



Traffic Impact Study for the Castilleja School Expansion



Prepared for the City of Palo Alto

Submitted by
W-Trans

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Executive Summary

The proposed project at Castilleja School would build a new underground parking garage and school buildings, as well as increase the maximum number of enrolled students from 438 to 540 students. The net increase in trip generation would be 279 daily trips, including 91 during the a.m. peak hour, 66 during the school p.m. peak hour and 45 during the p.m. peak hour.

Both the proposed parking supply of 142 spaces and bicycle parking of 140 spaces is greater than the City requirement for a private school.

The analysis addresses the potential impacts at eleven study intersections. All study intersections are expected to continue operating acceptably under all conditions with and without the project or project alternative, except for the unsignalized intersections of Embarcadero Road Spur/Alma Street, Alma Street/Kingsley Avenue, and Alma Street/Melville Avenue.

The peak hour traffic warrant is satisfied at the unsignalized intersections of Embarcadero Road Spur/Alma Street, Alma Street/Kingsley Avenue and Alma Street/Melville Avenue under various peak hours and project and project alternative scenarios.

Stopping sight distances at each project driveway exit would be hindered by the existence of on-street parking. To achieve corner sight distance of 150 feet at each driveway, it is recommended to apply on-street parking restrictions for 15 feet on either side of each driveway and trim vegetation along Bryant Street, Kellogg Avenue and Emerson Street as needed.

Thirty-seven local street segments were evaluated using the TIRE Index Methodology. The addition of project-related or project alternative-related trips would not result in an increase to the TIRE index for each of these segments except at the segments of Emerson Street from Embarcadero Road to Melville Avenue, Emerson Street from Melville Avenue to Kellogg Avenue and Melville Avenue from Alma Street to Emerson Street. This is considered a significant impact since the addition of new project-related or project alternative-related trips plus the redistribution of existing trips would increase the TIRE index. Implementation of a Transportation Demand Management (TDM) Plan with an emphasis to reduce single occupant auto trips combined with a traffic monitoring program would reduce this to a less-than-significant level.

Vehicle queuing at the drop-off lanes within the underground parking structure during the peak morning drop-off is anticipated to have adequate storage, if the operation can maintain a discharge of at least one car every 14 seconds and if departing vehicles have an unimpeded egress path from the parking garage onto Emerson Street.

The project proposes to use northbound Emerson Street from Melville Avenue to Embarcadero Road. An evaluation of this route revealed that the expected queue lengths would exceed the stacking storage capacity for the northbound right-turn movement at Embarcadero Road/Emerson Street and the westbound right-turn at Emerson Street/Melville Avenue-Project Driveway during the a.m., school p.m. and p.m. peak hours. Spreading out morning vehicle arrivals by using a staggered bell schedule and modifying the vehicle egress from the underground parking structure to allow for left-turns and through-movements combined with the implementation of a TDM Plan with an emphasis to reduce single occupant auto trips would alleviate potential queuing along Emerson Street.

Introduction

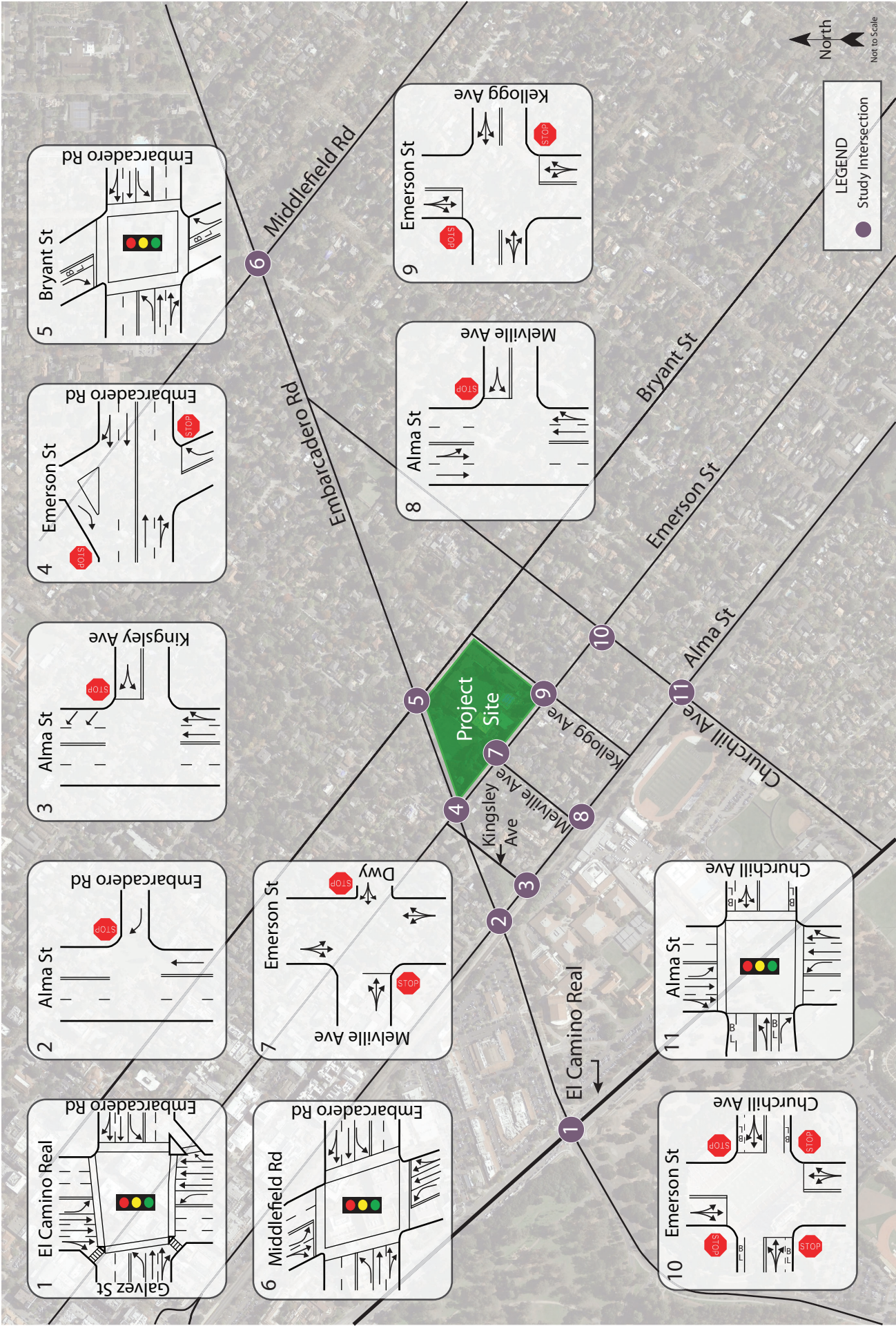
This report presents an analysis of the potential traffic impacts that would be associated with the expansion of Castilleja School, located at 1310 Bryant Street in the City of Palo Alto. The traffic study was completed in accordance with the criteria established by the City of Palo Alto, and is consistent with standard traffic engineering techniques.

Prelude

The purpose of a traffic impact study is to provide City staff and policy makers with data that they can use to make an informed decision regarding the potential traffic impacts of a proposed project, and any associated improvements that would be required to mitigate these impacts to a level of insignificance as defined by the City's General Plan or other policies. Vehicular traffic impacts are typically evaluated by determining the number of new trips that the proposed use would be expected to generate, distributing these trips to the surrounding street system based on existing travel patterns or anticipated travel patterns specific to the proposed project, then analyzing the impact the new traffic would be expected to have on critical intersections or roadway segments. Impacts relative to access for pedestrians, bicyclists, and to transit are also addressed.

Project Profile

The proposed project would expand the existing Castilleja School by building a new underground parking garage and school buildings as well as increase the number of enrolled students from 438 to 540 students. The project is located at 1310 Bryant Street and is bounded by Emerson Street to the west, Bryant Street to the east, Embarcadero Road to the north, and Kellogg Avenue to the south, as shown in Figure 1.



Traffic Impact Study for the Castilleja School Expansion
Figure 1 – Study Area and Lane Configurations

Transportation Setting

Operational Analysis

Study Area and Periods

The study area includes the following intersections and roadway segments:

Intersections

1. El Camino Real/Embarcadero Road
2. Embarcadero Road Spur/Alma Street
3. Kingsley Avenue/Alma Street
4. Embarcadero Road/Emerson Street
5. Embarcadero Road/Bryant Street
6. Middlefield Road/Embarcadero Road
7. Emerson Street/Melville Avenue
8. Alma Street/Melville Avenue
9. Emerson Street/Kellogg Avenue
10. Emerson Street/Churchill Avenue
11. Churchill Avenue/Alma Street

Roadway Segments

1. Waverley Street from:
 - a. Lincoln Avenue to Kingsley Avenue
 - b. Kingsley Avenue to Whitman Court
 - c. Whitman Court to Melville Avenue
 - d. Melville Avenue to Embarcadero Road
 - e. Embarcadero Road to Kellogg Avenue
 - f. Kellogg Avenue to Churchill Avenue
2. Bryant Street from:
 - a. Lincoln Avenue to Kingsley Avenue
 - b. Kingsley Avenue to Whitman Court
 - c. Whitman Court to Embarcadero Road
 - d. Embarcadero Road to Kellogg Avenue
 - e. Kellogg Avenue to Churchill Avenue
3. Emerson Street from:
 - a. Lincoln Avenue to Kingsley Avenue
 - b. Kingsley Avenue to Embarcadero Road
 - c. Embarcadero Road to Melville Avenue
 - d. Melville Avenue to Kellogg Avenue
 - e. Kellogg Avenue to Churchill Avenue
4. Churchill Avenue from:
 - a. Waverley Street to Bryant Street
 - b. Bryant Street to Emerson Street
 - c. Emerson Street to Alma Street
5. Alma Street from:
 - a. Lincoln Avenue to Embarcadero Road
 - b. Embarcadero Road to Kingsley Avenue
 - c. Kingsley Avenue to Melville Avenue

- d. Melville Avenue to Kellogg Avenue
 - e. Kellogg Avenue to Churchill Avenue
6. Lincoln Avenue from:
 - a. Waverly Street to Bryant Street
 - b. Bryant Street to Ramona Street
 - c. Ramona Street to Emerson Street
 - d. Emerson Street to High Street
 - e. High Street to Alma Street
 7. Kingsley Avenue from:
 - a. Waverly Street to Bryant Street
 - b. Bryant Street to Ramona Street
 - c. Ramona Street to Emerson Street
 - d. Emerson Street to High Street
 - e. High Street to Alma Street
 8. High Street from Lincoln Avenue to Embarcadero Road
 9. Ramona Street from Lincoln Avenue to Kingsley Avenue
 10. Melville Avenue from Alma Street to Emerson Street

Operating conditions during the morning and evening commute peak periods as well as the afternoon peak for local schools were evaluated to capture the highest potential impacts for the proposed project as well as the highest volumes on the local transportation network. The morning peak (a.m. peak) hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work commute as well as the school morning drop-off period; the school afternoon peak hour occurs between 2:00 and 4:00 p.m. and reflects conditions during the school pick-up period; and the evening peak (p.m. peak) hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward-bound commute.

Study Intersections

Given the orientation of many streets in Palo Alto at an angle that is skewed from north-south or east-west, for purposes of the evaluation, the orientation convention used was to consider El Camino Real and roadways that run parallel to it as north-south streets and Embarcadero Road and roadways that run parallel to it as east-west streets.

El Camino Real/Embarcadero Road is a signalized, four-legged intersection with protected left-turn phasing on all approaches. The intersection has slip free-right turn pockets on north, south, and west legs. Marked crosswalks and pedestrian signals are provided on all four legs. Embarcadero Road becomes Galvez Street west of its intersection with El Camino Real. This intersection is operated by Caltrans and is part of the Santa Clara County Congestion Management Program (CMP) network.

Embarcadero Road Spur/Alma Street is an unsignalized tee-intersection with westbound Embarcadero Road Spur stop-controlled and restricted to right turns only. Embarcadero Road Spur, which begins east of High Street and terminates at its intersection with Alma Street, is a one-way frontage road with vehicles restricted to westbound travel only.

Kingsley Avenue/Alma Street is an unsignalized tee-intersection with westbound Kingsley Avenue terminating in a stop-controlled approach.

Embarcadero Road/Emerson Street is a four-legged intersection. The south leg is stop-controlled, and vehicles are restricted to right turns only. The north leg has one-way traffic moving away from the intersection and a marked crosswalk. Embarcadero Road is divided at this intersection and pedestrian crossings are prohibited at the Embarcadero Road legs.

Embarcadero Road/Bryant Street is a signalized, four-legged intersection. Vehicular traffic is limited to right turn on the Bryant Street approaches but bicycles are allowed to continue through to the bicycle boulevard. Marked crosswalks and pedestrian signals are provided on all four legs.

Middlefield Road/Embarcadero Road is a signalized, four-legged intersection with protected left-turn phasing on the east-west approaches and split-phase signaling on the north-south approaches. Marked crosswalks and pedestrian signals are provided on all four legs.

Emerson Street/Melville Avenue is an unsignalized three-legged intersection with the eastbound Melville Avenue approach stop-controlled. There are no pedestrian curb ramps or crosswalks at this intersection. A driveway on the east side of Emerson Street acts as the fourth leg.

Melville Avenue/Alma Street is an unsignalized intersection with three approach roadways with stop-control on the westbound Melville Avenue approach.

Emerson Street/Kellogg Avenue is a four-legged unsignalized intersection. The Emerson Street approaches are stop-controlled. Marked crosswalks are not provided even though curb ramps are located on all four corners.

Emerson Street/Churchill Avenue is an unsignalized four-legged intersection with all-way stop-control. Although there are pedestrian curb ramps at each corner, marked crosswalks are not provided on any of the four approach legs.

Churchill Avenue/Alma Street is a signalized, four-legged intersection with protected left-turn phasing on the northbound and southbound Alma Street approaches. The Caltrain railroad tracks run parallel to and west of Alma Street and cross the west Churchill Avenue leg of the intersection. Marked crosswalks and pedestrian signals are provided for all but the west leg.

The locations of the study intersections and the existing lane configurations and controls are shown in Figure 1.

Study Roadways

Embarcadero Road is a four lane east-west aligned minor arterial with a 25-mph speed limit which provides access between El Camino Real and US 101.

Waverly Street is a two-lane north-south local street with on-street parking and single-family homes on each side of the street. The posted speed limit of Waverly Street is 25 mph.

Bryant Street is a north-south two-lane roadway with fronting residences and on-street parking. Bryant Street is a bicycle boulevard near the project, with calming elements and intermittent posted 15 mph zones providing protection for cyclists. The segment of Bryant Street within 500 feet of the Castilleja School grounds has a 20-mph speed limit (while children are traveling to or leaving the school) in accordance with City of Palo Alto Ordinance Section 10.56.035.

Emerson Street is a north-south local street with on-street parking and single-family homes on each side. Emerson Street has one lane in each direction and has a posted speed limit of 25 mph. The segment of Emerson Street within 500 feet of the Castilleja School grounds has a 20-mph speed limit (while children are traveling to or leaving the school) in accordance with City of Palo Alto Ordinance Section 10.56.035.

Churchill Avenue is an east-west two-lane roadway with fronting residences and on-street parking on the southbound side. Churchill Avenue has a Class II bicycle lane south of Bryant Street. The posted speed limit of Churchill Avenue is 25 mph.

Alma Street is a north-south collector roadway that provides access between Downtown Palo Alto and San Antonio Road. Between Churchill and Kingsley streets Alma Street is a four-lane roadway with fronting residences

and no on-street parking. Between Kingsley and Lincoln streets Alma Street has three lanes with one lane of northbound traffic and two lanes for southbound travel; single-family homes on both sides with prohibited on-street parking. North of Lincoln Street Alma Street is a four-lane roadway with fronting residences and on-street parking on the east side. Alma Street has a posted speed limit of 25 mph.

Lincoln Avenue is an east-west local roadway with two lanes providing access between Alma Street and Middlefield Road. Lincoln Avenue has single-family homes and on-street parking on both sides and has a posted speed limit of 25 mph.

Kingsley Avenue is an east-west local two-lane roadway with single-family homes and on-street parking. Kingsley Avenue provides local access for private residences and has a 25-mph posted speed limit.

High Street is a north-south local street with on-street parking and single-family homes on each side. High Street has one lane in each direction and has a posted speed limit of 25 mph.

Ramona Street has one lane each direction and provides local access to single family residences in the “Professorville” neighborhood of Palo Alto. It is lined with single-family homes with on-street parking and has a 25-mph speed limit.

Kellogg Street is an east-west two-lane roadway with on-street parking and single-family homes on either side. Castilleja School is located along the north side of Kellogg Street between Bryant Street and Emerson Street. The segment of Kellogg Street within 500 feet of the Castilleja School grounds has a 20-mph speed limit (while children are going to or leaving the school) in accordance with City of Palo Alto Ordinance Section 10.56.035. Otherwise, Kellogg Street has a posted speed limit of 25 mph.

Alternative Modes

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, a network of sidewalks, crosswalks, pedestrian signals, and curb ramps provide access for pedestrians near Castilleja School.

- **Waverly Street** – Continuous sidewalks are provided along both sides of Waverly Street between Lincoln Street and Churchill Avenue, with curb ramps and overhead lighting provided at intersections. Crosswalks are provided at the intersection with Embarcadero Road.
- **Bryant Street** – Both sides of Bryant Street have continuous sidewalks between Lincoln Street and Churchill Avenue, with curb ramps and overhead lighting provided at intersections. The intersection with Embarcadero Road has crosswalks.
- **Emerson Street** – There are continuous sidewalks along both sides of Emerson Street between Lincoln Street and Churchill Avenue, with curb ramps and overhead lighting provided at intersections.
- **Churchill Avenue** – Continuous sidewalks are provided along both sides of Churchill Avenue between Alma Street and Waverly Street, with curb ramps and overhead lighting provided at intersections.
- **Alma Street** – On the east side of Alma Street between Churchill Avenue and Lincoln Avenue there are continuous sidewalks, with curb ramps and overhead lighting provided at intersections.
- **Lincoln Avenue** – Both sides of Lincoln Avenue have continuous sidewalks between Alma Street and Waverly Street, with curb ramps and overhead lighting provided at intersections.
- **Kingsley Avenue** – Continuous sidewalks are provided along both sides of Kingsley Avenue between Alma Street and Waverly Street, with curb ramps and overhead lighting provided at intersections.
- **High Street** – High Street has continuous sidewalks on both sides between Lincoln Avenue and Embarcadero Road, with curb ramps and overhead lighting provided at intersections.

- **Ramona Street** – There are continuous sidewalks along both sides of Ramona Street between Lincoln Avenue and Kingsley Avenue, with curb ramps and overhead lighting provided at intersections.
- **Melville Avenue** – Both sides of Melville Avenue have continuous sidewalks between Embarcadero Road and Middlefield Road, with curb ramps and overhead lighting provided at intersections.

Bicycle Facilities

The *Highway Design Manual*, California Department of Transportation (Caltrans), 2017, classifies bikeways into three categories:

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway. Bike boulevards fall under this bikeway classification.

Guidance for Class IV Bikeways is provided in *Design Information Bulletin Number 89: Class IV Bikeway Guidance (Separated Bikeways/Cycle Tracks)*, Caltrans, 2015.

- **Class IV Bikeway** – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

In the project area, bike facilities are provided as presented in Table 1, which summarizes the existing and planned bicycle facilities in the project vicinity, as contained in the *City of Palo Alto Bicycle & Pedestrian Transportation Plan*, 2012.

Status Facility	Class	Length (miles)	Begin Point	End Point
Existing				
Embarcadero Bike Path	I	1.20	Castilleja Ave	University Ave
Ellen Fletcher Bicycle Boulevard	III	3.40	East Meadow Dr	Palo Alto Ave
Coleridge Ave Bike Lane	II	0.40	Bryant St	Middlefield Rd
Churchill Ave Bike Lane	II	0.40	El Camino Real	Bryant St
Planned				
Alma St Shared Arterial	III	2.90	East Charleston Rd	Homer Ave
Kingsley Ave Bicycle Boulevard	III	0.60	Guinda St	Embarcadero Rd
Middlefield Rd Shared Roadway	III	2.00	Marion Ave	Palo Alto Ave
Embarcadero Rd Shared Arterial	III	2.40	El Camino Real	East Bayshore Rd

Source: *City of Palo Alto Bicycle & Pedestrian Transportation Plan*, Alta Planning & Design, 2012

Transit Facilities

The Valley Transit Authority (VTA) provides fixed route bus service in Palo Alto. VTA Local Shuttle E provides loop service to destinations throughout the City and stops on Embarcadero Road at Bryant Street and at Waverly Street.

Shuttle E operates Monday through Friday with approximately twenty-minute headways from 7:00 a.m. to 10:00 a.m. and from 3:30 p.m. to 7:30 p.m.

Two bicycles can be carried on most VTA buses. Bike rack space is on a first come, first served basis. Additional bicycles are allowed on VTA buses at the discretion of the driver.

Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. VTA Paratransit is designed to serve the needs of individuals with disabilities within Palo Alto and Santa Clara County.

The project site is located within one-half mile and to the north of the Caltrain Corridor and one-and-a-half miles from the Palo Alto station. Caltrain provides rail service from San Francisco to Gilroy with connections to San Francisco and San Jose international airports.

Castilleja School operates a private shuttle service between the Palo Alto Caltrain Station and the school campus. In addition, the school provides bus service, which consists of two routes that serve surrounding cities.

Capacity Analysis

Intersection Level of Service Methodologies

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections that are currently controlled by a traffic signal, or are planned to be, were evaluated using the signalized intersection methodology published in the *Traffic Level of Service Analysis Guidelines*, Santa Clara County Transportation Authority, Congestion Management Program, 2003. This methodology is based on the signalized methodology published in the *Highway Capacity Manual (HCM)*, Transportation Research Board, 2000, which has been modified for use in Santa Clara County. This methodology is based on factors including traffic volumes, green time for each movement, phasing, whether the signals are coordinated or not, truck traffic, and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology.

The Levels of Service for the intersections with side-street stop controls, or those which are unsignalized and have one or two approaches stop-controlled, were analyzed using the “Two-Way Stop-Controlled” intersection capacity method from the HCM. This methodology determines a level of service for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual movements together with the weighted overall average delay for the intersection.

The ranges of delay associated with the various levels of service for signalized and unsignalized intersections are noted in Table 2 and Table 3, respectively.

Table 2 – Santa Clara County (VTA) Level of Service Criteria for Signalized Intersections

Level of Service (LOS)	Average Control Delay (seconds/vehicle)
A	delay ≤ 10.0
B+	10.0 < delay ≤ 12.0
B	12.0 < delay ≤ 18.0
B-	18.0 < delay ≤ 20.0
C+	20.0 < delay ≤ 23.0
C	23.0 < delay ≤ 32.0
C-	32.0 < delay ≤ 35.0
D+	35.0 < delay ≤ 39.0
D	39.0 < delay ≤ 51.0
D-	51.0 < delay ≤ 55.0
E+	55.0 < delay ≤ 60.0
E	60.0 < delay ≤ 75.0
E-	75.0 < delay ≤ 80.0
F-	delay > 80.0

Reference: *Traffic Level of Service Analysis Guidelines*, Santa Clara Valley Transportation Authority, 2003

Table 3 – Unsignalized Intersection Level of Service Criteria

Level of Service (LOS)	Two-Way Stop-Controlled
A	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.
B	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.
C	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.
D	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.
E	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.
F	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.

Reference: *Highway Capacity Manual*, Transportation Research Board, 2000

TIRE (Traffic Infusion on Residential Environments) Analysis

The potential effect of adding project-related traffic on residential streets near the project site was evaluated based on the Traffic Infusion on Residential Environment (TIRE) index. The TIRE index is a tool that measures the residents' perception of the effect of increased Average Daily Traffic (ADT) on residential streets. TIRE index values range from 0.0 to 5.0 depending on daily traffic volume. An index of 0.0 represents the least infusion of traffic and

5.0 the greatest, and, thereby the poorest residential environment. A TIRE index of 3.0 represents the threshold at which the character of a residential street changes. Residential streets with a TIRE index above this mid-range point of 3.0 typically exhibit higher traffic volumes, while streets with a TIRE index below 3.0 are usually more suitable for residential activities. According to this methodology, an impact occurs on the residential street when the difference in index between no project and project conditions is 0.10 or more. An abbreviated list of the TIRE indices is presented in Table 4, while the entire TIRE index table is provided in Appendix A.

Existing Volume Range (Daily Volume)	TIRE Index	Minimum Daily Volume Increase to Produce +0.1 change in the TIRE Index
561-710	2.8	140
711-890	2.9	170
891-1,100	3.0	220
1,101-1,400	3.1	290
1,401-1,800	3.2	380
1,801-2,200	3.3	500
2,201-2,800	3.4	650

Reference: Goodrich Traffic Group

Regulatory Context

Following is a summary of State, regional, local regulations that apply to transportation and circulation within the study area. All study intersections are under the jurisdiction of the City of Palo Alto.

State

State Regulations. The California Department of Transportation’s (Caltrans’) responsibilities include the planning, design, construction, and maintenance of interstate freeways as well as State highways. Within this study area, El Camino Real (SR-82) falls under Caltrans’ jurisdiction. Caltrans’ *Guide for the Preparation of Traffic Impact Studies* (December 2002) identifies the information that Caltrans requires in evaluating the effect of local development and land use changes on State highway facilities.

Senate Bill 743. On September 27, 2013, Governor Brown signed Senate Bill (SB) 743. Among other things, SB 743 creates a process to change the way transportation impacts are analyzed under CEQA (Public Resources Code Section 21000 and following). Currently, environmental review of transportation impacts focuses on the “delay” that vehicles experience at intersections and on roadway segments. Delay is often measured using “level of service,” or LOS as described previously. Mitigation for increased delay associated with a new project often involves increasing capacity (i.e., the width of a roadway or size of an intersection), which may increase auto use and emissions and discourage alternative forms of transportation. Under SB 743, the focus of transportation analysis will shift from driver delay to reduction of greenhouse gas emissions, creation of multimodal networks and promotion of a mix of land uses. An official policy regarding the impact threshold criteria to be applied in CEQA analyses has not yet been adopted by either the City of Palo Alto or Santa Clara County and the CEQA Guidelines have not yet been updated to establish appropriate criteria to evaluate Vehicle Miles Traveled.

Regional

Metropolitan Transportation Commission. The Metropolitan Transportation Commission (MTC) is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area. The MTC

functions as both the State-mandated regional transportation planning agency and the federally-mandated metropolitan planning organization (MPO) for the region. As such, it is responsible for regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of transportation facilities within the region. The Commission also screens requests from local agencies for State and federal grants for transportation projects to determine their compatibility with the Plan.

County

The Santa Clara Valley Transportation Authority (VTA) is the Congestion Management Agency (CMA) for Santa Clara County, tasked with preparing the Congestion Management Plan (CMP) that describes the strategies to address congestion problems and monitoring compliance. MTC requires the local transportation authority, such as the VTA, to establish transportation plans that can feed into the larger RTP. VTA works cooperatively with MTC, transit agencies, local governments, Caltrans, and the Bay Area Air Quality Management District. The CMP contains level-of-service standards for highways and arterials, multimodal performance standards, a capital improvement program, a program for analyzing land use decisions, and a travel demand management (TDM) program.

The minimum level-of-service standard for CMP designated facilities in Santa Clara County is LOS E, except for facilities grandfathered in at LOS F, which states that intersections operating at LOS F at the baseline year for implementation of an LOS standard can be grandfathered in. The LOS standards for Santa Clara County were established in October of 1991; thus, any intersection operating at LOS F prior to the established 1991 LOS standards are not held to the minimum standard of LOS E. Member Agencies, which include the cities and County of Santa Clara, must ensure that CMP roadways operate at or better than the minimum level-of-service standard or they face losing gas tax subventions. VTA monitors the performance of the CMP facilities at a minimum of every 2 years. If the minimum level-of-service standards are not met, Member Agencies must develop multimodal improvement plans to address the congestion.

Traffic Operation Standards

Signalized Intersections

County Facilities

The City of Palo Alto has established criteria to determine the level of significance of traffic impacts based on standards set by the Santa Clara County Congestion Management Program (CMP) in the Transportation Impact Analysis Guidelines, adopted in October 2014. For intersections in the CMP network, a traffic impact is considered significant if:

- The addition of project-generated traffic causes operation of an intersection to deteriorate from an acceptable level of service (LOS E or better) to LOS F, or
- For intersections operating at LOS F under background conditions, the project condition increases the average control delay for critical movements by four seconds or more and project traffic increases the critical volume-capacity (v/c) ratio by 0.01 or more.

City

For local signalized intersections that are not on the CMP network, a traffic impact is considered significant if:

- The addition of project-generated traffic causes operation of an intersection to deteriorate from an acceptable level of service (LOS D or better) to LOS E or LOS F, or
- For intersections where LOS E operation has been established as acceptable, the project condition causes operation to deteriorate from LOS E to LOS F.

Unsignalized Intersections

The City of Palo Alto has established the following criteria for evaluating impacts at unsignalized intersections:

- LOS D is used as the minimum acceptable operation level at unsignalized intersections. A project-generated increase in traffic is considered to have a significant impact if intersection operations degrade to LOS E or F from acceptable operations and the intersection satisfies a peak hour signal warrant from the California Manual on Uniform Traffic Control Devices (CA MUTCD).
- The criterion does not specify guidelines if an unsignalized intersection operates at LOS E or F prior to the addition of project trips.

Existing Conditions

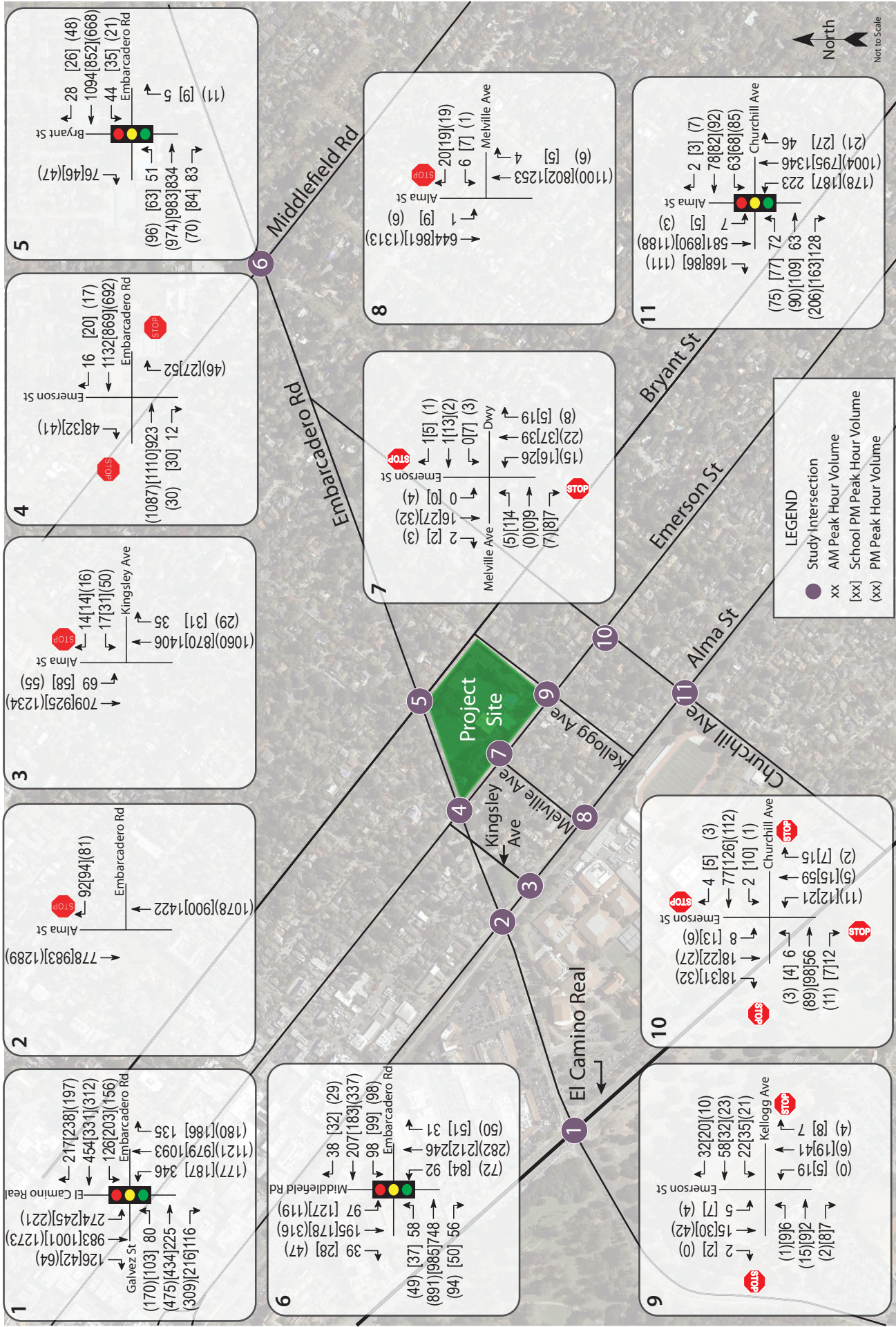
The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the a.m. and p.m. peak periods as well as school pick-up p.m. peak period. This condition does not include project-generated traffic volumes. Traffic volume data was collected on either Thursday, January 26, 2017, Tuesday, May 16, 2017 or Wednesday, April 10, 2019, a typical weekdays while local schools were in session. Copies of the traffic count data sheets are provided in Appendix B.

Intersection Levels of Service

Under existing conditions, the study intersections operate at acceptable levels of service, except that the following intersections operate deficiently during study periods indicated:

- Embarcadero Road Spur/Alma Street operates at LOS A overall but with the westbound Embarcadero Road approach operating at LOS F during the a.m. peak hour; and
- Alma Street/Kingsley Avenue operates at LOS A overall but the westbound Kingsley Street approach operates at LOS F during the a.m. and p.m. peak hours and LOS E during the school p.m. peak.

The existing traffic volumes are shown in Figure 2. A summary of the intersection level of service calculations is noted in Table 5, and a copy of the Level of Service calculations is provided in Appendix C.



Traffic Impact Study for the Castilleja School Expansion
Figure 2 – Existing Traffic Volumes

Table 5 – Existing Peak Hour Intersection Levels of Service

Study Intersection Approach	Control Type	AM Peak		School PM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS
1. El Camino Real/Embarcadero Rd	Signal	39.9	D	41.2	D	42.6	D
2. Embarcadero Rd Spur/Alma St <i>Westbound (Embarcadero) Approach</i>	TWSC	2.2 54.5	A F	1.0 20.4	A C	0.8 25.3	A C
3. Alma St/Kingsley Ave <i>Westbound (Kingsley) Approach</i>	TWSC	1.4 70.5	A F	1.3 43.2	A E	4.3 **	A F
4. Embarcadero Rd/Emerson St <i>Northbound (Emerson) Approach</i>	TWSC	0.6 14.7	A B	0.4 13.8	A B	0.6 13.4	A B
5. Embarcadero Rd/Bryant St	Signal	13.1	B	12.0	B+	11.5	B+
6. Middlefield Rd/Embarcadero Rd	Signal	38.5	D+	35.4	D+	39.7	D
7. Melville Ave/Emerson St <i>Westbound (Melville) Approach</i>	TWSC	3.2 9.7	A A	3.6 9.6	A A	3.0 9.4	A A
8. Melville Ave/Alma St <i>Westbound (Melville) Approach</i>	TWSC	0.3 21.3	A C	0.3 16.0	A C	0.1 15.0	A C
9. Kellogg Ave/Emerson St <i>Northbound/Southbound (Emerson) Approach</i>	TWSC	5.1 10.1	A B	6.3 9.5	A A	5.4 9.3	A A
10. Churchill Ave/Emerson St	AWSC	7.6	A	7.9	A	7.7	A
11. Churchill Ave/Alma St	Signal	24.9	C	28.8	C	32.4	C

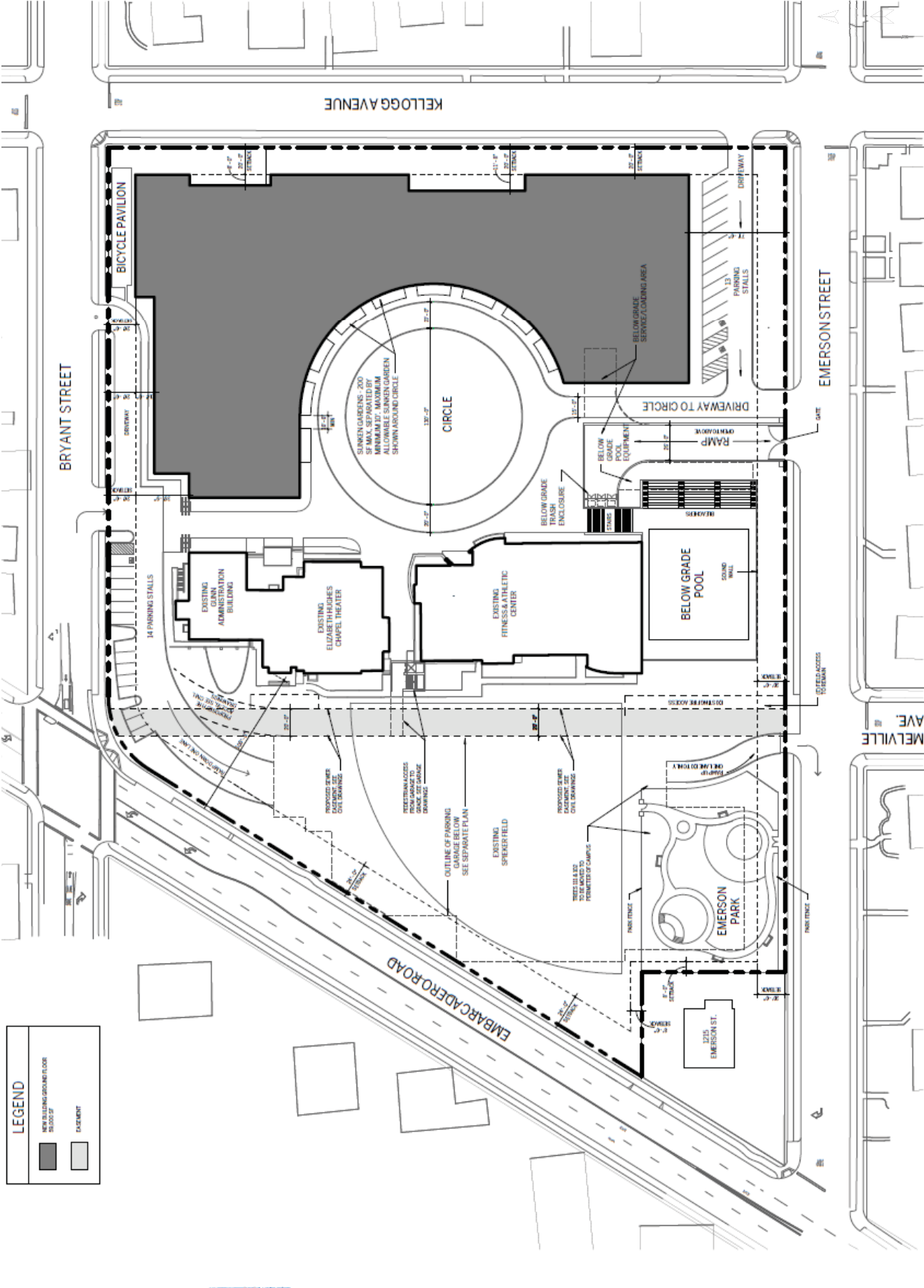
Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*; ** = delay greater than 120 seconds; **Bold** text = deficient operation

Background Conditions

Background operating conditions are typically determined by adding auto trips from other approved projects in the study area to existing volumes. The City conducted a review of approved projects within the City of Palo Alto and concluded that all approved projects nearby either would not generate new trips or are more than several miles away from the project site, and thus are not anticipated to contribute any new trips to the study area intersections and roadways. With no new trips from other approved projects, a background conditions analysis was not conducted.

Project Description

The proposed project at Castilleja School includes construction of a new underground parking garage and school buildings, as well as an increase in the maximum number of enrolled students from 438 to 540 students. The proposed project site plan is shown in Figure 3.



LEGEND	
	NEW BUILDING/GRAND FLOOR
	EXISTING

North

 Not to Scale

Traffic Impact Study for the Castilleja School Expansion
Figure 3 – Site Plan

Trip Generation

Trip generation estimates are typically developed using standard rates published by the Institute of Transportation Engineers (ITE) in the most recent edition of the Trip Generation Manual. However, standard rates are not applicable for the proposed project (a 6th to 12th grade private school with an existing Transportation Demand Management (TDM) program that is located near an extensive bicycle network and commuter rail service). Thus, to calculate the school's trip generation rate, a survey was conducted at the school during a typical non-holiday period in January 2017. The observed trip generation rate is higher than those published by the Institute of Transportation Engineers (ITE) in Trip Generation Manual, 10th Edition, 2017 for "Private School (K-12)" (ITE LU #536). Since the observed rates are higher, and more conservative, these were used to calculate the expected trip potential for the project. While the school is planning to implement an expanded TDM program with their project, no additional trip reductions have been applied.

At the time of the January 2017 intersection, roadway and driveway counts, the enrollment at Castilleja School was 438 students. Site-specific trip generation rates for the a.m., school p.m. and p.m. peak hours were developed based on driveway counts and adjusted based on results from a student travel pattern survey. It is estimated that the school site currently generates 352 vehicle trips during the a.m. peak hour, 274 vehicle trips during the school p.m. peak hour, and 176 vehicle trips during the p.m. peak hour, resulting in estimated trip generation rates of 0.82, 0.63 and 0.41 vehicle trips per student for the a.m., school p.m. and p.m. peak hours respectively. Applying these trip generation rates toward the full project build out would result in the addition of 279 new trips daily, including 91 new trips during the a.m. peak hour, 66 new trips during the school p.m. peak hour and 45 new trips during the p.m. peak hour. A summary of peak hour trips is shown in Table 6. For informational purposes only, the most comparable ITE rate and resulting trips is also provided.

Table 6 – Trip Generation Summary

Land Use	Units (# of students)	Daily Trips	AM Peak Hour			School PM Peak Hour			PM Peak Hour					
			Rate	Trips	In	Out	Rate	Trips	In	Out	Rate	Trips	In	Out
Existing														
School	-438	-1,198	0.82	-352	-194	-158	0.63	-274	-123	-151	0.41	-176	-77	-99
Proposed														
Expansion	540	1,477	0.82	443	244	199	0.63	340	153	187	0.41	221	97	124
Total		279		91	50	41		66	30	36		45	20	25
<i>Private School (K-12) – ITE LU 536</i>	-438	-1,086	0.81	-355	-216	-139	0.58	-254	-107	-147	0.17	-75	-31	-44
<i>Private School (K-12) – ITE LU 536</i>	540	1,339	0.81	437	267	170	0.58	313	132	181	0.17	92	39	53
<i>Total (ITE)</i>		253		82	51	31		59	25	34		17	8	9

Trip Distribution

The pattern used to allocate both existing school and new project trips to the street network was based on a review of home zip codes for students and staff provided by the school. A likely travel pattern was developed between each zip code and the project site. The resulting distribution assumptions and resulting trips are shown in Figure 4 and Table 7.

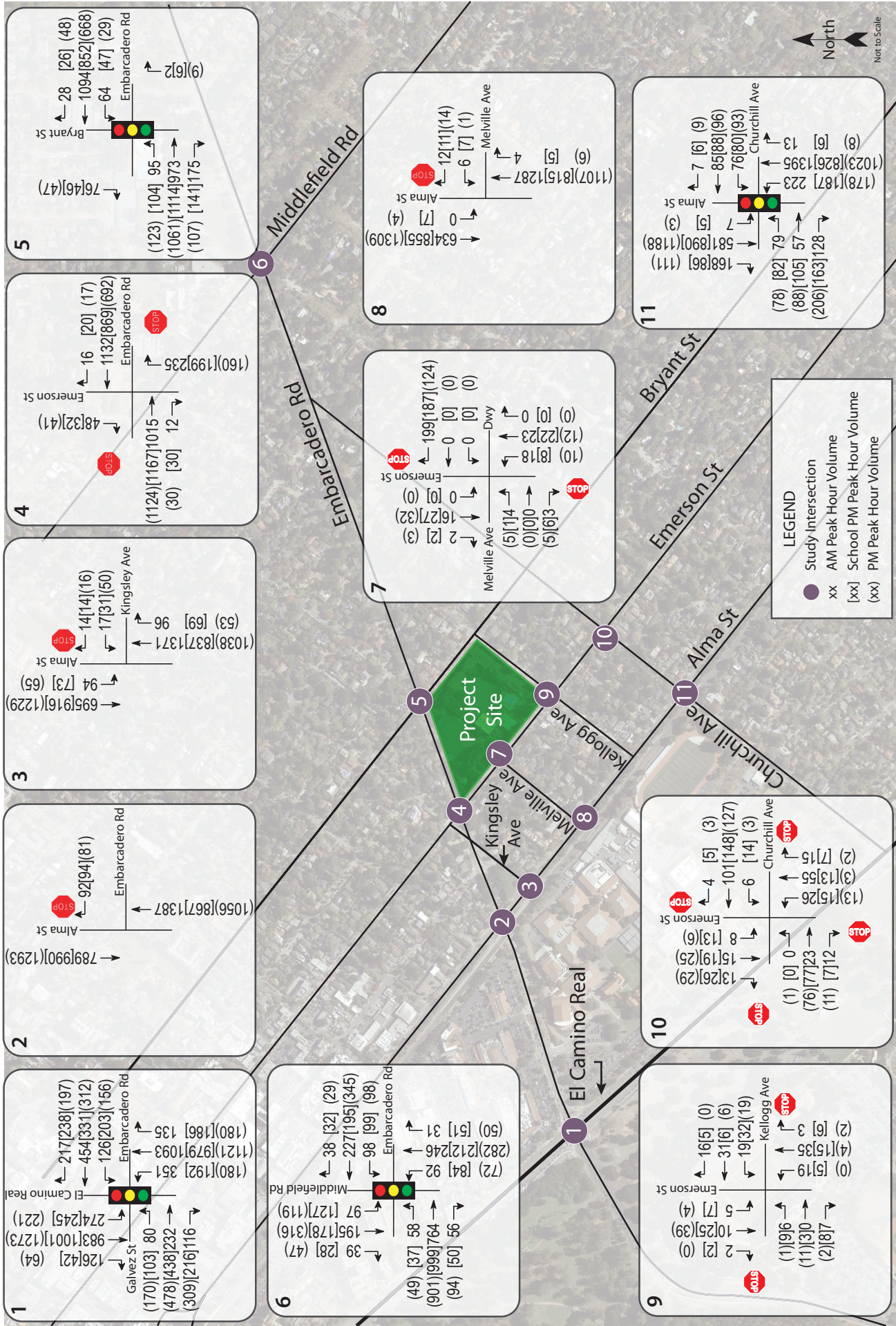
Table 7 – Trip Distribution Assumptions

Route	Percent	Daily Trips	AM Trips	School PM Trips	PM Trips
To/From the east on Embarcadero Rd	40%	112	36	26	18
To/From the north on Alma St	22%	61	20	15	10
To/From the south on Alma St	20%	56	18	13	9
To/From the west on Embarcadero Rd	13%	36	12	9	6
To/From the south on Emerson St	2%	6	2	1	1
To/From the south on El Camino Real	3%	8	3	2	1
TOTAL	100%	279	91	66	45

Intersection Operation

Existing plus Project Conditions

Upon the addition of project-related traffic to the Existing volumes, all the study intersections would continue to operate at acceptable levels of service, except for the intersections of Embarcadero Road Spur/Alma Street during the a.m. peak hour and Alma Street/Kingsley Avenue during the a.m., school p.m. and p.m. peak hours. These intersections do not satisfy the peak hour volume warrant and would operate at unacceptable levels of service with or without the addition of project-generated traffic. It should be noted that the addition of project-generated trips at the intersection of Embarcadero Road Spur/Alma Street is expected to improve the average delay per vehicle by 4.5 seconds per vehicle during the a.m. peak hour. This improvement, while noteworthy, is not sufficient to improve the level of service to LOS D (or better) during the a.m. peak hour. Also, the intersection of Alma Street/Kingsley Avenue is anticipated to operate with an overall LOS A, but with LOS E or F for the westbound approach only during each study period, with or without vehicle trips from the project. These results are summarized in Table 8. Existing plus project traffic volumes are shown in Figure 5.



Traffic Impact Study for the Castilleja School Expansion
Figure 5 – Existing plus Project Traffic Volumes

Table 8 – Existing plus Project Peak Hour Intersection Levels of Service

Study Intersection Approach	Control Type	AM Peak		School PM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS
1. El Camino Real/Embarcadero Rd	Signal	39.8	D	41.4	D	42.6	D
2. Embarcadero Rd Spur/Alma St <i>Westbound (Embarcadero) Approach</i>	TWSC	2.0 49.9	A E	0.9 <i>19.4</i>	A C	0.8 <i>24.5</i>	A C
3. Alma St/ Kingsley Ave <i>Westbound (Kingsley) Approach</i>	TWSC	1.7 82.1	A F	1.4 45.2	A E	4.5 **	A F
4. Embarcadero Rd/Emerson St <i>Northbound (Emerson) Approach</i>	TWSC	2.5 <i>22.7</i>	A C	2.1 <i>22.6</i>	A C	1.5 <i>17.0</i>	A C
5. Embarcadero Rd/Bryant St	Signal	13.7	B	12.4	B	11.5	B+
6. Middlefield Rd/Embarcadero Rd	Signal	38.3	D+	35.3	D+	39.6	D
7. Melville Ave/Emerson St <i>Westbound (Melville) Approach</i>	TWSC	7.9 <i>10.6</i>	A B	7.7 <i>9.7</i>	A A	6.6 <i>9.6</i>	A A
8. Melville Ave/Alma St <i>Westbound (Melville) Approach</i>	TWSC	0.2 <i>24.8</i>	A C	0.2 <i>18.0</i>	A C	0.1 <i>15.6</i>	A C
9. Kellogg Ave/Emerson St <i>Northbound/Southbound (Emerson) Approach</i>	TWSC	5.9 <i>9.7</i>	A A	5.4 <i>9.2</i>	A A	4.4 <i>9.2</i>	A A
10. Churchill Ave/Emerson St	AWSC	7.7	A	7.9	A	7.7	A
11. Churchill Ave/Alma St	Signal	25.9	C	29.5	C	33.1	C-

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*; ** = delay greater than 120 seconds; **Bold** text = deficient operation

Finding – The intersections of Embarcadero Road Spur/Alma Street and Alma Street/Kingsley Avenue would operate at LOS E or F with or without the addition of project-generated trips. These intersections do not satisfy the peak hour volume warrant.

Cumulative Conditions

The Cumulative Condition intersection turning movement forecasts were developed using roadway segment volumes from the 2014 and 2030 Santa Clara County travel demand models to determine approach and departure link growth, then applying the Furness methodology to determine individual turning movements at each intersection.

The increment of new traffic projected by subtracting the model's 2014 data from 2030 data was added to the actual counts used in the Existing Conditions scenario. In some instances, the model projected a traffic volume decrease. Decreases are attributable to assumed infrastructure improvements and forecast changes in demographic data throughout the region. Rather than assume volume decreases, existing counts were maintained as a "floor." This is a common technique used to ensure that future projections are conservative.

The City of Palo Alto is planning a project that would modify the intersection of El Camino Real/Embarcadero Road to provide pedestrian and bicycle improvements along Embarcadero Road. This project is anticipated to be completed by the Cumulative Year Condition. This project, as currently proposed, would not alter the vehicle capacity of either El Camino Real or Embarcadero Road. No other roadway construction projects are planned within the study area, thus this study assumed that no capital improvements or geometric changes would be implemented at any of the study intersections and the lane configurations at each intersection would remain unchanged from existing conditions.

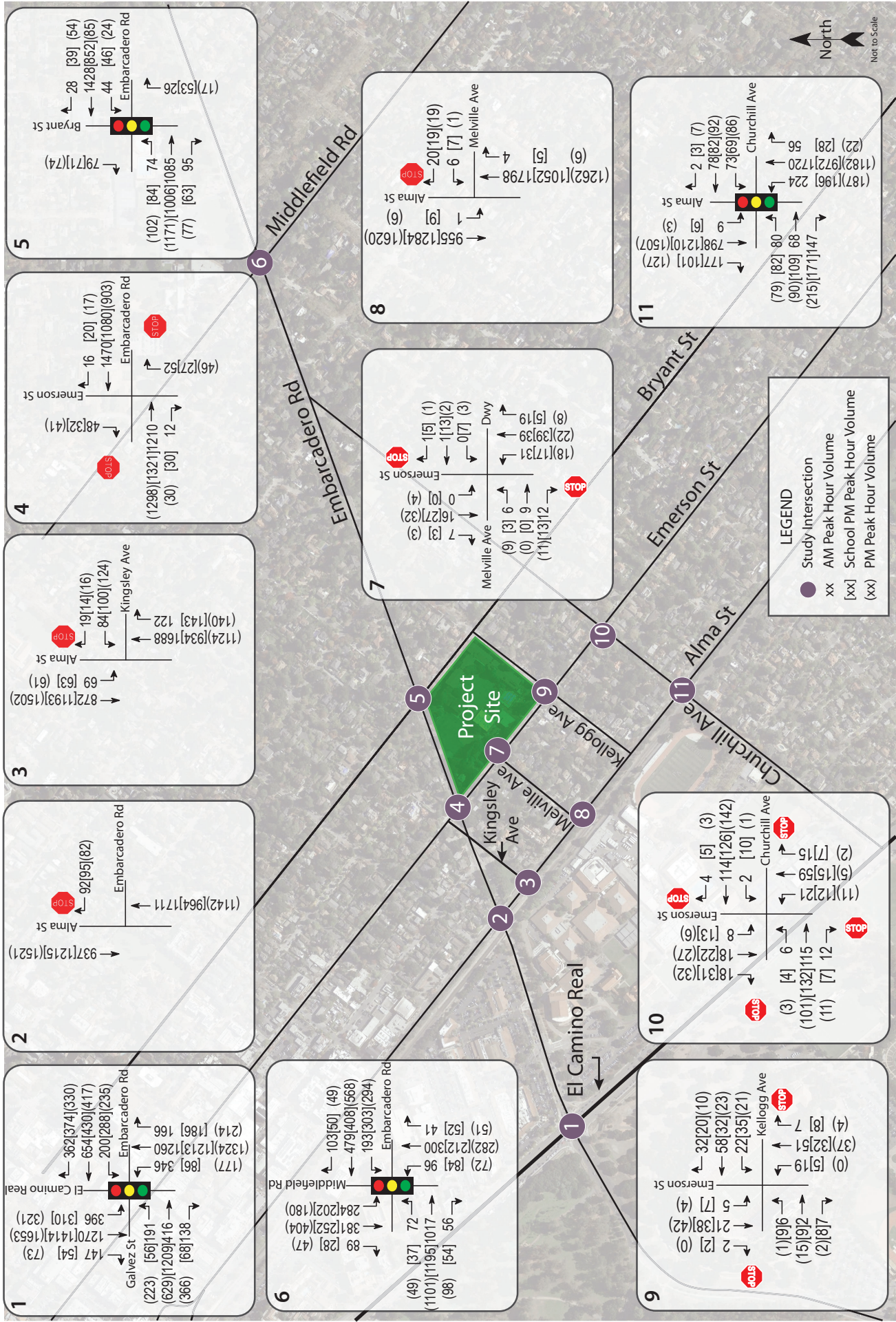
Under the anticipated Cumulative volumes, the study intersections are expected to operate within acceptable levels of service, except at the following intersections and for the study periods indicated:

- Embarcadero Road Spur/Alma Street would operate at LOS A overall but with the westbound Embarcadero Road approach operating deficiently at LOS F during the a.m. peak hour;
- Alma Street/Kingsley Avenue would operate deficiently at LOS E overall and LOS F on the westbound Kingsley Avenue approach during the a.m. and p.m. peak hours, and at LOS F on the westbound Kingsley Avenue approach during the school p.m. peak; and
- Alma Street/Melville Avenue would operate at LOS A overall but with the westbound Melville Avenue approach operating deficiently at LOS E during the a.m. peak hour.

Operating conditions are summarized in Table 9 and cumulative volumes are shown in Figure 6.

Table 9 – Cumulative Peak Hour Intersection Levels of Service							
Study Intersection Approach	Control Type	AM Peak		School PM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS
1. El Camino Real/Embarcadero Rd	Signal	63.6	E	74.8	E	61.5	E
2. Embarcadero Rd Spur/Alma St <i>Westbound (Embarcadero) Approach</i>	TWSC	3.7 109.8	A F	0.9 21.8	A C	0.8 26.8	A D
3. Alma St/ Kingsley Ave <i>Westbound (Kingsley) Approach</i>	TWSC	45.0 **	E F	14.8 **	B F	48.2 **	E F
4. Embarcadero Rd/Emerson St <i>Northbound (Emerson) Approach</i>	TWSC	0.5 16.3	A C	0.3 14.6	A B	0.5 14.9	A B
5. Embarcadero Rd/Bryant St	Signal	12.4	B	11.9	B	10.8	B+
6. Middlefield Rd/Embarcadero Rd	Signal	47.1	D	44.0	D	49.6	D
7. Melville Ave/Emerson St <i>Westbound (Melville) Approach</i>	TWSC	3.5 9.2	A A	3.8 9.4	A A	3.5 9.2	A A
8. Melville Ave/Alma St <i>Westbound (Melville) Approach</i>	TWSC	0.5 49.5	A E	0.3 24.5	A C	0.1 17.7	A C
9. Kellogg Ave/Emerson St <i>Northbound/Southbound (Emerson) Approach</i>	TWSC	5.5 10.2	A B	5.7 9.6	A A	4.5 9.5	A A
10. Churchill Ave/Emerson St	AWSC	8.0	A	8.0	A	7.8	A
11. Churchill Ave/Alma St	Signal	26.4	C	28.3	C	32.1	C-

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*; ** = delay greater than 120 seconds; **Bold** text = deficient operation



Traffic Impact Study for the Castilleja School Expansion
Figure 6 – Cumulative Traffic Volumes

Cumulative plus Project Conditions

Upon the addition of project-generated traffic to the anticipated cumulative volumes, all the study intersections would continue to operate at acceptable levels of service, except the three that are projected to operate at LOS E or F without the project. It should be noted that the addition of project-generated trips at the intersection of Embarcadero Road Spur/Alma Street is expected to improve the average delay per vehicle by 11.2 seconds per vehicle. This improvement, while noteworthy, is not sufficient to improve the level of service to LOS D or better during the a.m. peak hour. Also, the intersections of Alma Street/Kingsley Avenue and Alma Street/Melville Avenue are anticipated to operate with an overall LOS A but with LOS E or F for the westbound approaches only with or without vehicle trips from the project. The Cumulative plus Project operating conditions are summarized in Table 10. Cumulative plus Project traffic volumes are shown in Figure 7.

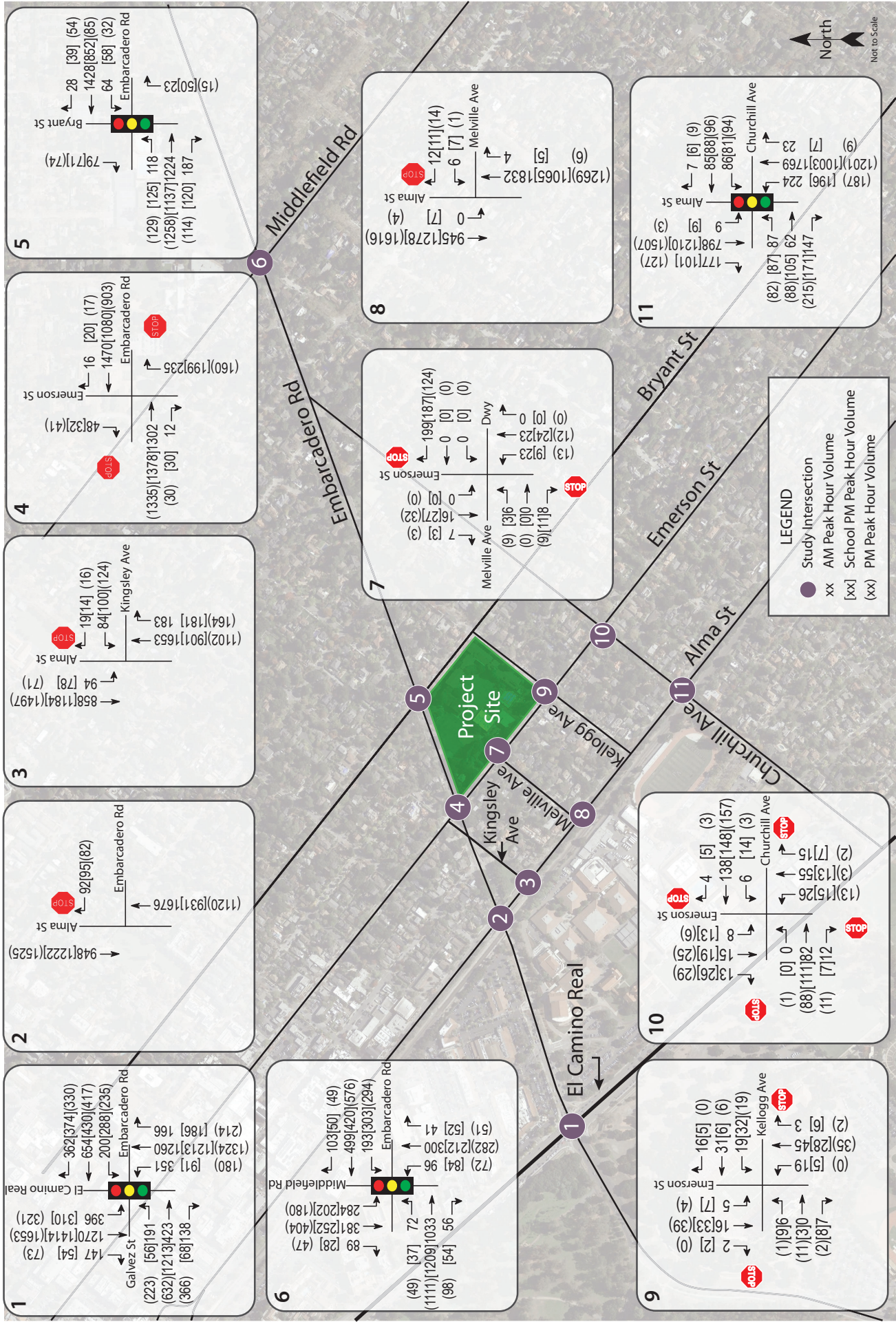
Table 10 – Cumulative plus Project Peak Hour Intersection Levels of Service

Study Intersection Approach	Control Type	AM Peak		School PM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS
1. El Camino Real/Embarcadero Rd	Signal	64.3	E	74.8	E	61.9	E
2. Embarcadero Rd Spur/Alma St <i>Westbound (Embarcadero) Approach</i>	TWSC	3.3 98.6	A F	0.9 20.5	A C	0.8 25.8	A D
3. Alma St/ Kingsley Ave <i>Westbound (Kingsley) Approach</i>	TWSC	53.5 **	F F	15.9 **	C F	50.0 **	F F
4. Embarcadero Rd/Emerson St <i>Northbound (Emerson) Approach</i>	TWSC	2.1 24.7	A C	1.9 24.0	A C	1.5 20.1	A C
5. Embarcadero Rd/Bryant St	Signal	12.8	B	12.3	B	11.3	B+
6. Middlefield Rd/Embarcadero Rd	Signal	47.2	D	44.0	D	49.7	D
7. Melville Ave/Emerson St <i>Westbound (Melville) Approach</i>	TWSC	7.2 9.7	A A	7.4 9.4	A A	6.6 9.3	A A
8. Melville Ave/Alma St <i>Westbound (Melville) Approach</i>	TWSC	0.4 62.5	A F	0.3 29.2	A D	0.1 18.9	A C
9. Kellogg Ave/Emerson St <i>Northbound/Southbound (Emerson) Approach</i>	TWSC	6.3 9.8	A A	4.6 9.3	A A	3.3 9.4	A A
10. Churchill Ave/Emerson St	AWSC	8.0	A	8.0	A	7.9	A
11. Churchill Ave/Alma St	Signal	27.6	C	29.1	C	32.9	C-

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*; ** = delay greater than 120 seconds; **Bold** text = deficient operation

Finding – The unsignalized intersection of Embarcadero Road Spur/Alma Street would operate at LOS F during the a.m. peak hour with and without the project-generated trips. This intersection does not satisfy the peak hour volume warrant for the a.m. peak hour.

The unsignalized intersection of Alma Street/Kingsley Avenue would operate at LOS F overall during the a.m. and p.m. peak hours and on the stop-controlled side street approach during all three peak periods with the addition of project-generated trips. This is a deterioration from LOS E overall during the a.m. and p.m. peak hours compared to conditions without the project. The peak hour volume warrant is satisfied at this intersection for all three peak hours evaluated.



Traffic Impact Study for the Castilleja School Expansion
Figure 7 – Cumulative plus Project Traffic Volumes

It should also be noted that the redistribution of trips and fewer vehicles passing through this intersection results in decreased average delays per vehicle at the unsignalized intersection of Kellogg Avenue/Emerson Street during all three peak hours evaluated.

Neighborhood Traffic Analysis

The average daily traffic (ADT) on several neighborhood street segments was determined based on 24-hour machine counts conducted on a typical weekday while schools were in session. These counts occurred in January 2017, September/October 2018 and April 2019 on multiple roadway segments within the study area. Table 11 summarizes the ADT of the neighborhood streets, the TIRE index for the street segments under Existing Conditions, and the project-added trips. The approach used for this analysis was conservative in that it considered the redistribution of trips and its effect on the roadway segments based on the proposed site design. It should be noted that although the trip numbers may seem high on specific segments due to site ingress/egress reconfiguration, several of these trips are already associated with the current school operations and would be redistributed from other adjacent streets rather than being added to the neighborhood in general. The net-new trips associated with the increased enrollment is 279 trips per day, or an 18.9 percent increase in school trips from the existing condition. The ADT and project-generated daily trips are illustrated in Figures 8 and 9, respectively.

Table 11 – TIRE Index Summary

Study Segment	Existing Conditions		Volume Needed to Cause +0.1 Increase in TIRE Index	Daily Project Trips	Significant Impact (Y/N)
	ADT	TIRE Index			
1. Waverly St (Lincoln Ave to Kingsley Ave)	3,859	3.6	1,025	0	No
2. Waverly St (Kingsley Ave to Whitman Ct)	3,879	3.6	1,025	0	No
3. Waverly St (Whitman Ct to Melville Ave)	4,347	3.6	1,025	0	No
4. Waverly St (Melville Ave to Embarcadero Rd)	5,125	3.7	1,250	0	No
5. Waverly St (Embarcadero Rd to Kellogg Ave)	3,761	3.6	1,025	281	No
6. Waverly St (Kellogg Ave to Churchill Ave)	3,083	3.5	825	281	No
7. Bryant St (Lincoln Ave to Kingsley Ave)	2,391	3.4	650	162	No
8. Bryant St (Kingsley Ave to Whitman Ct)	2,394	3.4	650	162	No
9. Bryant St (Whitman Ct to Embarcadero Rd)	2,574	3.4	650	162	No
10. Bryant St (Embarcadero Rd to Kellogg Ave)	870	2.9	170	-40	No
11. Bryant St (Kellogg Ave to Churchill Ave)	567	2.8	140	-216	No
12. Emerson St (Lincoln Ave to Kingsley Ave)	463	2.7	114	0	No
13. Emerson St (Kingsley Ave to Embarcadero Rd)	296	2.5	79	0	No
14. Emerson St (Embarcadero Rd to Melville Ave)	842	2.9	170	679	Yes
15. Emerson St (Melville Ave to Kellogg Ave)	655	2.8	140	-60	No
16. Emerson St (Kellogg Ave to Churchill Ave)	744	2.9	170	-174	No
17. Churchill Ave (Waverley St to Bryant St)	2,448	3.4	650	266	No
18. Churchill Ave (Bryant St to Emerson St)	2,692	3.4	650	74	No
19. Churchill Ave (Emerson St to Alma St)	2,945	3.5	825	-100	No
20. Alma St (Lincoln Ave to Embarcadero Rd)	26,469	4.4	6,600	-101	No
21. Alma St (Embarcadero Rd to Kingsley Ave)	26,710	4.4	6,600	-179	No
22. Alma St (Kingsley Ave to Melville Ave)	26,186	4.4	6,600	-157	No
23. Alma St (Melville Ave to Kellogg Ave)	25,775	4.4	6,600	-133	No
24. Alma St (Kellogg Ave to Churchill Ave)	25,553	4.4	6,600	95	No
25. Lincoln Ave (Waverly St to Bryant St)	2,558	3.4	650	0	No
26. Lincoln Ave (Bryant St to Ramona St)	2,216	3.4	650	162	No
27. Lincoln Ave (Ramona St to Emerson St)	2,445	3.4	650	162	No
28. Lincoln Ave (Emerson St to High St)	2,119	3.3	500	162	No
29. Lincoln Ave (High St to Alma St)	2,088	3.3	500	162	No
30. Kingsley Ave (Waverly St to Bryant St)	874	2.9	170	0	No
31. Kingsley Ave (Bryant St to Ramona St)	573	2.9	140	0	No
32. Kingsley Ave (Ramona St to Emerson St)	46	1.7	10	0	No
33. Kingsley Ave (Emerson St to High St)	580	2.8	140	0	No

Table 11 – TIRE Index Summary

Study Segment	Existing Conditions		Volume Needed to Cause +0.1 Increase in TIRE Index	Daily Project Trips	Significant Impact (Y/N)
	ADT	TIRE Index			
34. Kingsley Ave (High St to Alma St)	2,170	3.3	500	347	No
35. High St (Lincoln Ave to Embarcadero Rd)	255	2.4	65	0	No
36. Ramona St (Lincoln Ave to Kingsley Ave)	240	2.4	65	0	No
37. Melville Ave (Alma St to Emerson St)	316	2.5	79	0	No

Notes: ADT = Average Daily Traffic; **Bold** = Significant Impact

Finding – The TIRE index results indicate that the addition of new project-related trips plus the redistribution of existing school trips from other nearby public roads would increase the TIRE index on the roadway segment of Emerson Street from Embarcadero Road to Melville Avenue. This is considered a significant impact. It should be noted that this segment of Emerson Street is within the recognized school zone as described by City of Palo Alto Ordinance Section 10.56.035.

Recommendation – To reduce the impact to a less-than-significant level, one or more of the following strategies would need to be implemented:

- Implement or modify an existing Transportation Management Plan (TDM) to reduce the number of project-related daily trips using Emerson Street (Embarcadero Road to Melville Avenue) from 679 to 169. Future TDM plan modifications should consider the strategies described in a memorandum prepared by Nelson Nygaard (dated June 9, 2016) titled “Castilleja School Transportation Demand Management (TDM) Plan”. According to this memorandum, implementation of these strategies is anticipated to reduce the current number of vehicle trips by roughly 12 to 22 percent. It is anticipated that even if the implemented TDM Plan is successful in reducing the number of daily project trips by 22 percent (or approximately 325 daily trips), the change in vehicular volume on Emerson Street would still be considered a significant impact. Potential TDM strategies to be considered are:
 - Additional Shuttle Bus Routes
 - Late Afternoon Shuttle Departures
 - Off-site Drop-off/Pick-Up Area
 - Expanded Carpool/Trip Planning Program
 - Additional Off-site Parking
 - Parking/Carpool Incentives Program for Employees
 - Alternative Transportation Information
 - Bike Tune-Up Day and On-Site Repair Stations
 - Guaranteed Ride Home (GRH) Program
 - On-Site Car or Bike sharing Program
 - Provide Transit Passes
 - Mandatory Ridesharing
- Modify the vehicle circulation of arriving and departing trips at the school so that fewer vehicles use Emerson Street.
- Re-distribute vehicular traffic onto surrounding streets by allowing all turning movements for vehicles exiting the parking garage on Emerson Street.
- The school and City should modify the existing traffic monitoring program to confirm whether the observed change in daily traffic volumes on surrounding streets match those estimated by this study. Appropriate countermeasures should be developed based on the results of the monitoring program to remedy any measured increases in daily vehicle traffic.

Signal Warrant Analysis

A traffic signal warrant analysis was conducted to determine the potential need for a traffic signal at each unsignalized study intersection that is projected to operate at LOS E or F. Chapter 4C of the *California Manual on Uniform Traffic Control Devices* (CA-MUTCD) provides guidance on when a traffic signal should be considered. For the purposes of this study only Warrant 3 was considered.

Warrant 3 is satisfied when an engineering study finds that finds that the criteria in either of the following two categories are met:

- A. If all three of the following conditions exist for the same one hour (any four consecutive 15-minute periods) of an average day:
 1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: four vehicle-hours for a one-lane approach; or five vehicle-hours for a two-lane approach, and
 2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and
 3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.
- B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

The peak hour warrant is satisfied by volumes at the intersection of Alma Street/Kingsley Avenue during all three peak hours for both cumulative and cumulative plus project scenarios. It should be noted that the satisfaction of a traffic signal warrant or warrants does not require the installation of a traffic control signal, as other factors (warrants) should also be considered. The traffic volume at the intersection of Alma Street/Kingsley Avenue would satisfy Warrant 3 for the a.m., school p.m. and p.m. peak hours during the with and without project Cumulative Conditions. Copies of the Warrant 3 worksheets are included in Appendix D. A summary showing each intersection evaluated and whether the conditions satisfies the warrant is provided in Table 12.

Table 12 – Peak Hour Warrant Summaries

Study Unsignalized Intersection	Scenario with LOS F Operation	Satisfies Warrant 3 (Y/N)?
Embarcadero Rd Spur/Alma St	Existing AM Peak	N
Alma St/Kingsley Ave	Existing AM Peak	N
	Existing PM Peak	N
	Existing plus Project AM Peak	N
	Existing plus Project PM Peak	N
Embarcadero Rd Spur/Alma St	Cumulative AM Peak	N
Alma St/Kingsley Ave	Cumulative AM Peak	Y
	Cumulative School PM Peak	Y
	Cumulative PM Peak	Y
Embarcadero Rd Spur/Alma St	Cumulative plus Project AM Peak	N
Alma St/Kingsley Ave	Cumulative plus Project AM Peak	Y
	Cumulative plus Project School PM Peak	Y
	Cumulative plus Project PM Peak	Y
Alma St/Melville Ave	Cumulative plus Project AM Peak	N

Notes: **Bold** text= Satisfies Peak Hour Traffic Warrant

Recommendation – The City of Palo Alto does not currently have a threshold of significance at unsignalized intersections for situations where the intersection already operates at LOS E or F prior to the addition of project trips. It is recommended that unsignalized intersections that satisfy a peak hour traffic signal warrant and operate at LOS F be included in the City of Palo Alto’s list of intersections that are considered for traffic signal installation. The City should employ their own criteria for ranking and prioritization, including other signal warrants and crash history, when considering the need and timing for traffic signal installation.

Vehicle Miles Traveled (VMT) Analysis

An evaluation of the vehicle miles traveled is not a requirement contained in either the City of Palo Alto or Santa Clara County guidelines but is provided for informational purposes only. Site-specific VMT estimates were developed for the project based on results from a student and staff travel pattern survey combined with a “home zip code” database provided by the school for the current student body and school staff.

The City of Palo Alto along with the Valley Transportation Authority (VTA) staff was consulted in the development of an appropriate methodology for estimating the VMT for this type of land use. Various tools were explored to evaluate their feasibility for use to estimate VMT for the Castilleja School project. Through this process, it was determined that these tools were either still in development or lacked the specific sensitivity to be considered a reliable information source. Amongst the tools considered was the Countywide Travel Demand Model and the Countywide VMT estimator tool. Through this process, it was determined that the proposed project is unique and a custom methodology using origin-destination based data of the school population would best estimate the anticipated change in VMT with the proposed project. To support the analysis, the following data sources were used:

- Intersection, roadway and driveway counts conducted in January 2017; and

- “Home Based Zip Codes” for all students and employees provided by the school from 2017 school year.

Based on surveys conducted in January 2017, it was determined that the school, with an enrollment of 438 students, generates 1,198 daily vehicle trips. Assuming the relationship between the number of students enrolled and the number of daily vehicle trips would remain constant, then the increased enrollment of 540 students would result in 279 additional vehicle trips for a total of 1,477 daily vehicle trips. Using zip code records for both students and employees, it was calculated that the average distance traveled between home and the Castilleja campus is 7.69 miles per student or employee. Thus, the VMT can be estimated by multiplying the number of daily trips against the average distance traveled per trip. As shown in the *Palo Alto Comprehensive Plan*, existing VMT in the City is approximately 44.72 miles per person, or a total of 2,937,470 vehicles miles traveled. This is expected to decrease slightly as the Comprehensive Plan is implemented, but would not drop below 39.12 miles per person and a total of 3,120,280 vehicle miles traveled. The project would contribute less than 0.001% of the existing city-wide VMT. Comparative VMT estimates for private high schools in the Bay Area region is not currently available. This data is summarized in Table 13 and a worksheet showing the calculation of the average trip distance is provided in Appendix E.

Scenario	No. of Students	Daily Trips	Average Trip Distance ²	Estimated VMT
Current	438	1,198 ¹	7.69	9,213
Proposed	540	1,477	7.69	11,358
Difference	102	279		2,145

Notes:

1. Based on observed intersection, roadway and driveway counts conducted in January 2017
2. Based on “Home Based Zip Codes” for all students and employees provided by Castilleja School

Site Circulation and Access

Project Access and Internal Circulation

The project site currently has eleven driveway access points serving various parking lots and service roads. There are three driveways on Bryant Boulevard, four on Kellogg Avenue and two on Emerson Street. Two additional driveways serve the single-family homes on Emerson Street that would be removed as part of the project. No driveways currently exist or are being proposed on Embarcadero Road.

The project proposes to reduce the total number of driveway access points from eleven to seven. The site would include a drop-off/pick-up loop road on Bryant Boulevard, a 15-space off-street parking lot along Bryant Boulevard, a 12-space off-street parking lot at the south-west corner with access to both Emerson Street and Kellogg Avenue, a service road with access to Emerson Street and the underground garage exit only located on Emerson Street at the intersection with Melville Avenue. There would be three driveways on Bryant Boulevard, one on Kellogg Avenue and three on Emerson Street. The proposed new driveways would continue to serve the site by providing access to off-street parking lots, the circular road or the drop-off/pick-up loop. Each driveway would be full access except for the entrance and exit for the underground garage. The underground garage entrance on Bryant Boulevard would be restricted to right turns in only and the exit on Emerson Street would be restricted to right turns out only.

Drop-Off Lane Queuing

The proposed parking garage includes a two-lane, one-way drop-off area accessible via Bryant Street with the exit onto Emerson Street. The proposed dual drop-off lanes would each be 200 feet long with a capacity of eight

vehicles per lane (or 16 vehicles total). The drop-off area is positioned in such a way that any vehicles in the queue extending beyond the 16-vehicle capacity may block access to other areas of the parking lot. For this reason, the practical stacking storage of the drop-off area is 16 vehicles (or eight vehicles per lane) even though additional vehicles can stack up in the drive-aisle approach that has capacity for an additional 21 vehicles before spilling onto Bryant Street.

The drop-off lane queuing was analyzed for the morning drop-off period only because it represents the period with the largest peak hour demand. As school traffic generally experiences short periods within the peak hour with concentrated arrivals and departures before and after the school bells, use of a peak hour factor adjustment was used to estimate the actual (design) flow rate of vehicles at the drop-off lanes. The use of a peak hour factor adjusts the number of estimated vehicles arrives to appropriately account for concentrated peaking that is typical for schools. A peak hour factor of 1.0 means traffic levels are evenly spread out over the whole hour, and a lower number of 0.80 or less means traffic spikes for a short period during the hour, such as a school drop-off period.

Based on the school's trip generation forecast there would be 199 vehicles per hour arriving and departing during the morning peak hour. Vehicle surveys conducted in January 2017 show that the peak hour factor for Castilleja School during the morning drop-off is 0.433, meaning there is a concentrated peak of traffic just before the school bell. This is equivalent to a design flow rate of 460 vehicles per hour.

A sensitivity test was conducted to determine the slowest service rate that could accommodate the expected demand considering the vehicle stacking area. Through this sensitivity test, it was determined that a service rate of approximately one vehicle discharged every 14 seconds would result in an average of 7.9 vehicles per lane in the queue and would have a low probability (4.3-percent) of exceeding eight vehicles in the queue at any point during the drop-off period. Probabilities of 5-percent or less are generally considered to be acceptable. Through this process, it was determined that the successful operation of the drop-off lanes would rely on the quick discharge of vehicles at a rate no slower than 14 seconds per vehicle during peak periods, or about four vehicles per minute. Discharge rates which are slower than this would increase the probability that the queue would exceed the available queue length of the drop-off lanes during the peak periods.

It is also worth noting that this analysis assumes that the egress from the drop-off lane to Emerson Street is uninterrupted and clear of congestion. If a queue exists on the egress route for any reason, the discharge at the drop-off lane would be compromised and the queue length would extend closer to Bryant Street.

Finding – Based on the estimated arrival rate and service rates, the available storage capacity of the drop-off lanes is expected to be adequate if the drop-off lane can discharge at least one car every 14 seconds and vehicles can turn readily onto Emerson Street.

Recommendations – The number of peak hour vehicle trips should be reduced by implementing an enhanced TDM program, staggered bell schedules or other strategies that would decrease vehicle trips or otherwise spread out the number of peak hour vehicle trips accessing the underground garage. The school should emphasize in their TDM plan the importance of an efficient and safe student drop-off operation to prevent excessive queuing in the garage.

Site Egress Queuing

A key element of the efficient operation of Emerson Street is whether there is adequate storage capacity for vehicles at the northbound right turn from Emerson Street onto Embarcadero Road and at the westbound right turn from the egress at the underground parking lot onto Emerson Street or not. The capacities of both these movements are regulated by stop-controlled intersections. The sole exit from the underground parking garage is to Emerson Street and is proposed to be right turn only. This turn restriction directs all exiting traffic toward the northbound approach to the intersection of Emerson Street/Embarcadero Road, which is also restricted to right turns only.

This queuing analysis was conducted to determine whether the existing vehicle storage capacity is adequate for the expected demand during peak school traffic conditions. Queue lengths for both movements were determined using a methodology developed by the Oregon Department of Transportation for two-way stop-controlled intersections. A summary of expected queue lengths for the existing plus project condition showing various periods and available storage capacity is provided in Table 14.

Intersection	Movement	Available Storage (ft)	Period	Estimated Queue Length (ft)	Adequate Storage? (Y/N)
Embarcadero Rd/Emerson St	Northbound Right-Turn	320	AM	500	N
			After School PM	450	N
			PM	300	Y
Emerson St/Project Exit Driveway-Melville Ave	Westbound Right-Turn	120	AM	200	N
			After School PM	125	N
			PM	125	N

Notes: **Bold** text = insufficient vehicle storage

The queue lengths at the northbound approach of Embarcadero Road/Emerson Street and the westbound approach at Emerson Street/Melville Avenue-Project Exit Driveway are anticipated to exceed the available storage for every condition except for at Embarcadero Road/Emerson Street during the p.m. peak hour. Queue spillback would hinder the ability of upstream locations to discharge traffic in their normal capacity. In other words, the resulting queue at the Embarcadero Road/Emerson Street intersection is anticipated to spill back into the Emerson Street/Melville Avenue intersection and onward into the underground parking structure.

