctrl Delay		10.6	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	485	1	23	425	50	2	1	6	150	1	50
Future Volume (veh/h)	50	485	1	23	425	50	2	1	6	150	1	50
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	50	485	1	23	425	50	2	1	6	150	1	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	158	1002	447	37	762	340	4	10	62	214	5	254
Arrive On Green	0.09	0.30	0.30	0.02	0.23	0.23	0.00	0.05	0.05	0.13	0.17	0.17
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	217	1301	1668	29	1460
Grp Volume(v), veh/h	50	485	1	23	425	50	2	0	7	150	0	51
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	0	1518	1668	0	1489
Q Serve(g_s), s	1.2	5.0	0.0	0.6	4.8	1.1	0.1	0.0	0.2	3.6	0.0	1.2
Cycle Q Clear(g_c), s	1.2	5.0	0.0	0.6	4.8	1.1	0.1	0.0	0.2	3.6	0.0	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.86	1.00		0.98
Lane Grp Cap(c), veh/h	158	1002	447	37	762	340	4	0	73	214	0	259
V/C Ratio(X)	0.32	0.48	0.00	0.62	0.56	0.15	0.51	0.00	0.10	0.70	0.00	0.20
Avail Cap(c_a), veh/h	1187	4513	2013	257	2659	1186	158	0	1187	878	0	1807
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	17.8	12.1	10.3	20.4	14.4	13.0	21.0	0.0	19.2	17.6	0.0	14.9
Incr Delay (d2), s/veh	1.1	0.4	0.0	15.3	0.6	0.2	75.2	0.0	0.6	4.1	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	0.4	1.4	0.0	0.3	1.5	0.3	0.1	0.0	0.1	1.4	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.0	12.4	10.3	35.7	15.0	13.2	96.2	0.0	19.8	21.7	0.0	15.3
LnGrp LOS	B	B	B	D	B	B	F	A	B	C	A	B
Approach Vol, veh/h		536			498			9			201	
Approach Delay, s/veh		13.0			15.8			36.8			20.1	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	18.5	5.2	12.4	9.1	15.5	10.5	7.1
Change Period (Y+Rc), s	5.1	5.8	5.1	5.1	5.1	5.8	5.1	5.1
Max Green Setting (Gmax), s	6.5	57.2	4.0	51.2	30.0	33.7	22.2	33.0
Max Q Clear Time (g_c+I1), s	2.6	7.0	2.1	3.2	3.2	6.8	5.6	2.2
Green Ext Time (p_c), s	0.0	3.4	0.0	0.3	0.1	2.9	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	322	121	158	442	25	90	401	132	25	380	85
Future Volume (veh/h)	130	322	121	158	442	25	90	401	132	25	380	85
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	130	322	121	158	442	25	90	401	132	25	380	85
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	368	909	282	481	748	334	168	749	334	94	602	268
Arrive On Green	0.11	0.19	0.19	0.15	0.22	0.22	0.10	0.23	0.23	0.06	0.18	0.18
Sat Flow, veh/h	3237	4782	1485	3237	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	130	322	121	158	442	25	90	401	132	25	380	85
Grp Sat Flow(s),veh/h/ln	1618	1594	1485	1618	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	2.3	3.7	4.5	2.8	7.5	0.8	3.2	6.7	4.8	0.9	6.7	3.1
Cycle Q Clear(g_c), s	2.3	3.7	4.5	2.8	7.5	0.8	3.2	6.7	4.8	0.9	6.7	3.1
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	368	909	282	481	748	334	168	749	334	94	602	268
V/C Ratio(X)	0.35	0.35	0.43	0.33	0.59	0.07	0.54	0.54	0.39	0.27	0.63	0.32
Avail Cap(c_a), veh/h	615	2272	705	513	1476	658	211	1898	846	264	2109	940
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	25.8	22.2	22.5	24.1	21.9	19.3	27.0	21.6	20.8	28.5	23.9	22.5
Incr Delay (d2), s/veh	0.2	0.1	0.4	0.4	0.3	0.0	1.0	0.2	0.3	1.5	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	0.8	1.2	1.5	1.0	2.6	0.3	1.2	2.4	1.5	0.4	2.5	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	22.3	22.9	24.5	22.2	19.3	28.0	21.8	21.1	30.0	25.0	23.1
LnGrp LOS	C	C	C	C	C	B	C	C	C	C	C	C
Approach Vol, veh/h		573			625			623			490	
Approach Delay, s/veh		23.3			22.6			22.5			24.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.4	18.0	12.3	17.4	13.2	20.2	9.5	20.2
Change Period (Y+Rc), s	6.0	6.0	6.0	* 6	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	10.0	30.0	8.0	* 40	12.0	28.0	10.0	36.0
Max Q Clear Time (g_c+I1), s	4.3	6.5	5.2	8.7	4.3	9.5	2.9	8.7
Green Ext Time (p_c), s	0.2	1.1	0.0	2.8	0.1	1.1	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	23.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	160	0	70	422	40	0	0	50	20
Future Volume (veh/h)	0	0	0	160	0	70	422	40	0	0	50	20
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1752	1900	1752	1752	0	0	1752	1752
Adj Flow Rate, veh/h				160	0	70	422	40	0	0	50	20
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	10	0	10	10	0	0	10	10
Cap, veh/h				199	0	87	641	917	0	0	195	78
Arrive On Green				0.18	0.00	0.18	0.20	0.52	0.00	0.00	0.16	0.16
Sat Flow, veh/h				1118	0	489	3237	1752	0	0	1190	476
Grp Volume(v), veh/h				230	0	0	422	40	0	0	0	70
Grp Sat Flow(s),veh/h/ln				1608	0	0	1618	1752	0	0	0	1666
Q Serve(g_s), s				4.2	0.0	0.0	3.7	0.3	0.0	0.0	0.0	1.1
Cycle Q Clear(g_c), s				4.2	0.0	0.0	3.7	0.3	0.0	0.0	0.0	1.1
Prop In Lane				0.70		0.30	1.00		0.00	0.00		0.29
Lane Grp Cap(c), veh/h				286	0	0	641	917	0	0	0	274
V/C Ratio(X)				0.80	0.00	0.00	0.66	0.04	0.00	0.00	0.00	0.26
Avail Cap(c_a), veh/h				465	0	0	967	1272	0	0	0	443
HCM Platoon Ratio				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	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				12.0	0.0	0.0	11.3	3.5	0.0	0.0	0.0	11.1
Incr Delay (d2), s/veh				2.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	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
%ile BackOfQ(50%),veh/ln				1.2	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.0	0.0	0.0	12.1	3.5	0.0	0.0	0.0	11.3
LnGrp LOS				B	A	A	B	A	A	A	A	B
Approach Vol, veh/h					230			462			70	
Approach Delay, s/veh					14.0			11.4			11.3	
Approach LOS					B			B			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	20.8		10.9	9.9		9.6
Change Period (Y+Rc), s	4.9		4.9	4.9		4.2
Max Green Setting (Gmax), s	22.1		9.1	8.1		8.8
Max Q Clear Time (g_c+I1), s	2.3		5.7	3.1		6.2
Green Ext Time (p_c), s	0.0		0.5	0.0		0.1

Intersection Summary		
HCM 6th Ctrl Delay		12.2
HCM 6th LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	537	0	0	0	0	459	360	10	200	0
Future Volume (veh/h)	15	0	537	0	0	0	0	459	360	10	200	0
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752				0	1752	1752	1752	1752	0
Adj Flow Rate, veh/h	15	0	537				0	459	360	10	200	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10				0	10	10	10	10	0
Cap, veh/h	642	0	571				0	1073	479	22	1401	0
Arrive On Green	0.38	0.00	0.38				0.00	0.32	0.32	0.01	0.42	0.00
Sat Flow, veh/h	1668	0	1485				0	3416	1485	1668	3416	0
Grp Volume(v), veh/h	15	0	537				0	459	360	10	200	0
Grp Sat Flow(s),veh/h/ln	1668	0	1485				0	1664	1485	1668	1664	0
Q Serve(g_s), s	0.3	0.0	16.3				0.0	5.1	10.2	0.3	1.7	0.0
Cycle Q Clear(g_c), s	0.3	0.0	16.3				0.0	5.1	10.2	0.3	1.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	642	0	571				0	1073	479	22	1401	0
V/C Ratio(X)	0.02	0.00	0.94				0.00	0.43	0.75	0.46	0.14	0.00
Avail Cap(c_a), veh/h	642	0	571				0	1344	600	178	1985	0
HCM Platoon Ratio	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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.9	0.0	13.9				0.0	12.5	14.2	22.9	8.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	23.5				0.0	0.4	4.9	14.4	0.1	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
%ile BackOfQ(50%),veh/ln	0.1	0.0	7.8				0.0	1.5	3.3	0.2	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.9	0.0	37.4				0.0	12.8	19.1	37.3	8.4	0.0
LnGrp LOS	A	A	D				A	B	B	D	A	A
Approach Vol, veh/h		552						819			210	
Approach Delay, s/veh		36.7						15.6			9.8	
Approach LOS		D						B			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	4.6	20.0		22.2		24.6
Change Period (Y+Rc), s	4.0	4.9		* 4.2		4.9
Max Green Setting (Gmax), s	5.6	18.9		* 18		27.9
Max Q Clear Time (g_c+I1), s	2.3	12.2		18.3		3.7
Green Ext Time (p_c), s	0.0	2.9		0.0		1.2

Intersection Summary	
HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	5	29	70	5	135	12	597	122	205	527	5
Future Volume (veh/h)	7	5	29	70	5	135	12	597	122	205	527	5
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	7	5	29	70	5	135	12	597	122	205	527	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	26	45	260	153	495	396	43	939	419	417	1287	608
Arrive On Green	0.01	0.19	0.19	0.09	0.27	0.27	0.02	0.28	0.28	0.13	0.39	0.39
Sat Flow, veh/h	1767	237	1372	1668	1856	1485	1767	3328	1485	3237	3328	1572
Grp Volume(v), veh/h	7	0	34	70	5	135	12	597	122	205	527	5
Grp Sat Flow(s),veh/h/ln	1767	0	1609	1668	1856	1485	1767	1664	1485	1618	1664	1572
Q Serve(g_s), s	0.2	0.0	1.1	2.4	0.1	4.4	0.4	9.4	3.9	3.5	6.9	0.1
Cycle Q Clear(g_c), s	0.2	0.0	1.1	2.4	0.1	4.4	0.4	9.4	3.9	3.5	6.9	0.1
Prop In Lane	1.00		0.85	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	26	0	305	153	495	396	43	939	419	417	1287	608
V/C Ratio(X)	0.27	0.00	0.11	0.46	0.01	0.34	0.28	0.64	0.29	0.49	0.41	0.01
Avail Cap(c_a), veh/h	235	0	909	236	1064	852	235	1633	728	511	1716	811
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	0.0	20.2	25.9	16.2	17.8	28.8	18.9	16.9	24.4	13.4	11.3
Incr Delay (d2), s/veh	2.0	0.0	0.2	0.8	0.0	0.2	1.3	1.0	0.5	0.3	0.3	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	0.4	0.9	0.0	1.4	0.2	3.3	1.2	1.2	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.4	0.0	20.3	26.7	16.2	18.0	30.1	19.9	17.4	24.7	13.7	11.4
LnGrp LOS	C	A	C	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		41			210			731			737	
Approach Delay, s/veh		22.2			20.8			19.7			16.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	22.0	10.0	15.9	6.0	28.3	5.4	20.5
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5
Max Green Setting (Gmax), s	9.5	29.5	8.5	34.0	8.0	31.0	8.0	34.5
Max Q Clear Time (g_c+I1), s	5.5	11.4	4.4	3.1	2.4	8.9	2.2	6.4
Green Ext Time (p_c), s	0.1	5.5	0.0	0.1	0.0	4.7	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	356	80	52	301	67	80	520	84	256	400	250
Future Volume (veh/h)	300	356	80	52	301	67	80	520	84	256	400	250
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	300	356	80	52	301	67	80	520	84	256	400	250
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	346	1040	464	94	546	230	124	812	362	153	883	417
Arrive On Green	0.20	0.29	0.29	0.06	0.15	0.15	0.07	0.24	0.24	0.09	0.27	0.27
Sat Flow, veh/h	1767	3526	1572	1668	3526	1485	1767	3328	1485	1668	3328	1572
Grp Volume(v), veh/h	300	356	80	52	301	67	80	520	84	256	400	250
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1668	1763	1485	1767	1664	1485	1668	1664	1572
Q Serve(g_s), s	10.8	5.2	2.5	2.0	5.2	2.6	2.9	9.2	3.0	6.0	6.6	9.1
Cycle Q Clear(g_c), s	10.8	5.2	2.5	2.0	5.2	2.6	2.9	9.2	3.0	6.0	6.6	9.1
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	346	1040	464	94	546	230	124	812	362	153	883	417
V/C Ratio(X)	0.87	0.34	0.17	0.56	0.55	0.29	0.64	0.64	0.23	1.67	0.45	0.60
Avail Cap(c_a), veh/h	459	2210	986	230	1779	749	162	1705	760	153	1705	805
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	25.5	18.1	17.1	30.1	25.5	24.5	29.6	22.2	19.8	29.7	20.1	21.0
Incr Delay (d2), s/veh	10.4	0.3	0.3	1.9	1.5	1.2	2.1	1.5	0.6	329.5	0.6	2.4
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	5.1	1.9	0.9	0.8	2.2	0.9	1.2	3.4	1.0	16.2	2.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	18.4	17.4	32.0	27.0	25.6	31.7	23.6	20.4	359.2	20.7	23.3
LnGrp LOS	D	B	B	C	C	C	C	C	C	F	C	C
Approach Vol, veh/h		736			420			684			906	
Approach Delay, s/veh		25.4			27.4			24.2			117.1	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	21.5	8.7	24.3	9.6	22.9	17.8	15.1
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0
Max Green Setting (Gmax), s	6.0	33.5	9.0	41.0	6.0	33.5	17.0	33.0
Max Q Clear Time (g_c+I1), s	9.0	11.2	4.0	7.2	4.9	11.1	12.8	7.2
Green Ext Time (p_c), s	0.0	4.8	0.0	3.6	0.0	5.2	0.1	3.0