Finding – The estimated queue lengths are anticipated to exceed available storage capacity for the northbound right turn movement at Embarcadero Road/Emerson Street and the westbound right turn at Emerson Street/Melville Avenue-Project Exit Driveway during the a.m., school p.m. and p.m. peak hours.

Recommendation –The number of peak hour vehicle trips should be reduced by implementing an enhanced TDM program, staggered bell schedules or other strategies that would decrease the number of peak hour vehicle trips using the underground parking garage exit. Vehicle trips could be dispersed by removing the right turn only restriction at the parking garage exit and allow both left-turn and through movements for egress.

Project Driveway Sight Distances

At driveways a substantially clear line of sight should be maintained between the driver of a vehicle waiting on the driveway and the driver of an approaching vehicle. Adequate time must be provided for the waiting vehicle to either cross, turn left, or turn right, without requiring the through traffic to radically alter their speed.

Sight distances along Bryant Street, Kellogg Avenue and Emerson Street from the project access driveways were evaluated based on stopping sight distance criteria contained in the *Highway Design Manual* published by Caltrans. For speeds of 25 mph, the recommended stopping sight distance is 150 feet. Based on a review of aerial photography, sight lines at the driveways on Bryant Street, Kellogg Avenue and Emerson Street are clear for more than 150 feet in both directions, which would be adequate for the anticipated travel speeds. To maintain adequate sight distance, it is noted that any vegetation near the project’s driveways should be trimmed down to a height of less than three feet and trees trimmed up so that nothing hangs below a height of seven feet from the surface of the

roadway. Additionally, if on-street parking is not prohibited adjacent to each driveway access, the stopping sight distances at each driveway will be limited for exiting vehicles.

Finding – Corner sight distances at each driveway exit would be hindered by on-street parking or vegetation along Bryant Street, Kellogg Avenue and Emerson Street.

Recommendation – To achieve stopping sight distance of 150 feet at each driveway access point, it is recommended to apply on-street parking restrictions for 15 feet on either side of each driveway and vegetation be well maintained and trimmed.

Off-Street Parking

The current school campus provides 74 off-street parking spots. With the project, the combined total of parking spots will increase to 142 with the inclusion of the underground parking structure and other surface level parking facilities.

The City of Palo Alto Municipal code (Chapter 18.52.040 – Off-Street Parking, Loading and Bicycle Facility) requirements state that a private school (Grades 6-8) must provide two spaces per teaching station and a private high school (Grades 9-12) must provide four spaces per teaching station. For the purposes of this evaluation, a teaching station was defined as a classroom. The project would result in 12 classrooms for Grades 6-8 and 20 for Grades 9-12. Thus, to satisfy City parking requirements, the project must include 104 parking spaces. With a planned supply of 142 spaces, the proposed parking supply would exceed the City’s requirements with a surplus of 38 spaces. A breakdown of the parking space requirements and number of spaces provided is summarized in Table 15.

Category	No. Spaces Provided	No. of Teaching Stations/Classrooms Proposed	City Requirement ¹	Spaces Required
Grades 6-8	142	12	2 spaces per teaching station	24
Grades 9-12		20	4 spaces per teaching station	80
Total	142	32		104

Note: ¹ Chapter 18.52.040 – Off-Street Parking, Loading and Bicycle Facility, City of Palo Alto Municipal Code

It should be noted that the existing school campus currently has 12 teaching stations for the middle school and 16 teaching stations for the upper school. This means that the existing school campus should have 88 parking spaces to comply with City requirements. The school currently provides approximately 74 spaces which is 14 fewer than the required amount by the City of Palo Alto Municipal Code.

Finding – The number of parking spaces that would be provided at the project site exceeds the number required under the City’s Code.

Special Events

The project would more easily accommodate parking and guests during special events since the total number of off-street parking spaces would increase from 74 to 142.

Recommendation – The school should continue its established Special Event Parking & Traffic Plan that uses instructional signage, traffic attendants, shuttle vehicles, and overflow parking at Palo Alto High School. The school should work with its neighbors to modify the plan as needed to adapt to any increases in event size and frequency.

Alternative Modes

Pedestrian Facilities

Given the proximity of the school to surrounding residential uses, the Town & Country Village Shopping Center and the Caltrain Palo Alto Station, it is reasonable to assume that some students and employees would want to walk, bicycle, and/or use transit to reach the school.

Project Site – Sidewalks exist on each roadway surrounding the project. Sidewalk connectivity is continuous throughout the surrounding neighborhood. No changes to the existing pedestrian network are proposed.

Finding – Pedestrian facilities serving the project site are adequate.

Bicycle Facilities

Existing bicycle facilities, including bike lanes, the Ellen Fletcher Bicycle Boulevard, and shared use of minor streets, provide adequate access for bicyclists.

Bicycle Storage

The City of Palo Alto Municipal Code (Chapter 18.52.040 – Off-Street Parking, Loading and Bicycle Facility Requirements) states that a private school (Grades 6-8 and 9-12) must provide one bicycle space for every five students. Thus, the City code requires a minimum of 108 bicycle parking spaces to be provided at the project site. The proposed project provides for 140 bike parking spaces on campus with 25 bicycle parking spaces located within the “bike pavilion” on the south-east corner of campus.

Finding – The proposed supply of 140 bicycle parking spaces exceeds than the required amount of 108, so is adequate. The project will propose no other changes to the existing bicycle network.

Bicycle Boulevard Analysis

Bicycle boulevards are signed, shared roadways with especially low motor vehicle volume, such that motorists passing bicyclists can use the full width of the roadway. Bicycle boulevards prioritize convenient and safe bicycle travel through traffic calming strategies, wayfinding, and other measures.

The *City of Palo Alto Bicycle and Pedestrian Transportation Plan* defines a bicycle boulevard as a local street with low traffic speeds and volumes that contains several of the following key elements:

- High-demand Class III bikeway corridors under 2,000 vehicles per day and over a half-mile in length may be considered for designation as a bicycle boulevard.
- Motor vehicle through-traffic is made aware of bicyclists with shared lane markings and discouraged through traffic calming measures such as speed humps and traffic circles, as well as barriers and diverters.
- Free-flow travel for bicycles is promoted by assigning the right-of-way to the bicycle boulevard at most intersections. To achieve this, unwarranted stop signs are removed for vehicles traveling on the bicycle boulevard but retained for vehicles crossing the boulevard.
- Traffic signals and other crossing enhancements are used at intersections with arterial streets and wait times for bicyclists are minimized through the use of signal actuators that enable bicyclists to trigger the signal.
- Bridges, tunnels, or bike paths are used along a segment of the bicycle boulevard and may not allow motor vehicles to pass through.

- Reasonably continuous streets with few jogs composed primarily of straight segments at least a half mile in length.

Recent counts on a typical weekday in January 2017 showed that approximately 870 vehicles per day travel on Bryant Street south of Embarcadero Road, between Embarcadero Road and Kellogg Avenue. The project would increase the number of daily vehicle trips by 199 vehicles per day, which would increase the overall total using this segment of Bryant Street to 1,069. However, this is less than the threshold of 2,000 vehicles per day as recommended in the *Bicycle and Pedestrian Transportation Plan*.

It should be noted that the segments of Bryant Street, north of Embarcadero Road, between Lincoln Avenue and Embarcadero Road, have an existing measured daily traffic volume higher than 2,000 vehicles per day. This existing condition would exceed the recommended volume guideline, with or without the addition of project-generated trips.

Finding – The project would not alter Bryant Street by modifying traffic control devices, hindering the prioritization of bicycle use or increasing the roadway capacity. Additionally, the total daily traffic volume under existing plus project conditions on Bryant Street between Embarcadero Road and Churchill Avenue, is expected to remain below 2,000 vehicles per day.

Transit

Existing transit routes are adequate to accommodate project-generated transit trips. Existing stops are within acceptable walking distance of the site. Additionally, the school operates a private shuttle and school bus system with stops at the Palo Alto Caltrain Station and Transit Center and other neighborhoods. No changes to the existing public transit service are proposed.

Finding – The project would continue to be adequately served by existing transit facilities.

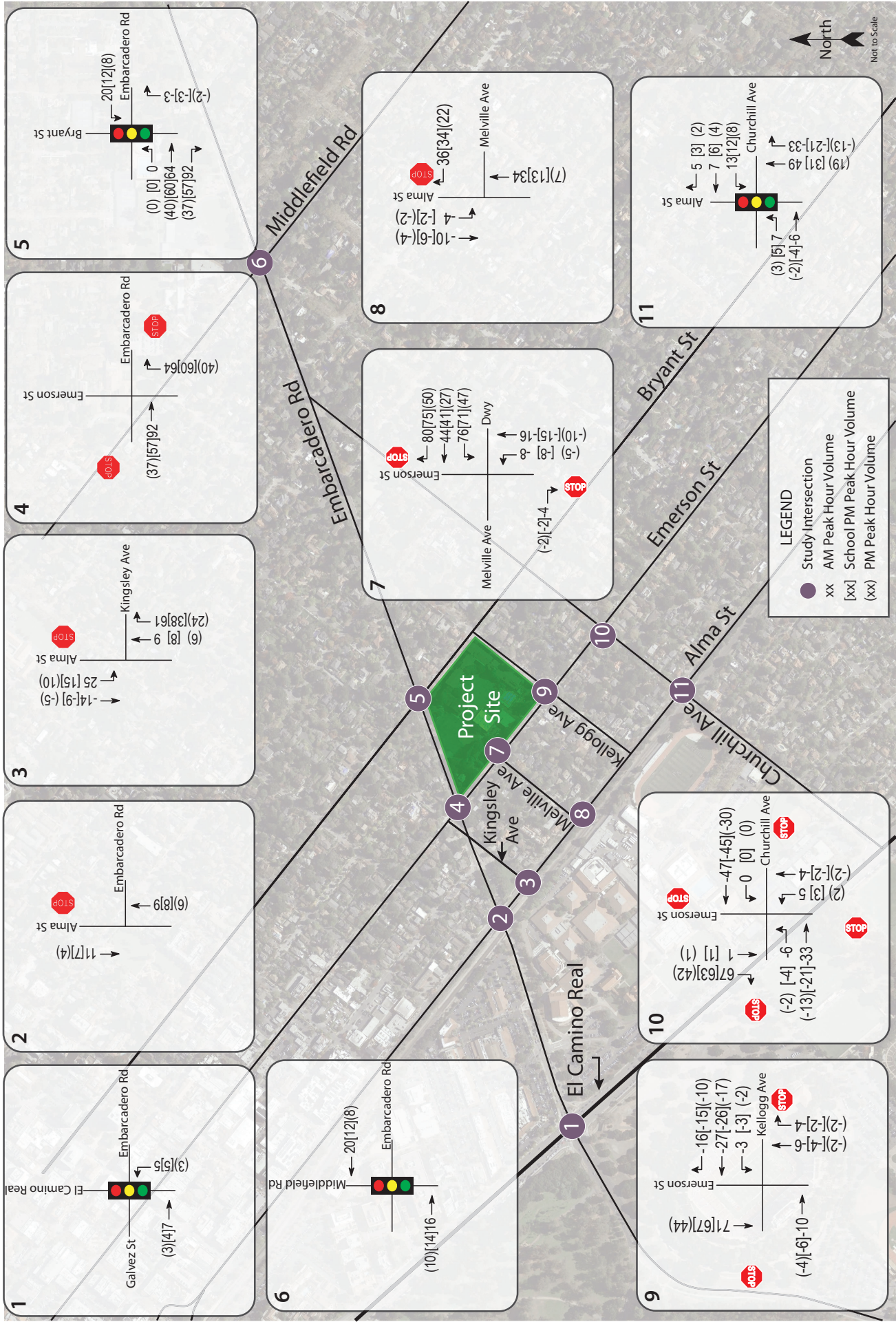
Alternative Project Condition

An additional scenario was evaluated which considered the changes in trip distribution and the corresponding changes in intersection levels of service and roadway TIRE index if there were no turning movement restrictions at the proposed exit on Emerson Street from the underground garage. This condition is referred to as the Project Alternative. The resulting project alternative trips is shown in Figure 10.

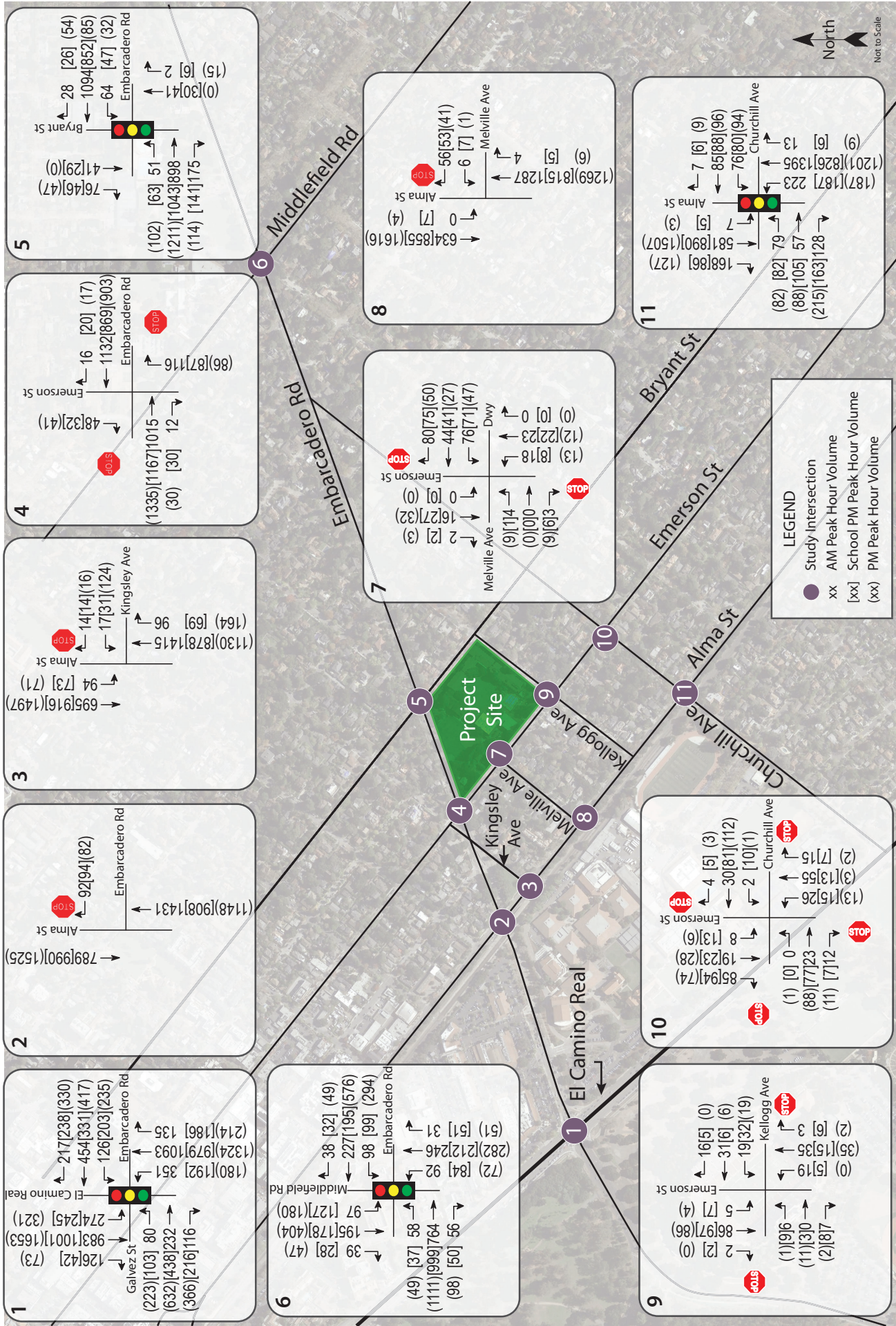
Intersection Levels of Service

Existing plus Project Alternative Conditions

Upon the addition of project alternative-related traffic to the Existing volumes, all the study intersections would continue to operate at acceptable levels of service, except for the intersection of Embarcadero Road Spur/Alma Street during the a.m. peak hour and Alma Street/Kingsley Avenue during the a.m., school p.m. and p.m. peak hours. These intersections would operate at unacceptable levels of service with or without the addition of project alternative-generated traffic. The intersections of Embarcadero Road Spur/Alma Street and Alma Street/Kingsley Avenue are anticipated to operate with an overall LOS A, but with an LOS E or F for the westbound approaches only, with or without vehicle trips from the project. These level of service results are summarized in Table 16. Existing plus project traffic volumes are shown in Figure 11, and Level of Service Calculations are provided in Appendix C.



Traffic Impact Study for the Castilleja School Expansion
Figure 10 – Project Alternative Traffic Volumes



Traffic Impact Study for the Castilleja School Expansion
Figure 11 – Existing plus Project Alternative Traffic Volumes

Table 16 – Existing plus Project Alternative Peak Hour Intersection Levels of Service

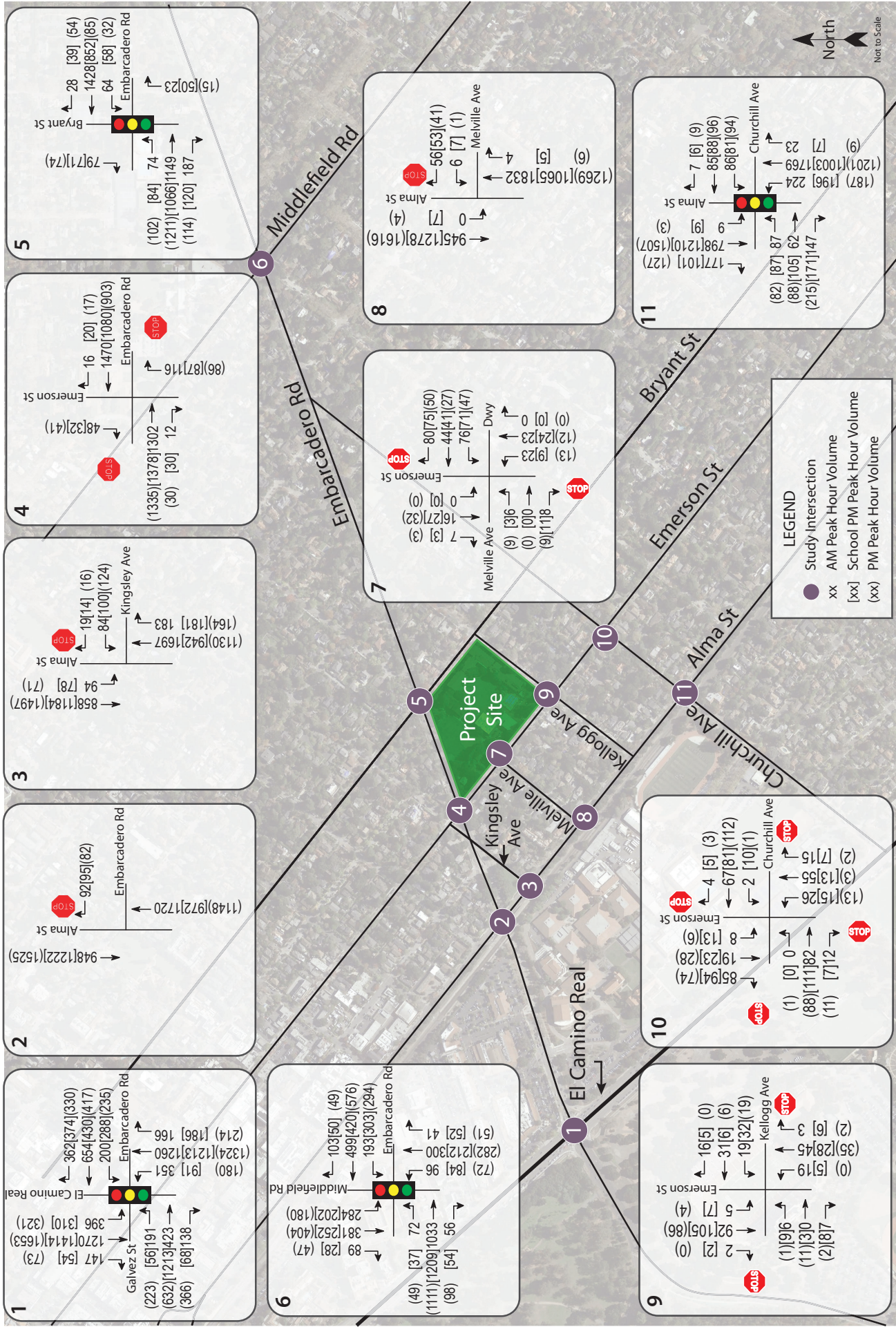
Study Intersection Approach	Control Type	AM Peak		School PM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS
1. El Camino Real/Embarcadero Rd	Signal	39.8	D	41.4	D	42.6	D
2. Embarcadero Rd Spur/Alma St <i>Westbound (Embarcadero) Approach</i>	TWSC	2.2 55.8	A F	1.0 20.6	A C	0.8 25.6	A D
3. Alma St/ Kingsley Ave <i>Westbound (Kingsley) Approach</i>	TWSC	1.8 91.4	A F	1.5 49.3	A E	4.9 **	A F
4. Embarcadero Rd/Emerson St <i>Northbound (Emerson) Approach</i>	TWSC	1.1 15.8	A C	0.8 16.2	A C	0.9 14.6	A B
5. Embarcadero Rd/Bryant St	Signal	13.3	B	12.3	B	11.6	B+
6. Middlefield Rd/Embarcadero Rd	Signal	38.3	D+	35.3	D+	39.6	D
7. Melville Ave/Emerson St <i>Westbound (Melville) Approach</i>	TWSC	8.8 11.5	A B	8.3 10.5	A B	7.1 9.9	A A
8. Melville Ave/Alma St <i>Westbound (Melville) Approach</i>	TWSC	0.6 19.0	A C	0.5 14.1	A B	0.3 14.4	A B
9. Kellogg Ave/Emerson St <i>Northbound/Southbound (Emerson) Approach</i>	TWSC	7.4 10.2	A B	3.5 9.6	A A	2.9 9.5	A A
10. Churchill Ave/Emerson St	AWSC	7.4	A	7.7	A	7.6	A
11. Churchill Ave/Alma St	Signal	25.9	C	29.5	C	33.1	C-

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*; ** = delay greater than 120 seconds; **Bold** text = deficient operation

Finding – The unsignalized intersections of Embarcadero Road Spur/Alma Street and Alma Street/Kingsley Avenue would operate at LOS E or F with or without the addition of project alternative-generated trips. These intersections do not satisfy the peak hour volume warrant.

Cumulative plus Project Alternative Conditions

Upon the addition of project alternative-generated traffic to the anticipated cumulative volumes, all the study intersections would continue to operate at acceptable levels of service, except the three that are projected to operate at LOS E or F without the project. The intersections of Embarcadero Road Spur/Alma Street, Alma Street/Kingsley Avenue and Alma Street/Melville Avenue are anticipated to operate with an LOS E or F for the westbound approaches only with or without vehicle trips from the project. Cumulative plus Project traffic volumes are shown in Figure 12. The Cumulative plus Project operating conditions are summarized in Table 17, and Level of Service Calculations are provided in Appendix C.



Traffic Impact Study for the Castilleja School Expansion
Figure 12 – Cumulative plus Project Alternative Traffic Volumes

Table 17 – Cumulative plus Project Alternative Peak Hour Intersection Levels of Service

Study Intersection <i>Approach</i>	Control Type	AM Peak		School PM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS
1. El Camino Real/Embarcadero Rd	Signal	64.3	E	74.8	E	61.9	E
2. Embarcadero Rd Spur/Alma St <i>Westbound (Embarcadero) Approach</i>	TWSC	3.8 112.9	A F	0.9 21.7	A C	0.8 27.0	A D
Alma St/ Kingsley Ave <i>Westbound (Kingsley) Approach</i>	TWSC	58.2 **	F F	17.8 **	C F	52.8 **	F F
4. Embarcadero Rd/Emerson St <i>Northbound (Emerson) Approach</i>	TWSC	0.9 17.1	A C	0.7 17.1	A C	0.8 16.6	A C
5. Embarcadero Rd/Bryant St	Signal	12.7	B	12.2	B	11.1	B+
6. Middlefield Rd/Embarcadero Rd	Signal	47.2	D	44.0	D	49.7	D
7. Melville Ave/Emerson St <i>Westbound (Melville) Approach</i>	TWSC	7.8 10.1	A B	7.9 10.0	A A	6.9 9.5	A A
8. Melville Ave/Alma St <i>Westbound (Melville) Approach</i>	TWSC	0.9 40.4	A E	0.5 19.3	A C	0.3 16.5	A C
9. Kellogg Ave/Emerson St <i>Northbound/Southbound (Emerson) Approach</i>	TWSC	7.6 10.2	A B	3.2 9.7	A A	2.4 9.6	A A
10. Churchill Ave/Emerson St	AWSC	7.8	A	7.8	A	7.7	A
11. Churchill Ave/Alma St	Signal	27.6	C	29.1	C	32.9	C-

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*; ** = delay greater than 120 seconds; **Bold** text = deficient operation

Finding – The unsignalized intersection of Embarcadero Road Spur/Alma Street would operate at LOS F during the a.m. peak hour with and without the project alternative-generated trips. This intersection satisfies the peak hour volume warrant for the a.m. peak hour.

The unsignalized intersection of Alma Street/Kingsley Avenue would operate at LOS F overall during the a.m., and p.m. peak hours and on the stop-controlled side street approach with the addition of project alternative-generated trips. This is a deterioration from LOS E overall during the a.m. and p.m. peak hours compared to conditions without the project. The peak hour volume warrant is satisfied at this intersection for all three peak hours evaluated.

The unsignalized intersection of Alma Street/Melville Avenue would operate at LOS E at the stop-controlled westbound approach during the a.m. peak hour with or without the addition of project alternative-generated trips. This intersection does not satisfy the peak hour volume warrant for the a.m. peak hour.

Signal Warrants - Project Alternative Conditions

The peak hour warrant is satisfied by volumes at the intersection of Alma Street/Kingsley Avenue during all three peak hours for the cumulative plus project alternative scenarios. The intersection of Embarcadero Road Spur/Alma Street satisfies the peak hour warrant criteria for the cumulative plus project alternative condition during the a.m. peak hour. It should be noted that the satisfaction of a traffic signal warrant or warrants does not require the

installation of a traffic control signal, as other factors (warrants) should also be considered. Copies of the Warrant 3 worksheets are included in Appendix D. A summary showing each intersection evaluated and whether the conditions satisfies the warrant is provided in Table 18.

Table 18 –Project Alternative Peak Hour Warrant Summaries

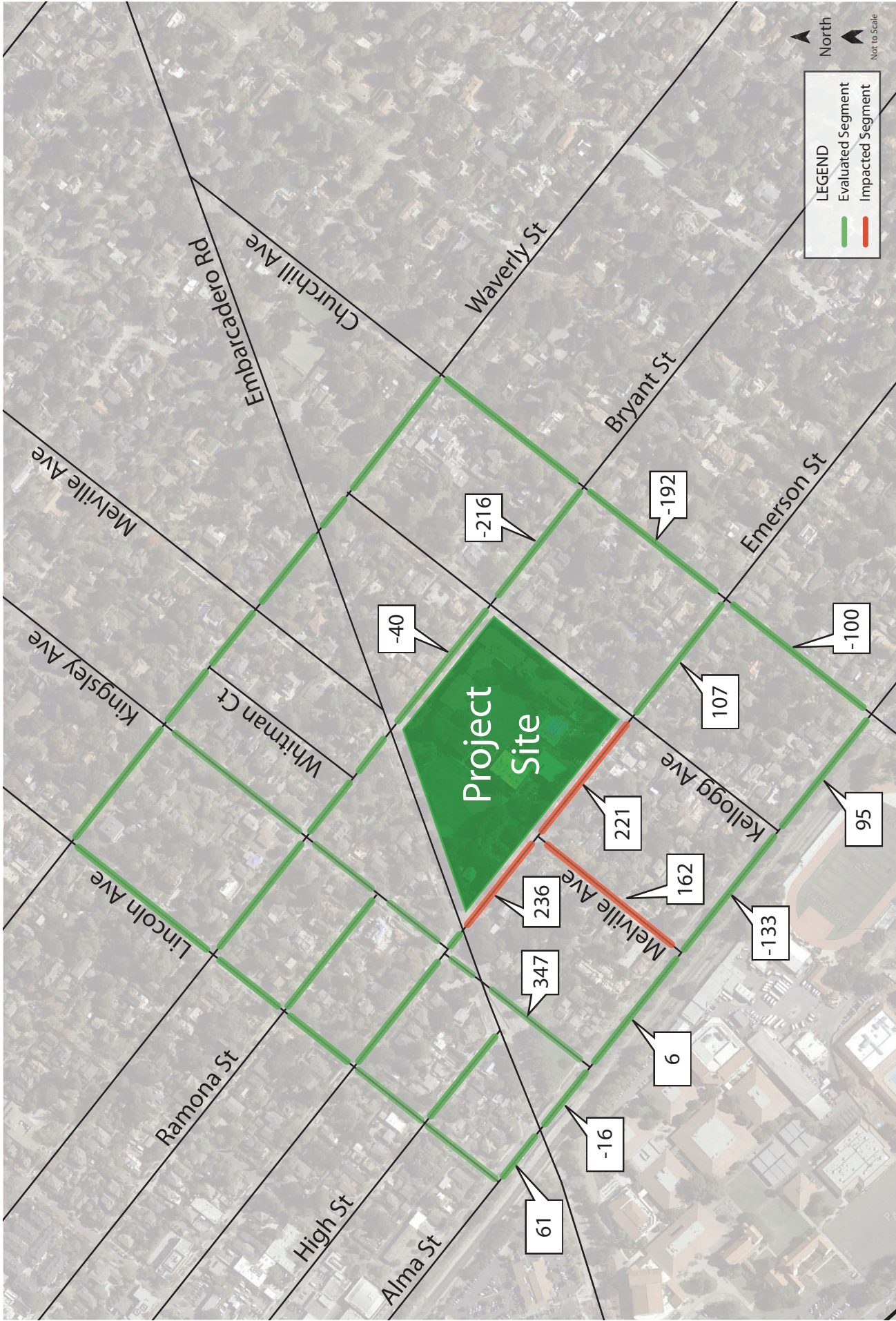
Study Unsignalized Intersection	Scenario with LOS F Operation	Satisfies Warrant 3 (Y/N)?
Embarcadero Rd Spur/Alma St	Existing plus Project AM Peak	N
Alma St/Kingsley Ave	Existing plus Project AM Peak	N
	Existing plus Project School PM Peak	N
	Existing plus Project PM Peak	N
Embarcadero Rd Spur/Alma St	Cumulative plus Project AM Peak	Y
Alma St/Kingsley Ave	Cumulative plus Project AM Peak	Y
	Cumulative plus Project School PM Peak	Y
	Cumulative plus Project PM Peak	Y
Alma St/Melville Ave	Cumulative plus Project AM Peak	N

Notes: **Bold** text= Satisfies Peak Hour Traffic Warrant

Recommendation – The City of Palo Alto does not currently have a threshold of significance at unsignalized intersections for situations where the intersection already operates at LOS E or F prior to the addition of project trips. It is recommended that unsignalized intersections that satisfy a peak hour traffic signal warrant and operate at LOS F be included in the City of Palo Alto’s list of intersections that are considered for traffic signal installation. The City should employ their own criteria for ranking and prioritization, including other signal warrants and crash history, when considering the need and timing for traffic signal installation.

Neighborhood Traffic Analysis - Project Alternative Conditions

The change in daily vehicle trips under the project alternative condition on various roadway within the study area is illustrated in Figure 13. Table 19 summarizes the ADT of each neighborhood street and the TIRE index for each segment under Existing Conditions and with project alternative-added trips.



Traffic Impact Study for the Castilleja School Expansion
Figure 13 – Project Alternative Daily Net New Trips

Table 19 – TIRE Index Summary – Project Alternative

Study Segment	Existing Conditions		Volume Needed to Cause +0.1 Increase in TIRE Index	Daily Project Trips	Significant Impact (Y/N)
	ADT	TIRE Index			
1. Waverly St (Lincoln Ave to Kingsley Ave)	3,859	3.6	1,025	0	No
2. Waverly St (Kingsley Ave to Whitman Ct)	3,879	3.6	1,025	0	No
3. Waverly St (Whitman Ct to Melville Ave)	4,347	3.6	1,025	0	No
4. Waverly St (Melville Ave to Embarcadero Rd)	5,125	3.7	1,250	0	No
5. Waverly St (Embarcadero Rd to Kellogg Ave)	3,761	3.6	1,025	0	No
6. Waverly St (Kellogg Ave to Churchill Ave)	3,083	3.5	825	0	No
7. Bryant St (Lincoln Ave to Kingsley Ave)	2,391	3.4	650	0	No
8. Bryant St (Kingsley Ave to Whitman Ct)	2,394	3.4	650	0	No
9. Bryant St (Whitman Ct to Embarcadero Rd)	2,574	3.4	650	0	No
10. Bryant St (Embarcadero Rd to Kellogg Ave)	870	2.9	170	-40	No
11. Bryant St (Kellogg Ave to Churchill Ave)	567	2.8	140	-216	No
12. Emerson St (Lincoln Ave to Kingsley Ave)	463	2.7	114	0	No
13. Emerson St (Kingsley Ave to Embarcadero Rd)	296	2.5	79	0	No
14. Emerson St (Embarcadero Rd to Melville Ave)	842	2.9	170	236	Yes
15. Emerson St (Melville Ave to Kellogg Ave)	655	2.8	140	221	Yes
16. Emerson St (Kellogg Ave to Churchill Ave)	744	2.9	170	107	No
17. Churchill Ave (Waverley St to Bryant St)	2,448	3.4	650	0	No
18. Churchill Ave (Bryant St to Emerson St)	2,692	3.4	650	-192	No
19. Churchill Ave (Emerson St to Alma St)	2,945	3.5	825	-100	No
20. Alma St (Lincoln Ave to Embarcadero Rd)	26,469	4.4	6,600	61	No
21. Alma St (Embarcadero Rd to Kingsley Ave)	26,710	4.4	6,600	-16	No
22. Alma St (Kingsley Ave to Melville Ave)	26,186	4.4	6,600	6	No
23. Alma St (Melville Ave to Kellogg Ave)	25,775	4.4	6,600	-133	No
24. Alma St (Kellogg Ave to Churchill Ave)	25,553	4.4	6,600	95	No
25. Lincoln Ave (Waverly St to Bryant St)	2,558	3.4	650	0	No
26. Lincoln Ave (Bryant St to Ramona St)	2,216	3.4	650	0	No
27. Lincoln Ave (Ramona St to Emerson St)	2,445	3.4	650	0	No
28. Lincoln Ave (Emerson St to High St)	2,119	3.3	500	0	No
29. Lincoln Ave (High St to Alma St)	2,088	3.3	500	0	No
30. Kingsley Ave (Waverly St to Bryant St)	874	2.9	170	0	No
31. Kingsley Ave (Bryant St to Ramona St)	573	2.9	140	0	No
32. Kingsley Ave (Ramona St to Emerson St)	46	1.7	10	0	No
33. Kingsley Ave (Emerson St to High St)	580	2.8	140	0	No

Table 19 – TIRE Index Summary – Project Alternative

Study Segment	Existing Conditions		Volume Needed to Cause +0.1 Increase in TIRE Index	Daily Project Trips	Significant Impact (Y/N)
	ADT	TIRE Index			
34. Kingsley Ave (High St to Alma St)	2,170	3.3	500	347	No
35. High St (Lincoln Ave to Embarcadero Rd)	255	2.4	65	0	No
36. Ramona St (Lincoln Ave to Kingsley Ave)	240	2.4	65	0	No
37. Melville Ave (Alma St to Emerson St)	316	2.5	79	162	Yes

Notes: ADT = Average Daily Traffic; **Bold** = Significant Impact

Finding – The TIRE index results indicate that the addition of new project alternative-related trips plus the redistribution of existing school trips from other nearby public roads would increase the TIRE index on the roadway segments of Emerson Street from Embarcadero Road to Melville Avenue, Emerson Street from Melville Avenue to Kellogg Avenue and Melville Avenue from Alma Street to Emerson Street. This is considered a significant impact. It should be noted that these segments of Emerson Street is within the recognized school zone as described by City of Palo Alto Ordinance Section 10.56.035.

Recommendation – To reduce the impact to a less-than-significant level, one or more of the following strategies would need to be implemented:

- Implement or modify an existing Transportation Management Plan (TDM) to reduce the number of project-related daily trips using Emerson Street (Embarcadero Road to Melville Avenue) from 236 to 169, Emerson Street (Melville Avenue to Kellogg Avenue) from 221 to 139 and Melville Avenue (Alma Street to Emerson Street) from 162 to 78. Future TDM plan modifications should consider the strategies described in a memorandum prepared by Nelson Nygaard (dated June 9, 2016) titled “Castilleja School Transportation Demand Management (TDM) Plan”. According to this memorandum, implementation of these strategies is anticipated to reduce the current number of vehicle trips by roughly 12 to 22 percent. It is anticipated that even if the implemented TDM Plan is successful in reducing the number of daily project trips by 22 percent (or approximately 325 daily trips), the change in vehicular volume on Emerson Street would still be considered a significant impact. Potential TDM strategies to be considered are:
 - Additional Shuttle Bus Routes
 - Late Afternoon Shuttle Departures
 - Off-site Drop-off/Pick-Up Area
 - Expanded Carpool/Trip Planning Program
 - Additional Off-site Parking
 - Parking/Carpool Incentives Program for Employees
 - Alternative Transportation Information
 - Bike Tune-Up Day and On-Site Repair Stations
 - Guaranteed Ride Home (GRH) Program
 - On-Site Car or Bike sharing Program
 - Provide Transit Passes
 - Mandatory Ridesharing
- The school and City should modify the existing traffic monitoring program to confirm whether the observed change in daily traffic volumes on surrounding streets match those estimated by this study. Appropriate countermeasures should be developed based on the results of the monitoring program to remedy any measured increases in daily vehicle traffic.

Site Egress Queuing - Project Alternative Conditions

The queuing analysis was also run with considerations for the change in vehicle routing under the project alternative condition, for the northbound approach at Embarcadero Road/Emerson Street, and for the westbound approach at Emerson Street/Melville Avenue-Project Exit Driveway. A summary of expected queue lengths for the existing plus project alternative condition showing various periods and available storage capacity is provided in Table 20.

Table 20 – Existing Plus Project Alternative Intersection Queue Length					
Intersection	Movement	Available Storage (ft)	Period	Estimated Queue Length (ft)	Adequate Storage? (Y/N)
Embarcadero Rd/Emerson St	Northbound Right-Turn	320	AM	200	Y
			After School PM	175	Y
			PM	200	Y
Emerson St/Project Exit Driveway-Melville Ave	Westbound Right-Turn	120	AM	175	N
			After School PM	175	N
			PM	125	N

Notes: **Bold** text = insufficient vehicle storage

The northbound approach of Embarcadero Road/Emerson Street would be able to accommodate the expected queue length during all three peak hours evaluated. This represents an improvement compared to project conditions where the expected queue lengths would exceed the available storage. The westbound approach at Emerson Street/Melville Avenue-Project Exit Driveway is anticipated to exceed the available storage for the a.m., after school p.m. and p.m. peak hours. Queue spillback would hinder the ability of the drop-off lanes to discharge vehicles at its normal rate which in turn would increase the likelihood of further queue spillback through the parking structure entrance onto Bryant Boulevard.

Finding – The estimated queue lengths are anticipated to exceed available storage capacity for the westbound approach at Emerson Street/Melville Avenue-Project Exit Driveway during the a.m., school p.m. and p.m. peak hours during the existing plus project alternative conditions.

Recommendation –The number of peak hour vehicle trips should be reduced by implementing an enhanced TDM program, staggered bell schedules or other strategies that would decrease the number of peak hour vehicle trips by at least 47 vehicles during the a.m., 65 during the school p.m. and 34 during the p.m. peak hours using the underground parking garage exit.

Also, unless it can be guaranteed that the TDM Plan would be able to reduce the number of peak hour vehicles shown above, and because this condition would be short in duration during peak traffic periods, the placement of a temporary traffic control person manually controlling the traffic flow at the intersection of Emerson Street/Melville Avenue-Project Exit Driveway to give priority to the westbound approach should be considered. This effort must be coordinated and approved by the Palo Alto Police Department prior to implementation.

Conclusions and Recommendations

Conclusions

- The proposed project would generate an average of 279 net new daily trips, including 91 new trips during the p.m. peak hour, 66 during the school p.m. peak hour and 45 new trips during the p.m. peak hour.
- All study intersections are expected to continue operating acceptably under all conditions with and without the project, except for the unsignalized intersections of Embarcadero Road Spur/Alma Street, Alma Street/Kingsley Avenue and Alma Street/Melville Avenue.
- The peak hour traffic warrant is satisfied at the unsignalized intersection of Alma Street/Kingsley Avenue under volumes during the a.m., school p.m. and p.m. peak hours for cumulative and cumulative plus project conditions.
- Pedestrian, and bicycle facilities are adequate to serve the project.
- The proposed parking supply of 142 spaces is greater than the City requirement for private schools.
- The proposed bicycle parking supply of 140 spaces is greater than the City requirement for private schools.
- The addition of new project-generated plus the redistribution of existing daily school trips on Emerson Street from Embarcadero Road to Melville Avenue is expected to increase the TIRE Index by 0.10 or more resulting in a significant impact. This roadway segment is within a recognized school zone as described by City of Palo Alto Ordinance Section 10.56.035.
- The project would not alter the character of Bryant Street by modifying the traffic control devices, hindering prioritization of bicycle use, increasing the roadway capacity or creating a condition where greater than 2,000 vehicles would be expected to use Bryant Street per day. Thus, this is considered a less-than-significant impact.
- Vehicle queuing at the drop-off lanes during the morning drop-off peak hour is anticipated to have adequate storage if the operation is able to maintain a discharge of at least one car every 14 seconds and if departing vehicles have an unimpeded egress path from the parking lot onto Emerson Street.
- Vehicle queuing along Emerson Street is expected to exceed available storage capacity for the northbound right turn movement at Embarcadero Road/Emerson Street and the westbound right turn at Emerson Street/Melville Avenue-Project Driveway during the a.m., school p.m. and p.m. peak hours.
- Stopping sight distances at each driveway exit would be hindered by on-street parking.
- All study intersections are expected to continue operating acceptably under all project alternative conditions, except for the unsignalized intersections of Embarcadero Road Spur/Alma Street, Alma Street/Kingsley Avenue, and Alma Street/Melville Avenue.
- Traffic volumes at the intersection of Alma Street/Kingsley Avenue satisfy the peak hour traffic warrant for the Cumulative Condition during the a.m., school p.m. and p.m. peak hours with and without the project. Under the cumulative plus project alternative conditions, this same warrant would be satisfied at Alma Street/Kingsley Avenue during the a.m., school p.m. and p.m. peak hours. Similarly, the intersection of

Embarcadero Road Spur/Alma Street would satisfy the peak hour traffic warrant under the a.m. peak hour for the cumulative plus project alternative condition.

- The addition of project alternative-generated daily traffic on Emerson Street from Embarcadero Road to Melville Avenue, Emerson Street from Melville Avenue to Kellogg Avenue, and Melville Avenue from Alma Street to Emerson Street, is expected to increase the TIRE Index by 0.10 or more, resulting in a significant impact.
- Vehicle queuing at the intersection of Emerson Street/Melville Avenue-Project Project is expected to exceed available storage capacity for the westbound approach during the a.m., school p.m. and p.m. peak hours under the existing plus project alternative conditions.

Recommendations

- Implement a new Transportation Management Plan (TDM) or modify the school's existing TDM to reduce the number of project-related daily trips using Emerson Street (Embarcadero Road to Melville Avenue) from 679 to 169.
- The school and City should develop a traffic monitoring program to confirm whether the observed change in daily traffic volumes on surrounding streets matches those estimated. Appropriate countermeasures in the school's TDM Plan should be implemented based on the results of the monitoring program to remedy any measured increases in daily vehicle traffic.
- Unsignalized intersections projected to operate at LOS F that also satisfy the peak hour volume warrant should be placed on a City list for consideration of future signalization based on the City's criteria for ranking and prioritization.
- To achieve stopping sight distance for a 25-mph roadway requires 150 feet of unobstructed line of sight at each driveway access point, it is recommended to apply on-street parking restrictions for 15 feet on either side of each driveway and trim vegetation along Bryant Street, Kellogg Avenue and Emerson Street as needed.

Study Participants and References

Study Participants

Principal in Charge	Mark E. Spencer, TE
Traffic Engineer	Kenny Jeong, TE
Graphics	Hannah Yung, Alex Scrobonia
Editing/Formatting	Alex Scrobonia, Hannah Yung
Report Review	Dalene J. Whitlock, PE, PTOE

References

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PAL015



Appendix A

TIRE Index Table



TIRE Index Table

Existing Volume Range (Vehicles per Day)	TIRE Index	Minimum Daily Volume Increase to Produce	
		a .1 Change in the TIRE Index	a .2 Change in the TIRE Index
29-35	1.5	+6	+15
36-44	1.6	+8	+20
45-56	1.7	+10	+25
57-70	1.8	+13	+32
71-89	1.9	+17	+41
90-110	2.0	+22	+52
111-140	2.1	+29	+65
141-180	2.2	+40	+80
181-220	2.3	+52	+100
221-280	2.4	+65	+125
281-350	2.5	+79	+160
351-450	2.6	+94	+205
451-560	2.7	+114	+260
561-710	2.8	+140	+330
711-890	2.9	+170	+415
891-1,100	3.0	+220	+520
1,101-1,400	3.1	+290	+650
1,401-1,800	3.2	+380	+800
1,801-2,200	3.3	+500	+1,000
2,201-2,800	3.4	+650	+1,300
2,801-3,500	3.5	+825	+1,700
3,501-4,500	3.6	+1,025	+2,200
4,501-5,600	3.7	+1,250	+2,800
5,601-7,100	3.8	+1,500	+3,500
7,101-8,900	3.9	+1,800	+4,300
8,901-11,000	4.0	+2,300	+5,300
11,001-14,000	4.1	+3,000	+6,500
14,001-18,000	4.2	+4,000	+8,000
18,001-22,000	4.3	+5,200	+10,000
22,001-28,000	4.4	+6,600	+13,000
28,001-35,000	4.5	+8,200	+17,000
35,001-45,000	4.6	+10,000	+22,000
45,001-56,000	4.7	+12,200	+28,000
56,001-71,000	4.8	+14,800	+35,000
71,001-89,000	4.9	+18,000	+43,000

Source: Goodrich Traffic Group, based on curve shapes found in work by Donald Appleyard at the University of California at Berkeley and consider earlier thought by Buchanan of the Ministry of Transport, England.

Appendix B

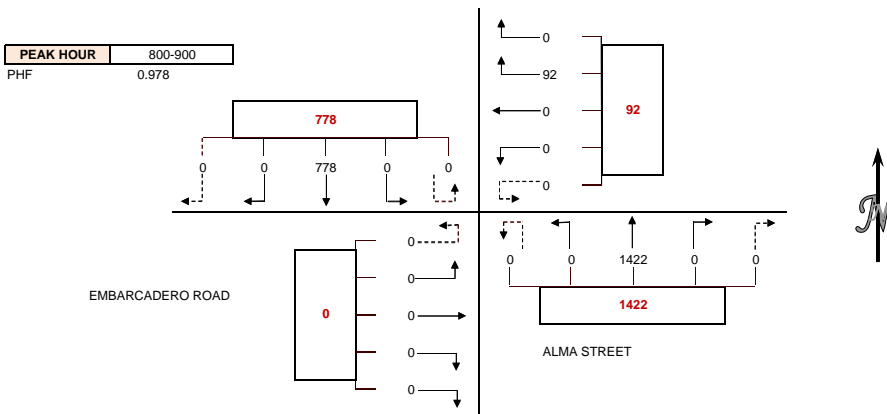
Traffic Counts



INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S ALMA STREET
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS																					
15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
700-715	0	0	82	0	0	0	18	0	0	0	0	0	178	0	0	0	0	0	0	0	278
715-730	0	0	108	0	0	0	17	0	0	0	0	0	222	0	0	0	0	0	0	0	347
730-745	0	0	156	0	0	0	27	0	0	0	0	0	297	0	0	0	0	0	0	0	480
745-800	0	0	192	0	0	0	20	0	0	0	0	0	310	0	0	0	0	0	0	0	522
800-815	0	0	226	0	0	0	32	0	0	0	0	0	328	0	0	0	0	0	0	0	586
815-830	0	0	190	0	0	0	20	0	0	0	0	0	349	0	0	0	0	0	0	0	559
830-845	0	0	177	0	0	0	22	0	0	0	0	0	381	0	0	0	0	0	0	0	580
845-900	0	0	185	0	0	0	18	0	0	0	0	0	364	0	0	0	0	0	0	0	567
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
700-800	0	0	538	0	0	0	82	0	0	0	0	0	1007	0	0	0	0	0	0	0	1627
715-815	0	0	682	0	0	0	96	0	0	0	0	0	1157	0	0	0	0	0	0	0	1935
730-830	0	0	764	0	0	0	99	0	0	0	0	0	1284	0	0	0	0	0	0	0	2147
745-845	0	0	785	0	0	0	94	0	0	0	0	0	1368	0	0	0	0	0	0	0	2247
800-900	0	0	778	0	0	0	92	0	0	0	0	0	1422	0	0	0	0	0	0	0	2292



PEDESTRIAN COUNTS					
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	0	1	0	0	1
715-730	0	3	0	0	3
730-745	0	5	0	0	5
745-800	0	6	0	0	6
800-815	0	3	0	0	3
815-830	0	4	0	0	4
830-845	0	3	0	0	3
845-900	0	4	4	0	8
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
PERIOD	LEG	LEG	LEG	LEG	TOTAL
700-800	0	15	0	0	15
715-815	0	17	0	0	17
730-830	0	18	0	0	18
745-845	0	16	0	0	16
800-900	0	14	4	0	18

BICYCLE COUNTS					
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	0	0	0	0	0
715-730	0	1	0	0	1
730-745	0	0	0	0	0
745-800	0	1	0	0	1
800-815	0	1	0	0	1
815-830	0	2	0	0	2
830-845	0	0	0	0	0
845-900	0	1	0	0	1
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
PERIOD	LEG	LEG	LEG	LEG	TOTAL
700-800	0	2	0	0	2
715-815	0	3	0	0	3
730-830	0	4	0	0	4
745-845	0	4	0	0	4
800-900	0	4	0	0	4

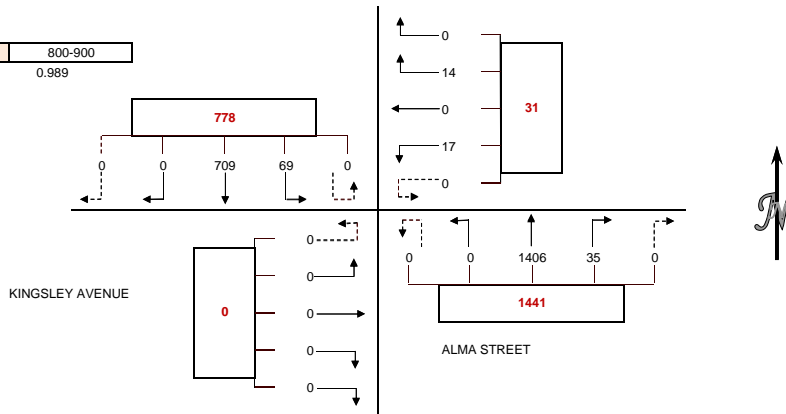
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S ALMA STREET
 E/W KINGSLEY AVENUE
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL	
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBTL	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL	
700-715	0	0	73	9	0	0	1	0	0	0	0	7	177	0	0	0	0	0	0	0	0	267
715-730	0	0	86	22	0	0	2	0	0	0	0	6	214	0	0	0	0	0	0	0	0	330
730-745	0	0	124	32	0	0	1	0	0	0	0	11	300	0	0	0	0	0	0	0	0	468
745-800	0	0	173	19	0	0	1	0	3	0	0	15	305	0	0	0	0	0	0	0	0	516
800-815	0	0	200	26	0	0	2	0	8	0	0	9	317	0	0	0	0	0	0	0	0	562
815-830	0	0	164	26	0	0	5	0	6	0	0	11	347	0	0	0	0	0	0	0	0	559
830-845	0	0	171	6	0	0	4	0	1	0	0	7	380	0	0	0	0	0	0	0	0	569
845-900	0	0	174	11	0	0	3	0	2	0	0	8	362	0	0	0	0	0	0	0	0	560
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL	
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBTL	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL	
700-800	0	0	456	82	0	0	5	0	3	0	0	39	996	0	0	0	0	0	0	0	0	1581
715-815	0	0	583	99	0	0	6	0	11	0	0	41	1136	0	0	0	0	0	0	0	0	1876
730-830	0	0	661	103	0	0	9	0	17	0	0	46	1269	0	0	0	0	0	0	0	0	2105
745-845	0	0	708	77	0	0	12	0	18	0	0	42	1349	0	0	0	0	0	0	0	0	2206
800-900	0	0	709	69	0	0	14	0	17	0	0	35	1406	0	0	0	0	0	0	0	0	2250

PEAK HOUR 800-900
 PHF 0.989



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	0	0	0	0	0
715-730	0	1	0	0	1
730-745	0	2	0	0	2
745-800	0	1	0	0	1
800-815	0	3	0	0	3
815-830	0	3	0	0	3
830-845	0	0	0	0	0
845-900	0	1	0	0	1
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-800	0	4	0	0	4
715-815	0	7	0	0	7
730-830	0	9	0	0	9
745-845	0	7	0	0	7
800-900	0	7	0	0	7

BICYCLE COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	0	0	0	0	0
715-730	0	1	0	0	1
730-745	0	0	0	0	0
745-800	0	1	0	0	1
800-815	0	0	0	0	0
815-830	0	0	0	0	0
830-845	0	0	0	0	0
845-900	0	0	0	0	0
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-800	0	2	0	0	2
715-815	0	2	0	0	2
730-830	0	1	0	0	1
745-845	0	1	0	0	1
800-900	0	0	0	0	0

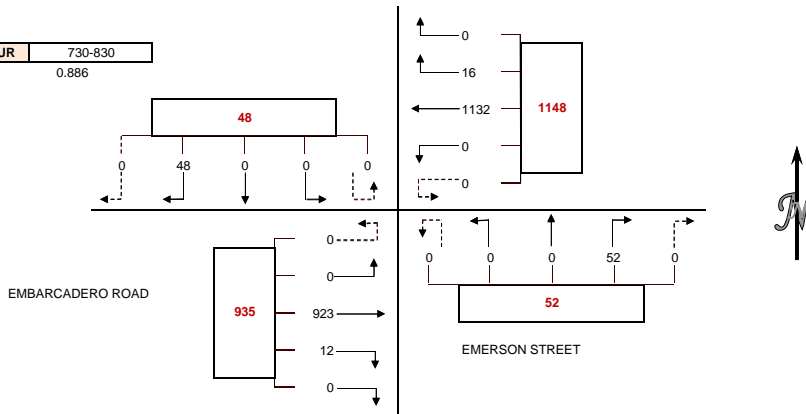
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S EMERSON STREET
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBLT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
700-715	0	13	0	0	0	0	3	231	0	0	0	2	0	0	0	0	1	89	0	0	339
715-730	0	10	0	0	0	0	1	227	0	0	0	4	0	0	0	0	7	163	0	0	412
730-745	0	9	0	0	0	0	6	247	0	0	0	5	0	0	0	0	1	207	0	0	475
745-800	0	12	0	0	0	0	1	302	0	0	0	21	0	0	0	0	4	241	0	0	581
800-815	0	22	0	0	0	0	3	321	0	0	0	11	0	0	0	0	4	255	0	0	616
815-830	0	5	0	0	0	0	6	262	0	0	0	15	0	0	0	0	3	220	0	0	511
830-845	0	10	0	0	0	0	2	238	0	0	0	4	0	0	0	0	5	159	0	0	418
845-900	0	9	0	0	0	0	8	274	0	0	0	5	0	0	0	0	5	169	0	0	470
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBLT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
700-800	0	44	0	0	0	0	11	1007	0	0	0	32	0	0	0	0	13	700	0	0	1807
715-815	0	53	0	0	0	0	11	1097	0	0	0	41	0	0	0	0	16	866	0	0	2084
730-830	0	48	0	0	0	0	16	1132	0	0	0	52	0	0	0	0	12	923	0	0	2183
745-845	0	49	0	0	0	0	12	1123	0	0	0	51	0	0	0	0	16	875	0	0	2126
800-900	0	46	0	0	0	0	19	1095	0	0	0	35	0	0	0	0	17	803	0	0	2015

PEAK HOUR 730-830
 PHF 0.886



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	4	0	1	0	5
715-730	5	0	2	0	7
730-745	4	0	2	0	6
745-800	7	0	2	0	9
800-815	39	0	2	0	41
815-830	7	0	10	0	17
830-845	5	0	0	0	5
845-900	5	0	3	0	8
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-800	20	0	7	0	27
715-815	55	0	8	0	63
730-830	57	0	16	0	73
745-845	58	0	14	0	72
800-900	56	0	15	0	71

BICYCLE COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	6	0	2	0	8
715-730	5	0	0	0	5
730-745	4	0	0	0	4
745-800	21	0	1	0	22
800-815	99	0	8	0	107
815-830	28	0	2	0	30
830-845	6	0	0	0	6
845-900	4	0	1	0	5
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-800	36	0	3	0	39
715-815	129	0	9	0	138
730-830	152	0	11	0	163
745-845	154	0	11	0	165
800-900	137	0	11	0	148

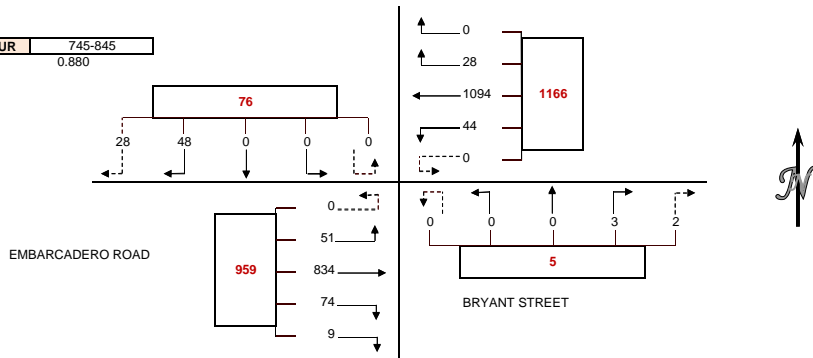
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S BRYANT STREET
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
700-715	3	0	0	0	0	0	9	242	1	0	0	0	0	0	0	1	4	86	3	0	349
715-730	3	1	0	0	0	0	9	234	0	0	0	0	0	0	0	0	7	130	3	0	387
730-745	5	4	0	0	0	0	8	254	13	0	2	0	0	0	0	5	36	162	2	0	491
745-800	2	21	0	0	0	0	7	295	33	0	0	0	0	0	0	5	53	203	10	0	629
800-815	8	8	0	0	0	0	8	261	7	0	1	2	0	0	0	0	11	239	13	0	558
815-830	4	8	0	0	0	0	4	270	1	0	1	0	0	0	0	1	5	223	15	0	532
830-845	14	11	0	0	0	0	9	268	3	0	0	1	0	0	0	3	5	169	13	0	496
845-900	5	8	0	0	0	1	17	210	4	0	2	0	0	0	0	3	7	151	13	0	421
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
700-800	13	26	0	0	0	0	33	1025	47	0	2	0	0	0	0	11	100	581	18	0	1856
715-815	18	34	0	0	0	0	32	1044	53	0	3	2	0	0	0	10	107	734	28	0	2065
730-830	19	41	0	0	0	0	27	1080	54	0	4	2	0	0	0	11	105	827	40	0	2210
745-845	28	48	0	0	0	0	28	1094	44	0	2	3	0	0	0	9	74	834	51	0	2215
800-900	31	35	0	0	0	1	38	1009	15	0	2	5	0	0	0	7	28	782	54	0	2007

PEAK HOUR 745-845
 PHF 0.880



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	2	0	1	3	6
715-730	3	1	0	3	7
730-745	6	3	5	7	21
745-800	11	2	0	14	27
800-815	7	1	5	1	14
815-830	0	0	0	2	2
830-845	2	0	1	6	9
845-900	2	3	2	7	14
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-800	22	6	6	27	61
715-815	27	7	10	25	69
730-830	24	6	10	24	64
745-845	20	3	6	23	52
800-900	11	4	8	16	39

BICYCLE COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	MIDDLE N/S	TOTAL
700-715	3	0	0	0	7	10
715-730	3	0	0	0	11	14
730-745	1	0	0	0	23	24
745-800	13	1	1	0	26	41
800-815	13	2	2	0	18	35
815-830	4	0	3	0	14	21
830-845	3	0	0	1	24	28
845-900	1	0	1	1	12	15
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	MIDDLE N/S	TOTAL
700-800	20	1	1	0	67	89
715-815	30	3	3	0	78	114
730-830	31	3	6	0	81	121
745-845	33	3	6	1	82	125
800-900	21	2	6	2	68	99

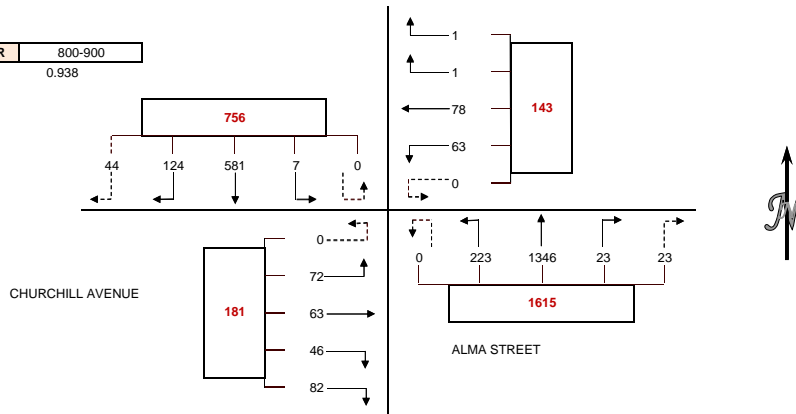
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S ALMA STREET
 E/W CHURCHILL AVENUE
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
700-715	9	9	63	0	0	0	1	9	2	0	2	2	153	30	0	6	9	7	9	0	311
715-730	8	6	66	0	0	0	0	8	6	0	3	3	218	56	0	8	8	8	10	0	408
730-745	4	13	114	0	0	0	0	12	13	0	9	9	300	61	0	24	4	9	6	0	578
745-800	13	27	155	1	0	0	0	11	30	0	9	9	287	60	0	18	14	17	19	0	670
800-815	17	72	150	1	0	1	1	13	20	0	8	8	286	28	0	25	9	28	15	0	682
815-830	10	19	144	5	0	0	0	14	13	0	3	3	327	59	0	21	18	8	17	0	661
830-845	2	18	133	0	0	0	0	22	14	0	6	6	367	75	0	16	13	6	16	0	694
845-900	15	15	154	1	0	0	0	29	16	0	6	6	366	61	0	20	6	21	24	0	740
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
700-800	34	55	398	1	0	0	1	40	51	0	23	23	958	207	0	56	35	41	44	0	1967
715-815	42	118	485	2	0	1	1	44	69	0	29	29	1091	205	0	75	35	62	50	0	2338
730-830	44	131	563	7	0	1	1	50	76	0	29	29	1200	208	0	88	45	62	57	0	2591
745-845	42	136	582	7	0	1	1	60	77	0	26	26	1267	222	0	80	54	59	67	0	2707
800-900	44	124	581	7	0	1	1	78	63	0	23	23	1346	223	0	82	46	63	72	0	2777

PEAK HOUR 800-900
 PHF 0.938



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	1	0	1	0	2
715-730	0	3	3	0	6
730-745	5	2	1	0	8
745-800	10	3	2	0	15
800-815	33	10	8	0	51
815-830	6	1	3	0	10
830-845	0	0	1	0	1
845-900	6	0	1	0	7
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-800	16	8	7	0	31
715-815	48	18	14	0	80
730-830	54	16	14	0	84
745-845	49	14	14	0	77
800-900	45	11	13	0	69

BICYCLE COUNTS

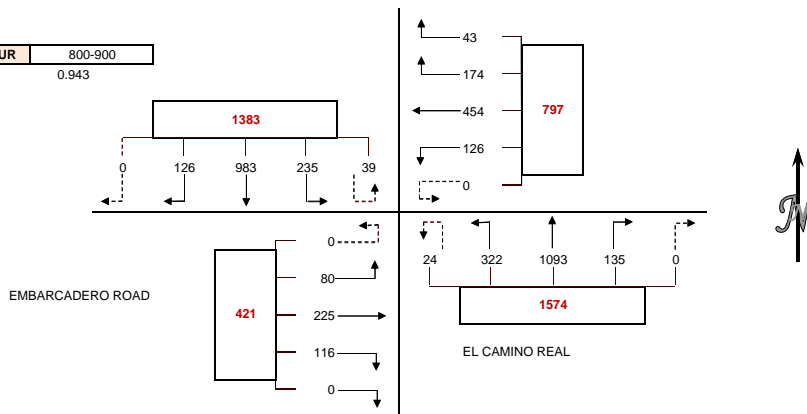
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	14	0	0	0	14
715-730	4	0	0	0	4
730-745	2	0	0	0	2
745-800	45	2	0	0	47
800-815	168	5	0	0	173
815-830	32	3	0	0	35
830-845	11	0	0	0	11
845-900	11	0	0	0	11
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-800	65	2	0	0	67
715-815	219	7	0	0	226
730-830	247	10	0	0	257
745-845	256	10	0	0	266
800-900	222	8	0	0	230

INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S EL CAMINO REAL
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS																					
15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
700-715	0	14	102	32	4	4	40	121	10	0	0	10	139	49	1	0	19	32	13	0	590
715-730	0	16	126	51	3	3	37	100	3	0	0	23	180	47	3	0	21	64	12	0	689
730-745	0	25	193	60	4	6	48	111	3	0	0	18	203	70	6	0	21	74	10	0	852
745-800	0	32	197	57	6	4	43	94	2	0	0	28	252	53	2	0	30	80	19	0	899
800-815	0	28	226	59	6	9	50	102	8	0	0	47	248	63	15	0	37	54	26	0	978
815-830	0	39	250	61	18	5	42	109	45	0	0	26	270	81	7	0	29	2	25	0	1009
830-845	0	36	242	57	7	17	30	117	29	0	0	30	294	91	1	0	23	112	21	0	1107
845-900	0	23	265	58	8	12	52	126	44	0	0	32	281	87	1	0	27	57	8	0	1081
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
700-800	0	87	618	200	17	17	168	426	18	0	0	79	774	219	12	0	91	250	54	0	3030
715-815	0	101	742	227	19	22	178	407	16	0	0	116	883	233	26	0	109	272	67	0	3418
730-830	0	124	866	237	34	24	183	416	58	0	0	119	973	267	30	0	117	210	80	0	3738
745-845	0	135	915	234	37	35	165	422	84	0	0	131	1064	288	25	0	119	248	91	0	3993
800-900	0	126	983	235	39	43	174	454	126	0	0	135	1093	322	24	0	116	225	80	0	4175

PEAK HOUR 800-900
 PHF 0.943



PEDESTRIAN COUNTS					
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	5	0	3	3	11
715-730	4	4	7	2	17
730-745	9	0	0	4	13
745-800	6	1	1	1	9
800-815	4	5	2	1	12
815-830	4	6	4	5	19
830-845	11	3	7	3	24
845-900	8	3	2	2	15
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-800	24	5	11	10	50
715-815	23	10	10	8	51
730-830	23	12	7	11	53
745-845	25	15	14	10	64
800-900	27	17	15	11	70

BICYCLE COUNTS					
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	4	0	1	1	6
715-730	3	0	0	1	4
730-745	4	2	1	1	8
745-800	6	0	0	1	7
800-815	6	0	8	3	17
815-830	18	2	3	3	26
830-845	7	3	1	2	13
845-900	8	0	2	1	11
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-800	17	2	2	4	25
715-815	19	2	9	6	36
730-830	34	4	12	8	58
745-845	37	5	12	9	63
800-900	39	5	14	9	67

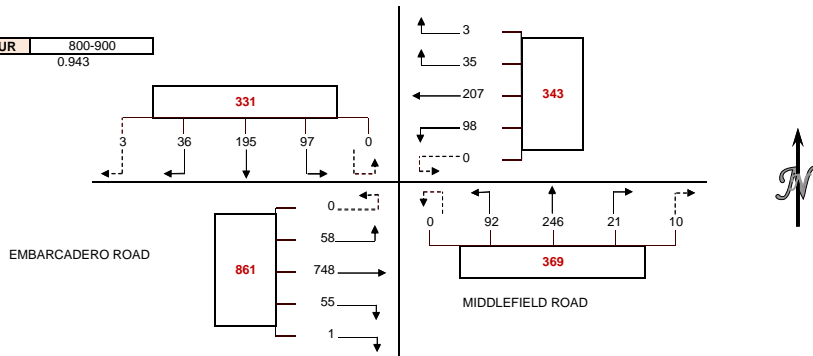
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S MIDDLEFIELD ROAD
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBUT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBUT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
700-715	0	5	13	16	0	2	2	17	18	0	2	0	19	11	0	0	4	81	4	0	194
715-730	0	8	31	15	0	5	4	26	18	0	0	1	35	14	0	0	7	124	4	0	292
730-745	0	11	38	19	0	2	6	42	33	0	1	1	38	20	0	0	4	153	3	0	371
745-800	0	6	58	14	0	2	5	50	17	0	1	6	40	39	0	0	16	173	9	0	436
800-815	0	7	40	24	0	1	7	47	23	0	1	2	57	22	0	0	13	222	12	0	478
815-830	1	4	51	21	0	0	4	33	30	0	3	10	51	25	0	0	15	182	21	0	451
830-845	1	11	54	27	0	2	9	51	21	0	1	5	77	19	0	0	15	200	12	0	505
845-900	1	14	50	25	0	0	15	76	24	0	5	4	61	26	0	1	12	144	13	0	471
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBUT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBUT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
700-800	0	30	140	64	0	11	17	135	86	0	4	8	132	84	0	0	31	531	20	0	1293
715-815	0	32	167	72	0	10	22	165	91	0	3	10	170	95	0	0	40	672	28	0	1577
730-830	1	28	187	78	0	5	22	172	103	0	6	19	186	106	0	0	48	730	45	0	1736
745-845	2	28	203	86	0	5	25	181	91	0	6	23	225	105	0	0	59	777	54	0	1870
800-900	3	36	195	97	0	3	35	207	98	0	10	21	246	92	0	1	55	748	58	0	1905

PEAK HOUR 800-900
 PHF 0.943



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	0	0	0	0	0
715-730	2	0	1	1	4
730-745	4	0	0	0	4
745-800	1	2	3	2	8
800-815	3	9	1	0	13
815-830	1	30	0	3	34
830-845	5	5	3	1	14
845-900	4	3	1	2	10
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-800	7	2	4	3	16
715-815	10	11	5	3	29
730-830	9	41	4	5	59
745-845	10	46	7	6	69
800-900	13	47	5	6	71

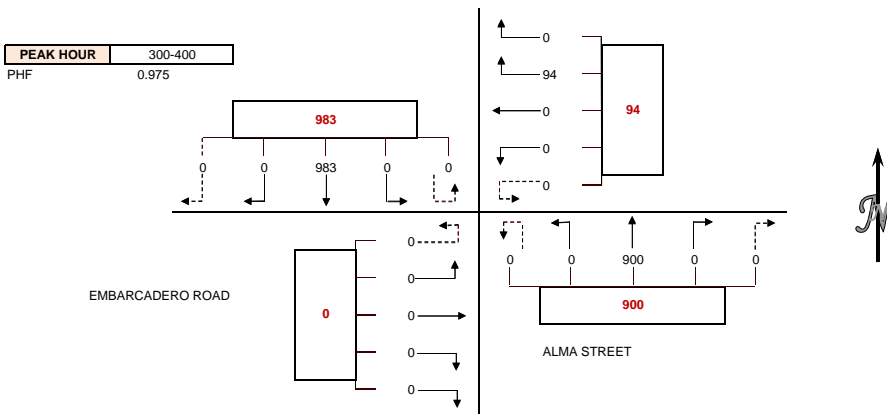
BICYCLE COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	0	0	0	2	2
715-730	1	0	0	0	1
730-745	4	0	1	1	6
745-800	1	0	9	3	13
800-815	2	3	7	2	14
815-830	0	2	1	2	5
830-845	1	1	1	0	3
845-900	0	1	0	1	2
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-800	6	0	10	6	22
715-815	8	3	17	6	34
730-830	7	5	18	8	38
745-845	4	6	18	7	35
800-900	3	7	9	5	24

INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 2:00 PM TO 4:00 PM
 INTERSECTION: N/S ALMA STREET
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS																					
15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
200-215	0	0	212	0	0	0	20	0	0	0	0	0	151	0	0	0	0	0	0	0	383
215-230	0	0	182	0	0	0	20	0	0	0	0	0	159	0	0	0	0	0	0	0	361
230-245	0	0	167	0	0	0	23	0	0	0	0	0	179	0	0	0	0	0	0	0	369
245-300	0	0	185	0	0	0	22	0	0	0	0	0	193	0	0	0	0	0	0	0	400
300-315	0	0	235	0	0	0	34	0	0	0	0	0	204	0	0	0	0	0	0	0	473
315-330	0	0	248	0	0	0	25	0	0	0	0	0	226	0	0	0	0	0	0	0	499
330-345	0	0	247	0	0	0	19	0	0	0	0	0	232	0	0	0	0	0	0	0	498
345-400	0	0	253	0	0	0	16	0	0	0	0	0	238	0	0	0	0	0	0	0	507
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
200-300	0	0	746	0	0	0	85	0	0	0	0	0	682	0	0	0	0	0	0	0	1513
215-315	0	0	769	0	0	0	99	0	0	0	0	0	735	0	0	0	0	0	0	0	1603
230-330	0	0	835	0	0	0	104	0	0	0	0	0	802	0	0	0	0	0	0	0	1741
245-345	0	0	915	0	0	0	100	0	0	0	0	0	855	0	0	0	0	0	0	0	1870
300-400	0	0	983	0	0	0	94	0	0	0	0	0	900	0	0	0	0	0	0	0	1977



PEDESTRIAN COUNTS					
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	0	1	0	0	1
215-230	0	0	0	0	0
230-245	0	3	0	0	3
245-300	0	3	0	0	3
300-315	0	4	0	0	4
315-330	0	3	0	0	3
330-345	0	2	0	0	2
345-400	0	4	0	0	4
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	0	7	0	0	7
215-315	0	10	0	0	10
230-330	0	13	0	0	13
245-345	0	12	0	0	12
300-400	0	13	0	0	13

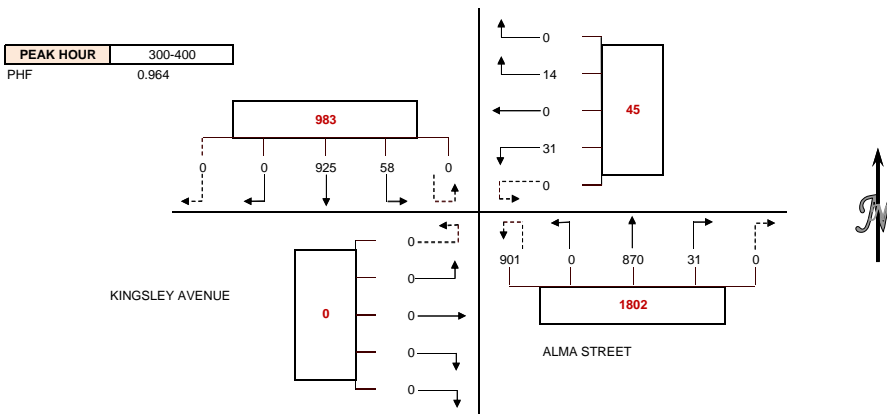
BICYCLE COUNTS					
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	0	0	0	0	0
215-230	0	0	0	0	0
230-245	0	2	0	0	2
245-300	0	0	0	0	0
300-315	0	0	0	0	0
315-330	0	1	0	0	1
330-345	0	1	0	0	1
345-400	0	2	0	0	2
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	0	2	0	0	2
215-315	0	2	0	0	2
230-330	0	3	0	0	3
245-345	0	2	0	0	2
300-400	0	4	0	0	4

WILTEC

INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 2:00 PM TO 4:00 PM
 INTERSECTION: N/S ALMA STREET
 E/W KINGSLEY AVENUE
 CITY: PALO ALTO

VEHICLE COUNTS																						
15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL	
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL	
200-215	0	0	189	23	0	0	1	0	5	0	0	7	144	0	151	0	0	0	0	0	520	
215-230	0	0	154	28	0	0	6	0	1	0	0	4	152	0	156	0	0	0	0	0	501	
230-245	0	0	151	16	0	0	0	0	8	0	0	8	173	0	181	0	0	0	0	0	537	
245-300	0	0	171	14	0	0	1	0	11	0	0	7	185	0	192	0	0	0	0	0	581	
300-315	0	0	225	10	0	0	5	0	10	0	0	9	196	0	205	0	0	0	0	0	660	
315-330	0	0	232	16	0	0	2	0	9	0	0	6	216	0	222	0	0	0	0	0	703	
330-345	0	0	229	18	0	0	1	0	11	0	0	4	233	0	237	0	0	0	0	0	733	
345-400	0	0	239	14	0	0	6	0	1	0	0	12	225	0	237	0	0	0	0	0	734	
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL	
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL	
200-300	0	0	665	81	0	0	8	0	25	0	0	26	654	0	680	0	0	0	0	0	2139	
215-315	0	0	701	68	0	0	12	0	30	0	0	28	706	0	734	0	0	0	0	0	2279	
230-330	0	0	779	56	0	0	8	0	38	0	0	30	770	0	800	0	0	0	0	0	2481	
245-345	0	0	857	58	0	0	9	0	41	0	0	26	830	0	856	0	0	0	0	0	2677	
300-400	0	0	925	58	0	0	14	0	31	0	0	31	870	0	901	0	0	0	0	0	2830	



PEDESTRIAN COUNTS					
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	0	2	0	0	2
215-230	0	0	0	0	0
230-245	0	1	0	0	1
245-300	0	6	0	0	6
300-315	0	3	0	0	3
315-330	0	0	0	0	0
330-345	0	0	0	0	0
345-400	0	5	0	0	5
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	0	9	0	0	9
215-315	0	10	0	0	10
230-330	0	10	0	0	10
245-345	0	9	0	0	9
300-400	0	8	0	0	8

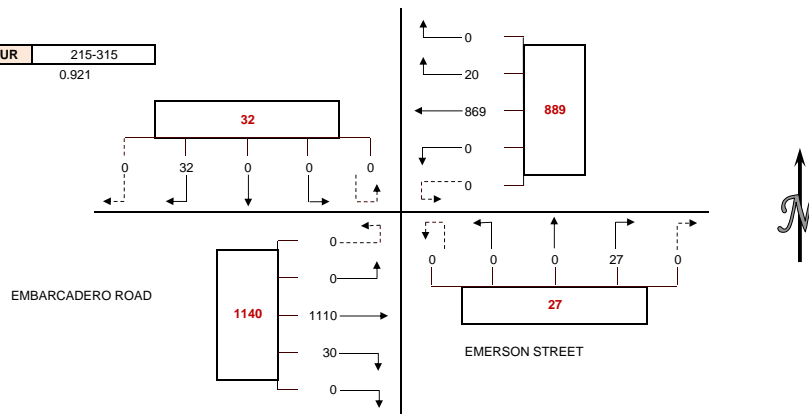
BICYCLE COUNTS					
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	0	1	0	0	1
215-230	0	0	0	0	0
230-245	0	1	0	0	1
245-300	0	0	0	0	0
300-315	0	1	0	0	1
315-330	0	0	0	0	0
330-345	0	1	0	0	1
345-400	0	1	0	0	1
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	0	2	0	0	2
215-315	0	2	0	0	2
230-330	0	2	0	0	2
245-345	0	2	0	0	2
300-400	0	3	0	0	3

INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 2:00 PM TO 4:00 PM
 INTERSECTION: N/S EMERSON STREET
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS																					
15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
200-215	0	5	0	0	0	0	7	204	0	0	0	5	0	0	0	0	0	247	0	0	468
215-230	0	8	0	0	0	0	1	204	0	0	0	5	0	0	0	0	7	272	0	0	497
230-245	0	8	0	0	0	0	5	225	0	0	0	3	0	0	0	0	4	256	0	0	501
245-300	0	6	0	0	0	0	7	234	0	0	0	5	0	0	0	0	10	305	0	0	567
300-315	0	10	0	0	0	0	7	206	0	0	0	14	0	0	0	0	9	277	0	0	523
315-330	0	14	0	0	0	0	1	199	0	0	0	19	0	0	0	0	9	244	0	0	486
330-345	0	9	0	0	0	0	3	209	0	0	0	11	0	0	0	0	3	266	0	0	501
345-400	0	6	0	0	0	0	3	186	0	0	0	10	0	0	0	0	9	264	0	0	478
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
200-300	0	27	0	0	0	0	20	867	0	0	0	18	0	0	0	0	21	1080	0	0	2033
215-315	0	32	0	0	0	0	20	869	0	0	0	27	0	0	0	0	30	1110	0	0	2088
230-330	0	38	0	0	0	0	20	864	0	0	0	41	0	0	0	0	32	1082	0	0	2077
245-345	0	39	0	0	0	0	18	848	0	0	0	49	0	0	0	0	31	1092	0	0	2077
300-400	0	39	0	0	0	0	14	800	0	0	0	54	0	0	0	0	30	1051	0	0	1988

PEAK HOUR 215-315
 PHF 0.921



PEDESTRIAN COUNTS					
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	5	0	2	0	7
215-230	5	0	0	0	5
230-245	4	0	2	0	6
245-300	26	0	3	0	29
300-315	4	0	5	0	9
315-330	8	0	4	0	12
330-345	5	0	7	0	12
345-400	9	0	4	0	13
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	40	0	7	0	47
215-315	39	0	10	0	49
230-330	42	0	14	0	56
245-345	43	0	19	0	62
300-400	26	0	20	0	46

BICYCLE COUNTS					
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	0	0	14	0	14
215-230	1	0	0	0	1
230-245	5	0	2	0	7
245-300	62	0	6	0	68
300-315	12	0	0	0	12
315-330	6	0	4	0	10
330-345	5	0	3	0	8
345-400	8	0	0	0	8
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	68	0	22	0	90
215-315	80	0	8	0	88
230-330	85	0	12	0	97
245-345	85	0	13	0	98
300-400	31	0	7	0	38