Intersection Summary	
HCM 6th Ctrl Delay	55.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	977	50	20	1400	240	120	126	131	200	40	222
Future Volume (veh/h)	169	977	50	20	1400	240	120	126	131	200	40	222
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	169	977	50	20	1400	240	120	126	131	200	40	222
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	10	3	10	3	10	10	10	10	10
Cap, veh/h	181	1849	95	29	1591	670	149	200	178	235	294	263
Arrive On Green	0.10	0.54	0.54	0.02	0.45	0.45	0.08	0.12	0.12	0.14	0.18	0.18
Sat Flow, veh/h	1767	3412	175	1668	3526	1485	1767	1664	1485	1668	1664	1485
Grp Volume(v), veh/h	169	505	522	20	1400	240	120	126	131	200	40	222
Grp Sat Flow(s),veh/h/ln	1767	1763	1824	1668	1763	1485	1767	1664	1485	1668	1664	1485
Q Serve(g_s), s	9.0	17.4	17.4	1.1	34.2	10.0	6.3	6.8	8.1	11.1	1.9	13.7
Cycle Q Clear(g_c), s	9.0	17.4	17.4	1.1	34.2	10.0	6.3	6.8	8.1	11.1	1.9	13.7
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	181	955	989	29	1591	670	149	200	178	235	294	263
V/C Ratio(X)	0.93	0.53	0.53	0.69	0.88	0.36	0.81	0.63	0.73	0.85	0.14	0.85
Avail Cap(c_a), veh/h	181	988	1022	88	1782	750	149	387	345	318	563	502
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	42.1	13.9	13.9	46.2	23.6	17.0	42.6	39.6	40.1	39.7	32.8	37.7
Incr Delay (d2), s/veh	47.1	0.5	0.5	25.7	5.0	0.3	26.8	1.2	2.2	15.0	0.1	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	6.2	6.5	6.7	0.7	14.2	3.4	3.8	2.8	3.0	5.5	0.8	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.2	14.4	14.4	71.9	28.6	17.3	69.3	40.8	42.3	54.7	32.9	40.6
LnGrp LOS	F	B	B	E	C	B	E	D	D	D	C	D
Approach Vol, veh/h		1196			1660			377			462	
Approach Delay, s/veh		25.0			27.5			50.4			46.0	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	55.8	12.0	21.2	14.2	47.2	17.3	15.9
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.5	4.5	4.0	4.5
Max Green Setting (Gmax), s	5.6	53.0	8.0	32.0	9.7	47.8	18.0	22.0
Max Q Clear Time (g_c+I1), s	3.1	19.4	8.3	15.7	11.0	36.2	13.1	10.1
Green Ext Time (p_c), s	0.0	4.9	0.0	1.0	0.0	6.5	0.3	0.8

Intersection Summary	
HCM 6th Ctrl Delay	31.3
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	408	820	100	490	960	85	210	613	630	33	208	460
Future Volume (veh/h)	408	820	100	490	960	85	210	613	630	33	208	460
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	408	820	100	490	960	85	210	613	0	33	208	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	464	879	585	513	1425	672	217	784		41	431	
Arrive On Green	0.14	0.26	0.26	0.31	0.43	0.43	0.13	0.24	0.00	0.02	0.13	0.00
Sat Flow, veh/h	3237	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	408	820	100	490	960	85	210	613	0	33	208	0
Grp Sat Flow(s),veh/h/ln	1618	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	16.1	31.4	5.7	37.6	30.3	4.3	16.4	22.5	0.0	2.6	7.6	0.0
Cycle Q Clear(g_c), s	16.1	31.4	5.7	37.6	30.3	4.3	16.4	22.5	0.0	2.6	7.6	0.0
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	464	879	585	513	1425	672	217	784		41	431	
V/C Ratio(X)	0.88	0.93	0.17	0.96	0.67	0.13	0.97	0.78		0.81	0.48	
Avail Cap(c_a), veh/h	496	892	591	524	1428	673	217	1045		77	765	
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	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.8	46.9	25.7	44.3	30.0	20.7	56.5	46.8	0.0	63.4	52.7	0.0
Incr Delay (d2), s/veh	17.2	16.7	0.3	28.7	1.7	0.2	51.4	6.4	0.0	29.9	3.0	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	7.5	14.6	2.0	18.7	11.6	1.5	9.8	9.8	0.0	1.4	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.0	63.6	26.0	73.0	31.7	20.9	107.9	53.2	0.0	93.3	55.8	0.0
LnGrp LOS	E	E	C	E	C	C	F	D		F	E	
Approach Vol, veh/h		1328			1535			823	A		241	A
Approach Delay, s/veh		63.4			44.3			67.1			60.9	
Approach LOS		E			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.1	40.5	21.0	22.9	24.7	61.9	7.2	36.7
Change Period (Y+Rc), s	6.0	6.0	4.0	6.0	6.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	10.0	35.0	17.0	30.0	20.0	56.0	6.0	41.0
Max Q Clear Time (g_c+I1), s	39.6	33.4	18.4	9.6	18.1	32.3	4.6	24.5
Green Ext Time (p_c), s	0.5	1.1	0.0	2.1	0.6	10.3	0.0	6.2

Intersection Summary	
HCM 6th Ctrl Delay	56.5
HCM 6th LOS	E

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	378	0	10	0	242	300	0	184	460
Future Volume (veh/h)	0	0	0	378	0	10	0	242	300	0	184	460
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	0	1752	1752	0	1752	1752
Adj Flow Rate, veh/h				378	0	10	0	242	300	0	184	460
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				10	10	10	0	10	10	0	10	10
Cap, veh/h				967	0	287	0	1765	548	0	1228	964
Arrive On Green				0.19	0.00	0.19	0.00	0.37	0.37	0.00	0.37	0.37
Sat Flow, veh/h				5005	0	1485	0	4940	1485	0	3416	2613
Grp Volume(v), veh/h				378	0	10	0	242	300	0	184	460
Grp Sat Flow(s),veh/h/ln				1668	0	1485	0	1594	1485	0	1664	1306
Q Serve(g_s), s				1.5	0.0	0.1	0.0	0.8	3.6	0.0	0.8	3.0
Cycle Q Clear(g_c), s				1.5	0.0	0.1	0.0	0.8	3.6	0.0	0.8	3.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				967	0	287	0	1765	548	0	1228	964
V/C Ratio(X)				0.39	0.00	0.03	0.00	0.14	0.55	0.00	0.15	0.48
Avail Cap(c_a), veh/h				4024	0	1194	0	9015	2798	0	6274	4925
HCM Platoon Ratio				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	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				7.9	0.0	7.3	0.0	4.7	5.6	0.0	4.7	5.4
Incr Delay (d2), s/veh				0.3	0.0	0.0	0.0	0.0	0.9	0.0	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
%ile BackOfQ(50%),veh/ln				0.3	0.0	0.0	0.0	0.1	0.5	0.0	0.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				8.1	0.0	7.4	0.0	4.7	6.4	0.0	4.8	5.8
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					388			542			644	
Approach Delay, s/veh					8.1			5.7			5.5	
Approach LOS					A			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	14.1		14.1		8.3			
Change Period (Y+Rc), s	5.8		5.8		4.0			
Max Green Setting (Gmax), s	42.2		42.2		18.0			
Max Q Clear Time (g_c+I1), s	5.6		5.0		3.5			
Green Ext Time (p_c), s	2.7		3.2		1.3			

Intersection Summary		
HCM 6th Ctrl Delay		6.2
HCM 6th LOS		A

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	0	354	0	0	0	0	232	652	10	552	0
Future Volume (veh/h)	310	0	354	0	0	0	0	232	652	10	552	0
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1752	0	1752				0	1752	1752	1752	1752	0
Adj Flow Rate, veh/h	310	0	354				0	232	652	10	552	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	0	10				0	10	10	10	10	0
Cap, veh/h	420	0	339				0	1967	1075	18	2639	0
Arrive On Green	0.13	0.00	0.13				0.00	0.41	0.41	0.01	0.55	0.00
Sat Flow, veh/h	3237	0	2613				0	4940	2613	1668	4940	0
Grp Volume(v), veh/h	310	0	354				0	232	652	10	552	0
Grp Sat Flow(s),veh/h/ln	1618	0	1306				0	1594	1306	1668	1594	0
Q Serve(g_s), s	2.8	0.0	4.0				0.0	0.9	6.0	0.2	1.8	0.0
Cycle Q Clear(g_c), s	2.8	0.0	4.0				0.0	0.9	6.0	0.2	1.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	420	0	339				0	1967	1075	18	2639	0
V/C Ratio(X)	0.74	0.00	1.04				0.00	0.12	0.61	0.56	0.21	0.00
Avail Cap(c_a), veh/h	420	0	339				0	6710	3666	217	7952	0
HCM Platoon Ratio	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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.9	0.0	13.4				0.0	5.6	7.1	15.2	3.5	0.0
Incr Delay (d2), s/veh	6.7	0.0	60.5				0.0	0.0	0.6	25.0	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
%ile BackOfQ(50%),veh/ln	1.2	0.0	3.7				0.0	0.1	0.8	0.2	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.6	0.0	73.9				0.0	5.6	7.7	40.2	3.5	0.0
LnGrp LOS	B	A	F				A	A	A	D	A	A
Approach Vol, veh/h		664						884			562	
Approach Delay, s/veh		48.5						7.1			4.2	
Approach LOS		D						A			A	

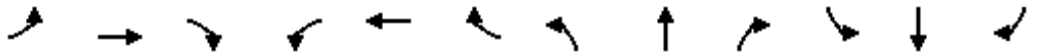
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	4.3	18.5		8.0		22.8
Change Period (Y+Rc), s	4.0	5.8		4.0		5.8
Max Green Setting (Gmax), s	4.3	43.2		4.0		51.2
Max Q Clear Time (g_c+I1), s	2.2	8.0		6.0		3.8
Green Ext Time (p_c), s	0.0	4.6		0.0		4.0