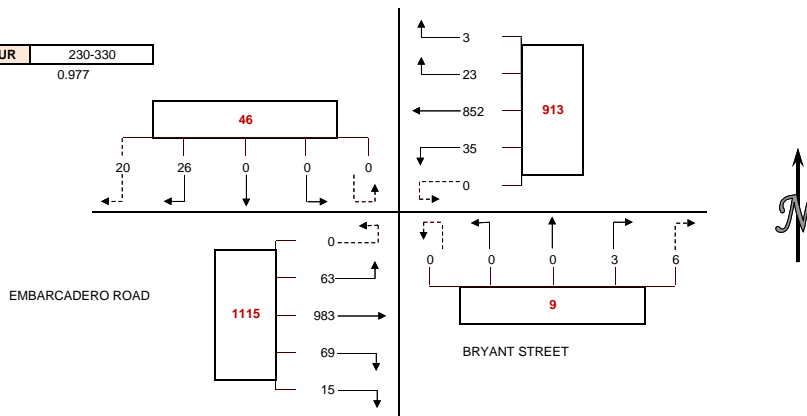
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 2:00 PM TO 4:00 PM
 INTERSECTION: N/S BRYANT STREET
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
200-215	1	8	0	0	0	0	9	200	2	0	0	1	0	0	0	0	3	233	14	0	471
215-230	6	8	0	0	0	0	12	211	0	0	1	0	0	0	0	0	6	256	11	0	511
230-245	7	8	0	0	0	2	5	231	5	0	0	1	0	0	0	0	7	250	7	0	523
245-300	4	7	0	0	0	0	7	209	3	0	2	0	0	0	0	3	9	256	26	0	526
300-315	5	6	0	0	0	1	8	193	9	0	2	0	0	0	0	4	24	244	16	0	512
315-330	4	5	0	0	0	0	3	219	18	0	2	2	0	0	0	8	29	233	14	0	537
330-345	5	4	0	0	0	1	6	185	4	0	0	1	0	0	0	3	20	206	19	0	454
345-400	5	5	0	0	0	1	7	177	6	0	4	0	0	0	0	1	16	254	19	0	495
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
200-300	18	31	0	0	0	2	33	851	10	0	3	2	0	0	0	3	25	995	58	0	2031
215-315	22	29	0	0	0	3	32	844	17	0	5	1	0	0	0	7	46	1006	60	0	2072
230-300	20	26	0	0	0	3	23	852	35	0	6	3	0	0	0	15	69	983	63	0	2098
245-345	18	22	0	0	0	2	24	806	34	0	6	3	0	0	0	18	82	939	75	0	2029
300-400	19	20	0	0	0	3	24	774	37	0	8	3	0	0	0	16	89	937	68	0	1998

PEAK HOUR 230-330
 PHF 0.977



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	3	1	1	3	8
215-230	4	1	0	3	8
230-245	1	1	1	0	3
245-300	3	1	0	4	8
300-315	1	0	2	5	8
315-330	0	6	7	6	19
330-345	2	1	1	12	16
345-400	4	1	1	3	9
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	11	4	2	10	27
215-315	9	3	3	12	27
230-330	5	8	10	15	38
245-345	6	8	10	27	51
300-400	7	8	11	26	52

BICYCLE COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	MIDDLE N/S	TOTAL
200-215	0	0	2	0	11	13
215-230	1	1	0	0	11	13
230-245	0	0	1	1	3	5
245-300	9	1	5	1	12	28
300-315	1	1	1	0	23	26
315-330	0	3	3	0	21	27
330-345	1	0	3	0	6	10
345-400	0	1	0	0	11	12
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	MIDDLE N/S	TOTAL
200-300	10	2	8	2	37	59
215-315	11	3	7	2	49	72
230-330	10	5	10	2	59	86
245-345	11	5	12	1	62	91
300-400	2	5	7	0	61	75

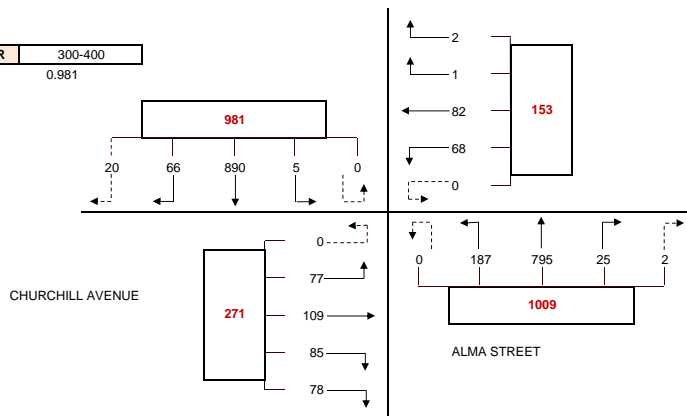
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 2:00 PM TO 4:00 PM
 INTERSECTION: N/S ALMA STREET
 E/W CHURCHILL AVENUE
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
200-215	12	11	173	0	0	0	0	12	4	0	0	3	133	45	0	23	21	27	22	0	486
215-230	10	9	132	0	0	1	0	15	11	0	1	5	136	47	0	21	26	31	18	0	463
230-245	8	10	136	5	0	1	0	15	13	0	1	3	147	59	0	18	11	28	19	0	474
245-300	8	13	149	1	0	0	1	18	18	0	0	6	153	53	0	20	25	26	25	0	516
300-315	7	14	249	3	0	1	0	28	12	0	0	3	181	47	0	23	23	27	14	0	632
315-330	3	20	211	2	0	0	0	17	24	0	1	6	174	49	0	20	18	27	23	0	595
330-345	8	18	199	0	0	1	0	19	23	0	0	8	217	51	0	18	21	33	14	0	630
345-400	2	14	231	0	0	1	1	18	9	0	1	8	223	40	0	17	23	22	26	0	635
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
200-300	38	43	590	6	0	2	1	60	46	0	2	17	569	204	0	82	83	112	84	0	1939
215-315	33	46	666	9	0	3	1	76	54	0	2	17	617	206	0	82	85	112	76	0	2085
230-330	26	57	745	11	0	2	1	78	67	0	2	18	655	208	0	81	77	108	81	0	2217
245-345	26	65	808	6	0	2	1	82	77	0	1	23	725	200	0	81	87	113	76	0	2373
300-400	20	66	890	5	0	2	1	82	68	0	2	25	795	187	0	78	85	109	77	0	2492

PEAK HOUR 300-400
 PHF 0.981



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	2	1	3	0	6
215-230	7	2	1	0	10
230-245	3	0	0	0	3
245-300	19	2	2	0	23
300-315	4	0	2	0	6
315-330	6	2	1	0	9
330-345	12	0	3	0	15
345-400	2	2	1	0	5
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	31	5	6	0	42
215-315	33	4	5	0	42
230-330	32	4	5	0	41
245-345	41	4	8	0	53
300-400	24	4	7	0	35

BICYCLE COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	1	0	4	1	6
215-230	4	1	5	0	10
230-245	10	0	4	0	14
245-300	106	0	3	0	109
300-315	14	1	4	1	20
315-330	15	2	5	0	22
330-345	10	0	2	0	12
345-400	5	0	3	0	8
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	121	1	16	1	139
215-315	134	2	16	1	153
230-330	145	3	16	1	165
245-345	145	3	14	1	163
300-400	44	3	14	1	62

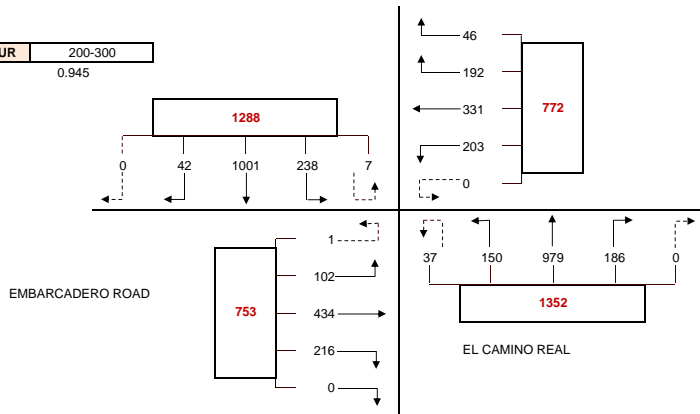
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 2:00 PM TO 4:00 PM
 INTERSECTION: N/S EL CAMINO REAL
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
200-215	0	10	209	59	0	8	53	92	56	0	0	47	251	37	6	0	48	115	20	0	1011
215-230	0	9	264	73	3	15	45	75	36	0	0	49	276	33	3	0	58	129	33	1	1102
230-245	0	7	235	47	3	10	45	89	44	0	0	37	221	45	9	0	47	94	27	0	960
245-300	0	16	293	59	1	13	49	75	67	0	0	53	231	35	19	0	63	96	22	0	1092
300-315	0	7	254	58	0	12	33	50	64	0	0	43	237	19	5	0	47	95	20	0	944
315-330	0	15	286	58	1	14	47	47	56	0	0	30	213	39	8	0	62	89	22	0	987
330-345	0	14	310	62	0	12	44	48	48	0	0	44	238	36	4	0	62	102	31	0	1055
345-400	0	11	337	61	0	22	42	72	49	0	0	42	233	37	6	0	57	105	35	0	1109
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
200-300	0	42	1001	238	7	46	192	331	203	0	0	186	979	150	37	0	216	434	102	1	4165
215-315	0	39	1046	237	7	50	172	289	211	0	0	182	965	132	36	0	215	414	102	1	4098
230-330	0	45	1068	222	5	49	174	261	231	0	0	163	902	138	41	0	219	374	91	0	3983
245-345	0	52	1143	237	2	51	173	220	235	0	0	170	919	129	36	0	234	382	95	0	4078
300-400	0	47	1187	239	1	60	166	217	217	0	0	159	921	131	23	0	228	391	108	0	4095

PEAK HOUR 200-300
 PHF 0.945



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	7	1	1	1	10
215-230	1	11	7	2	21
230-245	1	7	3	0	11
245-300	3	7	8	4	22
300-315	6	5	3	0	14
315-330	4	4	4	0	12
330-345	3	3	4	7	17
345-400	6	9	3	3	21
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	12	26	19	7	64
215-315	11	30	21	6	68
230-330	14	23	18	4	59
245-345	16	19	19	11	65
300-400	19	21	14	10	64

BICYCLE COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	7	0	1	1	9
215-230	3	2	1	3	9
230-245	8	0	0	1	9
245-300	6	4	4	0	14
300-315	2	2	1	3	8
315-330	6	2	3	0	11
330-345	5	0	2	1	8
345-400	6	3	1	1	11
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	24	6	6	5	41
215-315	19	8	6	7	40
230-330	22	8	8	4	42
245-345	19	8	10	4	41
300-400	19	7	7	5	38

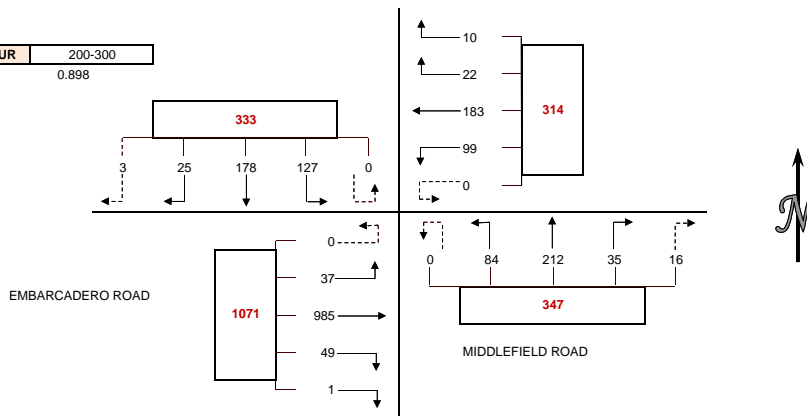
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 2:00 PM TO 4:00 PM
 INTERSECTION: N/S MIDDLEFIELD ROAD
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
200-215	0	5	41	38	0	4	6	46	28	0	4	5	44	14	0	0	11	253	9	0	508
215-230	0	10	44	42	0	1	7	48	23	0	4	18	61	32	0	0	13	260	12	0	575
230-245	3	5	44	29	0	3	4	48	20	0	2	6	51	20	0	1	12	258	10	0	516
245-300	0	5	49	18	0	2	5	41	28	0	6	6	56	18	0	0	13	214	6	0	467
300-315	0	10	43	17	0	2	5	41	22	0	2	4	48	15	0	2	18	189	9	0	427
315-330	1	4	38	32	0	3	3	39	32	0	10	6	54	17	0	1	13	195	7	0	455
330-345	1	10	63	25	0	3	6	63	33	0	3	10	67	21	0	1	17	221	12	0	556
345-400	1	7	69	36	0	3	5	50	39	0	7	9	64	15	0	0	15	224	7	0	551
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
200-300	3	25	178	127	0	10	22	183	99	0	16	35	212	84	0	1	49	985	37	0	2066
215-315	3	30	180	106	0	8	21	178	93	0	14	34	216	85	0	3	56	921	37	0	1985
230-330	4	24	174	96	0	10	17	169	102	0	20	22	209	70	0	4	56	856	32	0	1865
245-345	2	29	193	92	0	10	19	184	115	0	21	26	225	71	0	4	61	819	34	0	1905
300-400	3	31	213	110	0	11	19	193	126	0	22	29	233	68	0	4	63	829	35	0	1989

PEAK HOUR 200-300
 PHF 0.898



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	2	0	0	3	5
215-230	0	1	1	1	3
230-245	2	2	1	1	6
245-300	0	9	1	0	10
300-315	0	18	2	1	21
315-330	2	2	2	2	8
330-345	0	7	2	5	14
345-400	1	0	3	1	5
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	4	12	3	5	24
215-315	2	30	5	3	40
230-330	4	31	6	4	45
245-345	2	36	7	8	53
300-400	3	27	9	9	48

BICYCLE COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	0	0	1	0	1
215-230	0	0	4	0	4
230-245	1	1	8	0	10
245-300	0	1	3	1	5
300-315	1	1	4	3	9
315-330	2	1	3	3	9
330-345	0	6	4	4	14
345-400	2	0	2	1	5
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	1	2	16	1	20
215-315	2	3	19	4	28
230-330	4	4	18	7	33
245-345	3	9	14	11	37
300-400	5	8	13	11	37

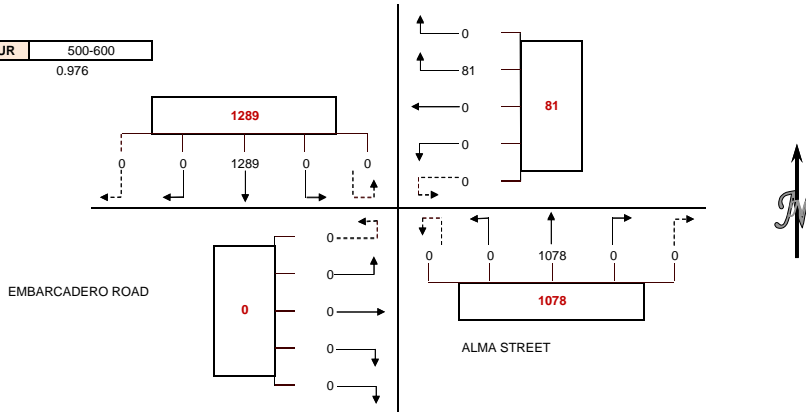
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 4:00 PM TO 6:PM
 INTERSECTION: N/S ALMA STREET
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL	
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBUT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBUT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL	
400-415	0	0	274	0	0	0	23	0	0	0	0	0	214	0	0	0	0	0	0	0	0	511
415-430	0	0	259	0	0	0	27	0	0	0	0	0	251	0	0	0	0	0	0	0	0	537
430-445	0	0	262	0	0	0	19	0	0	0	0	0	260	0	0	0	0	0	0	0	0	541
445-500	0	0	302	0	0	0	15	0	0	0	0	0	231	0	0	0	0	0	0	0	0	548
500-515	0	0	347	0	0	0	21	0	0	0	0	0	259	0	0	0	0	0	0	0	0	627
515-530	0	0	317	0	0	0	16	0	0	0	0	0	270	0	0	0	0	0	0	0	0	603
530-545	0	0	304	0	0	0	22	0	0	0	0	0	282	0	0	0	0	0	0	0	0	608
545-600	0	0	321	0	0	0	22	0	0	0	0	0	267	0	0	0	0	0	0	0	0	610
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL	
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBUT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBUT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL	
400-500	0	0	1097	0	0	0	84	0	0	0	0	0	956	0	0	0	0	0	0	0	0	2137
415-515	0	0	1170	0	0	0	82	0	0	0	0	0	1001	0	0	0	0	0	0	0	0	2253
430-530	0	0	1228	0	0	0	71	0	0	0	0	0	1020	0	0	0	0	0	0	0	0	2319
445-545	0	0	1270	0	0	0	74	0	0	0	0	0	1042	0	0	0	0	0	0	0	0	2386
500-600	0	0	1289	0	0	0	81	0	0	0	0	0	1078	0	0	0	0	0	0	0	0	2448

PEAK HOUR 500-600
 PHF 0.976



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	0	4	0	0	4
415-430	0	4	0	0	4
430-445	0	2	0	0	2
445-500	0	3	0	0	3
500-515	0	7	0	0	7
515-530	0	3	0	0	3
530-545	0	2	0	0	2
545-600	0	8	0	0	8
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-500	0	13	0	0	13
415-515	0	16	0	0	16
430-530	0	15	0	0	15
445-545	0	15	0	0	15
500-600	0	20	0	0	20

BICYCLE COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	0	0	0	0	0
415-430	0	0	0	0	0
430-445	0	1	0	0	1
445-500	0	0	0	0	0
500-515	0	0	0	0	0
515-530	0	1	0	0	1
530-545	0	0	0	0	0
545-600	0	0	0	0	0
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-500	0	1	0	0	1
415-515	0	1	0	0	1
430-530	0	2	0	0	2
445-545	0	1	0	0	1
500-600	0	1	0	0	1

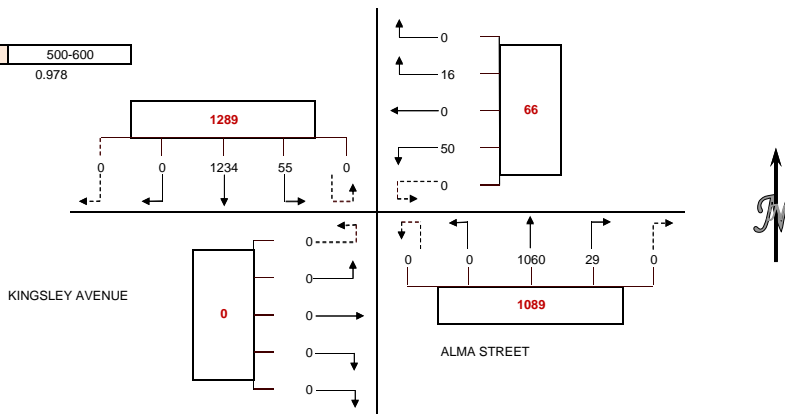
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 4:00 PM TO 6:PM
 INTERSECTION: N/S ALMA STREET
 E/W KINGSLEY AVENUE
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL	
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBUT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBUT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL	
400-415	0	0	267	7	0	0	4	0	5	0	0	8	211	0	0	0	0	0	0	0	0	502
415-430	0	0	250	9	0	0	2	0	11	0	0	6	252	0	0	0	0	0	0	0	0	530
430-445	0	0	253	9	0	0	3	0	4	0	0	6	254	0	0	0	0	0	0	0	0	529
445-500	0	0	291	11	0	0	4	0	11	0	0	5	229	0	0	0	0	0	0	0	0	551
500-515	0	0	338	9	0	0	3	0	13	0	0	6	256	0	0	0	0	0	0	0	0	625
515-530	0	0	308	9	0	0	6	0	15	0	0	7	260	0	0	0	0	0	0	0	0	605
530-545	0	0	290	14	0	0	3	0	11	0	0	11	280	0	0	0	0	0	0	0	0	609
545-600	0	0	298	23	0	0	4	0	11	0	0	5	264	0	0	0	0	0	0	0	0	605
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL	
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBUT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBUT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL	
400-500	0	0	1061	36	0	0	13	0	31	0	0	25	946	0	0	0	0	0	0	0	0	2112
415-515	0	0	1132	38	0	0	12	0	39	0	0	23	991	0	0	0	0	0	0	0	0	2235
430-530	0	0	1190	38	0	0	16	0	43	0	0	24	999	0	0	0	0	0	0	0	0	2310
445-545	0	0	1227	43	0	0	16	0	50	0	0	29	1025	0	0	0	0	0	0	0	0	2390
500-600	0	0	1234	55	0	0	16	0	50	0	0	29	1060	0	0	0	0	0	0	0	0	2444

PEAK HOUR 500-600
 PHF 0.978



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	0	2	0	0	2
415-430	0	5	0	0	5
430-445	0	2	0	0	2
445-500	0	1	0	0	1
500-515	0	0	0	0	0
515-530	0	2	0	0	2
530-545	0	2	0	0	2
545-600	0	0	0	0	0
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-500	0	10	0	0	10
415-515	0	8	0	0	8
430-530	0	5	0	0	5
445-545	0	5	0	0	5
500-600	0	4	0	0	4

BICYCLE COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	0	0	0	0	0
415-430	0	0	0	0	0
430-445	0	1	0	0	1
445-500	0	0	0	0	0
500-515	0	1	0	0	1
515-530	0	0	0	0	0
530-545	0	0	0	0	0
545-600	0	0	0	0	0
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-500	0	1	0	0	1
415-515	0	2	0	0	2
430-530	0	2	0	0	2
445-545	0	1	0	0	1
500-600	0	1	0	0	1

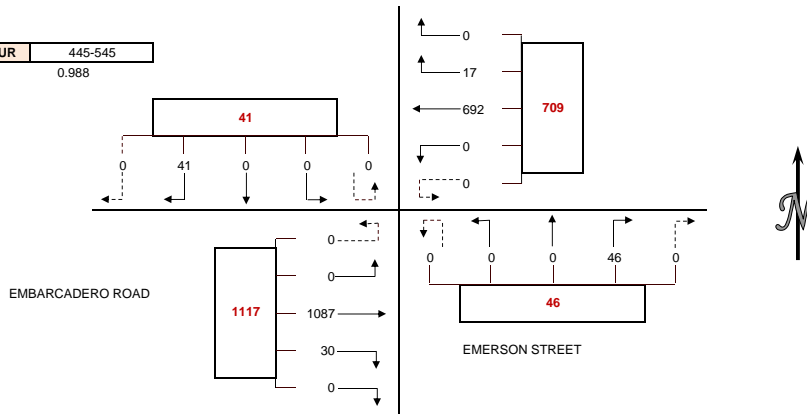
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 4:00 PM TO 6:PM
 INTERSECTION: N/S EMERSON STREET
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
400-415	0	8	0	0	0	0	5	172	0	0	0	5	0	0	0	4	256	0	0	0	450
415-430	0	8	0	0	0	0	3	188	0	0	0	8	0	0	0	0	7	251	0	0	465
430-445	0	14	0	0	0	0	3	158	0	0	0	4	0	0	0	0	6	270	0	0	455
445-500	0	6	0	0	0	0	1	179	0	0	0	15	0	0	0	0	2	263	0	0	466
500-515	0	7	0	0	0	0	6	168	0	0	0	22	0	0	0	0	7	269	0	0	479
515-530	0	15	0	0	0	0	4	171	0	0	0	1	0	0	0	0	12	281	0	0	484
530-545	0	13	0	0	0	0	6	174	0	0	0	8	0	0	0	0	9	274	0	0	484
545-600	0	15	0	0	0	0	3	180	0	0	0	11	0	0	0	0	9	239	0	0	457
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
400-500	0	36	0	0	0	0	12	697	0	0	0	32	0	0	0	0	19	1040	0	0	1836
415-515	0	35	0	0	0	0	13	693	0	0	0	49	0	0	0	0	22	1053	0	0	1865
430-530	0	42	0	0	0	0	14	676	0	0	0	42	0	0	0	0	27	1083	0	0	1884
445-545	0	41	0	0	0	0	17	692	0	0	0	46	0	0	0	0	30	1087	0	0	1913
500-600	0	50	0	0	0	0	19	693	0	0	0	42	0	0	0	0	37	1063	0	0	1904

PEAK HOUR 445-545
 PHF 0.988



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	8	0	3	0	11
415-430	3	0	4	0	7
430-445	3	0	1	0	4
445-500	4	0	2	0	6
500-515	10	0	1	0	11
515-530	8	0	1	0	9
530-545	7	0	0	0	7
545-600	5	0	1	0	6
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-500	18	0	10	0	28
415-515	20	0	8	0	28
430-530	25	0	5	0	30
445-545	29	0	4	0	33
500-600	30	0	3	0	33

BICYCLE COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	13	0	1	0	14
415-430	4	0	0	0	4
430-445	6	0	1	0	7
445-500	2	0	1	0	3
500-515	7	0	1	0	8
515-530	10	0	5	0	15
530-545	11	0	2	0	13
545-600	5	0	0	0	5
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-500	25	0	3	0	28
415-515	19	0	3	0	22
430-530	25	0	8	0	33
445-545	30	0	9	0	39
500-600	33	0	8	0	41

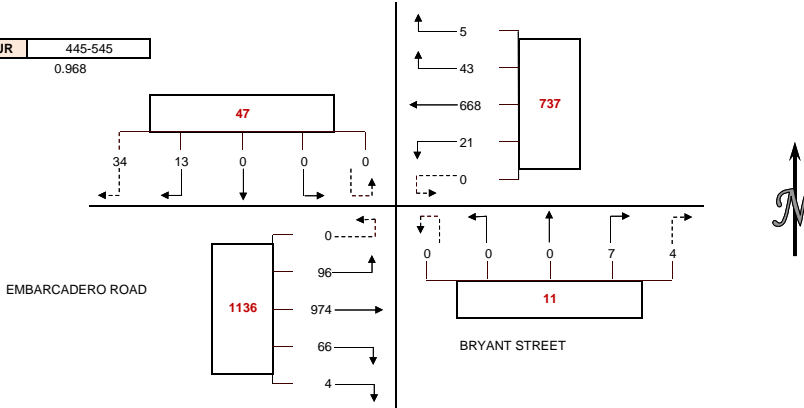
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 4:00 PM TO 6:PM
 INTERSECTION: N/S BRYANT STREET
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
400-415	7	4	0	0	0	1	3	159	3	0	1	0	0	0	0	0	13	238	16	0	445
415-430	6	2	0	0	0	2	6	173	3	0	1	0	0	0	0	1	21	226	23	0	464
430-445	5	2	0	0	0	1	4	167	2	0	0	0	0	0	0	0	8	223	23	0	435
445-500	13	4	0	0	0	1	10	165	6	0	2	0	0	0	0	1	19	238	23	0	482
500-515	7	3	0	0	0	0	6	157	6	0	2	3	0	0	0	2	15	234	20	0	455
515-530	10	4	0	0	0	3	11	155	6	0	1	1	0	0	0	0	18	263	26	0	498
530-545	4	2	0	0	0	1	16	191	3	0	1	1	0	0	0	1	14	239	27	0	500
545-600	11	2	0	0	0	0	14	168	6	0	1	2	0	0	0	0	8	249	15	0	476
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
400-500	31	12	0	0	0	5	23	664	14	0	1	3	0	0	0	2	61	925	85	0	1826
415-515	31	11	0	0	0	4	26	662	17	0	3	5	0	0	0	4	63	921	89	0	1836
430-530	35	13	0	0	0	5	31	644	20	0	3	6	0	0	0	3	60	958	92	0	1870
445-545	34	13	0	0	0	5	43	668	21	0	4	7	0	0	0	4	66	974	96	0	1935
500-600	32	11	0	0	0	4	47	671	21	0	5	7	0	0	0	3	55	985	88	0	1929

PEAK HOUR 445-545
 PHF 0.968



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	0	2	1	3	6
415-430	1	2	2	8	13
430-445	1	1	0	1	3
445-500	2	3	3	10	18
500-515	1	5	3	5	14
515-530	3	2	2	8	15
530-545	7	4	0	9	20
545-600	2	6	0	2	10
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-500	4	8	6	22	40
415-515	5	11	8	24	48
430-530	7	11	8	24	50
445-545	13	14	8	32	67
500-600	13	17	5	24	59

BICYCLE COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	MIDDLE N/S	TOTAL
400-415	0	0	0	0	7	7
415-430	1	0	0	0	13	14
430-445	0	0	1	0	9	10
445-500	0	0	1	0	17	18
500-515	0	0	0	0	16	16
515-530	1	0	1	1	25	28
530-545	2	1	1	0	13	17
545-600	0	1	1	0	18	20
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	MIDDLE N/S	TOTAL
400-500	1	0	2	0	46	49
415-515	1	0	2	0	55	58
430-530	1	0	3	1	67	72
445-545	3	1	3	1	71	79
500-600	3	2	3	1	72	81

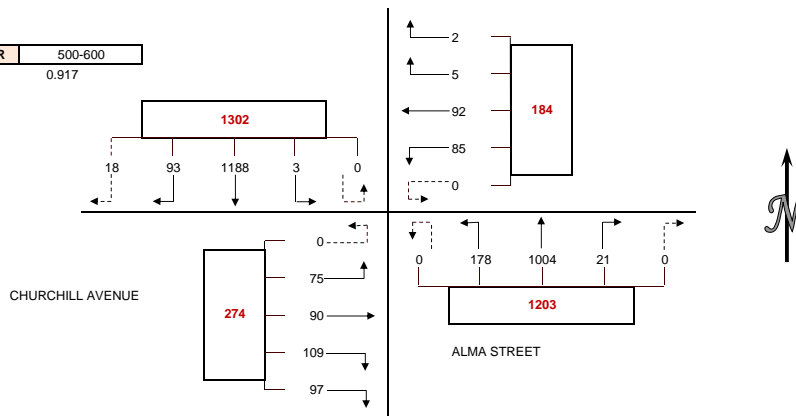
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 4:00 PM TO 6:PM
 INTERSECTION: N/S ALMA STREET
 E/W CHURCHILL AVENUE
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
400-415	6	13	246	1	0	0	2	11	17	0	2	6	184	39	0	23	31	17	14	0	612
415-430	6	15	239	0	0	1	0	14	21	0	0	6	228	35	0	27	34	21	31	0	678
430-445	3	9	269	1	0	0	0	7	17	0	1	6	227	41	0	18	37	22	18	0	676
445-500	6	19	267	0	0	0	1	13	11	0	2	5	205	51	0	38	23	22	18	0	681
500-515	4	23	322	0	0	0	1	22	24	0	0	4	223	27	0	16	28	25	20	0	739
515-530	5	17	295	0	0	1	3	24	22	0	3	3	272	41	0	27	38	25	20	0	793
530-545	4	20	245	0	0	0	1	20	17	0	0	5	259	49	0	20	18	19	17	0	694
545-600	5	33	326	3	0	1	0	26	22	0	9	9	250	61	0	34	25	21	18	0	834
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
400-500	21	56	1021	2	0	1	3	45	66	0	5	23	844	166	0	106	125	82	81	0	2647
415-515	19	66	1097	1	0	1	2	56	73	0	3	21	883	154	0	99	122	90	87	0	2774
430-530	18	68	1153	1	0	1	5	66	74	0	3	18	927	160	0	99	126	94	76	0	2889
445-545	19	79	1129	0	0	1	6	79	74	0	2	17	959	168	0	101	107	91	75	0	2907
500-600	18	93	1188	3	0	2	5	92	85	0	0	21	1004	178	0	97	109	90	75	0	3060

PEAK HOUR 500-600
 PHF 0.917



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	4	1	3	0	8
415-430	1	1	1	0	3
430-445	7	1	0	0	8
445-500	12	1	1	0	14
500-515	5	3	4	0	12
515-530	9	2	5	0	16
530-545	6	2	6	0	14
545-600	6	0	4	0	10
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-500	24	4	5	0	33
415-515	25	6	6	0	37
430-530	33	7	10	0	50
445-545	32	8	16	0	56
500-600	26	7	19	0	52

BICYCLE COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	18	0	7	0	25
415-430	9	1	5	0	15
430-445	8	0	6	0	14
445-500	7	2	3	0	12
500-515	16	0	2	0	18
515-530	20	0	3	0	23
530-545	12	0	9	0	21
545-600	5	2	13	0	20
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-500	42	3	21	0	66
415-515	40	3	16	0	59
430-530	51	2	14	0	67
445-545	55	2	17	0	74
500-600	53	2	27	0	82

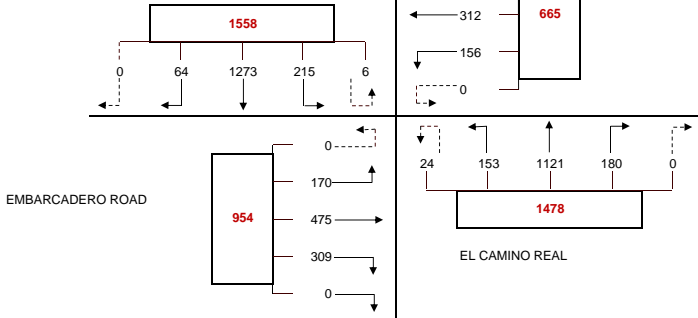
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 4:00 PM TO 6:PM
 INTERSECTION: N/S EL CAMINO REAL
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBUT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBUT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
400-415	0	15	278	63	3	3	48	102	52	0	0	45	222	33	11	0	78	110	35	0	1098
415-430	0	16	277	65	0	12	35	70	58	0	0	46	255	38	8	0	73	104	41	0	1098
430-445	0	10	271	54	0	7	34	83	39	0	0	43	278	29	6	0	71	114	34	0	1073
445-500	0	13	279	56	1	15	63	69	29	0	0	30	278	50	3	0	64	140	43	0	1133
500-515	0	13	346	53	1	13	35	67	40	0	0	57	285	35	4	0	100	117	49	0	1215
515-530	0	16	321	54	3	14	22	76	46	0	0	63	337	28	5	0	74	107	36	0	1202
530-545	0	22	327	52	1	3	32	100	41	0	0	30	221	40	12	0	71	111	42	0	1105
545-600	0	25	283	48	1	7	20	91	37	0	0	39	246	48	2	0	70	117	41	0	1075
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBUT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBUT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
400-500	0	54	1105	238	4	37	180	324	178	0	0	164	1033	150	28	0	286	468	153	0	4402
415-515	0	52	1173	228	2	47	167	289	166	0	0	176	1096	152	21	0	308	475	167	0	4519
430-530	0	52	1217	217	5	49	154	295	154	0	0	193	1178	142	18	0	309	478	162	0	4623
445-545	0	64	1273	215	6	45	152	312	156	0	0	180	1121	153	24	0	309	475	170	0	4655
500-600	0	76	1277	207	6	37	109	334	164	0	0	189	1089	151	23	0	315	452	168	0	4597

PEAK HOUR 445-545
 PHF 0.958



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	8	3	4	3	18
415-430	0	5	5	2	12
430-445	6	2	0	2	10
445-500	17	3	0	10	30
500-515	12	7	4	9	32
515-530	4	6	3	6	19
530-545	7	6	3	6	22
545-600	5	1	2	3	11
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-500	31	13	9	17	70
415-515	35	17	9	23	84
430-530	39	18	7	27	91
445-545	40	22	10	31	103
500-600	28	20	12	24	84

BICYCLE COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	10	0	2	2	14
415-430	8	3	12	3	26
430-445	13	5	6	1	25
445-500	10	0	0	1	11
500-515	8	0	5	7	20
515-530	14	2	3	2	21
530-545	4	0	3	4	11
545-600	8	0	7	0	15
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-500	41	8	20	7	76
415-515	39	8	23	12	82
430-530	45	7	14	11	77
445-545	36	2	11	14	63
500-600	34	2	18	13	67

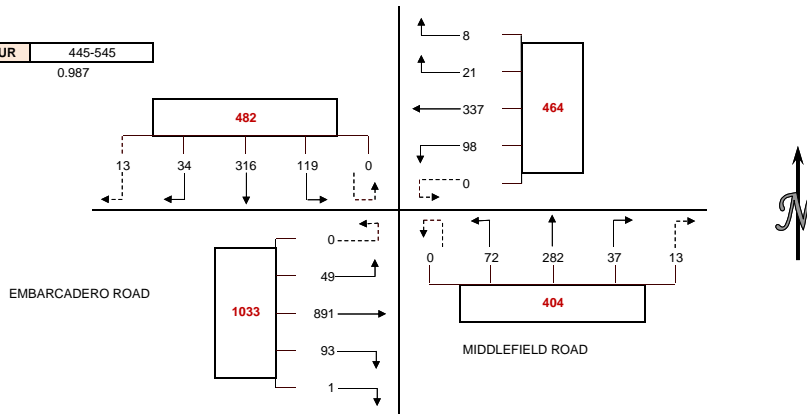
INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: THURSDAY JANUARY 26, 2017
 PERIOD: 4:00 PM TO 6:PM
 INTERSECTION: N/S MIDDLEFIELD ROAD
 E/W EMBARCADERO ROAD
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
400-415	1	9	62	40	0	5	5	77	35	0	4	10	69	13	0	0	16	250	12	0	608
415-430	5	4	76	34	0	6	2	75	28	0	1	9	57	21	0	1	22	201	10	0	552
430-445	3	5	75	23	0	5	5	56	28	0	4	2	79	23	0	0	19	206	9	0	542
445-500	5	5	84	26	0	1	6	79	26	0	5	13	56	21	0	1	25	236	14	0	603
500-515	4	12	78	25	0	2	5	99	24	0	3	3	71	17	0	0	26	216	6	0	591
515-530	2	11	82	32	0	4	4	65	26	0	3	10	75	19	0	0	21	216	16	0	586
530-545	2	6	72	36	0	1	6	94	22	0	2	11	80	15	0	0	21	223	13	0	604
545-600	0	5	77	27	0	2	5	78	22	0	8	4	73	20	0	0	35	196	9	0	561
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
400-500	14	23	297	123	0	17	18	287	117	0	14	34	261	78	0	2	82	893	45	0	2305
415-515	17	26	313	108	0	14	18	309	106	0	13	27	263	82	0	2	92	859	39	0	2288
430-530	14	33	319	106	0	12	20	299	104	0	15	28	281	80	0	1	91	874	45	0	2322
445-545	13	34	316	119	0	8	21	337	98	0	13	37	282	72	0	1	93	891	49	0	2384
500-600	8	34	309	120	0	9	20	336	94	0	16	28	299	71	0	0	103	851	44	0	2342

PEAK HOUR 445-545
 PHF 0.987



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	1	6	1	0	8
415-430	2	5	3	2	12
430-445	0	5	2	0	7
445-500	0	7	5	0	12
500-515	4	6	6	1	17
515-530	3	0	0	3	6
530-545	4	4	3	2	13
545-600	6	0	0	2	8
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-500	3	23	11	2	39
415-515	6	23	16	3	48
430-530	7	18	13	4	42
445-545	11	17	14	6	48
500-600	17	10	9	8	44

BICYCLE COUNTS

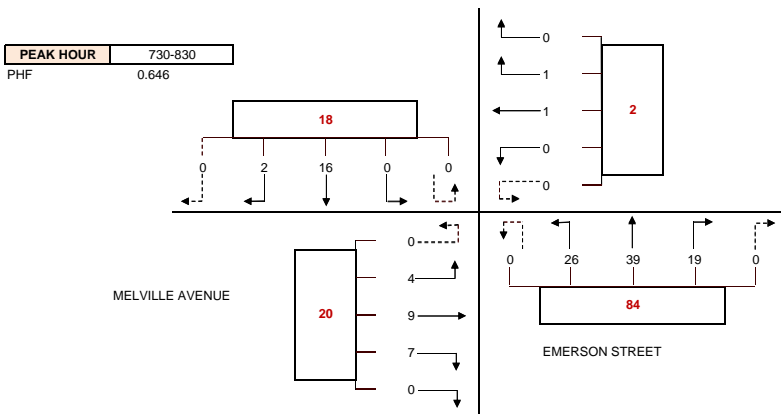
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	2	8	6	1	17
415-430	1	1	1	1	4
430-445	0	3	4	0	7
445-500	4	2	1	7	14
500-515	6	2	1	4	13
515-530	4	4	1	0	9
530-545	1	3	2	1	7
545-600	6	1	1	2	10
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-500	7	14	12	9	42
415-515	11	8	7	12	38
430-530	14	11	7	11	43
445-545	15	11	5	12	43
500-600	17	10	5	7	39

INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: TUESDAY MAY 16, 2017
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S EMERSON STREET
 E/W MELVILLE AVENUE
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL	
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL	
700-715	0	0	1	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	4
715-730	0	0	3	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	7
730-745	0	0	1	0	0	0	0	0	0	0	0	8	6	2	0	0	2	2	1	0	0	22
745-800	0	0	6	0	0	0	0	0	0	0	0	9	18	7	0	0	2	5	1	0	0	48
800-815	0	1	4	0	0	0	1	1	0	0	0	2	11	15	0	0	0	2	1	0	0	38
815-830	0	1	5	0	0	0	0	0	0	0	0	4	2	0	0	3	0	1	0	0	0	16
830-845	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	9
845-900	0	2	4	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	3	0	0	15
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL	
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL	
700-800	0	0	11	0	0	0	0	0	0	0	0	17	26	14	0	4	7	2	0	0	0	81
715-815	0	1	14	0	0	0	1	1	0	0	0	19	36	27	0	0	4	9	3	0	0	115
730-830	0	2	16	0	0	0	1	1	0	0	0	19	39	26	0	0	7	9	4	0	0	124
745-845	0	4	18	0	0	0	1	1	0	0	0	11	33	24	0	0	7	7	5	0	0	111
800-900	0	6	16	0	0	0	1	1	0	0	0	2	18	20	0	0	5	2	7	0	0	78



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	0	0	2	0	2
715-730	1	1	0	2	4
730-745	0	0	0	1	1
745-800	5	3	0	2	10
800-815	1	5	0	1	7
815-830	0	2	2	1	5
830-845	0	3	0	3	6
845-900	0	2	0	0	2
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-800	6	4	2	5	17
715-815	7	9	0	6	22
730-830	6	10	2	5	23
745-845	6	13	2	7	28
800-900	1	12	2	5	20

BICYCLE COUNTS

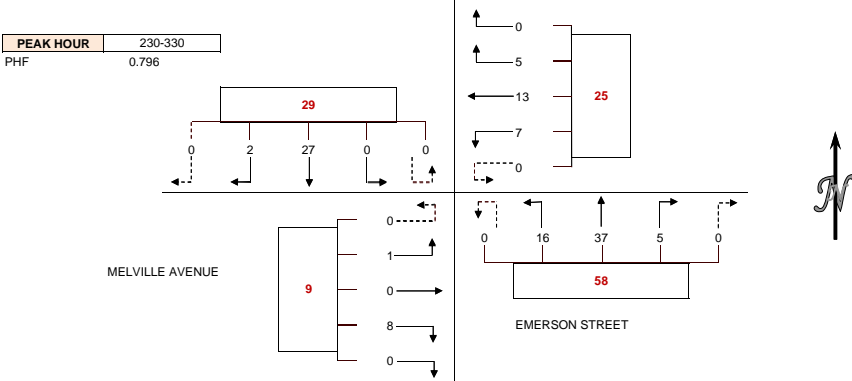
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-715	0	0	0	0	0
715-730	0	1	0	0	1
730-745	0	0	0	1	1
745-800	0	0	1	0	1
800-815	0	0	0	3	3
815-830	0	0	0	0	0
830-845	0	1	0	1	2
845-900	0	3	0	0	3
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
700-800	0	1	1	1	3
715-815	0	1	1	4	6
730-830	0	0	1	4	5
745-845	0	1	1	4	6
800-900	0	4	0	4	8

INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: TUESDAY MAY 16, 2017
 PERIOD: 2:00 PM TO 4:00 PM
 INTERSECTION: N/S EMERSON STREET
 E/W MELVILLE AVENUE
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
200-215	0	1	4	0	0	0	0	0	1	0	0	1	1	1	0	0	3	0	2	0	14
215-230	0	0	6	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	0	12
230-245	0	2	8	0	0	0	2	6	4	0	0	2	4	4	0	0	3	0	0	0	35
245-300	0	0	5	0	0	0	3	4	2	0	0	0	5	3	0	0	1	0	0	0	23
300-315	0	0	7	0	0	0	0	3	1	0	0	2	8	1	0	0	3	0	0	0	25
315-330	0	0	7	0	0	0	0	0	0	0	0	1	20	8	0	0	1	0	1	0	38
330-345	0	0	2	0	0	0	1	2	0	0	0	1	3	1	0	0	1	0	1	0	12
345-400	0	3	8	0	0	0	0	0	1	0	0	2	8	2	0	0	3	0	2	0	29
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL
200-300	0	3	23	0	0	0	5	10	7	0	0	3	15	9	0	0	7	0	2	0	84
215-315	0	2	26	0	0	0	5	13	7	0	0	4	22	9	0	0	7	0	0	0	95
230-330	0	2	27	0	0	0	5	13	7	0	0	5	37	16	0	0	8	0	1	0	121
245-345	0	0	21	0	0	0	4	9	3	0	0	4	36	13	0	0	6	0	2	0	98
300-400	0	3	24	0	0	0	1	5	2	0	0	6	39	12	0	0	8	0	4	0	104



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	0	1	0	1	2
215-230	0	8	0	1	9
230-245	0	2	0	1	3
245-300	0	3	0	1	4
300-315	1	2	0	4	7
315-330	2	2	0	2	6
330-345	0	6	0	1	7
345-400	1	1	0	6	8
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	0	14	0	4	18
215-315	1	15	0	7	23
230-330	3	9	0	8	20
245-345	3	13	0	8	24
300-400	4	11	0	13	28

BICYCLE COUNTS

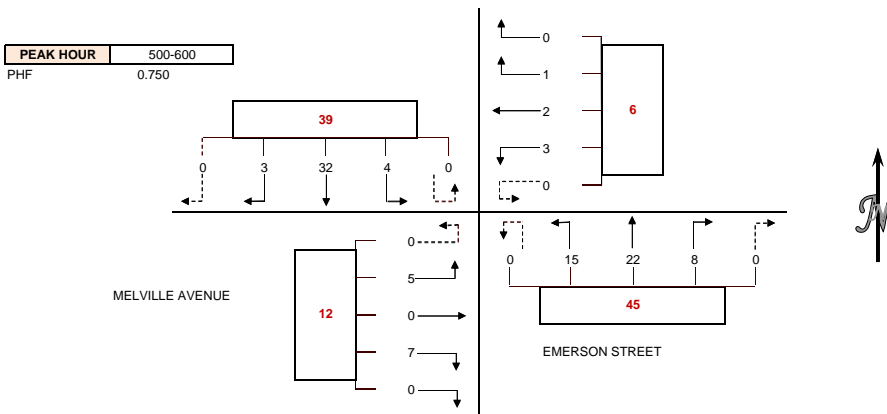
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-215	0	0	0	0	0
215-230	0	0	0	0	0
230-245	0	0	0	0	0
245-300	0	1	0	0	1
300-315	0	0	0	1	1
315-330	0	0	0	0	0
330-345	0	3	0	0	3
345-400	0	0	0	1	1
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
200-300	0	1	0	0	1
215-315	0	1	0	1	2
230-330	0	1	0	1	2
245-345	0	4	0	1	5
300-400	0	3	0	2	5

INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL
 DATE: TUESDAY MAY 16, 2017
 PERIOD: 4:00 PM TO 6:PM
 INTERSECTION: N/S EMERSON STREET
 E/W MELVILLE AVENUE
 CITY: PALO ALTO

VEHICLE COUNTS

15 MIN COUNTS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL	
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL	
400-415	0	0	8	0	0	0	1	0	3	0	0	2	4	3	0	0	0	0	2	0	23	
415-430	0	0	6	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	10	
430-445	0	1	5	0	0	0	0	0	0	0	0	0	6	1	0	0	1	0	0	0	14	
445-500	0	0	3	0	0	0	0	0	0	0	0	1	8	1	0	0	1	0	0	0	14	
500-515	0	1	8	1	0	0	0	2	0	0	0	0	10	9	0	0	2	0	1	0	34	
515-530	0	0	8	1	0	0	1	0	0	0	2	9	2	0	0	2	0	2	0	2	27	
530-545	0	1	10	1	0	0	0	0	0	0	0	1	1	3	0	0	2	0	1	0	20	
545-600	0	1	6	1	0	0	0	0	3	0	5	2	1	0	0	1	0	1	0	1	21	
HOUR TOTALS	1R	1G	2	3	3U	4R	4G	5	6	6U	7R	7G	8	9	9U	10R	10G	11	12	12U	TOTAL	
PERIOD	SBRTOR	SBRTOG	SBTH	SBLT	SBLT	WBRTOR	WBRTOG	WBTH	WBLT	WBUT	NBRTOR	NBRTOG	NBTH	NBLT	NBLT	EBRTOR	EBRTOG	EBTH	EBLT	EBUT	TOTAL	
400-500	0	1	22	0	0	0	1	0	3	0	3	22	5	0	0	2	0	2	0	2	0	61
415-515	0	2	22	1	0	0	0	2	0	0	0	1	28	11	0	0	4	0	1	0	72	
430-530	0	2	24	2	0	0	1	2	0	0	0	3	33	13	0	0	6	0	3	0	89	
445-545	0	2	29	3	0	0	1	2	0	0	0	4	28	15	0	0	7	0	4	0	95	
500-600	0	3	32	4	0	0	1	2	3	0	0	8	22	15	0	0	7	0	5	0	102	



PEDESTRIAN COUNTS

15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	1	0	0	2	3
415-430	0	3	0	1	4
430-445	0	1	1	1	3
445-500	4	0	0	2	6
500-515	1	0	0	1	2
515-530	0	0	0	1	1
530-545	0	2	0	0	2
545-600	0	0	1	0	1
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
PERIOD	LEG	LEG	LEG	LEG	TOTAL
400-500	5	4	1	6	16
415-515	5	4	1	5	15
430-530	5	1	1	5	12
445-545	5	2	0	4	11
500-600	1	2	1	2	6

BICYCLE COUNTS

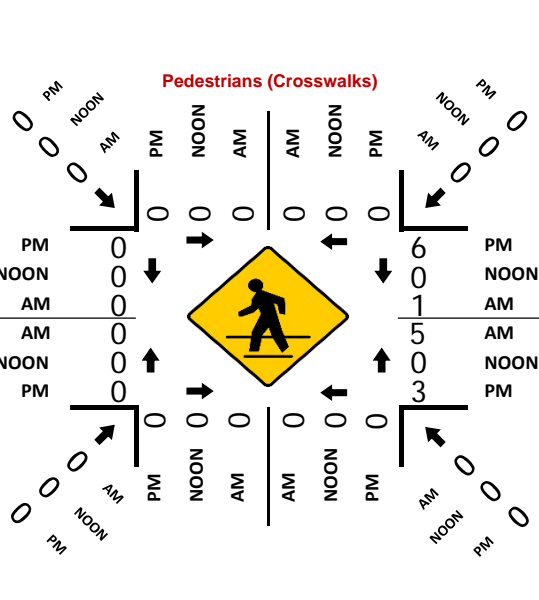
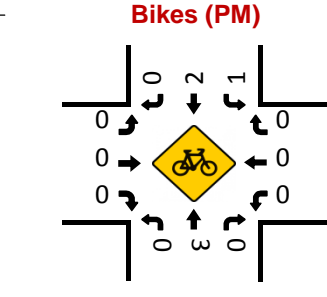
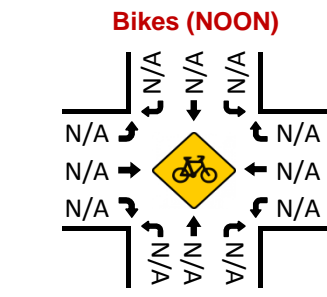
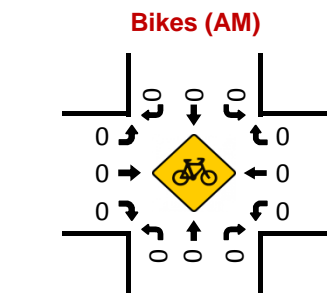
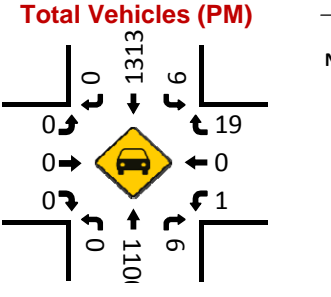
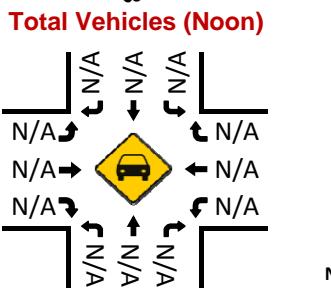
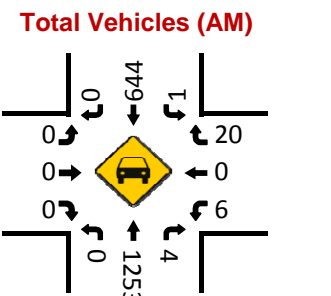
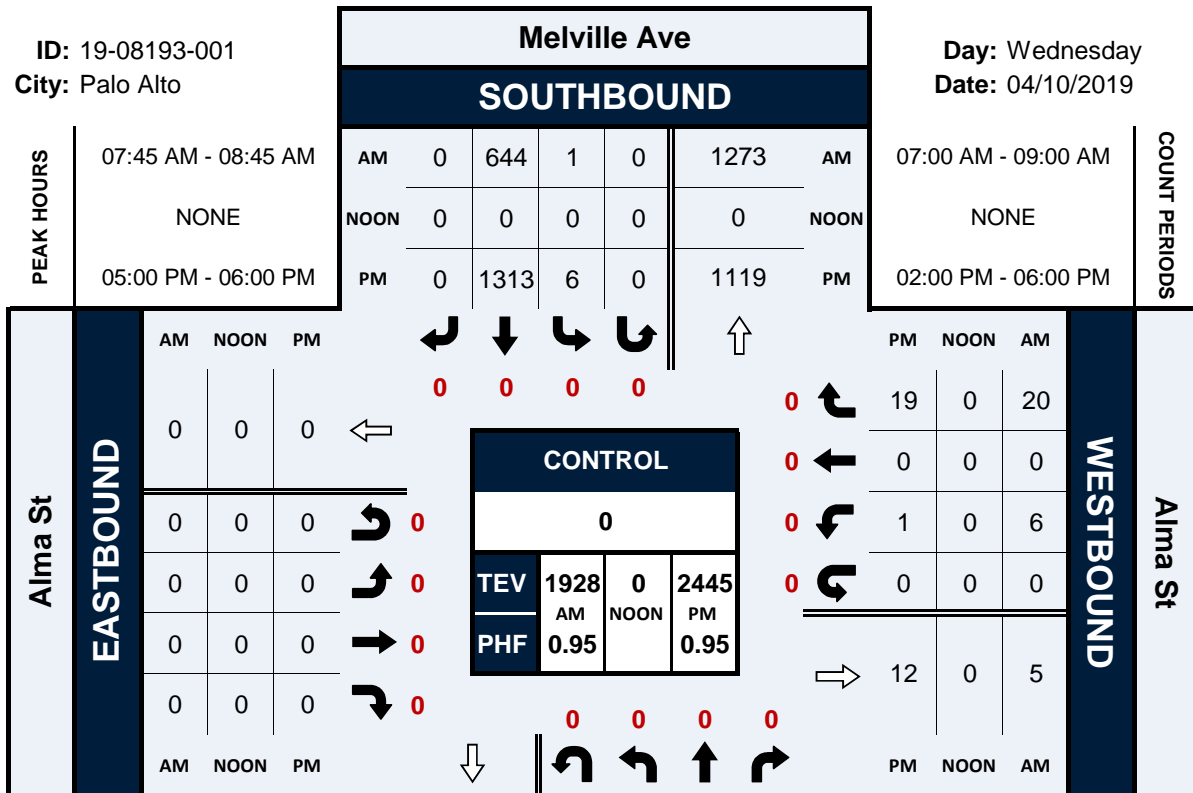
15 MIN COUNTS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
400-415	0	0	0	0	0
415-430	0	0	0	0	0
430-445	0	0	0	0	0
445-500	0	1	0	1	2
500-515	0	1	1	2	4
515-530	0	1	0	1	2
530-545	0	0	0	1	1
545-600	0	0	0	2	2
HOUR TOTALS	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG	TOTAL
PERIOD	LEG	LEG	LEG	LEG	TOTAL
400-500	0	1	0	1	2
415-515	0	2	1	3	6
430-530	0	3	1	4	8
445-545	0	3	1	5	9
500-600	0	2	1	6	9

Melville Ave & Alma St

Peak Hour Turning Movement Count

ID: 19-08193-001
City: Palo Alto

Day: Wednesday
Date: 04/10/2019

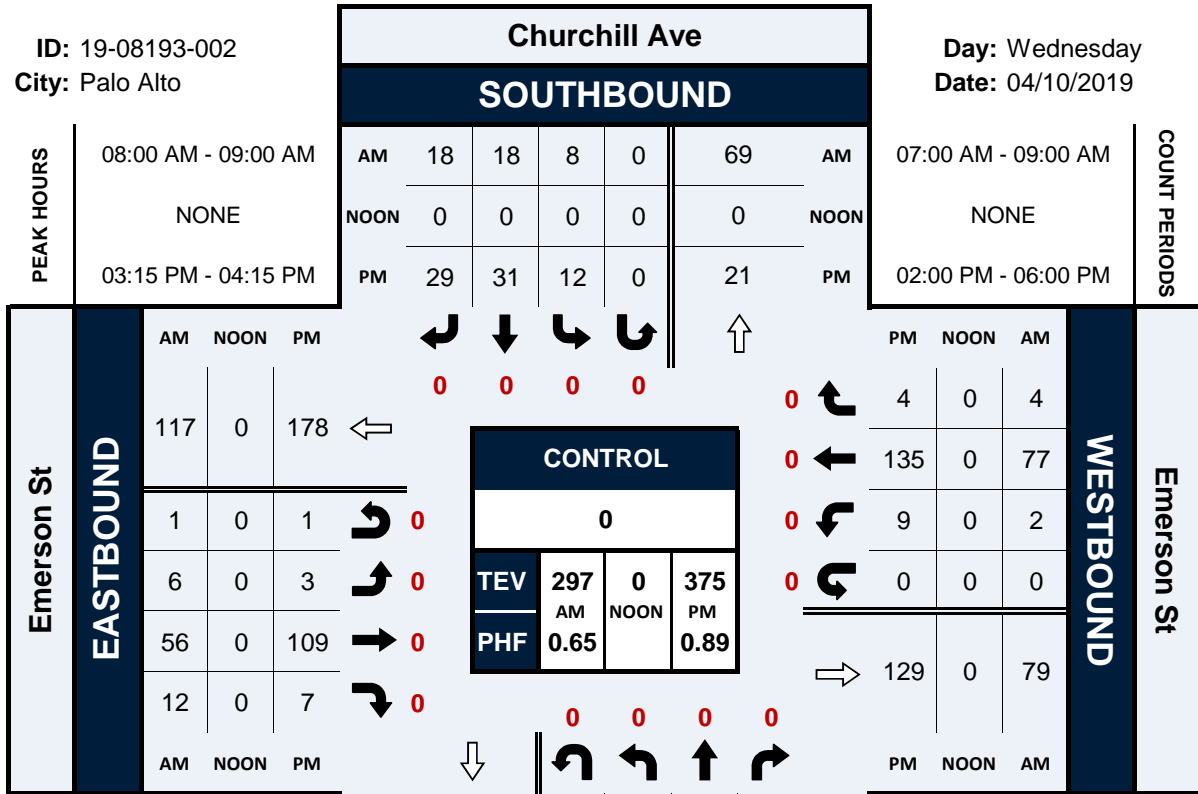


Churchill Ave & Emerson St

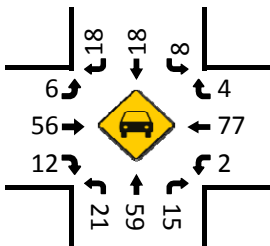
Peak Hour Turning Movement Count

ID: 19-08193-002
City: Palo Alto

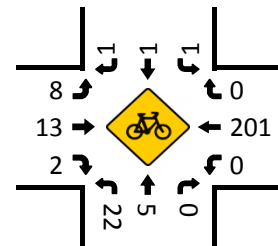
Day: Wednesday
Date: 04/10/2019



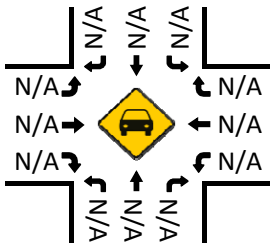
Total Vehicles (AM)



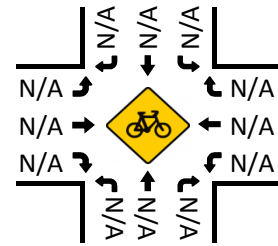
Bikes (AM)



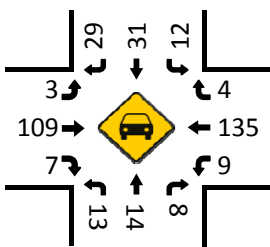
Total Vehicles (Noon)



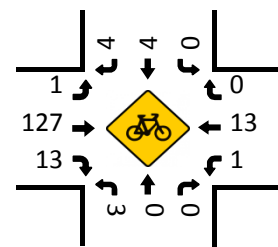
Bikes (NOON)



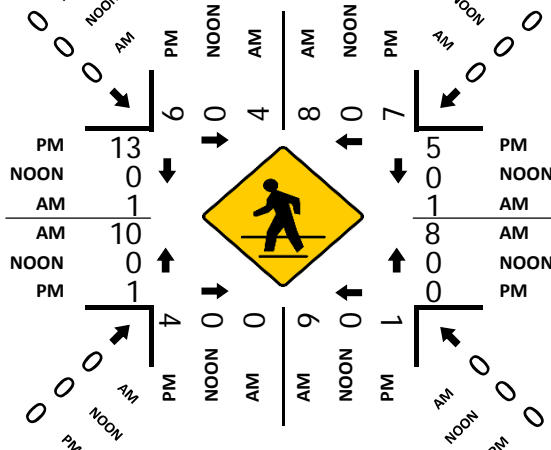
Total Vehicles (PM)



Bikes (PM)



Pedestrians (Crosswalks)

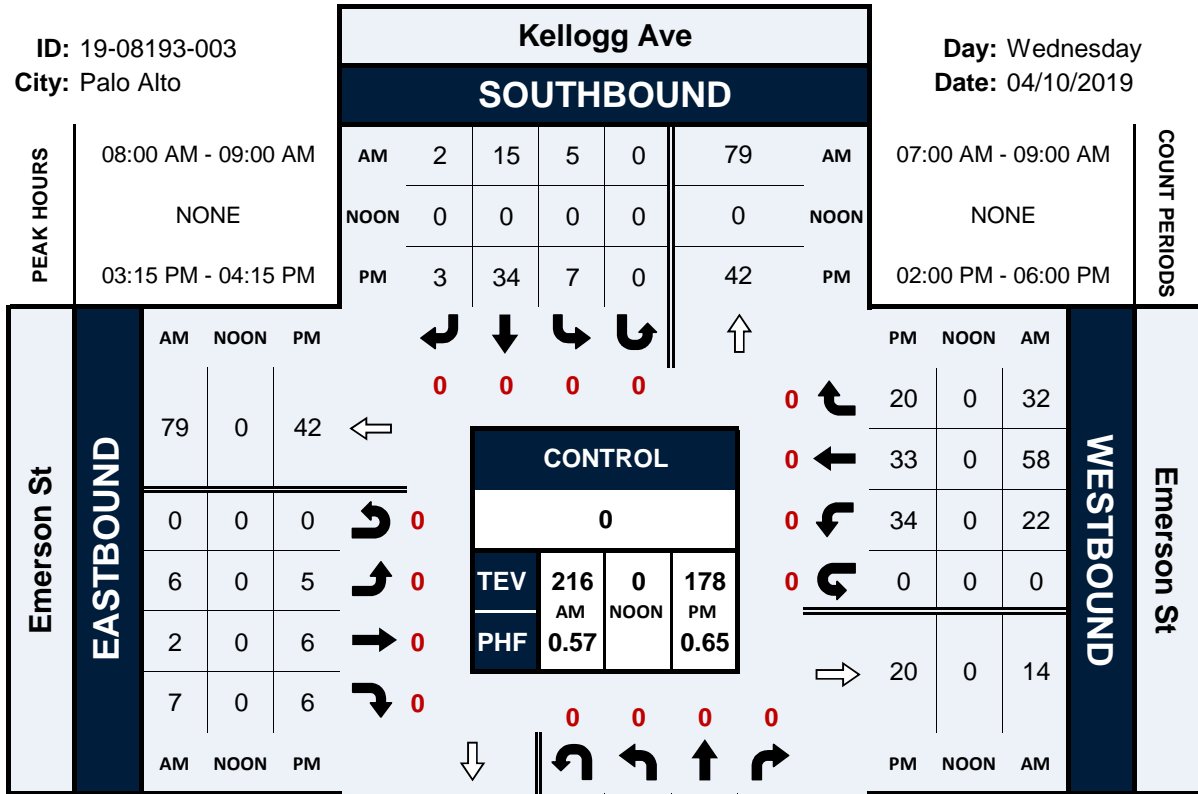


Kellogg Ave & Emerson St

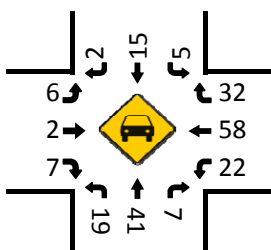
Peak Hour Turning Movement Count

ID: 19-08193-003
City: Palo Alto

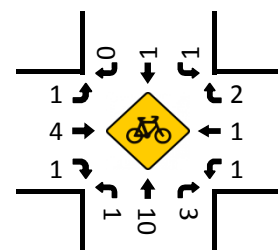
Day: Wednesday
Date: 04/10/2019



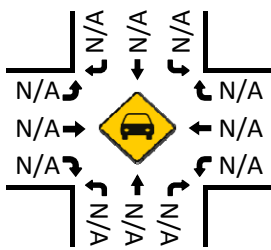
Total Vehicles (AM)



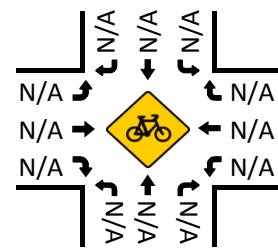
Bikes (AM)



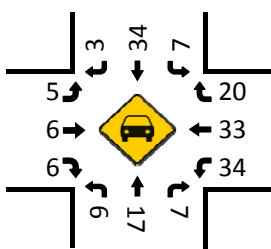
Total Vehicles (Noon)



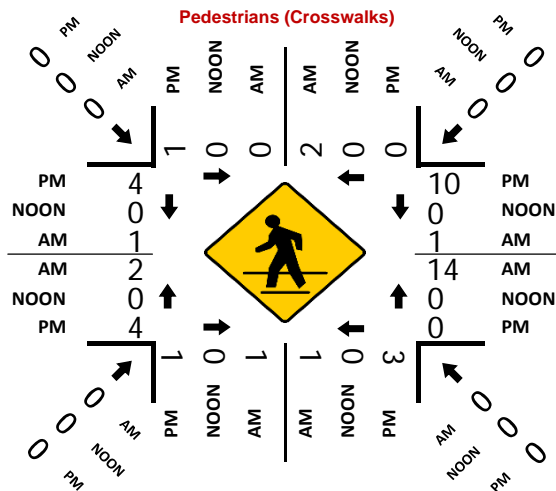
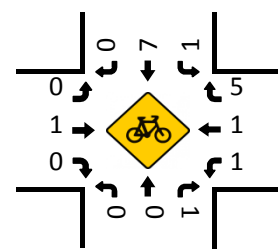
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: WAVERLY STREET
 BETWEEN LINCOLN AND KINGSLEY
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	1	0	1	
1:00	0	0	0	0	0	
2:00	0	0	0	2	2	
3:00	1	0	0	0	1	
4:00	0	0	0	1	1	
5:00	0	0	3	1	4	
6:00	5	8	3	10	26	
7:00	11	11	16	18	56	
8:00	32	33	26	30	121	
9:00	26	38	19	34	117	
10:00	24	36	23	27	110	
11:00	23	24	23	33	103	
12:00	20	32	19	20	91	
13:00	22	20	36	43	121	
14:00	30	25	30	35	120	
15:00	27	40	36	40	143	
16:00	32	24	31	30	117	
17:00	20	31	19	33	103	
18:00	34	32	23	27	116	
19:00	20	14	17	12	63	
20:00	9	9	11	8	37	
21:00	10	9	4	2	25	
22:00	7	2	2	1	12	
23:00	1	1	4	0	6	
				TOTAL	1496	
AM PEAK HOUR		0800-0900				
VOLUME		121				
PM PEAK HOUR		1515-1615				
VOLUME		148				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	2	0	0	2	
1:00	0	1	0	0	1	
2:00	0	0	0	0	0	
3:00	1	0	0	0	1	
4:00	0	0	0	0	0	
5:00	1	0	0	2	3	
6:00	0	2	4	3	9	
7:00	5	6	11	28	50	
8:00	20	24	29	55	128	
9:00	38	34	34	42	148	
10:00	34	44	34	22	134	
11:00	38	32	34	40	144	
12:00	44	46	34	48	172	
13:00	41	35	50	64	190	
14:00	51	33	38	50	172	
15:00	48	44	66	58	216	
16:00	52	48	64	53	217	
17:00	64	67	42	49	222	
18:00	42	46	43	39	170	
19:00	52	33	28	28	141	
20:00	26	26	31	20	103	
21:00	40	16	22	10	88	
22:00	7	11	6	12	36	
23:00	4	5	4	3	16	
				TOTAL	2363	
AM PEAK HOUR		0845-0945				
VOLUME		161				
PM PEAK HOUR		1630-1730				
VOLUME		248				

TOTAL BI-DIRECTIONAL VOLUME	3859
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: WAVERLY STREET
 BETWEEN KINGSLEY AND WHITMAN
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	1	0	1	0	2	
1:00	0	0	0	0	0	
2:00	0	0	0	3	3	
3:00	1	0	0	0	1	
4:00	0	0	1	1	2	
5:00	1	0	2	2	5	
6:00	5	8	3	12	28	
7:00	11	13	18	24	66	
8:00	34	34	28	30	126	
9:00	27	36	26	35	124	
10:00	23	36	26	28	113	
11:00	26	26	24	31	107	
12:00	19	28	18	19	84	
13:00	22	23	37	48	130	
14:00	30	31	27	36	124	
15:00	24	40	32	44	140	
16:00	34	26	35	32	127	
17:00	27	39	26	31	123	
18:00	35	38	27	29	129	
19:00	21	16	17	13	67	
20:00	10	15	12	9	46	
21:00	11	10	3	4	28	
22:00	6	2	3	1	12	
23:00	1	2	4	0	7	
				TOTAL	1594	
AM PEAK HOUR		0800-0900				
VOLUME		126				
PM PEAK HOUR		1515-1615				
VOLUME		150				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	3	3	0	0	6	
1:00	0	2	0	0	2	
2:00	0	0	0	0	0	
3:00	1	0	0	0	1	
4:00	0	0	0	1	1	
5:00	3	2	2	5	12	
6:00	2	6	10	9	27	
7:00	15	15	32	58	120	
8:00	39	28	36	53	156	
9:00	34	34	28	28	124	
10:00	30	36	28	19	113	
11:00	34	34	30	32	130	
12:00	36	34	32	35	137	
13:00	30	32	46	49	157	
14:00	38	28	36	36	138	
15:00	41	44	48	48	181	
16:00	46	50	63	51	210	
17:00	60	56	48	52	216	
18:00	44	41	40	33	158	
19:00	47	31	26	29	133	
20:00	26	30	34	23	113	
21:00	35	17	13	12	77	
22:00	11	10	7	15	43	
23:00	6	6	2	7	21	
				TOTAL	2276	
AM PEAK HOUR		0745-0845				
VOLUME		161				
PM PEAK HOUR		1630-1730				
VOLUME		230				

TOTAL BI-DIRECTIONAL VOLUME	3870
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24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: WAVERLY STREET
 BETWEEN WHITMAN AND MELVILLE
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	2	0	1	0	3	
1:00	0	0	0	0	0	
2:00	0	0	0	3	3	
3:00	1	0	0	0	1	
4:00	0	0	0	0	0	
5:00	1	1	2	0	4	
6:00	5	5	6	10	26	
7:00	14	16	16	22	68	
8:00	37	35	34	31	137	
9:00	28	39	26	32	125	
10:00	30	34	24	30	118	
11:00	25	25	24	30	104	
12:00	23	30	19	23	95	
13:00	21	27	33	50	131	
14:00	28	31	30	36	125	
15:00	27	40	33	39	139	
16:00	38	30	36	36	140	
17:00	32	49	26	38	145	
18:00	34	45	30	36	145	
19:00	23	21	15	12	71	
20:00	10	16	12	9	47	
21:00	8	11	5	6	30	
22:00	5	4	2	2	13	
23:00	2	2	5	0	9	
				TOTAL	1679	
AM PEAK HOUR		0800-0900				
VOLUME		137				
PM PEAK HOUR		1630-1730				
VOLUME		153				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	3	2	1	1	7	
1:00	0	2	0	0	2	
2:00	0	0	0	0	0	
3:00	1	0	0	0	1	
4:00	0	0	0	2	2	
5:00	2	2	3	3	10	
6:00	0	2	7	4	13	
7:00	14	20	29	73	136	
8:00	68	29	30	59	186	
9:00	43	44	35	38	160	
10:00	32	46	38	24	140	
11:00	44	38	36	38	156	
12:00	41	45	35	51	172	
13:00	33	36	44	56	169	
14:00	48	43	48	40	179	
15:00	52	54	58	57	221	
16:00	59	61	64	62	246	
17:00	68	72	62	54	256	
18:00	52	39	44	44	179	
19:00	57	30	32	38	157	
20:00	28	30	33	24	115	
21:00	36	24	14	11	85	
22:00	13	12	8	16	49	
23:00	8	8	4	7	27	
				TOTAL	2668	
AM PEAK HOUR		0745-0845				
VOLUME		200				
PM PEAK HOUR		1630-1730				
VOLUME		266				

TOTAL BI-DIRECTIONAL VOLUME	4347
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24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: WAVERLY STREET
 BETWEEN MELVILLE AND EMBARCADERO
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	1	0	1	0	2	
1:00	0	0	0	0	0	
2:00	0	0	0	2	2	
3:00	1	0	0	0	1	
4:00	0	0	0	0	0	
5:00	0	0	2	0	2	
6:00	6	8	3	11	28	
7:00	14	18	17	27	76	
8:00	39	47	39	30	155	
9:00	34	38	32	32	136	
10:00	31	38	25	28	122	
11:00	23	26	22	42	113	
12:00	20	33	22	27	102	
13:00	30	24	34	61	149	
14:00	34	33	26	38	131	
15:00	34	45	46	48	173	
16:00	48	38	42	43	171	
17:00	32	51	42	43	168	
18:00	45	50	40	38	173	
19:00	25	21	22	12	80	
20:00	12	17	19	15	63	
21:00	11	18	7	5	41	
22:00	6	6	3	4	19	
23:00	4	3	4	0	11	
				TOTAL	1918	
AM PEAK HOUR		0800-0900				
VOLUME		155				
PM PEAK HOUR		1515-1615				
VOLUME		187				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	5	2	1	1	9	
1:00	0	3	0	0	3	
2:00	0	0	0	1	1	
3:00	1	0	0	0	1	
4:00	0	0	0	2	2	
5:00	2	3	3	5	13	
6:00	2	7	13	13	35	
7:00	26	24	40	93	183	
8:00	90	78	64	69	301	
9:00	54	62	51	54	221	
10:00	41	50	44	28	163	
11:00	45	50	44	44	183	
12:00	48	46	45	59	198	
13:00	44	44	58	60	206	
14:00	54	52	54	52	212	
15:00	68	62	68	66	264	
16:00	56	64	72	74	266	
17:00	74	70	72	67	283	
18:00	56	49	48	48	201	
19:00	67	32	36	42	177	
20:00	29	37	34	26	126	
21:00	37	20	14	14	85	
22:00	12	10	8	18	48	
23:00	8	8	3	7	26	
				TOTAL	3207	
AM PEAK HOUR		0745-0845				
VOLUME		325				
PM PEAK HOUR		1630-1730				
VOLUME		290				

TOTAL BI-DIRECTIONAL VOLUME	5125
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: WAVERLY STREET
 BETWEEN EMBARCADERO AND KELLOG
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	2	2	
3:00	0	0	0	0	0	
4:00	0	1	0	0	1	
5:00	0	1	2	3	6	
6:00	1	3	5	0	9	
7:00	10	16	28	38	92	
8:00	58	56	76	72	262	
9:00	30	28	35	37	130	
10:00	21	21	24	26	92	
11:00	33	32	25	26	116	
12:00	16	25	30	19	90	
13:00	28	26	33	48	135	
14:00	40	34	26	43	143	
15:00	36	52	65	46	199	
16:00	36	50	38	34	158	
17:00	34	48	37	26	145	
18:00	31	36	26	30	123	
19:00	27	18	12	4	61	
20:00	11	14	6	10	41	
21:00	7	6	6	2	21	
22:00	4	2	2	3	11	
23:00	1	0	0	0	1	
				TOTAL	1838	
AM PEAK HOUR		0800-0900				
VOLUME		262				
PM PEAK HOUR		1500-1600				
VOLUME		199				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	1	1	
1:00	0	0	1	0	1	
2:00	0	0	0	0	0	
3:00	1	0	0	0	1	
4:00	0	0	0	0	0	
5:00	1	2	0	1	4	
6:00	4	12	6	8	30	
7:00	13	20	17	32	82	
8:00	64	60	30	46	200	
9:00	20	30	28	32	110	
10:00	24	16	30	16	86	
11:00	30	28	28	26	112	
12:00	29	43	31	32	135	
13:00	38	34	38	48	158	
14:00	34	29	26	37	126	
15:00	37	44	43	41	165	
16:00	35	38	45	42	160	
17:00	60	54	44	56	214	
18:00	36	40	36	20	132	
19:00	26	19	14	14	73	
20:00	15	24	9	7	55	
21:00	20	20	7	6	53	
22:00	8	3	0	7	18	
23:00	4	1	1	1	7	
				TOTAL	1923	
AM PEAK HOUR		0800-0900				
VOLUME		200				
PM PEAK HOUR		1700-1800				
VOLUME		214				

TOTAL BI-DIRECTIONAL VOLUME	3761
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: WAVERLY STREET
 BETWEEN KELLOGG AND CHURCHILL
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	1	0	0	0	1	
1:00	1	0	0	0	1	
2:00	1	0	0	2	3	
3:00	0	0	0	0	0	
4:00	0	1	0	1	2	
5:00	0	2	4	1	7	
6:00	1	4	4	2	11	
7:00	7	11	24	36	78	
8:00	53	50	49	50	202	
9:00	24	24	23	30	101	
10:00	15	20	26	19	80	
11:00	28	19	13	21	81	
12:00	10	19	24	19	72	
13:00	25	21	31	41	118	
14:00	28	29	27	32	116	
15:00	29	35	31	34	129	
16:00	36	38	32	25	131	
17:00	34	38	27	22	121	
18:00	25	25	21	19	90	
19:00	21	11	7	2	41	
20:00	7	8	5	9	29	
21:00	3	5	2	2	12	
22:00	2	3	1	1	7	
23:00	1	0	0	0	1	
				TOTAL	1434	
AM PEAK HOUR		0800-0900				
VOLUME		202				
PM PEAK HOUR		1545-1645				
VOLUME		140				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	1	1	
1:00	0	0	1	0	1	
2:00	0	0	0	0	0	
3:00	1	0	0	0	1	
4:00	0	0	0	0	0	
5:00	0	2	0	2	4	
6:00	3	5	3	3	14	
7:00	12	16	14	30	72	
8:00	47	49	24	30	150	
9:00	16	26	21	28	91	
10:00	20	14	22	16	72	
11:00	26	29	22	24	101	
12:00	24	41	29	28	122	
13:00	31	30	36	45	142	
14:00	30	29	25	34	118	
15:00	29	33	40	40	142	
16:00	34	35	44	39	152	
17:00	49	49	41	55	194	
18:00	33	38	25	15	111	
19:00	24	15	10	10	59	
20:00	12	18	8	8	46	
21:00	21	7	6	4	38	
22:00	4	2	0	4	10	
23:00	4	1	2	1	8	
				TOTAL	1649	
AM PEAK HOUR		0745-0845				
VOLUME		150				
PM PEAK HOUR		1700-1800				
VOLUME		194				

TOTAL BI-DIRECTIONAL VOLUME	3083
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: BRYANT STREET
 LINCOLN AND KINGSLEY
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	3	0	1	1	5	
1:00	0	1	1	0	2	
2:00	1	0	0	1	2	
3:00	0	0	2	1	3	
4:00	1	3	4	7	15	
5:00	3	4	9	4	20	
6:00	2	7	9	11	29	
7:00	7	12	14	24	57	
8:00	26	24	17	32	99	
9:00	19	16	20	32	87	
10:00	23	32	26	23	104	
11:00	18	27	21	19	85	
12:00	31	24	22	24	101	
13:00	24	16	27	16	83	
14:00	29	12	27	22	90	
15:00	20	22	26	18	86	
16:00	33	26	22	31	112	
17:00	29	34	52	40	155	
18:00	41	38	38	25	142	
19:00	26	24	16	18	84	
20:00	17	18	11	21	67	
21:00	14	14	12	7	47	
22:00	3	3	1	2	9	
23:00	4	3	3	3	13	
				TOTAL	1497	
AM PEAK HOUR		0945-1045				
VOLUME		113				
PM PEAK HOUR		1730-1830				
VOLUME		171				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	1	0	1	
1:00	0	0	1	0	1	
2:00	0	0	0	1	1	
3:00	0	0	1	0	1	
4:00	0	0	0	0	0	
5:00	0	1	0	2	3	
6:00	2	0	0	1	3	
7:00	9	7	9	30	55	
8:00	36	18	16	12	82	
9:00	25	14	28	14	81	
10:00	12	18	8	12	50	
11:00	14	18	22	10	64	
12:00	21	16	10	23	70	
13:00	16	14	9	16	55	
14:00	15	18	16	14	63	
15:00	16	24	22	17	79	
16:00	28	14	18	18	78	
17:00	16	14	16	20	66	
18:00	18	14	10	13	55	
19:00	14	7	11	11	43	
20:00	2	6	9	2	19	
21:00	6	4	1	2	13	
22:00	1	3	0	2	6	
23:00	2	1	0	2	5	
				TOTAL	894	
AM PEAK HOUR		0745-0845				
VOLUME		100				
PM PEAK HOUR		1515-1615				
VOLUME		91				

TOTAL BI-DIRECTIONAL VOLUME	2391
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: BRYANT STREET
 KINGSLEY AND WHITMAN
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	3	0	1	0	4	
1:00	1	1	1	0	3	
2:00	1	3	0	1	5	
3:00	0	0	2	1	3	
4:00	0	4	4	5	13	
5:00	5	4	6	6	21	
6:00	2	8	12	10	32	
7:00	14	16	12	23	65	
8:00	22	26	16	35	99	
9:00	24	18	24	20	86	
10:00	15	20	20	25	80	
11:00	15	22	25	21	83	
12:00	30	23	18	20	91	
13:00	23	14	26	14	77	
14:00	32	16	26	20	94	
15:00	23	29	30	29	111	
16:00	30	30	23	28	111	
17:00	15	22	55	41	133	
18:00	40	38	22	30	130	
19:00	25	36	16	28	105	
20:00	18	23	17	26	84	
21:00	14	14	8	10	46	
22:00	3	3	3	4	13	
23:00	5	3	3	3	14	
				TOTAL	1503	
AM PEAK HOUR		0815-0915				
VOLUME		101				
PM PEAK HOUR		1730-1830				
VOLUME		174				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	0	1	1	
4:00	0	0	0	0	0	
5:00	0	1	0	2	3	
6:00	0	0	1	3	4	
7:00	2	5	8	34	49	
8:00	39	28	26	16	109	
9:00	24	16	12	32	84	
10:00	15	21	14	25	75	
11:00	15	20	25	21	81	
12:00	28	20	20	20	88	
13:00	20	21	7	17	65	
14:00	18	13	17	16	64	
15:00	12	16	25	12	65	
16:00	14	12	11	20	57	
17:00	15	12	10	14	51	
18:00	12	10	12	8	42	
19:00	10	6	4	0	20	
20:00	2	2	4	1	9	
21:00	4	0	8	2	14	
22:00	3	2	3	0	8	
23:00	0	0	0	2	2	
				TOTAL	891	
AM PEAK HOUR		0745-0845				
VOLUME		127				
PM PEAK HOUR		1200-1300				
VOLUME		88				