Intersection Summary	
HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	10	14	50	10	10	61	644	100	100	484	6
Future Volume (veh/h)	11	10	14	50	10	10	61	644	100	100	484	6
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	11	10	14	50	10	10	61	644	100	100	484	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	48	86	121	138	149	149	159	1286	399	266	1592	494
Arrive On Green	0.03	0.13	0.13	0.08	0.19	0.19	0.10	0.27	0.27	0.16	0.33	0.33
Sat Flow, veh/h	1668	661	925	1668	804	804	1668	4782	1485	1668	4782	1485
Grp Volume(v), veh/h	11	0	24	50	0	20	61	644	100	100	484	6
Grp Sat Flow(s),veh/h/ln	1668	0	1585	1668	0	1607	1668	1594	1485	1668	1594	1485
Q Serve(g_s), s	0.3	0.0	0.6	1.3	0.0	0.5	1.5	5.1	2.4	2.4	3.4	0.1
Cycle Q Clear(g_c), s	0.3	0.0	0.6	1.3	0.0	0.5	1.5	5.1	2.4	2.4	3.4	0.1
Prop In Lane	1.00		0.58	1.00		0.50	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	0	207	138	0	297	159	1286	399	266	1592	494
V/C Ratio(X)	0.23	0.00	0.12	0.36	0.00	0.07	0.38	0.50	0.25	0.38	0.30	0.01
Avail Cap(c_a), veh/h	374	0	1527	336	0	1512	299	3428	1064	374	3642	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	17.1	19.4	0.0	15.0	19.0	13.8	12.8	16.8	11.1	10.0
Incr Delay (d2), s/veh	2.4	0.0	0.2	1.6	0.0	0.1	1.5	0.3	0.3	0.9	0.1	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	0.5	0.0	0.2	0.6	1.5	0.7	0.9	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	17.4	20.9	0.0	15.1	20.5	14.1	13.1	17.7	11.2	10.0
LnGrp LOS	C	A	B	C	A	B	C	B	B	B	B	A
Approach Vol, veh/h		35			70			805			590	
Approach Delay, s/veh		19.3			19.3			14.5			12.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	16.0	7.7	9.8	8.2	18.9	5.3	12.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	32.0	9.0	43.0	8.0	34.0	10.0	42.0
Max Q Clear Time (g_c+I1), s	4.4	7.1	3.3	2.6	3.5	5.4	2.3	2.5
Green Ext Time (p_c), s	0.1	4.7	0.0	0.1	0.0	3.6	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	1178	8	2	611	4	23	0	5	14	0	111
Future Volume (veh/h)	56	1178	8	2	611	4	23	0	5	14	0	111
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1366	1856	1856	1856	1856	1856	1752	1752	1752	1856	1752	1752
Adj Flow Rate, veh/h	56	1178	8	2	611	4	23	0	5	14	0	111
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	36	3	3	3	3	3	10	10	10	3	10	10
Cap, veh/h	64	1245	8	4	1158	8	33	0	152	23	0	142
Arrive On Green	0.05	0.68	0.68	0.00	0.63	0.63	0.02	0.00	0.10	0.01	0.00	0.10
Sat Flow, veh/h	1301	1841	13	1767	1841	12	1668	0	1485	1767	0	1485
Grp Volume(v), veh/h	56	0	1186	2	0	615	23	0	5	14	0	111
Grp Sat Flow(s),veh/h/ln	1301	0	1853	1767	0	1853	1668	0	1485	1767	0	1485
Q Serve(g_s), s	3.7	0.0	50.2	0.1	0.0	16.1	1.2	0.0	0.3	0.7	0.0	6.4
Cycle Q Clear(g_c), s	3.7	0.0	50.2	0.1	0.0	16.1	1.2	0.0	0.3	0.7	0.0	6.4
Prop In Lane	1.00		0.01	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	64	0	1253	4	0	1166	33	0	152	23	0	142
V/C Ratio(X)	0.88	0.00	0.95	0.52	0.00	0.53	0.70	0.00	0.03	0.60	0.00	0.78
Avail Cap(c_a), veh/h	179	0	1615	81	0	1445	96	0	306	81	0	306
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.2	0.0	12.7	43.5	0.0	9.0	42.5	0.0	35.3	42.8	0.0	38.5
Incr Delay (d2), s/veh	28.5	0.0	9.4	80.5	0.0	0.1	23.9	0.0	0.0	22.3	0.0	8.9
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	1.6	0.0	17.4	0.1	0.0	5.0	0.7	0.0	0.1	0.4	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.6	0.0	22.1	124.0	0.0	9.1	66.4	0.0	35.3	65.1	0.0	47.5
LnGrp LOS	E	A	C	F	A	A	E	A	D	E	A	D
Approach Vol, veh/h		1242			617			28			125	
Approach Delay, s/veh		24.2			9.5			60.9			49.5	
Approach LOS		C			A			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.2	64.0	5.7	13.3	8.3	59.9	5.2	13.9
Change Period (Y+Rc), s	4.0	5.0	4.0	* 5	4.0	5.0	4.0	5.0
Max Green Setting (Gmax), s	4.0	76.0	5.0	* 18	12.0	68.0	4.0	18.0
Max Q Clear Time (g_c+I1), s	2.1	52.2	3.2	8.4	5.7	18.1	2.7	2.3
Green Ext Time (p_c), s	0.0	6.8	0.0	0.3	0.0	2.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	21.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

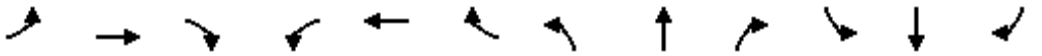
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑↱				↱			↱
Traffic Vol, veh/h	0	1222	11	0	744	1	0	0	20	0	0	14
Future Vol, veh/h	0	1222	11	0	744	1	0	0	20	0	0	14
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	-	-	0	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	10	10	0	10	0	0	0	3	0	0	0
Mvmt Flow	0	1222	11	0	744	1	0	0	20	0	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	611	-	-	373
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.96	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.33	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	434	0	0	630
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	434	-	-	630
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13.7	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	434	-	-	-	-	630
HCM Lane V/C Ratio	0.046	-	-	-	-	0.022
HCM Control Delay (s)	13.7	-	-	-	-	10.8
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	876	50	50	439	269	50	100	50	305	50	95
Future Volume (veh/h)	71	876	50	50	439	269	50	100	50	305	50	95
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	71	876	50	50	439	269	50	100	50	305	50	95
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	129	1034	461	110	996	444	110	252	213	340	473	401
Arrive On Green	0.08	0.31	0.31	0.07	0.30	0.30	0.07	0.14	0.14	0.20	0.27	0.27
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	1752	1485	1668	1752	1485
Grp Volume(v), veh/h	71	876	50	50	439	269	50	100	50	305	50	95
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1752	1485	1668	1752	1485
Q Serve(g_s), s	3.4	20.5	2.0	2.4	8.9	12.9	2.4	4.3	2.5	14.9	1.8	4.2
Cycle Q Clear(g_c), s	3.4	20.5	2.0	2.4	8.9	12.9	2.4	4.3	2.5	14.9	1.8	4.2
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	129	1034	461	110	996	444	110	252	213	340	473	401
V/C Ratio(X)	0.55	0.85	0.11	0.46	0.44	0.61	0.46	0.40	0.23	0.90	0.11	0.24
Avail Cap(c_a), veh/h	220	1476	658	160	1357	605	180	777	658	400	1008	854
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	37.1	26.9	20.5	37.5	23.6	25.0	37.5	32.4	31.6	32.3	22.9	23.7
Incr Delay (d2), s/veh	1.4	2.3	0.0	1.1	0.1	0.5	1.1	0.4	0.2	18.5	0.0	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	1.4	7.7	0.7	1.0	3.2	4.3	1.0	1.8	0.9	7.4	0.7	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	29.2	20.5	38.6	23.7	25.5	38.6	32.8	31.9	50.8	22.9	23.9
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		997			758			200			450	
Approach Delay, s/veh		29.5			25.3			34.0			42.0	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	31.9	22.0	18.0	12.5	31.0	11.5	28.5
Change Period (Y+Rc), s	6.0	6.0	5.0	6.0	6.0	6.0	6.0	* 6
Max Green Setting (Gmax), s	8.0	37.0	20.0	37.0	11.0	34.0	9.0	* 48
Max Q Clear Time (g_c+I1), s	4.4	22.5	16.9	6.3	5.4	14.9	4.4	6.2
Green Ext Time (p_c), s	0.0	3.4	0.2	0.4	0.0	2.1	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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	15	0	60	7	0	8	21	416	3	4	383	7
Future Vol, veh/h	15	0	60	7	0	8	21	416	3	4	383	7
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	-	-	-	-	-	-	225	-	300	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	10	10	10	14	10	25	10	17	10	25	10	10
Mvmt Flow	15	0	60	7	0	8	21	416	3	4	383	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	645	856	195	658	856	208	390	0	0	419	0	0
Stage 1	395	395	-	458	458	-	-	-	-	-	-	-
Stage 2	250	461	-	200	398	-	-	-	-	-	-	-
Critical Hdwy	7.7	6.7	7.1	7.78	6.7	7.4	4.3	-	-	4.6	-	-
Critical Hdwy Stg 1	6.7	5.7	-	6.78	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.7	5.7	-	6.78	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.6	4.1	3.4	3.64	4.1	3.55	2.3	-	-	2.45	-	-
Pot Cap-1 Maneuver	342	279	789	327	279	731	1110	-	-	989	-	-
Stage 1	580	583	-	522	546	-	-	-	-	-	-	-
Stage 2	710	544	-	750	582	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	332	273	789	297	273	731	1110	-	-	989	-	-
Mov Cap-2 Maneuver	332	273	-	297	273	-	-	-	-	-	-	-
Stage 1	569	581	-	512	536	-	-	-	-	-	-	-
Stage 2	689	534	-	690	580	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	13.6	0.4	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1110	-	-	619	435	989	-	-
HCM Lane V/C Ratio	0.019	-	-	0.121	0.034	0.004	-	-
HCM Control Delay (s)	8.3	-	-	11.6	13.6	8.7	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.1	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	0	60	39	0	43	21	404	14	17	295	6
Future Volume (veh/h)	14	0	60	39	0	43	21	404	14	17	295	6
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1826	1752	1752	1752	1648	1796	1722	1678	1678
Adj Flow Rate, veh/h	14	0	60	39	0	43	21	404	14	17	295	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	5	10	10	10	17	7	12	15	15
Cap, veh/h	138	0	207	65	0	140	36	791	385	29	795	16
Arrive On Green	0.08	0.00	0.14	0.04	0.00	0.09	0.02	0.25	0.25	0.02	0.25	0.25
Sat Flow, veh/h	1668	0	1485	1739	0	1485	1668	3131	1522	1640	3195	65
Grp Volume(v), veh/h	14	0	60	39	0	43	21	404	14	17	147	154
Grp Sat Flow(s),veh/h/ln	1668	0	1485	1739	0	1485	1668	1566	1522	1640	1594	1666
Q Serve(g_s), s	0.2	0.0	1.0	0.6	0.0	0.8	0.4	3.2	0.2	0.3	2.2	2.2
Cycle Q Clear(g_c), s	0.2	0.0	1.0	0.6	0.0	0.8	0.4	3.2	0.2	0.3	2.2	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	138	0	207	65	0	140	36	791	385	29	397	415
V/C Ratio(X)	0.10	0.00	0.29	0.60	0.00	0.31	0.59	0.51	0.04	0.59	0.37	0.37
Avail Cap(c_a), veh/h	1038	0	1540	361	0	924	231	2057	1000	227	1047	1094
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	12.3	0.0	11.2	13.7	0.0	12.2	14.0	9.3	8.2	14.1	9.0	9.0
Incr Delay (d2), s/veh	0.3	0.0	0.8	8.7	0.0	1.2	14.3	0.5	0.0	17.5	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	0.1	0.0	0.3	0.4	0.0	0.2	0.2	0.7	0.0	0.2	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.6	0.0	11.9	22.4	0.0	13.5	28.3	9.8	8.2	31.6	9.6	9.5
LnGrp LOS	B	A	B	C	A	B	C	A	A	C	A	A
Approach Vol, veh/h		74			82			439			318	
Approach Delay, s/veh		12.1			17.7			10.6			10.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.5	11.3	5.1	8.0	4.6	11.2	6.4	6.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	19.0	6.0	30.0	4.0	19.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	2.3	5.2	2.6	3.0	2.4	4.2	2.2	2.8
Green Ext Time (p_c), s	0.0	2.1	0.0	0.3	0.0	1.3	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.4
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	4	454	7	5	315
Future Vol, veh/h	3	4	454	7	5	315
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	-	-	250	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	33	50	17	10	20	15
Mvmt Flow	3	4	454	7	5	315

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	779	227	0	0	461	0
Stage 1	454	-	-	-	-	-
Stage 2	325	-	-	-	-	-
Critical Hdwy	7.095	7.65	-	-	4.4	-
Critical Hdwy Stg 1	6.295	-	-	-	-	-
Critical Hdwy Stg 2	5.895	-	-	-	-	-
Follow-up Hdwy	3.8135	3.775	-	-	2.39	-
Pot Cap-1 Maneuver	299	662	-	-	995	-
Stage 1	538	-	-	-	-	-
Stage 2	655	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	298	662	-	-	995	-
Mov Cap-2 Maneuver	298	-	-	-	-	-
Stage 1	538	-	-	-	-	-
Stage 2	652	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.4	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	435	995	-
HCM Lane V/C Ratio	-	-	0.016	0.005	-
HCM Control Delay (s)	-	-	13.4	8.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2305	43	277	464	50	408
Future Volume (veh/h)	2305	43	277	464	50	408
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
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	2305	43	277	464	50	408
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10
Cap, veh/h	3806	71	385	3336	280	568
Arrive On Green	0.52	0.52	0.12	0.70	0.17	0.17
Sat Flow, veh/h	7600	136	3237	4940	1668	3385
Grp Volume(v), veh/h	1800	548	277	464	50	408
Grp Sat Flow(s),veh/h/ln	1419	1727	1618	1594	1668	1128
Q Serve(g_s), s	16.1	16.1	6.0	2.4	1.9	8.3
Cycle Q Clear(g_c), s	16.1	16.1	6.0	2.4	1.9	8.3
Prop In Lane		0.08	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2972	905	385	3336	280	568
V/C Ratio(X)	0.61	0.61	0.72	0.14	0.18	0.72
Avail Cap(c_a), veh/h	3601	1096	800	4479	1077	2185
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	12.1	12.1	30.9	3.7	26.0	28.7
Incr Delay (d2), s/veh	0.2	0.7	2.5	0.0	0.3	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	5.2	2.3	0.5	0.7	2.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.3	12.8	33.4	3.7	26.3	30.4
LnGrp LOS	B	B	C	A	C	C
Approach Vol, veh/h	2348			741	458	
Approach Delay, s/veh	12.4			14.8	29.9	
Approach LOS	B			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.7	43.9				56.6	16.2
Change Period (Y+Rc), s	4.0	5.8				5.8	4.0
Max Green Setting (Gmax), s	18.0	46.2				68.2	47.0
Max Q Clear Time (g_c+I1), s	8.0	18.1				4.4	10.3
Green Ext Time (p_c), s	0.7	20.0				3.3	1.9

Intersection Summary			
HCM 6th Ctrl Delay		15.2	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	2067	5	40	384	20	8	5	32	170	5	50
Future Volume (veh/h)	20	2067	5	40	384	20	8	5	32	170	5	50
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	20	2067	5	40	384	20	8	5	32	170	5	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	66	1994	889	49	1961	875	13	9	56	203	21	214
Arrive On Green	0.04	0.60	0.60	0.03	0.59	0.59	0.01	0.04	0.04	0.12	0.16	0.16
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	205	1311	1668	137	1369
Grp Volume(v), veh/h	20	2067	5	40	384	20	8	0	37	170	0	55
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	0	1516	1668	0	1505
Q Serve(g_s), s	1.2	60.9	0.1	2.4	5.4	0.6	0.5	0.0	2.4	10.1	0.0	3.3
Cycle Q Clear(g_c), s	1.2	60.9	0.1	2.4	5.4	0.6	0.5	0.0	2.4	10.1	0.0	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.86	1.00		0.91
Lane Grp Cap(c), veh/h	66	1994	889	49	1961	875	13	0	64	203	0	235
V/C Ratio(X)	0.30	1.04	0.01	0.81	0.20	0.02	0.60	0.00	0.57	0.84	0.00	0.23
Avail Cap(c_a), veh/h	509	1994	889	82	1961	875	97	0	507	312	0	697
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	47.5	20.4	8.2	49.1	9.7	8.7	50.3	0.0	47.8	43.7	0.0	37.6
Incr Delay (d2), s/veh	2.6	30.4	0.0	26.3	0.0	0.0	36.8	0.0	7.9	11.4	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	0.5	28.3	0.0	1.3	1.8	0.2	0.3	0.0	1.1	4.8	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	50.8	8.2	75.3	9.7	8.7	87.1	0.0	55.6	55.1	0.0	38.1
LnGrp LOS	D	F	A	E	A	A	F	A	E	E	A	D
Approach Vol, veh/h		2092			444			45			225	
Approach Delay, s/veh		50.7			15.6			61.2			51.0	
Approach LOS		D			B			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	66.7	5.9	21.0	9.1	65.7	17.5	9.4
Change Period (Y+Rc), s	5.1	5.8	5.1	5.1	5.1	5.8	5.1	5.1
Max Green Setting (Gmax), s	5.0	60.9	5.9	47.1	31.0	34.9	19.0	34.0
Max Q Clear Time (g_c+I1), s	4.4	62.9	2.5	5.3	3.2	7.4	12.1	4.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	2.5	0.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	45.3
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	756	1030	248	187	297	25	204	1281	117	25	304	100
Future Volume (veh/h)	756	1030	248	187	297	25	204	1281	117	25	304	100
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	756	1030	248	187	297	25	204	1281	117	25	304	100
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	674	1180	366	292	428	191	233	1322	590	81	1018	454
Arrive On Green	0.21	0.25	0.25	0.09	0.13	0.13	0.14	0.40	0.40	0.05	0.31	0.31
Sat Flow, veh/h	3237	4782	1485	3237	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	756	1030	248	187	297	25	204	1281	117	25	304	100
Grp Sat Flow(s),veh/h/ln	1618	1594	1485	1618	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	23.0	22.8	16.7	6.2	9.4	1.6	13.2	41.6	5.7	1.6	7.7	5.5
Cycle Q Clear(g_c), s	23.0	22.8	16.7	6.2	9.4	1.6	13.2	41.6	5.7	1.6	7.7	5.5
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	674	1180	366	292	428	191	233	1322	590	81	1018	454
V/C Ratio(X)	1.12	0.87	0.68	0.64	0.69	0.13	0.87	0.97	0.20	0.31	0.30	0.22
Avail Cap(c_a), veh/h	674	1386	430	293	573	255	348	1326	592	151	1018	454
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	43.7	39.9	37.6	48.5	46.0	42.6	46.5	32.6	21.8	50.7	29.3	28.5
Incr Delay (d2), s/veh	73.0	5.1	2.2	4.6	1.1	0.1	10.8	17.7	0.1	2.1	0.2	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	15.7	9.1	6.1	2.6	3.8	0.6	6.0	19.0	1.9	0.7	3.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	116.7	45.0	39.8	53.1	47.1	42.7	57.3	50.3	21.8	52.9	29.4	28.8
LnGrp LOS	F	D	D	D	D	D	E	D	C	D	C	C
Approach Vol, veh/h		2034			509			1602			429	
Approach Delay, s/veh		71.0			49.1			49.1			30.7	
Approach LOS		E			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	33.2	21.4	39.8	29.0	20.2	11.4	49.8
Change Period (Y+Rc), s	6.0	6.0	6.0	* 6	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	10.0	32.0	23.0	* 33	23.0	19.0	10.0	44.0
Max Q Clear Time (g_c+I1), s	9.2	24.8	15.2	9.7	25.0	11.4	3.6	43.6
Green Ext Time (p_c), s	0.1	2.4	0.2	2.1	0.0	0.5	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	57.1
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	180	0	20	781	75	0	0	220	20
Future Volume (veh/h)	0	0	0	180	0	20	781	75	0	0	220	20
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1752	1900	1752	1752	0	0	1752	1752
Adj Flow Rate, veh/h				180	0	20	781	75	0	0	220	20
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	10	0	10	10	0	0	10	10
Cap, veh/h				210	0	23	935	1069	0	0	297	27
Arrive On Green				0.14	0.00	0.14	0.29	0.61	0.00	0.00	0.19	0.19
Sat Flow, veh/h				1483	0	165	3237	1752	0	0	1582	144
Grp Volume(v), veh/h				200	0	0	781	75	0	0	0	240
Grp Sat Flow(s),veh/h/ln				1648	0	0	1618	1752	0	0	0	1726
Q Serve(g_s), s				4.4	0.0	0.0	8.3	0.6	0.0	0.0	0.0	4.8
Cycle Q Clear(g_c), s				4.4	0.0	0.0	8.3	0.6	0.0	0.0	0.0	4.8
Prop In Lane				0.90		0.10	1.00		0.00	0.00		0.08
Lane Grp Cap(c), veh/h				234	0	0	935	1069	0	0	0	324
V/C Ratio(X)				0.86	0.00	0.00	0.83	0.07	0.00	0.00	0.00	0.74
Avail Cap(c_a), veh/h				234	0	0	979	1227	0	0	0	456
HCM Platoon Ratio				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	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				15.4	0.0	0.0	12.2	2.9	0.0	0.0	0.0	14.1
Incr Delay (d2), s/veh				24.5	0.0	0.0	6.0	0.0	0.0	0.0	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
%ile BackOfQ(50%),veh/ln				2.9	0.0	0.0	2.8	0.1	0.0	0.0	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				39.9	0.0	0.0	18.2	2.9	0.0	0.0	0.0	16.1
LnGrp LOS				D	A	A	B	A	A	A	A	B
Approach Vol, veh/h					200			856			240	
Approach Delay, s/veh					39.9			16.8			16.1	
Approach LOS					D			B			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	27.3		15.5	11.8		9.4
Change Period (Y+Rc), s	4.9		4.9	4.9		4.2
Max Green Setting (Gmax), s	25.7		11.1	9.7		5.2
Max Q Clear Time (g_c+I1), s	2.6		10.3	6.8		6.4
Green Ext Time (p_c), s	0.1		0.3	0.1		0.0

Intersection Summary		
HCM 6th Ctrl Delay		20.3
HCM 6th LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	432	0	0	0	0	871	470	100	300	0
Future Volume (veh/h)	20	0	432	0	0	0	0	871	470	100	300	0
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752				0	1752	1752	1752	1752	0
Adj Flow Rate, veh/h	20	0	432				0	871	470	100	300	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10				0	10	10	10	10	0
Cap, veh/h	529	0	470				0	1243	554	126	1732	0
Arrive On Green	0.32	0.00	0.32				0.00	0.37	0.37	0.08	0.52	0.00
Sat Flow, veh/h	1668	0	1485				0	3416	1485	1668	3416	0
Grp Volume(v), veh/h	20	0	432				0	871	470	100	300	0
Grp Sat Flow(s),veh/h/ln	1668	0	1485				0	1664	1485	1668	1664	0
Q Serve(g_s), s	0.5	0.0	15.7				0.0	12.4	16.2	3.3	2.7	0.0
Cycle Q Clear(g_c), s	0.5	0.0	15.7				0.0	12.4	16.2	3.3	2.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	529	0	470				0	1243	554	126	1732	0
V/C Ratio(X)	0.04	0.00	0.92				0.00	0.70	0.85	0.80	0.17	0.00
Avail Cap(c_a), veh/h	537	0	478				0	1304	582	209	1959	0
HCM Platoon Ratio	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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.2	0.0	18.4				0.0	14.9	16.1	25.4	7.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	22.1				0.0	1.8	11.4	10.8	0.1	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
%ile BackOfQ(50%),veh/ln	0.2	0.0	7.4				0.0	4.1	6.2	1.6	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.2	0.0	40.5				0.0	16.7	27.4	36.3	7.1	0.0
LnGrp LOS	B	A	D				A	B	C	D	A	A
Approach Vol, veh/h		452						1341			400	
Approach Delay, s/veh		39.3						20.4			14.4	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	8.2	25.8	21.9	34.0
Change Period (Y+Rc), s	4.0	4.9	* 4.2	4.9
Max Green Setting (Gmax), s	7.0	21.9	* 18	32.9
Max Q Clear Time (g_c+I1), s	5.3	18.2	17.7	4.7
Green Ext Time (p_c), s	0.0	2.7	0.1	2.0

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	1	13	187	5	292	41	998	279	248	464	20
Future Volume (veh/h)	6	1	13	187	5	292	41	998	279	248	464	20
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	6	1	13	187	5	292	41	998	279	248	464	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	22	18	235	223	520	416	108	1182	527	343	1331	629
Arrive On Green	0.01	0.16	0.16	0.13	0.28	0.28	0.06	0.36	0.36	0.11	0.40	0.40
Sat Flow, veh/h	1767	114	1476	1668	1856	1485	1767	3328	1485	3237	3328	1572
Grp Volume(v), veh/h	6	0	14	187	5	292	41	998	279	248	464	20
Grp Sat Flow(s),veh/h/ln	1767	0	1590	1668	1856	1485	1767	1664	1485	1618	1664	1572
Q Serve(g_s), s	0.3	0.0	0.6	8.2	0.1	13.2	1.7	20.8	11.2	5.6	7.3	0.6
Cycle Q Clear(g_c), s	0.3	0.0	0.6	8.2	0.1	13.2	1.7	20.8	11.2	5.6	7.3	0.6
Prop In Lane	1.00		0.93	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	22	0	254	223	520	416	108	1182	527	343	1331	629
V/C Ratio(X)	0.27	0.00	0.06	0.84	0.01	0.70	0.38	0.84	0.53	0.72	0.35	0.03
Avail Cap(c_a), veh/h	188	0	719	251	921	737	188	1249	557	345	1331	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	0.00	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	36.8	0.0	26.8	31.8	19.5	24.2	33.9	22.3	19.2	32.5	15.7	13.7
Incr Delay (d2), s/veh	2.4	0.0	0.1	18.1	0.0	0.8	0.8	5.5	1.2	6.4	0.2	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	4.3	0.1	4.4	0.7	8.1	3.7	2.4	2.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	0.0	26.9	49.8	19.5	25.0	34.7	27.8	20.4	38.9	16.0	13.7
LnGrp LOS	D	A	C	D	B	C	C	C	C	D	B	B
Approach Vol, veh/h		20			484			1318			732	
Approach Delay, s/veh		30.6			34.6			26.5			23.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	31.7	14.5	16.5	9.1	35.0	5.4	25.6
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5
Max Green Setting (Gmax), s	8.0	28.2	11.3	34.0	8.0	28.2	8.0	37.3
Max Q Clear Time (g_c+I1), s	7.6	22.8	10.2	2.6	3.7	9.3	2.3	15.2
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.0	3.9	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	27.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	1500	120	56	294	194	110	610	99	172	580	170
Future Volume (veh/h)	320	1500	120	56	294	194	110	610	99	172	580	170
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	320	1500	120	56	294	194	110	610	99	172	580	170
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	318	1578	704	79	1110	467	124	799	356	100	765	362
Arrive On Green	0.18	0.45	0.45	0.05	0.31	0.31	0.07	0.24	0.24	0.06	0.23	0.23
Sat Flow, veh/h	1767	3526	1572	1668	3526	1485	1767	3328	1485	1668	3328	1572
Grp Volume(v), veh/h	320	1500	120	56	294	194	110	610	99	172	580	170
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1668	1763	1485	1767	1664	1485	1668	1664	1572
Q Serve(g_s), s	18.0	40.9	4.6	3.3	6.2	10.3	6.2	17.0	5.4	6.0	16.2	9.3
Cycle Q Clear(g_c), s	18.0	40.9	4.6	3.3	6.2	10.3	6.2	17.0	5.4	6.0	16.2	9.3
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	318	1578	704	79	1110	467	124	799	356	100	765	362
V/C Ratio(X)	1.01	0.95	0.17	0.71	0.26	0.42	0.89	0.76	0.28	1.72	0.76	0.47
Avail Cap(c_a), veh/h	318	1587	708	100	1164	490	124	1082	483	100	1049	496
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	41.0	26.5	16.5	46.9	25.6	27.0	46.1	35.3	30.9	47.0	35.9	33.2
Incr Delay (d2), s/veh	51.8	12.9	0.2	9.8	0.2	1.0	47.5	3.2	0.7	361.3	3.1	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	12.1	18.5	1.7	1.6	2.6	3.7	4.3	7.0	2.0	12.5	6.7	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.8	39.5	16.7	56.7	25.8	28.0	93.5	38.5	31.7	408.2	39.0	34.9
LnGrp LOS	F	D	B	E	C	C	F	D	C	F	D	C
Approach Vol, veh/h		1940			544			819			922	
Approach Delay, s/veh		46.9			29.8			45.1			107.1	
Approach LOS		D			C			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	29.5	9.7	49.7	12.0	28.5	23.0	36.5
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0
Max Green Setting (Gmax), s	6.0	32.5	6.0	45.0	7.0	31.5	18.0	33.0
Max Q Clear Time (g_c+I1), s	8.0	19.0	5.3	42.9	8.2	18.2	20.0	12.3
Green Ext Time (p_c), s	0.0	4.5	0.0	1.8	0.0	4.7	0.0	3.8