TOTAL BI-DIRECTIONAL VOLUME	2394
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: BRYANT STREET
 WHITMAN AND EMBARCADERO
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	3	0	1	0	4	
1:00	1	1	1	0	3	
2:00	1	3	0	1	5	
3:00	0	0	2	1	3	
4:00	0	4	4	7	15	
5:00	3	4	7	5	19	
6:00	2	10	10	10	32	
7:00	12	18	16	10	56	
8:00	26	28	20	28	102	
9:00	21	17	20	34	92	
10:00	20	33	24	30	107	
11:00	20	30	24	26	100	
12:00	32	24	30	23	109	
13:00	26	18	28	15	87	
14:00	32	16	25	18	91	
15:00	25	26	29	24	104	
16:00	33	27	28	34	122	
17:00	32	36	49	44	161	
18:00	45	47	43	28	163	
19:00	33	28	16	23	100	
20:00	16	22	14	25	77	
21:00	13	13	15	9	50	
22:00	3	2	3	5	13	
23:00	4	3	4	3	14	
				TOTAL	1629	
AM PEAK HOUR		0945-1045				
VOLUME		111				
PM PEAK HOUR		1730-1830				
VOLUME		185				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	1	0	1	
4:00	0	0	0	0	0	
5:00	0	1	2	3	6	
6:00	1	2	2	3	8	
7:00	4	4	10	26	44	
8:00	34	18	21	24	97	
9:00	28	18	24	22	92	
10:00	18	25	13	14	70	
11:00	18	18	30	14	80	
12:00	26	16	20	22	84	
13:00	19	16	10	18	63	
14:00	18	14	17	18	67	
15:00	12	18	32	18	80	
16:00	16	18	10	18	62	
17:00	12	16	20	20	68	
18:00	15	17	14	9	55	
19:00	12	7	6	7	32	
20:00	8	4	6	3	21	
21:00	5	0	0	2	7	
22:00	2	4	2	0	8	
23:00	0	0	0	0	0	
				TOTAL	945	
AM PEAK HOUR		0745-0845				
VOLUME		99				
PM PEAK HOUR		1200-1300				
VOLUME		84				

TOTAL BI-DIRECTIONAL VOLUME	2574
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: BRYANT STREET
 BETWEEN EMBARCADERO AND KELLOGG
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	2	0	0	0	2	
4:00	0	0	0	0	0	
5:00	1	0	0	1	2	
6:00	0	0	1	0	1	
7:00	2	1	1	0	4	
8:00	2	2	2	6	12	
9:00	1	2	1	1	5	
10:00	3	2	1	0	6	
11:00	1	6	0	4	11	
12:00	1	2	1	1	5	
13:00	2	1	0	1	4	
14:00	3	1	2	2	8	
15:00	3	2	0	2	7	
16:00	7	3	0	4	14	
17:00	4	5	3	2	14	
18:00	1	1	1	2	5	
19:00	2	1	3	0	6	
20:00	0	2	0	2	4	
21:00	2	0	0	0	2	
22:00	0	0	0	0	0	
23:00	0	1	0	0	1	
				TOTAL	113	
AM PEAK HOUR		0800-0900				
VOLUME		12				
PM PEAK HOUR		1645-1745				
VOLUME		16				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	1	2	3	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	0	1	0	0	1	
5:00	0	3	0	1	4	
6:00	1	0	3	4	8	
7:00	6	6	5	16	33	
8:00	6	12	41	51	110	
9:00	8	2	6	8	24	
10:00	9	8	8	9	34	
11:00	11	6	6	5	28	
12:00	5	6	2	6	19	
13:00	7	1	10	8	26	
14:00	8	7	6	11	32	
15:00	32	62	29	23	146	
16:00	14	27	21	21	83	
17:00	18	24	20	12	74	
18:00	18	7	13	19	57	
19:00	10	4	7	3	24	
20:00	5	5	10	5	25	
21:00	7	7	6	0	20	
22:00	2	0	2	1	5	
23:00	0	0	1	0	1	
				TOTAL	757	
AM PEAK HOUR		0815-0915				
VOLUME		112				
PM PEAK HOUR		1500-1600				
VOLUME		146				

TOTAL BI-DIRECTIONAL VOLUME	870
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SPEED SURVEYS

CLIENT: W-TRANS
 PROJECT: PALO ALTO HIGH SCHOOL
 DATE: WEDNESDAY JANUARY 25, 2017
 LOCATION: BRYANT STREET BETWEEN EMBARCADERO AND KELLOGG
 DIRECTION: NORTHBOUND
 SPEED LIMIT: 25

BEGIN TIME	TOTAL	0-14 MPH	15-19 MPH	20-24 MPH	25-29 MPH	30-34 MPH	35-39 MPH	40-44 MPH	45-49 MPH	50-54 MPH	55-59 MPH	60-64 MPH	65-69 MPH	70-99 MPH	AVG SPEED
0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	2	1	0	1	0	0	0	0	0	0	0	0	0	0	15
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	2	0	2	0	0	0	0	0	0	0	0	0	0	0	17
6:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	17
7:00	4	0	1	2	1	0	0	0	0	0	0	0	0	0	22
8:00	12	1	6	2	2	1	0	0	0	0	0	0	0	0	20
9:00	5	1	1	1	2	0	0	0	0	0	0	0	0	0	20
10:00	6	1	2	1	1	1	0	0	0	0	0	0	0	0	20
11:00	11	2	4	3	2	0	0	0	0	0	0	0	0	0	18
12:00	5	0	1	2	2	0	0	0	0	0	0	0	0	0	23
13:00	4	0	1	2	1	0	0	0	0	0	0	0	0	0	22
14:00	8	3	1	2	2	0	0	0	0	0	0	0	0	0	17
15:00	7	1	2	3	1	0	0	0	0	0	0	0	0	0	19
16:00	13	1	7	4	0	1	0	0	0	0	0	0	0	0	24
17:00	14	2	2	5	5	0	0	0	0	0	0	0	0	0	21
18:00	5	0	2	1	2	0	0	0	0	0	0	0	0	0	22
19:00	6	1	1	1	2	1	0	0	0	0	0	0	0	0	22
20:00	4	0	2	1	1	0	0	0	0	0	0	0	0	0	21
21:00	2	1	1	0	0	0	0	0	0	0	0	0	0	0	19
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	17

DAILY 111 15 38 31 24 4 0 0 0 0 0 0 0 0 20

TOTALS:

PERCENT 13.5% 34.2% 27.9% 21.6% 3.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

TOTALS:

PERCENTILE SPEEDS: 10% 15% 50% 85% 90%
 12.2 15.3 20.6 27.7 28.8

SPEED EXCEEDED: 45 MPH 55 MPH 65 MPH 10 MPH PACE SPEED: 15-25
 PERCENTAGE: 0.0 0.0 0.0 NUMBER IN PACE: 69
 TOTALS: 0 0 0 % IN PACE: 61.1

SPEED SURVEYS

CLIENT: W-TRANS
 PROJECT: PALO ALTO HIGH SCHOOL
 DATE: WEDNESDAY JANUARY 25, 2017
 LOCATION: BRYANT STREET BETWEEN EMBARCADERO AND KELLOGG
 DIRECTION: SOUTHBOUND
 SPEED LIMIT: 25

BEGIN TIME	TOTAL	0-14 MPH	15-19 MPH	20-24 MPH	25-29 MPH	30-34 MPH	35-39 MPH	40-44 MPH	45-49 MPH	50-54 MPH	55-59 MPH	60-64 MPH	65-69 MPH	70-99 MPH	AVG SPEED
0:00	3	2	1	0	0	0	0	0	0	0	0	0	0	0	15
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	1	0	0	1	0	0	0	0	0	0	0	0	0	0	22
5:00	4	0	0	1	3	0	0	0	0	0	0	0	0	0	26
6:00	8	1	1	2	1	3	0	0	0	0	0	0	0	0	24
7:00	33	2	9	15	6	1	0	0	0	0	0	0	0	0	21
8:00	110	21	63	19	4	2	0	0	0	0	0	1	0	0	17
9:00	24	5	8	6	5	0	0	0	0	0	0	0	0	0	18
10:00	34	1	10	16	4	3	0	0	0	0	0	0	0	0	22
11:00	28	2	12	8	3	3	0	0	0	0	0	0	0	0	20
12:00	19	0	7	6	3	1	2	0	0	0	0	0	0	0	23
13:00	26	1	5	8	8	4	0	0	0	0	0	0	0	0	24
14:00	32	4	7	11	7	3	0	0	0	0	0	0	0	0	21
15:00	146	48	66	25	4	1	2	0	0	0	0	0	0	0	15
16:00	83	15	28	29	9	1	0	0	0	0	0	1	0	0	19
17:00	74	7	33	16	14	4	0	0	0	0	0	0	0	0	20
18:00	57	3	22	24	8	0	0	0	0	0	0	0	0	0	20
19:00	24	2	8	5	6	3	0	0	0	0	0	0	0	0	22
20:00	25	0	5	9	9	1	1	0	0	0	0	0	0	0	24
21:00	20	1	4	6	9	0	0	0	0	0	0	0	0	0	23
22:00	5	0	1	4	0	0	0	0	0	0	0	0	0	0	21
23:00	1	0	0	1	0	0	0	0	0	0	0	0	0	0	22
DAILY	757	115	290	212	103	30	5	0	0	0	0	2	0	0	19

TOTALS:

PERCENT **15.2%** **38.3%** **28.0%** **13.6%** **4.0%** **0.7%** **0.0%** **0.0%** **0.0%** **0.0%** **0.0%** **0.3%** **0.0%** **0.0%**

TOTALS:

PERCENTILE SPEEDS: **10%** **15%** **50%** **85%** **90%**
 15.2 14.9 19.6 26.3 28.2

SPEED EXCEEDED: **45 MPH** **55 MPH** **65 MPH** 10 MPH PACE SPEED: 15-25
 PERCENTAGE: 0.3 0.3 0.0 NUMBER IN PACE: 502
 TOTALS: 2 2 0 % IN PACE: 66.3

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: BRYANT STREET
 BETWEEN KELLOGG AND CHURCHILL
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	0	0	0	0	0	
5:00	0	0	0	0	0	
6:00	0	0	0	2	2	
7:00	0	4	6	10	20	
8:00	9	9	5	20	43	
9:00	3	3	1	3	10	
10:00	4	1	0	3	8	
11:00	3	5	2	3	13	
12:00	3	3	1	3	10	
13:00	1	3	0	4	8	
14:00	2	3	2	1	8	
15:00	9	11	7	4	31	
16:00	8	4	4	13	29	
17:00	8	9	4	4	25	
18:00	1	3	4	5	13	
19:00	4	3	2	1	10	
20:00	2	1	0	3	6	
21:00	1	1	0	0	2	
22:00	0	0	0	0	0	
23:00	0	1	0	0	1	
				TOTAL	239	
AM PEAK HOUR		0800-0900				
VOLUME		43				
PM PEAK HOUR		1630-1730				
VOLUME		34				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	0	0	0	0	0	
5:00	0	0	0	0	0	
6:00	0	0	0	1	1	
7:00	0	0	0	0	0	
8:00	0	0	2	1	3	
9:00	0	1	0	2	3	
10:00	4	6	3	8	21	
11:00	3	3	1	4	11	
12:00	7	3	1	7	18	
13:00	8	1	10	6	25	
14:00	9	5	4	10	28	
15:00	6	29	13	14	62	
16:00	8	11	13	13	45	
17:00	16	13	12	6	47	
18:00	7	6	4	3	20	
19:00	7	3	1	3	14	
20:00	1	5	7	3	16	
21:00	3	5	3	1	12	
22:00	1	0	1	0	2	
23:00	0	0	0	0	0	
				TOTAL	328	
AM PEAK HOUR		1000-1100				
VOLUME		21				
PM PEAK HOUR		1515-1615				
VOLUME		64				

TOTAL BI-DIRECTIONAL VOLUME	567
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

SPEED SURVEYS

CLIENT: W-TRANS
 PROJECT: PALO ALTO HIGH SCHOOL
 DATE: WEDNESDAY JANUARY 25, 2017
 LOCATION: BRYANT STREET BETWEEN KELLOGG AND CHURCHILL
 DIRECTION: NORTHBOUND
 SPEED LIMIT: 25

BEGIN TIME	TOTAL	0-14 MPH	15-19 MPH	20-24 MPH	25-29 MPH	30-34 MPH	35-39 MPH	40-44 MPH	45-49 MPH	50-54 MPH	55-59 MPH	60-64 MPH	65-69 MPH	70-99 MPH	AVG SPEED
0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	2	0	0	0	2	0	0	0	0	0	0	0	0	0	27
7:00	20	0	0	13	6	1	0	0	0	0	0	0	0	0	24
8:00	43	0	3	16	15	9	0	0	0	0	0	0	0	0	25
9:00	10	1	1	1	6	1	0	0	0	0	0	0	0	0	24
10:00	8	1	1	3	3	0	0	0	0	0	0	0	0	0	22
11:00	13	0	3	3	6	0	1	0	0	0	0	0	0	0	24
12:00	10	2	1	2	3	2	0	0	0	0	0	0	0	0	22
13:00	8	0	2	3	2	1	0	0	0	0	0	0	0	0	23
14:00	8	0	0	4	4	0	0	0	0	0	0	0	0	0	24
15:00	31	2	6	5	17	1	0	0	0	0	0	0	0	0	23
16:00	29	0	6	12	6	4	1	0	0	0	0	0	0	0	24
17:00	25	0	3	13	7	1	0	0	0	1	0	0	0	0	24
18:00	13	0	1	4	7	0	1	0	0	0	0	0	0	0	25
19:00	10	1	2	2	3	2	0	0	0	0	0	0	0	0	23
20:00	6	0	1	1	3	1	0	0	0	0	0	0	0	0	25
21:00	2	0	1	1	0	0	0	0	0	0	0	0	0	0	20
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	1	0	0	1	0	0	0	0	0	0	0	0	0	0	22

DAILY **239** **7** **31** **84** **90** **23** **3** **0** **0** **1** **0** **0** **0** **0** **24**

TOTALS:

PERCENT **2.9%** **13.0%** **35.1%** **37.7%** **9.6%** **1.3%** **0.0%** **0.0%** **0.4%** **0.0%** **0.0%** **0.0%** **0.0%** **0.0%**

TOTALS:

PERCENTILE SPEEDS: **10%** **15%** **50%** **85%** **90%**
 17.7 19.7 24.9 29.6 30.9

SPEED EXCEEDED: **45 MPH** **55 MPH** **65 MPH** 10 MPH PACE SPEED: 20-30
 PERCENTAGE: 0.4 0.0 0.0 NUMBER IN PACE: 174
 TOTALS: 1 0 0 % IN PACE: 72.8

SPEED SURVEYS

CLIENT: W-TRANS
 PROJECT: PALO ALTO HIGH SCHOOL
 DATE: WEDNESDAY JANUARY 25, 2017
 LOCATION: BRYANT STREET BETWEEN KELLOGG AND CHURCHILL
 DIRECTION: SOUTHBOUND
 SPEED LIMIT: 25

BEGIN TIME	TOTAL	0-14 MPH	15-19 MPH	20-24 MPH	25-29 MPH	30-34 MPH	35-39 MPH	40-44 MPH	45-49 MPH	50-54 MPH	55-59 MPH	60-64 MPH	65-69 MPH	70-99 MPH	AVG SPEED
0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	27
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	3	0	0	1	1	1	0	0	0	0	0	0	0	0	27
9:00	3	0	0	1	1	1	0	0	0	0	0	0	0	0	27
10:00	21	0	2	7	7	5	0	0	0	0	0	0	0	0	26
11:00	11	0	1	1	7	1	1	0	0	0	0	0	0	0	27
12:00	18	0	1	6	8	2	1	0	0	0	0	0	0	0	26
13:00	25	1	1	10	10	3	0	0	0	0	0	0	0	0	24
14:00	28	1	4	9	9	4	1	0	0	0	0	0	0	0	24
15:00	62	5	9	29	16	3	0	0	0	0	0	0	0	0	22
16:00	45	3	7	13	17	5	0	0	0	0	0	0	0	0	23
17:00	46	3	2	16	20	5	0	0	0	0	0	0	0	0	25
18:00	20	0	2	9	7	2	0	0	0	0	0	0	0	0	24
19:00	14	0	0	6	6	2	0	0	0	0	0	0	0	0	26
20:00	16	0	0	6	7	2	0	0	0	0	0	0	0	0	26
21:00	12	0	0	6	5	1	0	0	0	0	0	0	0	0	25
22:00	2	0	0	1	1	0	0	0	0	0	0	0	0	0	24
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAILY	327	13	29	121	123	37	3	0	0	0	0	0	0	0	24

TOTALS:

PERCENT **4.0%** **8.9%** **37.0%** **37.6%** **11.3%** **0.9%** **0.0%** **0.0%** **0.0%** **0.0%** **0.0%** **0.0%** **0.0%** **0.0%**

TOTALS:

PERCENTILE SPEEDS: **10%** **15%** **50%** **85%** **90%**
 18.4 20.3 25.0 29.7 31.4

SPEED EXCEEDED: **45 MPH** **55 MPH** **65 MPH** 10 MPH PACE SPEED: 20-30
 PERCENTAGE: 0.0 0.0 0.0 NUMBER IN PACE: 244
 TOTALS: 0 0 0 % IN PACE: 74.4

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: EMMERSON STREET
 BETWEEN LINCOLN AND KINGSLEY
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	1	0	0	1	
3:00	0	0	0	1	1	
4:00	1	0	0	0	1	
5:00	1	1	2	3	7	
6:00	3	2	5	7	17	
7:00	12	5	5	4	26	
8:00	0	1	0	1	2	
9:00	4	0	0	0	4	
10:00	1	0	0	4	5	
11:00	1	0	1	0	2	
12:00	0	1	0	0	1	
13:00	0	2	2	1	5	
14:00	1	1	2	1	5	
15:00	2	1	1	3	7	
16:00	2	7	8	6	23	
17:00	3	7	10	12	32	
18:00	7	19	8	12	46	
19:00	12	5	6	2	25	
20:00	8	2	4	1	15	
21:00	4	3	1	2	10	
22:00	2	4	1	0	7	
23:00	1	2	0	0	3	
				TOTAL	245	
AM PEAK HOUR		0630-0730				
VOLUME		29				
PM PEAK HOUR		1815-1915				
VOLUME		51				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	1	1	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	0	0	0	0	0	
5:00	0	0	0	2	2	
6:00	0	2	6	2	10	
7:00	6	12	4	1	23	
8:00	0	0	0	0	0	
9:00	0	0	0	0	0	
10:00	0	0	0	0	0	
11:00	0	0	1	0	1	
12:00	0	1	0	0	1	
13:00	1	0	0	0	1	
14:00	0	0	2	2	4	
15:00	1	3	4	1	9	
16:00	1	7	12	6	26	
17:00	11	10	9	16	46	
18:00	10	20	6	18	54	
19:00	6	3	3	6	18	
20:00	0	5	3	3	11	
21:00	2	1	2	4	9	
22:00	0	0	1	0	1	
23:00	1	0	0	0	1	
				TOTAL	218	
AM PEAK HOUR		0630-0730				
VOLUME		26				
PM PEAK HOUR		1730-1830				
VOLUME		55				

TOTAL BI-DIRECTIONAL VOLUME	463
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: EMMERSON STREET
 BETWEEN KINGSLEY AND EMBARCADERO
 DATE: THURSDAY JANUARY 26, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	2	0	0	2	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	1	0	0	0	1	
5:00	0	2	1	2	5	
6:00	3	1	1	1	6	
7:00	5	5	7	2	19	
8:00	6	3	4	8	21	
9:00	7	4	3	7	21	
10:00	5	2	6	4	17	
11:00	6	9	5	10	30	
12:00	7	7	5	6	25	
13:00	2	3	5	4	14	
14:00	7	2	8	2	19	
15:00	4	4	4	3	15	
16:00	4	6	4	2	16	
17:00	8	7	6	4	25	
18:00	4	2	6	8	20	
19:00	2	5	1	4	12	
20:00	5	7	3	0	15	
21:00	3	5	0	2	10	
22:00	0	2	0	0	2	
23:00	0	0	0	1	1	
				TOTAL	296	
AM PEAK HOUR		1100-1200				
VOLUME		30				
PM PEAK HOUR		1200-1300				
VOLUME		25				

DIRECTION:		O				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	0	0	0	0	0	
5:00	0	0	0	0	0	
6:00	0	0	0	0	0	
7:00	0	0	0	0	0	
8:00	0	0	0	0	0	
9:00	0	0	0	0	0	
10:00	0	0	0	0	0	
11:00	0	0	0	0	0	
12:00	0	0	0	0	0	
13:00	0	0	0	0	0	
14:00	0	0	0	0	0	
15:00	0	0	0	0	0	
16:00	0	0	0	0	0	
17:00	0	0	0	0	0	
18:00	0	0	0	0	0	
19:00	0	0	0	0	0	
20:00	0	0	0	0	0	
21:00	0	0	0	0	0	
22:00	0	0	0	0	0	
23:00	0	0	0	0	0	
				TOTAL	0	
AM PEAK HOUR		0000-0100				
VOLUME		0				
PM PEAK HOUR		1200-1300				
VOLUME		0				

TOTAL BI-DIRECTIONAL VOLUME	296
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: EMMERSON STREET
 BETWEEN EMBARCADERO AND MELVILLE
 DATE: THURSDAY JANUARY 26, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	2	0	0	0	2	
1:00	1	0	0	0	1	
2:00	0	0	0	0	0	
3:00	0	0	1	0	1	
4:00	0	0	1	0	1	
5:00	0	0	0	0	0	
6:00	0	0	0	0	0	
7:00	2	0	9	21	32	
8:00	4	4	5	8	21	
9:00	2	3	5	8	18	
10:00	2	3	6	11	22	
11:00	8	5	1	2	16	
12:00	2	2	0	2	6	
13:00	1	1	2	0	4	
14:00	4	4	4	3	15	
15:00	13	40	14	6	73	
16:00	8	9	9	12	38	
17:00	6	10	3	7	26	
18:00	7	2	6	4	19	
19:00	6	5	7	2	20	
20:00	18	10	1	2	31	
21:00	6	4	1	1	12	
22:00	2	3	0	3	8	
23:00	1	0	0	0	1	
				TOTAL	367	
AM PEAK HOUR		0730-0830				
VOLUME		38				
PM PEAK HOUR		1500-1600				
VOLUME		73				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	2	2	1	0	5	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	0	0	0	0	0	
5:00	1	0	0	0	1	
6:00	0	0	2	4	6	
7:00	4	4	7	8	23	
8:00	8	4	10	6	28	
9:00	9	4	7	12	32	
10:00	8	4	4	6	22	
11:00	5	7	9	4	25	
12:00	4	8	3	9	24	
13:00	8	2	10	6	26	
14:00	8	8	8	8	32	
15:00	8	12	14	8	42	
16:00	12	12	10	10	44	
17:00	13	12	10	12	47	
18:00	7	12	13	10	42	
19:00	8	7	6	6	27	
20:00	2	4	10	6	22	
21:00	12	4	5	2	23	
22:00	4	0	0	0	4	
23:00	0	0	0	0	0	
				TOTAL	475	
AM PEAK HOUR		0900-1000				
VOLUME		32				
PM PEAK HOUR		1700-1800				
VOLUME		47				

TOTAL BI-DIRECTIONAL VOLUME	842
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: EMMERSON STREET
 MELVILLE AND KELLOGG
 DATE: THURSDAY JANUARY 26, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	1	1	
1:00	0	2	0	0	2	
2:00	0	0	0	0	0	
3:00	0	2	0	0	2	
4:00	0	0	0	0	0	
5:00	0	0	0	0	0	
6:00	0	0	0	1	1	
7:00	2	2	16	20	40	
8:00	15	3	4	2	24	
9:00	3	4	3	1	11	
10:00	3	2	3	2	10	
11:00	1	2	4	3	10	
12:00	2	2	3	1	8	
13:00	3	1	5	5	14	
14:00	2	4	6	4	16	
15:00	1	5	12	13	31	
16:00	9	10	6	12	37	
17:00	7	8	12	9	36	
18:00	4	3	8	19	34	
19:00	5	3	7	4	19	
20:00	8	10	4	1	23	
21:00	6	3	3	2	14	
22:00	2	2	1	1	6	
23:00	0	0	0	0	0	
				TOTAL	339	
AM PEAK HOUR		0730-0830				
VOLUME		54				
PM PEAK HOUR		1530-1630				
VOLUME		44				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	1	0	1	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	0	0	1	0	1	
5:00	3	0	0	0	3	
6:00	0	0	1	2	3	
7:00	3	3	3	5	14	
8:00	3	4	6	5	18	
9:00	4	5	3	2	14	
10:00	1	3	2	1	7	
11:00	3	2	1	1	7	
12:00	1	1	2	1	5	
13:00	1	2	1	2	6	
14:00	3	2	1	1	7	
15:00	1	5	14	10	30	
16:00	8	10	14	12	44	
17:00	10	14	10	19	53	
18:00	10	13	11	6	40	
19:00	8	8	3	6	25	
20:00	10	2	8	2	22	
21:00	4	6	2	1	13	
22:00	3	0	0	0	3	
23:00	0	0	0	0	0	
				TOTAL	316	
AM PEAK HOUR		0830-0930				
VOLUME		20				
PM PEAK HOUR		1700-1800				
VOLUME		53				

TOTAL BI-DIRECTIONAL VOLUME	655
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: EMMERSON STREET
 BETWEEN KELLOGG AND CHURCHILL
 DATE: THURSDAY JANUARY 26, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	1	0	0	1	
2:00	0	0	1	1	2	
3:00	0	0	0	0	0	
4:00	0	0	0	0	0	
5:00	1	0	0	1	2	
6:00	0	0	0	3	3	
7:00	2	0	4	25	31	
8:00	21	5	3	7	36	
9:00	2	4	4	2	12	
10:00	1	2	7	2	12	
11:00	3	1	4	3	11	
12:00	2	6	3	0	11	
13:00	5	1	5	3	14	
14:00	5	2	6	4	17	
15:00	6	7	5	6	24	
16:00	2	4	6	7	19	
17:00	7	5	3	1	16	
18:00	6	3	2	2	13	
19:00	0	1	0	1	2	
20:00	0	1	1	0	2	
21:00	0	1	0	0	1	
22:00	1	1	0	0	2	
23:00	0	0	0	0	0	
				TOTAL	231	
AM PEAK HOUR		0730-0830				
VOLUME		55				
PM PEAK HOUR		1630-1730				
VOLUME		25				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	1	0	1	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	2	0	0	0	2	
4:00	0	0	0	0	0	
5:00	0	0	0	0	0	
6:00	0	0	2	1	3	
7:00	5	2	8	32	47	
8:00	10	8	1	4	23	
9:00	2	5	6	7	20	
10:00	5	6	5	4	20	
11:00	8	8	4	5	25	
12:00	6	3	6	6	21	
13:00	4	3	5	5	17	
14:00	8	8	6	7	29	
15:00	14	28	22	16	80	
16:00	16	16	22	12	66	
17:00	19	20	14	16	69	
18:00	14	3	20	7	44	
19:00	8	5	4	2	19	
20:00	7	1	3	2	13	
21:00	5	2	2	1	10	
22:00	2	1	1	0	4	
23:00	0	0	0	0	0	
				TOTAL	513	
AM PEAK HOUR		0730-0830				
VOLUME		58				
PM PEAK HOUR		1515-1615				
VOLUME		82				

TOTAL BI-DIRECTIONAL VOLUME	744
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: CHURCHILL AVENUE
 BETWEEN WAVERLY AND BRYANT
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		EB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	2	0	0	0	2	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	1	0	0	0	1	
4:00	0	2	0	0	2	
5:00	0	0	1	0	1	
6:00	0	0	0	2	2	
7:00	1	0	2	1	4	
8:00	0	6	5	7	18	
9:00	5	8	5	12	30	
10:00	8	10	10	22	50	
11:00	18	24	16	30	88	
12:00	20	28	26	22	96	
13:00	42	36	44	38	160	
14:00	39	28	57	30	154	
15:00	50	73	49	54	226	
16:00	53	28	36	39	156	
17:00	21	23	18	19	81	
18:00	24	20	18	24	86	
19:00	12	6	12	10	40	
20:00	6	8	8	4	26	
21:00	5	10	4	4	23	
22:00	0	2	1	2	5	
23:00	0	2	2	0	4	
				TOTAL	1255	
AM PEAK HOUR		1100-1200				
VOLUME		88				
PM PEAK HOUR		1515-1615				
VOLUME		229				

DIRECTION:		WB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	2	4	0	1	7	
1:00	0	0	0	0	0	
2:00	0	0	2	0	2	
3:00	0	0	1	0	1	
4:00	1	0	0	1	2	
5:00	1	8	4	5	18	
6:00	4	9	12	14	39	
7:00	26	33	20	38	117	
8:00	44	30	46	56	176	
9:00	29	34	23	22	108	
10:00	30	16	16	24	86	
11:00	20	14	20	10	64	
12:00	18	13	14	14	59	
13:00	10	8	9	8	35	
14:00	2	10	10	12	34	
15:00	3	2	5	10	20	
16:00	5	6	16	6	33	
17:00	22	25	21	28	96	
18:00	20	22	16	30	88	
19:00	24	19	18	14	75	
20:00	22	18	12	11	63	
21:00	20	14	6	8	48	
22:00	2	6	4	4	16	
23:00	2	2	0	2	6	
				TOTAL	1193	
AM PEAK HOUR		0800-0900				
VOLUME		176				
PM PEAK HOUR		1700-1800				
VOLUME		96				

TOTAL BI-DIRECTIONAL VOLUME	2448
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24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: CHURCHILL AVENUE
 BETWEEN BRYANT AND EMMERSON
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		EB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	2	1	0	0	3	
1:00	0	0	0	0	0	
2:00	0	0	1	0	1	
3:00	1	0	1	0	2	
4:00	0	3	0	0	3	
5:00	0	0	2	0	2	
6:00	1	5	7	9	22	
7:00	12	13	11	19	55	
8:00	30	26	19	36	111	
9:00	15	16	12	18	61	
10:00	22	10	11	23	66	
11:00	20	18	9	26	73	
12:00	22	24	23	14	83	
13:00	31	21	31	26	109	
14:00	24	18	47	20	109	
15:00	32	44	50	64	190	
16:00	42	32	37	36	147	
17:00	39	34	30	32	135	
18:00	28	26	20	35	109	
19:00	30	20	28	18	96	
20:00	16	18	22	10	66	
21:00	14	20	5	11	50	
22:00	2	8	4	3	17	
23:00	0	2	2	1	5	
				TOTAL	1515	
AM PEAK HOUR		0800-0900				
VOLUME		111				
PM PEAK HOUR		1515-1615				
VOLUME		200				

DIRECTION:		WB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	1	1	1	1	4	
1:00	0	0	0	0	0	
2:00	0	0	1	0	1	
3:00	0	0	0	0	0	
4:00	1	1	0	2	4	
5:00	1	7	4	4	16	
6:00	3	6	5	10	24	
7:00	12	20	15	17	64	
8:00	18	16	34	34	102	
9:00	22	27	20	10	79	
10:00	25	12	13	18	68	
11:00	23	22	24	16	85	
12:00	22	22	18	23	85	
13:00	22	19	32	26	99	
14:00	20	22	20	27	89	
15:00	30	52	30	11	123	
16:00	22	14	22	22	80	
17:00	9	25	24	27	85	
18:00	14	22	14	28	78	
19:00	15	8	2	6	31	
20:00	8	10	6	6	30	
21:00	10	4	3	1	18	
22:00	1	2	0	2	5	
23:00	4	2	0	1	7	
				TOTAL	1177	
AM PEAK HOUR		0830-0930				
VOLUME		117				
PM PEAK HOUR		1445-1545				
VOLUME		139				

TOTAL BI-DIRECTIONAL VOLUME	2692
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: CHURCHILL AVENUE
 BETWEEN EMMERSON AND ALMA
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		EB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	4	1	1	0	6	
1:00	0	0	0	0	0	
2:00	0	0	3	0	3	
3:00	1	0	1	0	2	
4:00	0	3	0	0	3	
5:00	0	0	2	0	2	
6:00	1	3	8	8	20	
7:00	13	11	11	20	55	
8:00	28	26	15	32	101	
9:00	17	16	16	17	66	
10:00	17	16	13	22	68	
11:00	21	17	9	26	73	
12:00	18	20	25	18	81	
13:00	30	22	28	21	101	
14:00	20	18	38	21	97	
15:00	25	30	33	38	126	
16:00	45	27	35	36	143	
17:00	24	28	24	27	103	
18:00	28	27	22	32	109	
19:00	24	19	23	17	83	
20:00	20	20	20	15	75	
21:00	18	19	7	11	55	
22:00	3	6	4	3	16	
23:00	0	8	2	2	12	
				TOTAL	1400	
AM PEAK HOUR		0800-0900				
VOLUME		101				
PM PEAK HOUR		1515-1615				
VOLUME		146				

DIRECTION:		WB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	1	1	2	2	6	
1:00	0	0	0	0	0	
2:00	0	0	1	0	1	
3:00	0	0	0	0	0	
4:00	1	1	0	2	4	
5:00	2	6	6	4	18	
6:00	3	5	3	7	18	
7:00	19	19	19	21	78	
8:00	25	26	41	38	130	
9:00	25	28	28	22	103	
10:00	27	17	16	18	78	
11:00	23	26	28	20	97	
12:00	21	28	22	28	99	
13:00	29	18	35	36	118	
14:00	29	29	21	35	114	
15:00	29	55	40	36	160	
16:00	29	29	36	30	124	
17:00	25	36	30	40	131	
18:00	30	34	18	32	114	
19:00	28	14	6	8	56	
20:00	22	19	8	6	55	
21:00	10	6	4	4	24	
22:00	4	2	2	2	10	
23:00	4	2	1	0	7	
				TOTAL	1545	
AM PEAK HOUR		0830-0930				
VOLUME		132				
PM PEAK HOUR		1500-1600				
VOLUME		160				

TOTAL BI-DIRECTIONAL VOLUME	2945
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: ALMA STREET
 BETWEEN EMBARCADERO AND KINGSLEY
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	6	10	12	3	31	
1:00	7	4	3	3	17	
2:00	4	0	1	2	7	
3:00	2	3	2	4	11	
4:00	7	6	11	14	38	
5:00	13	18	23	64	118	
6:00	52	69	97	138	356	
7:00	180	206	257	296	939	
8:00	333	337	313	382	1365	
9:00	310	252	239	262	1063	
10:00	250	180	224	200	854	
11:00	164	166	156	208	694	
12:00	166	186	152	206	710	
13:00	157	164	162	225	708	
14:00	184	182	165	221	752	
15:00	166	221	224	271	882	
16:00	268	283	242	292	1085	
17:00	272	270	282	296	1120	
18:00	328	301	306	284	1219	
19:00	239	186	149	137	711	
20:00	124	128	110	104	466	
21:00	93	92	78	54	317	
22:00	59	38	38	35	170	
23:00	19	7	10	9	45	
				TOTAL	13678	
AM PEAK HOUR		0800-0900				
VOLUME		1365				
PM PEAK HOUR		1745-1845				
VOLUME		1231				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	30	20	7	14	71	
1:00	15	6	7	7	35	
2:00	5	3	4	0	12	
3:00	4	3	3	1	11	
4:00	2	2	14	7	25	
5:00	6	10	13	20	49	
6:00	22	27	36	56	141	
7:00	80	116	140	186	522	
8:00	224	158	191	160	733	
9:00	159	170	148	150	627	
10:00	146	160	97	184	587	
11:00	154	178	176	144	652	
12:00	170	160	183	179	692	
13:00	182	198	193	210	783	
14:00	191	172	212	188	763	
15:00	238	250	226	256	970	
16:00	304	274	298	288	1164	
17:00	304	371	302	424	1401	
18:00	301	297	234	266	1098	
19:00	236	204	200	195	835	
20:00	186	148	163	176	673	
21:00	185	145	146	138	614	
22:00	128	98	84	76	386	
23:00	54	56	40	38	188	
				TOTAL	13032	
AM PEAK HOUR		0745-0845				
VOLUME		759				
PM PEAK HOUR		1700-1800				
VOLUME		1401				

TOTAL BI-DIRECTIONAL VOLUME	26710
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: ALMA STREET
 BETWEEN KINGSLEY AND MELVILLE
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	9	8	12	2	31	
1:00	8	3	3	3	17	
2:00	4	0	1	2	7	
3:00	2	3	2	8	15	
4:00	3	6	13	15	37	
5:00	14	20	26	62	122	
6:00	52	78	91	143	364	
7:00	196	222	268	322	1008	
8:00	326	346	323	386	1381	
9:00	319	284	275	285	1163	
10:00	262	219	226	211	918	
11:00	180	194	160	197	731	
12:00	182	185	156	218	741	
13:00	159	179	166	237	741	
14:00	175	176	200	218	769	
15:00	182	223	250	260	915	
16:00	268	291	258	286	1103	
17:00	278	288	280	294	1140	
18:00	339	308	278	284	1209	
19:00	249	178	150	134	711	
20:00	129	123	108	111	471	
21:00	88	92	77	53	310	
22:00	60	39	40	30	169	
23:00	19	7	12	7	45	
				TOTAL	14118	
AM PEAK HOUR		0800-0900				
VOLUME		1381				
PM PEAK HOUR		1730-1830				
VOLUME		1221				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	24	15	3	10	52	
1:00	12	8	8	5	33	
2:00	5	2	2	2	11	
3:00	3	2	3	1	9	
4:00	2	2	16	5	25	
5:00	3	10	13	15	41	
6:00	19	27	36	45	127	
7:00	73	94	112	174	453	
8:00	200	147	177	150	674	
9:00	150	149	142	123	564	
10:00	138	135	129	128	530	
11:00	153	154	164	142	613	
12:00	160	144	165	174	643	
13:00	153	188	180	206	727	
14:00	170	160	189	183	702	
15:00	219	234	228	252	933	
16:00	286	273	284	284	1127	
17:00	316	346	302	319	1283	
18:00	284	284	232	269	1069	
19:00	216	194	184	173	767	
20:00	166	136	152	158	612	
21:00	176	136	127	127	566	
22:00	123	84	75	64	346	
23:00	47	53	31	30	161	
				TOTAL	12068	
AM PEAK HOUR		0745-0845				
VOLUME		698				
PM PEAK HOUR		1700-1800				
VOLUME		1283				

TOTAL BI-DIRECTIONAL VOLUME	26186
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: ALMA STREET
 BETWEEN MELVILLE AND KELLOGG
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	8	8	12	2	30	
1:00	8	3	3	3	17	
2:00	4	0	1	2	7	
3:00	2	3	2	5	12	
4:00	6	6	12	16	40	
5:00	13	20	21	65	119	
6:00	52	72	95	138	357	
7:00	174	202	282	282	940	
8:00	333	348	320	352	1353	
9:00	338	271	250	286	1145	
10:00	241	222	207	224	894	
11:00	176	182	144	202	704	
12:00	168	190	164	208	730	
13:00	160	160	162	242	724	
14:00	170	182	183	214	749	
15:00	181	213	225	246	865	
16:00	270	278	236	277	1061	
17:00	266	281	274	302	1123	
18:00	323	306	273	301	1203	
19:00	228	188	148	132	696	
20:00	119	112	102	106	439	
21:00	98	85	78	46	307	
22:00	63	37	41	33	174	
23:00	18	7	12	7	44	
				TOTAL	13733	
AM PEAK HOUR		0815-0915				
VOLUME		1358				
PM PEAK HOUR		1730-1830				
VOLUME		1205				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	23	19	3	10	55	
1:00	11	6	5	8	30	
2:00	4	3	2	1	10	
3:00	4	2	3	2	11	
4:00	2	2	12	10	26	
5:00	3	10	11	15	39	
6:00	18	25	33	48	124	
7:00	60	97	101	165	423	
8:00	218	156	180	156	710	
9:00	138	152	140	126	556	
10:00	137	130	148	154	569	
11:00	158	149	156	137	600	
12:00	164	148	159	169	640	
13:00	156	184	178	194	712	
14:00	176	151	194	184	705	
15:00	218	230	233	249	930	
16:00	284	266	286	286	1122	
17:00	302	334	306	314	1256	
18:00	274	282	240	253	1049	
19:00	234	190	180	188	792	
20:00	163	135	151	162	611	
21:00	170	132	133	124	559	
22:00	118	88	75	64	345	
23:00	52	52	30	34	168	
				TOTAL	12042	
AM PEAK HOUR		0745-0845				
VOLUME		719				
PM PEAK HOUR		1700-1800				
VOLUME		1256				

TOTAL BI-DIRECTIONAL VOLUME	25775
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: ALMA STREET
 BETWEEN KELLOGG AND CHUCHILL
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	9	9	12	1	31	
1:00	8	3	3	3	17	
2:00	4	0	1	2	7	
3:00	2	3	4	8	17	
4:00	4	5	13	15	37	
5:00	13	20	27	62	122	
6:00	51	79	92	138	360	
7:00	190	210	259	298	957	
8:00	313	332	312	372	1329	
9:00	304	266	247	293	1110	
10:00	229	220	206	210	865	
11:00	168	186	156	189	699	
12:00	179	180	168	198	725	
13:00	162	168	167	224	721	
14:00	178	172	201	208	759	
15:00	174	209	223	258	864	
16:00	243	279	268	268	1058	
17:00	272	276	263	300	1111	
18:00	318	304	274	290	1186	
19:00	240	163	148	127	678	
20:00	120	105	101	110	436	
21:00	88	90	70	56	304	
22:00	58	36	39	30	163	
23:00	18	8	11	7	44	
				TOTAL	13600	
AM PEAK HOUR		0800-0900				
VOLUME		1329				
PM PEAK HOUR		1745-1845				
VOLUME		1196				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	22	20	3	9	54	
1:00	1	6	5	8	20	
2:00	4	3	2	1	10	
3:00	4	2	3	2	11	
4:00	2	2	13	8	25	
5:00	4	9	5	15	33	
6:00	20	27	36	52	135	
7:00	62	96	104	172	434	
8:00	240	165	173	153	731	
9:00	138	148	140	126	552	
10:00	140	132	148	152	572	
11:00	157	152	154	140	603	
12:00	164	144	157	168	633	
13:00	154	181	178	195	708	
14:00	180	150	191	180	701	
15:00	213	228	226	250	917	
16:00	284	260	264	289	1097	
17:00	290	326	314	298	1228	
18:00	282	268	238	244	1032	
19:00	231	200	180	183	794	
20:00	160	135	149	154	598	
21:00	168	134	130	125	557	
22:00	116	89	72	63	340	
23:00	52	53	28	35	168	
				TOTAL	11953	
AM PEAK HOUR		0745-0845				
VOLUME		750				
PM PEAK HOUR		1700-1800				
VOLUME		1228				

TOTAL BI-DIRECTIONAL VOLUME	25553
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: KINGSLEY AVENUE
 BETWEEN WAVERLY AND BRYANT
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		EB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	1	0	1	
2:00	0	2	0	1	3	
3:00	0	0	0	0	0	
4:00	0	0	0	0	0	
5:00	0	0	0	0	0	
6:00	0	0	0	1	1	
7:00	2	3	3	5	13	
8:00	23	8	2	7	40	
9:00	4	5	11	7	27	
10:00	8	9	2	10	29	
11:00	5	4	8	6	23	
12:00	7	8	5	8	28	
13:00	10	9	4	6	29	
14:00	12	4	14	10	40	
15:00	14	6	28	10	58	
16:00	14	12	5	6	37	
17:00	6	12	13	9	40	
18:00	8	6	5	8	27	
19:00	9	4	8	10	31	
20:00	0	3	6	1	10	
21:00	2	5	0	5	12	
22:00	1	0	0	3	4	
23:00	2	1	0	0	3	
				TOTAL	456	
AM PEAK HOUR		0800-0900				
VOLUME		40				
PM PEAK HOUR		1530-1630				
VOLUME		64				

DIRECTION:		WB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	1	0	1	
4:00	0	0	0	0	0	
5:00	0	0	1	2	3	
6:00	1	0	2	2	5	
7:00	2	2	4	8	16	
8:00	34	9	15	16	74	
9:00	19	8	7	10	44	
10:00	9	12	4	8	33	
11:00	3	4	9	2	18	
12:00	7	4	16	7	34	
13:00	6	9	6	8	29	
14:00	10	3	4	4	21	
15:00	5	8	28	8	49	
16:00	9	5	0	8	22	
17:00	6	4	6	8	24	
18:00	6	6	3	3	18	
19:00	2	6	3	2	13	
20:00	1	2	0	3	6	
21:00	1	3	0	1	5	
22:00	0	0	2	0	2	
23:00	0	1	0	0	1	
				TOTAL	418	
AM PEAK HOUR		0800-0900				
VOLUME		74				
PM PEAK HOUR		1515-1615				
VOLUME		53				

TOTAL BI-DIRECTIONAL VOLUME	874
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: KINGSLEY AVENUE
 BETWEEN BRYANT AND RAMONA
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		EB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	0	0	1	0	1	
5:00	0	0	0	1	1	
6:00	0	1	0	2	3	
7:00	1	3	1	1	6	
8:00	24	4	2	6	36	
9:00	1	3	4	4	12	
10:00	7	8	5	3	23	
11:00	3	4	6	7	20	
12:00	10	7	9	10	36	
13:00	6	4	7	4	21	
14:00	10	10	13	8	41	
15:00	10	4	18	8	40	
16:00	5	5	1	1	12	
17:00	1	8	7	5	21	
18:00	8	2	4	4	18	
19:00	4	4	2	4	14	
20:00	2	0	3	0	5	
21:00	2	0	2	0	4	
22:00	2	1	0	0	3	
23:00	2	0	0	0	2	
				TOTAL	319	
AM PEAK HOUR		0800-0900				
VOLUME		36				
PM PEAK HOUR		1400-1500				
VOLUME		41				

DIRECTION:		WB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	1	0	1	
1:00	0	0	0	0	0	
2:00	0	1	0	0	1	
3:00	0	0	1	0	1	
4:00	0	0	1	0	1	
5:00	0	0	0	0	0	
6:00	0	0	1	0	1	
7:00	5	2	4	5	16	
8:00	21	9	6	7	43	
9:00	3	4	6	4	17	
10:00	4	5	2	6	17	
11:00	3	3	8	1	15	
12:00	6	4	8	4	22	
13:00	2	3	8	4	17	
14:00	5	4	6	4	19	
15:00	4	8	8	10	30	
16:00	10	2	0	2	14	
17:00	3	0	6	2	11	
18:00	4	2	3	2	11	
19:00	2	0	1	2	5	
20:00	2	1	1	0	4	
21:00	0	0	2	0	2	
22:00	0	0	1	2	3	
23:00	2	1	0	0	3	
				TOTAL	254	
AM PEAK HOUR		0800-0900				
VOLUME		43				
PM PEAK HOUR		1515-1615				
VOLUME		36				

TOTAL BI-DIRECTIONAL VOLUME	573
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: KINGSLEY AVENUE
 BETWEEN RAMONA AND EMMERSON
 DATE: THURSDAY JANUARY 26, 2017

DIRECTION:		EB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	1	0	1	
4:00	0	0	0	0	0	
5:00	0	0	0	0	0	
6:00	0	0	1	0	1	
7:00	0	0	1	0	1	
8:00	1	1	2	0	4	
9:00	0	0	0	1	1	
10:00	2	0	0	0	2	
11:00	0	0	0	2	2	
12:00	0	0	0	0	0	
13:00	1	1	0	0	2	
14:00	0	0	0	0	0	
15:00	0	0	0	0	0	
16:00	1	0	0	1	2	
17:00	1	0	0	0	1	
18:00	1	0	0	0	1	
19:00	0	1	0	0	1	
20:00	0	0	0	0	0	
21:00	0	0	0	1	1	
22:00	0	0	0	0	0	
23:00	0	0	0	0	0	
TOTAL					20	
AM PEAK HOUR		0745-0845				
VOLUME		4				
PM PEAK HOUR		1230-1330				
VOLUME		2				

DIRECTION:		WB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	1	0	1	
4:00	0	0	0	0	0	
5:00	0	0	0	0	0	
6:00	0	0	1	0	1	
7:00	2	2	0	0	4	
8:00	2	1	2	0	5	
9:00	0	0	0	1	1	
10:00	2	0	0	0	2	
11:00	0	0	2	0	2	
12:00	0	0	0	0	0	
13:00	0	1	0	0	1	
14:00	0	0	0	2	2	
15:00	0	0	0	2	2	
16:00	1	0	0	1	2	
17:00	1	0	0	0	1	
18:00	2	0	0	0	2	
19:00	0	0	0	0	0	
20:00	0	0	0	0	0	
21:00	0	0	0	0	0	
22:00	0	0	0	0	0	
23:00	0	0	0	0	0	
TOTAL					26	
AM PEAK HOUR		0630-0730				
VOLUME		5				
PM PEAK HOUR		1515-1615				
VOLUME		3				

TOTAL BI-DIRECTIONAL VOLUME	46
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: KINGSLEY AVENUE
 BETWEEN EMMERSON AND HIGH
 DATE: THURSDAY JANUARY 26, 2017

DIRECTION:		WB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	2	2	
1:00	0	0	0	0	0	
2:00	0	1	0	0	1	
3:00	0	0	0	0	0	
4:00	1	0	0	0	1	
5:00	0	0	1	1	2	
6:00	4	2	8	8	22	
7:00	10	16	21	15	62	
8:00	16	8	9	6	39	
9:00	9	8	6	6	29	
10:00	11	7	1	12	31	
11:00	7	12	11	5	35	
12:00	6	4	4	8	22	
13:00	5	2	4	4	15	
14:00	10	5	6	6	27	
15:00	4	8	15	12	39	
16:00	7	7	14	13	41	
17:00	26	23	16	16	81	
18:00	18	18	15	8	59	
19:00	14	12	4	4	34	
20:00	3	6	4	10	23	
21:00	4	3	1	2	10	
22:00	1	1	1	0	3	
23:00	1	1	0	0	2	
				TOTAL	580	
AM PEAK HOUR		0715-0815				
VOLUME		68				
PM PEAK HOUR		1700-1800				
VOLUME		81				

DIRECTION:		O				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	0	0	0	0	0	
5:00	0	0	0	0	0	
6:00	0	0	0	0	0	
7:00	0	0	0	0	0	
8:00	0	0	0	0	0	
9:00	0	0	0	0	0	
10:00	0	0	0	0	0	
11:00	0	0	0	0	0	
12:00	0	0	0	0	0	
13:00	0	0	0	0	0	
14:00	0	0	0	0	0	
15:00	0	0	0	0	0	
16:00	0	0	0	0	0	
17:00	0	0	0	0	0	
18:00	0	0	0	0	0	
19:00	0	0	0	0	0	
20:00	0	0	0	0	0	
21:00	0	0	0	0	0	
22:00	0	0	0	0	0	
23:00	0	0	0	0	0	
				TOTAL	0	
AM PEAK HOUR		0000-0100				
VOLUME		0				
PM PEAK HOUR		1200-1300				
VOLUME		0				

TOTAL BI-DIRECTIONAL VOLUME	580
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: KINGSLEY AVENUE
 BETWEEN HIGH AND ALMA
 DATE: THURSDAY JANUARY 26, 2017

DIRECTION:		EB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	9	2	3	4	18	
1:00	3	1	1	0	5	
2:00	1	0	2	0	3	
3:00	1	0	0	0	1	
4:00	0	0	1	2	3	
5:00	4	0	1	7	12	
6:00	4	4	2	11	21	
7:00	20	27	44	35	126	
8:00	20	21	18	10	69	
9:00	22	24	26	35	107	
10:00	19	31	10	27	87	
11:00	11	28	22	16	77	
12:00	18	24	23	26	91	
13:00	32	20	21	12	85	
14:00	32	28	23	16	99	
15:00	35	26	14	24	99	
16:00	16	16	18	14	64	
17:00	32	25	24	10	91	
18:00	28	6	24	16	74	
19:00	26	21	28	23	98	
20:00	27	19	24	16	86	
21:00	21	20	19	14	74	
22:00	16	15	14	12	57	
23:00	6	5	12	3	26	
				TOTAL	1473	
AM PEAK HOUR		0700-0800				
VOLUME		126				
PM PEAK HOUR		1215-1315				
VOLUME		105				

DIRECTION:		WB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	1	1	0	0	2	
1:00	0	0	1	0	1	
2:00	0	0	1	1	2	
3:00	0	0	0	0	0	
4:00	0	0	1	0	1	
5:00	2	1	0	1	4	
6:00	2	5	5	7	19	
7:00	1	1	4	12	18	
8:00	16	10	3	8	37	
9:00	8	6	4	10	28	
10:00	14	5	8	9	36	
11:00	12	12	7	7	38	
12:00	12	12	11	10	45	
13:00	7	12	5	9	33	
14:00	10	16	5	10	41	
15:00	10	13	12	20	55	
16:00	20	22	22	18	82	
17:00	16	12	12	28	68	
18:00	10	18	12	16	56	
19:00	10	12	12	5	39	
20:00	6	12	11	7	36	
21:00	15	12	6	3	36	
22:00	4	8	2	3	17	
23:00	2	0	2	0	4	
				TOTAL	698	
AM PEAK HOUR		0730-0830				
VOLUME		42				
PM PEAK HOUR		1545-1645				
VOLUME		84				

TOTAL BI-DIRECTIONAL VOLUME	2171
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: HIGH STREET
 BETWEEN LINCOLN AND EMBARCADER
 DATE: THURSDAY JANUARY 26, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	2	0	0	0	2	
5:00	0	0	0	0	0	
6:00	0	1	0	0	1	
7:00	1	2	3	1	7	
8:00	4	7	2	4	17	
9:00	5	1	2	3	11	
10:00	0	2	1	0	3	
11:00	2	1	6	2	11	
12:00	0	2	3	3	8	
13:00	3	0	0	0	3	
14:00	2	0	1	2	5	
15:00	0	3	1	1	5	
16:00	1	2	0	0	3	
17:00	0	0	1	1	2	
18:00	1	0	0	0	1	
19:00	1	1	0	0	2	
20:00	0	0	2	3	5	
21:00	1	1	0	0	2	
22:00	0	0	1	0	1	
23:00	2	0	0	0	2	
				TOTAL	91	
AM PEAK HOUR		0815-0915				
VOLUME		18				
PM PEAK HOUR		1215-1315				
VOLUME		11				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	0	0	0	0	0	
5:00	0	0	0	0	0	
6:00	0	1	1	0	2	
7:00	3	0	1	3	7	
8:00	3	8	0	0	11	
9:00	2	0	1	4	7	
10:00	4	5	5	1	15	
11:00	6	0	2	3	11	
12:00	4	2	0	3	9	
13:00	4	4	2	0	10	
14:00	12	5	2	1	20	
15:00	4	3	6	7	20	
16:00	4	0	1	2	7	
17:00	6	2	1	2	11	
18:00	6	1	4	2	13	
19:00	1	1	0	0	2	
20:00	0	0	2	5	7	
21:00	4	0	0	3	7	
22:00	0	1	2	0	3	
23:00	0	1	0	1	2	
				TOTAL	164	
AM PEAK HOUR		0945-1045				
VOLUME		18				
PM PEAK HOUR		1400-1500				
VOLUME		20				

TOTAL BI-DIRECTIONAL VOLUME	255
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: CASTILLEJA SCHOOL, PALO ALTO, CA
 LOCATION: RAMONA STREET
 BETWEEN LINCOLN AND KINGSLEY
 DATE: WEDNESDAY JANUARY 25, 2017

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	1	0	0	1	
3:00	0	0	1	0	1	
4:00	0	0	0	0	0	
5:00	0	0	0	0	0	
6:00	0	0	0	0	0	
7:00	0	3	1	0	4	
8:00	2	2	1	0	5	
9:00	0	0	2	0	2	
10:00	1	2	0	0	3	
11:00	3	3	2	1	9	
12:00	3	1	3	4	11	
13:00	2	2	2	2	8	
14:00	0	1	1	5	7	
15:00	4	0	2	3	9	
16:00	4	2	1	1	8	
17:00	0	1	1	1	3	
18:00	2	1	0	2	5	
19:00	3	1	0	0	4	
20:00	0	0	0	0	0	
21:00	0	0	0	0	0	
22:00	0	0	1	2	3	
23:00	0	1	0	0	1	
				TOTAL	84	
AM PEAK HOUR		1100-1200				
VOLUME		9				
PM PEAK HOUR		1200-1300				
VOLUME		11				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	0	0	0	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	0	0	1	0	1	
5:00	0	0	0	0	0	
6:00	0	0	0	1	1	
7:00	0	3	1	1	5	
8:00	2	1	1	2	6	
9:00	1	1	3	0	5	
10:00	6	2	3	2	13	
11:00	3	3	3	5	14	
12:00	6	3	4	3	16	
13:00	4	2	3	7	16	
14:00	6	1	6	6	19	
15:00	4	5	5	4	18	
16:00	4	5	1	2	12	
17:00	1	1	5	3	10	
18:00	0	1	4	1	6	
19:00	2	1	1	1	5	
20:00	2	0	1	0	3	
21:00	2	0	0	0	2	
22:00	2	0	0	1	3	
23:00	0	0	0	1	1	
				TOTAL	156	
AM PEAK HOUR		1100-1200				
VOLUME		14				
PM PEAK HOUR		1430-1530				
VOLUME		21				

TOTAL BI-DIRECTIONAL VOLUME	240
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: PALO ALTO ADT COUNTS
 LOCATION: ALMA STREET
 BETWEEN LINCOLN AVENUE AND EMBARCADERO ROAD
 DATE: WEDNESDAY SEPTEMBER 26, 2018

DIRECTION:		EB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	26	17	21	10	74	
1:00	12	10	6	8	36	
2:00	6	7	6	4	23	
3:00	2	1	3	4	10	
4:00	3	3	8	9	23	
5:00	17	11	18	26	72	
6:00	30	32	53	58	173	
7:00	85	92	130	178	485	
8:00	188	176	173	179	716	
9:00	179	173	160	162	674	
10:00	151	133	166	152	602	
11:00	154	155	168	174	651	
12:00	167	162	182	188	699	
13:00	181	182	212	176	751	
14:00	207	193	192	221	813	
15:00	221	217	262	278	978	
16:00	269	304	286	306	1165	
17:00	323	338	339	326	1326	
18:00	292	319	327	308	1246	
19:00	252	240	292	200	984	
20:00	230	174	192	173	769	
21:00	150	200	136	139	625	
22:00	123	103	82	72	380	
23:00	62	48	57	55	222	
				TOTAL	13497	
AM PEAK HOUR		0800-0900				
VOLUME		716				
PM PEAK HOUR		1700-1800				
VOLUME		1326				

DIRECTION:		WB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	10	19	10	4	43	
1:00	6	2	3	3	14	
2:00	3	0	1	3	7	
3:00	2	0	2	7	11	
4:00	3	7	11	16	37	
5:00	17	16	21	48	102	
6:00	59	67	86	130	342	
7:00	143	198	200	284	825	
8:00	319	311	300	392	1322	
9:00	303	284	263	269	1119	
10:00	220	216	204	239	879	
11:00	179	178	195	215	767	
12:00	170	185	149	176	680	
13:00	147	190	171	209	717	
14:00	170	185	169	181	705	
15:00	161	183	205	205	754	
16:00	197	207	196	259	859	
17:00	214	273	258	304	1049	
18:00	287	285	240	251	1063	
19:00	222	195	175	126	718	
20:00	118	125	96	94	433	
21:00	89	85	52	61	287	
22:00	39	39	40	44	162	
23:00	29	19	15	14	77	
				TOTAL	12972	
AM PEAK HOUR		0800-0900				
VOLUME		1322				
PM PEAK HOUR		1730-1830				
VOLUME		1134				

TOTAL BI-DIRECTIONAL VOLUME	26469
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: PALO ALTO ADT COUNTS
 LOCATION: LINCOLN AVENUE
 BETWEEN WAVERLY STREET AND BRYANT STREET
 DATE: WEDNESDAY SEPTEMBER 26, 2018

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	2	4	0	2	8	
1:00	0	0	0	1	1	
2:00	0	1	0	0	1	
3:00	0	1	0	0	1	
4:00	0	1	2	1	4	
5:00	1	3	2	1	7	
6:00	6	5	7	9	27	
7:00	10	5	11	29	55	
8:00	33	26	15	28	102	
9:00	24	18	17	15	74	
10:00	20	20	25	22	87	
11:00	18	19	28	22	87	
12:00	8	18	18	18	62	
13:00	22	27	15	27	91	
14:00	18	20	12	18	68	
15:00	21	22	20	22	85	
16:00	24	21	38	26	109	
17:00	33	25	23	35	116	
18:00	33	34	30	22	119	
19:00	21	31	20	11	83	
20:00	18	17	21	25	81	
21:00	14	15	13	9	51	
22:00	7	3	6	10	26	
23:00	3	1	1	2	7	
				TOTAL	1352	
AM PEAK HOUR		0745-0845				
VOLUME		103				
PM PEAK HOUR		1745-1845				
VOLUME		132				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	2	3	0	0	5	
1:00	0	0	0	0	0	
2:00	0	0	0	0	0	
3:00	1	0	0	1	2	
4:00	0	0	1	4	5	
5:00	3	3	2	4	12	
6:00	3	13	8	19	43	
7:00	20	11	21	32	84	
8:00	38	28	25	36	127	
9:00	26	24	15	33	98	
10:00	20	28	28	33	109	
11:00	24	23	19	12	78	
12:00	15	21	15	17	68	
13:00	12	19	21	15	67	
14:00	13	14	19	19	65	
15:00	19	20	10	13	62	
16:00	13	17	18	16	64	
17:00	20	25	26	32	103	
18:00	19	17	13	17	66	
19:00	21	19	8	12	60	
20:00	9	12	10	12	43	
21:00	6	9	4	4	23	
22:00	8	2	5	0	15	
23:00	4	1	2	0	7	
				TOTAL	1206	
AM PEAK HOUR		0800-0900				
VOLUME		127				
PM PEAK HOUR		1700-1800				
VOLUME		103				

TOTAL BI-DIRECTIONAL VOLUME	2558
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: PALO ALTO ADT COUNTS
 LOCATION: LINCOLN AVENUE
 BETWEEN BRYANT STREET AND RAMONA STREET
 DATE: WEDNESDAY SEPTEMBER 26, 2018

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	1	2	0	0	3	
1:00	0	1	1	1	3	
2:00	0	1	0	0	1	
3:00	0	1	0	1	2	
4:00	0	0	1	1	2	
5:00	1	2	0	5	8	
6:00	5	6	5	8	24	
7:00	7	8	12	23	50	
8:00	31	29	15	32	107	
9:00	19	15	19	24	77	
10:00	11	17	22	22	72	
11:00	17	24	20	20	81	
12:00	9	18	20	11	58	
13:00	21	18	12	25	76	
14:00	18	17	6	27	68	
15:00	20	23	9	20	72	
16:00	14	14	26	25	79	
17:00	26	24	23	20	93	
18:00	28	23	21	16	88	
19:00	14	19	14	15	62	
20:00	14	10	12	13	49	
21:00	11	11	11	8	41	
22:00	8	2	9	4	23	
23:00	2	2	1	2	7	
				TOTAL	1146	
AM PEAK HOUR		0800-0900				
VOLUME		107				
PM PEAK HOUR		1630-1730				
VOLUME		101				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	2	3	0	1	6	
1:00	0	0	1	0	1	
2:00	0	0	0	0	0	
3:00	1	0	0	0	1	
4:00	0	0	2	3	5	
5:00	3	5	3	2	13	
6:00	2	10	7	21	40	
7:00	18	11	20	35	84	
8:00	29	20	25	29	103	
9:00	25	20	14	28	87	
10:00	23	25	27	27	102	
11:00	22	19	19	10	70	
12:00	9	12	11	14	46	
13:00	13	18	15	14	60	
14:00	11	9	23	12	55	
15:00	10	12	10	11	43	
16:00	14	15	14	15	58	
17:00	17	22	21	28	88	
18:00	26	19	14	19	78	
19:00	23	20	7	5	55	
20:00	9	10	11	11	41	
21:00	4	5	6	4	19	
22:00	6	1	4	0	11	
23:00	3	0	1	0	4	
				TOTAL	1070	
AM PEAK HOUR		0745-0845				
VOLUME		109				
PM PEAK HOUR		1715-1815				
VOLUME		97				

TOTAL BI-DIRECTIONAL VOLUME	2216
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24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: PALO ALTO ADT COUNTS
 LOCATION: LINCOLN AVENUE
 BETWEEN RAMONA STREET AND EMERSON STREET
 DATE: THURSDAY OCTOBER 4, 2018

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	3	0	1	0	4	
1:00	0	1	1	0	2	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	0	2	1	0	3	
5:00	0	0	1	3	4	
6:00	6	2	6	4	18	
7:00	7	8	9	22	46	
8:00	27	18	15	15	75	
9:00	28	29	17	19	93	
10:00	21	15	17	12	65	
11:00	15	22	15	11	63	
12:00	15	15	14	7	51	
13:00	23	23	17	20	83	
14:00	15	17	11	14	57	
15:00	21	17	22	9	69	
16:00	31	21	27	19	98	
17:00	19	20	17	37	93	
18:00	21	19	19	17	76	
19:00	22	16	12	19	69	
20:00	13	15	5	12	45	
21:00	10	14	8	10	42	
22:00	6	2	4	4	16	
23:00	3	4	4	0	11	
				TOTAL	1083	
AM PEAK HOUR		0900-1000				
VOLUME		93				
PM PEAK HOUR		1600-1700				
VOLUME		98				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	1	0	1	0	2	
1:00	0	0	0	0	0	
2:00	0	1	0	0	1	
3:00	0	0	2	0	2	
4:00	0	1	2	2	5	
5:00	4	3	2	2	11	
6:00	8	9	11	14	42	
7:00	18	21	27	36	102	
8:00	40	23	32	38	133	
9:00	40	30	29	45	144	
10:00	32	31	23	27	113	
11:00	20	13	24	19	76	
12:00	25	23	14	13	75	
13:00	20	15	15	22	72	
14:00	12	20	21	19	72	
15:00	10	22	19	24	75	
16:00	14	12	16	15	57	
17:00	19	22	26	29	96	
18:00	24	25	26	34	109	
19:00	21	18	22	14	75	
20:00	8	6	12	10	36	
21:00	6	5	9	9	29	
22:00	9	4	8	1	22	
23:00	5	2	4	2	13	
				TOTAL	1362	
AM PEAK HOUR		0900-1000				
VOLUME		144				
PM PEAK HOUR		1800-1900				
VOLUME		109				

TOTAL BI-DIRECTIONAL VOLUME	2445
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WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: PALO ALTO ADT COUNTS
 LOCATION: LINCOLN AVENUE
 BETWEEN EMERSON STREET AND HIGH STREET
 DATE: THURSDAY OCTOBER 4, 2018

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	4	0	4	2	10	
1:00	0	1	1	0	2	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	0	2	1	0	3	
5:00	0	0	1	2	3	
6:00	5	3	7	9	24	
7:00	11	12	16	29	68	
8:00	29	26	24	23	102	
9:00	35	41	24	21	121	
10:00	25	19	20	17	81	
11:00	25	31	11	18	85	
12:00	19	16	18	13	66	
13:00	24	25	18	18	85	
14:00	15	22	17	16	70	
15:00	20	23	24	22	89	
16:00	31	23	28	22	104	
17:00	29	25	26	40	120	
18:00	27	31	27	29	114	
19:00	37	20	15	18	90	
20:00	17	15	8	10	50	
21:00	10	12	10	10	42	
22:00	8	3	7	2	20	
23:00	2	4	4	2	12	
				TOTAL	1361	
AM PEAK HOUR		0830-0930				
VOLUME		123				
PM PEAK HOUR		1745-1845				
VOLUME		125				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	3	0	1	3	7	
1:00	0	0	0	0	0	
2:00	0	1	0	0	1	
3:00	0	0	1	0	1	
4:00	0	1	0	2	3	
5:00	1	0	1	1	3	
6:00	3	3	4	6	16	
7:00	4	5	4	18	31	
8:00	21	15	13	16	65	
9:00	9	14	24	28	75	
10:00	22	18	15	16	71	
11:00	10	8	16	10	44	
12:00	11	9	6	13	39	
13:00	12	11	11	15	49	
14:00	7	14	12	9	42	
15:00	4	12	9	15	40	
16:00	9	10	15	11	45	
17:00	10	16	14	11	51	
18:00	14	19	14	19	66	
19:00	9	13	10	11	43	
20:00	8	5	9	7	29	
21:00	5	7	4	6	22	
22:00	5	4	2	0	11	
23:00	2	1	1	0	4	
				TOTAL	758	
AM PEAK HOUR		0930-1030				
VOLUME		92				
PM PEAK HOUR		1800-1900				
VOLUME		66				

TOTAL BI-DIRECTIONAL VOLUME	2119
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24-HOUR ADT COUNT SUMMARY

CLIENT: W-TRANS
 PROJECT: PALO ALTO ADT COUNTS
 LOCATION: LINCOLN AVENUE
 BETWEEN HIGH STREET AND ALMA STREET
 DATE: THURSDAY OCTOBER 4, 2018

DIRECTION:		NB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	2	3	5	
1:00	0	1	0	0	1	
2:00	0	0	0	0	0	
3:00	0	0	0	0	0	
4:00	2	1	0	0	3	
5:00	0	1	2	5	8	
6:00	3	6	5	10	24	
7:00	11	15	28	31	85	
8:00	23	25	23	30	101	
9:00	42	25	17	26	110	
10:00	20	15	17	18	70	
11:00	32	10	16	20	78	
12:00	16	21	12	23	72	
13:00	23	17	16	12	68	
14:00	23	17	14	19	73	
15:00	25	22	21	28	96	
16:00	23	29	19	27	98	
17:00	24	22	37	28	111	
18:00	26	24	30	28	108	
19:00	19	15	15	18	67	
20:00	15	8	7	10	40	
21:00	12	8	12	7	39	
22:00	3	7	2	2	14	
23:00	3	2	1	4	10	
				TOTAL	1281	
AM PEAK HOUR		0815-0915				
VOLUME		120				
PM PEAK HOUR		1730-1830				
VOLUME		115				

DIRECTION:		SB				HOUR TOTALS
TIME	00-15	15-30	30-45	45-60		
0:00	0	0	2	1	3	
1:00	0	0	0	0	0	
2:00	1	0	0	0	1	
3:00	0	1	0	0	1	
4:00	0	0	2	1	3	
5:00	0	2	1	3	6	
6:00	2	6	7	5	20	
7:00	5	6	14	17	42	
8:00	12	16	20	15	63	
9:00	14	24	29	19	86	
10:00	23	16	14	11	64	
11:00	8	16	10	14	48	
12:00	10	8	15	15	48	
13:00	14	12	18	6	50	
14:00	15	13	10	8	46	
15:00	13	9	18	9	49	
16:00	8	12	12	14	46	
17:00	14	14	11	17	56	
18:00	22	16	16	12	66	
19:00	13	13	11	9	46	
20:00	6	9	7	6	28	
21:00	6	4	7	4	21	
22:00	4	3	0	2	9	
23:00	1	1	0	3	5	
				TOTAL	807	
AM PEAK HOUR		0915-1015				
VOLUME		95				
PM PEAK HOUR		1745-1845				
VOLUME		71				

TOTAL BI-DIRECTIONAL VOLUME	2088
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VOLUME

Melville Ave Bet. Alma St & Emerson St

Day: Thursday
Date: 4/11/2019

City: Palo Alto
Project #: CA19_8194_001

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	126	190	316		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00			0	0	0	12:00			2	1	3
00:15			0	0	0	12:15			1	2	3
00:30			0	0	0	12:30			1	1	2
00:45			0	0	0	12:45			1	5	2
01:00			0	0	0	13:00			0	0	0
01:15			0	0	0	13:15			1	1	2
01:30			0	0	0	13:30			1	1	2
01:45			0	0	0	13:45			2	4	3
02:00			0	0	0	14:00			2	2	4
02:15			0	0	0	14:15			0	2	2
02:30			1	0	1	14:30			0	3	3
02:45			0	1	0	14:45			4	6	10
03:00			0	0	0	15:00			2	2	4
03:15			0	0	0	15:15			5	11	16
03:30			0	0	0	15:30			1	11	12
03:45			0	0	0	15:45			5	13	8
04:00			0	0	0	16:00			3	2	5
04:15			0	0	0	16:15			2	4	6
04:30			1	1	2	16:30			0	4	4
04:45			0	1	0	16:45			2	7	4
05:00			0	0	0	17:00			3	4	7
05:15			0	1	1	17:15			1	6	7
05:30			0	0	0	17:30			5	4	9
05:45			0	1	2	17:45			2	11	5
06:00			0	0	0	18:00			2	6	8
06:15			0	0	0	18:15			5	4	9
06:30			1	0	1	18:30			4	3	7
06:45			2	3	2	18:45			1	12	3
07:00			0	0	0	19:00			4	3	7
07:15			0	2	2	19:15			0	4	4
07:30			2	1	3	19:30			1	3	4
07:45			2	4	9	19:45			2	7	5
08:00			1	9	10	20:00			0	1	1
08:15			1	4	5	20:15			1	3	4
08:30			3	3	6	20:30			2	3	5
08:45			4	9	11	20:45			3	6	8
09:00			4	6	10	21:00			1	0	1
09:15			2	1	3	21:15			0	1	1
09:30			3	0	3	21:30			0	0	0
09:45			0	9	3	21:45			3	4	3
10:00			3	0	3	22:00			0	0	0
10:15			6	6	12	22:15			0	0	0
10:30			1	1	2	22:30			1	4	5
10:45			1	11	0	22:45			0	1	0
11:00			4	2	6	23:00			0	1	1
11:15			6	1	7	23:15			1	1	2
11:30			1	0	1	23:30			0	0	0
11:45			0	11	1	23:45			0	1	1
TOTALS			49	65	114	TOTALS			77	125	202
SPLIT %			43.0%	57.0%	36.1%	SPLIT %			38.1%	61.9%	63.9%

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	126	190	316		
AM Peak Hour			08:30	08:00	08:00	PM Peak Hour			15:15	14:45	14:45
AM Pk Volume			13	27	36	PM Pk Volume			14	30	42
Pk Hr Factor			0.813	0.614	0.600	Pk Hr Factor			0.700	0.682	0.656
7 - 9 Volume	0	0	13	39	52	4 - 6 Volume	0	0	18	29	47
7 - 9 Peak Hour			08:00	08:00	08:00	4 - 6 Peak Hour			16:45	17:00	17:00
7 - 9 Pk Volume	0	0	9	27	36	4 - 6 Pk Volume	0	0	11	17	28
Pk Hr Factor	0.000	0.000	0.563	0.614	0.600	Pk Hr Factor	0.000	0.000	0.550	0.708	0.778

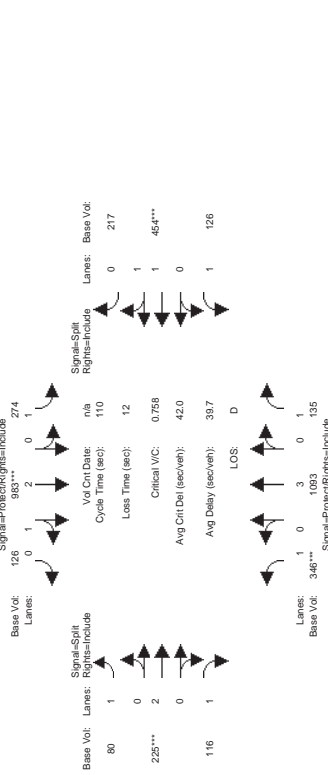
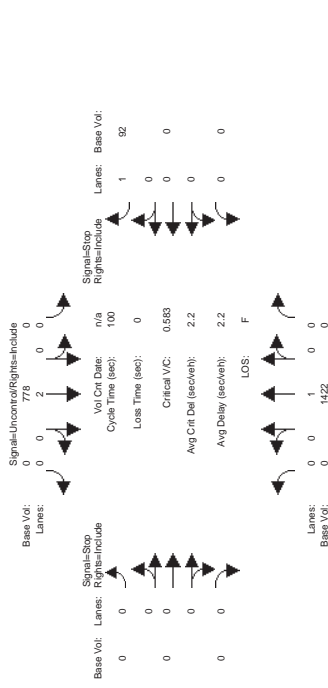
Appendix C

Intersection Level of Service Calculations



Intersection #1: El Camino Real / Embarcadero Rd-Galvez St

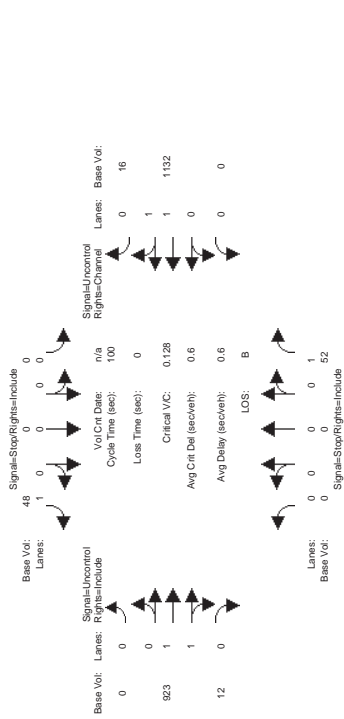
Intersection #2: Alma St / Embarcadero Rd (Spur)



Street Name: El Camino Real, Embarcadero Rd-Galvez St
 Approach: North Bound, South Bound, East Bound, West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R L - T - R
 Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10 10 10 10
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Volume Module:
 Base Vol: 346 1093 135 274 983 126 80 225 116 126 454 217
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 346 1093 135 274 983 126 80 225 116 126 454 217
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
 PHF Volume: 367 1159 143 291 1042 134 85 239 62 134 481 230
 Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 367 1159 143 291 1042 134 85 239 62 134 481 230
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 367 1159 143 291 1042 134 85 239 62 134 481 230
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.92 0.92 0.99 0.95 0.92 1.00 0.92 0.92 0.99 0.95
 Lanes: 1.00 3.00 1.00 1.00 2.65 0.35 1.00 2.00 1.00 1.00 1.34 0.66
 Final Sat: 1750 5700 1750 1750 4963 636 1750 3800 1750 1750 2503 1196
 Capacity Analysis Module:
 Vol/Sat: 0.21 0.20 0.08 0.17 0.21 0.21 0.05 0.06 0.04 0.08 0.19 0.19
 Crit Moves: 0.21 0.20 0.08 0.17 0.21 0.21 0.05 0.06 0.04 0.08 0.19 0.19
 Green Time: 30.1 33.2 33.2 27.1 30.2 30.2 10.0 10.0 10.0 27.7 27.7 27.7
 Volume/Cap: 0.77 0.67 0.27 0.67 0.77 0.77 0.53 0.69 0.39 0.30 0.77 0.77
 Delay/Veh: 43.9 34.7 29.5 41.6 39.0 39.0 51.2 54.4 48.7 33.8 42.0 42.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 43.9 34.7 29.5 41.6 39.0 39.0 51.2 54.4 48.7 33.8 42.0 42.0
 LOS by Move: D C- C D D+ D- D- D- D- D- D- D- D- D- D-
 HCMkAvgQ: 14 12 4 11 14 14 4 5 3 4 13 13
 Note: Queue reported is the number of cars per lane.

Street Name: Alma St, Embarcadero Rd (Spur)
 Approach: North Bound, South Bound, East Bound, West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R L - T - R
 Volume Module:
 Base Vol: 0 1422 0 0 778 0 0 0 0 0 0 0 0 0 0 92
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1422 0 0 778 0 0 0 0 0 0 0 0 0 0 92
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 0 1454 0 0 796 0 0 0 0 0 0 0 0 0 0 94
 Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Final Volume: 0 1454 0 0 796 0 0 0 0 0 0 0 0 0 0 94
 Critical Gap Module:
 Critical Gap: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 FollowUpTime: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Capacity Module:
 Conflict Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Potential Cap: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Move Cap: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Volume/Cap: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Level of Service Module:
 2Way95thQ: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Control Del: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 LOS by Move: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Movement: L - T - R L - T - R L - T - R L - T - R L - T - R
 Shared Cap: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Shared Queue: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Shrd ConDel: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Shared LOS: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 ApproachDel: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 ApproachLOS: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #2 Alma St / Embarcadero Rd (Spur)
 Base Volume Alternative: Peak Hour Warrant NOT Met
 Approach: North Bound, South Bound, East Bound, West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R L - T - R

Intersection #4: Emerson St / Embarcadero Rd



Street Name: Emerson St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
Base Vol: 0 0 52 0 0 48 0 923 12 0 1132 16
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 0 52 0 0 48 0 923 12 0 1132 16
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89
PHF Volume: 0 0 59 0 0 54 0 1042 14 0 1278 18
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Volume: 0 0 59 0 0 54 0 1042 14 0 1278 18

Critical Gap Module:
Critical Gp: xxxxxx xxxxx 6.9 xxxxxx xxxxx 6.9 xxxxxx xxxxx xxxxx xxxxx xxxxx
FollowUpTIm: xxxxxx xxxxx 3.3 xxxxxx xxxxx 3.3 xxxxxx xxxxx xxxxx xxxxx xxxxx

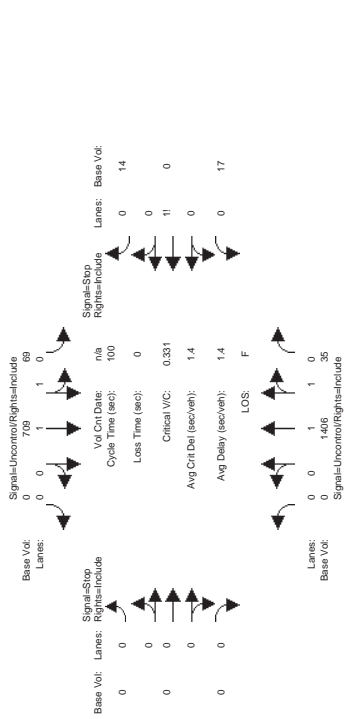
Capacity Module:
Conflict Vol: xxxxxx xxxxx 528 xxxxxx xxxxx 639 xxxxxx xxxxx xxxxx xxxxx xxxxx
Potential Cap.: xxxxxx xxxxx 500 xxxxxx xxxxx 424 xxxxxx xxxxx xxxxx xxxxx xxxxx
Move Cap.: xxxxxx xxxxx 500 xxxxxx xxxxx 424 xxxxxx xxxxx xxxxx xxxxx xxxxx
Volume/Cap.: xxxxxx xxxxx 0.12 xxxxxx xxxxx 0.13 xxxxxx xxxxx xxxxx xxxxx xxxxx

Level of Service Module:
2Way95thQ: xxxxxx xxxxx 0.4 xxxxxx xxxxx 0.4 xxxxxx xxxxx xxxxx xxxxx xxxxx
Control Del: xxxxxx xxxxx 13.1 xxxxxx xxxxx 14.7 xxxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: * * * B * * * B * * * B * * * B * * * B * * * B * * * B * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd Cnbdel: xxxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * B * * * B * * * B * * * B * * * B * * * B * * * B * * *
ApproachDel: 13.1 14.7 xxxxxx xxxxxx
ApproachLOS: B B

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
Intersection #4 Emerson St / Embarcadero Rd
Base Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Intersection #3: Alma St / Kingsley Ave



Street Name: Alma St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
Base Vol: 0 1406 35 69 709 0 0 0 0 0 17 0 14
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 1406 35 69 709 0 0 0 0 0 17 0 14
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99
PHF Volume: 0 1422 35 70 717 0 0 0 0 0 17 0 14
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Volume: 0 1422 35 70 717 0 0 0 0 0 17 0 14

Critical Gap Module:
Critical Gp: xxxxxx xxxxx 4.1 xxxxxx xxxxx xxxxx xxxxx 6.8 6.5 6.9
FollowUpTIm: xxxxxx xxxxx 2.2 xxxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3

Capacity Module:
Conflict Vol: xxxxxx xxxxx 1457 xxxxxx xxxxx xxxxx xxxxx 1937 2296 729
Potential Cap.: xxxxxx xxxxx 470 xxxxxx xxxxx xxxxx xxxxx 59 39 370
Move Cap.: xxxxxx xxxxx 470 xxxxxx xxxxx xxxxx xxxxx 52 33 370
Volume/Cap.: xxxxxx xxxxx 0.15 xxxxxx xxxxx xxxxx xxxxx 0.33 0.00 0.04

Level of Service Module:
2Way95thQ: xxxxxx xxxxx 0.5 xxxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Control Del: xxxxxx xxxxx 14.0 xxxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: * * * B * * * B * * * B * * * B * * * B * * * B * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd Cnbdel: xxxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * B * * * B * * * B * * * B * * * B * * * B * * *
ApproachDel: xxxxxx xxxxxx 70.5
ApproachLOS: * * * F * * * F

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
Intersection #3 Alma St / Kingsley Ave
Base Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

AM Peak Hour - Existing Conditions
 Castelli School TIA
 City of Redwood City
 2000 HCM Operations (Base Volume Alternative)
 01 AM Existing

Intersection #11: Alma St / Churchhill Ave

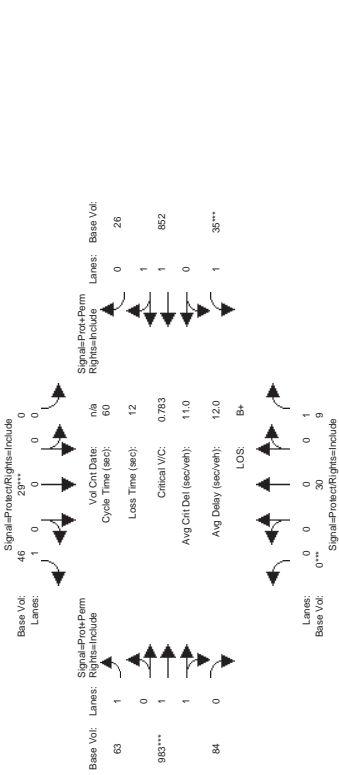


Street Name:	Alma St			Churchhill Ave		
	North Bound	South Bound	East Bound	West Bound	West Bound	West Bound
Approach:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Min. Green:	7 10 10	7 10 10	10 10 10	10 10 10	10 10 10	10 10 10
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Volume Module:						
Base Vol:	223 1346 46	7 581 168	72 63 128	63 78 2		
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
Initial Bse:	223 1346 46	7 581 168	72 63 128	63 78 2		
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
PHF Adj:	0.94 0.94 0.94	0.94 0.94 0.94	0.94 0.94 0.94	0.94 0.94 0.94		
PHF Volume:	238 1435 49	7 619 179	77 67 136	67 83 2		
Reduced Vol:	0 0 0	0 0 0	0 0 0	0 0 0		
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
MFL Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
Final Volume:	238 1435 49	7 619 179	77 67 136	67 83 2		
Saturation Flow Module:						
Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900		
Adj/Adjustment:	0.92 0.97 0.95	0.92 1.00 0.92	0.95 0.95 0.92	0.95 0.95 0.92		
Lanes:	1.00 1.93 0.07	1.00 2.00 1.00	0.53 0.47 1.00	0.45 0.55 1.00		
Final Sat:	1750 3578 122	1750 3800 1750	960 840 1750	804 996 1750		
Capacity Analysis Module:						
Vol/Sat:	0.14 0.40 0.40	0.00 0.16 0.10	0.08 0.08 0.08	0.08 0.08 0.08		
Crit Moves:	****	****	****	****		
Green Time:	29.3 57.5 57.5	7.0 35.2 35.2	11.5 11.5 11.5	12.0 12.0 12.0		
Volume/Cap:	0.46 0.70 0.70	0.06 0.46 0.29	0.70 0.70 0.68	0.70 0.70 0.68		
Delay/Veh:	29.6 16.1 16.1	43.6 25.3 23.6	52.6 52.6 51.6	51.9 51.9 38.8		
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
AdjDel/Veh:	29.6 16.1 16.1	43.6 25.3 23.6	52.6 52.6 51.6	51.9 51.9 38.8		
LOS by Move:	C B B	C B C	C D-	D- D-		
HCM2kAvq:	7 17 17	0 8 4	6 6 6	6 6 6		

Note: Queue reported is the number of cars per lane.

School PM Peak Hour - Existing Condition
 Challenging School TIA
 City of San Antonio
 2000 HCM Operations (Base Volume Alternative)
 13.MD Existing

Intersection #5: Bryant St / Embarcadero Rd



Street Name: Bryant St Embarcadero Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	0	30	9	0	29	46	63	983	84	35	852	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	30	9	0	29	46	63	983	84	35	852	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	31	9	0	30	47	64	1006	86	36	872	27
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	31	9	0	30	47	64	1006	86	36	872	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MUF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	31	9	0	30	47	64	1006	86	36	872	27

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj/Adjustment:	0.92	0.97	0.89	0.92	0.92	0.84	0.88	0.99	0.91	0.88	1.00	0.92
Lanes:	0.00	0.75	0.25	0.00	0.37	0.63	1.00	1.63	0.17	1.00	1.94	0.06
Final Sat:	0	1389	417	0	640	1015	1663	3436	294	1663	3663	112

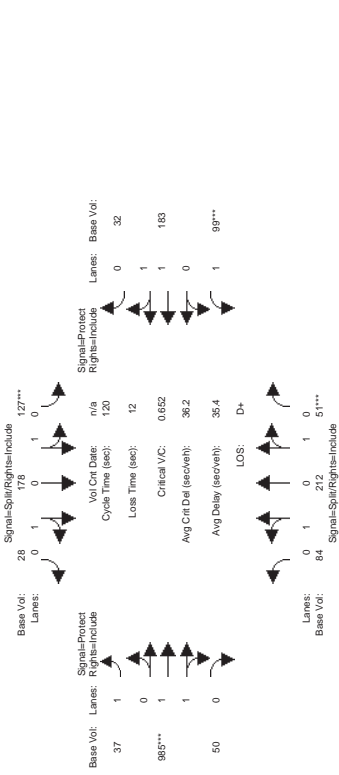
Capacity Analysis Module:

Vol/Sat:	0.00	0.02	0.02	0.00	0.05	0.05	0.04	0.29	0.29	0.02	0.24	0.24
Crit Moves:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Green Time:	0.00	10.0	10.0	0.00	10.0	10.0	41.0	31.0	31.0	32.5	25.5	25.5
Volume/Cap:	0.00	0.13	0.13	0.00	0.28	0.28	0.13	0.57	0.57	0.10	0.56	0.56
Delay/Veh:	0.00	21.5	21.5	0.00	22.4	22.4	4.5	10.3	10.3	6.7	13.5	13.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.00	21.5	21.5	0.00	22.4	22.4	4.5	10.3	10.3	6.7	13.5	13.5
LOS by Move:	A	C+	C+	A	C+	A	B+	A	B+	A	B	B
HCM2kAVQ:	0	1	1	0	2	2	1	8	8	0	7	7

Note: Queue reported is the number of cars per lane.

School PM Peak Hour - Existing Condition
 Challenging School TIA
 City of San Antonio
 2000 HCM Operations (Base Volume Alternative)
 13.MD Existing

Intersection #6: Middlefield Rd / Embarcadero Rd



Street Name: Middlefield Rd Embarcadero Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	10	10	10	10	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	84	212	51	127	178	28	37	985	50	99	183	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	84	212	51	127	178	28	37	985	50	99	183	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	94	236	57	141	198	31	41	1097	56	110	204	36
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	236	57	141	198	31	41	1097	56	110	204	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MUF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	94	236	57	141	198	31	41	1097	56	110	204	36

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj/Adjustment:	0.89	0.97	0.89	0.89	0.97	0.89	0.88	0.99	0.91	0.88	0.98	0.90
Lanes:	0.51	1.18	0.31	0.80	1.03	0.17	1.00	1.90	0.10	1.00	1.68	0.32
Final Sat:	860	2171	522	1349	1891	298	1663	3576	182	1663	3123	546

Capacity Analysis Module:

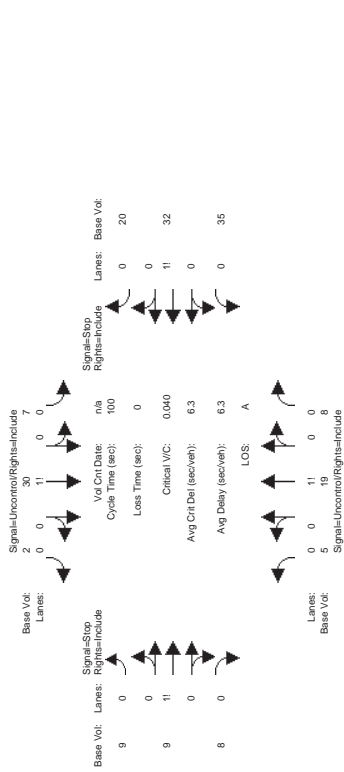
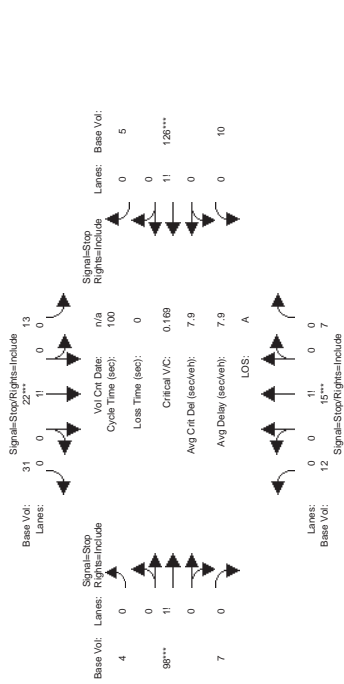
Vol/Sat:	0.11	0.11	0.11	0.10	0.10	0.10	0.02	0.31	0.31	0.07	0.07	0.07
Crit Moves:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Green Time:	20.0	20.0	20.0	19.3	19.3	19.3	28.3	56.5	56.5	12.2	40.4	40.4
Volume/Cap:	0.65	0.65	0.65	0.65	0.65	0.65	0.11	0.65	0.65	0.05	0.19	0.19
Delay/Veh:	49.3	49.3	49.3	49.9	49.9	49.9	36.1	25.1	25.1	60.6	28.3	28.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.3	49.3	49.3	49.9	49.9	49.9	36.1	25.1	25.1	60.6	28.3	28.3
LOS by Move:	D	D	D	D	D	D	D+	C	C	E	C	C
HCM2kAVQ:	8	8	8	8	8	8	1	17	17	5	5	5

Note: Queue reported is the number of cars per lane.

Intersection #10: Emerson St/Churchill Ave

Intersection #9: Emerson St/Kellogg Ave

Intersection #9: Emerson St/Kellogg Ave



Street Name: Emerson St
Approach: North Bound South Bound East Bound West Bound
L - T - R L - T - R L - T - R L - T - R
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Volume Module:
Base Vol: 12 15 7 13 22 31 4 98 7 10 126 5
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 12 15 7 13 22 31 4 98 7 10 126 5
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 12 15 7 13 22 31 4 98 7 10 126 5
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 12 15 7 13 22 31 4 98 7 10 126 5
Saturation Flow Module:
Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Adj: 0.35 0.44 0.21 0.20 0.33 0.87 0.04 0.90 0.06 0.07 0.89 0.04
Final Sat: 271 339 158 159 270 380 30 747 53 59 745 30
Capacity Analysis Module:
Vol/Sat: 0.04 0.04 0.04 0.08 0.08 0.08 0.13 0.13 0.13 0.17 0.17 0.17
Clt Moves: ****
Delay/Veh: 7.6 7.6 7.6 7.6 7.6 7.6 7.8 7.8 7.8 8.1 8.1
AdjDel/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
LOS by Move: A A A A A A A A A A A A
ApproachDel: 7.6 7.6 7.6 7.8 8.1
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
ApprAdjDel: 7.6 7.6 7.8 8.1
LOS by Appr: A A A A A A A A A A A A
AllWayAvgQ: 0.0 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1
Note: Queue reported is the number of cars per lane.
Peak Hour Volume Signal Warrant Report [Urban]

Intersection #10 Emerson St/Churchill Ave

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound

Street Name: Emerson St
Approach: North Bound South Bound East Bound West Bound
L - T - R L - T - R L - T - R L - T - R
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Volume Module:
Base Vol: 5 19 8 7 30 2 9 9 8 35 32 20
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 5 19 8 7 30 2 9 9 8 35 32 20
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 5 19 8 7 30 2 9 9 8 35 32 20
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1
MLF Adj: 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2
FollowUpTm: 3.5 4.0 3.3 3.5 4.0 3.3
Capacity Module:
Conflict Vol: 32 32 32 32 32 32 32 32 32 32 32 32
Potential Cap.: 1593 1593 1593 1593 1593 1593 1593 1593 1593 1593 1593 1593
Move Cap.: 1593 1593 1593 1593 1593 1593 1593 1593 1593 1593 1593 1593
Volume/Cap: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Level Of Service Module:
2Way95thQ: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Control Del: 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3
LOS by Move: A A A A A A A A A A A A
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: 879 879 879 879 879 879 879 879 879 879 879 879
Shrd Queue: 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Shrd Condel: 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2
Shared LOS: A A A A A A A A A A A A
ApproachDel: 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2
ApprAdjDel: 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2
LOS by LOS: A A A A A A A A A A A A
Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report

Intersection #9 Emerson St/Kellogg Ave

Base Volume Alternative: Peak Hour Warrant NOT Met

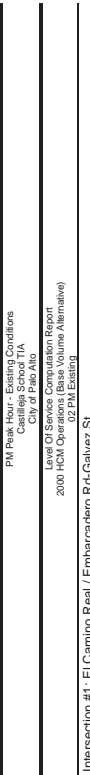
Approach: North Bound South Bound East Bound West Bound

School PM Peak Hour - Existing Condition
 Challenging School TIA
 City of Pasadena
 2000 HCM Operations (Base Volume Alternative)
 13 MD Existing



Street Name:	Alma St		Churchhill Ave	
	North Bound	South Bound	East Bound	West Bound
Approach:	L - T - R	L - T - R	L - T - R	L - T - R
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Min. Green:	7 10 10	7 10 10	10 10 10	10 10 10
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Volume Module:	Base Vol: 187 795 27	5 890 86	77 109 163	68 82 3
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	187 795 27	5 890 86	77 109 163	68 82 3
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.98 0.98 0.98	0.98 0.98 0.98	0.98 0.98 0.98	0.98 0.98 0.98
PHF Volume:	191 810 28	5 907 88	78 111 166	69 84 3
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	191 810 28	5 907 88	78 111 166	69 84 3
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MUF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Volume:	191 810 28	5 907 88	78 111 166	69 84 3
Saturation Flow Module:	Sat/Lane: 1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adj Sat:	0.88 1.00 0.92	0.88 1.00 0.78	0.90 0.98 0.78	0.90 0.98 0.78
Lanes:	1.00 1.93 0.07	1.00 2.00 1.00	0.43 0.57 1.00	0.47 0.53 1.00
Final Sat:	1663 3647 124	1663 3800 1488	744 1054 1488	811 978 1488
Capacity Analysis Module:	Vol/Sat: 0.11 0.22 0.22	0.00 0.24 0.06	0.11 0.11 0.11	0.09 0.09 0.00
Crit Moves:	****	****	****	****
Green Time:	18.3 43.0 43.0	13.5 38.2 38.2	17.9 17.9 17.9	13.7 13.7 13.7
Volume/Cap:	0.63 0.52 0.52	0.02 0.63 0.15	0.59 0.59 0.63	0.63 0.63 0.02
Delay/Veh:	41.7 21.2 21.2	37.5 26.0 20.4	40.6 40.6 42.6	45.8 45.8 37.4
User Del Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Adj Del/Veh:	41.7 21.2 21.2	37.5 26.0 20.4	40.6 40.6 42.6	45.8 45.8 37.4
LOS by Move:	D C+ C+	D C C	D D D	D D D
HCM2kAvq:	7 10 10	0 12 2	6 6 6	6 6 6

Note: Queue reported is the number of cars per lane.



Intersection #1: El Camino Real / Embarcadero Rd-Galvez St

Direction	Base Vol	Lanes	Signal-Stop Rights-Includes	Signal-Start Rights-Includes	Base Vol	Lanes
Northbound	170	1	0	0	0	197
Southbound	475	2	0	0	1	312
Eastbound	309	1	0	0	1	156
Westbound	0	0	0	0	0	0

Vol Cnt Date: n/a
 Cycle Time (sec): 110
 Loss Time (sec): 12
 Critical VC: 0.818
 Avg Cnt Del (sec/veh): 45.1
 Avg Delay (sec/veh): 42.6
 LOS: D

Street Name: El Camino Real

Approach: Northbound

Volume Module	Base Vol	Initial Base	User Adj	PHF Adj	PHF Volume	Reduce Vol	Reduced Vol	PCE Adj	MUF Adj	Final Volume	Saturation Flow	Vol/Lane	Adj Sat	Level of Service
Northbound	177	1121	180	221	1273	64	170	475	309	156	312	197	1900	1.00
Southbound	177	1121	180	221	1273	64	170	475	309	156	312	197	1900	1.00
Eastbound	177	1121	180	221	1273	64	170	475	309	156	312	197	1900	1.00
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	1900	1.00

Street Name: Embarcadero Rd (Spur)

Approach: Northbound

Volume Module	Base Vol	Initial Base	User Adj	PHF Adj	PHF Volume	Reduce Vol	Reduced Vol	PCE Adj	MUF Adj	Final Volume	Saturation Flow	Vol/Lane	Adj Sat	Level of Service
Northbound	0	1078	0	0	1289	0	0	1289	0	0	0	0	1900	1.00
Southbound	0	1078	0	0	1289	0	0	1289	0	0	0	0	1900	1.00
Eastbound	0	1078	0	0	1289	0	0	1289	0	0	0	0	1900	1.00
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	1900	1.00

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #2 Alma St / Embarcadero Rd (Spur)
 Base Volume Alternative: Peak Hour Warrant NOT Met
 Approach: Northbound Southbound Eastbound Westbound
 Movement: L - T - R L - T - R L - T - R L - T - R



Intersection #2: Alma St / Embarcadero Rd (Spur)

Direction	Base Vol	Lanes	Signal-Stop Rights-Includes	Signal-Start Rights-Includes	Base Vol	Lanes
Northbound	0	0	0	0	0	81
Southbound	0	0	0	0	0	0
Eastbound	0	0	0	0	0	0
Westbound	0	0	0	0	0	0

Vol Cnt Date: n/a
 Cycle Time (sec): 100
 Loss Time (sec): 0
 Critical VC: 0.321
 Avg Cnt Del (sec/veh): 0.8
 Avg Delay (sec/veh): 0.8
 LOS: D

Street Name: Alma St

Approach: Northbound

Volume Module	Base Vol	Initial Base	User Adj	PHF Adj	PHF Volume	Reduce Vol	Reduced Vol	PCE Adj	MUF Adj	Final Volume	Saturation Flow	Vol/Lane	Adj Sat	Level of Service
Northbound	0	1078	0	0	1289	0	0	1289	0	0	0	0	1900	1.00
Southbound	0	1078	0	0	1289	0	0	1289	0	0	0	0	1900	1.00
Eastbound	0	1078	0	0	1289	0	0	1289	0	0	0	0	1900	1.00
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	1900	1.00

Street Name: Embarcadero Rd (Spur)

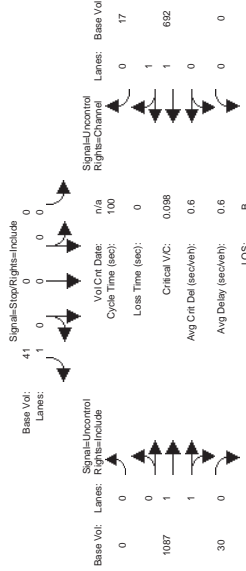
Approach: Northbound

Volume Module	Base Vol	Initial Base	User Adj	PHF Adj	PHF Volume	Reduce Vol	Reduced Vol	PCE Adj	MUF Adj	Final Volume	Saturation Flow	Vol/Lane	Adj Sat	Level of Service
Northbound	0	1078	0	0	1289	0	0	1289	0	0	0	0	1900	1.00
Southbound	0	1078	0	0	1289	0	0	1289	0	0	0	0	1900	1.00
Eastbound	0	1078	0	0	1289	0	0	1289	0	0	0	0	1900	1.00
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	1900	1.00

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #2 Alma St / Embarcadero Rd (Spur)
 Base Volume Alternative: Peak Hour Warrant NOT Met
 Approach: Northbound Southbound Eastbound Westbound
 Movement: L - T - R L - T - R L - T - R L - T - R

PM Peak Hour - Existing Conditions
Castle Hills School TIA
City of Pasadena - (Revised)
2000 HCM Unsignalized (Base Volume Alternative)
02 PM Existing

Intersection #4: Emerson St / Embarcadero Rd



Street Name: Emerson St South Bound East Bound West Bound
Embarcadero Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00
Initial Base:	0	46	0	41
User Adj:	1.00	1.00	1.00	1.00
PHF Volume:	0.99	0.99	0.99	0.99
PHF Adj:	0.99	0.99	0.99	0.99
Reduct Vol:	0	0	0	0
FinalVolume:	0	47	0	41

Critical Gap Module:

Critical Gap:	6.9	xxxxxx	xxxx	6.9
FollowUpTm:	3.3	xxxxxx	xxxx	3.3

Capacity Module:

Conflict Vol:	565	xxxx	xxxx	350
Potent Gap:	473	xxxx	xxxx	652
Move Cap.:	473	xxxx	xxxx	652
Volume/Cap:	0.10	xxxx	xxxx	0.06

Level of Service Module:

2Way95thQ:	0.3	xxxx	xxxx	0.2
Control Del:	13.4	xxxxxx	xxxx	10.9
LOS by Move:	B	*	B	*

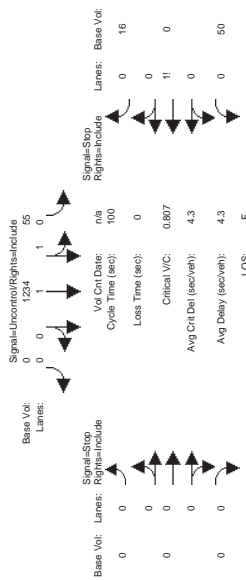
Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report
Intersection #4 Emerson St / Embarcadero Rd
Base Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

PM Peak Hour - Existing Conditions
Castle Hills School TIA
City of Pasadena - (Revised)
2000 HCM Unsignalized (Base Volume Alternative)
02 PM Existing

Intersection #3: Alma St / Kingsley Ave



Street Name: Alma St South Bound East Bound West Bound
Kingsley Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	0	1060	29	55	1234	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	1060	29	55	1234	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Reduct Vol:	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1084	30	56	1262	0	0	0	0

Critical Gap Module:

Critical Gap:	4.1	xxxx	xxxxxx	xxxxxx	xxxxxx	6.8	6.5	6.9
FollowUpTm:	2.2	xxxx	xxxxxx	xxxxxx	xxxxxx	3.5	4.0	3.3

Capacity Module:

Conflict Vol:	1113	xxxx	xxxxxx	xxxx	xxxxxx	1842	2473	557
Potent Gap:	635	xxxx	xxxxxx	xxxx	xxxxxx	68	30	479
Move Cap.:	635	xxxx	xxxxxx	xxxx	xxxxxx	63	28	479
Volume/Cap:	0.09	xxxx	xxxxxx	xxxx	xxxxxx	0.81	0.00	0.03

Level of Service Module:

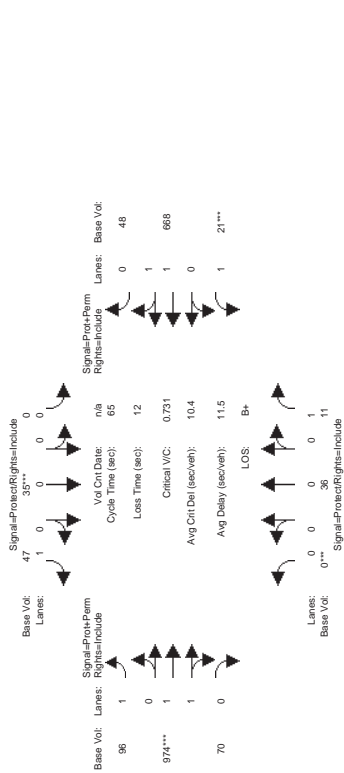
2Way95thQ:	0.3	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx
Control Del:	11.2	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
LOS by Move:	B	*	*	*	*	*	*	*

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report
Intersection #3 Alma St / Kingsley Ave
Base Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Intersection #5: Bryant St / Embarcadero Rd



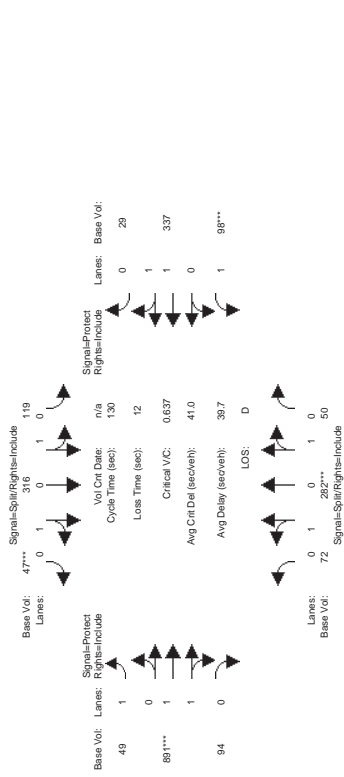
Street Name: Bryant St Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:	0	36	11	0	35	47	96	974	70	21	668	48
Base Vol:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bas:	0	36	11	0	35	47	96	974	70	21	668	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	0	37	11	0	36	49	99	1006	72	22	690	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	37	11	0	36	49	99	1006	72	22	690	50
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	37	11	0	36	49	99	1006	72	22	690	50
Saturation Flow Module:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Sat/Lane:	0.92	0.97	0.89	0.92	0.92	0.85	0.88	0.99	0.91	0.88	0.99	0.91
Adjustment:	0.00	0.75	0.25	0.00	0.41	0.59	1.00	1.86	0.14	1.00	1.86	0.14
Lanes:	0	1381	422	0	713	958	1663	3490	251	1663	3490	251
Final Sat:	0.00	0.03	0.03	0.00	0.05	0.05	0.06	0.29	0.29	0.01	0.20	0.20
Capacity Analysis Module:	0.00	0.03	0.03	0.00	0.05	0.05	0.06	0.29	0.29	0.01	0.20	0.20
Vol/Sat:	0.00	0.03	0.03	0.00	0.05	0.05	0.06	0.29	0.29	0.01	0.20	0.20
Crit Moves:	0.00	0.03	0.03	0.00	0.05	0.05	0.06	0.29	0.29	0.01	0.20	0.20
Green Time:	0.00	10.0	10.0	0.00	10.0	10.0	46.0	36.0	36.0	34.8	27.8	27.8
Volume/Cap:	0.00	0.18	0.18	0.00	0.33	0.33	0.16	0.52	0.52	0.06	0.46	0.46
Delay/Veh:	0.00	24.2	24.2	0.00	25.3	25.3	3.9	9.3	9.3	7.2	13.5	13.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.00	24.2	24.2	0.00	25.3	25.3	3.9	9.3	9.3	7.2	13.5	13.5
LOS by Move:	A	C	C	A	C	C	A	A	A	A	B	B
HCMAV9Q:	0	1	1	0	2	2	1	7	7	0	6	6

Note: Queue reported is the number of cars per lane.

Intersection #6: Middlefield Rd / Embarcadero Rd

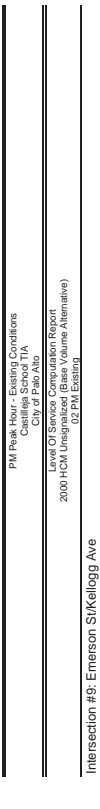


Street Name: Middlefield Rd Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:	72	282	50	119	316	47	49	891	94	98	337	29
Base Vol:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bas:	72	282	50	119	316	47	49	891	94	98	337	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
PHF Volume:	73	286	51	121	320	48	50	903	95	99	341	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	286	51	121	320	48	50	903	95	99	341	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	73	286	51	121	320	48	50	903	95	99	341	29
Saturation Flow Module:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Sat/Lane:	0.90	0.97	0.90	0.90	0.97	0.90	0.88	0.99	0.91	0.88	0.99	0.91
Adjustment:	0.38	1.36	0.26	0.52	1.27	0.21	1.00	1.79	0.21	1.00	1.83	0.17
Lanes:	642	2514	446	887	2355	350	1663	3362	355	1663	3434	295
Final Sat:	0.11	0.11	0.11	0.14	0.14	0.14	0.03	0.27	0.27	0.06	0.10	0.10
Capacity Analysis Module:	0.11	0.11	0.11	0.14	0.14	0.14	0.03	0.27	0.27	0.06	0.10	0.10
Vol/Sat:	0.11	0.11	0.11	0.14	0.14	0.14	0.03	0.27	0.27	0.06	0.10	0.10
Crit Moves:	0.11	0.11	0.11	0.14	0.14	0.14	0.03	0.27	0.27	0.06	0.10	0.10
Green Time:	23.2	23.2	23.2	27.8	27.8	27.8	23.5	54.8	54.8	12.2	43.5	43.5
Volume/Cap:	0.64	0.64	0.64	0.64	0.64	0.64	0.16	0.64	0.64	0.64	0.30	0.30
Delay/Veh:	51.6	51.6	51.6	48.3	48.3	48.3	45.2	30.6	30.6	65.2	32.1	32.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.6	51.6	51.6	48.3	48.3	48.3	45.2	30.6	30.6	65.2	32.1	32.1
LOS by Move:	D	D	D	D	D	D	D	C	C	E	C	C
HCMAV9Q:	9	9	9	10	10	10	2	16	16	5	5	5

Note: Queue reported is the number of cars per lane.



Intersection #9: Emerson St/Kellogg Ave

Emerson St		South Bound		East Bound		Kellogg Ave		West Bound				
Approach	L	T	R	L	T	R	L	T	R			
Volume Module:	0	6	4	4	42	0	1	15	2	21	23	10
Base Vol:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Adj:	0	6	4	4	42	0	1	15	2	21	23	10
Initial Base:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	6	4	4	42	0	1	15	2	21	23	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	6	4	4	42	0	1	15	2	21	23	10
Critical Gap Module:	4.1	xxxx	xxxx	xxxx	xxxx	7.1	6.5	6.2	7.1	6.5	6.2	
Critical Gap:	xxxx	xxxx	xxxx	xxxx	xxxx	3.5	4.0	3.3	3.5	4.0	3.3	
FollowUpTm:	2.2	xxxx	xxxx	xxxx	xxxx	3.5	4.0	3.3	3.5	4.0	3.3	
Capacity Module:												
Conflict Vol:	xxxx	xxxx	xxxx	10	xxxx	xxxx	75	60	42	67	58	8
Potent Cap.:	xxxx	xxxx	xxxx	1623	xxxx	xxxx	921	835	1034	932	837	1080
Move Cap.:	xxxx	xxxx	xxxx	1623	xxxx	xxxx	891	833	1034	915	835	1080
Volume/Cap.:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	0.00	0.02	0.00	0.02	0.03	0.01

Emerson St		South Bound		East Bound		Kellogg Ave		West Bound				
Approach	L	T	R	L	T	R	L	T	R			
Signal-Stop Rights-Include	0	0	0	1	0	0	0	0	0	0	0	0
Signal-Stop Rights-Exclude	0	0	0	0	0	0	0	0	0	0	0	0
Vol Cnt Date:	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cycle Time (sec):	100	100	100	100	100	100	100	100	100	100	100	100
Loss Time (sec):	0	0	0	0	0	0	0	0	0	0	0	0
Critical VC:	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028
Avg Cnt Del (secov):	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Avg Delay (secov):	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
LOS:	A	A	A	A	A	A	A	A	A	A	A	A

Street Name: Emerson St South Bound East Bound Kellogg Ave West Bound

Approach: L - T - R L - T - R L - T - R L - T - R

Level of Service Module:

Control Del:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

LOS by Move: * A * * * * A * * * * * A * * * * * A * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.:xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Shrd Queue:xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Shrd Condel:xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Shared LOS: * * * * * A * * * * * A * * * * * A * * * * * A * * * * *

ApproachDel: xxxxxx * xxxxxx * xxxxxx * 9.3

ApproachLOS: * * * * * A * * * * * A * * * * * A * * * * *

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

***** Peak Hour Delay Signal Warrant Report *****

Intersection #9 Emerson St/Kellogg Ave

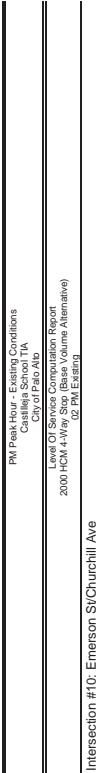
***** Intersection #9 Emerson St/Kellogg Ave *****

Base Volume Alternative: Peak Hour Warrant NOT Met

***** Base Volume Alternative: Peak Hour Warrant NOT Met *****

Approach: North Bound South Bound East Bound West Bound

L - T - R L - T - R L - T - R L - T - R



Intersection #10: Emerson St/Churchill Ave

Emerson St		South Bound		East Bound		Churchill Ave		West Bound			
Approach	L	T	R	L	T	R	L	T	R		
Volume Module:	11	5	2	6	27	32	3	89	11	112	3
Base Vol:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	11	5	2	6	27	32	3	89	11	112	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	5	2	6	27	32	3	89	11	112	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	11	5	2	6	27	32	3	89	11	112	3
Critical Gap Module:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Critical Gap:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FollowUpTm:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity Module:											
Conflict Vol:	11	5	2	6	27	32	3	89	11	112	3
Potent Cap.:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Move Cap.:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume/Cap.:	468	213	85	77	348	413	25	738	91	7	819

Emerson St		South Bound		East Bound		Churchill Ave		West Bound			
Approach	L	T	R	L	T	R	L	T	R		
Signal-Stop Rights-Include	0	0	0	1	0	0	0	0	0	0	0
Signal-Stop Rights-Exclude	0	0	0	0	0	0	0	0	0	0	0
Vol Cnt Date:	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cycle Time (sec):	100	100	100	100	100	100	100	100	100	100	100
Loss Time (sec):	0	0	0	0	0	0	0	0	0	0	0
Critical VC:	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137
Avg Cnt Del (secov):	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
Avg Delay (secov):	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
LOS:	A	A	A	A	A	A	A	A	A	A	A

Street Name: Emerson St South Bound East Bound Churchill Ave West Bound

Approach: L - T - R L - T - R L - T - R L - T - R

Level of Service Module:

Control Del:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

LOS by Move: * * * * * A * * * * * A * * * * * A * * * * * A * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.:xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Shrd Queue:xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Shrd Condel:xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Shared LOS: * * * * * A * * * * * A * * * * * A * * * * * A * * * * *

ApproachDel: xxxxxx * xxxxxx * xxxxxx * 7.4

ApproachLOS: * * * * * A * * * * * A * * * * * A * * * * *

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

***** Peak Hour Delay Signal Warrant Report [Urban] *****

Intersection #10 Emerson St/Churchill Ave

***** Intersection #10 Emerson St/Churchill Ave *****

Base Volume Alternative: Peak Hour Warrant NOT Met

***** Base Volume Alternative: Peak Hour Warrant NOT Met *****

Approach: North Bound South Bound East Bound West Bound

L - T - R L - T - R L - T - R L - T - R

COM-PARE
 File: Apr 26 15:37:20 2019
 PM Peak Hour - Existing Conditions
 Castiglia School TIA
 City of Redwood
 2000 HCM Operations (Base Volume Alternative)
 02 PM Existing



Street Name: Alma St Churchhill Ave

Approach: North Bound South Bound East Bound West Bound

Movement	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green	7	10	10	7	10	10	10	10	10	10	10	10
Y+R	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	178	1004	21	3	1188	111	75	90	206	85	92	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	178	1004	21	3	1188	111	75	90	206	85	92	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	194	1095	23	3	1296	121	82	98	225	93	100	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	194	1095	23	3	1296	121	82	98	225	93	100	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MFL Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	194	1095	23	3	1296	121	82	98	225	93	100	8
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj/Segment:	0.88	1.00	0.92	0.88	1.00	0.78	0.90	0.98	0.78	0.90	0.98	0.78
Lanes:	1.00	1.96	0.04	1.00	2.00	1.00	0.47	0.53	1.00	0.50	0.50	1.00
Final Sat:	1663	3704	77	1663	3800	1488	813	976	1488	856	927	1488
Capacity Analysis Module:												
Vol/Sat:	0.12	0.30	0.30	0.00	0.34	0.08	0.10	0.10	0.15	0.11	0.11	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	14.3	45.4	45.4	10.8	41.8	41.8	18.5	18.5	18.5	13.3	13.3	13.3
Volume/Cap:	0.81	0.65	0.02	0.81	0.19	0.54	0.54	0.54	0.81	0.81	0.81	0.04
Delay/Veh:	60.6	22.0	22.0	39.9	29.0	18.6	38.7	38.7	55.9	61.3	61.3	37.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.6	22.0	22.0	39.9	29.0	18.6	38.7	38.7	55.9	61.3	61.3	37.9
LOS by Move:	E	C+	C	D	C	B-	D+	D+	E	E	D+	D+
HCMSkVagQ:	9	14	14	0	20	3	6	6	10	8	8	0

Note: Queue reported is the number of cars per lane.

Intersection #3: Alma St / Kingsley Ave

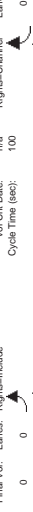
Final Vol: 0 0 0 0
Lanes: 0 0 1 0
Signal-Stop/Rights-Include: n/a
Vol Cnt Date: n/a
Cycle Time (sec): 100
Lost Time (sec): 0
Critical VC: 0.373
Avg Cnt Del (secovht): 1.7
Avg Delay (secovht): 1.7
LOS: F



Final Vol: 0 0 0 0
Lanes: 0 0 1 0
Signal-Stop/Rights-Include: n/a
Vol Cnt Date: n/a
Cycle Time (sec): 100
Lost Time (sec): 0
Critical VC: 0.373
Avg Cnt Del (secovht): 1.7
Avg Delay (secovht): 1.7
LOS: F



Final Vol: 0 0 0 0
Lanes: 0 0 1 0
Signal-Stop/Rights-Include: n/a
Vol Cnt Date: n/a
Cycle Time (sec): 100
Lost Time (sec): 0
Critical VC: 0.373
Avg Cnt Del (secovht): 1.7
Avg Delay (secovht): 1.7
LOS: F



Final Vol: 0 0 0 0
Lanes: 0 0 1 0
Signal-Stop/Rights-Include: n/a
Vol Cnt Date: n/a
Cycle Time (sec): 100
Lost Time (sec): 0
Critical VC: 0.373
Avg Cnt Del (secovht): 1.7
Avg Delay (secovht): 1.7
LOS: F



Final Vol: 0 0 0 0
Lanes: 0 0 1 0
Signal-Stop/Rights-Include: n/a
Vol Cnt Date: n/a
Cycle Time (sec): 100
Lost Time (sec): 0
Critical VC: 0.373
Avg Cnt Del (secovht): 1.7
Avg Delay (secovht): 1.7
LOS: F



Final Vol: 0 0 0 0
Lanes: 0 0 1 0
Signal-Stop/Rights-Include: n/a
Vol Cnt Date: n/a
Cycle Time (sec): 100
Lost Time (sec): 0
Critical VC: 0.373
Avg Cnt Del (secovht): 1.7
Avg Delay (secovht): 1.7
LOS: F



Street Name: Alma St Kingsley Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
Base Vol: 0 1406 35 69 709 0 0 0 0 0 0 0 17 0 14
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1406 35 69 709 0 0 0 0 0 0 0 17 0 14
Added Vol: 0 -35 61 25 -14 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 1371 96 94 695 0 0 0 0 0 0 0 17 0 14
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99
PHF Volume: 0 1386 97 95 703 0 0 0 0 0 0 0 17 0 14
Re duct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 1386 97 95 703 0 0 0 0 0 0 0 17 0 14

Critical Gap Module:
Critical Gap: xxxxx xxxxx 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx 6.8 6.5 6.9
FollowUpTim: xxxxx xxxxx 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3

Capacity Module:
Chrlct Vol: xxxx xxxxx 1483 xxxxx xxxxx xxxxx xxxxx 1976 2328 742
Potenc Cap.: xxxx xxxxx xxxxx 459 xxxxx xxxxx xxxxx xxxxx 55 38 363
Move Cap.: xxxx xxxxx xxxxx 459 xxxxx xxxxx xxxxx xxxxx 46 29 363
Volume/Cap.: xxxx xxxxx xxxxx 0.21 xxxxx xxxxx xxxxx xxxxx 0.37 0.00 0.04

Level Of Service Module:
2Way95thQ: xxxx xxxxx xxxxx 0.8 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Control Del: xxxxx xxxxx xxxxx 14.9 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 76 xxxxx
ShareQueue: xxxx xxxxx xxxxx 0.8 xxxxx xxxxx xxxxx xxxxx 1.6 xxxxx
Shrd ConDel: xxxx xxxxx xxxxx 14.9 xxxxx xxxxx xxxxx xxxxx 82.1 xxxxx
Shared LOS: B B B B B B B B B B B B B B F F
ApproachDel: xxxxxx xxxxxx
ApproachLOS: C C

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
Intersection #3 Alma St / Kingsley Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

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Intersection #4: Emerson St / Embarcadero Rd

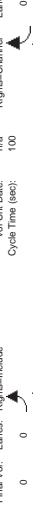
Final Vol: 54 0 0 0 0
Lanes: 1 0 0 0 0
Signal-Stop/Rights-Include: n/a
Vol Cnt Date: n/a
Cycle Time (sec): 100
Lost Time (sec): 0
Critical VC: 0.573
Avg Cnt Del (secovht): 2.5
Avg Delay (secovht): 2.5
LOS: C



Final Vol: 54 0 0 0 0
Lanes: 1 0 0 0 0
Signal-Stop/Rights-Include: n/a
Vol Cnt Date: n/a
Cycle Time (sec): 100
Lost Time (sec): 0
Critical VC: 0.573
Avg Cnt Del (secovht): 2.5
Avg Delay (secovht): 2.5
LOS: C



Final Vol: 54 0 0 0 0
Lanes: 1 0 0 0 0
Signal-Stop/Rights-Include: n/a
Vol Cnt Date: n/a
Cycle Time (sec): 100
Lost Time (sec): 0
Critical VC: 0.573
Avg Cnt Del (secovht): 2.5
Avg Delay (secovht): 2.5
LOS: C



Final Vol: 54 0 0 0 0
Lanes: 1 0 0 0 0
Signal-Stop/Rights-Include: n/a
Vol Cnt Date: n/a
Cycle Time (sec): 100
Lost Time (sec): 0
Critical VC: 0.573
Avg Cnt Del (secovht): 2.5
Avg Delay (secovht): 2.5
LOS: C



Final Vol: 54 0 0 0 0
Lanes: 1 0 0 0 0
Signal-Stop/Rights-Include: n/a
Vol Cnt Date: n/a
Cycle Time (sec): 100
Lost Time (sec): 0
Critical VC: 0.573
Avg Cnt Del (secovht): 2.5
Avg Delay (secovht): 2.5
LOS: C



Final Vol: 54 0 0 0 0
Lanes: 1 0 0 0 0
Signal-Stop/Rights-Include: n/a
Vol Cnt Date: n/a
Cycle Time (sec): 100
Lost Time (sec): 0
Critical VC: 0.573
Avg Cnt Del (secovht): 2.5
Avg Delay (secovht): 2.5
LOS: C



Street Name: Emerson St Embarcadero Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
Base Vol: 0 0 52 0 0 48 0 923 12 0 1132 16
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 52 0 0 48 0 923 12 0 1132 16
Added Vol: 0 0 183 0 0 0 0 0 92 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 235 0 0 48 0 1015 12 0 1132 16
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89
PHF Volume: 0 0 265 0 0 54 0 1146 14 0 1278 18
Re duct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 265 0 0 54 0 1146 14 0 1278 18

Critical Gap Module:
Critical Gap: xxxxx xxxxx 6.9 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
FollowUpTim: xxxxx xxxxx 3.3 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Capacity Module:
Chrlct Vol: xxxx xxxxx 580 xxxxx xxxxx 639 xxxxx xxxxx xxxxx xxxxx xxxxx
Potenc Cap.: xxxx xxxxx xxxxx 463 xxxxx xxxxx 424 xxxxx xxxxx xxxxx xxxxx
Move Cap.: xxxx xxxxx xxxxx 463 xxxxx xxxxx 424 xxxxx xxxxx xxxxx xxxxx
Volume/Cap.: xxxx xxxxx xxxxx 0.57 xxxxx xxxxx 0.13 xxxxx xxxxx xxxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxxx xxxxx 3.5 xxxxx xxxxx 0.4 xxxxx xxxxx xxxxx xxxxx
Control Del: xxxxx xxxxx xxxxx 22.7 xxxxx xxxxx 14.7 xxxxx xxxxx xxxxx xxxxx
LOS by Move: B B B B B B B B B B B B B B B

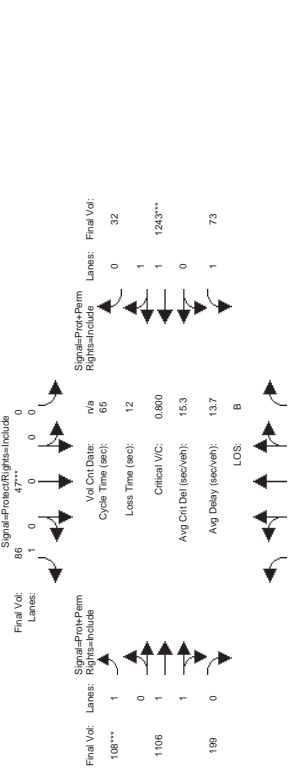
Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
Intersection #4 Emerson St / Embarcadero Rd

Future Volume Alternative: Peak Hour Warrant NOT Met

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AM Peak Hour - Existing + Project Conditions
 Castilleja School TIA
 City of San Antonio - Bexar
 2000 HCM Operations (Future Volume Alternative)
 03 AM Existing + Project

Intersection #5: Bryant St / Embarcadero Rd



Street Name: Bryant St Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol: 0 41 5 0 41 76 51 834 83 44 1094 28
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bes: 0 41 5 0 41 76 51 834 83 44 1094 28
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 41 2 0 41 76 95 973 175 64 1094 28
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
 PHF Volume: 0 47 2 0 47 86 108 1106 199 73 1243 32
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 47 2 0 47 86 108 1106 199 73 1243 32

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj/Adjustment: 0.92 0.95 0.95 0.92 0.95 0.95 0.92 0.98 0.95 0.92 0.97 0.95
 Lanes: 0.00 0.95 0.05 0.00 0.35 0.65 1.00 1.69 0.31 1.00 1.95 0.05
 Final Sat.: 0 1716 84 0 631 1169 1750 3136 564 1750 3608 92

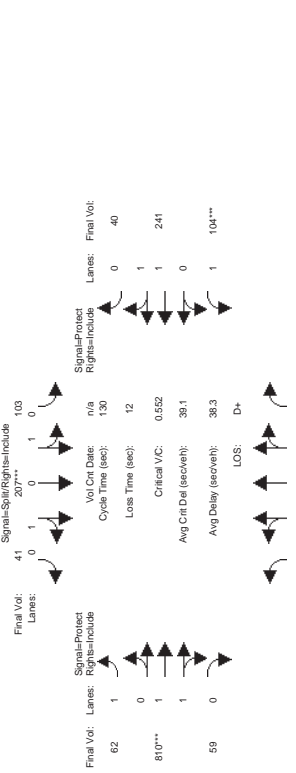
Capacity Analysis Module:

Vol/Sat: 0.00 0.03 0.03 0.00 0.07 0.07 0.00 0.35 0.35 0.00 0.34 0.34
 Crit Moves: ****
 Green Time: 0.0 10.0 10.0 0.0 10.0 10.0 10.2 36.0 36.0 7.0 32.8 32.8
 Volume/Cap: 0.00 0.18 0.18 0.00 0.48 0.48 0.39 0.64 0.64 0.39 0.68 0.68
 Delay/Veh: 0.0 24.2 24.2 0.0 26.4 26.4 25.5 10.7 10.7 28.3 13.3 13.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 24.2 24.2 0.0 26.4 26.4 25.5 10.7 10.7 28.3 13.3 13.3
 LOS by Move: A C C C C C C C B+ C B
 HCM2kVeg: 0 1 1 0 3 3 3 10 10 2 11 11

Note: Queue reported is the number of cars per lane.

AM Peak Hour - Existing + Project Conditions
 Castilleja School TIA
 City of San Antonio - Bexar
 2000 HCM Operations (Future Volume Alternative)
 03 AM Existing + Project

Intersection #6: Middlefield Rd / Embarcadero Rd



Street Name: Middlefield Rd Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 7 10 10 7 10 10
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol: 92 246 31 97 195 39 58 748 56 98 207 38
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bes: 92 246 31 97 195 39 58 748 56 98 207 38
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 92 246 31 97 195 39 58 764 56 98 227 38
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
 PHF Volume: 98 261 33 103 207 41 62 810 59 104 241 40
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 98 261 33 103 207 41 62 810 59 104 241 40

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj/Adjustment: 0.95 0.95 0.95 0.92 0.98 0.95 0.92 0.98 0.95 0.92 0.98 0.95
 Lanes: 0.50 1.33 0.17 0.59 1.18 0.23 1.00 1.86 0.14 1.00 1.71 0.29
 Final Sat.: 898 2400 302 1055 2121 424 1750 3447 253 1750 3169 530

Capacity Analysis Module:

Vol/Sat: 0.11 0.11 0.11 0.10 0.10 0.10 0.04 0.24 0.24 0.06 0.08 0.08
 Crit Moves: ****
 Green Time: 25.6 25.6 25.6 23.0 23.0 23.0 28.6 55.4 55.4 14.0 40.8 40.8
 Volume/Cap: 0.55 0.55 0.55 0.55 0.55 0.55 0.16 0.55 0.55 0.55 0.24 0.24
 Delay/Veh: 48.0 48.0 48.0 49.9 49.9 49.9 41.2 28.4 28.4 58.5 33.2 33.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 48.0 48.0 48.0 49.9 49.9 49.9 41.2 28.4 28.4 58.5 33.2 33.2
 LOS by Move: D D D D D D D C B+ C-
 HCM2kVeg: 8 8 8 7 7 7 2 13 13 5 4 4

Note: Queue reported is the number of cars per lane.

AM Peak Hour - Existing + Project Conditions
City of San Antonio
2000 HCM Unsignalized Future Volume Alternative
03 AM Easting + Project

Intersection #7: Emerson St / Melville Ave

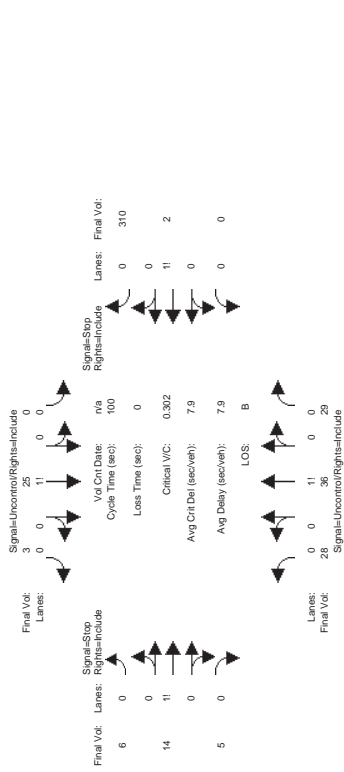


Table with columns: Street Name, Approach, Movement, Volume Module, Base Vol, Growth Adj, Initial Base, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume, Critical Gap, FollowUpTim, Capacity Module, Chflict Vol, Potent Cap, Move Cap, Volume/Cap, Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
Intersection #7 Emerson St / Melville Ave
Future Volume Alternative: Peak Hour Warrant NOT Met

AM Peak Hour - Existing + Project Conditions
City of San Antonio
2000 HCM Unsignalized Future Volume Alternative
03 AM Easting + Project

Intersection #8: Alma St/Melville Ave

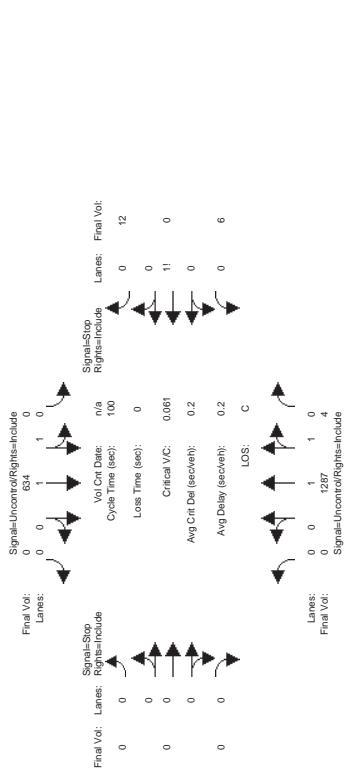
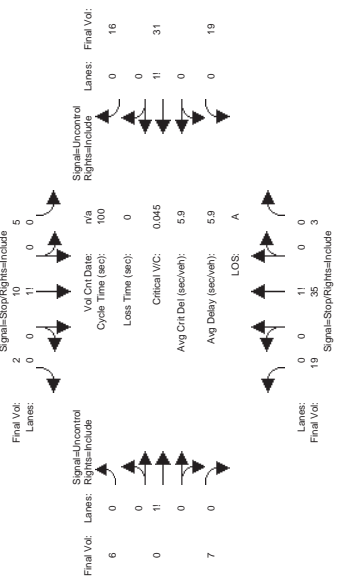


Table with columns: Street Name, Approach, Movement, Volume Module, Base Vol, Growth Adj, Initial Base, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume, Critical Gap, FollowUpTim, Capacity Module, Chflict Vol, Potent Cap, Move Cap, Volume/Cap, Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
Intersection #8 Alma St/Melville Ave
Future Volume Alternative: Peak Hour Warrant NOT Met

Intersection #9: Emerson St/Kellogg Ave



```

Street Name: Emerson St        Kellogg Ave
Approach:   North Bound      East Bound      West Bound
Movement:   L - T - R      L - T - R      L - T - R

Volume Module:
Base Vol:   19 41  7  5 15  2  6  2  7  22 58 32
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 19 41  7  5 15  2  6  2  7  22 58 32
Added Vol:   0 -4  0 -5  0  0  -10  0 -3 -27 -16  0
PasserByVol: 0  0  0  0  0  0  0  0  0  0  0  0
Initial Fut: 19 35  3  5 10  2  6 -8  7 19 31 16
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  19 35  3  5 10  2  6  0  7 19 31 16
Reduc Vol:   0  0  0  0  0  0  0  0  0  0  0  0
FinalVolume: 19 35  3  5 10  2  6  0  7 19 31 16

Critical Gap Module:
Critical Gap: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxxx xxxxxx 4.1 xxxxx xxxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxxx xxxxxx 2.2 xxxxx xxxxxx

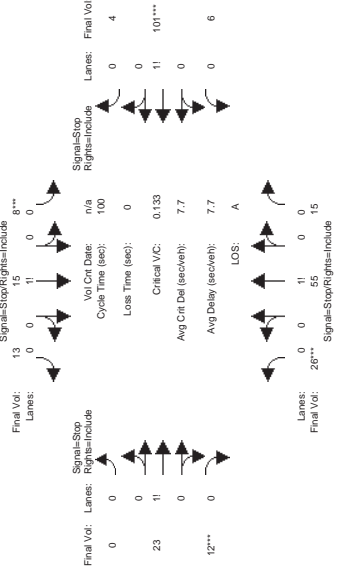
Capacity Module:
Chnlct Vol:  99 101  4 112 96 39 47 xxxxx xxxxxx 7 xxxxx xxxxxx
Potenc Cap.: 888 793 1086 871 798 1038 1573 xxxxx xxxxxx 1627 xxxxx xxxxxx
Move Cap.:   867 781 1086 829 785 1038 1573 xxxxx xxxxxx 1627 xxxxx xxxxxx
Volume/Cap:  0.02 0.04 0.04 0.01 0.01 0.00 0.00 xxxxx xxxxxx 0.01 xxxxx xxxxxx

Level of Service Module:
2Way95thQ:  xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxxx
Control Del: xxxxx xxxxx xxxxx xxxxx xxxxx 7.2 xxxxx xxxxxx
LOS by Move: * * * * *
Movement:    LT - LTR - RT  LT - LTR - RT  LT - LTR - RT
Shared Cap.: xxxxx 820 xxxxx xxxxx 822 xxxxx xxxxx xxxxx xxxxx
SharedQueue: xxxxx 0.2 xxxxx xxxxx 0.1 xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd ConDel: xxxxx 9.7 xxxxx xxxxx 9.5 xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS:  * * * * *
ApproachDel: 9.7  9.5  * * * * *
ApproachLOS:  A      A      * * * * *

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
Intersection #9 Emerson St/Kellogg Ave
*****
Future Volume Alternative: Peak Hour Warrant NOT Met
*****

```

Intersection #10: Emerson St/Churchill Ave



```

Street Name: Emerson St        Churchill Ave
Approach:   North Bound      South Bound      East Bound      West Bound
Movement:   L - T - R      L - T - R      L - T - R      L - T - R

Volume Module:
Base Vol:   21 59 15  8 18 18  6 56 12  2 77  4
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 21 59 15  8 18 18  6 56 12  2 77  4
Added Vol:   5 -4  0 -3 -5  0  -6 -33  0  4 24  0
PasserByVol: 0  0  0  0  0  0  0  0  0  0  0  0
Initial Fut: 26 55 15  8 15 13  0 23 12  6 101  4
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  26 55 15  8 15 13  0 23 12  6 101  4
Reduc Vol:   0  0  0  0  0  0  0  0  0  0  0  0
FinalVolume: 26 55 15  8 15 13  0 23 12  6 101  4

Critical Gap Module:
Critical Gap: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 26 55 15  8 15 13  0 23 12  6 101  4

Saturation Flow Module:
Vol/Sat:     0.12 0.12 0.12 0.04 0.04 0.04 xxxxx 0.04 0.04 0.13 0.13 0.13
Crit Moves:  ***
Delay/Veh:   7.7 7.7 7.7 7.3 7.3 7.3 7.3 7.3 7.3 7.8 7.8 7.8
AdjDel/Veh:  7.7 7.7 7.7 7.3 7.3 7.3 7.3 7.3 7.3 7.8 7.8 7.8
LOS by Move:  A  A  A  A  A  A  A  A  A  A  A  A
ApproachDel:  7.7  7.3  7.3  7.3  7.3  7.3  7.3  7.3  7.3  7.8  7.8  7.8
ApproachLOS:  A  A  A  A  A  A  A  A  A  A  A  A
LOS by Appr:  A  A  A  A  A  A  A  A  A  A  A  A

AllWayAVGO:  0.1 0.1 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.1 0.1

Note: Queue reported is the number of cars per lane.
Peak Hour Volume Signal Warrant Report [Urban]
*****
Intersection #10 Emerson St/Churchill Ave
*****

```

Fri Apr 26 15:38:13 2019
 AM Peak Hour - Existing + Project Conditions
 Castelli School TIA
 City of Escondido
 2000 HCM Operations (Future Volume Alternative)
 03 AM Existing + Project

Intersection #11: Alma St / Churchhill Ave
 Signal=Project/Rights=Include
 Final Vol: 179 0 99 77**
 Lanes: 1 0 1 0 1



Final Vol: Lanes: Signal=Split Rights=Include Lanes: Final Vol:
 84*** 0 1 0 1 7
 Cycle Time (sec): 100
 Loss Time (sec): 12
 Critical VIC: 0.666
 Avg Cnt Del (sec/veh): 23.5
 Avg Delay (sec/veh): 25.9
 LOS: C

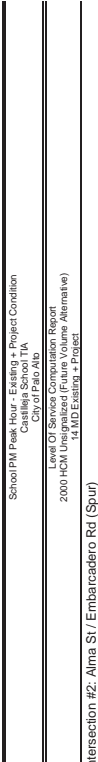
Street Name: Alma St Churchhill Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y+R	Volume Module	Base Vol	Growth Adj	Initial Bse	Added Vol	PasserByVol	Initial Fut	User Adj	PHF Volume	PHF Volume	Reduced Vol	PCE Adj	M/F Adj	Final Volume
7	10	46	7	581	168	72	63	128	63	78	2	1900	1900	1900	1900
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
223	1346	46	7	581	168	72	63	128	63	78	2	1900	1900	1900	1900
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
223	1346	46	7	581	168	72	63	128	63	78	2	1900	1900	1900	1900
0	49	-33	0	0	0	0	0	0	0	0	0	0	0	0	0
223	1395	13	7	581	168	79	57	128	76	85	7	1900	1900	1900	1900
0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
238	1487	14	7	619	179	84	61	136	81	91	7	1900	1900	1900	1900
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
238	1487	14	7	619	179	84	61	136	81	91	7	1900	1900	1900	1900
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
238	1487	14	7	619	179	84	61	136	81	91	7	1900	1900	1900	1900

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900
 Adjustment: 0.92 0.97 0.95 0.92
 Lanes: 1.00 1.98 0.02 1.00
 Final Sat: 1750 3666 34 1750

Capacity Analysis Module:
 Vol/Sat: 0.14 0.41 0.41 0.00
 Crit Moves: ****
 Green Time: 28.9 56.5 56.5 7.0
 Volume/Cap: 0.47 0.72 0.72 0.06
 Delay/Veh: 30.0 17.1 17.1 43.6
 User DelAdj: 1.00 1.00 1.00 1.00
 AdjDel/Veh: 30.0 17.1 17.1 43.6
 LOS by Move: C B B D C C D- D-
 HCM2kVagQ: 7 18 18 0 8 4 6 6

Note: Queue reported is the number of cars per lane.



Intersection #2: Alma St / Embarcadero Rd (Spur)

Final Vol: 0 0 0
 Lanes: 0 0 0

Signal=Stop Rights=Include
 Cycle Time (sec): n/a
 Lost Time (sec): 0

Signal=Uncontrol/Rights=Include
 Cycle Time (sec): 100
 Lost Time (sec): 0

Vol Cnt Date: n/a
 Critical VC: 0.280
 Avg Crit Del (sec/veh): 0.9
 Avg Delay (sec/veh): 0.9

LOS: C

Street Name: Alma St Embarcadero Rd (Spur)
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

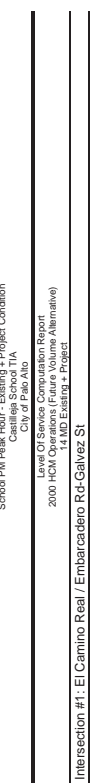
Volume Module:
 Base Vol: 0 900 0 0 983 0 0 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 900 0 0 983 0 0 0 0 0 0
 Added Vol: 0 -33 0 0 7 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 867 0 0 990 0 0 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 0 889 0 0 1015 0 0 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 0 889 0 0 1015 0 0 0 0 0 0

Critical Gap Module:
 Critical Gap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 FollowUpTime: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Capacity Module:
 Chnlct Vol: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Potenc Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Move Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Volume/Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Level Of Service Module:
 2Way95thQ: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Control Del: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 LOS By Move: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shrd ConDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shared LOS: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachLOS: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #2 Alma St / Embarcadero Rd (Spur)
 Future Volume Alternative: Peak Hour Warrant NOT Met



Intersection #1: El Camino Real / Embarcadero Rd-Galvez St

Final Vol: 44 1059 259***
 Lanes: 1 2 0 1

Signal=Stop Rights=Include
 Cycle Time (sec): n/a
 Lost Time (sec): 12

Signal=Stk Rights=Include
 Cycle Time (sec): 110
 Lost Time (sec): 0

Vol Cnt Date: n/a
 Critical VC: 0.748
 Avg Crit Del (sec/veh): 43.6
 Avg Delay (sec/veh): 41.4

LOS: D

Street Name: El Camino Real Embarcadero Rd-Galvez St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
 Base Vol: 187 979 186 245 1001 42 103 434 216 203 331 238
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 187 979 186 245 1001 42 103 434 216 203 331 238
 Added Vol: 5 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 192 979 186 245 1001 42 103 438 216 203 331 238
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 203 1036 197 259 1059 44 109 463 229 215 350 252
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 203 1036 197 259 1059 44 109 463 229 215 350 252

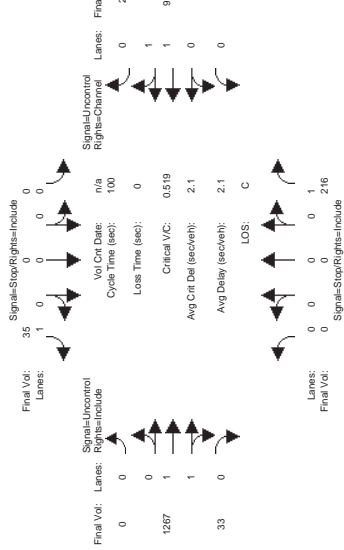
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 203 1036 197 259 1059 44 109 463 229 215 350 252

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.88 1.00 0.78 0.88 0.99 0.92 0.88 1.00 0.78 0.88 0.94 0.86
 Adjustment: 1.00 3.00 1.00 1.00 2.87 0.13 1.00 2.00 1.00 1.00 1.12 0.88
 Final Sat: 1663 5700 1488 1663 5419 227 1663 3800 1488 1663 2000 1438

Capacity Analysis Module:
 Vol/Sat: 0.12 0.18 0.13 0.16 0.20 0.20 0.07 0.12 0.15 0.13 0.18 0.18
 Cric Moves: *****
 Green Time: 19.1 26.7 26.7 22.9 30.6 30.6 22.6 22.6 22.6 25.8 25.8
 Volume/Cap: 0.70 0.75 0.54 0.75 0.70 0.70 0.32 0.59 0.75 0.55 0.75
 Delay/Veh: 50.4 40.8 38.1 49.5 37.1 37.1 37.7 40.8 50.8 38.8 43.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Tech: 50.4 40.8 38.1 49.5 37.1 37.1 37.7 40.8 50.8 38.8 43.0
 LOS By Move: D D D+ D D+ D+ D+ D D D+ D
 HCMXavgQ: 8 12 7 11 12 12 4 8 10 7 11

Note: Queue reported is the number of cars per lane.

Intersection #4: Emerson St / Embarcadero Rd



Street Name: Emerson St South Bound East Bound West Bound
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
Base Vol: 0 0 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 0 0 0 0 0
Added Vol: 0 0 172 0 0 0
PasserByVol: 0 0 0 0 0 0
Initial Fut: 0 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 0 216 0 0 35
Reduct Vol: 0 0 0 0 0 0
Final Volume: 0 0 216 0 0 35

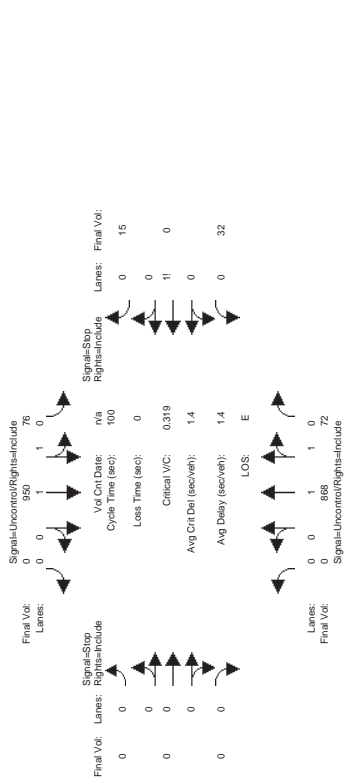
Critical Gap Module:
Critical Gap: 6.9 6.9 3.3 3.3 3.3 3.3
FollowUpTim: 3.3 3.3 3.3 3.3 3.3 3.3

Capacity Module:
Chnlct Vol: 650 472 544 544 544 544
Potenc Cap: 417 417 544 544 544 544
Move Cap: 417 544 544 544 544 544
Volume/Cap: 0.52 0.06 0.06 0.06 0.06 0.06

Level Of Service Module:
2Way95thQ: 2.9 2.9 2.9 2.9 2.9 2.9
Control Del: 22.6 22.6 12.1 12.1 12.1 12.1
LOS by Move: C C B B B B
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap: 135 135 135 135 135 135
Shared Queue: 1.4 1.4 1.4 1.4 1.4 1.4
Shrd ConDel: 45.2 45.2 45.2 45.2 45.2 45.2
Shared LOS: E E E E E E
ApproachDel: 22.6 12.1 12.1
ApproachLOS: C B B

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
Intersection #4 Emerson St / Embarcadero Rd
Future Volume Alternative: Peak Hour Warrant NOT Met

Intersection #3: Alma St / Kingsley Ave



Street Name: Alma St South Bound East Bound West Bound
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
Base Vol: 0 870 31 58 925 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 870 31 58 925 0 0 0
Added Vol: 0 -33 38 15 -9 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0
Initial Fut: 0 837 69 73 916 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.96 0.96 0.96 0.96 0.96 0.96
PHF Volume: 0 868 72 76 950 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0
Final Volume: 0 868 72 76 950 0 0 0

Critical Gap Module:
Critical Gap: 4.1 4.1 3.5 3.5 3.5 3.5
FollowUpTim: 3.5 3.5 3.5 3.5 3.5 3.5

Capacity Module:
Chnlct Vol: 940 1531 2006 470
Potenc Cap: 738 738 738 738
Move Cap: 101 54 546 101 54 546
Volume/Cap: 0.32 0.32 0.32 0.32

Level Of Service Module:
2Way95thQ: 10.4 10.4 10.4 10.4
Control Del: 10.4 10.4 10.4 10.4
LOS by Move: B B B B
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap: 135 135 135 135
Shared Queue: 1.4 1.4 1.4 1.4
Shrd ConDel: 45.2 45.2 45.2 45.2
Shared LOS: E E E E
ApproachDel: 45.2 45.2
ApproachLOS: B B

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
Intersection #3 Alma St / Kingsley Ave
Future Volume Alternative: Peak Hour Warrant NOT Met

COMPARE
School PM Peak Hour - Existing + Project Condition
Castellana School TIA
City of Paso Del Rio
2000 HCM 4-Way Stop (Future Volume Alternative)
14.MD Existing + Project

COMPARE
School PM Peak Hour - Existing + Project Condition
Castellana School TIA
City of Paso Del Rio
2000 HCM 4-Way Stop (Future Volume Alternative)
14.MD Existing + Project

Intersection #10: Emerson St/Churchill Ave

Final Vol: 0
Lanes: 0

Signal-Stop Rights-Include
Final Vol: 77
Lanes: 11

Signal-Stop Rights-Include
Final Vol: 7**
Lanes: 0

Final Vol: 28
Lanes: 0

Signal-Stop Rights-Include
Final Vol: 11
Lanes: 0

Signal-Stop Rights-Include
Final Vol: 13
Lanes: 0

Vol Cnt Date: n/a
Cycle Time (sec): 100
Loss Time (sec): 0

Critical VC: 0.188
Avg Cnt Del (sec/veh): 7.9
Avg Delay (sec/veh): 7.9

LOS: A

Intersection #9: Emerson St/Kellogg Ave

Final Vol: 9
Lanes: 0

Signal-Stop Rights-Include
Final Vol: 3
Lanes: 11

Signal-Stop Rights-Include
Final Vol: 8
Lanes: 0

Final Vol: 0
Lanes: 0

Signal-Stop Rights-Include
Final Vol: 11
Lanes: 0

Signal-Stop Rights-Include
Final Vol: 15
Lanes: 6

Vol Cnt Date: n/a
Cycle Time (sec): 100
Loss Time (sec): 0

Critical VC: 0.035
Avg Cnt Del (sec/veh): 5.4
Avg Delay (sec/veh): 5.4

LOS: A

Street Name: Emerson St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	12	15	7	13	22	31	4	98	7	10	126	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	12	15	7	13	22	31	4	98	7	10	126	5
Added Vol:	3	-2	0	0	-3	-5	-4	-21	0	4	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	13	7	13	19	26	0	77	7	14	148	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	15	13	7	13	19	26	0	77	7	14	148	5
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
M/F Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	15	13	7	13	19	26	0	77	7	14	148	5

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.43	0.37	0.20	0.22	0.33	0.45	0.00	0.92	0.08	0.08	0.89	0.03
Final Sat:	328	285	153	181	264	361	0	762	69	71	747	25

Capacity Analysis Module:

Vol/Sat:	0.05	0.05	0.05	0.07	0.07	0.07	xxxxx	0.10	0.10	0.20	0.20	0.20
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Delay/Veh:	7.7	7.7	7.7	7.6	7.6	7.6	0.0	7.7	7.7	8.2	8.2	8.2
AdjDel/Veh:	7.7	7.7	7.7	7.6	7.6	7.6	0.0	7.7	7.7	8.2	8.2	8.2
LOS by Move:	A	A	A	A	A	A	*	A	A	A	A	A
ApproachDel:	7.7	7.7	7.7	7.6	7.6	7.6		7.7	7.7	8.2	8.2	8.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
ApprAdjDel:	7.7	7.7	7.7	7.6	7.6	7.6		7.7	7.7	8.2	8.2	8.2
LOS by Appr:	A	A	A	A	A	A		A	A	A	A	A

AllWayAVGO: 0.0 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.2

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #10 Emerson St/Churchill Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Street Name: Emerson St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	5	19	8	7	30	2	9	9	8	35	32	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	5	19	8	7	30	2	9	9	8	35	32	20
Added Vol:	0	-4	0	0	0	0	-6	0	-3	-26	-15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	15	6	7	25	2	9	3	8	32	6	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	15	6	7	25	2	9	3	8	32	6	5
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	5	15	6	7	25	2	9	3	8	32	6	5

Capacity Module:

Potenc Cap.:	1600	xxxxx	xxxxx	1608	xxxxx	xxxxx	922	823	1056	922	825	1066
Move Cap.:	1600	xxxxx	xxxxx	1608	xxxxx	xxxxx	907	817	1056	907	819	1066
Volume/Cap:	0.00	xxxxx	xxxxx	0.00	xxxxx	xxxxx	0.01	0.00	0.01	0.04	0.01	0.00

Level of Service Module:

2Way95thQ:	0.0	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	7.3	xxxxx	xxxxx	7.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT						
Shared Queue:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	945	xxxxx	xxxxx	909	xxxxx	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	8.9	xxxxx	xxxxx	9.2	xxxxx	xxxxx
ApproachLOS:	A	A	A	A	A	A		A	A	A	A	A

AllWayAVGO: 0.0 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2

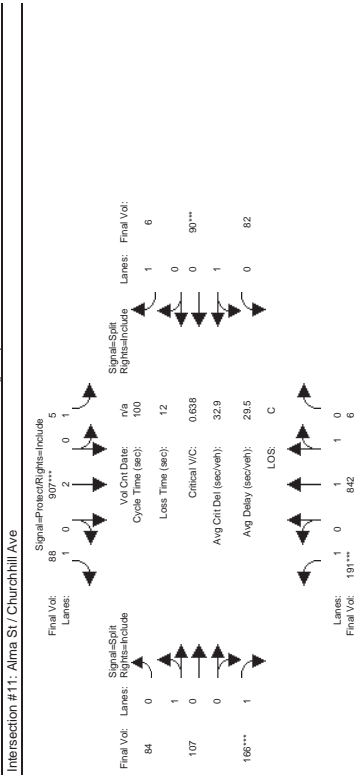
Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #9 Emerson St/Kellogg Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

School PM Peak Hour - Existing + Project Condition
 Castilleja School TIA
 City of Redwood
 2000 HCM Operations (Future Volume Alternative)
 14.MB Existing + Project



Street Name: Alma St Churchhill Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	7	10	10	7	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	187	795	27	5	890	86	77	109	163	68	82	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	187	795	27	5	890	86	77	109	163	68	82	3
Added Vol:	0	31	-21	0	0	0	5	-4	0	12	6	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	187	826	6	5	890	86	82	105	163	80	88	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	191	842	6	5	907	88	84	107	166	82	90	6
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	191	842	6	5	907	88	84	107	166	82	90	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	191	842	6	5	907	88	84	107	166	82	90	6

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	1.00	0.92	0.88	1.00	0.78	0.90	0.98	0.78	0.90	0.98	0.78
Lanes:	1.00	1.98	0.02	1.00	2.00	1.00	0.46	0.54	1.00	0.50	0.50	1.00
Final Sat.:	1663	3766	27	1663	3800	1488	786	1007	1488	849	934	1488

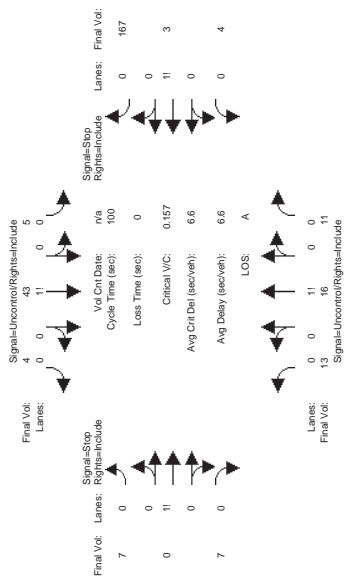
Capacity Analysis Module:

Vol/Sat:	0.11	0.22	0.22	0.00	0.24	0.06	0.11	0.11	0.11	0.10	0.10	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	18.0	42.2	42.2	13.2	37.4	37.4	17.5	17.5	17.5	15.1	15.1	15.1
Volume/Cap:	0.64	0.53	0.02	0.64	0.16	0.61	0.61	0.61	0.64	0.64	0.64	0.03
Delay/Veh:	42.5	21.8	21.8	37.8	26.7	20.9	41.5	41.5	43.5	44.9	44.9	36.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.5	21.8	21.8	37.8	26.7	20.9	41.5	41.5	43.5	44.9	44.9	36.3
LOS by Move:	D	C+	C+	D	C	C+	D	D	D	D	D	D+
HCM2kVegQ:	7	10	10	0	12	2	6	6	6	6	6	6

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Existing + Project Conditions
 City of Paso Robles
 2000 HCM Unsignalized Future Volume Alternative
 of PM Existing + Project

Intersection #7: Emerson St / Melville Ave



Street Name: Emerson St South Bound East Bound West Bound
 Approach: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	15	22	8	4	32	3	5	0	7	3	2	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	15	22	8	4	32	3	5	0	7	3	2	1
Added Vol:	-5	-10	0	0	0	0	0	0	-2	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	12	8	4	32	3	5	0	5	3	2	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
PHF Volume:	13	16	11	5	43	4	7	0	7	4	3	167
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	13	16	11	5	43	4	7	0	7	4	3	167

Critical Gap Module:
 Critical Gap: 4.1 xxxxxx
 FollowUpTim: 2.2 xxxxxx

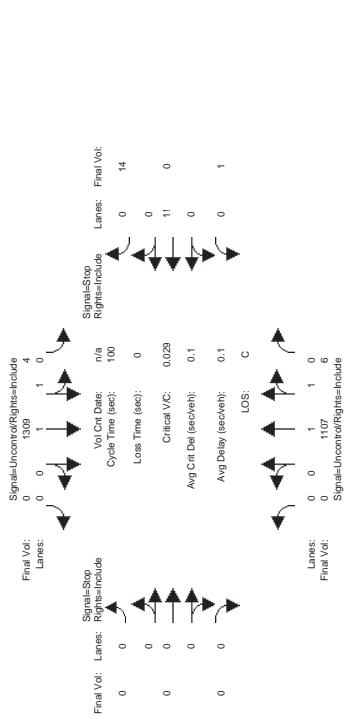
Capacity Module:
 Chnlct Vol: 47 xxxxxx
 Potent Cap.: 1574 xxxxxx
 Move Cap.: 1574 xxxxxx
 Volume/Cap: 0.01 xxxxxx

Level of Service Module:
 2Way95thQ: 0.0 xxxxxx
 Control Del: 7.3 xxxxxx
 LOS by Move: A
 Movement: LT - LTR - RT
 Shared Cap.: xxxxxx
 Shared Queue: xxxxxx
 Shrd ConDel: xxxxxx
 Shared LOS: A
 ApproachDel: xxxxxx
 ApproachLOS: A

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #7 Emerson St / Melville Ave
 Future Volume Alternative: Peak Hour Warrant NOT Met

PM Peak Hour - Existing + Project Conditions
 City of Paso Robles
 2000 HCM Unsignalized Future Volume Alternative
 of PM Existing + Project

Intersection #8: Alma St/Melville Ave



Street Name: Alma St South Bound East Bound West Bound
 Approach: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	0	1100	6	6	1313	0	0	0	0	0	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	1100	6	6	1313	0	0	0	0	0	0	19
Added Vol:	0	7	0	-2	-4	0	0	0	0	0	0	-5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1107	6	4	1309	0	0	0	0	0	0	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1107	6	4	1309	0	0	0	0	0	0	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	1107	6	4	1309	0	0	0	0	0	0	14

Critical Gap Module:
 Critical Gap: 4.1 xxxxxx
 FollowUpTim: 2.2 xxxxxx

Capacity Module:
 Chnlct Vol: xxxxxx
 Potent Cap.: xxxxxx
 Move Cap.: xxxxxx
 Volume/Cap: 0.01 xxxxxx

Level of Service Module:
 2Way95thQ: xxxxxx
 Control Del: 10.7 xxxxxx
 LOS by Move: B
 Movement: LT - LTR - RT
 Shared Cap.: xxxxxx
 Shared Queue: xxxxxx
 Shrd ConDel: xxxxxx
 Shared LOS: B
 ApproachDel: xxxxxx
 ApproachLOS: xxxxxx

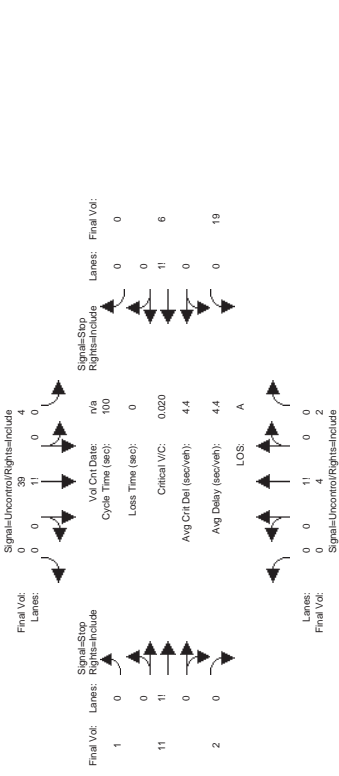
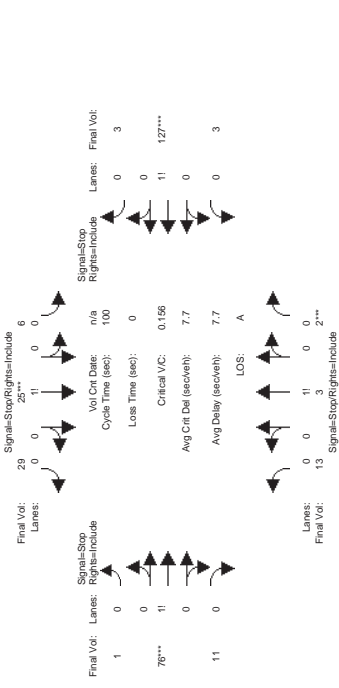
Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #8 Alma St/Melville Ave
 Future Volume Alternative: Peak Hour Warrant NOT Met

COMPARE
Fri Apr 26 15:39:50 2019
PM Peak Hour - Existing + Project Conditions
Castilla School TIA
City of Paso Del Rio
2000 HCM Unsignalized (Future Volume Alternative)
04 PM Existing + Project

COMPARE
Fri Apr 26 15:39:50 2019
PM Peak Hour - Existing + Project Conditions
Castilla School TIA
City of Paso Del Rio
2000 HCM Unsignalized (Future Volume Alternative)
04 PM Existing + Project

Intersection #10: Emerson St/Churchill Ave

Intersection #9: Emerson St/Kellogg Ave



Street Name: Emerson St
Approach: North Bound South Bound East Bound West Bound
L - T - R L - T - R L - T - R L - T - R

Street Name: Emerson St
Approach: North Bound South Bound East Bound West Bound
L - T - R L - T - R L - T - R L - T - R

Volume Module:
Base Vol: 11 5 2 6 27 32 3 89 11 1 112 3
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 11 5 2 6 27 32 3 89 11 1 112 3
Added Vol: 2 -2 0 0 -2 -13 0 2 15 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 13 3 2 6 25 29 1 76 11 3 127 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 13 3 2 6 25 29 1 76 11 3 127 3
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 13 3 2 6 25 29 1 76 11 3 127 3

Volume Module:
Base Vol: 0 6 4 4 42 0 1 15 2 21 23 10
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 6 4 4 42 0 1 15 2 21 23 10
Added Vol: 0 -2 0 -3 0 0 -4 0 -2 -17 -10 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 4 2 4 39 0 1 11 2 19 6 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 4 2 4 39 0 1 11 2 19 6 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Volume: 0 4 2 4 39 0 1 11 2 19 6 0

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.02 0.07 0.07 0.07 0.10 0.10 0.10 0.16 0.16 0.16

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

Level of Service:
Control Del: 2.0 1.9 1.7 1.6 1.6 1.6 1.7 1.8 1.8 1.9 1.9 1.9
LOS by Move: A A A A A A A A A A A A
Shared Queue: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Shrd ConDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Shared LOS: A A A A A A A A A A A A
Approach LOS: A A A A A A A A A A A A
Approach LOS: A A A A A A A A A A A A

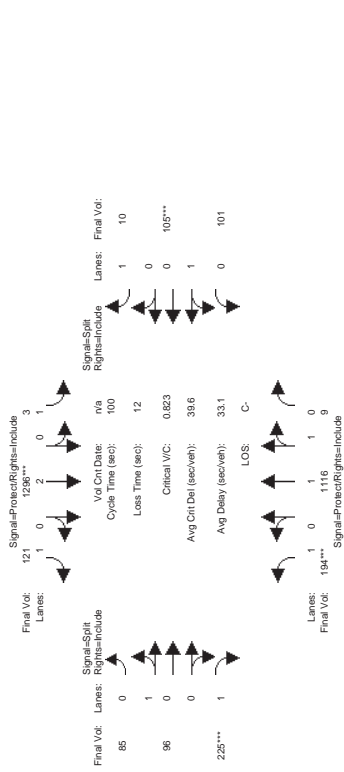
Level of Service:
Control Del: 2.0 1.9 1.7 1.6 1.6 1.6 1.7 1.8 1.8 1.9 1.9 1.9
LOS by Move: A A A A A A A A A A A A
Shared Queue: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Shrd ConDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Shared LOS: A A A A A A A A A A A A
Approach LOS: A A A A A A A A A A A A
Approach LOS: A A A A A A A A A A A A

Note: Queue reported is the number of cars per lane.
Intersection #10 Emerson St/Churchill Ave

Note: Queue reported is the number of cars per lane.
Intersection #9 Emerson St/Kellogg Ave

Final Report
 PM Peak Hour - Existing + Project Conditions
 Castilleja School TIA
 City of Redwood
 2000 HCM Operations (Future Volume Alternative)
 04 PM Existing + Project

Intersection #11: Alma St / Churchhill Ave

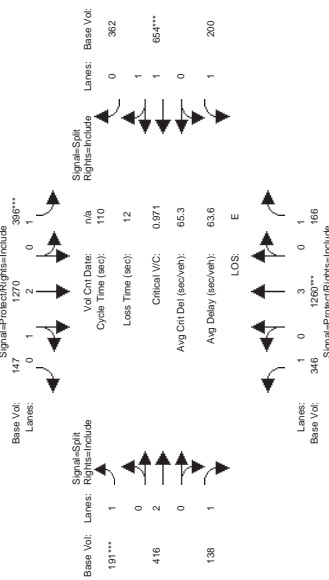


Street Name:	Alma St		Churchhill Ave	
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Min. Green:	7 10 10	7 10 10	10 10 10	10 10 10
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Volume Module:				
Base Vol:	178 1004	21 3 1188 111	75 90 206 85	92 7
Growth Adj:	1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	178 1004	21 3 1188 111	75 90 206 85	92 7
Added Vol:	0 19	0 0 0 0	3 -2 0 8	4 2
PasserByVol:	0 0	0 0 0 0	0 0 0 0	0 0 0 0
Initial Fut:	178 1023	8 3 1188 111	78 88 206 93	96 9
User Adj:	1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.92 0.92	0.92 0.92 0.92 0.92	0.92 0.92 0.92 0.92	0.92 0.92 0.92
PHF Volume:	194 1116	9 3 1296 121	85 96 225 101	105 10
Reduced Vol:	0 0	0 0 0 0	0 0 0 0	0 0 0 0
Reduced Vol:	194 1116	9 3 1296 121	85 96 225 101	105 10
PCE Adj:	1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00
Final Volume:	194 1116	9 3 1296 121	85 96 225 101	105 10
Saturation Flow Module:				
Sat/Lane:	1900 1900	1900 1900 1900 1900	1900 1900 1900 1900	1900 1900 1900
Adjustment:	0.88 1.00	0.92 0.88 1.00 0.78	0.90 0.98 0.78 0.90	0.98 0.78
Lanes:	1.00 1.98	0.02 1.00 2.00 1.00	0.49 0.51 1.00 0.51	0.49 1.00
Final Sat:	1663 3764	29 1663 3800 1488	838 946 1488 876	904 1488
Capacity Analysis Module:				
Vol/Sat:	0.12 0.30	0.30 0.00 0.34 0.08	0.10 0.10 0.15 0.12	0.12 0.12 0.01
Crit Moves:	****	****	****	****
Green Time:	14.2 45.0	45.0 10.6 41.4 41.4	18.3 18.3 18.3 14.1	14.1 14.1
Volume/Cap:	0.82 0.66	0.66 0.02 0.82 0.20	0.55 0.55 0.82 0.82	0.82 0.82
Delay/Veh:	62.0 22.5	22.5 40.1 29.7 18.8	39.2 39.2 57.3 61.1	61.1 37.3
User DelAdj:	1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	62.0 22.5	22.5 40.1 29.7 18.8	39.2 39.2 57.3 61.1	61.1 37.3
LOS by Move:	E C+	C+ C+ D C B-	D D E D E	E D+ E D+
HCWGAVQ:	9 14	14 0 20 3	6 6 6 10	9 9 9 0

Note: Queue reported is the number of cars per lane.