Intersection Summary	
HCM 6th Ctrl Delay	57.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	309	1303	140	46	1025	370	90	530	30	130	192	395
Future Volume (veh/h)	309	1303	140	46	1025	370	90	530	30	130	192	395
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1752	1856	1856	1856	1752	1856	1856
Adj Flow Rate, veh/h	309	1303	140	46	1025	370	90	530	30	130	192	395
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	10	3	3	3	10	3	3
Cap, veh/h	291	1390	149	58	1041	438	100	829	47	162	502	448
Arrive On Green	0.16	0.43	0.43	0.03	0.30	0.30	0.06	0.24	0.24	0.10	0.28	0.28
Sat Flow, veh/h	1767	3213	344	1767	3526	1485	1767	3392	192	1668	1763	1572
Grp Volume(v), veh/h	309	712	731	46	1025	370	90	275	285	130	192	395
Grp Sat Flow(s),veh/h/ln	1767	1763	1794	1767	1763	1485	1767	1763	1821	1668	1763	1572
Q Serve(g_s), s	14.5	33.9	34.3	2.3	25.4	20.6	4.5	12.3	12.3	6.7	7.7	21.1
Cycle Q Clear(g_c), s	14.5	33.9	34.3	2.3	25.4	20.6	4.5	12.3	12.3	6.7	7.7	21.1
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	291	763	776	58	1041	438	100	431	445	162	502	448
V/C Ratio(X)	1.06	0.93	0.94	0.79	0.98	0.84	0.90	0.64	0.64	0.80	0.38	0.88
Avail Cap(c_a), veh/h	291	763	776	80	1041	438	100	460	476	265	641	571
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	36.8	23.8	23.9	42.3	30.8	29.1	41.3	29.8	29.8	38.9	25.3	30.1
Incr Delay (d2), s/veh	70.1	18.4	19.4	29.9	24.1	14.0	58.1	1.9	1.9	9.0	0.2	10.8
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	11.7	16.8	17.5	1.5	13.7	8.8	3.5	5.3	5.5	3.1	3.2	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	106.8	42.2	43.3	72.2	55.0	43.1	99.4	31.7	31.7	47.9	25.5	40.9
LnGrp LOS	F	D	D	E	D	D	F	C	C	D	C	D
Approach Vol, veh/h		1752			1441			650			717	
Approach Delay, s/veh		54.1			52.5			41.0			38.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	42.6	9.0	29.6	19.0	30.5	12.5	26.0
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.5	4.5	4.0	4.5
Max Green Setting (Gmax), s	4.0	37.0	5.0	32.0	14.5	26.0	14.0	23.0
Max Q Clear Time (g_c+I1), s	4.3	36.3	6.5	23.1	16.5	27.4	8.7	14.3
Green Ext Time (p_c), s	0.0	0.5	0.0	1.9	0.0	0.0	0.2	1.5

Intersection Summary	
HCM 6th Ctrl Delay	49.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	502	870	90	290	510	46	90	1119	510	23	529	837
Future Volume (veh/h)	502	870	90	290	510	46	90	1119	510	23	529	837
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	502	870	90	290	510	46	90	1119	0	23	529	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	572	918	485	273	874	418	85	1054		32	948	
Arrive On Green	0.18	0.28	0.28	0.16	0.26	0.26	0.05	0.32	0.00	0.02	0.28	0.00
Sat Flow, veh/h	3237	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	502	870	90	290	510	46	90	1119	0	23	529	0
Grp Sat Flow(s),veh/h/ln	1618	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	14.8	25.1	4.3	16.0	13.1	2.2	5.0	31.0	0.0	1.3	13.2	0.0
Cycle Q Clear(g_c), s	14.8	25.1	4.3	16.0	13.1	2.2	5.0	31.0	0.0	1.3	13.2	0.0
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	572	918	485	273	874	418	85	1054		32	948	
V/C Ratio(X)	0.88	0.95	0.19	1.06	0.58	0.11	1.06	1.06		0.73	0.56	
Avail Cap(c_a), veh/h	595	918	485	273	874	418	85	1054		68	1020	
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	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.3	34.7	23.6	40.9	31.4	26.1	46.4	33.4	0.0	47.7	29.8	0.0
Incr Delay (d2), s/veh	14.8	18.6	0.4	72.2	1.6	0.2	113.5	45.5	0.0	26.7	1.9	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	6.8	11.9	1.5	11.6	5.0	0.8	4.7	18.2	0.0	0.8	5.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.1	53.4	24.0	113.1	33.0	26.3	159.9	78.9	0.0	74.4	31.7	0.0
LnGrp LOS	D	D	C	F	C	C	F	F		E	C	
Approach Vol, veh/h		1462			846			1209	A		552	A
Approach Delay, s/veh		51.8			60.1			85.0			33.4	
Approach LOS		D			E			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	33.0	9.0	33.9	23.3	31.7	5.9	37.0
Change Period (Y+Rc), s	6.0	6.0	4.0	6.0	6.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	27.0	5.0	30.0	18.0	25.0	4.0	31.0
Max Q Clear Time (g_c+I1), s	8.0	27.1	7.0	15.2	16.8	15.1	3.3	33.0
Green Ext Time (p_c), s	0.0	0.0	0.0	5.1	0.5	3.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	60.9
HCM 6th LOS	E

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	145	0	10	0	2025	452	0	212	520
Future Volume (veh/h)	0	0	0	145	0	10	0	2025	452	0	212	520
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	0	1752	1752	0	1752	1752
Adj Flow Rate, veh/h				145	0	10	0	2025	452	0	212	520
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				10	10	10	0	10	10	0	10	10
Cap, veh/h				372	0	110	0	3421	1062	0	2381	1869
Arrive On Green				0.07	0.00	0.07	0.00	0.72	0.72	0.00	0.72	0.72
Sat Flow, veh/h				5005	0	1485	0	4940	1485	0	3416	2613
Grp Volume(v), veh/h				145	0	10	0	2025	452	0	212	520
Grp Sat Flow(s),veh/h/ln				1668	0	1485	0	1594	1485	0	1664	1306
Q Serve(g_s), s				1.3	0.0	0.3	0.0	9.7	5.8	0.0	0.9	3.3
Cycle Q Clear(g_c), s				1.3	0.0	0.3	0.0	9.7	5.8	0.0	0.9	3.3
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				372	0	110	0	3421	1062	0	2381	1869
V/C Ratio(X)				0.39	0.00	0.09	0.00	0.59	0.43	0.00	0.09	0.28
Avail Cap(c_a), veh/h				1934	0	574	0	4333	1345	0	3016	2367
HCM Platoon Ratio				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	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				20.5	0.0	20.1	0.0	3.3	2.7	0.0	2.0	2.4
Incr Delay (d2), s/veh				0.7	0.0	0.4	0.0	0.2	0.3	0.0	0.0	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
%ile BackOfQ(50%),veh/ln				0.5	0.0	0.1	0.0	0.5	0.6	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				21.2	0.0	20.4	0.0	3.4	3.0	0.0	2.0	2.4
LnGrp LOS				C	A	C	A	A	A	A	A	A
Approach Vol, veh/h					155			2477			732	
Approach Delay, s/veh					21.2			3.4			2.3	
Approach LOS					C			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	39.1		39.1		7.5			
Change Period (Y+Rc), s	5.8		5.8		4.0			
Max Green Setting (Gmax), s	42.2		42.2		18.0			
Max Q Clear Time (g_c+I1), s	11.7		5.3		3.3			
Green Ext Time (p_c), s	21.6		3.7		0.4			

Intersection Summary		
HCM 6th Ctrl Delay	4.0	
HCM 6th LOS	A	

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	910	0	394	0	0	0	0	1566	1147	10	347	0
Future Volume (veh/h)	910	0	394	0	0	0	0	1566	1147	10	347	0
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1752	0	1752				0	1752	1752	1752	1752	0
Adj Flow Rate, veh/h	910	0	394				0	1566	1147	10	347	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	0	10				0	10	10	10	10	0
Cap, veh/h	830	0	670				0	2618	1430	17	2924	0
Arrive On Green	0.26	0.00	0.26				0.00	0.55	0.55	0.01	0.61	0.00
Sat Flow, veh/h	3237	0	2613				0	4940	2613	1668	4940	0
Grp Volume(v), veh/h	910	0	394				0	1566	1147	10	347	0
Grp Sat Flow(s),veh/h/ln	1618	0	1306				0	1594	1306	1668	1594	0
Q Serve(g_s), s	19.0	0.0	9.8				0.0	16.3	26.2	0.4	2.3	0.0
Cycle Q Clear(g_c), s	19.0	0.0	9.8				0.0	16.3	26.2	0.4	2.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	830	0	670				0	2618	1430	17	2924	0
V/C Ratio(X)	1.10	0.00	0.59				0.00	0.60	0.80	0.60	0.12	0.00
Avail Cap(c_a), veh/h	830	0	670				0	2788	1523	90	3304	0
HCM Platoon Ratio	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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.6	0.0	24.1				0.0	11.3	13.5	36.5	6.0	0.0
Incr Delay (d2), s/veh	61.0	0.0	1.3				0.0	0.3	3.0	29.6	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
%ile BackOfQ(50%),veh/ln	14.0	0.0	3.0				0.0	4.7	6.7	0.3	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.6	0.0	25.5				0.0	11.6	16.6	66.1	6.1	0.0
LnGrp LOS	F	A	C				A	B	B	E	A	A
Approach Vol, veh/h		1304						2713			357	
Approach Delay, s/veh		69.5						13.7			7.7	
Approach LOS		E						B			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	4.7	46.4	23.0	51.1
Change Period (Y+Rc), s	4.0	5.8	4.0	5.8
Max Green Setting (Gmax), s	4.0	43.2	19.0	51.2
Max Q Clear Time (g_c+I1), s	2.4	28.2	21.0	4.3
Green Ext Time (p_c), s	0.0	12.3	0.0	2.4

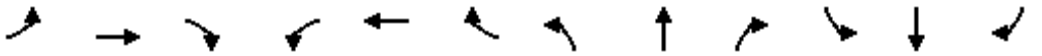
Intersection Summary	
HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	28	29	100	10	100	49	1508	60	20	751	10
Future Volume (veh/h)	11	28	29	100	10	100	49	1508	60	20	751	10
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	11	28	29	100	10	100	49	1508	60	20	751	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	47	96	99	184	28	279	125	2133	662	79	2000	621
Arrive On Green	0.03	0.12	0.12	0.11	0.20	0.20	0.08	0.45	0.45	0.05	0.42	0.42
Sat Flow, veh/h	1668	788	816	1668	137	1369	1668	4782	1485	1668	4782	1485
Grp Volume(v), veh/h	11	0	57	100	0	110	49	1508	60	20	751	10
Grp Sat Flow(s),veh/h/ln	1668	0	1605	1668	0	1505	1668	1594	1485	1668	1594	1485
Q Serve(g_s), s	0.4	0.0	1.9	3.3	0.0	3.7	1.6	14.8	1.4	0.7	6.3	0.2
Cycle Q Clear(g_c), s	0.4	0.0	1.9	3.3	0.0	3.7	1.6	14.8	1.4	0.7	6.3	0.2
Prop In Lane	1.00		0.51	1.00		0.91	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	0	195	184	0	306	125	2133	662	79	2000	621
V/C Ratio(X)	0.24	0.00	0.29	0.54	0.00	0.36	0.39	0.71	0.09	0.25	0.38	0.02
Avail Cap(c_a), veh/h	287	0	1159	287	0	1087	229	2631	817	287	2795	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	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	27.7	0.0	23.3	24.5	0.0	19.9	25.6	13.0	9.3	26.7	11.7	9.9
Incr Delay (d2), s/veh	2.5	0.0	0.8	2.5	0.0	0.7	2.0	0.7	0.1	1.7	0.1	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	0.2	0.0	0.7	1.3	0.0	1.2	0.7	4.3	0.4	0.3	2.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.2	0.0	24.1	27.0	0.0	20.6	27.6	13.7	9.4	28.4	11.8	9.9
LnGrp LOS	C	A	C	C	A	C	C	B	A	C	B	A
Approach Vol, veh/h		68			210			1617			781	
Approach Delay, s/veh		25.1			23.7			14.0			12.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	29.9	10.4	11.1	8.4	28.3	5.6	15.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	32.0	10.0	42.0	8.0	34.0	10.0	42.0
Max Q Clear Time (g_c+I1), s	2.7	16.8	5.3	3.9	3.6	8.3	2.4	5.7
Green Ext Time (p_c), s	0.0	9.1	0.1	0.3	0.0	5.8	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