AM Peak Hour - Cumulative Condition
 Castilleja School TIA
 City of Palo Alto
 Level Of Service Computation Report
 2000 HCM Unsignalized (Base Volume Alternative)
 09 AM Cumulative

Intersection #1: El Camino Real / Embarcadero Rd-Galvez St



Street Name: El Camino Real Embarcadero Rd-Galvez St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

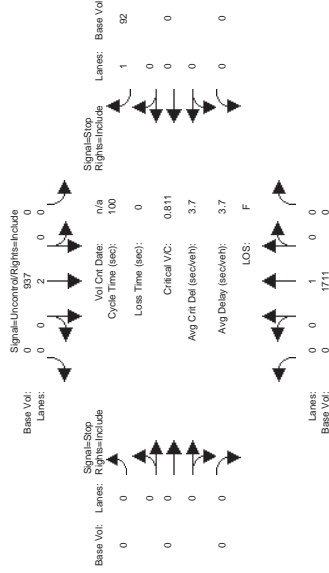
Min. Green:	7	10	10	7	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	346	1260	166	396	1270	147	191	416	138	200	654	362
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	346	1260	166	396	1270	147	191	416	138	200	654	362

AM Peak Hour - Cumulative Condition
 Castilleja School TIA
 City of Palo Alto
 Level Of Service Computation Report
 2000 HCM Unsignalized (Base Volume Alternative)
 09 AM Cumulative

Intersection #2: Alma St / Embarcadero Rd (Spur)



Street Name: Alma St Embarcadero Rd (Spur)
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	7	10	10	7	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

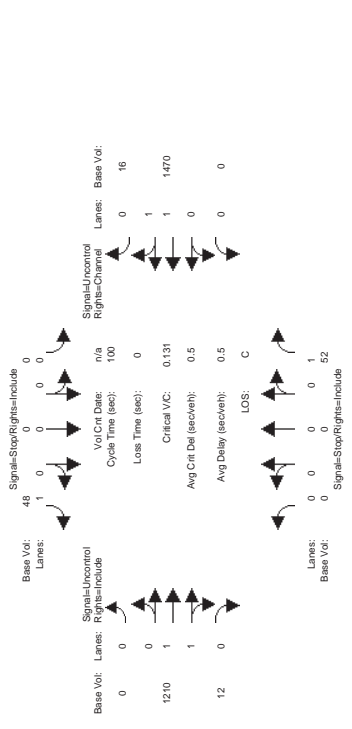
Volume Module:

Base Vol:	0	1711	0	0	937	0	0	0	0	0	0	92
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1711	0	0	937	0	0	0	0	0	0	92

Note: Queue reported is the number of cars per lane.

Note: Queue reported is the number of cars per lane.

Intersection #4: Emerson St / Embarcadero Rd



Street Name: Emerson St South Bound Embarcadero Rd East Bound West Bound
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	0	0	52	0	48	0	1210	12	0	1470	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	52	0	48	0	1210	12	0	1470	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	52	0	48	0	1210	12	0	1470	16
Reeduct Vol:	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	0	52	0	48	0	1210	12	0	1470	16

Critical Gap Module:

Critical Gap:	6.9	xxxxxx	xxxxx	6.9	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
FollowUpTIm:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx

Capacity Module:

Conflict Vol:	xxxx	xxxx	611	xxxx	xxxx	735	xxxx	xxxx	xxxx	xxxx	xxxx
Potent Cap.:	xxxx	xxxx	442	xxxx	xxxx	367	xxxx	xxxx	xxxx	xxxx	xxxx
Move Cap.:	xxxx	xxxx	442	xxxx	xxxx	367	xxxx	xxxx	xxxx	xxxx	xxxx
Volume/Cap.:	xxxx	xxxx	0.12	xxxx	xxxx	0.13	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	0.4	xxxx	xxxx	0.4	xxxx	xxxx	xxxx	xxxx	xxxxxx
Control Del:	xxxxxx	xxxxxx	14.2	xxxxxx	xxxxxx	16.3	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
LOS by Move:	*	*	B	*	*	C	*	*	*	*	*

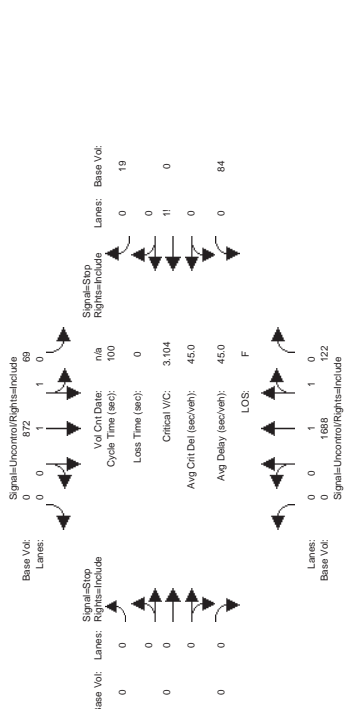
Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #4 Emerson St / Embarcadero Rd

Base Volume Alternative: Peak Hour Warrant NOT Met

Intersection #3: Alma St / Kingsley Ave



Street Name: Alma St South Bound Kingsley Ave East Bound West Bound
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	0	1688	122	69	872	0	0	0	0	84	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	1688	122	69	872	0	0	0	0	84	0	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1688	122	69	872	0	0	0	0	84	0	19
Reeduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	1688	122	69	872	0	0	0	0	84	0	19

Critical Gap Module:

Critical Gap:	xxxx	xxxx	4.1	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	6.8	6.5	6.9
FollowUpTIm:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx

Capacity Module:

Conflict Vol:	xxxx	xxxx	1810	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	2323	2759	905
Potent Cap.:	xxxx	xxxx	344	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	32	20	283
Move Cap.:	xxxx	xxxx	344	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	27	16	283
Volume/Cap.:	xxxx	xxxx	0.20	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	3.10	0.00	0.07

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	0.7	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Control Del:	xxxxxx	xxxxxx	18.1	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
LOS by Move:	*	*	C	*	*	*	*	*	*	*	*

Note: Queue reported is the number of cars per lane.

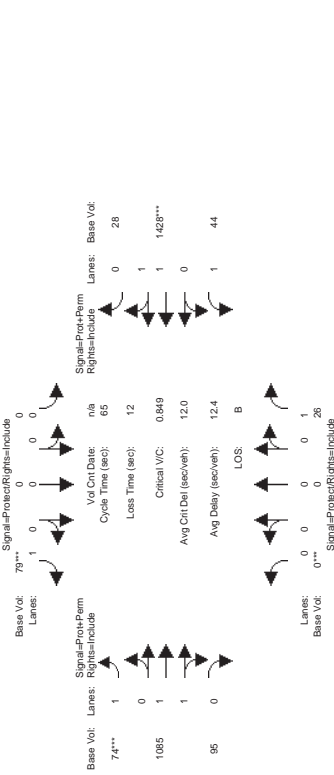
Peak Hour Delay Signal Warrant Report

Intersection #3 Alma St / Kingsley Ave

Base Volume Alternative: Peak Hour Warrant Met

AM Peak Hour - Cumulative Condition
 Castilleja School TIA
 City of San Antonio - Bexar
 2000 HCM Operations (Base Volume Alternative)
 09:AM Cumulative

Intersection #5: Bryant St / Embarcadero Rd



Street Name: Bryant St Embarcadero Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 0 0 26 0 0 79 74 1085 95 44 1428 28
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 26 0 0 79 74 1085 95 44 1428 28
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 26 0 0 79 74 1085 95 44 1428 28
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 26 0 0 79 74 1085 95 44 1428 28
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 0 26 0 0 79 74 1085 95 44 1428 28

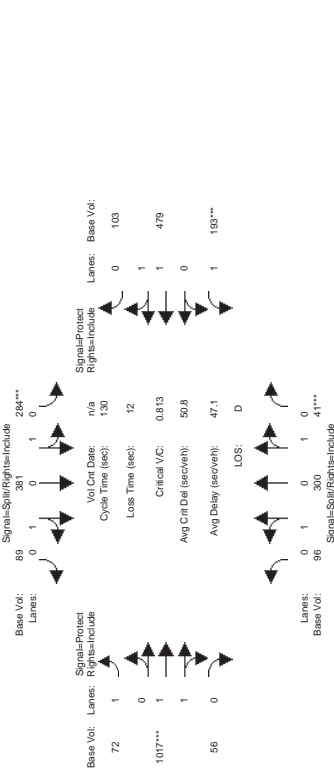
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.80 0.92 1.00 0.80 0.88 0.99 0.91 0.88 1.00 0.92
 Lanes: 0.00 0.00 1.00 0.00 0.00 1.00 1.00 1.63 0.17 1.00 1.96 0.04
 Final Sat: 0 0 1514 0 0 1514 1663 3428 300 1663 3710 73

Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.02 0.00 0.00 0.05 0.04 0.32 0.32 0.03 0.38 0.38
 Crit Moves: ****
 Green Time: 0.0 0.0 10.0 0.0 0.0 10.0 39.1 32.1 32.1 46.0 36.0 36.0
 Volume/Cap: 0.00 0.00 0.11 0.00 0.00 0.34 0.26 0.64 0.64 0.11 0.70 0.70
 Delay/Veh: 0.0 0.0 23.9 0.0 0.0 25.4 7.5 13.0 13.0 5.2 11.6 11.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 23.9 0.0 0.0 25.4 7.5 13.0 13.0 5.2 11.6 11.6
 LOS by Move: A A C A A A A B A B A B+
 HCM2kV9Q: 0 0 1 0 0 0 2 1 10 10 10 12

Note: Queue reported is the number of cars per lane.

AM Peak Hour - Cumulative Condition
 Castilleja School TIA
 City of San Antonio - Bexar
 2000 HCM Operations (Base Volume Alternative)
 09:AM Cumulative

Intersection #6: Middlefield Rd / Embarcadero Rd



Street Name: Middlefield Rd Embarcadero Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 7 10 10 7 10 10
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 96 300 41 284 381 89 72 1017 56 193 479 103
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 96 300 41 284 381 89 72 1017 56 193 479 103
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 96 300 41 284 381 89 72 1017 56 193 479 103
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 96 300 41 284 381 89 72 1017 56 193 479 103
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 96 300 41 284 381 89 72 1017 56 193 479 103

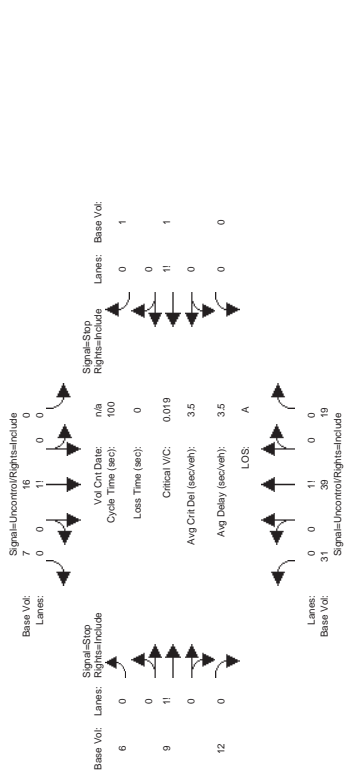
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.90 0.98 0.90 0.89 0.96 0.89 0.88 0.99 0.91 0.88 0.97 0.90
 Lanes: 0.46 1.34 0.20 0.78 0.97 0.25 1.00 1.69 0.11 1.00 1.62 0.38
 Final Sat: 793 2477 339 1323 1775 415 1663 3557 196 1663 2998 645

Capacity Analysis Module:
 Vol/Sat: 0.12 0.12 0.12 0.21 0.21 0.21 0.04 0.29 0.29 0.12 0.16 0.16
 Crit Moves: ****
 Green Time: 19.4 19.4 19.4 34.3 34.3 34.3 16.2 45.7 45.7 18.6 48.1 48.1
 Volume/Cap: 0.81 0.81 0.81 0.81 0.81 0.81 0.35 0.81 0.81 0.81 0.43 0.43
 Delay/Veh: 62.7 62.7 62.7 50.4 50.4 50.4 53.1 42.2 42.2 72.9 30.9 30.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 62.7 62.7 62.7 50.4 50.4 50.4 53.1 42.2 42.2 72.9 30.9 30.9
 LOS by Move: E E D D D D D- D D E C C
 HCM2kV9Q: 11 11 11 17 17 17 3 21 21 10 9 9

Note: Queue reported is the number of cars per lane.

AM Peak Hour - Cumulative Condition
City of Paso Del Rio
2000 HCM Unsignalized (Base Volume Alternative)
09 AM Cumulative

Intersection #7: Emerson St / Melville Ave



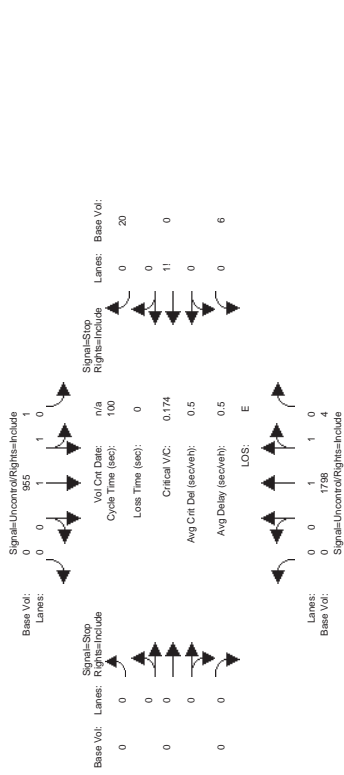
Street Name: Emerson St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Base, User Adj, PHF Volume, Reduct Vol, Final Volume, Critical Gap, FollowUpTIm, Capacity Module, Conflict Vol, Potential Cap, Move Cap, Volume/Cap, Level Of Service Module, Control Del, LOS by Move, Movement, Shared Cap, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
Intersection #7 Emerson St / Melville Ave
Base Volume Alternative: Peak Hour Warrant NOT Met

AM Peak Hour - Cumulative Condition
City of Paso Del Rio
2000 HCM Unsignalized (Base Volume Alternative)
09 AM Cumulative

Intersection #8: Alma St/Melville Ave

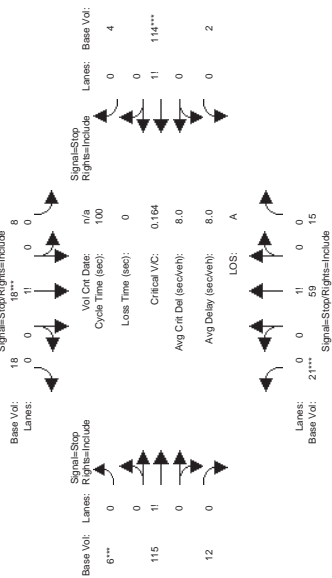


Street Name: Alma St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Base, User Adj, PHF Volume, Reduct Vol, Final Volume, Critical Gap, FollowUpTIm, Capacity Module, Conflict Vol, Potential Cap, Move Cap, Volume/Cap, Level Of Service Module, Control Del, LOS by Move, Movement, Shared Cap, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
Intersection #8 Alma St/Melville Ave
Base Volume Alternative: Peak Hour Warrant NOT Met

Intersection #9: Emerson St/Kellogg Ave



Street Name:	Emerson St			Kellogg Ave					
	North Bound		South Bound	East Bound		West Bound			
	L	T	R	L	T	R	L	T	R
Approach:	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0
Volume Module:	19	51	7	5	21	2	6	2	7
Base Vol:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	19	51	7	5	21	2	6	2	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	51	7	5	21	2	6	2	7
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Reduct Vol:	0	0	0	0	0	0	0	0	0
Final Volume:	19	51	7	5	21	2	6	2	7
Critical Gap Module:									
Critical Gap:	7.1	6.5	6.2	4.1	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTm:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxx
Capacity Module:									
Conflict Vol:	147	152	6	165	139	74	90	xxxx	xxxx
Potent Cap.:	826	744	1083	805	756	993	1518	xxxx	xxxx
Move Cap.:	796	731	1083	747	742	993	1518	xxxx	xxxx
Volume/Cap:	0.02	0.07	0.01	0.01	0.03	0.00	0.00	xxxx	xxxx

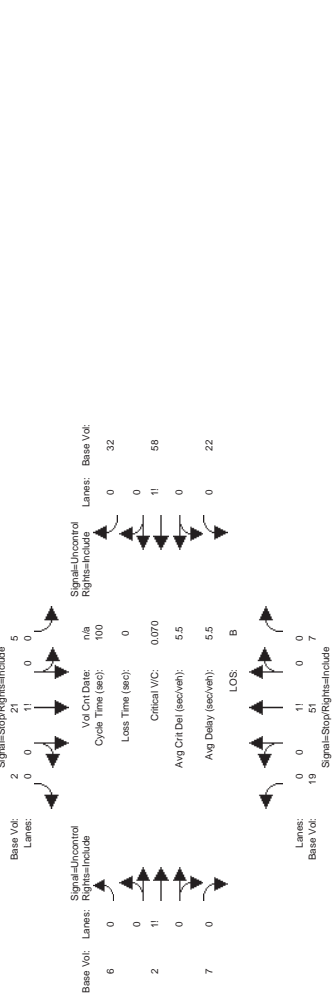
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxx xxxx xxxx xxxx 0.0 xxxx xxxx 0.0 xxxx xxxx
Control Del: xxxx xxxx xxxx xxxx xxxx 7.4 xxxx xxxx 7.2 xxxx xxxx
LOS by Move: * * * * * A * * * * * A
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 769 xxxx xxxx 757 xxxx xxxx xxxx xxxx xxxx
Shrd Queue:xxxx 0.3 xxxx xxxx 0.1 xxxx xxxx xxxx xxxx xxxx
Shrd Conbl:xxxx 10.2 xxxx xxxx 9.9 xxxx xxxx xxxx xxxx xxxx
Shared LOS: * B * * * * * A * * * * * A * * * * * A * * * * *
ApproachDel: 10.2 9.9
ApproachLOS: B A
Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report

Intersection #9 Emerson St/Kellogg Ave

Base Volume Alternative: Peak Hour Warrant NOT Met

Street Name:	Emerson St			Kellogg Ave					
	North Bound		South Bound	East Bound		West Bound			
	L	T	R	L	T	R	L	T	R
Approach:	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0
Volume Module:	19	51	7	5	21	2	6	2	7
Base Vol:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	19	51	7	5	21	2	6	2	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	51	7	5	21	2	6	2	7
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Reduct Vol:	0	0	0	0	0	0	0	0	0
Final Volume:	19	51	7	5	21	2	6	2	7
Critical Gap Module:									
Critical Gap:	7.1	6.5	6.2	4.1	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTm:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxx
Capacity Module:									
Conflict Vol:	147	152	6	165	139	74	90	xxxx	xxxx
Potent Cap.:	826	744	1083	805	756	993	1518	xxxx	xxxx
Move Cap.:	796	731	1083	747	742	993	1518	xxxx	xxxx
Volume/Cap:	0.02	0.07	0.01	0.01	0.03	0.00	0.00	xxxx	xxxx

Intersection #10: Emerson St/Churchill Ave



Street Name:	Emerson St			Churchill Ave					
	North Bound		South Bound	East Bound		West Bound			
	L	T	R	L	T	R	L	T	R
Approach:	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0
Volume Module:	21	59	15	8	18	18	6	115	12
Base Vol:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	21	59	15	8	18	18	6	115	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	21	59	15	8	18	18	6	115	12
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Reduct Vol:	0	0	0	0	0	0	0	0	0
Final Volume:	21	59	15	8	18	18	6	115	12
Critical Gap Module:									
Critical Gap:	7.1	6.5	6.2	4.1	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTm:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxx
Capacity Module:									
Conflict Vol:	147	152	6	165	139	74	90	xxxx	xxxx
Potent Cap.:	826	744	1083	805	756	993	1518	xxxx	xxxx
Move Cap.:	796	731	1083	747	742	993	1518	xxxx	xxxx
Volume/Cap:	0.02	0.07	0.01	0.01	0.03	0.00	0.00	xxxx	xxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxx xxxx xxxx xxxx 0.0 xxxx xxxx 0.0 xxxx xxxx
Control Del: xxxx xxxx xxxx xxxx xxxx 7.4 xxxx xxxx 7.2 xxxx xxxx
LOS by Move: * * * * * A * * * * * A
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 769 xxxx xxxx 757 xxxx xxxx xxxx xxxx xxxx
Shrd Queue:xxxx 0.3 xxxx xxxx 0.1 xxxx xxxx xxxx xxxx xxxx
Shrd Conbl:xxxx 10.2 xxxx xxxx 9.9 xxxx xxxx xxxx xxxx xxxx
Shared LOS: * B * * * * * A * * * * * A * * * * * A * * * * *
ApproachDel: 10.2 9.9
ApproachLOS: B A
Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report

Intersection #10 Emerson St/Churchill Ave

Base Volume Alternative: Peak Hour Warrant NOT Met

Street Name:	Emerson St			Churchill Ave					
	North Bound		South Bound	East Bound		West Bound			
	L	T	R	L	T	R	L	T	R
Approach:	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0
Volume Module:	21	59	15	8	18	18	6	115	12
Base Vol:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	21	59	15	8	18	18	6	115	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	21	59	15	8	18	18	6	115	12
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Reduct Vol:	0	0	0	0	0	0	0	0	0
Final Volume:	21	59	15	8	18	18	6	115	12
Critical Gap Module:									
Critical Gap:	7.1	6.5	6.2	4.1	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTm:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxx
Capacity Module:									
Conflict Vol:	147	152	6	165	139	74	90	xxxx	xxxx
Potent Cap.:	826	744	1083	805	756	993	1518	xxxx	xxxx
Move Cap.:	796	731	1083	747	742	993	1518	xxxx	xxxx
Volume/Cap:	0.02	0.07	0.01	0.01	0.03	0.00	0.00	xxxx	xxxx

AM Peak Hour - Cumulative Condition
 Castilleja School TIA
 City of Redwood City
 2000 HCM Operations (Base Volume Alternative)
 09:AM Cumulative

Intersection #11: Alma St / Churchhill Ave



Approach	Vol	Sat	Signal
North Bound	224	1720	1720
South Bound	56	177	177
East Bound	80	68	147
West Bound	73	78	2

Street Name: Alma St Churchhill Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y+R	Volume	Vol	Sat	Signal
7	10	56	9	177	177
4.0	4.0	4.0	4.0	4.0	4.0

Volume Module	Base Vol	Growth Adj	Initial Bse	User Adj	PHF Adj	PHF Volume	Reduct Vol	Reduced Vol	PCE Adj	MUF Adj	Final Volume
North Bound	224	1.00	1.00	1.00	1.00	224	0	224	1.00	1.00	224
South Bound	56	1.00	1.00	1.00	1.00	56	0	56	1.00	1.00	56
East Bound	80	1.00	1.00	1.00	1.00	80	0	80	1.00	1.00	80
West Bound	73	1.00	1.00	1.00	1.00	73	0	73	1.00	1.00	73

Saturation Flow Module	Sat/Lane	Adj	Final Sat
North Bound	1900	0.92	1663
South Bound	1900	0.07	1663
East Bound	1900	0.44	861
West Bound	1900	0.50	920

Capacity Analysis Module	Vol/Sat	Crit Moves	Green Time	Volume/Cap	Delay/Veh	User Del Adj	Adj Del/Veh	LOS by Move	HCMS Avg Q
North Bound	0.13	0.47	0.47	25.5	33.3	33.3	33.3	C	7
South Bound	0.01	0.21	0.12	58.3	18.8	18.8	18.8	B	23
East Bound	0.08	0.08	0.10	7.0	43.8	43.8	43.8	D	10
West Bound	0.08	0.08	0.10	39.8	50.8	50.8	50.8	E	6

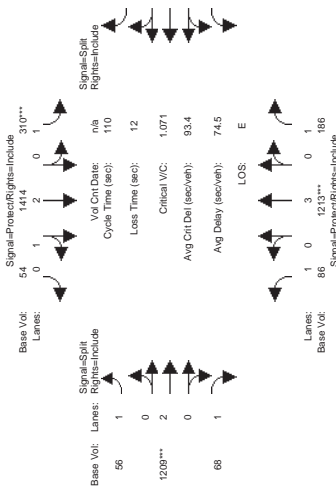
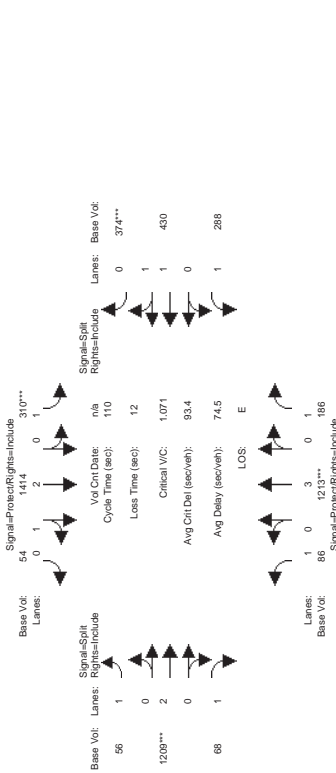
Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
 2000 HCM Unsignalized (Base Volume Alternative)
 17 MB Cumulative

Level of Service Computation Report
 2000 HCM Unsignalized (Base Volume Alternative)
 17 MB Cumulative

Intersection #1: El Camino Real / Embarcadero Rd-Galvez St

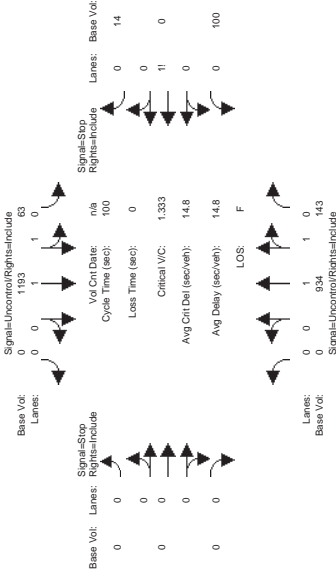
Intersection #2: Alma St / Embarcadero Rd (Spur)



Street Name:		El Camino Real		Embarcadero Rd-Galvez St	
Approach:		North Bound	South Bound	East Bound	West Bound
Movement:		L - T - R	L - T - R	L - T - R	L - T - R
Min. Green:	7 10 10	10 10 10	10 10 10	10 10 10	10 10 10
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Volume Module:					
Base Vol:	86 1213 186	310 1414 54	56 1209 68	288 430 374	
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
Initial Bse:	86 1213 186	310 1414 54	56 1209 68	288 430 374	
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
PHF Volume:	86 1213 186	310 1414 54	56 1209 68	288 430 374	
Reduce Vol:	0 0 0	0 0 0	0 0 0	0 0 0	
Reduced Vol:	86 1213 186	310 1414 54	56 1209 68	288 430 374	
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
MUF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
Final Volume:	86 1213 186	310 1414 54	56 1209 68	288 430 374	
Saturation Flow Module:					
Sat/Lane:	1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900	
AdjStment:	0.88 1.00	0.78 0.88 0.99	0.92 0.88 1.00	0.78 0.88 0.93	
Lanes:	1.00 3.00	1.00 1.00 2.88	0.12 1.00 2.00	1.00 1.00 0.97	
Final Sat:	1663 5700	1488 1663 5440	208 1663 3800	1488 1663 1818	
Capacity Analysis Module:					
Vol/Sat:	0.05 0.21	0.13 0.19 0.26	0.26 0.03 0.32	0.05 0.17 0.24	
Crit Moves:	****	****	****	****	
Green Time:	8.1 21.9	21.9 19.2 32.9	32.9 32.7 24.3	24.3 24.3 24.3	
Volume/Cap:	0.71 1.07	0.63 1.07 0.87	0.87 0.11 1.07	0.15 0.78 1.07	
DeLay/Veh:	66.9 91.9	44.7 118.4 41.5	41.5 28.2 86.6	28.5 50.9 96.3	
User DelAdj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
AdjDel/Veh:	66.9 91.9	44.7 118.4 41.5	41.5 28.2 86.6	28.5 50.9 96.3	
LOS by Move:	E F D	F D F D	D C F D	C D F D	
HWQ/AvgQ:	5 21	7 18 19	19 1 30	2 12 22	

Street Name:		Alma St		Embarcadero Rd (Spur)	
Approach:		North Bound	South Bound	East Bound	West Bound
Movement:		L - T - R	L - T - R	L - T - R	L - T - R
Min. Green:	7 10 10	10 10 10	10 10 10	10 10 10	10 10 10
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Volume Module:					
Base Vol:	0 964 0	0 1215 0	0 0 0	0 0 0	
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
Initial Bse:	0 964 0	0 1215 0	0 0 0	0 0 0	
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
PHF Volume:	0 964 0	0 1215 0	0 0 0	0 0 0	
Reduce Vol:	0 0 0	0 0 0	0 0 0	0 0 0	
Reduced Vol:	0 964 0	0 1215 0	0 0 0	0 0 0	
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
MUF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
Final Volume:	0 964 0	0 1215 0	0 0 0	0 0 0	
Critical Gap Module:					
Critical Gap:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	
FollowUpTm:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	
Capacity Module:					
Conflict Vol:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	
Potent Gap:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	
Move Cap.:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	
Volume/Cap:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	
Level of Service Module:					
2Way95thQ:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	
Control Del:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	
LOS by Move:	* * *	* * *	* * *	* * *	
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	
Shared Cap.:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	
Shrd ConDel:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	
Shared LOS:	* * *	* * *	* * *	* * *	
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
ApproachLOS:	*	*	*	*	
Note:	Queue reported is the number of cars per lane.				

Intersection #3: Alma St / Kingsley Ave



Street Name: Alma St Kingsley Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	0	934	143	63	1193	0	0	0	0	100	0	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	934	143	63	1193	0	0	0	0	100	0	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	934	143	63	1193	0	0	0	0	100	0	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	934	143	63	1193	0	0	0	0	100	0	14

Critical Gap Module:

Critical Gap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	6.8	6.5	6.9
FollowUPTim:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	3.5	4.0	3.3

Capacity Module:

Conflict Vol:	xxxx	xxxx	xxxx	1077	xxxx	xxxx	xxxx	xxxx	xxxx	1728	2325	539
Potent Cap.:	xxxx	xxxx	xxxx	655	xxxx	xxxx	xxxx	xxxx	xxxx	81	38	492
Move Cap.:	xxxx	xxxx	xxxx	655	xxxx	xxxx	xxxx	xxxx	xxxx	75	34	492
Volume/Cap:	xxxx	xxxx	xxxx	0.10	xxxx	xxxx	xxxx	xxxx	xxxx	1.33	0.00	0.03

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxx	0.3	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	xxxx	xxxx	xxxx	11.1	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	84	xxxx	xxxx
Shared Queue:	xxxx	xxxx	xxxx	0.3	xxxx	xxxx	xxxx	xxxx	xxxx	8.7	xxxx	xxxx
Shrd Condel:	xxxx	xxxx	xxxx	11.1	xxxx	xxxx	xxxx	xxxx	xxxx	311	xxxx	xxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	310.9	F	F
ApproachLOS:	*	*	*	*	*	*	*	*	*	*	*	*

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

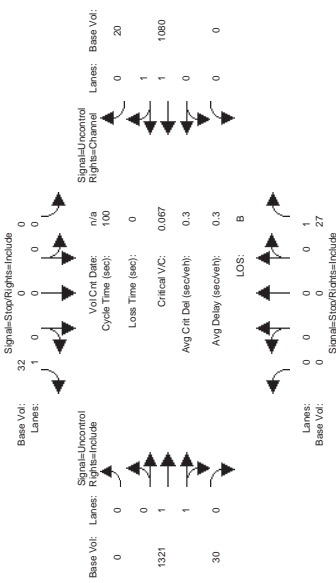
Intersection #3 Alma St / Kingsley Ave

Base Volume Alternative: Peak Hour Warrant Met

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Intersection #4: Emerson St / Embarcadero Rd



Street Name: Emerson St Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	0	0	27	0	0	32	0	1321	30	0	1080	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	27	0	0	32	0	1321	30	0	1080	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	27	0	0	32	0	1321	30	0	1080	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	0	27	0	0	32	0	1321	30	0	1080	20

Critical Gap Module:

Critical Gap:	xxxx	xxxx	xxxx	6.9	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
FollowUPTim:	xxxx	xxxx	xxxx	3.3	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Capacity Module:

Conflict Vol:	xxxx	xxxx	xxxx	676	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Potent Cap.:	xxxx	xxxx	xxxx	401	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Move Cap.:	xxxx	xxxx	xxxx	401	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	0.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	xxxx	xxxx	14.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	*	*	B	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shared Queue:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shrd Condel:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	14.6	B	12.8	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	B	B	B	*	*	*	*	*	*	*	*	*

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #4 Emerson St / Embarcadero Rd

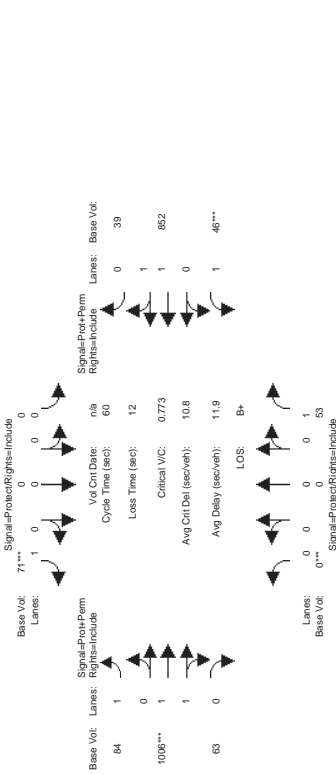
Base Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

School PM Peak Hour - Cumulative Condition
 Castella School TIA
 City of San Antonio - BAYVIEW
 2000 HCM Operations (Base Volume Alternative)
 17 MB Cumulative

Intersection #5: Bryant St / Embarcadero Rd



Street Name: Bryant St Embarcadero Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	0	53	0	0	71	84	1006	63	46	852	39
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	53	0	0	71	84	1006	63	46	852	39
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	53	0	0	71	84	1006	63	46	852	39
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	53	0	0	71	84	1006	63	46	852	39

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj/Adjustment:	0.92	1.00	0.80	0.92	1.00	0.80	0.88	0.99	0.91	0.88	0.99
Lanes:	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.67	0.13	1.00	1.91
Final Sat:	0	0	1514	0	0	1514	1663	3526	221	1663	3595

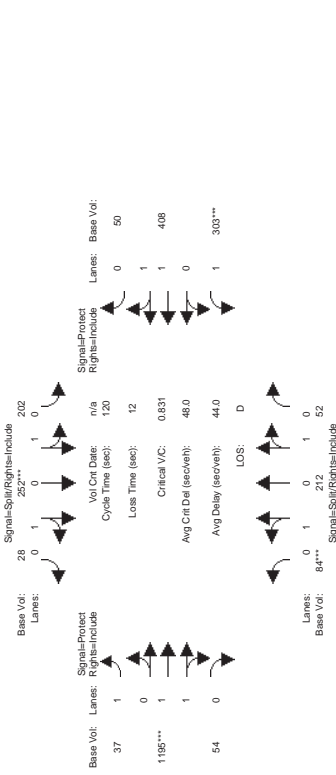
Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.04	0.00	0.00	0.05	0.05	0.29	0.29	0.03	0.24
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****
Green Time:	0.0	0.0	10.0	0.0	0.0	10.0	41.0	31.0	32.5	25.5	25.5
Volume/Cap:	0.00	0.00	0.21	0.00	0.00	0.28	0.16	0.55	0.55	0.12	0.56
Delay/Veh:	0.0	0.0	22.0	0.0	0.0	22.5	4.6	10.2	10.2	6.8	13.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	22.0	0.0	0.0	22.5	4.6	10.2	10.2	6.8	13.5
LOS by Move:	A	A	C+	A	A	A	A	B+	A	B	B
HCM2kAvq:	0	0	1	0	0	2	1	7	1	7	7

Note: Queue reported is the number of cars per lane.

School PM Peak Hour - Cumulative Condition
 Castella School TIA
 City of San Antonio - BAYVIEW
 2000 HCM Operations (Base Volume Alternative)
 17 MB Cumulative

Intersection #6: Middlefield Rd / Embarcadero Rd



Street Name: Middlefield Rd Embarcadero Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	84	212	52	202	252	28	37	1195	54	303	408
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	212	52	202	252	28	37	1195	54	303	408
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	84	212	52	202	252	28	37	1195	54	303	408
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	84	212	52	202	252	28	37	1195	54	303	408

Saturation Flow Module:

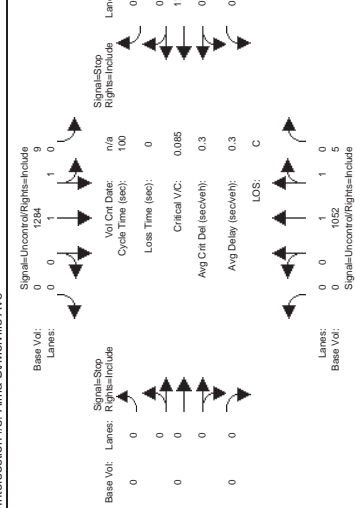
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj/Adjustment:	0.89	0.97	0.89	0.89	0.97	0.89	0.88	0.99	0.92	0.88	0.98
Lanes:	0.51	1.18	0.31	0.87	1.01	0.12	1.00	1.91	0.09	1.00	1.77
Final Sat:	858	2164	531	1484	1852	206	1663	3601	163	1663	3300

Capacity Analysis Module:

Vol/Sat:	0.10	0.10	0.10	0.14	0.14	0.14	0.02	0.33	0.33	0.18	0.12
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****
Green Time:	14.1	14.1	14.1	19.6	19.6	19.6	23.8	47.9	47.9	26.3	50.4
Volume/Cap:	0.83	0.83	0.83	0.83	0.83	0.83	0.11	0.83	0.83	0.83	0.29
Delay/Veh:	64.9	64.9	64.9	58.5	58.5	58.5	39.6	36.5	36.5	59.6	23.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.9	64.9	64.9	58.5	58.5	58.5	39.6	36.5	36.5	59.6	23.1
LOS by Move:	E	E	E	E	E	E	D	D	D	E	C
HCM2kAvq:	9	9	9	11	11	11	1	23	23	14	6

Note: Queue reported is the number of cars per lane.

Intersection #7: Emerson St / Melville Ave



Street Name: Emerson St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	17	39	5	0	27	3	3	0	13	7	13	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	17	39	5	0	27	3	3	0	13	7	13	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	39	5	0	27	3	3	0	13	7	13	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	17	39	5	0	27	3	3	0	13	7	13	5

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxx	xxxx	xxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTm:	2.2	xxxx	xxxx	xxxx	xxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Conflict Vol:	30	xxxx	xxxx	xxxx	xxxx	113	107	29	111	106	42
Potent Cap.:	1596	xxxx	xxxx	xxxx	xxxx	869	787	1052	872	788	1035
Move Cap.:	1596	xxxx	xxxx	xxxx	xxxx	847	779	1052	855	780	1035
Volume/Cap.:	0.01	xxxx	xxxx	xxxx	xxxx	0.00	0.00	0.01	0.01	0.02	0.00

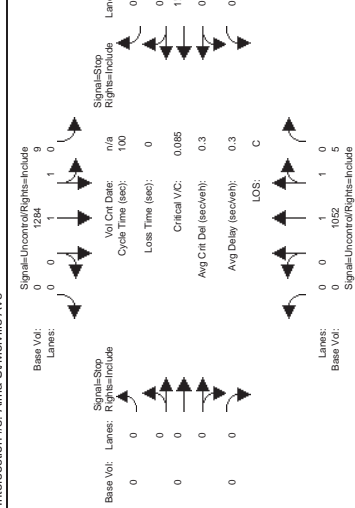
Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	7.3	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Emerson St / Melville Ave
 Base Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Intersection #8: Alma St/Melville Ave



Street Name: Alma St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	0	1052	5	9	1284	0	0	0	0	0	0	7	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	1052	5	9	1284	0	0	0	0	0	0	7	0	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1052	5	9	1284	0	0	0	0	0	0	7	0	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	1052	5	9	1284	0	0	0	0	0	0	7	0	19

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxx	xxxx	xxxx	4.1	xxxx	xxxx	xxxx	xxxx	xxxx	6.8	6.5	6.9
FollowUpTm:	2.2	xxxx	xxxx	xxxx	xxxx	2.2	xxxx	xxxx	xxxx	xxxx	xxxx	3.5	4.0	3.3

Capacity Module:

Conflict Vol:	xxxx	xxxx	xxxx	xxxx	xxxx	1057	xxxx	xxxx	xxxx	xxxx	xxxx	1715	2357	529
Potent Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	667	xxxx	xxxx	xxxx	xxxx	xxxx	83	36	500
Move Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	667	xxxx	xxxx	xxxx	xxxx	xxxx	82	36	500
Volume/Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	0.00	0.04

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxx	xxxx	xxxx	0.0	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	xxxx	xxxx	xxxx	xxxx	xxxx	10.5	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	*	*	*	*	*	B	*	*	*	*	*	*	*	*

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #8 Alma St/Melville Ave
 Base Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

School PM Peak Hour - Cumulative Condition
Castroville School TIA
City of Paso Robles - Bayway
2000 HCM Unsignalized (Base Volume Alternative)
17 MD Cumulative

School PM Peak Hour - Cumulative Condition
Castroville School TIA
City of Paso Robles - Bayway
2000 HCM 4-Way Stop (Base Volume Alternative)
17 MD Cumulative

Intersection #9: Emerson St/Kellogg Ave

Intersection #10: Emerson St/Churchill Ave

Signal diagrams for Emerson St/Kellogg Ave showing lane configurations and traffic flow for North Bound, South Bound, East Bound, and West Bound.

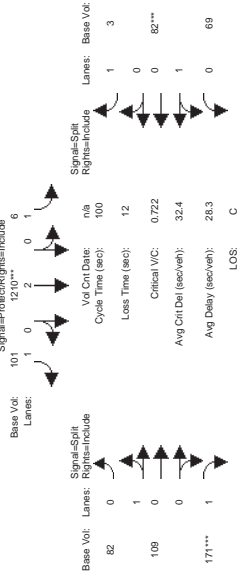
Signal diagrams for Emerson St/Churchill Ave showing lane configurations and traffic flow for North Bound, South Bound, East Bound, and West Bound.

Street Name: Emerson St
Approach: North Bound, South Bound, East Bound, West Bound
Volume Module: Base Vol, Growth Adj, Initial Base, User Adj, PHF Volume, Reduct Vol, Final Volume
Critical Gap Module: Critical Gap, FollowUpTm
Capacity Module: Conflict Vol, Potential Cap., Move Cap., Volume/Cap.
Level of Service Module: 2Way95tq, Control Del, LOS by Move, Movement, Shared Queue, Shrd Condel, Shared LOS, ApproachDel, ApproachLOS

Street Name: Emerson St
Approach: North Bound, South Bound, East Bound, West Bound
Volume Module: Base Vol, Growth Adj, Initial Base, User Adj, PHF Volume, Reduct Vol, Final Volume
Critical Gap Module: Critical Gap, FollowUpTm
Capacity Module: Conflict Vol, Potential Cap., Move Cap., Volume/Cap.
Level of Service Module: 2Way95tq, Control Del, LOS by Move, Movement, Shared Queue, Shrd Condel, Shared LOS, ApproachDel, ApproachLOS

School PM Peak Hour - Cumulative Condition
 Castelli School TIA
 City of Pleasanton
 2000 HCM Operations (Base Volume Alternative)
 17 MD Cumulative

Intersection #11: Alma St / Churchhill Ave

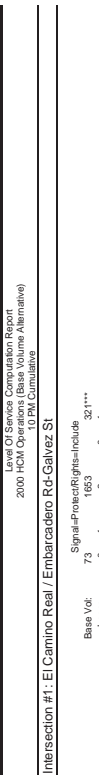
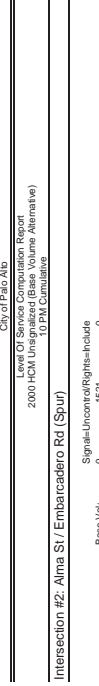


Street Name:	Alma St			Churchhill Ave		
	North Bound	South Bound	East Bound	West Bound	West Bound	West Bound
Approach:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Movement:						
Min. Green:	7 10 10	7 10 10	10 10 10	10 10 10	10 10 10	10 10 10
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Volume Module:						
Base Vol:	196 972 28	6 1210 101	82 109 171	69 82 3		
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
Initial Bse:	196 972 28	6 1210 101	82 109 171	69 82 3		
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
PHF Volume:	196 972 28	6 1210 101	82 109 171	69 82 3		
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0		
Reduced Vol:	196 972 28	6 1210 101	82 109 171	69 82 3		
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
Final Volume:	196 972 28	6 1210 101	82 109 171	69 82 3		
Saturation Flow Module:						
Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900		
Adj/Adjustment:	0.88 1.00 0.92	0.88 1.00 0.78	0.90 0.98 0.78	0.90 0.98 0.78		
Lanes:	1.00 1.94 0.06	1.00 2.00 1.00	0.45 0.55 1.00	0.48 0.52 1.00		
Final Sat:	1663 3670 106	1663 3800 1488	770 1024 1488	817 971 1488		
Capacity Analysis Module:						
Vol/Sat:	0.12 0.26 0.26	0.00 0.32 0.07	0.11 0.11 0.11	0.08 0.08 0.08		
Crit Moves:	****	****	****	****		
Green Time:	16.3 47.8 47.8	12.6 44.1 44.1	15.9 15.9 15.9	11.7 11.7 11.7		
Volume/Cap:	0.72 0.55 0.55	0.03 0.72 0.15	0.67 0.67 0.72	0.72 0.72 0.02		
Delay/Veh:	48.9 18.9 18.9	38.4 24.5 16.9	45.6 45.6 50.4	54.3 54.3 39.1		
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
AdjDel/Veh:	48.9 18.9 18.9	38.4 24.5 16.9	45.6 45.6 50.4	54.3 54.3 39.1		
LOS by Move:	D B- B-	B- B- C	B D D	D D D		
HCMSkVagQ:	8 11 11	0 16 2	7 7 7	6 6 6		

Note: Queue reported is the number of cars per lane.

COMPARE
 Fri Apr 26 15:42:29 2019
 PM Peak Hour - Cumulative Condition
 City of Palo Alto
 2000 HCM Unsignalized (Base, Volume Alternative)
 10 PM Cumulative

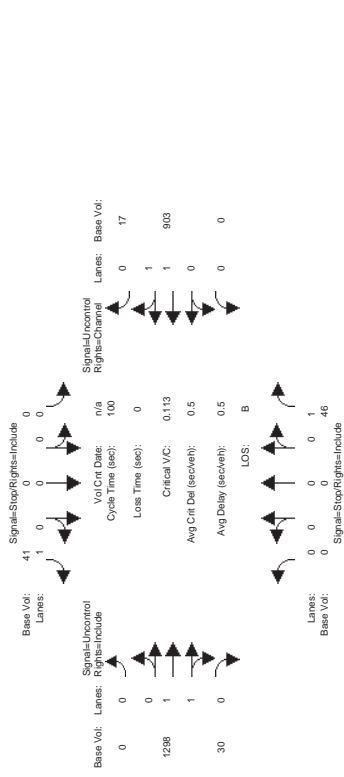
COMPARE
 Fri Apr 26 15:42:29 2019
 PM Peak Hour - Cumulative Condition
 City of Palo Alto
 2000 HCM Unsignalized (Base, Volume Alternative)
 10 PM Cumulative



Street Name: Alma St Embarcadero Rd (Spur)
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Volume Module:
 Base Vol: 0 0 0 0 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 0 0 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 0 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0
 FinalVolume: 0 0 0 0 0 0 0 0
 Critical Gap Module:
 Critical Gap: 0 0 0 0 0 0 0 0
 FollowUpTime: 0 0 0 0 0 0 0 0
 Capacity Module:
 Conflict Vol: 0 0 0 0 0 0 0 0
 Potential Cap: 0 0 0 0 0 0 0 0
 Move Cap: 0 0 0 0 0 0 0 0
 Volume/Cap: 0 0 0 0 0 0 0 0
 Level Of Service Module:
 Control Del: 0 0 0 0 0 0 0 0
 LOS by Move: D D D D D D D D
 Movement: L T - LTR - RT L T - LTR - RT L T - LTR - RT L T - LTR - RT
 Shared Cap: 0 0 0 0 0 0 0 0
 Shrd ConDel: 0 0 0 0 0 0 0 0
 Shared LOS: D D D D D D D D
 ApproachDel: 0 0 0 0 0 0 0 0
 ApproachLOS: D D D D D D D D
 Note: Queue reported is the number of cars per lane.

Street Name: El Camino Real Embarcadero Rd-Galvez St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Volume Module:
 Base Vol: 177 1324 214 321 1653 73 223 629 366 235 417 330
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 177 1324 214 321 1653 73 223 629 366 235 417 330
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 177 1324 214 321 1653 73 223 629 366 235 417 330
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 177 1324 214 321 1653 73 223 629 366 235 417 330
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 177 1324 214 321 1653 73 223 629 366 235 417 330
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 AdjStment: 0.88 1.00 0.78 0.88 0.99 0.92 0.88 1.00 0.78 0.88 0.93 0.86
 Lanes: 1.00 3.00 1.00 1.00 2.86 1.14 1.00 2.00 1.00 1.00 1.08 0.92
 Final Sat: 1663 5700 1488 1663 5407 239 1663 3800 1488 1663 1909 1511
 Capacity Analysis Module:
 Vol/Sat: 0.11 0.23 0.14 0.19 0.31 0.31 0.13 0.17 0.25 0.14 0.22 0.22
 Crit Moves: ****
 Green Time: 12.1 25.6 25.6 21.3 34.7 34.7 27.1 27.1 27.1 24.1 24.1 24.1
 Volume/Cap: 0.97 1.00 0.62 1.00 0.97 0.97 0.54 0.67 1.00 0.65 1.00 1.00
 Delay/Veh: 105.7 66.6 41.2 94.2 51.5 51.5 37.6 39.4 88.1 43.1 75.6 75.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 105.7 66.6 41.2 94.2 51.5 51.5 37.6 39.4 88.1 43.1 75.6 75.6
 LOS by Move: F E D F D D F D D F D E E
 HCMkAVQ: 10 21 8 17 25 25 8 11 19 9 19 19
 Note: Queue reported is the number of cars per lane.

Intersection #4: Emerson St / Embarcadero Rd



Street Name: Emerson St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
 Base Vol: 0 0 46 0 0 41
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 0 46 0 0 41
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 1.00 1.00 1.00 1.00 1.00 1.00
 Reduct Vol: 0 0 0 0 0 0
 FinalVolume: 0 0 46 0 0 41

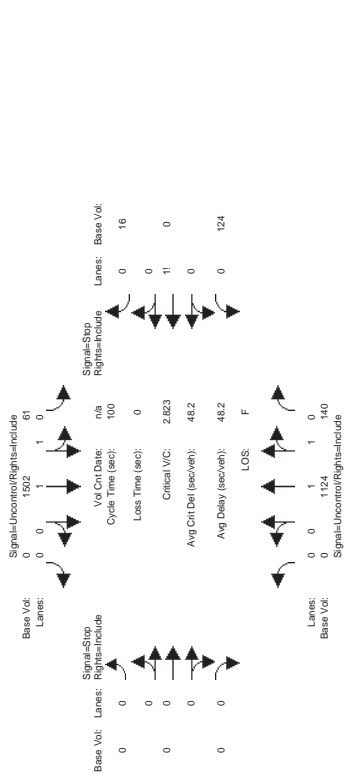
Critical Gap Module:
 Critical Gp: xxxxxx
 FollowUpTIm: xxxxxx

Capacity Module:
 Conflict Vol: xxxxxx
 Potential Cap.: xxxxxx
 Move Cap.: xxxxxx
 Volume/Cap.: xxxxxx

Level Of Service Module:
 Control Del: xxxxxx
 LOS by Move: xxxxxx
 Movement: xxxxxx
 Shared Cap.: xxxxxx
 Shrd ConDel: xxxxxx
 Shared LOS: xxxxxx
 ApproachDel: 14.9
 ApproachLOS: B

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #4 Emerson St / Embarcadero Rd
 Base Volume Alternative: Peak Hour Warrant NOT Met

Intersection #3: Alma St / Kingsley Ave



Street Name: Alma St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
 Base Vol: 0 1124 140 61 1502
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1124 140 61 1502
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 1.00 1.00 1.00 1.00 1.00 1.00
 Reduct Vol: 0 0 0 0 0 0
 FinalVolume: 0 1124 140 61 1502

Critical Gap Module:
 Critical Gp: xxxxxx
 FollowUpTIm: xxxxxx

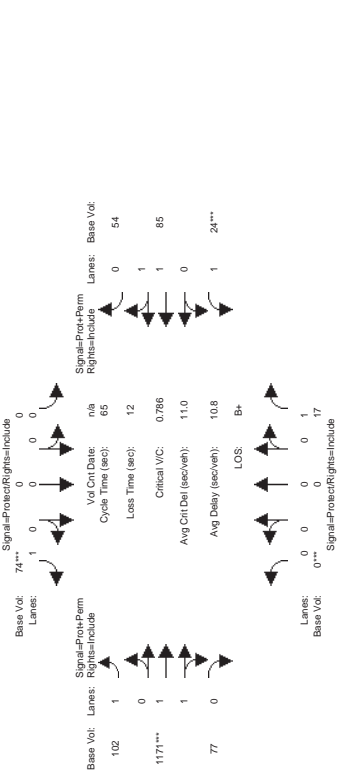
Capacity Module:
 Conflict Vol: xxxxxx
 Potential Cap.: xxxxxx
 Move Cap.: xxxxxx
 Volume/Cap.: xxxxxx

Level Of Service Module:
 Control Del: xxxxxx
 LOS by Move: xxxxxx
 Movement: xxxxxx
 Shared Cap.: xxxxxx
 Shrd ConDel: xxxxxx
 Shared LOS: xxxxxx
 ApproachDel: 1016.5
 ApproachLOS: F

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #3 Alma St / Kingsley Ave
 Base Volume Alternative: Peak Hour Warrant NOT Met

PM Peak Hour - Cumulative Condition
 Castilleja School TIA
 City of San Antonio - Bexar
 2000 HCM Operations (Base Volume Alternative)
 10 PM Cumulative

Intersection #5: Bryant St / Embarcadero Rd



Street Name: Bryant St Embarcadero Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	0	0	17	0	74	102	1171	77	24	85	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	17	0	74	102	1171	77	24	85	54
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	17	0	74	102	1171	77	24	85	54
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	0	17	0	74	102	1171	77	24	85	54

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj/Adjustment:	0.92	1.00	0.80	0.92	1.00	0.80	0.88	0.99	0.91	0.88	0.94
Lanes:	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.67	0.13	1.00	1.18
Final Sat:	0	0	1514	0	1514	1663	3515	231	1663	2118	1346

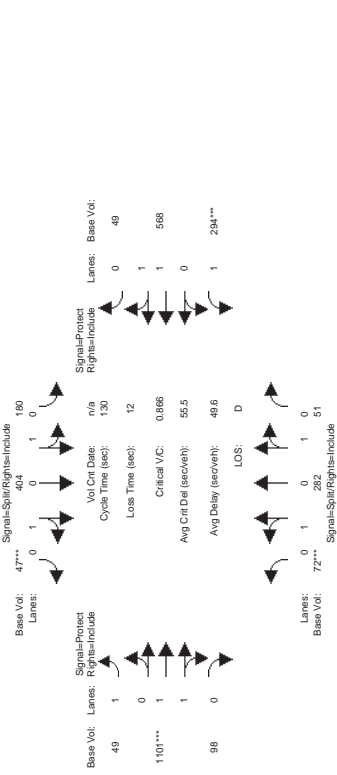
Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.01	0.00	0.00	0.05	0.06	0.33	0.01	0.04	0.04
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****
Green Time:	0.0	0.0	10.0	0.0	10.0	46.0	36.0	32.3	25.3	25.3	25.3
Volume/Cap:	0.00	0.00	0.07	0.00	0.00	0.32	0.11	0.60	0.07	0.10	0.10
Delay/Veh:	0.0	0.0	23.7	0.0	0.0	25.3	3.0	10.2	8.5	12.7	12.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	23.7	0.0	0.0	25.3	3.0	10.2	8.5	12.7	12.7
LOS by Move:	A	A	C	A	A	A	A	B+	A	B+	B
HCM2kAvq:	0	0	0	0	0	2	1	9	0	1	1

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Cumulative Condition
 Castilleja School TIA
 City of San Antonio - Bexar
 2000 HCM Operations (Base Volume Alternative)
 10 PM Cumulative

Intersection #6: Middlefield Rd / Embarcadero Rd



Street Name: Middlefield Rd Embarcadero Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	72	282	51	180	404	47	49	1101	98	294	568	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	72	282	51	180	404	47	49	1101	98	294	568	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	72	282	51	180	404	47	49	1101	98	294	568	49
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	72	282	51	180	404	47	49	1101	98	294	568	49

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj/Adjustment:	0.90	0.97	0.90	0.90	0.98	0.90	0.88	0.99	0.91	0.88	0.99	0.91
Lanes:	0.37	1.36	0.27	0.60	1.24	0.16	1.00	1.82	0.18	1.00	1.83	0.17
Final Sat:	640	2507	453	1025	2302	268	1663	3424	305	1663	3433	296

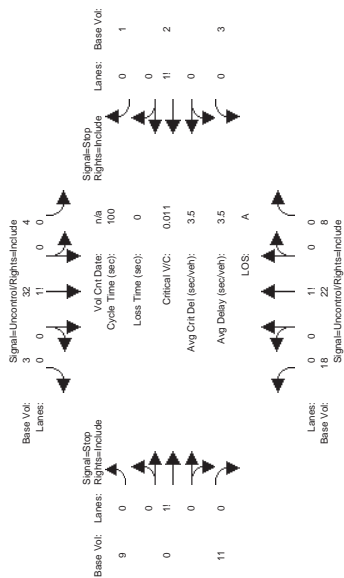
Capacity Analysis Module:

Vol/Sat:	0.11	0.11	0.11	0.18	0.18	0.18	0.03	0.32	0.18	0.17	0.17	0.17
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	16.9	16.9	16.9	26.3	26.3	26.3	18.4	48.3	48.3	26.5	56.4	56.4
Volume/Cap:	0.87	0.87	0.87	0.87	0.87	0.87	0.21	0.87	0.87	0.87	0.38	0.38
Delay/Veh:	71.1	71.1	71.1	60.8	60.8	60.8	49.8	43.9	43.9	70.3	25.1	25.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.1	71.1	71.1	60.8	60.8	60.8	49.8	43.9	43.9	70.3	25.1	25.1
LOS by Move:	E	E	E	E	E	E	D	D	D	E	C	C
HCM2kAvq:	11	11	11	15	15	15	2	25	25	15	8	8

Note: Queue reported is the number of cars per lane.

2000 HCM Unsignalized (Base Volume Alternative)

Intersection #7: Emerson St / Melville Ave



Street Name: Emerson St North Bound South Bound East Bound West Bound
 Approach: L - T - R L - T - R L - T - R L - T - R
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
 Base Vol: 18 22 8 4 32 3 9 0 11 3 2 1
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 18 22 8 4 32 3 9 0 11 3 2 1
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 18 22 8 4 32 3 9 0 11 3 2 1
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Volume: 18 22 8 4 32 3 9 0 11 3 2 1

Critical Gap Module:
 Critical Gp: 4.1 xxxxx xxxxxx 7.1 6.5 6.2 7.1 6.5 6.2
 FollowUpTm: 2.2 xxxxx xxxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
 Conflict Vol: 35 xxxxx xxxxxx 30 xxxxx xxxxxx 105 108 34 109 105 26
 Potential Cap.: 1589 xxxxx xxxxxx 1596 xxxxx xxxxxx 880 786 1046 874 789 1056
 Move Cap.: 1589 xxxxx xxxxxx 1596 xxxxx xxxxxx 868 775 1046 856 778 1056
 Volume/Cap.: 0.01 xxxxx xxxxx 0.00 xxxxx xxxxx 0.01 0.00 0.01 0.00 0.00 0.00

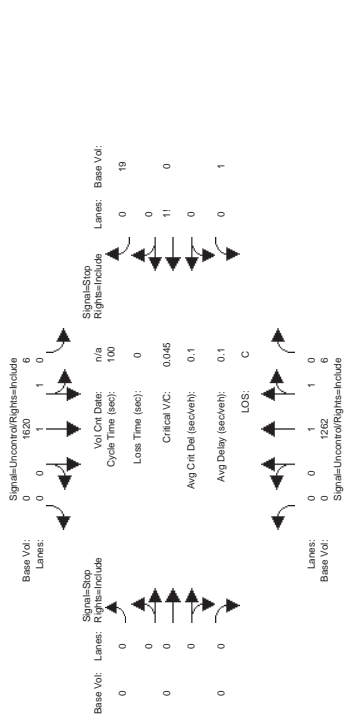
Level Of Service Module:
 2Way95thQ: 0.0 xxxxx xxxxxx 0.0 xxxxx xxxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Control Del: 7.3 xxxxx xxxxxx 7.3 xxxxx xxxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 LOS by Move: A A A A A A A A A A A A
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 957 xxxxx xxxxx 854 xxxxxx
 ShareQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxxx xxxxxx 0.0 xxxxxx
 Shrd CntrlDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 8.8 xxxxx xxxxxx 9.2 xxxxxx
 Shared LOS: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx A A A A A A
 ApproachDel: xxxxxx xxxxxx 8.8 9.2 A A
 ApproachLOS: A A A A A A

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #7 Emerson St / Melville Ave
 Base Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

2000 HCM Unsignalized (Base Volume Alternative)

Intersection #8: Alma St/Melville Ave



Street Name: Alma St North Bound South Bound East Bound West Bound
 Approach: L - T - R L - T - R L - T - R L - T - R
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
 Base Vol: 0 1262 6 6 1620 0 0 0 0 0 0 0 1 0 19
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1262 6 6 1620 0 0 0 0 0 0 0 1 0 19
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1262 6 6 1620 0 0 0 0 0 0 0 1 0 19
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Final Volume: 0 1262 6 6 1620 0 0 0 0 0 0 0 1 0 19

Critical Gap Module:
 Critical Gp: xxxxx xxxxx xxxxxx 4.1 xxxxx xxxxxx xxxxx xxxxx xxxxx
 FollowUpTm: 2.2 xxxxx xxxxxx 2.2 xxxxx xxxxxx xxxxx xxxxx xxxxx

Capacity Module:
 Conflict Vol: xxxxx xxxxx xxxxxx 1268 xxxxx xxxxxx xxxxx xxxxx xxxxxx 2087 2897 634
 Potential Cap.: xxxxx xxxxx xxxxxx 555 xxxxx xxxxxx xxxxx xxxxx xxxxxx 47 16 427
 Move Cap.: xxxxx xxxxx xxxxxx 555 xxxxx xxxxxx xxxxx xxxxx xxxxxx 46 16 427
 Volume/Cap.: xxxxx xxxxx xxxxx 0.01 xxxxx xxxxx xxxxx xxxxx xxxxx 0.02 0.00 0.04

Level Of Service Module:
 2Way95thQ: xxxxx xxxxx xxxxxx 0.0 xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Control Del: xxxxx xxxxx xxxxxx 11.6 xxxxx xxxxxx xxxxx xxxxx xxxxxx
 LOS by Move: B B B B B B B B B B B B
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx 302 xxxxxx
 ShareQueue: xxxxx xxxxx xxxxxx 0.0 xxxxx xxxxxx xxxxx xxxxx xxxxxx 0.2 xxxxxx
 Shrd CntrlDel: xxxxx xxxxx xxxxxx 11.6 xxxxx xxxxxx xxxxx xxxxx xxxxxx 17.7 xxxxxx
 Shared LOS: B B B B B B B B B B B B C C
 ApproachDel: xxxxxx xxxxxx
 ApproachLOS: C C

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #8 Alma St/Melville Ave
 Base Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

PM Peak Hour - Cumulative Condition
City of Paso Robles
2000 HCM 4-Way Stop (Base Volume Alternative)
10 PM Cumulative

Intersection #9: Emerson St/Kellogg Ave

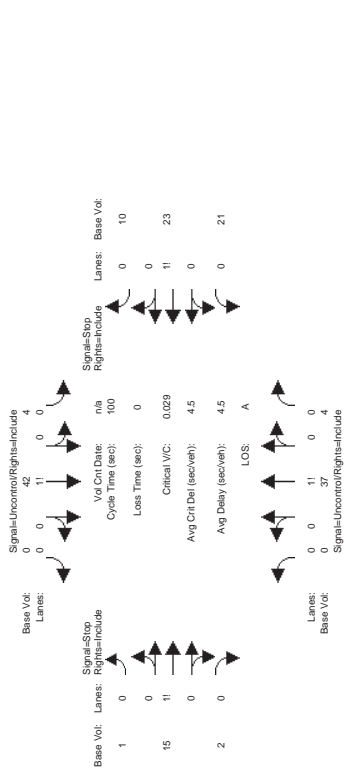


Table with columns: Street Name, Approach, Movement, Volume Module, Critical Gap, FollowUpTm, Capacity Module, Conflict Vol, Potential Cap., Move Cap., Volume/Cap., Level Of Service Module, Control Del., LOS by Move, Shared Cap., Shrd Condel, Shared LOS, ApproachDel, ApproachLOS, Note. Includes data for Emerson St and Kellogg Ave.

PM Peak Hour - Cumulative Condition
City of Paso Robles
2000 HCM 4-Way Stop (Base Volume Alternative)
10 PM Cumulative

Intersection #10: Emerson St/Churchill Ave

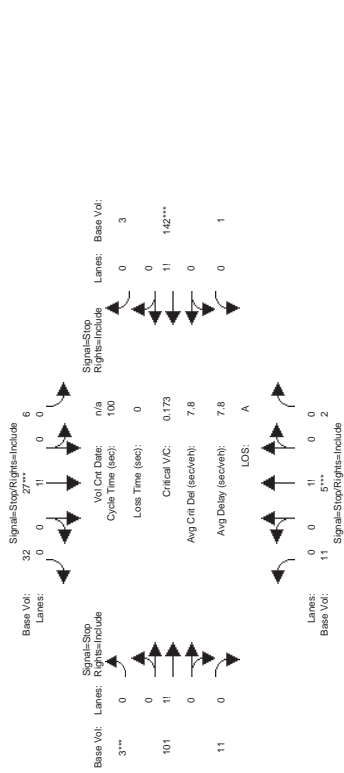
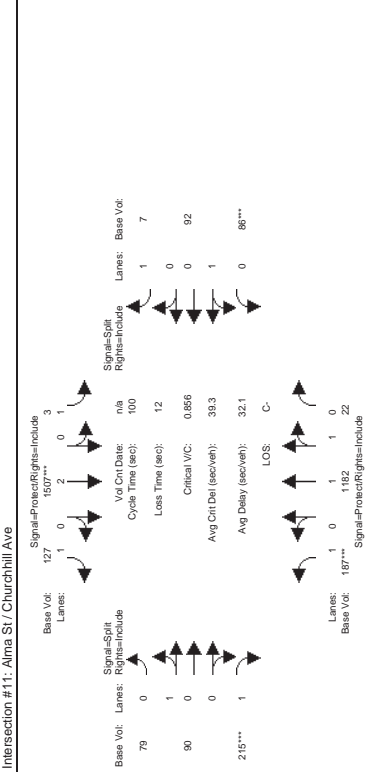


Table with columns: Street Name, Approach, Movement, Volume Module, Critical Gap, FollowUpTm, Capacity Module, Conflict Vol, Potential Cap., Move Cap., Volume/Cap., Level Of Service Module, Control Del., LOS by Move, Shared Cap., Shrd Condel, Shared LOS, ApproachDel, ApproachLOS, Note. Includes data for Emerson St and Churchill Ave.

COMPARE

COMPARE

Intersection #11: Alma St / Churchhill Ave



Street Name: Alma St Churchhill Ave

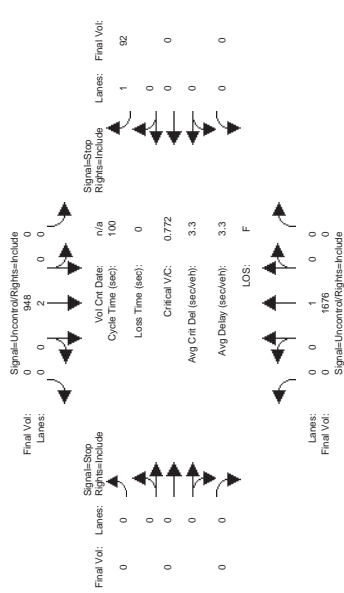
Approach	North Bound	South Bound	East Bound	West Bound
Movement	L - T - R	L - T - R	L - T - R	L - T - R
Min. Green	7 10 10	7 10 10	10 10 10	10 10 10
Y+R	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Volume Module	22 3 1507 127	79 90 215 86 92 7	90 215 86 92 7	187 1182 22 3 1507 127
Growth Adj	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse	187 1182 22	3 1507 127	79 90 215 86 92 7	187 1182 22
User Adj	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume	187 1182 22	3 1507 127	79 90 215 86 92 7	187 1182 22
Reduct Vol	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol	187 1182 22	3 1507 127	79 90 215 86 92 7	187 1182 22
PCE Adj	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MTF Adj	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Volume	187 1182 22	3 1507 127	79 90 215 86 92 7	187 1182 22

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adj/Adj: 0.88 1.00 0.92 0.88 1.00 0.78 0.90 0.98 0.78 0.90 0.98 0.78
Lanes: 1.00 1.96 0.04 1.00 2.00 1.00 0.49 0.51 1.00 0.50 0.50 1.00
Final Sat.: 1663 3714 69 1663 3800 1488 834 950 1488 860 920 1488

Capacity Analysis Module:
Vol/Sat: 0.11 0.32 0.32 0.00 0.40 0.09 0.09 0.09 0.14 0.10 0.10 0.00
Crit Moves: ****
Green Time: 13.1 48.7 48.7 10.7 46.3 46.3 16.9 16.9 16.9 11.7 11.7 11.7
Volume/Cap: 0.86 0.65 0.65 0.02 0.86 0.18 0.56 0.56 0.86 0.86 0.86 0.04
Delay/Veh: 69.3 20.1 20.1 40.0 28.3 15.9 40.6 40.6 64.4 71.1 71.1 39.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 69.3 20.1 20.1 40.0 28.3 15.9 40.6 40.6 64.4 71.1 71.1 39.3
LOS by Move: E C+ C+ B C B D E E D
HCM2kAvqg: 9 14 14 0 23 2 6 6 10 8 8 0

Note: Queue reported is the number of cars per lane.

Intersection #1: El Camino Real / Embarcadero Rd-Galvez St



Street Name: El Camino Real, Embarcadero Rd-Galvez St
Approach: North Bound, South Bound, East Bound, West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:	Base Vol:	Growth Adj:	Initial Base:	Added Vol:	PassesByVol:	Initial Fut:	User Adj:	PHF Adj:	PHF Volume:	Reduct Vol:	FinalVolume:	Level Of Service Module:	2Way95thQ:	Control Del:	LOS by Move:	Shared Cap:	Shared Queue:	Shrd ConDel:	Shared LOS:	ApproachDel:	ApproachLOS:
	346	1260	166	396	1270	147	191	416	138	200	654	362									
Base Vol:	346	1260	166	396	1270	147	191	416	138	200	654	362									
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00									
Initial Base:	346	1260	166	396	1270	147	191	416	138	200	654	362									
Added Vol:	5	0	0	0	0	0	0	0	0	0	0	0									
PassesByVol:	0	0	0	0	0	0	0	0	0	0	0	0									
Initial Fut:	351	1260	166	396	1270	147	191	423	138	200	654	362									
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00									
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00									
PHF Volume:	351	1260	166	396	1270	147	191	423	138	200	654	362									
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0									
FinalVolume:	351	1260	166	396	1270	147	191	423	138	200	654	362									
Level Of Service Module:	0.21	0.22	0.11	0.24	0.25	0.25	0.11	0.11	0.09	0.12	0.29	0.29									
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900									
Adj/Adjustment:	0.88	1.00	0.78	0.88	0.98	0.91	0.88	1.00	0.78	0.88	0.95	0.87									
Lanes:	1.00	3.00	1.00	1.00	2.67	0.33	1.00	2.00	1.00	1.00	1.25	0.75									
Final Sat:	1663	5700	1488	1663	4983	577	1663	3800	1488	1663	2248	1244									
Capacity Analysis Module:	0.21	0.22	0.11	0.24	0.25	0.25	0.11	0.11	0.09	0.12	0.29	0.29									
Crit Moves:	23.6	25.0	25.0	27.0	28.5	28.5	13.0	13.0	13.0	33.0	33.0	33.0									
Green Time:	0.99	0.97	0.49	0.97	0.99	0.99	0.97	0.94	0.78	0.40	0.97	0.97									
Volume/Cap:	86.6	60.5	38.0	78.0	60.8	60.8	103.9	76.2	67.4	31.2	59.1	59.1									
Delay/Veh:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00									
User Del/Adj:	86.6	60.5	38.0	78.0	60.8	60.8	103.9	76.2	67.4	31.2	59.1	59.1									
AdjDel/veh:	18	19	6	5	6	5	5	5	5	5	5	5									
LOS By Move:	E	D+	E	E	E	E	E	E	E	E	C	E+									
HCM2kVeg:	18	19	6	5	6	5	5	5	5	5	5	5									

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #2 Alma St / Embarcadero Rd (Spur)

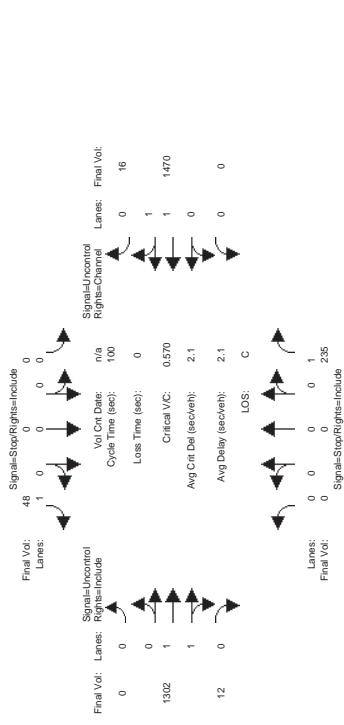
Future Volume Alternative: Peak Hour Warrant NOT Met

Traffic 6.0.0715

Copyright (c) 2008 Dowling Associates, Inc.