I. CUMULATIVE PLUS PROJECT CONDITIONS (IMPROVEMENTS) SYNCHRO OUTPUT SHEETS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	356	80	52	301	67	80	520	84	256	400	250
Future Volume (veh/h)	300	356	80	52	301	67	80	520	84	256	400	250
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	300	356	80	52	301	67	80	520	84	256	400	250
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	339	998	445	87	505	213	112	755	337	292	1128	533
Arrive On Green	0.19	0.28	0.28	0.05	0.14	0.14	0.06	0.23	0.23	0.18	0.34	0.34
Sat Flow, veh/h	1767	3526	1572	1668	3526	1485	1767	3328	1485	1668	3328	1572
Grp Volume(v), veh/h	300	356	80	52	301	67	80	520	84	256	400	250
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1668	1763	1485	1767	1664	1485	1668	1664	1572
Q Serve(g_s), s	12.9	6.3	3.0	2.4	6.2	3.2	3.5	11.2	3.6	11.7	7.0	9.8
Cycle Q Clear(g_c), s	12.9	6.3	3.0	2.4	6.2	3.2	3.5	11.2	3.6	11.7	7.0	9.8
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	339	998	445	87	505	213	112	755	337	292	1128	533
V/C Ratio(X)	0.88	0.36	0.18	0.60	0.60	0.32	0.72	0.69	0.25	0.88	0.35	0.47
Avail Cap(c_a), veh/h	408	1898	846	192	1491	628	272	1386	618	342	1557	736
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	22.3	21.1	36.2	31.3	30.0	35.9	27.6	24.7	31.4	19.4	20.3
Incr Delay (d2), s/veh	16.0	0.4	0.3	2.5	1.9	1.4	3.2	1.9	0.7	17.7	0.3	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	6.6	2.5	1.1	1.0	2.7	1.2	1.5	4.3	1.3	5.8	2.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	22.7	21.5	38.7	33.2	31.4	39.0	29.6	25.4	49.0	19.7	21.4
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	B	C
Approach Vol, veh/h		736			420			684			906	
Approach Delay, s/veh		32.3			33.6			30.1			28.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.7	23.2	9.1	27.1	9.9	31.9	20.0	16.2
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0
Max Green Setting (Gmax), s	16.0	32.5	9.0	42.0	12.0	36.5	18.0	33.0
Max Q Clear Time (g_c+I1), s	13.7	13.2	4.4	8.3	5.5	11.8	14.9	8.2
Green Ext Time (p_c), s	0.1	4.5	0.0	3.6	0.0	5.3	0.1	2.9

Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

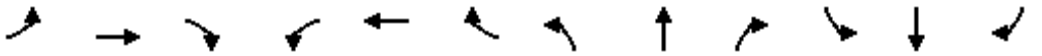
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	408	820	100	490	960	85	210	613	630	33	208	460
Future Volume (veh/h)	408	820	100	490	960	85	210	613	630	33	208	460
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	408	820	100	490	960	85	210	613	0	33	208	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	508	1095	704	604	1194	568	242	858		40	455	
Arrive On Green	0.16	0.33	0.33	0.19	0.36	0.36	0.15	0.26	0.00	0.02	0.14	0.00
Sat Flow, veh/h	3237	3328	1485	3237	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	408	820	100	490	960	85	210	613	0	33	208	0
Grp Sat Flow(s),veh/h/ln	1618	1664	1485	1618	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	13.2	23.8	4.1	15.8	28.2	4.1	13.4	18.2	0.0	2.1	6.3	0.0
Cycle Q Clear(g_c), s	13.2	23.8	4.1	15.8	28.2	4.1	13.4	18.2	0.0	2.1	6.3	0.0
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	508	1095	704	604	1194	568	242	858		40	455	
V/C Ratio(X)	0.80	0.75	0.14	0.81	0.80	0.15	0.87	0.71		0.82	0.46	
Avail Cap(c_a), veh/h	655	1348	817	775	1471	692	353	1409		108	919	
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	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.2	32.5	16.1	42.3	31.4	21.9	45.4	36.7	0.0	52.8	43.2	0.0
Incr Delay (d2), s/veh	7.9	2.8	0.2	7.1	3.7	0.3	14.3	4.0	0.0	31.8	2.6	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	5.7	9.5	1.4	6.5	11.0	1.4	6.3	7.6	0.0	1.2	2.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	35.2	16.3	49.5	35.1	22.2	59.7	40.7	0.0	84.6	45.8	0.0
LnGrp LOS	D	D	B	D	D	C	E	D		F	D	
Approach Vol, veh/h		1328			1535			823	A		241	A
Approach Delay, s/veh		39.0			39.0			45.5			51.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	41.7	19.8	20.8	23.0	45.0	6.6	34.0
Change Period (Y+Rc), s	6.0	6.0	4.0	6.0	6.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	26.0	44.0	23.0	30.0	22.0	48.0	7.0	46.0
Max Q Clear Time (g_c+I1), s	17.8	25.8	15.4	8.3	15.2	30.2	4.1	20.2
Green Ext Time (p_c), s	2.5	7.9	0.4	2.2	1.8	8.8	0.0	7.8

Intersection Summary	
HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	756	1030	248	187	297	25	204	1281	117	25	304	100
Future Volume (veh/h)	756	1030	248	187	297	25	204	1281	117	25	304	100
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	756	1030	248	187	297	25	204	1281	117	25	304	100
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	806	1328	412	259	362	161	230	1349	602	77	1046	466
Arrive On Green	0.25	0.28	0.28	0.08	0.11	0.11	0.14	0.41	0.41	0.05	0.31	0.31
Sat Flow, veh/h	3237	4782	1485	3237	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	756	1030	248	187	297	25	204	1281	117	25	304	100
Grp Sat Flow(s),veh/h/ln	1618	1594	1485	1618	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	28.6	24.8	18.1	7.0	10.9	1.9	15.0	46.5	6.4	1.8	8.6	6.2
Cycle Q Clear(g_c), s	28.6	24.8	18.1	7.0	10.9	1.9	15.0	46.5	6.4	1.8	8.6	6.2
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	806	1328	412	259	362	161	230	1349	602	77	1046	466
V/C Ratio(X)	0.94	0.78	0.60	0.72	0.82	0.16	0.89	0.95	0.19	0.32	0.29	0.21
Avail Cap(c_a), veh/h	855	1837	570	363	773	345	307	1444	644	134	1098	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	46.0	41.5	39.1	56.1	54.5	50.5	52.9	35.9	24.0	57.7	32.3	31.5
Incr Delay (d2), s/veh	16.6	0.9	0.5	4.2	1.8	0.2	17.6	12.7	0.1	2.4	0.2	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	13.0	9.5	6.5	3.0	4.5	0.7	7.3	20.4	2.2	0.8	3.4	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	42.4	39.7	60.4	56.3	50.7	70.5	48.6	24.0	60.0	32.5	31.7
LnGrp LOS	E	D	D	E	E	D	E	D	C	E	C	C
Approach Vol, veh/h		2034			509			1602			429	
Approach Delay, s/veh		49.6			57.5			49.6			33.9	
Approach LOS		D			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	40.7	23.2	45.1	37.1	19.6	11.8	56.5
Change Period (Y+Rc), s	6.0	6.0	6.0	5.8	6.0	6.0	6.0	5.8
Max Green Setting (Gmax), s	14.0	48.0	23.0	41.2	33.0	29.0	10.0	54.2
Max Q Clear Time (g_c+I1), s	9.0	26.8	17.0	10.6	30.6	12.9	3.8	48.5
Green Ext Time (p_c), s	0.3	3.6	0.2	2.3	0.5	0.7	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	49.0
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	1500	120	56	294	194	110	610	99	172	580	170
Future Volume (veh/h)	320	1500	120	56	294	194	110	610	99	172	580	170
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1752	1856	1752	1856	1752	1752	1752	1752	1856
Adj Flow Rate, veh/h	320	1500	120	56	294	194	110	610	99	172	580	170
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	10	3	10	3	10	10	10	10	3
Cap, veh/h	346	1543	688	74	1009	425	136	757	338	179	859	406
Arrive On Green	0.20	0.44	0.44	0.04	0.29	0.29	0.08	0.23	0.23	0.11	0.26	0.26
Sat Flow, veh/h	1767	3526	1572	1668	3526	1485	1767	3328	1485	1668	3328	1572
Grp Volume(v), veh/h	320	1500	120	56	294	194	110	610	99	172	580	170
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1668	1763	1485	1767	1664	1485	1668	1664	1572
Q Serve(g_s), s	19.9	46.6	5.2	3.7	7.3	12.0	6.9	19.4	6.2	11.5	17.5	10.1
Cycle Q Clear(g_c), s	19.9	46.6	5.2	3.7	7.3	12.0	6.9	19.4	6.2	11.5	17.5	10.1
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	346	1543	688	74	1009	425	136	757	338	179	859	406
V/C Ratio(X)	0.93	0.97	0.17	0.76	0.29	0.46	0.81	0.81	0.29	0.96	0.68	0.42
Avail Cap(c_a), veh/h	348	1545	689	90	1040	438	174	967	431	179	997	471
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	44.2	30.8	19.1	52.9	31.1	32.8	50.8	40.9	35.8	49.7	37.3	34.5
Incr Delay (d2), s/veh	29.3	16.7	0.2	20.2	0.3	1.3	15.7	5.0	0.8	55.3	2.0	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	11.3	22.0	1.9	2.0	3.1	4.5	3.6	8.2	2.3	7.4	7.2	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.5	47.5	19.3	73.0	31.4	34.1	66.5	45.9	36.6	105.0	39.3	35.7
LnGrp LOS	E	D	B	E	C	C	E	D	D	F	D	D
Approach Vol, veh/h		1940			544			819			922	
Approach Delay, s/veh		50.1			36.6			47.5			50.9	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	30.9	9.9	54.0	13.6	34.4	26.9	37.0
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0
Max Green Setting (Gmax), s	12.0	32.5	6.0	49.0	11.0	33.5	22.0	33.0
Max Q Clear Time (g_c+I1), s	13.5	21.4	5.7	48.6	8.9	19.5	21.9	14.0
Green Ext Time (p_c), s	0.0	4.0	0.0	0.4	0.0	4.9	0.0	3.7

Intersection Summary	
HCM 6th Ctrl Delay	48.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	502	870	90	290	510	46	90	1119	510	23	529	837
Future Volume (veh/h)	502	870	90	290	510	46	90	1119	510	23	529	837
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	502	870	90	290	510	46	90	1119	0	23	529	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	515	1017	532	364	861	413	89	1095		32	983	
Arrive On Green	0.16	0.31	0.31	0.11	0.26	0.26	0.05	0.33	0.00	0.02	0.30	0.00
Sat Flow, veh/h	3237	3328	1485	3237	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	502	870	90	290	510	46	90	1119	0	23	529	0
Grp Sat Flow(s),veh/h/ln	1618	1664	1485	1618	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	14.5	23.1	3.9	8.2	12.6	2.2	5.0	31.0	0.0	1.3	12.5	0.0
Cycle Q Clear(g_c), s	14.5	23.1	3.9	8.2	12.6	2.2	5.0	31.0	0.0	1.3	12.5	0.0
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	515	1017	532	364	861	413	89	1095		32	983	
V/C Ratio(X)	0.97	0.86	0.17	0.80	0.59	0.11	1.02	1.02		0.72	0.54	
Avail Cap(c_a), veh/h	515	1095	567	412	989	470	89	1095		71	1060	
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	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.4	30.7	20.6	40.7	30.6	25.3	44.6	31.6	0.0	45.9	27.8	0.0
Incr Delay (d2), s/veh	33.1	7.3	0.3	11.7	1.4	0.3	100.1	32.7	0.0	25.7	1.7	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	7.8	9.6	1.3	3.6	4.8	0.8	4.4	16.4	0.0	0.8	5.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.5	38.1	20.9	52.4	32.0	25.6	144.7	64.3	0.0	71.6	29.5	0.0
LnGrp LOS	E	D	C	D	C	C	F	F		E	C	
Approach Vol, veh/h		1462			846			1209	A		552	A
Approach Delay, s/veh		48.9			38.6			70.3			31.2	
Approach LOS		D			D			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.6	34.8	9.0	33.8	21.0	30.4	5.8	37.0
Change Period (Y+Rc), s	6.0	6.0	4.0	6.0	6.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	12.0	31.0	5.0	30.0	15.0	28.0	4.0	31.0
Max Q Clear Time (g_c+I1), s	10.2	25.1	7.0	14.5	16.5	14.6	3.3	33.0
Green Ext Time (p_c), s	0.4	3.6	0.0	5.2	0.0	3.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	50.7
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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J. FAIR SHARE CALCULATIONS