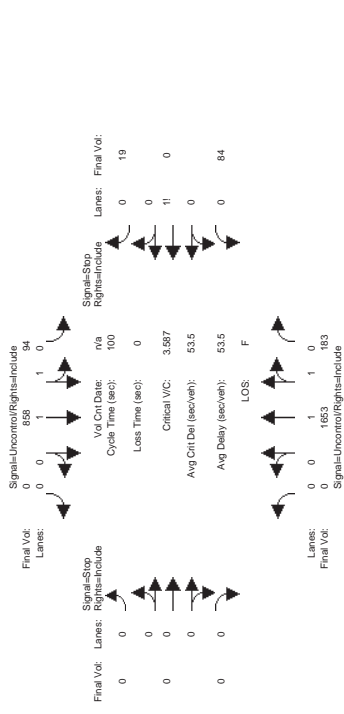
Licensed to WTRANS, Santa Rosa, CA

Intersection #4: Emerson St / Embarcadero Rd



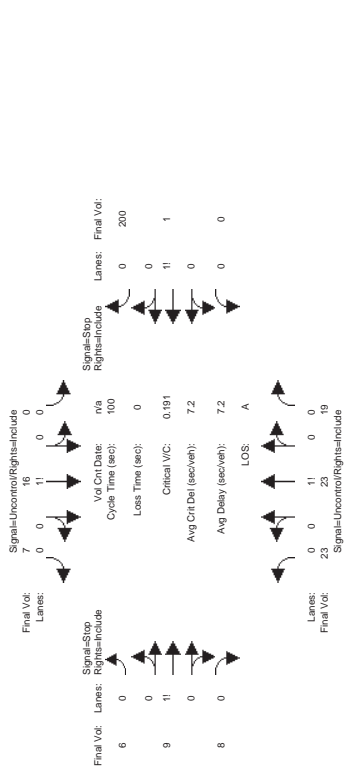
Street Name:	Emerson St				Embarcadero Rd																																																																																																																																																																					
	North Bound		South Bound		East Bound		West Bound																																																																																																																																																																			
Approach:	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R																																																																																																																																																											
Volume Module:	<table border="1"> <tr> <td>Base Vol:</td> <td>0</td><td>0</td><td>0</td><td>52</td><td>0</td><td>0</td><td>48</td><td>0</td><td>1210</td><td>12</td><td>0</td><td>1470</td><td>16</td> </tr> <tr> <td>Growth Adj:</td> <td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td> </tr> <tr> <td>Initial Base:</td> <td>0</td><td>0</td><td>0</td><td>52</td><td>0</td><td>0</td><td>48</td><td>0</td><td>1210</td><td>12</td><td>0</td><td>1470</td><td>16</td> </tr> <tr> <td>Added Vol:</td> <td>0</td><td>0</td><td>0</td><td>183</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>92</td><td>0</td><td>0</td><td>0</td> </tr> <tr> <td>PasserByVol:</td> <td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td> </tr> <tr> <td>Initial Fut:</td> <td>0</td><td>0</td><td>0</td><td>235</td><td>0</td><td>0</td><td>48</td><td>0</td><td>1302</td><td>12</td><td>0</td><td>1470</td><td>16</td> </tr> <tr> <td>User Adj:</td> <td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td> </tr> <tr> <td>PHF Adj:</td> <td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td> </tr> <tr> <td>PHF Volume:</td> <td>0</td><td>0</td><td>0</td><td>235</td><td>0</td><td>0</td><td>48</td><td>0</td><td>1302</td><td>12</td><td>0</td><td>1470</td><td>16</td> </tr> <tr> <td>Reduct Vol:</td> <td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td> </tr> <tr> <td>Final Volume:</td> <td>0</td><td>0</td><td>0</td><td>235</td><td>0</td><td>0</td><td>48</td><td>0</td><td>1302</td><td>12</td><td>0</td><td>1470</td><td>16</td> </tr> </table>																Base Vol:	0	0	0	52	0	0	48	0	1210	12	0	1470	16	Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	Initial Base:	0	0	0	52	0	0	48	0	1210	12	0	1470	16	Added Vol:	0	0	0	183	0	0	0	0	0	92	0	0	0	PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	Initial Fut:	0	0	0	235	0	0	48	0	1302	12	0	1470	16	User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	PHF Volume:	0	0	0	235	0	0	48	0	1302	12	0	1470	16	Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	Final Volume:	0	0	0	235	0	0	48	0	1302	12	0	1470	16
Base Vol:	0	0	0	52	0	0	48	0	1210	12	0	1470	16																																																																																																																																																													
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Final Volume:	0	0	0	235	0	0	48	0	1302	12	0	1470	16																																																																																																																																																													
Critical Gap Module:	<table border="1"> <tr> <td>Critical Gap:</td> <td>6.9</td><td>xxxx</td><td>xxxx</td><td>6.9</td><td>xxxx</td><td>xxxx</td><td>6.9</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td> </tr> <tr> <td>FollowUpTim:</td> <td>3.3</td><td>xxxx</td><td>xxxx</td><td>3.3</td><td>xxxx</td><td>xxxx</td><td>3.3</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td> </tr> </table>																Critical Gap:	6.9	xxxx	xxxx	6.9	xxxx	xxxx	6.9	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	FollowUpTim:	3.3	xxxx	xxxx	3.3	xxxx	xxxx	3.3	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx																																																																																																																														
Critical Gap:	6.9	xxxx	xxxx	6.9	xxxx	xxxx	6.9	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx																																																																																																																																																													
FollowUpTim:	3.3	xxxx	xxxx	3.3	xxxx	xxxx	3.3	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx																																																																																																																																																													
Capacity Module:	<table border="1"> <tr> <td>Chillict Vol:</td> <td>xxxx</td><td>xxxx</td><td>657</td><td>xxxx</td><td>xxxx</td><td>735</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td> </tr> <tr> <td>Potent Cap.:</td> <td>xxxx</td><td>xxxx</td><td>412</td><td>xxxx</td><td>xxxx</td><td>367</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td> </tr> <tr> <td>Move Cap.:</td> <td>xxxx</td><td>xxxx</td><td>412</td><td>xxxx</td><td>xxxx</td><td>367</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td> </tr> <tr> <td>Volume/Cap:</td> <td>xxxx</td><td>xxxx</td><td>0.57</td><td>xxxx</td><td>xxxx</td><td>0.13</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td> </tr> </table>																Chillict Vol:	xxxx	xxxx	657	xxxx	xxxx	735	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	Potent Cap.:	xxxx	xxxx	412	xxxx	xxxx	367	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	Move Cap.:	xxxx	xxxx	412	xxxx	xxxx	367	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	Volume/Cap:	xxxx	xxxx	0.57	xxxx	xxxx	0.13	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx																																																																																																		
Chillict Vol:	xxxx	xxxx	657	xxxx	xxxx	735	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx																																																																																																																																																													
Potent Cap.:	xxxx	xxxx	412	xxxx	xxxx	367	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx																																																																																																																																																													
Move Cap.:	xxxx	xxxx	412	xxxx	xxxx	367	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx																																																																																																																																																													
Volume/Cap:	xxxx	xxxx	0.57	xxxx	xxxx	0.13	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx																																																																																																																																																													
Level Of Service Module:	<table border="1"> <tr> <td>2Way95thQ:</td> <td>xxxx</td><td>xxxx</td><td>3.4</td><td>xxxx</td><td>xxxx</td><td>0.4</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td> </tr> <tr> <td>Control Del:</td> <td>xxxx</td><td>xxxx</td><td>24.7</td><td>xxxx</td><td>xxxx</td><td>16.3</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td> </tr> <tr> <td>LOS by Move:</td> <td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td> </tr> </table>																2Way95thQ:	xxxx	xxxx	3.4	xxxx	xxxx	0.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	Control Del:	xxxx	xxxx	24.7	xxxx	xxxx	16.3	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	LOS by Move:	C	C	C	C	C	C	C	C	C	C	C	C	C																																																																																																																
2Way95thQ:	xxxx	xxxx	3.4	xxxx	xxxx	0.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx																																																																																																																																																													
Control Del:	xxxx	xxxx	24.7	xxxx	xxxx	16.3	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx																																																																																																																																																													
LOS by Move:	C	C	C	C	C	C	C	C	C	C	C	C	C																																																																																																																																																													
ApproachDel:	<table border="1"> <tr> <td>ApproachDel:</td> <td>24.7</td><td>C</td><td>16.3</td><td>C</td><td>C</td><td>xxxxxx</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td> </tr> </table>																ApproachDel:	24.7	C	16.3	C	C	xxxxxx	C	C	C	C	C	C	C																																																																																																																																												
ApproachDel:	24.7	C	16.3	C	C	xxxxxx	C	C	C	C	C	C	C																																																																																																																																																													
Note:	Queue reported is the number of cars per lane.																																																																																																																																																																									
Intersection #4 Emerson St / Embarcadero Rd	Peak Hour Delay Signal Warrant Report																																																																																																																																																																									
Future Volume Alternative: Peak Hour Warrant NOT Met	Traffic 6.0.0715																																																																																																																																																																									

Intersection #3: Alma St / Kingsley Ave



Street Name:	Alma St				Kingsley Ave																																																																																																																																																																					
	North Bound		South Bound		East Bound		West Bound																																																																																																																																																																			
Approach:	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R																																																																																																																																																											
Volume Module:	<table border="1"> <tr> <td>Base Vol:</td> <td>0</td><td>1688</td><td>122</td><td>69</td><td>872</td><td>0</td><td>0</td><td>0</td><td>0</td><td>84</td><td>0</td><td>19</td><td>19</td> </tr> <tr> <td>Growth Adj:</td> <td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td> </tr> <tr> <td>Initial Base:</td> <td>0</td><td>1688</td><td>122</td><td>69</td><td>872</td><td>0</td><td>0</td><td>0</td><td>0</td><td>84</td><td>0</td><td>19</td><td>19</td> </tr> <tr> <td>Added Vol:</td> <td>0</td><td>-35</td><td>61</td><td>25</td><td>-14</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td> </tr> <tr> <td>PasserByVol:</td> <td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td> </tr> <tr> <td>Initial Fut:</td> <td>0</td><td>1653</td><td>183</td><td>94</td><td>858</td><td>0</td><td>0</td><td>0</td><td>0</td><td>84</td><td>0</td><td>19</td><td>19</td> </tr> <tr> <td>User Adj:</td> <td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td> </tr> <tr> <td>PHF Adj:</td> <td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td> </tr> <tr> <td>PHF Volume:</td> <td>0</td><td>1653</td><td>183</td><td>94</td><td>858</td><td>0</td><td>0</td><td>0</td><td>0</td><td>84</td><td>0</td><td>19</td><td>19</td> </tr> <tr> <td>Reduct Vol:</td> <td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td> </tr> <tr> <td>Final Volume:</td> <td>0</td><td>1653</td><td>183</td><td>94</td><td>858</td><td>0</td><td>0</td><td>0</td><td>0</td><td>84</td><td>0</td><td>19</td><td>19</td> </tr> </table>																Base Vol:	0	1688	122	69	872	0	0	0	0	84	0	19	19	Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	Initial Base:	0	1688	122	69	872	0	0	0	0	84	0	19	19	Added Vol:	0	-35	61	25	-14	0	0	0	0	0	0	0	0	PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	Initial Fut:	0	1653	183	94	858	0	0	0	0	84	0	19	19	User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	PHF Volume:	0	1653	183	94	858	0	0	0	0	84	0	19	19	Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	Final Volume:	0	1653	183	94	858	0	0	0	0	84	0	19	19
Base Vol:	0	1688	122	69	872	0	0	0	0	84	0	19	19																																																																																																																																																													
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PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0																																																																																																																																																													
Initial Fut:	0	1653	183	94	858	0	0	0	0	84	0	19	19																																																																																																																																																													
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00																																																																																																																																																													
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00																																																																																																																																																													
PHF Volume:	0	1653	183	94	858	0	0	0	0	84	0	19	19																																																																																																																																																													
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0																																																																																																																																																													
Final Volume:	0	1653	183	94	858	0	0	0	0	84	0	19	19																																																																																																																																																													
Critical Gap Module:	<table border="1"> <tr> <td>Critical Gap:</td> <td>4.1</td><td>xxxx</td><td>xxxx</td><td>4.1</td><td>xxxx</td><td>xxxx</td><td>4.1</td><td>xxxx</td><td>xxxx</td><td>4.1</td><td>xxxx</td><td>xxxx</td><td>4.1</td> </tr> <tr> <td>FollowUpTim:</td> <td>2.2</td><td>xxxx</td><td>xxxx</td><td>2.2</td><td>xxxx</td><td>xxxx</td><td>2.2</td><td>xxxx</td><td>xxxx</td><td>2.2</td><td>xxxx</td><td>xxxx</td><td>2.2</td> </tr> </table>																Critical Gap:	4.1	xxxx	xxxx	4.1	xxxx	xxxx	4.1	xxxx	xxxx	4.1	xxxx	xxxx	4.1	FollowUpTim:	2.2	xxxx	xxxx	2.2	xxxx	xxxx	2.2	xxxx	xxxx	2.2	xxxx	xxxx	2.2																																																																																																																														
Critical Gap:	4.1	xxxx	xxxx	4.1	xxxx	xxxx	4.1	xxxx	xxxx	4.1	xxxx	xxxx	4.1																																																																																																																																																													
FollowUpTim:	2.2	xxxx	xxxx	2.2	xxxx	xxxx	2.2	xxxx	xxxx	2.2	xxxx	xxxx	2.2																																																																																																																																																													
Capacity Module:	<table border="1"> <tr> <td>Chillict Vol:</td> <td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>2362</td><td>2791</td><td>918</td><td>918</td> </tr> <tr> <td>Potent Cap.:</td> <td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>30</td><td>19</td><td>278</td><td>278</td> </tr> <tr> <td>Move Cap.:</td> <td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>23</td><td>13</td><td>278</td><td>278</td> </tr> <tr> <td>Volume/Cap:</td> <td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>3.59</td><td>0.00</td><td>0.07</td><td>0.07</td> </tr> </table>																Chillict Vol:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2362	2791	918	918	Potent Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	30	19	278	278	Move Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	23	13	278	278	Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	3.59	0.00	0.07	0.07																																																																																																		
Chillict Vol:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2362	2791	918	918																																																																																																																																																													
Potent Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	30	19	278	278																																																																																																																																																													
Move Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	23	13	278	278																																																																																																																																																													
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	3.59	0.00	0.07	0.07																																																																																																																																																													
Level Of Service Module:	<table border="1"> <tr> <td>2Way95thQ:</td> <td>xxxx</td><td>xxxx</td><td>xxxx</td><td>1.1</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td> </tr> <tr> <td>Control Del:</td> <td>xxxx</td><td>xxxx</td><td>xxxx</td><td>19.8</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td><td>xxxx</td> </tr> <tr> <td>LOS by Move:</td> <td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td> </tr> </table>																2Way95thQ:	xxxx	xxxx	xxxx	1.1	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	Control Del:	xxxx	xxxx	xxxx	19.8	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	LOS by Move:	C	C	C	C	C	C	C	C	C	C	C	C	C																																																																																																																
2Way95thQ:	xxxx	xxxx	xxxx	1.1	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx																																																																																																																																																													
Control Del:	xxxx	xxxx	xxxx	19.8	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx																																																																																																																																																													
LOS by Move:	C	C	C	C	C	C	C	C	C	C	C	C	C																																																																																																																																																													
ApproachDel:	<table border="1"> <tr> <td>ApproachDel:</td> <td>xxxxxx</td><td>C</td><td>xxxxxx</td><td>C</td><td>C</td><td>xxxxxx</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td> </tr> </table>																ApproachDel:	xxxxxx	C	xxxxxx	C	C	xxxxxx	C	C	C	C	C	C	C																																																																																																																																												
ApproachDel:	xxxxxx	C	xxxxxx	C	C	xxxxxx	C	C	C	C	C	C	C																																																																																																																																																													
Note:	Queue reported is the number of cars per lane.																																																																																																																																																																									
Intersection #3 Alma St / Kingsley Ave	Peak Hour Delay Signal Warrant Report																																																																																																																																																																									
Future Volume Alternative: Peak Hour Warrant Met	Traffic 6.0.0715																																																																																																																																																																									

Intersection #7: Emerson St / Melville Ave



Street Name: Emerson St South Bound East Bound West Bound
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	31	39	19	0	16	7	6	9	12	0	1	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	31	39	19	0	16	7	6	9	12	0	1	1
Added Vol:	-8	-16	0	0	0	0	0	0	-4	0	0	199
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	23	19	0	16	7	6	9	8	0	1	200
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	23	23	19	0	16	7	6	9	8	0	1	200
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	23	23	19	0	16	7	6	9	8	0	1	200

Critical Gap Module:

Critical Gap:	4.1	xxxx	xxxx	xxxx	xxxx	xxxx	7.1	6.5	6.2	xxxx	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxx	xxxx	xxxx	xxxx	3.5	4.0	3.3	xxxx	4.0	3.3

Capacity Module:

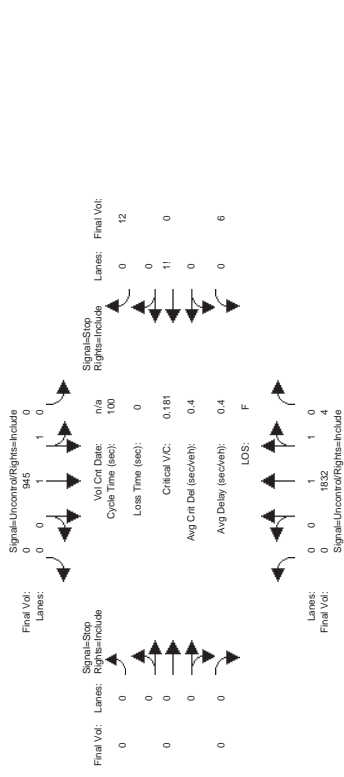
Chnlct Vol:	23	xxxx	xxxx	xxxx	xxxx	xxxx	199	108	20	xxxx	102	33
Potent Cap.:	1605	xxxx	xxxx	xxxx	xxxx	xxxx	765	786	1064	xxxx	792	1047
Move Cap.:	1605	xxxx	xxxx	xxxx	xxxx	xxxx	611	775	1064	xxxx	781	1047
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.01	0.01	xxxx	0.00	0.19

Level of Service Module:

2Way95thQ:	0.0	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	7.3	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	785	xxxx	xxxx	xxxx	1045	xxxx
ShareQueue:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	xxxx	xxxx	xxxx	0.7	xxxx
Shrd ConDel:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	9.7	xxxx	xxxx	xxxx	9.3	xxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	A	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.7	xxxxxx	xxxxxx	xxxxxx	9.3	xxxxxx
ApproachLOS:	*	*	*	*	*	*	A	*	*	*	A	*

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #7 Emerson St / Melville Ave
 Future Volume Alternative: Peak Hour Warrant NOT Met
 Traffic 6.0.0715
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 Licensed to WTRANS, Santa Rosa, CA

Intersection #8: Alma St/Melville Ave



Street Name: Alma St South Bound East Bound West Bound
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	0	1798	4	1	955	0	0	0	0	0	6	0	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1798	4	1	955	0	0	0	0	0	6	0	20
Added Vol:	0	34	0	-4	-10	0	0	0	0	0	0	0	-8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1832	4	-3	945	0	0	0	0	0	6	0	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1832	4	0	945	0	0	0	0	0	6	0	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1832	4	0	945	0	0	0	0	0	6	0	12

Critical Gap Module:

Critical Gap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
FollowUpTim:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Capacity Module:

Chnlct Vol:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Potent Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Move Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

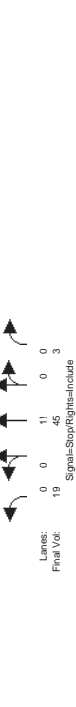
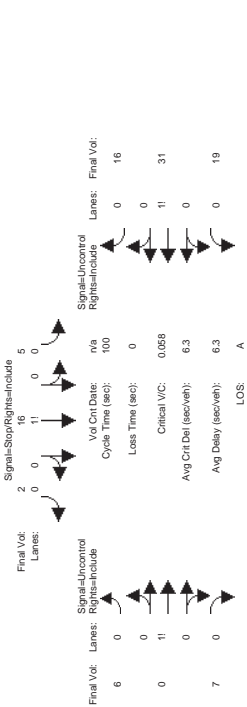
Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
ShareQueue:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shrd ConDel:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	7.2	xxxx	xxxx	xxxx	xxxx	xxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	62.5
ApproachLOS:	*	*	*	*	*	*	A	*	*	*	F	

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #8 Alma St/Melville Ave
 Future Volume Alternative: Peak Hour Warrant NOT Met
 Traffic 6.0.0715
 Copyright (c) 2008 Dowling Associates, Inc.
 Licensed to WTRANS, Santa Rosa, CA

City of St. Paul
2000 HCM Unsignalized (Future Volume Alternative)
11 AM Cumulative + Project

Intersection #9: Emerson St/Kellogg Ave



Street Name: Emerson St
Approach: North Bound South Bound East Bound West Bound

Volume Module:	L	T	R	L	T	R	L	T	R	L	T	R
Base Vol:	19	51	7	5	21	2	6	2	7	22	58	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	19	51	7	5	21	2	6	2	7	22	58	32
Added Vol:	-6	-4	0	-5	0	0	-10	0	-3	-27	-16	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	45	3	5	16	2	6	-8	7	19	31	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	45	3	5	16	2	6	0	7	19	31	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	19	45	3	5	16	2	6	0	7	19	31	16

Critical Gap Module:
Critical Gap: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxxx xxxxxx 4.1 xxxxx xxxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxxx xxxxxx 2.2 xxxxx xxxxxx

Capacity Module:
Potential Vol: 102 101 4 117 96 39 47 xxxxx xxxxxx 7 xxxxx xxxxxx
Potent Cap.: 884 793 1086 865 798 1038 1573 xxxxx xxxxxx 1627 xxxxx xxxxxx
Move Cap.: 858 781 1086 815 785 1038 1573 xxxxx xxxxxx 1627 xxxxx xxxxxx
Volume/Cap: 0.02 0.06 0.00 0.01 0.02 0.00 0.00 xxxxx xxxxxx 0.01 xxxxx xxxxx

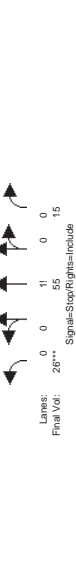
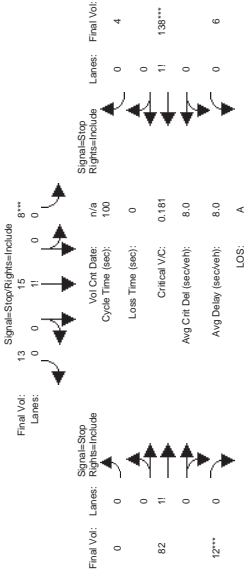
Level of Service Module:
2Way95thQ: xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxxx 0.0 xxxxx xxxxxx
Control Del: xxxxx xxxxx xxxxx xxxxx xxxxx 7.3 xxxxx xxxxxx 7.2 xxxxx xxxxxx
LOS by Move: * * * * * A * * * * * A * * * * * A * * * * * A * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxx 812 xxxxx xxx 809 xxxxx xxx 809 xxxxx xxx 809 xxxxx xxx
SharedQueue: xxxxx 0.3 xxxxx xxxxx 0.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd ConDel: xxxxx 9.8 xxxxx xxxxx 9.6 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * A * * * * * A * * * * * A * * * * * A * * * * * A * * * * *
ApproachDel: 9.8 * * * * * 9.6 * * * * * xxxxxxx * * * * *
ApproachLOS: A * * * * * A * * * * * A * * * * * A * * * * * A * * * * *
Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
Intersection #9 Emerson St/Kellogg Ave

Intersection #9 Emerson St/Kellogg Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

City of St. Paul
2000 HCM Unsignalized (Future Volume Alternative)
11 AM Cumulative + Project

Intersection #10: Emerson St/Churchill Ave



Street Name: Emerson St
Approach: North Bound South Bound East Bound West Bound

Volume Module:	L	T	R	L	T	R	L	T	R	L	T	R
Base Vol:	21	59	15	8	18	18	6	115	12	2	114	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	21	59	15	8	18	18	6	115	12	2	114	4
Added Vol:	5	-4	0	-3	-5	-6	-33	0	4	24	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	26	55	15	8	15	13	0	82	12	6	138	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	55	15	8	15	13	0	82	12	6	138	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	26	55	15	8	15	13	0	82	12	6	138	4

Critical Gap Module:
Critical Gap: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FollowUpTim: 2.11 446 122 174 326 283 0 712 104 33 763 22

Capacity Module:
Potential Vol: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Potent Cap.: 0.27 0.57 0.16 0.22 0.42 0.36 0.00 0.87 0.13 0.04 0.93 0.03
Volume/Cap: 211 446 122 174 326 283 0 712 104 33 763 22

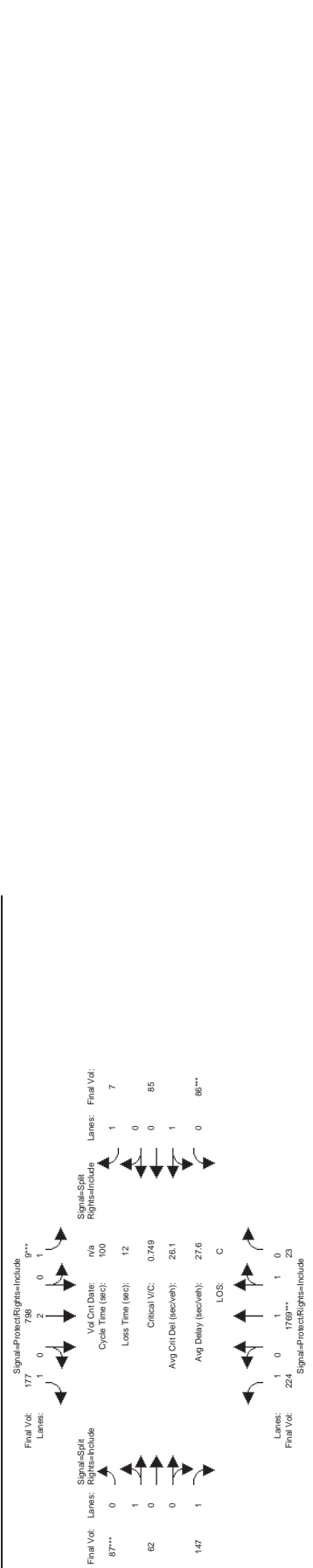
Level of Service Module:
Vol/Sat: 0.12 0.12 0.12 0.05 0.05 0.05 xxxxx 0.12 0.12 0.18 0.18 0.18 0.18
Control Del: xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxxx 0.0 xxxxx xxxxxx
LOS by Move: * * * * * A * * * * * A * * * * * A * * * * * A * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: 8.0 8.0 8.0 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.8 8.2 8.2 8.2
SharedQueue: xxx 8.0 xxx 8.0 xxx 7.5 xxx 7.5 xxx 7.5 xxx 7.5 xxx 7.5 xxx 7.5
Shrd ConDel: xxx 8.0 xxx 7.5 xxx 7.5 xxx 7.5 xxx 7.5 xxx 7.5 xxx 7.5 xxx 7.5
Shared LOS: * * * * * A * * * * * A * * * * * A * * * * * A * * * * * A * * * * *
ApproachDel: 8.0 * * * * * 7.5 * * * * * xxxxxxx * * * * *
ApproachLOS: A * * * * * A * * * * * A * * * * * A * * * * * A * * * * *
Note: Queue reported is the number of cars per lane.
AllWayAVGO: 0.1 0.1 0.1 0.0 0.0 0.0 0.1 0.1 0.1 0.1 0.2 0.2 0.2
Peak Hour Volume Signal Warrant Report [Urban]

Intersection #10 Emerson St/Churchill Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

AM Peak Hour - Cumulative + Project Condition
 Castilleja School TIA
 City of San An...
 2000 HCM Operations (Future Volume Alternative)
 11 AM Cumulative + Project

Intersection #11: Alma St / Churchhill Ave

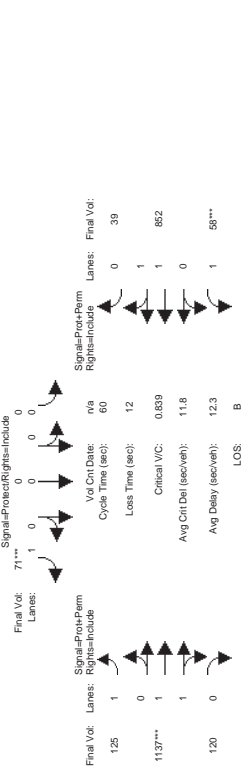


Street Name:	Alma St		Churchhill Ave	
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Min. Green:	7 10 10	7 10 10	10 10 10	10 10 10
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Volume Module:				
Base Vol:	224 1720 56	9 798 177	80 68 147	73 78 2
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	224 1720 56	9 798 177	80 68 147	73 78 2
Added Vol:	0 49 -33	0 0 0	7 -6 0	13 7 5
Passer-ByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	224 1769 23	9 798 177	87 62 147	86 85 7
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	224 1769 23	9 798 177	87 62 147	86 85 7
Reduc Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	224 1769 23	9 798 177	87 62 147	86 85 7
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
M/F Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Volume:	224 1769 23	9 798 177	87 62 147	86 85 7
Saturation Flow Module:				
Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjusment:	0.88 1.00 0.92	0.88 1.00 0.78	0.90 0.97 0.78	0.90 0.98 0.78
Lanes:	1.00 1.97 0.03	1.00 2.00 1.00	0.60 0.40 1.00	0.52 0.48 1.00
Final Sat.:	1663 3740 49	1663 3800 1488	1027 732 1488	893 883 1488
Capacity Analysis Module:				
Vol/Sat:	0.13 0.47 0.47	0.01 0.21 0.12	0.08 0.08 0.10	0.10 0.10 0.00
Crit Moves:	****	****	****	****
Green Time:	25.1 57.3 57.3	7.0 39.2 39.2	12.0 12.0 12.0	11.7 11.7 11.7
Volume/Cap:	0.54 0.82 0.82	0.08 0.54 0.30	0.71 0.71 0.71	0.82 0.82 0.04
Delay/Veh:	33.7 20.0 20.0	43.8 23.8 21.3	52.8 52.8 68.8	66.0 66.0 39.3
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	33.7 20.0 20.0	43.8 23.8 21.3	52.8 52.8 68.8	66.0 66.0 39.3
LOS by Move:	C- B- B-	B- D C C+	D- D- C D-	E E E D
HCW2KvqQ:	7 24 24	0 10 4	6 6 6	7 8 8

Note: Queue reported is the number of cars per lane.

School PM Peak Hour - Cumulative + Project Condition
 Castilleja School TIA
 City of San Antonio - Bypass
 2000 HCM Operations (Future Volume Alternative)
 18 MD Cumulative + Project

Intersection #5: Bryant St / Embarcadero Rd



Street Name: Bryant St Embarcadero Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 0 0 53 0 0 71 84 1006 63 46 852 39
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bes: 0 0 53 0 0 71 84 1006 63 46 852 39
 Added Vol: 0 0 -3 0 0 0 41 131 57 12 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 50 0 0 71 125 1137 120 58 852 39
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 50 0 0 71 125 1137 120 58 852 39
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 50 0 0 71 125 1137 120 58 852 39
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 0 50 0 0 71 125 1137 120 58 852 39

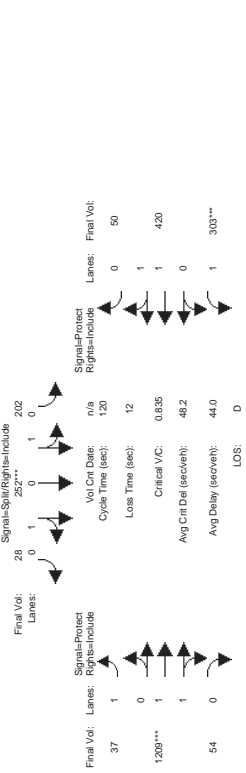
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.80 0.92 1.00 0.80 0.88 0.99 0.91 0.88 0.99 0.91
 Lanes: 0.00 0.00 1.00 0.00 0.00 1.00 1.00 1.79 0.21 1.00 1.91 0.09
 Final Sat.: 0 0 1514 0 0 1514 1663 3362 355 1663 3595 165

Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.03 0.00 0.00 0.05 0.08 0.34 0.03 0.24 0.24
 Crit Moves: ****
 Green Time: 0.0 0.0 10.0 0.0 0.0 10.0 41.0 31.0 31.0 32.5 25.5 25.5
 Volume/Cap: 0.00 0.00 0.20 0.00 0.00 0.28 0.24 0.65 0.65 0.18 0.56 0.56
 Delay/Veh: 0.0 0.0 21.9 0.0 0.0 22.5 4.9 11.4 11.4 7.3 13.5 13.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 21.9 0.0 0.0 22.5 4.9 11.4 11.4 7.3 13.5 13.5
 LOS by Move: A C+ A A C+ A B+ A B A B
 HCM2kVeg: 0 0 1 0 0 2 1 10 10 1 7

Note: Queue reported is the number of cars per lane.

School PM Peak Hour - Cumulative + Project Condition
 Castilleja School TIA
 City of San Antonio - Bypass
 2000 HCM Operations (Future Volume Alternative)
 18 MD Cumulative + Project

Intersection #6: Middlefield Rd / Embarcadero Rd



Street Name: Middlefield Rd Embarcadero Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 10 10 10 10 10 10
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 84 212 52 202 252 28 37 1195 54 303 408 50
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bes: 84 212 52 202 252 28 37 1195 54 303 408 50
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 84 212 52 202 252 28 37 1209 54 303 420 50
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 84 212 52 202 252 28 37 1209 54 303 420 50
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 84 212 52 202 252 28 37 1209 54 303 420 50
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 84 212 52 202 252 28 37 1209 54 303 420 50

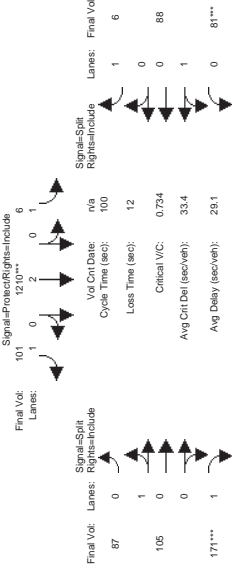
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.89 0.97 0.89 0.89 0.97 0.89 0.88 0.99 0.92 0.88 0.98 0.91
 Lanes: 0.51 1.18 0.31 0.87 1.01 0.12 1.00 1.91 0.09 1.00 1.77 0.23
 Final Sat.: 858 2164 531 1484 1852 206 1663 3603 161 1663 3311 394

Capacity Analysis Module:
 Vol/Sat: 0.10 0.10 0.10 0.14 0.14 0.14 0.02 0.34 0.34 0.18 0.13 0.13
 Crit Moves: ****
 Green Time: 14.1 14.1 14.1 19.5 19.5 19.5 23.4 48.2 48.2 26.2 51.0 51.0
 Volume/Cap: 0.84 0.84 0.84 0.84 0.84 0.84 0.11 0.84 0.84 0.84 0.30 0.30
 Delay/Veh: 65.5 65.5 65.5 58.9 58.9 58.9 39.9 36.5 36.5 60.2 22.9 22.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 65.5 65.5 65.5 58.9 58.9 58.9 39.9 36.5 36.5 60.2 22.9 22.9
 LOS by Move: E E E E+ E+ D+ D+ E C+ C+
 HCM2kVeg: 9 9 9 11 11 11 1 23 23 14 6 6

Note: Queue reported is the number of cars per lane.

School PM Peak Hour - Cumulative + Project Condition
 Castelli School TIA
 City of Paso Robles
 2000 HCM Operations (Future Volume Alternative)
 15 MD Cumulative + Project

Intersection #11: Alma St / Churchhill Ave



Final Vol: Lanes: Signal=Split Rights=Include
 87 0 1 0 2 0 1
 Cycle Time (sec): 100
 Loss Time (sec): 12
 Critical Vol: 0.734
 Avg Ctrl Del (sec/veh): 33.4
 Avg Delay (sec/veh): 29.1
 LOS: C

Street Name:	Alma St			Churchhill Ave		
	North Bound	South Bound	East Bound	West Bound		
Approach:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	
Movement:						
Min. Green:	7 10 10	7 10 10	10 10 10	10 10 10	10 10 10	10
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0
Volume Module:						
Base Vol:	196 972 28	6 1210 101	82 109 171	69 82 3		
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
Initial Bse:	196 972 28	6 1210 101	82 109 171	69 82 3		
Added Vol:	0 31 -21	0 0 0	5 -4 0	12 6 0		
PassesByVol:	0 0 0	0 0 0	0 0 0	0 0 0		
Initial Fut:	196 1003 7	6 1210 101	87 105 171	81 88 6		
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
PHF Volume:	196 1003 7	6 1210 101	87 105 171	81 88 6		
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0		
Reduced Vol:	196 1003 7	6 1210 101	87 105 171	81 88 6		
PCF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
MUF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00		
Final Volume:	196 1003 7	6 1210 101	87 105 171	81 88 6		

Saturation Flow Module:

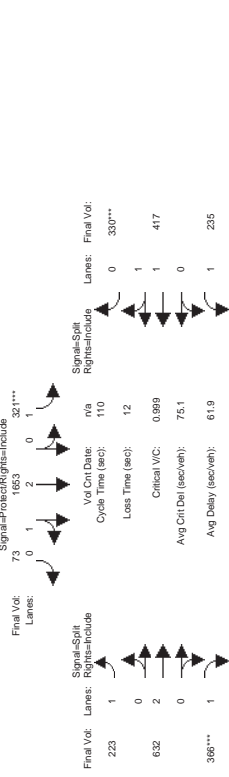
Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.88 1.00 0.92	0.88 1.00 0.78	0.90 0.98 0.78	0.90 0.98 0.78
Lanes:	1.00 1.98 0.02	1.00 2.00 1.00	0.47 0.53 1.00	0.50 0.50 1.00
Final Sat.:	1663 3768 26	1663 3800 1488	811 978 1488	855 928 1488

Capacity Analysis Module:

Vol/Sat:	0.12 0.27 0.27	0.00 0.32 0.07	0.11 0.11 0.11	0.09 0.09 0.00
Crit Moves:	****	****	****	****
Green Time:	16.1 47.1 47.1	12.4 43.4 43.4	15.7 15.7 15.7	12.9 12.9 12.9
Volume/Cap:	0.73 0.57 0.57	0.03 0.73 0.16	0.69 0.69 0.73	0.73 0.73 0.03
Delay/Veh:	50.0 19.5 19.5	38.6 25.3 17.3	46.7 46.7 51.6	53.5 53.5 38.1
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	50.0 19.5 19.5	38.6 25.3 17.3	46.7 46.7 51.6	53.5 53.5 38.1
LOS by Move:	D B- B	B- B- C	B D D	D- D- D+
HCM2kAvaQ:	8 11 11	0 16 2	7 7 7	7 7 7

Note: Queue reported is the number of cars per lane.

Intersection #1: El Camino Real / Embarcadero Rd-Galvez St



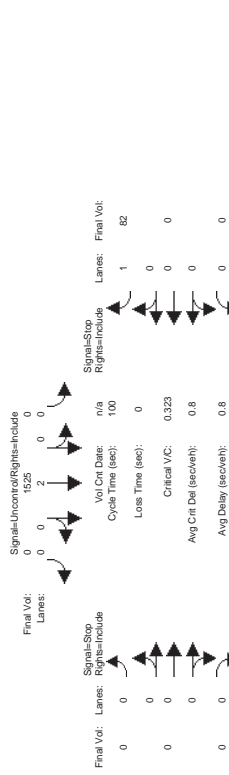
Final Vol: 73 165 321
 Lanes: 0 1 2 0 1
 Final Vol: 180 1324 214
 Lanes: 1 0 1324 214

Street Name: El Camino Real, Embarcadero Rd-Galvez St
 Approach: North Bound, South Bound, East Bound, West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R L - T - R
 Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10 10 10 10 10
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Volume Module: 177 1324 214 321 1653 73 223 629 366 235 417 330
 Base Vol: 177 1324 214 321 1653 73 223 629 366 235 417 330
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 177 1324 214 321 1653 73 223 629 366 235 417 330
 Added Vol: 3 0 0 0 0 0 0 0 0 0 0 0
 PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 180 1324 214 321 1653 73 223 632 366 235 417 330
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 180 1324 214 321 1653 73 223 632 366 235 417 330
 Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 180 1324 214 321 1653 73 223 632 366 235 417 330
 Saturation Flow Module: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Vol/Sat: 0.11 0.23 0.14 0.19 0.31 0.31 0.13 0.17 0.25 0.14 0.22 0.22
 Cap: 12.3 25.6 25.6 21.3 34.6 34.6 27.1 27.1 24.1 24.1 24.1 24.1
 Green Time: 0.97 1.00 0.62 1.00 0.97 0.97 0.54 0.68 1.00 0.65 1.00 1.00
 Volume/Cap: 106.5 66.6 41.2 94.2 52.5 52.5 37.6 39.4 89.1 43.1 75.6 75.6
 Delay/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/veh: 106.5 66.6 41.2 94.2 52.5 52.5 37.6 39.4 89.1 43.1 75.6 75.6
 LOS By Move: F E D E D F E D F D E B
 HCMXV99: 11 21 8 17 25 25 8 11 19 9 19 19
 Note: Queue reported is the number of cars per lane.

Level Of Service Module: 2Way95thQ: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 1.3
 Control Del: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 25.8
 LOS by Move: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shared Queue: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shrd ConDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shared LOS: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachLOS: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #2 Alma St / Embarcadero Rd (Spur)

 Future Volume Alternative: Peak Hour Warrant NOT Met
 Traffic 6.0.0715 Copyright (c) 2008 Dowling Associates, Inc. Licensed to WTRANS, Santa Rosa, CA

Intersection #2: Alma St / Embarcadero Rd (Spur)



Final Vol: 0 0 0 0 0 0
 Lanes: 0 0 2 0 0 0
 Final Vol: 0 0 1120 0 0 0
 Lanes: 0 0 1120 0 0 0

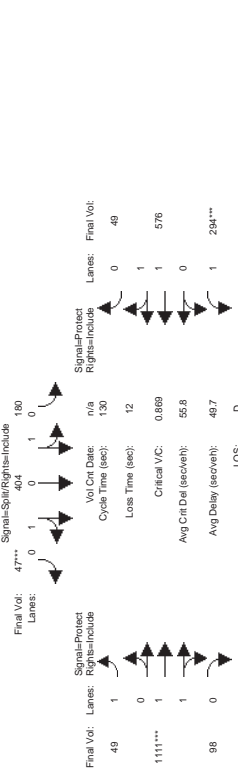
Street Name: Alma St, Embarcadero Rd (Spur)
 Approach: North Bound, South Bound, East Bound, West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R L - T - R
 Volume Module: 0 1142 0 0 1521 0 0 0 0 0 0 0 0 82
 Base Vol: 0 1142 0 0 1521 0 0 0 0 0 0 0 0 82
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 -22 0 0 4 0 0 0 0 0 0 0 0 0
 Added Vol: 0 -22 0 0 4 0 0 0 0 0 0 0 0 0
 PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 1120 0 0 1525 0 0 0 0 0 0 0 0 82
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1120 0 0 1525 0 0 0 0 0 0 0 0 82
 Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Final Volume: 0 1120 0 0 1525 0 0 0 0 0 0 0 0 82
 Critical Gap Module: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 6.2
 Critical Gap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 3.3
 FollowUpTim: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 3.3
 Capacity Module: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Conflict Vol: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 1120
 Potential Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 254
 Move Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 254
 Volume/Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 0.32
 Level Of Service Module: 2Way95thQ: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 1.3
 Control Del: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 25.8
 LOS by Move: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shared Queue: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shrd ConDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shared LOS: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachLOS: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #2 Alma St / Embarcadero Rd (Spur)

 Future Volume Alternative: Peak Hour Warrant NOT Met
 Traffic 6.0.0715 Copyright (c) 2008 Dowling Associates, Inc. Licensed to WTRANS, Santa Rosa, CA

Level Of Service Module: 2Way95thQ: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 1.3
 Control Del: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 25.8
 LOS by Move: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shared Queue: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shrd ConDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shared LOS: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachLOS: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #2 Alma St / Embarcadero Rd (Spur)

 Future Volume Alternative: Peak Hour Warrant NOT Met
 Traffic 6.0.0715 Copyright (c) 2008 Dowling Associates, Inc. Licensed to WTRANS, Santa Rosa, CA

Intersection #6: Middlefield Rd / Embarcadero Rd



Street Name: Middlefield Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

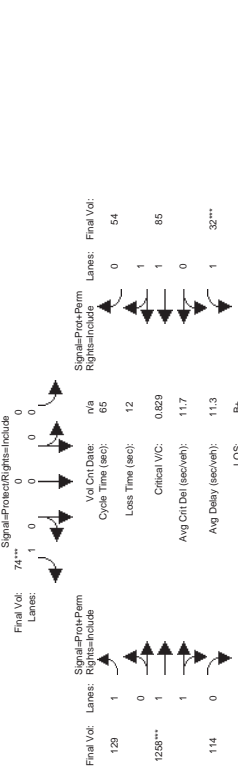
Min. Green:	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:	72	282	51	180	404	47	49	1101	98	294	568
Base Vol:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	72	282	51	180	404	47	49	1101	98	294	568
Added Vol:	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	72	282	51	180	404	47	49	1111	98	294	576
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	72	282	51	180	404	47	49	1111	98	294	576
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	72	282	51	180	404	47	49	1111	98	294	576

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.97 0.90 0.90 0.98 0.90 0.88 0.99 0.91 0.88 0.99 0.91
Lanes: 0.37 1.36 0.27 0.60 1.24 0.16 1.00 1.83 0.17 1.00 1.83 0.17
Final Sat.: 640 2507 453 1025 2302 268 1663 3426 302 1663 3437 292

Capacity Analysis Module:
Vol/Sat: 0.11 0.11 0.11 0.18 0.18 0.18 0.03 0.32 0.32 0.18 0.17 0.17
Crit Moves: ****
Green Time: 16.8 16.8 16.8 26.2 26.2 26.2 18.2 48.5 48.5 26.4 56.7 56.7
Volume/Cap: 0.87 0.87 0.87 0.87 0.87 0.87 0.21 0.87 0.87 0.87 0.38 0.38
Delay/Veh: 71.5 71.5 71.5 61.2 61.2 61.2 50.0 44.0 44.0 70.8 25.0 25.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 71.5 71.5 71.5 61.2 61.2 61.2 50.0 44.0 44.0 70.8 25.0 25.0
LOS by Move: E E E E E D D E C
HCMkAvqQ: 11 11 11 15 15 15 2 25 25 15 8 8

Note: Queue reported is the number of cars per lane.

Intersection #5: Bryant St / Embarcadero Rd



Street Name: Bryant St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

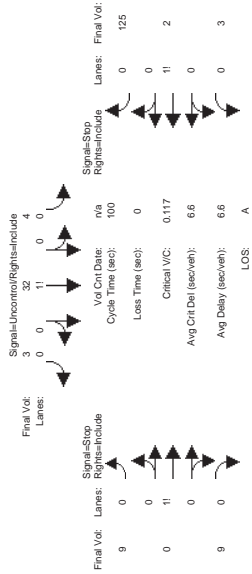
Min. Green:	7	10	10	7	10	10	7	10	10	7	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:	0	0	17	0	0	74	102	1171	77	24	85
Base Vol:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	17	0	0	74	102	1171	77	24	85
Added Vol:	0	0	-2	0	0	0	27	87	37	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	15	0	0	74	129	1258	114	32	85
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	15	0	0	74	129	1258	114	32	85
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	0	15	0	0	74	129	1258	114	32	85

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.80 0.92 1.00 0.80 0.88 0.99 0.91 0.88 0.94 0.87
Lanes: 0.00 0.00 1.00 0.00 0.00 1.00 1.00 1.82 0.18 1.00 1.18 0.82
Final Sat.: 0 0 1514 0 0 1514 1663 3418 310 1663 2118 1346

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.01 0.00 0.00 0.05 0.08 0.37 0.37 0.02 0.04 0.04
Crit Moves: ****
Green Time: 0.0 0.0 10.0 0.0 0.0 10.0 46.0 36.0 36.0 10.0 10.0 10.0
Volume/Cap: 0.00 0.00 0.06 0.00 0.00 0.32 0.14 0.66 0.66 0.11 0.10 0.10
Delay/Veh: 0.0 0.0 23.6 0.0 0.0 25.3 3.1 11.1 11.1 8.7 12.7 12.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 23.6 0.0 0.0 25.3 3.1 11.1 11.1 8.7 12.7 12.7
LOS by Move: A A C A A C A B+
HCMkAvqQ: 0 0 0 0 0 2 1 11 11 0 1 1

Note: Queue reported is the number of cars per lane.

Intersection #7: Emerson St / Melville Ave



Street Name: Emerson St South Bound East Bound Melville Ave West Bound

Approach: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	18	22	8	4	32	3	9	0	11	3	2	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	18	22	8	4	32	3	9	0	11	3	2	1
Added Vol:	-5	-10	0	0	0	0	0	0	-2	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	12	8	4	32	3	9	0	9	3	2	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	13	12	8	4	32	3	9	0	9	3	2	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	13	12	8	4	32	3	9	0	9	3	2	125

Critical Gap Module:

Critical Gap:	4.1	xxxx	xxxx	4.1	xxxx	xxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxx	2.2	xxxx	xxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Chflict Vol:	35	xxxx	xxxx	20	xxxx	xxxx	147	88	34	88	85	16
Potent Cap.:	1589	xxxx	xxxx	1609	xxxx	xxxx	826	806	1046	902	809	1069
Move Cap.:	1589	xxxx	xxxx	1609	xxxx	xxxx	722	798	1046	887	800	1069
Volume/Cap:	0.01	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.00	0.01	0.00	0.00	0.12

Level of Service Module:

2Way95thQ:	0.0	xxxx	xxxx	0.0	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	7.3	xxxx	xxxx	7.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	854	xxxx	xxxx	1059	xxxx	
Shared Queue:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	xxxx	xxxx	0.4	xxxx	
Shrd ConDel:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	9.3	xxxx	xxxx	8.9	xxxx	
Shared LOS:	*	*	*	*	*	*	A	*	*	A	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	9.3	xxxxxx	xxxxxx	8.9	xxxxxx	xxxxxx	8.9	xxxxxx	A
ApproachLOS:	*	*	*	A	*	*	A	*	*	A	*	A

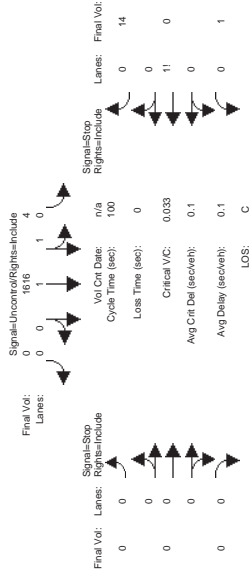
Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #7 Emerson St / Melville Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Intersection #8: Alma St/Melville Ave



Street Name: Alma St North Bound South Bound Melville Ave West Bound

Approach: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	0	1262	6	6	1620	6	6	1620	0	0	0	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	1262	6	6	1620	6	6	1620	0	0	0	0	19
Added Vol:	0	7	0	-2	-4	0	0	0	0	0	0	0	-5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1269	6	4	1616	6	4	1616	0	0	0	0	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1269	6	4	1616	6	4	1616	0	0	0	0	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1269	6	4	1616	6	4	1616	0	0	0	0	14

Critical Gap Module:

Critical Gap:	4.1	xxxx	xxxx	4.1	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	6.8	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxx	2.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	3.5	4.0	3.3

Capacity Module:

Chflict Vol:	xxxx	xxxx	xxxx	1275	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2088	2896	638
Potent Cap.:	xxxx	xxxx	xxxx	551	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	47	16	424
Move Cap.:	xxxx	xxxx	xxxx	551	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	46	16	424
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	0.00	0.03

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxx	0.0	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	xxxx	xxxx	xxxx	11.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	275	xxxx
Shared Queue:	xxxx	xxxx	xxxx	0.0	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.2	xxxx
Shrd ConDel:	xxxx	xxxx	xxxx	11.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	18.9	xxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	18.9	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	A	*	*	*	*	*	*	A	*	A	*

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #8 Alma St/Melville Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Intersection #9: Emerson St/Kellogg Ave



Final Vol:	Lanes:	Signal-Stop Rights-Include	Vol Cnt Date:	Cycle Time (sec):	Loss Time (sec):	Critical VC:	Avg Cnt Del (sec):	Avg Delay (sec):	LOS:
1	0	←	n/a	100	0	0.021	7.9	7.9	A
11	11	←	n/a	100	0	0.021	7.9	7.9	A
2	0	←	n/a	100	0	0.021	7.9	7.9	A

Final Vol:	Lanes:	Signal-Stop Rights-Include	Final Vol:	Lanes:	Signal-Stop Rights-Include
0	0	←	0	0	←
0	0	←	0	0	←
0	0	←	0	0	←

Street Name:	Emerson St	South Bound	East Bound	West Bound
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Volume Module:				
Base Vol:	0	37	4	4
Growth Adj:	1.00	1.00	1.00	1.00
Initial Base:	0	37	4	4
Added Vol:	0	-2	0	0
PasserByVol:	0	0	0	0
Initial Fut:	0	35	2	2
User Adj:	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00
PHF Volume:	0	35	2	2
Reduct Vol:	0	0	0	0
Final Volume:	0	35	2	2

Critical Gap Module:	Emerson St	South Bound	East Bound	West Bound
Critical Gap:	xxxx	xxxx	xxxx	xxxx
PCE Adj:	4.1	xxxx	xxxx	7.1 6.5 6.2 7.1 6.5
FollowUpTim:	xxxx	xxxx	xxxx	3.5 4.0 3.3 3.5 4.0

Capacity Module:	Emerson St	South Bound	East Bound	West Bound
Potential Cap:	xxxx	xxxx	xxxx	86 84 39 90
Move Cap:	xxxx	xxxx	xxxx	1587 808 1038 887 809
Volume/Cap:	xxxx	xxxx	xxxx	0.00 0.01 0.00 0.02 0.01

Level of Service Module:
 2Way95thQ: xxxx xxxxxx
 Control Del: xxxx xxxxxx
 LOS by Move: * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: xxxx xxxxxx
 Shared Queue: xxxx xxxxxx
 Shared LOS: * A * * * * *
 ApproachDel: * A * * * * *
 ApproachLOS: * A * * * * *

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #9 Emerson St/Kellogg Ave
 Future Volume Alternative: Peak Hour Warrant NOT Met

Intersection #10: Emerson St/Churchill Ave

Final Vol:	Lanes:	Signal-Stop Rights-Include	Vol Cnt Date:	Cycle Time (sec):	Loss Time (sec):	Critical VC:	Avg Cnt Del (sec):	Avg Delay (sec):	LOS:
1	0	←	n/a	100	0	0.192	7.9	7.9	A
88***	11	←	n/a	100	0	0.192	7.9	7.9	A
11	0	←	n/a	100	0	0.192	7.9	7.9	A



Final Vol:	Lanes:	Signal-Stop Rights-Include	Final Vol:	Lanes:	Signal-Stop Rights-Include
0	0	←	0	0	←
0	0	←	0	0	←
0	0	←	0	0	←

Street Name:	Emerson St	South Bound	East Bound	West Bound
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Volume Module:				
Base Vol:	11	5	2	6
Growth Adj:	1.00	1.00	1.00	1.00
Initial Base:	11	5	2	6
Added Vol:	2	-2	0	-2
PasserByVol:	0	0	0	0
Initial Fut:	13	3	2	6
User Adj:	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00
PHF Volume:	13	3	2	6
Reduct Vol:	0	0	0	0
Final Volume:	13	3	2	6

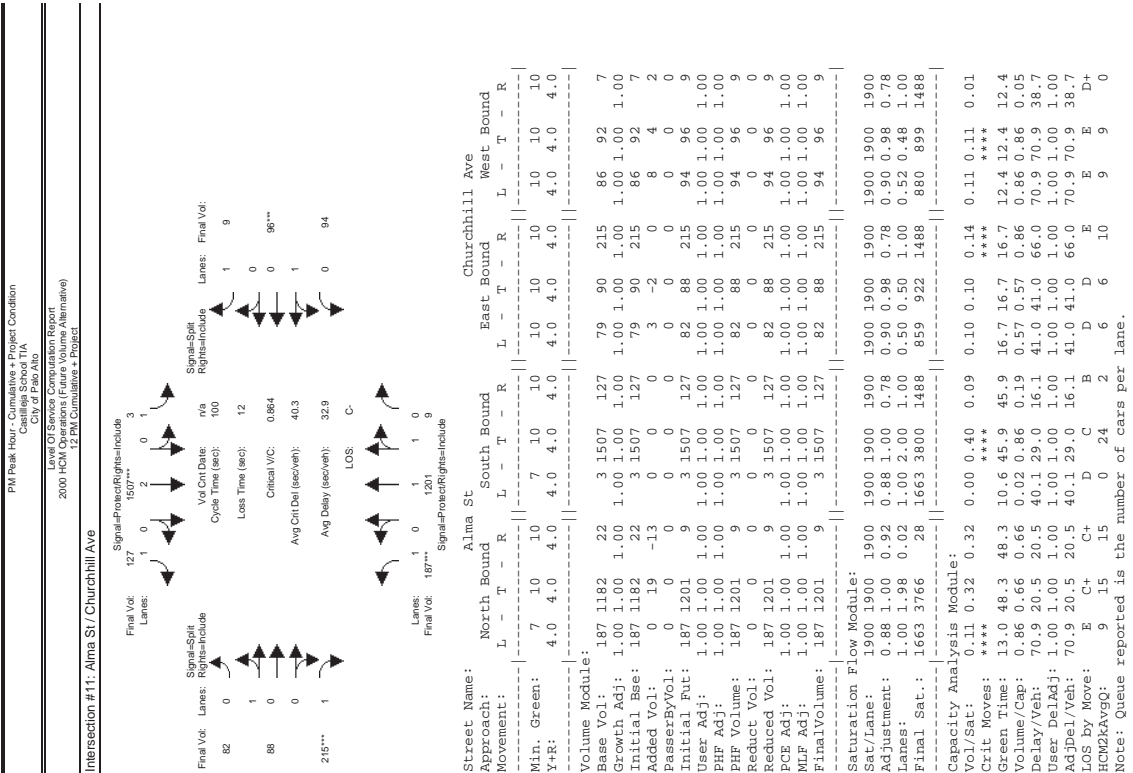
Critical Gap Module:	Emerson St	South Bound	East Bound	West Bound
Critical Gap:	xxxx	xxxx	xxxx	xxxx
PCE Adj:	1.00	1.00	1.00	1.00
FollowUpTim:	xxxx	xxxx	xxxx	xxxx

Capacity Module:	Emerson St	South Bound	East Bound	West Bound
Potential Cap:	xxxx	xxxx	xxxx	81 80 83
Move Cap:	xxxx	xxxx	xxxx	537 339 393 874 93
Volume/Cap:	xxxx	xxxx	xxxx	0.02 0.02 0.02 0.07 0.07

Level of Service Module:
 2Way95thQ: xxxx xxxxxx
 Control Del: xxxx xxxxxx
 LOS by Move: * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: xxxx xxxxxx
 Shared Queue: xxxx xxxxxx
 Shared LOS: * A * * * * *
 ApproachDel: * A * * * * *
 ApproachLOS: * A * * * * *

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #10 Emerson St/Churchill Ave
 Future Volume Alternative: Peak Hour Warrant NOT Met

Intersection #10: Emerson St/Churchill Ave



COMPARE AM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative) City of Palo Alto 2000 HCM Unsignalized Future Volume Alternative

COMPARE AM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative) City of Palo Alto 2000 HCM Unsignalized Future Volume Alternative

COMPARE AM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative) City of Palo Alto 2000 HCM Unsignalized Future Volume Alternative

COMPARE AM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative) City of Palo Alto 2000 HCM Unsignalized Future Volume Alternative

Intersection #2: Alma St / Embarcadero Rd (Spur) Signal=Uncontrolled/Right=Include

Intersection #1: El Camino Real / Embarcadero Rd-Galvez St Signal=Project/Right=Include

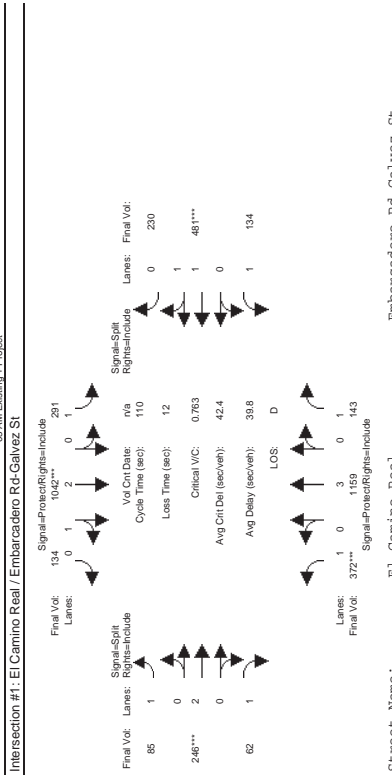
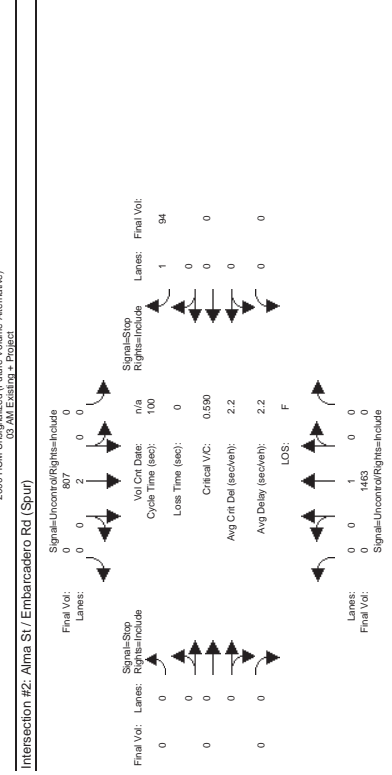


Table with columns: Street Name, Approach, Movement, Volume Module, Base Vol, Growth Adj, Initial Base, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduce Vol, PCE Adj, MDJ, Final Volume, Saturation Flow Module, Sat/Lane, AdjStment, Lanes, Final Sat, Capacity Analysis Module, Vol/Sat, Crit Moves, Green Time, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Tech, LOS By Move, HCM Kavag. Includes LOS: F and various performance metrics.

Table with columns: Street Name, Approach, Movement, Volume Module, Base Vol, Growth Adj, Initial Base, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduce Vol, PCE Adj, MDJ, Final Volume, Saturation Flow Module, Sat/Lane, AdjStment, Lanes, Final Sat, Capacity Analysis Module, Vol/Sat, Crit Moves, Green Time, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Tech, LOS By Move, HCM Kavag. Includes LOS: D and various performance metrics.

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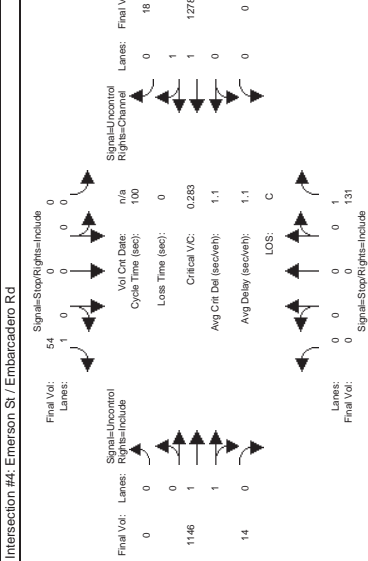
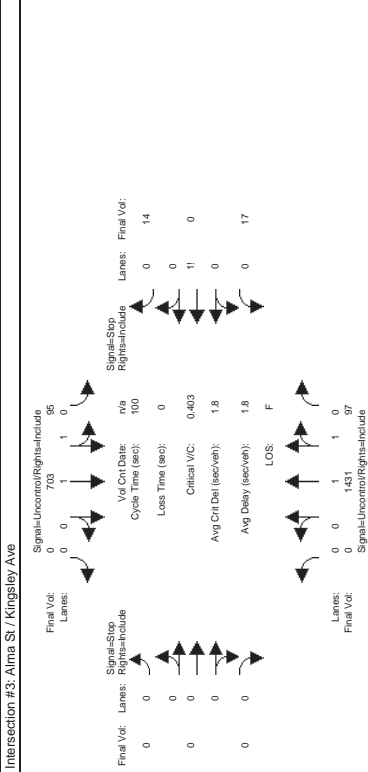
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AM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)

AM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)

Intersection #3: Alma St / Kingsley Ave

Intersection #4: Emerson St / Embarcadero Rd



Street Name: Alma St

Approach: North Bound South Bound East Bound West Bound

Volume Module:	L	T	R	L	T	R	L	T	R	L	T	R	
Base Vol:	0	1406	35	69	709	0	0	0	0	0	17	0	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	1406	35	69	709	0	0	0	0	0	17	0	14
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
PHF Volume:	0	1431	97	95	703	0	0	0	0	0	17	0	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1431	97	95	703	0	0	0	0	0	17	0	14
Critical Gap Module:													
Critical Gap:	xxxx	xxxx	xxxx	4.1	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	6.8	6.5	6.9
FollowUpTim:	xxxx	xxxx	xxxx	2.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	3.5	4.0	3.3
Capacity Module:													
Chflict Vol:	xxxx	xxxx	xxxx	1528	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2021	2372	764
Potent Cap.:	xxxx	xxxx	xxxx	442	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	52	35	351
Move Cap.:	xxxx	xxxx	xxxx	442	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	43	27	351
Volume/Cap:	xxxx	xxxx	xxxx	0.22	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.40	0.00	0.04
Level Of Service Module:													
2Way95thQ:	xxxx	xxxx	xxxx	0.8	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	xxxx	xxxx	xxxx	15.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	*	*	*	C	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	71	xxxx	xxxx
Shared Queue:	xxxx	xxxx	xxxx	0.8	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1.8	xxxx	xxxx
Shrd ConDel:	xxxx	xxxx	xxxx	15.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	91.4	xxxx	xxxx
Shared LOS:	*	*	*	C	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	91.4	xxxx	xxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	*	*	*	*
Note:	Queue reported is the number of cars per lane.												
Peak Hour Delay Signal Warrant Report													
Intersection #3 Alma St / Kingsley Ave													
Future Volume Alternative:	Peak Hour Warrant NOT Met												

Street Name: Emerson St

Approach: North Bound South Bound East Bound West Bound

Volume Module:	L	T	R	L	T	R	L	T	R	L	T	R
Base Vol:	0	0	52	0	0	48	0	923	12	0	1132	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	52	0	0	48	0	923	12	0	1132	16
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	0	131	0	0	54	0	1146	14	0	1278	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	131	0	0	54	0	1146	14	0	1278	18
Critical Gap Module:												
Critical Gap:	xxxx	xxxx	6.9	xxxx	xxxx	6.9	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
FollowUpTim:	xxxx	xxxx	3.3	xxxx	xxxx	3.3	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Capacity Module:												
Chflict Vol:	xxxx	xxxx	580	xxxx	xxxx	639	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Potent Cap.:	xxxx	xxxx	463	xxxx	xxxx	424	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Move Cap.:	xxxx	xxxx	463	xxxx	xxxx	424	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Volume/Cap:	xxxx	xxxx	0.28	xxxx	xxxx	0.13	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	1.2	xxxx	xxxx	0.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	xxxx	xxxx	15.8	xxxx	xxxx	14.7	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	*	*	C	*	*	B	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shared Queue:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shrd ConDel:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	15.8	14.7	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
ApproachLOS:	C	B	*	*	*	*	*	*	*	*	*	*
Note:	Queue reported is the number of cars per lane.											
Peak Hour Delay Signal Warrant Report												
Intersection #4 Emerson St / Embarcadero Rd												
Future Volume Alternative:	Peak Hour Warrant NOT Met											

AM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)
City of San Antonio
2000 HCM Operations (Future Volume Alternative)
03 AM Existing + Project

Intersection #5: Bryant St / Embarcadero Rd

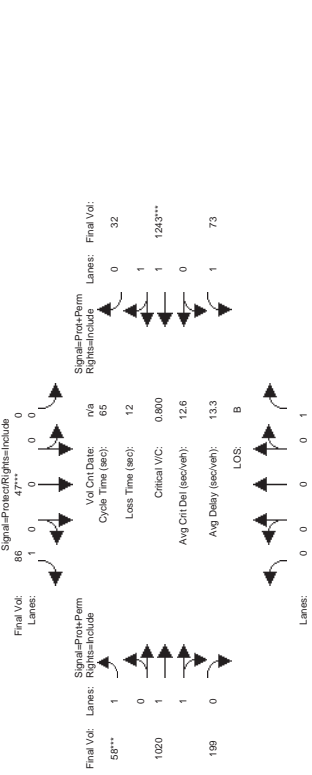


Table with columns for Street Name, Approach, Movement, and Saturation Flow Module. Rows include Bryant St (North, South, East, West) and Embarcadero Rd (North, South, East, West) with various traffic movements and their corresponding saturation flow values.

Notes: Queue reported is the number of cars per lane.

AM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)
City of San Antonio
2000 HCM Operations (Future Volume Alternative)
03 AM Existing + Project

Intersection #6: Middlefield Rd / Embarcadero Rd

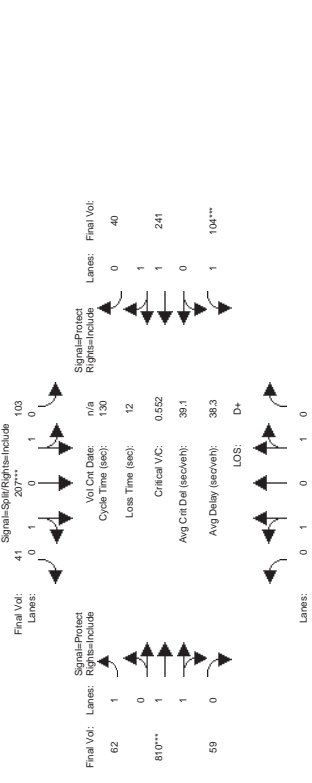
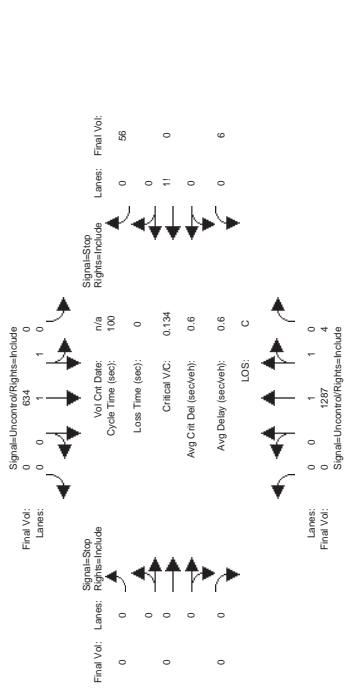


Table with columns for Street Name, Approach, Movement, and Saturation Flow Module. Rows include Middlefield Rd (North, South, East, West) and Embarcadero Rd (North, South, East, West) with various traffic movements and their corresponding saturation flow values.

Notes: Queue reported is the number of cars per lane.

Intersection #8: Alma St/Melville Ave



Street Name: Alma St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	0 1253	4 1 644	0 0 0	0 0 0
Growth Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Base:	0 1253	4 1 644	0 0 0	0 0 0
Added Vol:	0 34	0 -4 -10	0 0 0	0 0 0
PasserByVol:	0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 1287	4 -3 634	0 0 0	0 0 0
User Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.65 0.65	0.65 0.65 0.65	0.65 0.65 0.65	0.65 0.65 0.65
PHF Volume:	28 36 29	0 25 3 6 14	5 118 70 125	0 0 0 0
Reduct Vol:	0 0	0 0 0	0 0 0	0 0 0
Final Volume:	28 36 29	0 25 3 6 14	5 118 70 125	0 0 0 0

Critical Gap Module:

Critical Gap:	4.1 xxxxxx	xxxxx xxxxx xxxxx	7.1 6.5 6.2	7.1 6.5 6.2
FollowUpTim:	2.2 xxxxx	xxxxx xxxxx xxxxx	3.5 4.0 3.3	3.5 4.0 3.3

Capacity Module:

Chnlct Vol:	28 xxxxx	xxxxx xxxxx xxxxx	230 147	26 142 134 50
Potent Cap.:	1599 xxxxx	xxxxx xxxxx xxxxx	729 748 1055 833	761 1024
Move Cap.:	1599 xxxxx	xxxxx xxxxx xxxxx	586 735 1055 806	747 1024
Volume/Cap:	0.02 xxxxx	xxxxx xxxxx xxxxx	0.01 0.02 0.00	0.15 0.09 0.12

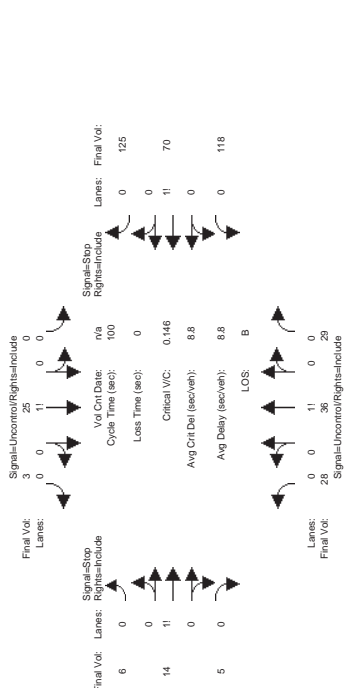
Level Of Service Module:

2Way95thQ:	0.1 xxxxx	xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx
Control Del:	7.3 xxxxx	xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx
LOS by Move:	A	* * * * *	* * * * *	* * * * *
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx xxxxx xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx xxxxx	730 xxxxx xxxxx	865 xxxxx xxxxx
Shared Queue:	xxxxx xxxxx xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx xxxxx	0.1 xxxxx xxxxx	1.7 xxxxx xxxxx
Shrd ConDel:	xxxxx xxxxx xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx xxxxx	10.1 xxxxx xxxxx	11.5 xxxxx xxxxx
Shared LOS:	* * * * *	* * * * *	* * * * *	* * * * *
ApproachDel:	xxxxxxx	xxxxxxx	10.1	11.5
ApproachLOS:	* * * * *	* * * * *	B	B

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report

Intersection #7 Emerson St / Melville Ave
 Future Volume Alternative: Peak Hour Warrant NOT Met

Intersection #7: Emerson St / Melville Ave



Street Name: Emerson St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	26 39 19	0 16 2	4 9 7	0 1 1
Growth Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Base:	26 39 19	0 16 2	4 9 7	0 1 1
Added Vol:	-8 -16	0 0 0	0 0 -4	76 44 80
PasserByVol:	0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	18 23 19	0 16 2	4 9 3	76 45 81
User Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.65 0.65	0.65 0.65 0.65	0.65 0.65 0.65	0.65 0.65 0.65
PHF Volume:	28 36 29	0 25 3 6 14	5 118 70 125	0 0 0 0
Reduct Vol:	0 0	0 0 0	0 0 0	0 0 0
Final Volume:	28 36 29	0 25 3 6 14	5 118 70 125	0 0 0 0

Critical Gap Module:

Critical Gap:	4.1 xxxxx	xxxxx xxxxx xxxxx	7.1 6.5 6.2	7.1 6.5 6.2
FollowUpTim:	2.2 xxxxx	xxxxx xxxxx xxxxx	3.5 4.0 3.3	3.5 4.0 3.3

Capacity Module:

Chnlct Vol:	28 xxxxx	xxxxx xxxxx xxxxx	230 147	26 142 134 50
Potent Cap.:	1599 xxxxx	xxxxx xxxxx xxxxx	729 748 1055 833	761 1024
Move Cap.:	1599 xxxxx	xxxxx xxxxx xxxxx	586 735 1055 806	747 1024
Volume/Cap:	0.02 xxxxx	xxxxx xxxxx xxxxx	0.01 0.02 0.00	0.15 0.09 0.12

Level Of Service Module:

2Way95thQ:	0.1 xxxxx	xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx
Control Del:	7.3 xxxxx	xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx
LOS by Move:	A	* * * * *	* * * * *	* * * * *
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx xxxxx xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx xxxxx	730 xxxxx xxxxx	865 xxxxx xxxxx
Shared Queue:	xxxxx xxxxx xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx xxxxx	0.1 xxxxx xxxxx	1.7 xxxxx xxxxx
Shrd ConDel:	xxxxx xxxxx xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx xxxxx	10.1 xxxxx xxxxx	11.5 xxxxx xxxxx
Shared LOS:	* * * * *	* * * * *	* * * * *	* * * * *
ApproachDel:	xxxxxxx	xxxxxxx	10.1	11.5
ApproachLOS:	* * * * *	* * * * *	B	B

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report

Intersection #7 Emerson St / Melville Ave
 Future Volume Alternative: Peak Hour Warrant NOT Met



Final Vol: Lanes: Signal-Stop Rights-Include: Vol Cnt Date: Cycle Time (sec): Loss Time (sec): Critical VC: Avg Cnt Del (sec/veh): Avg Delay (sec/veh): LOS: B

Intersection #9: Emerson St/Kellogg Ave

Table with columns for Street Name, Approach, Movement, Volume Module, Base Vol, Growth Adj, Initial Base, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduced Vol, PCE Adj, M/F Adj, Final Volume, Saturation Flow Module, Adjustment, Lane, Final Sat, Capacity Analysis Module, Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, AllWayAVGO, and Peak Hour Delay Signal Warrant Report.

Note: Queue reported is the number of cars per lane. Intersection #9 Emerson St/Kellogg Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

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Final Vol: Lanes: Signal-Stop Rights-Include: Vol Cnt Date: Cycle Time (sec): Loss Time (sec): Critical VC: Avg Cnt Del (sec/veh): Avg Delay (sec/veh): LOS: A

Intersection #10: Emerson St/Churchill Ave

Table with columns for Street Name, Approach, Movement, Volume Module, Base Vol, Growth Adj, Initial Base, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduced Vol, PCE Adj, M/F Adj, Final Volume, Saturation Flow Module, Adjustment, Lane, Final Sat, Capacity Analysis Module, Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, AllWayAVGO, and Peak Hour Delay Signal Warrant Report.

Note: Queue reported is the number of cars per lane. Intersection #10 Emerson St/Churchill Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

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Intersection #11: Alma St / Churchhill Ave

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include	Final Vol	Lanes	Signal=Split Rights=Include	Final Vol
84***	0	1	0	100	0	1	7
61	0	1	0	12	0	1	81
136	1	1	0	23.5	0	1	81***

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
179	0	1	0
69	0	1	0
77	0	1	0

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

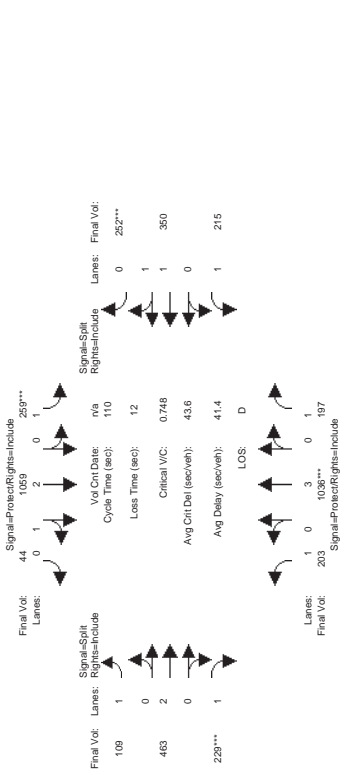
Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

Final Vol	Lanes	Signal=Project/Right=Include	Signal=Split Rights=Include
238	0	1	0
1487***	0	1	0
14	0	1	0

School PM Peak Hour - Existing + Project Condition (No Exit Restriction Alterna
Castilla School TIA
City of Palo Alto
2000 HCM Unsignalized Future Volume Alternative)
14MB Existing + Project

Intersection #1: El Camino Real / Embarcadero Rd-Galvez St



Street Name: El Camino Real Embarcadero Rd-Galvez St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
Base Vol: 187 979 186 245 1001 42 103 434 216 203 331 238
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 187 979 186 245 1001 42 103 434 216 203 331 238
Added Vol: 5 0 0 0 0 0 0 0 0 0 0 0
PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 192 979 186 245 1001 42 103 438 216 203 331 238
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 203 1036 197 259 1059 44 109 463 229 215 350 252
Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MDF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 203 1036 197 259 1059 44 109 463 229 215 350 252

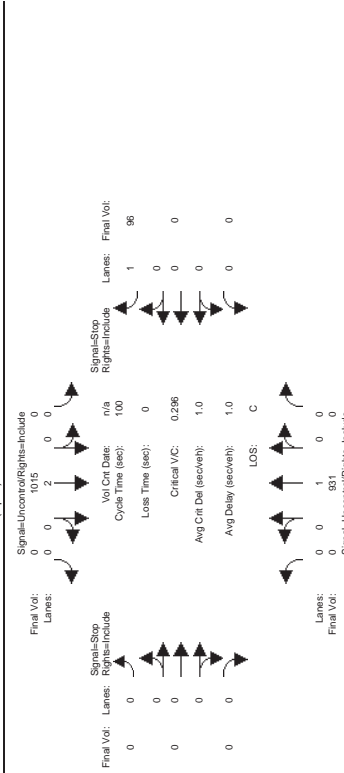
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adj/Adjustment: 0.88 1.00 0.78 0.88 0.99 0.92 0.88 1.00 0.78 0.88 0.94 0.86
Lanes: 1.00 3.00 1.00 1.00 2.00 2.87 0.13 1.00 2.00 1.00 1.00 1.12 0.88
Final Sat: 1663 5700 1488 1663 5419 227 1663 3800 1488 1663 2000 1438

Capacity Analysis Module:
Vol/Sat: 0.12 0.18 0.13 0.16 0.20 0.20 0.07 0.12 0.15 0.13 0.18 0.18
Cr/Crit Moves: ****
Green Time: 19.1 26.7 26.7 22.9 30.6 30.6 22.6 22.6 22.6 25.8 25.8 25.8
Volume/Cap: 0.70 0.75 0.54 0.75 0.70 0.70 0.32 0.59 0.75 0.55 0.75 0.75
Delay/Veh: 50.4 40.8 38.1 49.5 37.1 37.1 37.7 40.8 50.8 38.8 43.0 43.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Tech: 50.4 40.8 38.1 49.5 37.1 37.1 37.7 40.8 50.8 38.8 43.0 43.0
LOS By Move: D D D+ D D+ D+ D+ D+ D+ D+ D+ D+
HCMXvAgg: 8 12 7 11 12 12 4 8 10 7 11 11

Note: Queue reported is the number of cars per lane.