Intersection Name	Scenario	Peak Period	Volumes	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total	Alliance Fair Share
MacArthur Dr / Grant Line Rd	Ex + Back (no Alliance)	AM	Ex+Back	27	163	55	275	319	440	294	290	48	34	272	133	2350	5.93%
		PM		44	434	49	162	205	266	416	397	59	70	296	221	2619	
	Cu + Project	AM	NEI Project (Car)	0	0	44	154	0	0	0	127	0	2	5	6	344	
			NEI Project (Truck)	0	0	0	3	0	0	0	0	0	0	0	3		
			Alliance (Car)	0	0	0	0	0	0	0	21	0	0	9	0	30	
			Alliance (Truck)	0	0	0	0	0	0	0	0	0	0	0	0		
			Cumulative (wo Alliance)	80	520	40	99	400	250	300	229	80	50	296	58	2402	
		PM	NEI Project (Car)	0	0	39	136	0	0	0	112	0	36	113	138	580	
			NEI Project (Truck)	0	0	0	3	0	0	0	0	0	0	0	3		
			Alliance (Car)	0	0	0	0	0	0	0	12	0	0	26	0	38	
			Alliance (Truck)	0	0	0	0	0	0	0	0	0	0	0	0		
			Cumulative (wo Alliance)	110	610	60	33	580	170	320	1388	120	20	181	53	3645	
Chrisman Rd / Paradise Rd	Ex + Back (no Alliance)	AM	Ex+Back	0	17	32	2	262	5	0	0	2	276	7	3	606	17.02%
		PM		3	109	306	2	175	5	6	28	0	245	1	2	882	
	Cu + Project	AM	NEI Project (Car)	48	12	0	0	2	0	0	0	1	0	0	0	70	
			NEI Project (Truck)	3	0	0	0	0	0	1	0	3	0	0	0		
			Alliance (Car)		63			25								130	
			Alliance (Truck)		29			13									
			Cumulative (wo Alliance)	10	448	100	100	406	6	10	10	10	50	10	10	1170	
		PM	NEI Project (Car)	43	11	0	10	41	0	0	0	16	0	0	0	128	
			NEI Project (Truck)	3	0	0	0	0	0	1	0	3	0	0	0		
			Alliance (Car)		36			84								245	
			Alliance (Truck)		11			114									
			Cumulative (wo Alliance)	3	1403	60	10	402	10	10	28	10	100	10	100	2146	
Chrisman Rd / Eleventh St	Ex + Back (no Alliance)	AM	Ex+Back	457	29	487	20	21	21	108	372	62	287	691	31	2586	5.35%
		PM		66	43	414	34	27	54	62	775	157	392	425	37	2486	
	Cu + Project	AM	NEI Project (Car)	0	61	0	0	3	0	0	0	0	0	0	0	72	
			NEI Project (Truck)	0	2	0	2	2	0	0	0	0	0	0	2		
			Alliance (Car)		21			9	16	42						130	
			Alliance (Truck)		16		6	7							13		
			Cumulative (wo Alliance)	210	576	630	27	192	444	366	820	100	490	960	72	4887	
		PM	NEI Project (Car)	0	53	0	0	54	3	0	0	0	0	0	0	114	
			NEI Project (Truck)	0	1	0	1	1	0	0	0	0	0	0	1		
			Alliance (Car)		13			29	55	23						157	
			Alliance (Truck)		6		12	14							5		
			Cumulative (wo Alliance)	90	1100	510	11	486	782	479	870	90	290	510	41	5259	

APPENDIX “B”

METHODOLOGY FOR

CALCULATING EQUITABLE

MITIGATION MEASURES

METHOD FOR CALCULATING EQUITABLE MITIGATION MEASURES

The methodology below is neither intended as, nor does it establish, a legal standard for determining equitable responsibility and cost of a project's traffic impact, the intent is to provide:

1. A starting point for early discussions to address traffic mitigation equitably.
2. A means for calculating the equitable share for mitigating traffic impacts.
3. A means for establishing rough proportionality [Dolan v. City of Tigard, 1994, 512 U.S. 374 (114 S. Ct. 2309)].

The formulas should be used when:

- A project has impacts that do not immediately warrant mitigation, but their cumulative effects are significant and will require mitigating in the future.
- A project has an immediate impact and the lead agency has assumed responsibility for addressing operational improvements

NOTE: This formula is not intended for circumstances where a project proponent will be receiving a substantial benefit from the identified mitigation measures. In these cases, (e.g., mid-block access and signalization to a shopping center) the project should take full responsibility to toward providing the necessary infrastructure.

EQUITABLE SHARE RESPONSIBILITY: **Equation C-1**

NOTE: $T_E < T_B$, see explanation for T_B below.

$$P = \frac{T}{T_B - T_E}$$

Where:

P = The equitable share for the proposed project's traffic impact.

T = The vehicle trips generated by the project during the peak hour of adjacent State highway facility in vehicles per hour, vph.

T_B = The forecasted traffic volume on an impacted State highway facility at the time of general plan build-out (e.g., 20 year model or the furthest future model date feasible), vph.

T_E = The traffic volume existing on the impacted State highway facility plus other approved projects that will generate traffic that has yet to be constructed/opened, vph.

EQUITABLE COST: **Equation C-2**

$$C = P\ (C_T)$$

Where:

C = The equitable cost of traffic mitigation for the proposed project, ($). (Rounded to nearest one thousand dollars)

P = The equitable share for the project being considered.

C_T = The total cost estimate for improvements necessary to mitigate the forecasted traffic demand on the impacted State highway facility in question at general plan build-out, ($).

NOTES

1. Once the equitable share responsibility and equitable cost has been established on a per trip basis, these values can be utilized for all projects on that State highway facility until the forecasted general plan build-out model is revised.
2. Truck traffic should be converted to passenger car equivalents before utilizing these equations (see the Highway Capacity Manual for converting to passenger car equivalents).

3. If the per trip cost is not used for all subsequent projects, then the equation below will be necessary to determine the costs for individual project impact and will require some additional accounting.

Equation C-2.A

$$C = P\,(C_T - C_C)$$

Where:

C = Same as equation C-2.

P = Same as equation C-2.

C_T = Same as equation C-2.

C_C = The combined dollar contributions paid and committed prior to current project's contribution. This is necessary to provide the appropriate cost proportionality. Example: For the first project to impact the State highway facility in question since the total cost (C_T) estimate for improvements necessary to mitigate the forecasted traffic demand, C_C would be equal to zero. For the second project however, C would equal $P_2(C_T - C_1)$ and for the third project to come along C would equal $P_3[C_T - (C_1 + C_2)]$ and so on until build-out or the general plan build-out was recalculated.

K. NEI TRUCK ROUTE STUDY TURNING TEMPLATES

FUTURE CHRISMAN RD

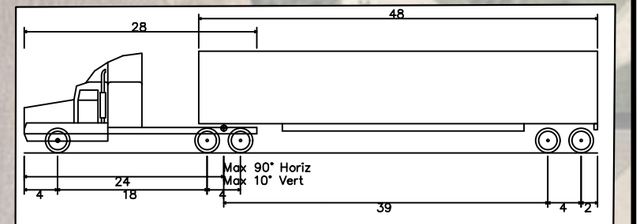
GRANT LINE RD

CHRISMAN RD

SOUTH LEG TO BE WIDENED WITH MAJESTIC DEVELOPMENT AND NORTHBOUND APPROACH TO BE RESTRIPED BY SEEFRIED TO CONVERT THE INTERSECTION TO FOUR LEGS

NORTH

GRAPHIC SCALE IN FEET
0 30 60 120



STAA Standard Design Vehicle	
Overall Length	69.000ft
Overall Width	8.500ft
Overall Body Height	12.227ft
Min Body Ground Clearance	1.422ft
Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	26.30°

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Figure 26 - Interim & Ultimate Truck Routes
(Grant Line Rd & Chrisman Rd)

Seefried Properties

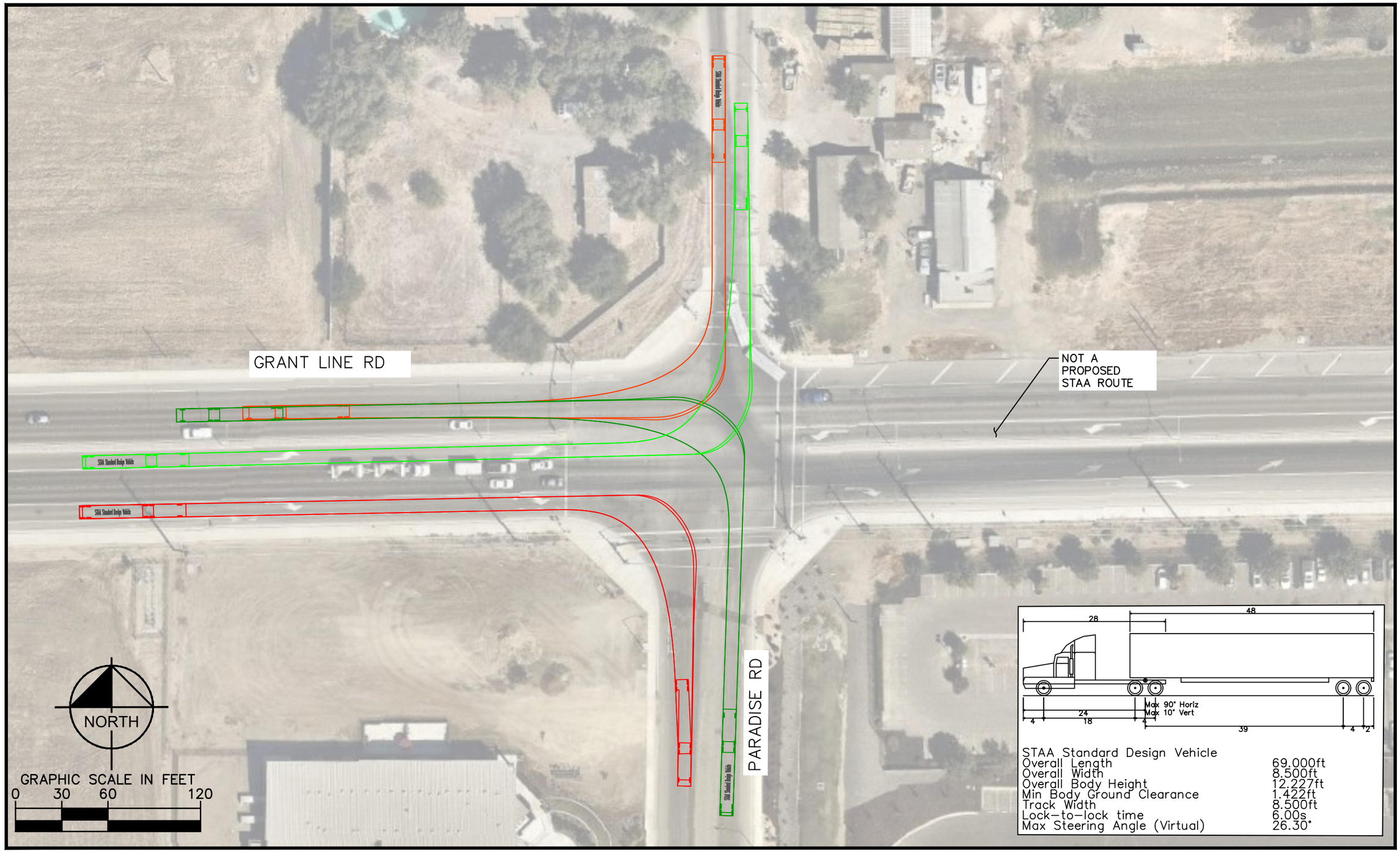

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Figure 27 - Interim & Ultimate Truck Routes
(Grant Line Rd & Paradise Rd)

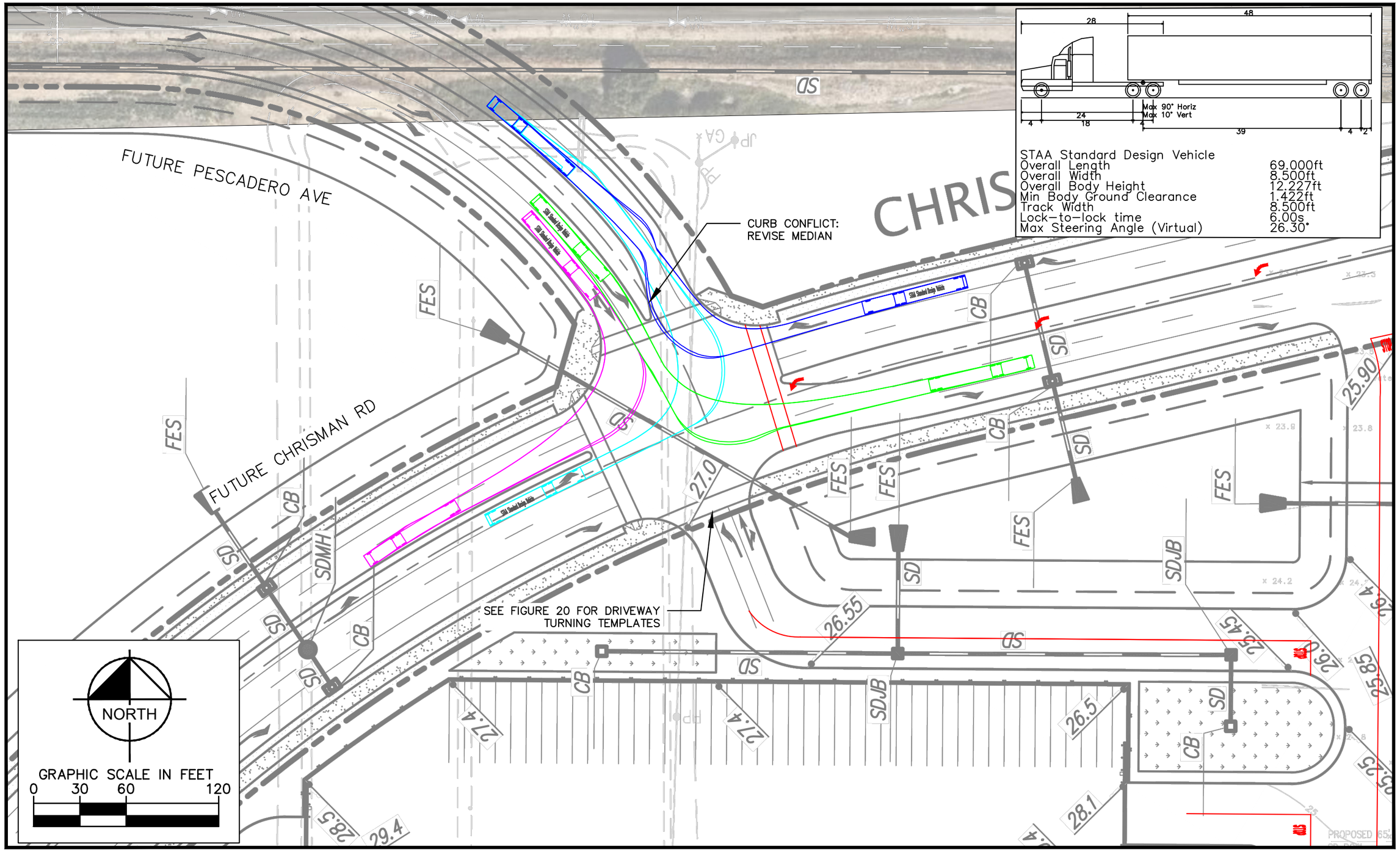

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Figure 28 - Interim & Ultimate Truck Routes
(Future Chrisman & Future Pescadero)

Seefried Properties

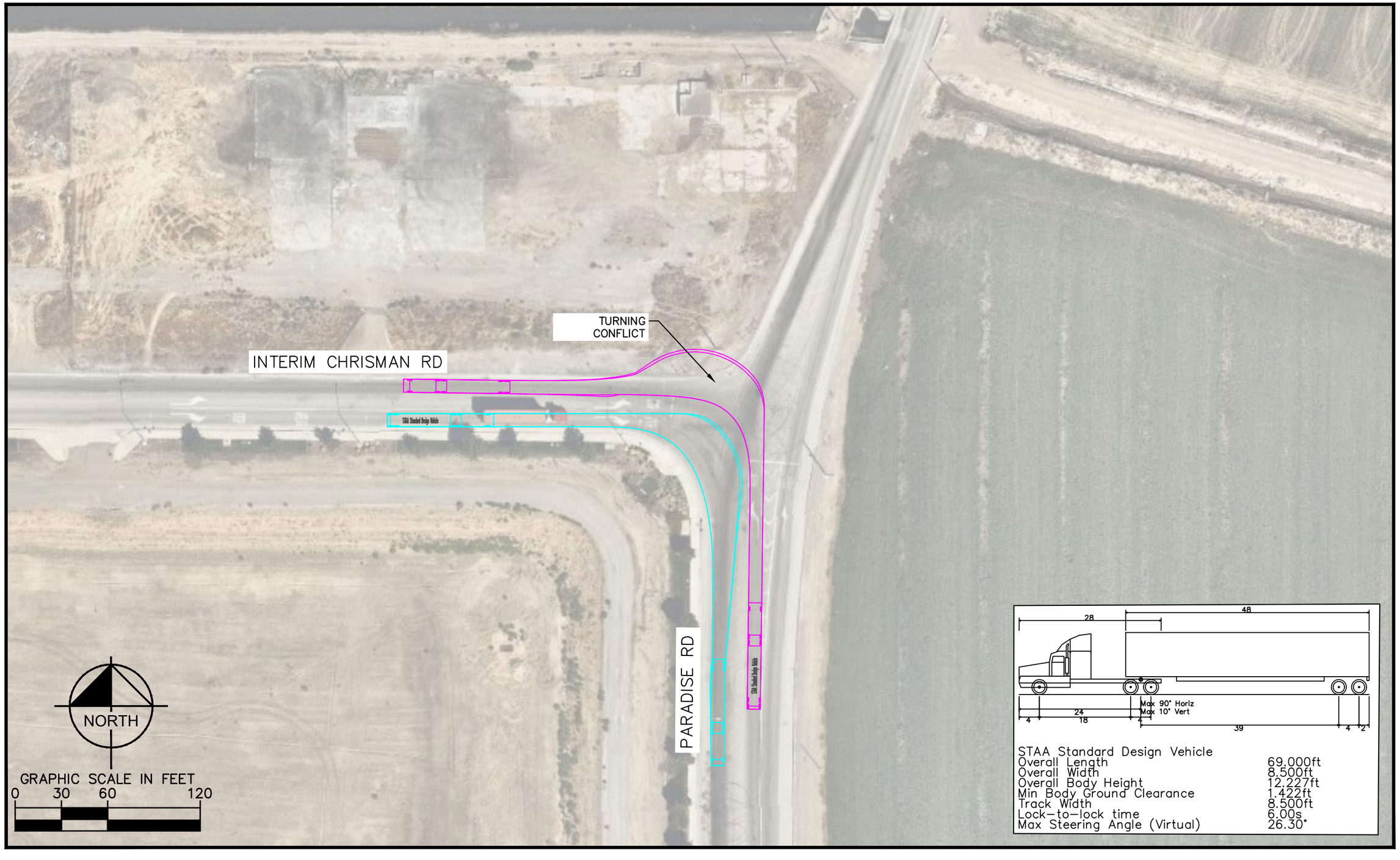

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Figure 29 - Interim Truck Routes
(Chrisman Road & Paradise Road)

Seefried Properties

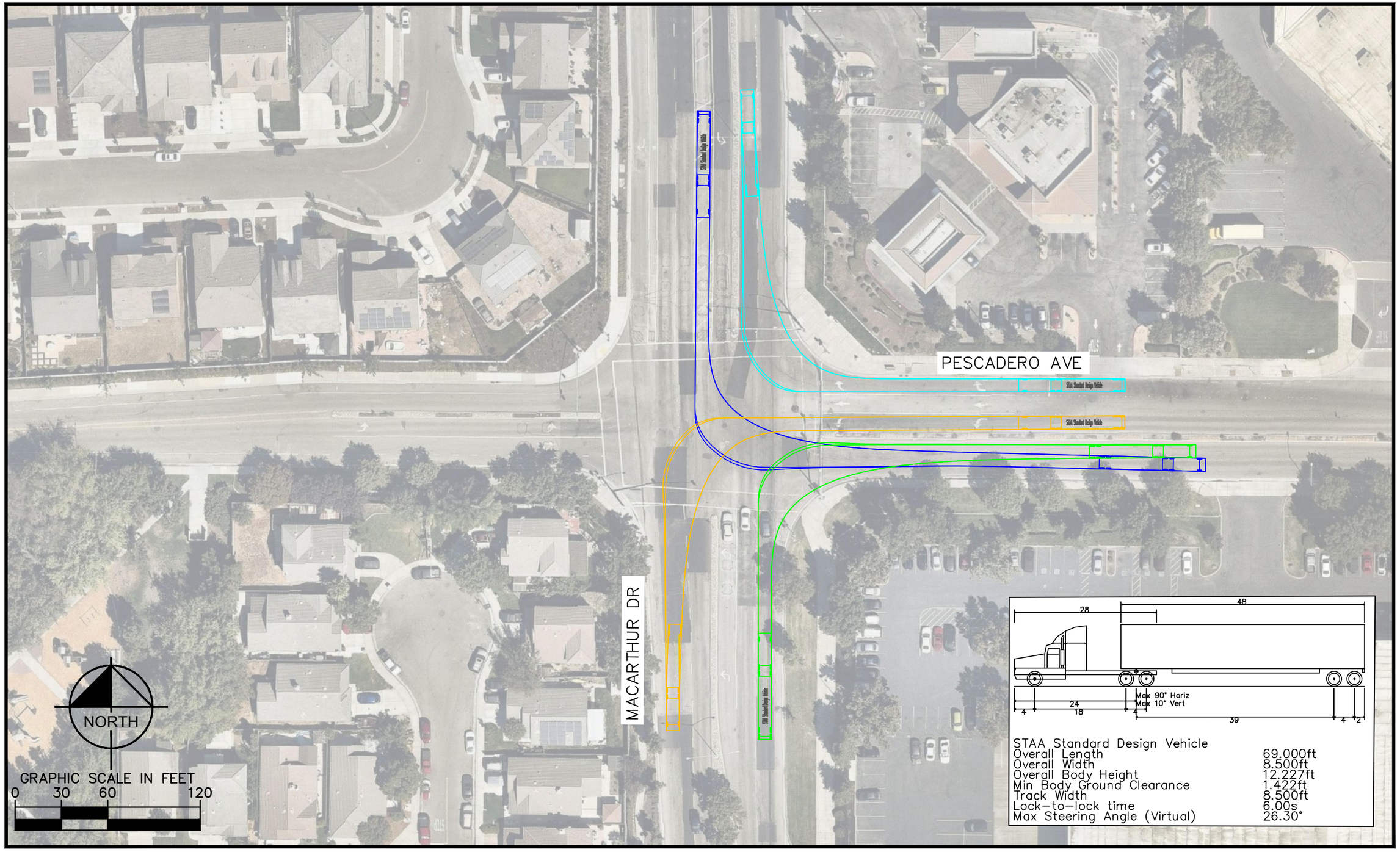

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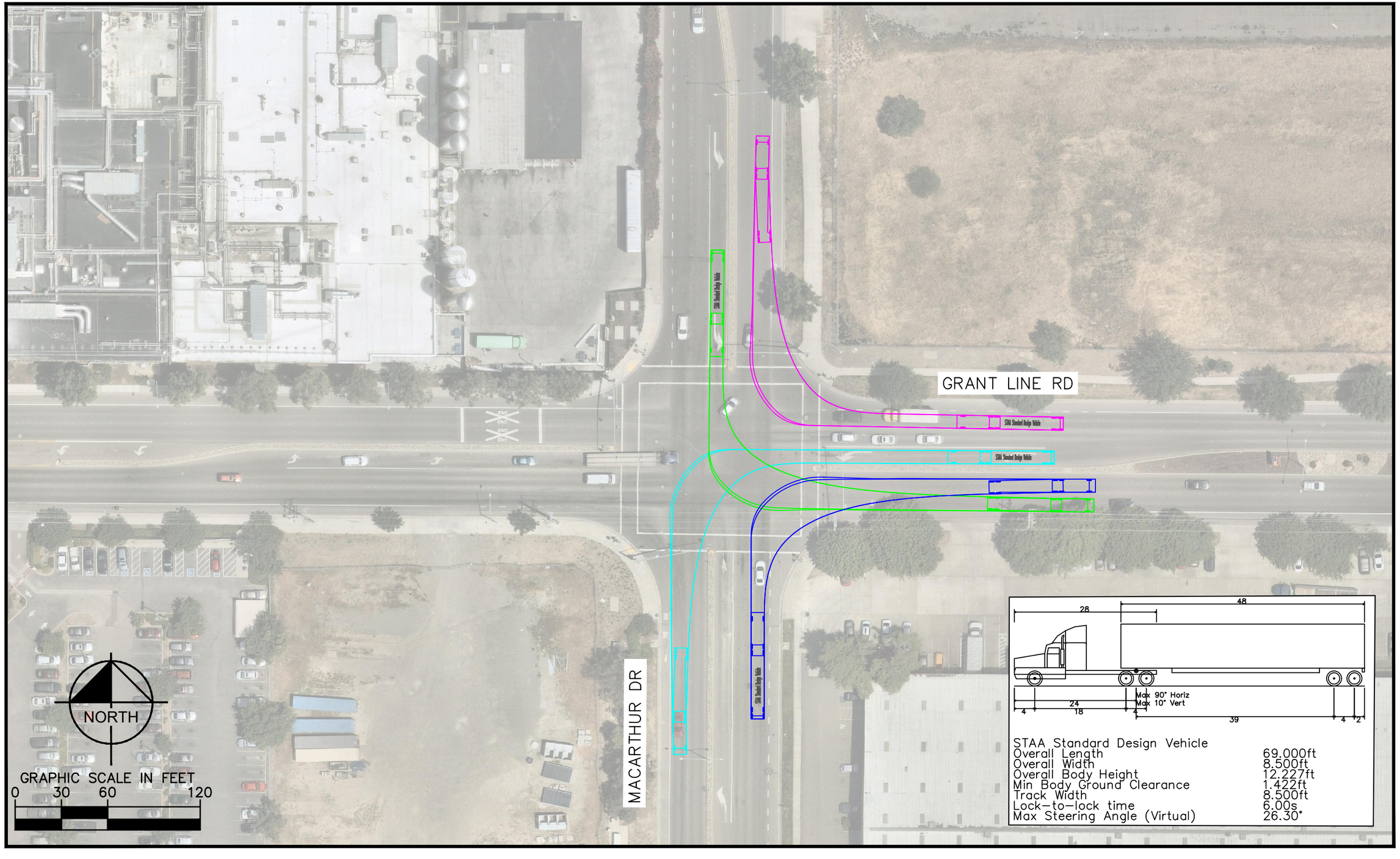
Figure 30 - Interim & Ultimate Truck Routes
(Macarthur Dr & Pescadero Ave)

Seefried Properties



Kimley»Horn

November 2019

Figure 31 - Interim & Ultimate Truck Routes
(Macarthur Dr & Grant Line Rd)

Seefried Properties