School PM Peak Hour - Existing + Project Condition (No Exit Restriction Alterna
Castilla School TIA
City of Palo Alto
2000 HCM Unsignalized Future Volume Alternative)
14MB Existing + Project

Intersection #2: Alma St / Embarcadero Rd (Spur)



Street Name: Alma St Embarcadero Rd (Spur)
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
Base Vol: 0 900 0 0 983 0 0 0 0 0 0 0 0 94
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 900 0 0 983 0 0 0 0 0 0 0 0 94
Added Vol: 0 8 0 0 7 0 0 0 0 0 0 0 0 0
PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 908 0 0 990 0 0 0 0 0 0 0 0 94
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 931 0 0 1015 0 0 0 0 0 0 0 0 96
Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Volume: 0 931 0 0 1015 0 0 0 0 0 0 0 0 96

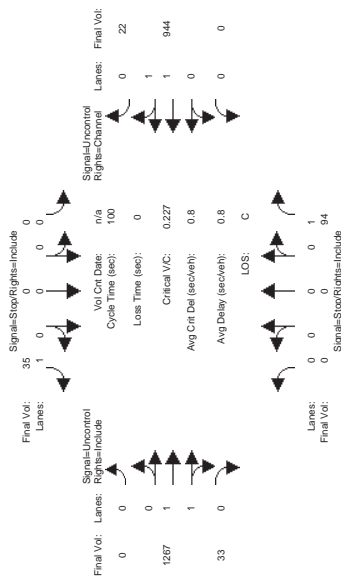
Critical Gap Module:
Critical Gap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
FollowUpTm: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Capacity Module:
Chflict Vol: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Potenc Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Move Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Volume/Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Level Of Service Module:
2Way95thQ: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Control Del: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
LOS By Move: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Shrd ConDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Shared LOS: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
ApproachLOS: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
Intersection #2 Alma St / Embarcadero Rd (Spur)
Future Volume Alternative: Peak Hour Warrant NOT Met
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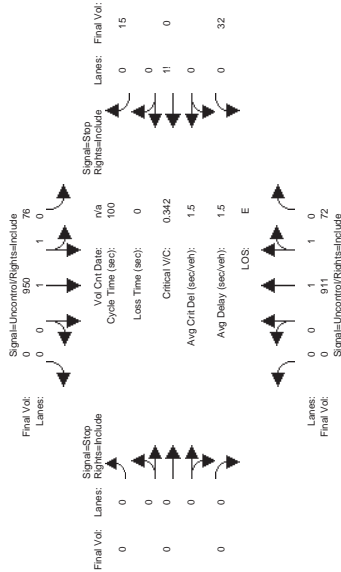
Intersection #4: Emerson St / Embarcadero Rd



Street Name:	Emerson St			Embarcadero Rd		
	North Bound		South Bound	East Bound		West Bound
	L	T - R	L - T - R	L	T - R	L - T - R
Approach:						
Volume Module:						
Base Vol:	0	0	0	27	0	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	27	0	32
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	94	0	35
Reduct Vol:	0	0	0	0	0	0
Final Volume:	0	0	0	94	0	35
Critical Gap Module:						
Critical Gap:	6.9	xxxx	xxxx	6.9	xxxx	xxxx
FollowUpTim:	xxxx	xxxx	xxxx	3.3	xxxx	xxxx
Capacity Module:						
Chflict Vol:	xxxx	xxxx	xxxx	650	xxxx	xxxx
Potent Cap.:	xxxx	xxxx	xxxx	417	xxxx	xxxx
Move Cap.:	xxxx	xxxx	xxxx	417	xxxx	xxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.23	xxxx	0.06
Level Of Service Module:						
2Way95thQ:	xxxx	xxxx	0.9	xxxx	xxxx	0.2
Control Del:	xxxx	xxxx	16.2	xxxx	xxxx	12.1
LOS by Move:	*	* C	*	B	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shared Queue:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shrd ConDel:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shared LOS:	*	*	*	*	*	*
ApproachDel:	16.2	C	12.1	B	*	*
ApproachLOS:	C	C	B	B	*	*
Note:	Queue reported is the number of cars per lane.					
	Peak Hour Delay Signal Warrant Report					
	Intersection #4 Emerson St / Embarcadero Rd					
	Future Volume Alternative: Peak Hour Warrant NOT Met					

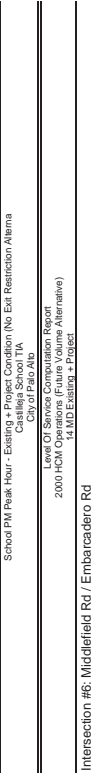
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Intersection #3: Alma St / Kingsley Ave



Street Name:	Alma St		Kingsley Ave	
	North Bound	South Bound	East Bound	West Bound
	L	T - R	L - T - R	L - T - R
Approach:				
Volume Module:				
Base Vol:	0	870	31	58
Growth Adj:	1.00	1.00	1.00	1.00
Initial Base:	0	870	31	58
Added Vol:	0	8	38	15
PasserByVol:	0	0	0	0
Initial Fut:	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96
PHF Volume:	0	911	72	76
Reduct Vol:	0	0	0	0
Final Volume:	0	911	72	76
Critical Gap Module:				
Critical Gap:	4.1	xxxx	xxxx	6.8
FollowUpTim:	xxxx	xxxx	xxxx	3.5
Capacity Module:				
Chflict Vol:	xxxx	xxxx	982	xxxx
Potent Cap.:	xxxx	xxxx	711	xxxx
Move Cap.:	xxxx	xxxx	711	xxxx
Volume/Cap:	xxxx	xxxx	0.11	xxxx
Level Of Service Module:				
2Way95thQ:	xxxx	xxxx	0.4	xxxx
Control Del:	xxxx	xxxx	10.7	xxxx
LOS by Move:	*	B	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx
Shared Queue:	xxxx	xxxx	xxxx	xxxx
Shrd ConDel:	xxxx	xxxx	xxxx	xxxx
Shared LOS:	*	*	*	*
ApproachDel:	xxxx	xxxx	xxxx	49.3
ApproachLOS:	*	*	*	E
Note:	Queue reported is the number of cars per lane.			
	Peak Hour Delay Signal Warrant Report			
	Intersection #3 Alma St / Kingsley Ave			
	Future Volume Alternative: Peak Hour Warrant NOT Met			

Traffic 6.0.0715
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Intersection #4: Bryant St / Embarcadero Rd

Street Name: Bryant St Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol: 0 30 9 0 29 46 63 983 84 35 852 26

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bes: 0 30 9 0 29 46 63 983 84 35 852 26

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 30 6 0 29 46 63 1043 141 47 852 26

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98

PHF Volume: 0 31 6 0 30 47 64 1068 144 48 872 27

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 0 31 6 0 30 47 64 1068 144 48 872 27

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adj/Adjustment: 0.92 0.88 0.90 0.92 0.92 0.84 0.88 0.98 0.90 0.88 1.00 0.92

Lanes: 0.00 0.82 0.18 0.00 0.37 0.63 1.00 1.74 0.26 1.00 1.94 0.06

Final Sat.: 0 1525 305 0 640 1015 1663 3254 440 1663 3663 112

Capacity Analysis Module:

Vol/Sat: 0.00 0.02 0.02 0.00 0.05 0.05 0.04 0.33 0.33 0.03 0.24 0.24

Crit Moves: ****

Green Time: 0.0 10.0 10.0 0.0 10.0 10.0 41.0 31.0 31.0 32.5 25.5 25.5

Volume/Cap: 0.00 0.12 0.12 0.00 0.28 0.28 0.13 0.63 0.63 0.14 0.56 0.56

Delay/Veh: 0.0 21.4 21.4 0.0 22.4 22.4 4.5 11.1 11.1 7.1 13.5 13.5

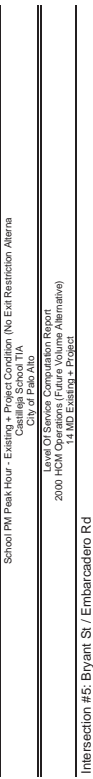
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 0.0 21.4 21.4 0.0 22.4 22.4 4.5 11.1 11.1 7.1 13.5 13.5

LOS by Move: A C+ C+ A C+ A B+

HCMAvgQ: 0 1 1 0 2 2 1 9 9 1 7 7

Note: Queue reported is the number of cars per lane.



Intersection #5: Middlefield Rd / Embarcadero Rd

Street Name: Middlefield Rd Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 10 10 10 10 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol: 84 212 51 127 178 28 37 985 50 99 183 32

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bes: 84 212 51 127 178 28 37 985 50 99 183 32

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 84 212 51 127 178 28 37 999 50 99 195 32

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90

PHF Volume: 94 236 57 141 198 31 41 1112 56 110 217 36

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 94 236 57 141 198 31 41 1112 56 110 217 36

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adj/Adjustment: 0.89 0.97 0.89 0.89 0.97 0.89 0.88 0.99 0.91 0.88 0.98 0.90

Lanes: 0.51 1.18 0.31 0.80 1.03 0.17 1.00 1.90 0.10 1.00 1.70 0.30

Final Sat.: 860 2171 522 1349 1891 298 1663 3579 179 1663 3158 518

Capacity Analysis Module:

Vol/Sat: 0.11 0.11 0.11 0.10 0.10 0.10 0.02 0.31 0.31 0.07 0.07 0.07

Crit Moves: ****

Green Time: 19.9 19.9 19.9 19.2 19.2 19.2 28.4 56.8 56.8 12.1 40.6 40.6

Volume/Cap: 0.66 0.66 0.66 0.66 0.66 0.66 0.10 0.66 0.66 0.66 0.20 0.20

Delay/Veh: 49.6 49.6 49.6 50.1 50.1 50.1 36.0 25.0 25.0 61.0 28.3 28.3

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

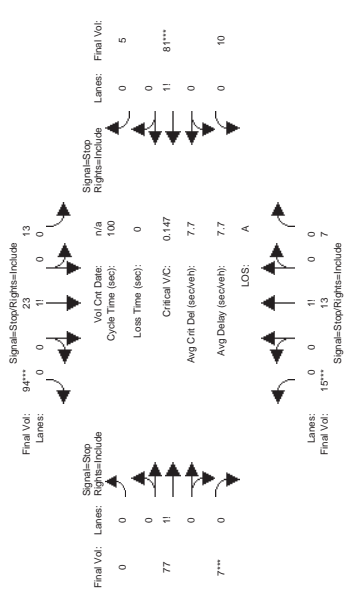
AdjDel/Veh: 49.6 49.6 49.6 50.1 50.1 50.1 36.0 25.0 25.0 61.0 28.3 28.3

LOS by Move: D D D D D D D+ C E C

HCMAvgQ: 8 8 8 8 8 8 1 17 17 5 3 3

Note: Queue reported is the number of cars per lane.

Intersection #9: Emerson St/Kellogg Ave



Street Name: Emerson St Kellogg Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	5	19	8	7	30	2	9	9	8	35	32	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	5	19	8	7	30	2	9	9	8	35	32	20
Added Vol:	0	-4	0	0	0	0	0	0	0	-3	-26	-15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	15	6	7	97	2	9	3	8	32	6	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	15	6	7	97	2	9	3	8	32	6	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	5	15	6	7	97	2	9	3	8	32	6	5

Critical Gap Module:

Critical Gap:	4.1	xxxx	xxxx	4.1	xxxx	xxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxx	2.2	xxxx	xxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Chfrict Vol:	.99	xxxx	xxxx	21	xxxx	xxxx	146	143	98	146	141	18
Potent Cap.:	1507	xxxx	xxxx	1608	xxxx	xxxx	828	752	963	828	754	1066
Move Cap.:	1507	xxxx	xxxx	1608	xxxx	xxxx	814	746	963	814	748	1066
Volume/Cap:	0.00	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.00	0.01	0.04	0.01	0.00

Level of Service Module:

2Way95thQ:	0.0	xxxx	xxxx	0.0	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	7.4	xxxx	xxxx	7.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*

Street Name: Emerson St Kellogg Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	12	15	7	13	22	31	4	98	7	10	126	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	12	15	7	13	22	31	4	98	7	10	126	5
Added Vol:	3	-2	0	0	0	0	0	-4	-21	0	-45	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	13	7	13	23	94	0	77	7	10	81	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	15	13	7	13	23	94	0	77	7	10	81	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	15	13	7	13	23	94	0	77	7	10	81	5

Critical Gap Module:

Critical Gap:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FollowUpTim:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Capacity Module:

Chfrict Vol:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Potent Cap.:	4.43	0.37	0.20	0.10	0.18	0.72	0.00	0.92	0.08	0.10	0.85	0.05
Move Cap.:	337	292	157	88	157	640	0	742	67	84	680	42
Volume/Cap:	0.04	0.04	0.04	0.15	0.15	0.15	xxxx	0.10	0.10	0.12	0.12	0.12

Level of Service Module:

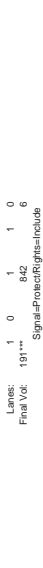
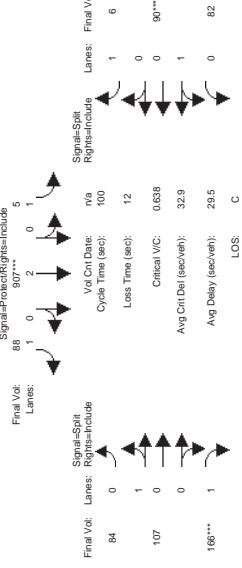
2Way95thQ:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Del:	7.6	7.6	7.6	7.6	7.6	7.6	0.0	7.8	7.9	7.9	7.9	7.9
LOS by Move:	A	A	A	A	A	A	*	A	A	A	A	A

Note: Queue reported is the number of cars per lane.

Intersection #10 Emerson St/Churchill Ave

School PM Peak Hour - Existing + Project Condition (No Exit Restriction - Alterna
 City of Escondido
 2000 HCM Operations (Future Volume Alternative)
 14.MB Existing + Project

Intersection #11: Alma St / Churchhill Ave



Street Name:	North Bound		South Bound		East Bound		West Bound		
	L	T	R	L	T	R	L	T	R
Approach:	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:	187	795	27	5	890	86	77	109	163
Base Vol:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	187	795	27	5	890	86	77	109	163
Added Vol:	0	31	-21	0	0	0	5	-4	0
PasserByVol:	0	0	0	0	0	0	0	0	0
Initial Fut:	187	826	6	5	890	86	82	105	163
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	191	842	6	5	907	88	84	107	166
Reduced Vol:	0	0	0	0	0	0	0	0	0
Reduced Vol:	191	842	6	5	907	88	84	107	166
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
M/F Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	191	842	6	5	907	88	84	107	166

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	1.00	0.92	0.88	1.00	0.78	0.90	0.98	0.78
Lanes:	1.00	1.98	0.02	1.00	2.00	1.00	0.46	0.54	1.00
Final Sat:	1663	3766	27	1663	3800	1488	786	1007	1488

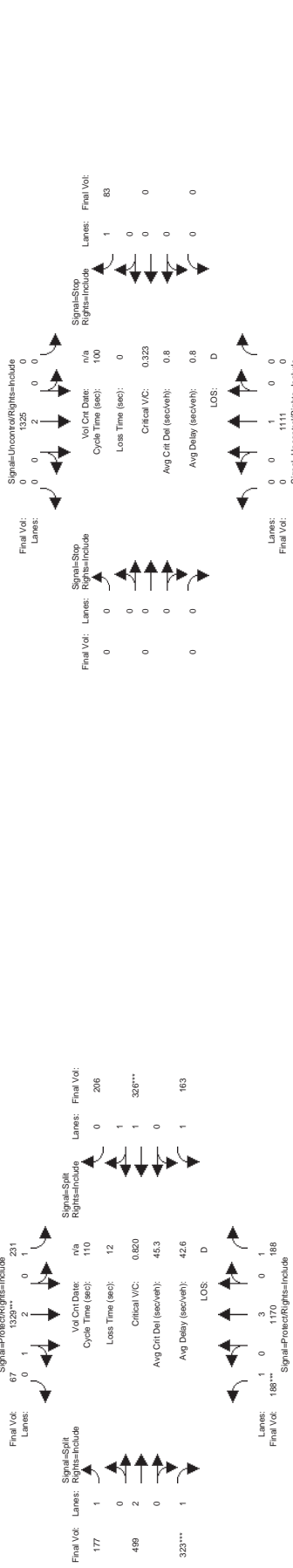
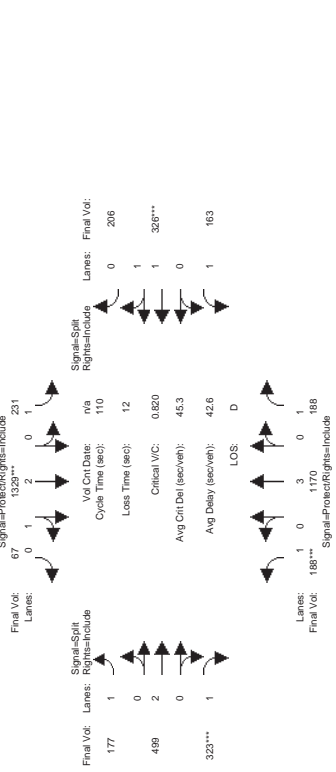
Capacity Analysis Module:

Vol/Sat:	0.11	0.22	0.22	0.00	0.24	0.06	0.11	0.11	0.11
Crit Moves:	****	****	****	****	****	****	****	****	****
Green Time:	18.0	42.2	42.2	13.2	37.4	37.4	17.5	17.5	15.1
Volume/Cap:	0.64	0.53	0.53	0.02	0.64	0.16	0.61	0.61	0.64
Delay/Veh:	42.5	21.8	21.8	37.8	26.7	20.9	41.5	41.5	44.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.5	21.8	21.8	37.8	26.7	20.9	41.5	41.5	44.9
LOS by Move:	D	C+	C+	D	C	C+	D	D	D
HCM2kVagQ:	7	10	10	0	12	2	6	6	6

Note: Queue reported is the number of cars per lane.

Intersection #1: El Camino Real / Embarcadero Rd-Galvez St

Intersection #2: Alma St / Embarcadero Rd (Spur)



Street Name:	North Bound	South Bound	East Bound	West Bound
Approach:	L - T - R	L - T - R	L - T - R	L - T - R
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Volume Module:	7 10 10 4.0	7 10 10 4.0	7 10 10 4.0	7 10 10 4.0
Base Vol:	177 1121 180	221 1273 64	170 475 309	156 312 197
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Base:	177 1121 180	221 1273 64	170 475 309	156 312 197
Added Vol:	3 0 0	0 0 0	3 0 0	0 0 0
PassesByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	180 1121 180	221 1273 64	170 478 309	156 312 197
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.96 0.96 0.96	0.96 0.96 0.96	0.96 0.96 0.96	0.96 0.96 0.96
PHF Volume:	188 1170 188	231 1329 67	177 499 323	163 326 206
Reduced Vol:	0 0 0	0 0 0	0 0 0	0 0 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MUF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Volume:	188 1170 188	231 1329 67	177 499 323	163 326 206
Saturation Flow Module:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adj Sat:	0.88 0.88 0.88	0.91 0.88 0.91	0.88 0.88 0.88	0.88 0.88 0.88
Final Sat:	1663 5700 1488	1663 5367 270	1663 3800 1488	1663 2124 1341
Capacity Analysis Module:	0.11 0.21	0.13 0.14 0.25	0.25 0.11 0.13	0.22 0.10 0.15
Vol/Sat:	0.11 0.21	0.13 0.14 0.25	0.25 0.11 0.13	0.22 0.10 0.15
Crit. Moves:	15 2 28 9	28 9 19 5	33 2 33 2	29 1 29 1
Green Time:	0.82 0.78	0.48 0.78 0.82	0.82 0.40 0.50	0.82 0.52 0.82
Volume/Cap:	66.5 40.4	35.2 56.0 38.9	33.9 34.7 50.9	41.9 51.1 51.1
Delay/Veh:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
User Del Adj:	66.5 40.4	35.2 56.0 38.9	33.9 34.7 50.9	41.9 51.1 51.1
Adj Del/Tch:	6 14 6	10 17 6	7 13 6	11 6 11
LOS By Move:	D D D	D+ D+ D+	D+ C- D-	D D D
HCM2kVg9:	9 14 6	10 17 6	7 13 6	11 6 11

Street Name:	North Bound	South Bound	East Bound	West Bound
Approach:	L - T - R	L - T - R	L - T - R	L - T - R
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Volume Module:	0 0 0	0 0 0	0 0 0	0 0 0
Base Vol:	0 1078 0	0 1289 0	0 0 0	0 0 0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Base:	0 1078 0	0 1289 0	0 0 0	0 0 0
Added Vol:	0 6 0	0 4 0	0 0 0	0 0 0
PassesByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 1084 0	0 1293 0	0 0 0	0 0 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.98 0.98 0.98	0.98 0.98 0.98	0.98 0.98 0.98	0.98 0.98 0.98
PHF Volume:	0 1111 0	0 1325 0	0 0 0	0 0 0
Reduced Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Final Volume:	0 1111 0	0 1325 0	0 0 0	0 0 0
Critical Gap Module:	xxxx	xxxx	xxxx	xxxx
Critical Gap:	xxxx	xxxx	xxxx	xxxx
FollowUpTime:	xxxx	xxxx	xxxx	xxxx
Capacity Module:	xxxx	xxxx	xxxx	xxxx
Conflict Vol:	xxxx	xxxx	xxxx	xxxx
Potential Cap:	xxxx	xxxx	xxxx	xxxx
Move Cap:	xxxx	xxxx	xxxx	xxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx
Level of Service Module:	xxxx	xxxx	xxxx	xxxx
2Way95thQ:	xxxx	xxxx	xxxx	xxxx
Control Del:	xxxx	xxxx	xxxx	xxxx
LOS By Move:	D	D	D	D
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap:	xxxx	xxxx	xxxx	xxxx
ShareQueue:	xxxx	xxxx	xxxx	xxxx
Shrd ConDel:	xxxx	xxxx	xxxx	xxxx
Shared LOS:	D	D	D	D
ApproachDel:	xxxx	xxxx	xxxx	xxxx
ApproachLOS:	D	D	D	D
Note:	Queue reported is the number of cars per lane.			

COMPARE
 PM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)
 City of San Antonio
 Castilleja School TIA
 2000 HCM Unsignalized Future Volume Alternative
 04 PM Existing + Project

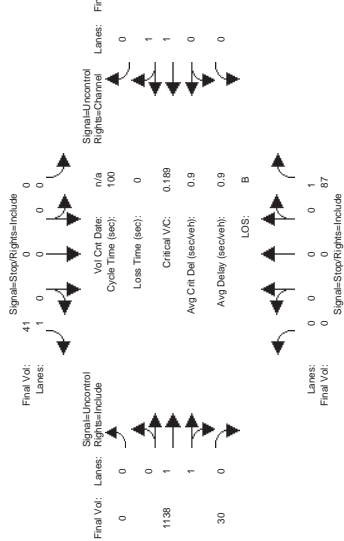
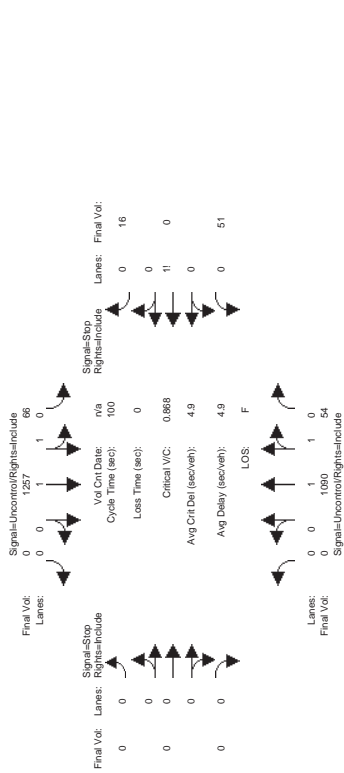
COMPARE
 PM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)
 City of San Antonio
 Castilleja School TIA
 2000 HCM Unsignalized Future Volume Alternative
 04 PM Existing + Project

COMPARE
 PM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)
 City of San Antonio
 Castilleja School TIA
 2000 HCM Unsignalized Future Volume Alternative
 04 PM Existing + Project

COMPARE
 PM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)
 City of San Antonio
 Castilleja School TIA
 2000 HCM Unsignalized Future Volume Alternative
 04 PM Existing + Project

Intersection #3: Alma St / Kingsley Ave

Intersection #4: Emerson St / Embarcadero Rd



Street Name: Alma St Kingsley Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
 Base Vol: 0 1060 29 55 1234 0 0 0 0 0 0 0 50 0 16
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1060 29 55 1234 0 0 0 0 0 0 0 50 0 16
 Added Vol: 0 6 24 10 -5 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 1066 53 65 1229 0 0 0 0 0 0 0 50 0 16
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 0 1090 54 66 1257 0 0 0 0 0 0 0 51 0 16
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 0 1090 54 66 1257 0 0 0 0 0 0 0 51 0 16

Critical Gap Module:
 Critical Gap:xxxxx xxxxx 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx 6.8 6.5 6.9
 FollowUpTim:xxxxx xxxxx 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3

Capacity Module:
 Chnlct Vol: xxxx xxxxx xxxxx 1144 xxxxx xxxxx xxxxx xxxxx xxxxx 1878 2507 572
 Potenc Cap.: xxxx xxxxx xxxxx 618 xxxxx xxxxx xxxxx xxxxx xxxxx 64 29 468
 Move Cap.: xxxx xxxxx xxxxx 0.11 xxxxx xxxxx xxxxx xxxxx xxxxx 59 26 468
 Volume/Cap: xxxx xxxxx xxxxx 0.11 xxxxx xxxxx xxxxx xxxxx xxxxx 0.87 0.00 0.03

Level Of Service Module:
 2Way95thQ: xxxx xxxxx xxxxx 0.4 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Control Del:xxxxx xxxxx xxxxx 11.5 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 LOS by Move: B * * * * * B * * * * * B * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 75 xxxxx
 SharedQueue:xxxxx xxxxx xxxxx 0.4 xxxxx xxxxx xxxxx xxxxx xxxxx 4.6 xxxxx
 Shrd ConDel:xxxxx xxxxx xxxxx 11.5 xxxxx xxxxx xxxxx xxxxx xxxxx 173 xxxxx
 Shared LOS: B * * * * * B * * * * * B * * * * * F * * * * *
 ApproachDel: xxxxxx xxxxxx 172.7
 ApproachLOS: B * * * * * B * * * * *
 Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #3 Alma St / Kingsley Ave
 Future Volume Alternative: Peak Hour Warrant NOT Met

Street Name: Emerson St Embarcadero Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
 Base Vol: 0 0 46 0 0 41 0 1087 30 0 692 17
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 0 46 0 0 41 0 1087 30 0 692 17
 Added Vol: 0 0 40 0 0 0 0 0 37 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 86 0 0 41 0 1124 30 0 692 17
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99
 PHF Volume: 0 0 87 0 0 41 0 1138 30 0 700 17
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 0 0 87 0 0 41 0 1138 30 0 700 17

Critical Gap Module:
 Critical Gap:xxxxx xxxxx 6.9 xxxxx xxxxx 6.9 xxxxx xxxxx xxxxx xxxxx xxxxx
 FollowUpTim:xxxxx xxxxx 3.3 xxxxx xxxxx 3.3 xxxxx xxxxx xxxxx xxxxx xxxxx

Capacity Module:
 Chnlct Vol: xxxx xxxxx xxxxx 584 xxxxx xxxxx 350 xxxxx xxxxx xxxxx xxxxx xxxxx
 Potenc Cap.: xxxx xxxxx xxxxx 460 xxxxx xxxxx 652 xxxxx xxxxx xxxxx xxxxx xxxxx
 Move Cap.: xxxx xxxxx xxxxx 460 xxxxx xxxxx 652 xxxxx xxxxx xxxxx xxxxx xxxxx
 Volume/Cap: xxxx xxxxx xxxxx 0.19 xxxxx xxxxx 0.06 xxxxx xxxxx xxxxx xxxxx xxxxx

Level Of Service Module:
 2Way95thQ: xxxx xxxxx xxxxx 0.7 xxxxx xxxxx 0.2 xxxxx xxxxx xxxxx xxxxx xxxxx
 Control Del:xxxxx xxxxx xxxxx 14.6 xxxxx xxxxx 10.9 xxxxx xxxxx xxxxx xxxxx xxxxx
 LOS by Move: B * * * * * B * * * * * B * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 SharedQueue:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shrd ConDel:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: B * * * * * B * * * * * B * * * * * * * * * *
 ApproachDel: 14.6 10.9 xxxxxx xxxxxx
 ApproachLOS: B * * * * * B * * * * *
 Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #4 Emerson St / Embarcadero Rd
 Future Volume Alternative: Peak Hour Warrant NOT Met

PM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)
City of San Antonio - Bryant
2000 HCM Operations (Future Volume Alternative)
04 PM Existing + Project

Intersection #5: Bryant St / Embarcadero Rd

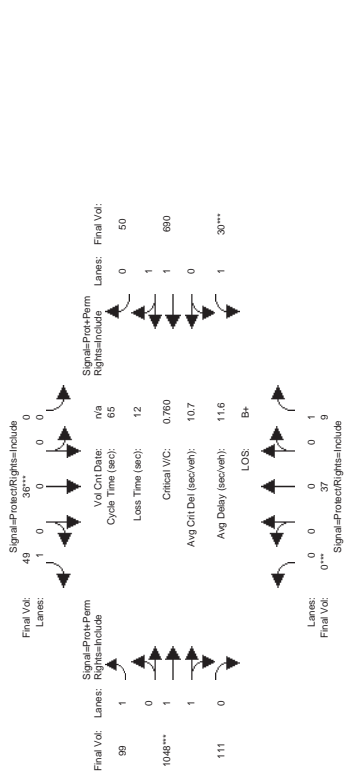


Table with columns: Street Name, Approach, Movement, North Bound, South Bound, East Bound, West Bound. Includes Volume Module and Saturation Flow Module data.

Note: Queue reported is the number of cars per lane.
LOS: B+
Signal-Split/Rights-Include

PM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)
City of San Antonio - Bryant
2000 HCM Operations (Future Volume Alternative)
04 PM Existing + Project

Intersection #6: Middlefield Rd / Embarcadero Rd

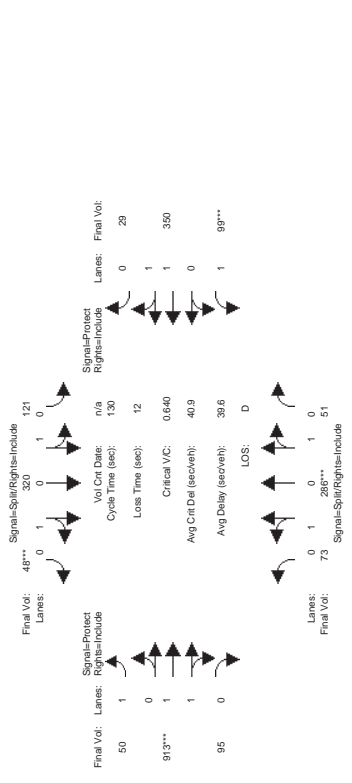
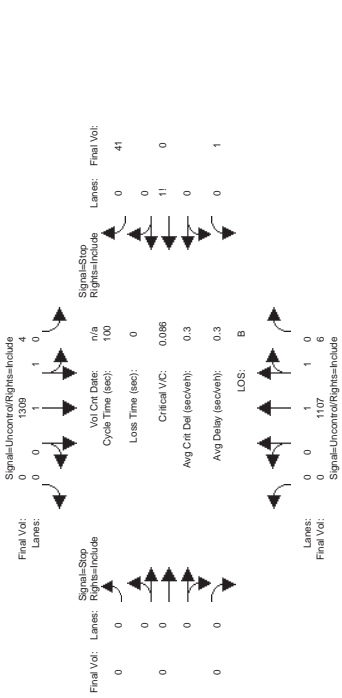


Table with columns: Street Name, Approach, Movement, North Bound, South Bound, East Bound, West Bound. Includes Volume Module and Saturation Flow Module data.

Note: Queue reported is the number of cars per lane.
LOS: D
Signal-Split/Rights-Include

COMPARARE
 PM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)
 City of San Antonio
 Castles School TIA
 2000 HCM Unsignalized Future Volume Alternative
 04 PM Easting + Project

Intersection #8: Alma St/Melville Ave



Street Name: Alma St South Bound East Bound Melville Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	0	1100	6	6	1313	0	0	0	0	0	0	1	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	1100	6	6	1313	0	0	0	0	0	0	1	0	19
Added Vol:	0	7	0	-2	-4	0	0	0	0	0	0	0	0	22
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1107	6	4	1309	0	0	0	0	0	0	1	0	41
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
PHF Volume:	0	1107	6	4	1309	0	0	0	0	0	0	1	0	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1107	6	4	1309	0	0	0	0	0	0	1	0	41

Critical Gap Module:
 Critical Gap: 4.1 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx xxxxx xxxxx 6.8 6.5 6.9
 FollowUpTim: 2.2 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3

Capacity Module:
 Chrlct Vol: xxxxx xxxxx xxxxx 1113 xxxxx xxxxx xxxxx xxxxx xxxxx 1773 2427 557
 Potent Cap.: xxxxx xxxxx xxxxx 635 xxxxx xxxxx xxxxx xxxxx xxxxx 76 33 479
 Move Cap.: xxxxx xxxxx xxxxx 635 xxxxx xxxxx xxxxx xxxxx xxxxx 75 32 479
 Volume/Cap.: xxxxx xxxxx xxxxx 0.01 xxxxx xxxxx xxxxx xxxxx xxxxx 0.01 0.00 0.09

Level of Service Module:
 2Way95thQ: xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Control Del: xxxxx xxxxx xxxxx 10.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 LOS by Move: B B * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxx 852 xxxxx xxxxx xxxxx xxxxx xxxxx 908 xxxxx
 SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.3 xxxxx
 Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 14.4 xxxxx
 Shared LOS: * * * * * * * A * * * * * * *
 ApproachDel: xxxxxxx xxxxxxx 9.3
 ApproachLOS: A A
 Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

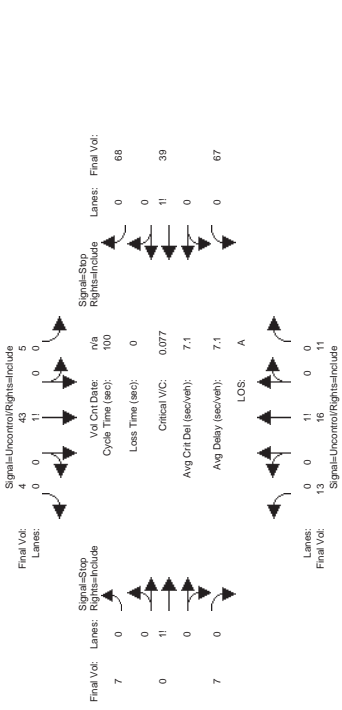
Intersection #8 Alma St/Melville Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

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COMPARARE
 PM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)
 City of San Antonio
 Castles School TIA
 2000 HCM Unsignalized Future Volume Alternative
 04 PM Easting + Project

Intersection #7: Emerson St / Melville Ave



Street Name: Emerson St South Bound East Bound Melville Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	15	22	8	4	32	3	5	0	7	3	2	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	15	22	8	4	32	3	5	0	7	3	2	1
Added Vol:	-5	-10	0	0	0	0	0	0	-2	47	27	50
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	12	8	4	32	3	5	0	5	50	29	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
PHF Volume:	13	16	11	5	43	4	7	0	7	67	39	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	13	16	11	5	43	4	7	0	7	67	39	68

Critical Gap Module:
 Critical Gap: 4.1 xxxxx xxxxx 4.1 xxxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
 FollowUpTim: 2.2 xxxxx xxxxx 2.2 xxxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
 Chrlct Vol: 47 xxxxx xxxxx 27 xxxxx xxxxx 157 109 45 107 105 21
 Potent Cap.: 1574 xxxxx xxxxx 1600 xxxxx xxxxx 814 785 1031 877 789 1062
 Move Cap.: 1574 xxxxx xxxxx 1600 xxxxx xxxxx 727 776 1031 864 779 1062
 Volume/Cap.: 0.01 xxxxx xxxxx 0.00 xxxxx xxxxx 0.01 0.00 0.01 0.08 0.05 0.06

Level of Service Module:
 2Way95thQ: 0.0 xxxxx xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Control Del: 7.3 xxxxx xxxxx 7.3 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 LOS by Move: A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 852 xxxxx xxxxx 908 xxxxx
 SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.7 xxxxx
 Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 9.9 xxxxx
 Shared LOS: * * * * * * * A * * * * * * *
 ApproachDel: xxxxxxx xxxxxxx 9.3
 ApproachLOS: A A
 Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #7 Emerson St / Melville Ave

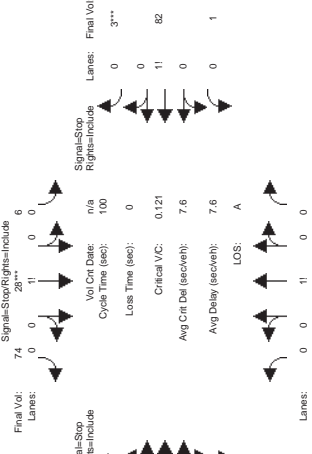
Future Volume Alternative: Peak Hour Warrant NOT Met

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COMPARE

PM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)
 City of San Angelo - Baytown
 2000 HCM Unsignalized (Future Volume Alternative)
 04 PM Existing + Project

Intersection #10: Emerson St/Churchill Ave

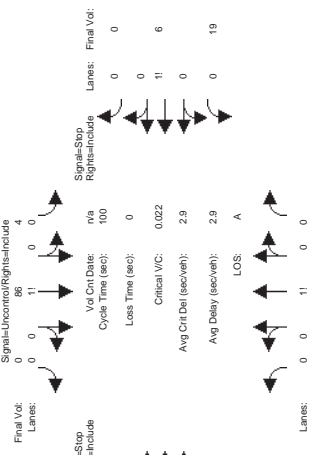


Street Name: Emerson St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Volume Module:
 Base Vol: 11 5 2 6 27 32 3 89 11 1 112 3
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 11 5 2 6 27 32 3 89 11 1 112 3
 Added Vol: 2 -2 0 0 1 42 -2 -13 0 0 -30 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 13 3 2 6 28 74 1 76 11 1 82 3
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 13 3 2 6 28 74 1 76 11 1 82 3
 Reduced Vol: 13 3 2 6 28 74 1 76 11 1 82 3
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 13 3 2 6 28 74 1 76 11 1 82 3
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lane: 0.72 0.17 0.11 0.06 0.26 0.68 0.01 0.86 0.13 0.01 0.96 0.03
 Final Sat: 561 129 86 50 231 611 10 724 105 10 790 29
 Capacity Analysis Module:
 Vol/Sat: 0.02 0.02 0.02 0.12 0.12 0.12 0.10 0.10 0.10 0.10 0.10 0.10
 Crit Moves: ****
 Delay/Veh: 7.5 7.5 7.5 7.4 7.4 7.4 7.6 7.6 7.6 7.6 7.7 7.7
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 7.5 7.5 7.5 7.4 7.4 7.4 7.6 7.6 7.6 7.6 7.7 7.7
 LOS by Move: A A A A A A A A A A A A
 ApproachDel: 7.5 7.4 7.4 7.6 7.7 7.7
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00
 ApprAdjDel: 7.5 7.4 7.4 7.6 7.7 7.7
 LOS by Appr: A A A A A A
 AllWayAVGO: 0.0 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1
 Note: Queue reported is the number of cars per lane.
 ***** Peak Hour Volume Signal Warrant Report [Urban] *****
 Intersection #10 Emerson St/Churchill Ave

COMPARE

PM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)
 City of San Angelo - Baytown
 2000 HCM Unsignalized (Future Volume Alternative)
 04 PM Existing + Project

Intersection #9: Emerson St/Kellogg Ave



Street Name: Emerson St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Volume Module:
 Base Vol: 0 6 4 4 42 0 1 15 2 21 23 10
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 6 4 4 42 0 1 15 2 21 23 10
 Added Vol: 0 -2 -2 0 44 0 0 0 -4 0 -2 -17 -10
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 4 2 4 86 0 1 11 2 19 6 6
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 4 2 4 86 0 1 11 2 19 6 6
 Reduced Vol: 0 4 2 4 86 0 1 11 2 19 6 6
 Final Volume: 0 4 2 4 86 0 1 11 2 19 6 6
 Critical Gap Module:
 Critical Gap:xxxxx xxxx xxxxxx 4.1 xxxx xxxxxx 7.1 6.5 6.2 7.1 6.5 xxxxxx
 FollowUpTim:xxxxx xxxx xxxxxx 2.2 xxxx xxxxxx 3.5 4.0 3.3 3.5 4.0 xxxxxx
 Capacity Module:
 Potential Vol: xxxx xxxx xxxxxx 6 xxxx xxxxxx 102 100 86 106 99 xxxxxx
 Potent Cap.: xxxx xxxx xxxxxx 1628 xxxx xxxxxx 884 794 978 879 795 xxxxxx
 Move Cap.: xxxx xxxx xxxxxx 1628 xxxx xxxxxx 877 792 978 866 793 xxxxxx
 Volume/Cap: xxxx xxxx xxxxxx 0.00 xxxx xxxxxx 0.00 0.01 0.00 0.02 0.01 xxxxxx
 Level of Service Module:
 2Way95thQ: xxxx xxxx xxxxxx 0.0 xxxx xxxxxx xxxxx xxxxx xxxxxx
 Control Del:xxxxx xxxxx xxxxxx 7.2 xxxx xxxxxx xxxxxx xxxxxx xxxxxx
 LOS by Move: * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxxx xxxxx 820 xxxxx 847 xxxxx xxxxxx
 SharedQueue:xxxxx xxxxx xxxxxx 0.0 xxxx xxxxxx xxxxx 0.1 xxxxx xxxxxx
 Shrd ConDel:xxxxx xxxxx xxxxxx 7.2 xxxx xxxxxx xxxxx 9.4 xxxxx xxxxxx
 Shared LOS: * * * * * A * * * * * A * * * * *
 ApproachDel: xxxxxx xxxxxxxx 9.5
 ApproachLOS: * * * * * A
 Note: Queue reported is the number of cars per lane.
 ***** Peak Hour Delay Signal Warrant Report *****
 Intersection #9 Emerson St/Kellogg Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

PM Peak Hour - Existing + Project Conditions (No Exit Restriction Alternative)

City of Redwood City
2000 HCM Operations (Future Volume Alternative)
04 PM Existing + Project

Intersection #11: Alma St / Churchhill Ave



Final Vol: 194***
Lanes: 1 0 1 1 1 0
Signal=Project/Rights=Include

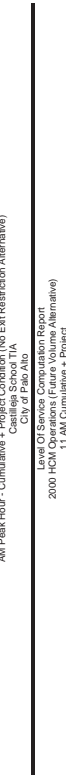
Street Name: Alma St
Approach: North Bound South Bound East Bound West Bound

Table with 12 columns: Movement, L, T, R, L, T, R, L, T, R, L, T, R. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, M/F Adj, and Final Volume.

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.88 1.00 0.92 0.88 1.00 0.78 0.90 0.98 0.78 0.90 0.98 0.78
Lanes: 1.00 1.98 0.02 1.00 2.00 1.00 0.49 0.51 1.00 0.51 0.49 1.00
Final Sat.: 1663 3764 29 1663 3800 1488 838 946 1488 876 904 1488

Capacity Analysis Module:
Vol/Sat: 0.12 0.30 0.30 0.00 0.34 0.08 0.10 0.10 0.15 0.12 0.12 0.01
Crit Moves: ****
Green Time: 14.2 45.0 45.0 10.6 41.4 41.4 18.3 18.3 14.1 14.1 14.1 14.1
Volume/Cap: 0.82 0.66 0.66 0.02 0.82 0.20 0.55 0.55 0.82 0.82 0.82 0.05
Delay/Veh: 62.0 22.5 22.5 40.1 29.7 18.8 39.2 39.2 57.3 61.1 61.1 37.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 62.0 22.5 22.5 40.1 29.7 18.8 39.2 39.2 57.3 61.1 61.1 37.3
LOS by Move: E C+ C+ D C B- D D E+ E D+
HCM2kAvqQ: 9 14 14 0 20 3 6 6 10 9 9 0

Note: Queue reported is the number of cars per lane.



Final Vol: 147 1270 396
 Lanes: 0 1 2 0 1
 Signal-Protect/Right-Include
 Final Vol: 191*** 0 362
 Lanes: 0 1 1
 Signal-Stop Right-Include
 Vol Cut Date: n/a
 Cycle Time (sec): 110
 Loss Time (sec): 12
 Critical VC: 0.971
 Avg Crit Del (sec/veh): 65.3
 Avg Delay (sec/veh): 64.3
 LOS: E

Final Vol: 0 0
 Lanes: 0 0
 Signal-Stop Right-Include
 Vol Cut Date: n/a
 Cycle Time (sec): 100
 Loss Time (sec): 0
 Critical VC: 0.821
 Avg Crit Del (sec/veh): 3.8
 Avg Delay (sec/veh): 3.8
 LOS: F

Street Name: El Camino Real Embarcadero Rd-Galvez St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Street Name: Alma St Embarcadero Rd (Spur)
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	346	1260	166	396	1270	147	191	416	138	200	654	362
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	346	1260	166	396	1270	147	191	416	138	200	654	362
Added Vol:	5	0	0	0	0	0	0	0	0	0	0	0
PassesByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	351	1260	166	396	1270	147	191	423	138	200	654	362
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	351	1260	166	396	1270	147	191	423	138	200	654	362
Reduce Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	351	1260	166	396	1270	147	191	423	138	200	654	362
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MDF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	351	1260	166	396	1270	147	191	423	138	200	654	362

Volume Module:

Base Vol:	0	1711	0	0	937	0	0	0	0	0	0	92
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	1711	0	0	937	0	0	0	0	0	0	92
Added Vol:	0	9	0	0	11	0	0	0	0	0	0	0
PassesByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1720	0	0	948	0	0	0	0	0	0	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1720	0	0	948	0	0	0	0	0	0	92
Reduce Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1720	0	0	948	0	0	0	0	0	0	92

Critical Gap Module:
 Critical Gap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 FollowUpTim: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Capacity Module:
 Chflict Vol: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Potenc Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Move Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Volume/Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Level Of Service Module:
 2Way95thQ: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Control Del: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 LOS by Move: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 ShareQueue: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shrd ConDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shared LOS: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachLOS: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Critical Gap Module:
 Critical Gap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 FollowUpTim: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Capacity Module:
 Chflict Vol: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Potenc Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Move Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Volume/Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Level Of Service Module:
 2Way95thQ: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Control Del: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 LOS by Move: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 ShareQueue: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shrd ConDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shared LOS: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachLOS: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #2 Alma St / Embarcadero Rd (Spur)
 Future Volume Alternative: Peak Hour Warrant NOT Met
 Traffic 6.0.0715 Copyright (c) 2008 Dowling Associates, Inc. Licensed to WTRANS, Santa Rosa, CA

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #2 Alma St / Embarcadero Rd (Spur)
 Future Volume Alternative: Peak Hour Warrant NOT Met
 Traffic 6.0.0715 Copyright (c) 2008 Dowling Associates, Inc. Licensed to WTRANS, Santa Rosa, CA

2000 HCM Unsignalized Future Volume (Alternative)
11 AM Cumulative + Project

Signal=Stop/Rights=Include
Final Vol: 48 0 0 0 0
Lanes: 1 0 0 0 0

Signal=Uncontrol
Rights=Include
Final Vol: 0 0
Lanes: 0 0

Signal=Uncontrol
Rights=Channel
Final Vol: n/a
Cycle Time (sec): 100
Loss Time (sec): 0
Critical VC: 0.281
Avg Del (sec/veh): 0.9
Avg Del (sec/veh): 0.9
LOS: C

2000 HCM Unsignalized Future Volume (Alternative)
11 AM Cumulative + Project

Signal=Stop/Rights=Include
Final Vol: 0 0 0 0 0
Lanes: 0 0 0 0 0

Signal=Uncontrol
Rights=Include
Final Vol: 0 0
Lanes: 0 0

Signal=Uncontrol
Rights=Channel
Final Vol: n/a
Cycle Time (sec): 100
Loss Time (sec): 0
Critical VC: 3.891
Avg Del (sec/veh): 58.2
Avg Del (sec/veh): 58.2
LOS: F

Intersection #4: Emerson St / Embarcadero Rd

Street Name: Emerson St South Bound East Bound West Bound
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
Base Vol: 0 0 52 0 0 48 0 1210 12 0 1470 16
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bas: 0 0 52 0 0 48 0 1210 12 0 1470 16
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 116 0 0 48 0 1302 12 0 1470 16
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 116 0 0 48 0 1302 12 0 1470 16
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 116 0 0 48 0 1302 12 0 1470 16

Critical Gap Module:
Critical Gap: 6.9 xxxxx xxxxx 6.9 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
FollowUpTim: xxxxx xxxxx 3.3 xxxxx xxxxx 3.3 xxxxx xxxxx xxxxx xxxxx xxxxx

Capacity Module:
Chflict Vol: xxx xxx xxx 657 xxx xxx 735 xxx xxx xxx xxx xxx xxx
Potenc Cap: xxx xxx xxx 412 xxx xxx 367 xxx xxx xxx xxx xxx xxx
Move Cap: xxx xxx xxx 412 xxx xxx 367 xxx xxx xxx xxx xxx xxx
Volume/Cap: xxx xxx xxx 0.28 xxx xxx 0.13 xxx xxx xxx xxx xxx xxx

Level of Service Module:
2Way95thQ: xxx xxx xxx 1.1 xxx xxx 0.4 xxx xxx xxx xxx xxx xxx
Control Del: xxx xxx xxx 17.1 xxx xxx 16.3 xxx xxx xxx xxx xxx xxx
LOS by Move: * * * C * * * C * * * C * * * C * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap: xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx
SharedQueue: xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx
Shrd ConDel: xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx
Shared LOS: *
ApproachDel: 17.1 16.3 xxx xxx * * * * * * * * * *
ApproachLOS: C C * * * * * * * * * * * * * * * *
Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report

Intersection #4 Emerson St / Embarcadero Rd

Future Volume Alternative: Peak Hour Warrant NOT Met

Intersection #3: Alma St / Kingsley Ave

Street Name: Alma St South Bound East Bound West Bound
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:
Base Vol: 0 1688 122 69 872 0 0 0 0 0 84 0 19
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bas: 0 1688 122 69 872 0 0 0 0 0 84 0 19
Added Vol: 0 0 61 25 -14 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 1697 183 94 858 0 0 0 0 0 84 0 19
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1697 183 94 858 0 0 0 0 0 84 0 19
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 1697 183 94 858 0 0 0 0 0 84 0 19

Critical Gap Module:
Critical Gap: 4.1 xxx xxx xxx xxx xxx xxx xxx xxx xxx 6.8 6.5 6.9
FollowUpTim: xxx xxx xxx xxx xxx xxx xxx xxx xxx 3.5 4.0 3.3

Capacity Module:
Chflict Vol: xxx xxx xxx 1880 xxx xxx xxx xxx xxx xxx 2406 2835 940
Potenc Cap: xxx xxx xxx 323 xxx xxx xxx xxx xxx xxx 28 18 269
Move Cap: xxx xxx xxx 323 xxx xxx xxx xxx xxx xxx 22 12 269
Volume/Cap: xxx xxx xxx 0.29 xxx xxx xxx xxx xxx xxx 3.89 0.00 0.07

Level of Service Module:
2Way95thQ: xxx xxx xxx 1.2 xxx xxx xxx xxx xxx xxx xxx xxx xxx
Control Del: xxx xxx xxx 20.6 xxx xxx xxx xxx xxx xxx xxx xxx xxx
LOS by Move: * * * C * * * C * * * C * * * C * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap: xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx 26 xxx
SharedQueue: xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx 12.7 xxx
Shrd ConDel: xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx 1641 xxx
Shared LOS: * * * * * C * * * * * * * * * * * * * * * *
ApproachDel: xxx xxx * * * * * * * * * * * * * * * * * *
ApproachLOS: *
Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report

Intersection #3 Alma St / Kingsley Ave

Future Volume Alternative: Peak Hour Warrant Met

Intersection #4 Emerson St / Embarcadero Rd

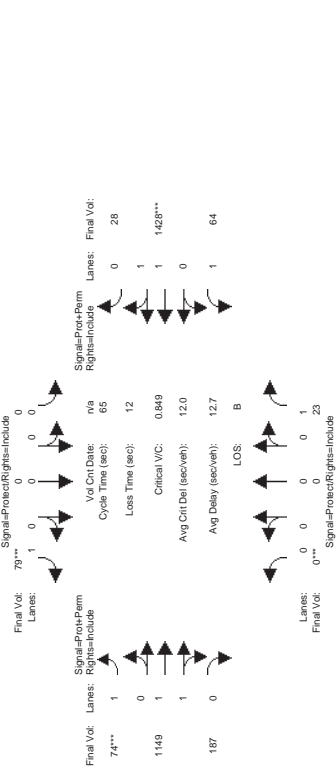
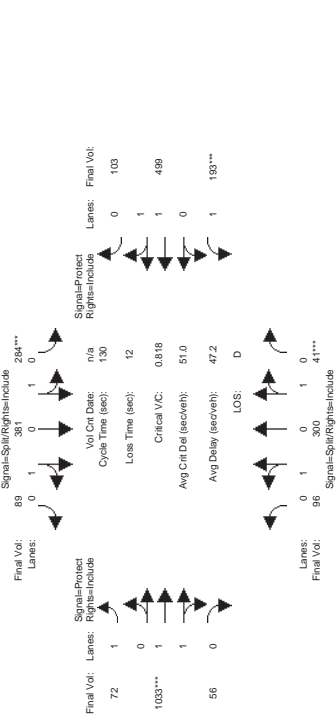
Future Volume Alternative: Peak Hour Warrant NOT Met

Intersection #3 Alma St / Kingsley Ave

Future Volume Alternative: Peak Hour Warrant Met

Intersection #5: Bryant St / Embarcadero Rd

Intersection #6: Middlefield Rd / Embarcadero Rd



Street Name: Middlefield Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y+R	Volume Module	Base Vol	Growth Adj	Initial Bse	Added Vol	PasserByVol	Initial Fut	User Adj	PHF Adj	PHF Volume	Reduc Vol	Reduced Vol	PCE Adj	M/F Adj	Final Volume	Sat/Lane	Adj/Module	Lanes	Final Sat	Capacity Analysis Module	Vol/Sat	Crit Moves	Green Time	Volume/Cap	Delay/Veh	User DelAdj	AdjDel/Veh	LOS by Move	HCM2kAvQ
10	10	96 300	41	1.00	96 300	0	0	96 300	1.00	1.00	96 300	0	96 300	1.00	1.00	96 300	1900	0.90	1	793 2477	0.12 0.12	****	19.3 19.3	63.2 63.2	6.4 11.6	1.00	6.4 11.6	A	11 11	

Street Name: Bryant St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y+R	Volume Module	Base Vol	Growth Adj	Initial Bse	Added Vol	PasserByVol	Initial Fut	User Adj	PHF Adj	PHF Volume	Reduc Vol	Reduced Vol	PCE Adj	M/F Adj	Final Volume	Sat/Lane	Adj/Module	Lanes	Final Sat	Capacity Analysis Module	Vol/Sat	Crit Moves	Green Time	Volume/Cap	Delay/Veh	User DelAdj	AdjDel/Veh	LOS by Move	HCM2kAvQ
7	10	0 0 26	0 0 79	1.00	0 0 79	0 0 0	0 0 0	0 0 79	1.00	1.00	0 0 79	0 0 0	0 0 79	1.00	1.00	0 0 79	1900	0.80	1	1514	0.00 0.02	****	0.0 0.0	0.0 0.0	0.0 0.0	1.00	0.0 0.0	A	0 0	

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900
Adj/Module: 0.90 0.90 0.90 0.90
Lanes: 0.46 1.34 0.20 0.78
Final Sat: 793 2477 339 1323 1775 415 1663 3560 193 1663 3024 624

Capacity Analysis Module:
Vol/Sat: 0.12 0.12 0.21 0.21
Crit Moves: ****
Green Time: 19.3 19.3 34.1 34.1
Volume/Cap: 63.2 63.2 63.2 63.2
Delay/Veh: 6.4 11.6 6.4 11.6
User DelAdj: 1.00 1.00 1.00 1.00
AdjDel/Veh: 6.4 11.6 6.4 11.6
LOS by Move: A A C A A C A B A B+
HCM2kAvQ: 11 11 17 17

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900
Adj/Module: 0.92 1.00 0.80 0.92
Lanes: 0.00 0.00 1.00 0.00
Final Sat: 0 0 1514 1663 3162 515 1663 3710 73

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.02 0.02
Crit Moves: ****
Green Time: 0.0 0.0 10.0 10.0
Volume/Cap: 0.0 0.0 0.34 0.34
Delay/Veh: 0.0 0.0 23.8 23.8
User DelAdj: 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 23.8 23.8
LOS by Move: A A C A A C A B A B+
HCM2kAvQ: 0 0 0 0

Note: Queue reported is the number of cars per lane.



Intersection #9: Emerson St/Kellogg Ave

Emerson St		South Bound		East Bound		Kellogg Ave		West Bound		
Approach:		L	T	R	L	T	R	L	T	R
Final Vol:	6	0	0	0	0	0	0	0	0	16
Lanes:	0	0	0	0	0	0	0	0	0	0
Signal-Stop Rights-Include										
Signal-Uncontrol Rights-Include										
Vol Cnt Date:	n/a									
Cycle Time (sec):	100									
Loss Time (sec):	0									
Critical VC:	0.117									
Avg Cnt Del (sec/veh):	7.6									
Avg Delay (sec/veh):	7.6									
LOS:	B									
Final Vol:	19	0	0	0	0	0	0	0	0	0
Lanes:	0	0	0	0	0	0	0	0	0	0
Signal-Stop Rights-Include										

Street Name: Emerson St

Approach: North Bound South Bound East Bound West Bound

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Volume Module:

Base Vol:	19	51	7	5	21	2	6	2	7	22	58	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	19	51	7	5	21	2	6	2	7	22	58	32
Added Vol:	0	-4	0	0	0	0	-10	0	-3	-27	-16	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	45	3	5	92	2	6	-8	7	19	31	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	45	3	5	92	2	6	0	7	19	31	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	19	45	3	5	92	2	6	0	7	19	31	16

Critical Gap Module:

Critical Gap:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxx	2.2	xxxx	xxxx

Capacity Module:

Potent Cap.:	140	101	4	117	96	39	47	xxxx	xxxx	7	xxxx	xxxx
Move Cap.:	835	793	1086	865	798	1038	1573	xxxx	xxxx	1627	xxxx	xxxx
Volume/Cap.:	0.03	0.06	0.00	0.01	0.12	0.00	0.00	xxxx	xxxx	0.01	xxxx	xxxx

Level of Service Module:

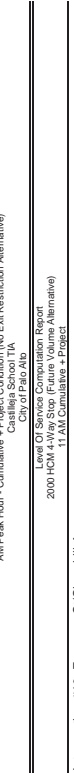
2Way95thQ:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.0	xxxx	xxxx	0.0	xxxx	xxxx
Control Del:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	7.3	xxxx	xxxx	7.2	xxxx	xxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT					
Shared Cap.:	xxxx	782	xxxx	xxxx	791	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
SharedQueue:	xxxx	0.3	xxxx	xxxx	0.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shrd ConDel:	xxxx	10.0	xxxx	xxxx	10.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	10.0				10.2			xxxx	xxxx			

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #9 Emerson St/Kellogg Ave

Future Volume Alternative: Peak Hour Warrant NOT Met



Intersection #10: Emerson St/Churchill Ave

Emerson St		South Bound		East Bound		Churchill Ave		West Bound		
Approach:		L	T	R	L	T	R	L	T	R
Final Vol:	0	0	0	0	0	0	0	0	0	4
Lanes:	0	0	0	0	0	0	0	0	0	0
Signal-Stop Rights-Include										
Signal-Uncontrol Rights-Include										
Vol Cnt Date:	n/a									
Cycle Time (sec):	100									
Loss Time (sec):	0									
Critical VC:	0.127									
Avg Cnt Del (sec/veh):	7.8									
Avg Delay (sec/veh):	7.8									
LOS:	A									
Final Vol:	26	55	15	8	19	85	0	82	12	2
Lanes:	0	0	0	0	0	0	0	0	0	0
Signal-Stop Rights-Include										

Street Name: Emerson St

Approach: North Bound South Bound East Bound West Bound

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Volume Module:

Base Vol:	21	59	15	8	18	18	6	115	12	2	114	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	21	59	15	8	18	18	6	115	12	2	114	4
Added Vol:	5	-4	0	0	1	67	-6	-33	0	0	-47	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	26	55	15	8	19	85	0	82	12	2	67	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	55	15	8	19	85	0	82	12	2	67	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	26	55	15	8	19	85	0	82	12	2	67	4

Critical Gap Module:

Critical Gap:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxx	2.2	xxxx	xxxx

Capacity Module:

Potent Cap.:	140	101	4	117	96	39	47	xxxx	xxxx	7	xxxx	xxxx
Move Cap.:	835	793	1086	865	798	1038	1573	xxxx	xxxx	1627	xxxx	xxxx
Volume/Cap.:	0.03	0.06	0.00	0.01	0.12	0.00	0.00	xxxx	xxxx	0.01	xxxx	xxxx

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.0	xxxx	xxxx	0.0	xxxx	xxxx
Control Del:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	7.3	xxxx	xxxx	7.2	xxxx	xxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT					
Shared Cap.:	xxxx	782	xxxx	xxxx	791	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
SharedQueue:	xxxx	0.3	xxxx	xxxx	0.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shrd ConDel:	xxxx	10.0	xxxx	xxxx	10.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	10.0				10.2			xxxx	xxxx			

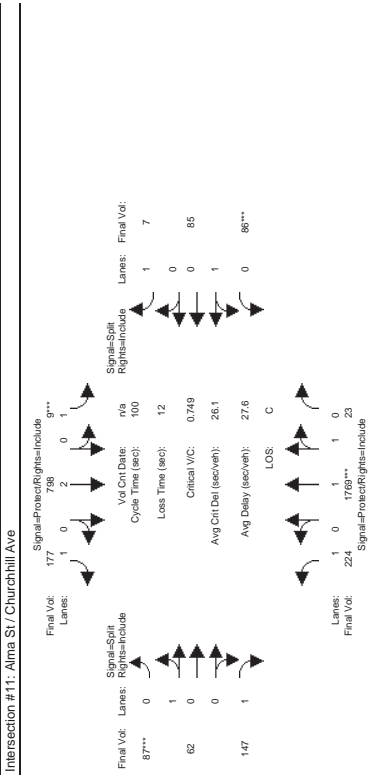
Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #10 Emerson St/Churchill Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

AM Peak Hour - Cumulative + Project Condition (No Exit Restriction Alternative)
 City of Escondido
 2000 HCM Operations (Future Volume Alternative)
 11 AM Cumulative + Project



Street Name:	Alma St		Churchhill Ave	
	North Bound	South Bound	East Bound	West Bound
Approach:	L - T - R	L - T - R	L - T - R	L - T - R
Initial Bse:	224 1720	56 9 798 177	80 68 147 73 78 2	1900 1900 1900
Added Vol:	0 49 -33 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0
Initial Fut:	224 1769 23 9 798 177 87 62 147 86 85 7	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:	224 1769 23 9 798 177 87 62 147 86 85 7	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Reduced Vol:	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume:	224 1769 23 9 798 177 87 62 147 86 85 7	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.88 1.00 0.92 0.88 1.00 0.78 0.90 0.97 0.78 0.90 0.98 0.78
 Lanes: 1.00 1.97 0.03 1.00 2.00 1.00 0.60 0.40 1.00 0.52 0.48 1.00
 Final Sat.: 1663 3740 49 1663 3800 1488 1027 732 1488 893 883 1488
 Capacity Analysis Module:
 Vol/Sat: 0.13 0.47 0.47 0.01 0.21 0.12 0.08 0.08 0.10 0.10 0.10 0.00
 Crit Moves: ****
 Green Time: 25.1 57.3 57.3 7.0 39.2 39.2 12.0 12.0 11.7 11.7 11.7
 Volume/Cap: 0.54 0.82 0.82 0.08 0.54 0.30 0.71 0.71 0.82 0.82 0.82 0.04
 Delay/Veh: 33.7 20.0 20.0 43.8 23.8 21.3 52.8 52.8 68.8 66.0 66.0 39.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 33.7 20.0 20.0 43.8 23.8 21.3 52.8 52.8 68.8 66.0 66.0 39.3
 LOS by Move: C- B- B- D C C+ D- D- E E D
 HCM2kAvq: 7 24 24 0 10 4 6 6 7 8 8 0
 Note: Queue reported is the number of cars per lane.

Final Vol: 54 1414 310***
 Lanes: 2 0 1
 Signal-Protect/Right-Include

Signal-Stop Rights-Include
 Final Vol: n/a
 Cycle Time (sec): 110
 Loss Time (sec): 12
 Critical VC: 1,072
 Avg Crit Del (sec/veh): 83.8
 Avg Delay (sec/veh): 74.8
 LOS: E



Final Vol: 91 0 1215***
 Lanes: 2 0 1
 Signal-Protect/Right-Include

Signal-Stop Rights-Include
 Final Vol: 374***
 Cycle Time (sec): 110
 Loss Time (sec): 12
 Critical VC: 430
 Avg Crit Del (sec/veh): 83.8
 Avg Delay (sec/veh): 74.8
 LOS: E

Intersection #1: El Camino Real / Embarcadero Rd - Galvez St

Street Name: El Camino Real
 Approach: North Bound South Bound East Bound West Bound
 Movement: L T R L T R L T R L T R
 Min. Green: 7 10 10 7 10 10 4.0 4.0 4.0 4.0 4.0 4.0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Volume Module:
 Base Vol: 86 1213 186 310 1414 54 56 1209 68 288 430 374
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 86 1213 186 310 1414 54 56 1209 68 288 430 374
 Added Vol: 5 0 0 0 0 0 0 0 0 0 0 0
 PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 91 1213 186 310 1414 54 56 1213 68 288 430 374
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 91 1213 186 310 1414 54 56 1213 68 288 430 374
 Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Critical Gap Module:
 Critical Gap: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FollowUpTm: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Capacity Module:
 Conflict Vol: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Potential Cap: 0.88 1.00 0.78 0.88 0.99 0.92 0.88 1.00 0.78 0.88 0.93 0.86
 Move Cap: 1.00 3.00 1.00 1.00 2.88 0.12 1.00 2.00 1.00 1.00 1.03 0.97
 Volume/Cap: 1663 5700 1488 1663 5440 208 1663 3800 1488 1663 1818 1581
 Level Of Service Module:
 Vol/Sat: 0.05 0.21 0.13 0.19 0.26 0.26 0.03 0.32 0.05 0.17 0.24 0.24
 Crit Moves: 8.1 21.8 21.8 32.9 32.9 32.9 32.8 24.3 24.3 24.3
 Green Time: 0.75 1.07 0.63 1.07 0.87 0.87 0.11 1.07 0.15 0.78 1.07 1.07
 Volume/Cap: 72.1 92.4 44.7 118.8 41.6 41.6 28.2 86.9 28.5 51.0 96.7 96.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDelT/veh: 72.1 92.4 44.7 118.8 41.6 41.6 28.2 86.9 28.5 51.0 96.7 96.7
 LOS By Move: E T D F D C F C D F
 HCMXVAGV: 5 21 7 18 19 19 1 30 2 12 22 22

Street Name: Alma St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L T R L T R L T R L T R
 Volume Module:
 Base Vol: 0 964 0 0 1215 0 0 0 0 0 0 0 0 95
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 964 0 0 1215 0 0 0 0 0 0 0 0 95
 Added Vol: 0 8 0 0 7 0 0 0 0 0 0 0 0
 PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 972 0 0 1222 0 0 0 0 0 0 0 0 95
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 972 0 0 1222 0 0 0 0 0 0 0 0 95
 Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 0 972 0 0 1222 0 0 0 0 0 0 0 0 95

Street Name: Embarcadero Rd (Spur)
 Approach: North Bound South Bound East Bound West Bound
 Movement: L T R L T R L T R L T R
 Volume Module:
 Base Vol: 0 964 0 0 1215 0 0 0 0 0 0 0 0 95
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 964 0 0 1215 0 0 0 0 0 0 0 0 95
 Added Vol: 0 8 0 0 7 0 0 0 0 0 0 0 0
 PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 972 0 0 1222 0 0 0 0 0 0 0 0 95
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 972 0 0 1222 0 0 0 0 0 0 0 0 95
 Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 0 972 0 0 1222 0 0 0 0 0 0 0 0 95

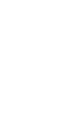
Critical Gap Module:
 Critical Gap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 FollowUpTm: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Capacity Module:
 Conflict Vol: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Potential Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Move Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Volume/Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Level Of Service Module:
 Vol/Sat: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Crit Moves: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Green Time: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Volume/Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 User DelAdj: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 AdjDelT/veh: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 LOS By Move: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 HCMXVAGV: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #2 Alma St / Embarcadero Rd (Spur)
 Future Volume Alternative: Peak Hour Warrant NOT Met
 Traffic 6.0.0715

Final Vol: 0 0 0 0 0 0
 Lanes: 1 1 1 1 1 1
 Signal-Stop Rights-Include

Signal-Stop Rights-Include
 Final Vol: n/a
 Cycle Time (sec): 100
 Loss Time (sec): 0
 Critical VC: 0.307
 Avg Crit Del (sec/veh): 0.9
 Avg Delay (sec/veh): 0.9
 LOS: C



Intersection #2: Alma St / Embarcadero Rd (Spur)

Street Name: Alma St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L T R L T R L T R L T R
 Volume Module:
 Base Vol: 0 964 0 0 1215 0 0 0 0 0 0 0 0 95
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 964 0 0 1215 0 0 0 0 0 0 0 0 95
 Added Vol: 0 8 0 0 7 0 0 0 0 0 0 0 0
 PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 972 0 0 1222 0 0 0 0 0 0 0 0 95
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 972 0 0 1222 0 0 0 0 0 0 0 0 95
 Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 0 972 0 0 1222 0 0 0 0 0 0 0 0 95

Critical Gap Module:
 Critical Gap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 FollowUpTm: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Capacity Module:
 Conflict Vol: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Potential Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Move Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Volume/Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Level Of Service Module:
 Vol/Sat: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Crit Moves: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Green Time: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Volume/Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 User DelAdj: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 AdjDelT/veh: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 LOS By Move: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 HCMXVAGV: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #2 Alma St / Embarcadero Rd (Spur)
 Future Volume Alternative: Peak Hour Warrant NOT Met
 Traffic 6.0.0715

Signal-Stop Rights-Include



Final Vol: Lanes: Signal-Stop Rights-Include

Vol Cnt Date: Cycle Time (sec): Loss Time (sec): Critical VC: Avg Cnt Del (secovht): Avg Delay (secovht): LOS: F

Street Name: Alma St Kingsley Ave

Approach: North Bound South Bound East Bound West Bound

Volume Module: Base Vol: Growth Adj: Initial Base: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: FinalVolume: Critical Gap Module: Critical Gap: FollowUpTim: Capacity Module: Chrlct Vol: Potent Cap: Move Cap: Volume/Cap: Level Of Service Module: 2Way95thQ: Control Del: LOS by Move: Movement: Shared Cap: Shrd ConDel: Shared LOS: ApproachDel: ApproachLOS: Note: Queue reported is the number of cars per lane. Peak Hour Delay Signal Warrant Report

Intersection #3 Alma St / Kingsley Ave

Future Volume Alternative: Peak Hour Warrant Met

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Signal-Stop Rights-Include



Final Vol: Lanes: Signal-Stop Rights-Include

Vol Cnt Date: Cycle Time (sec): Loss Time (sec): Critical VC: Avg Cnt Del (secovht): Avg Delay (secovht): LOS: C

Street Name: Emerson St Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Volume Module: Base Vol: Growth Adj: Initial Base: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: FinalVolume: Critical Gap Module: Critical Gap: FollowUpTim: Capacity Module: Chrlct Vol: Potent Cap: Move Cap: Volume/Cap: Level Of Service Module: 2Way95thQ: Control Del: LOS by Move: Movement: Shared Cap: Shrd ConDel: Shared LOS: ApproachDel: ApproachLOS: Note: Queue reported is the number of cars per lane. Peak Hour Delay Signal Warrant Report

Intersection #4 Emerson St / Embarcadero Rd

Future Volume Alternative: Peak Hour Warrant NOT Met

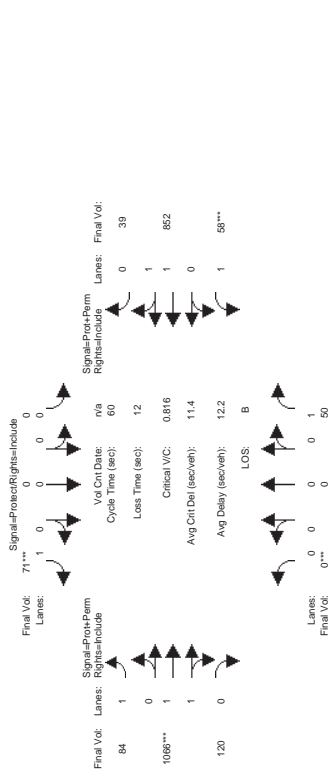
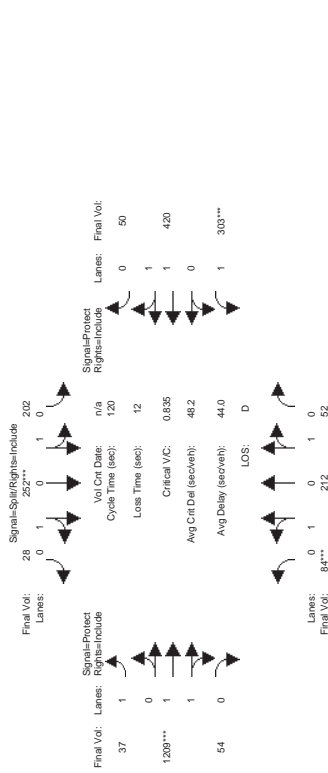
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File Apr 26 15:50:34 2019
 School PM Peak Hour - Cumulative - Project Condition (No Exit Restriction Alter)
 Castilleja School TIA
 City of San Antonio - Bypass
 2000 HCM Operations (Future Volume Alternative)
 18 MD Cumulative + Project

File Apr 26 15:50:34 2019
 School PM Peak Hour - Cumulative - Project Condition (No Exit Restriction Alter)
 Castilleja School TIA
 City of San Antonio - Bypass
 2000 HCM Operations (Future Volume Alternative)
 18 MD Cumulative + Project

Intersection #6: Middlefield Rd / Embarcadero Rd

Intersection #5: Bryant St / Embarcadero Rd



Street Name: Middlefield Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y+R	Volume Module	Base Vol	Growth Adj	Initial Bse	Added Vol	PasserByVol	Initial Fut	User Adj	PHF Adj	PHF Volume	Reduced Vol	PCE Adj	M/F Adj	Final Volume
10	10	84	212	1.00	212	0	0	202	252	1.00	252	28	1.00	1.00	280
4.0	4.0	84	212	1.00	212	0	0	202	252	1.00	252	28	1.00	1.00	280

Street Name: Bryant St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y+R	Volume Module	Base Vol	Growth Adj	Initial Bse	Added Vol	PasserByVol	Initial Fut	User Adj	PHF Adj	PHF Volume	Reduced Vol	PCE Adj	M/F Adj	Final Volume
7	10	0	53	1.00	53	0	0	50	50	1.00	50	0	1.00	1.00	50
4.0	4.0	0	53	1.00	53	0	0	50	50	1.00	50	0	1.00	1.00	50

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900
 Adj: 0.89 0.97 0.89 0.88
 Lanes: 0.51 1.18 0.31 0.87
 Final Sat.: 858 2164 531 1484

Capacity Analysis Module:
 Vol/Sat: 0.10 0.10 0.10 0.14
 Crit Moves: ****
 Green Time: 14.1 14.1 14.1 19.5
 Volume/Cap: 0.84 0.84 0.84 0.84
 Delay/Veh: 65.5 65.5 65.5 58.9
 User DelAdj: 1.00 1.00 1.00 1.00
 AdjDel/Veh: 65.5 65.5 65.5 58.9
 LOS by Move: E E E E
 HCM2kVagQ: 9 9 9 11

Note: Queue reported is the number of cars per lane.

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900
 Adj: 0.92 1.00 0.80 0.92
 Lanes: 0.00 0.00 1.00 0.00
 Final Sat.: 0 0 1514 1663

Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.03 0.05
 Crit Moves: ****
 Green Time: 0.0 0.0 10.0 10.0
 Volume/Cap: 0.00 0.00 0.20 0.28
 Delay/Veh: 0.0 0.0 21.9 0.0
 User DelAdj: 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 21.9 0.0
 LOS by Move: A C+ A A
 HCM2kVagQ: 0 0 1 0

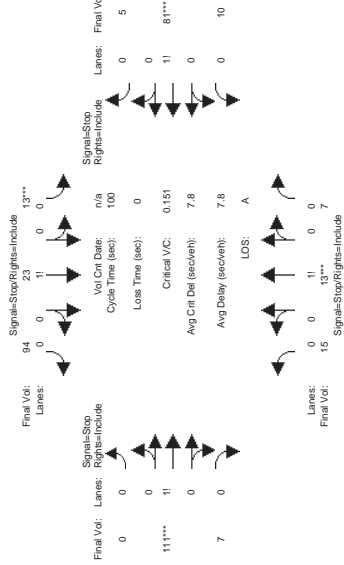
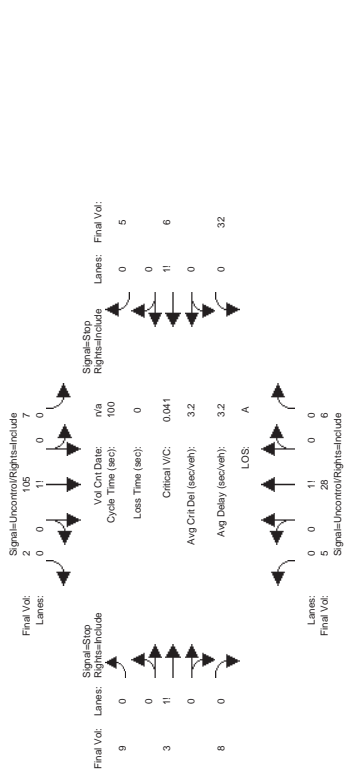
Note: Queue reported is the number of cars per lane.

Fri Apr 26 15:50:34 2019
 School PM Peak Hour - Cumulative - Project Condition (No Exit Restriction Alter)
 City of Paso Robles
 2000 HCM Unsignalized Future Volume Alternative
 18 MD Cumulative + Project

Fri Apr 26 15:50:34 2019
 School PM Peak Hour - Cumulative - Project Condition (No Exit Restriction Alter)
 City of Paso Robles
 2000 HCM Unsignalized Future Volume Alternative
 18 MD Cumulative + Project

Intersection #9: Emerson St/Kellogg Ave

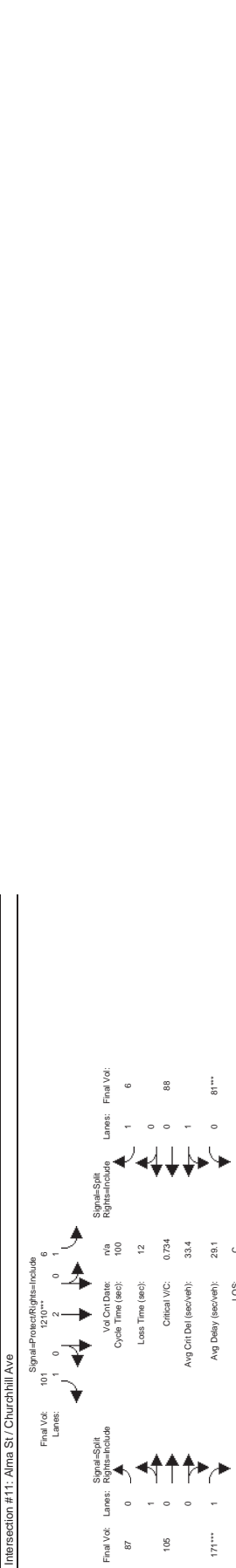
Intersection #10: Emerson St/Churchill Ave



Street Name:	Emerson St			Kellogg Ave		
	North Bound	South Bound	East Bound	West Bound	West Bound	West Bound
Approach:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Volume Module:	5 32 8	7 38 2	9 9 9	8 35 32	20	20
Base Vol:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00	1.00
Growth Adj:	5 32 8	7 38 2	9 9 9	8 35 32	20	20
Initial Base:	0 -4 -2	0 0 0	0 -6 0	-3 -26 -15	0	0
Added Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0	0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0	0	0
Initial Fut:	5 28 6	7 105 2	9 3 8	32 6 5	5	5
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00	1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00	1.00
PHF Volume:	5 28 6	7 105 2	9 3 8	32 6 5	5	5
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0	0
FinalVolume:	5 28 6	7 105 2	9 3 8	32 6 5	5	5
Capacity Module:	4.1 xxxxx xxxxx	4.1 xxxxx xxxxx	7.1 6.5 6.2	7.1 6.5 6.2	6.2	6.2
Critical Gap:	2.2 xxxxx xxxxx	2.2 xxxxx xxxxx	3.5 4.0 3.3	3.5 4.0 3.3	4.0	3.3
FollowUpTim:	2.2 xxxxx xxxxx	2.2 xxxxx xxxxx	3.5 4.0 3.3	3.5 4.0 3.3	4.0	3.3
Capacity Module:	1.07 xxxxx xxxxx	34 xxxxx xxxxx	167 164 106	167 162 31	31	31
Potent Cap.:	1497 xxxxx xxxxx	1591 xxxxx xxxxx	802 732 954	802 734 1049	1049	1049
Move Cap.:	1497 xxxxx xxxxx	1591 xxxxx xxxxx	789 726 954	788 728 1049	1049	1049
Volume/Cap:	0.00 xxxxx xxxxx	0.00 xxxxx xxxxx	0.01 0.00 0.01	0.04 0.01 0.00	0.00	0.00
Level of Service Module:	0.0 xxxxx xxxxx	0.0 xxxxx xxxxx	xxxxx xxxxx	xxxxx xxxxx	xxxxx	xxxxx
2Way95thQ:	0.0 xxxxx xxxxx	0.0 xxxxx xxxxx	xxxxx xxxxx	xxxxx xxxxx	xxxxx	xxxxx
Control Del:	7.4 xxxxx xxxxx	7.3 xxxxx xxxxx	xxxxx xxxxx	xxxxx xxxxx	xxxxx	xxxxx
LOS by Move:	A * A *	A * A *	A * A *	A * A *	A *	A *
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	RT	RT
Shared Cap.:	xxxxx xxxxx	xxxxx xxxxx	836 xxxxx	802 xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx xxxxx	xxxxx xxxxx	xxxxx xxxxx	0.1 xxxxx xxxxx	0.2 xxxxx	0.2 xxxxx
Shrd ConDel:	xxxxx xxxxx	xxxxx xxxxx	xxxxx xxxxx	9.4 xxxxx xxxxx	9.7 xxxxx	9.7 xxxxx
Shared LOS:	A * A *	A * A *	A * A *	A * A *	A *	A *
ApproachDel:	xxxxxx	xxxxxx	9.4	9.7	A	A
ApproachLOS:	A	A	A	A	A	A
Note:	Queue reported is the number of cars per lane.					
Note:	Peak Hour Delay Signal Warrant Report					
Intersection #9	Emerson St/Kellogg Ave					
Future Volume Alternative:	Peak Hour Warrant NOT Met					

Street Name:	Emerson St			Churchill Ave		
	North Bound	South Bound	East Bound	West Bound	West Bound	West Bound
Approach:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Volume Module:	12 15 7	13 22 31	4 132 7	10 126 5	5	5
Base Vol:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00	1.00
Growth Adj:	12 15 7	13 22 31	4 132 7	10 126 5	5	5
Initial Base:	3 -2 0	0 0 0	63 -4 -21	0 -45 0	0	0
Added Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0	0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0	0	0
Initial Fut:	15 13 7	13 23 94	0 111 7	10 81 5	5	5
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00	1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00	1.00
PHF Volume:	15 13 7	13 23 94	0 111 7	10 81 5	5	5
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0	0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00	1.00
MUF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00	1.00
FinalVolume:	15 13 7	13 23 94	0 111 7	10 81 5	5	5
Saturation Flow Module:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00	1.00
Adjustment:	0.43 0.37 0.20	0.10 0.18 0.72	0.00 0.94 0.06	0.10 0.85 0.05	0.05	0.05
Lanes:	329 285 153	86 153 624	0 759 48	83 673 42	42	42
Final Sat.:	0.05 0.05 0.05	0.15 0.15 0.15	xxxxx 0.15	0.12 0.12 0.12	0.12	0.12
Capacity Analysis Module:	0.05 0.05 0.05	0.15 0.15 0.15	xxxxx 0.15	0.12 0.12 0.12	0.12	0.12
Vol/Sat:	0.05 0.05 0.05	0.15 0.15 0.15	xxxxx 0.15	0.12 0.12 0.12	0.12	0.12
Crit Moves:	7.7 7.7 7.7	7.7 7.7 7.7	8.0 8.0 8.0	7.9 7.9 7.9	7.9	7.9
Delay/Veh:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00	1.00
AdjDel/Veh:	7.7 7.7 7.7	7.7 7.7 7.7	7.7 7.7 7.7	8.0 8.0 8.0	7.9 7.9 7.9	7.9
LOS by Move:	A A A	A A A	A A A	A A A	A A A	A A A
ApproachDel:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00	1.00
ApproachLOS:	A A A	A A A	A A A	A A A	A A A	A A A
AllWayAVGO:	0.0 0.0 0.0	0.2 0.2 0.2	0.2 0.2 0.2	0.2 0.1 0.1	0.1	0.1
Note:	Queue reported is the number of cars per lane.					
Note:	Peak Hour Volume Signal Warrant Report [Urban]					
Intersection #10	Emerson St/Churchill Ave					
Future Volume Alternative:	Peak Hour Warrant NOT Met					

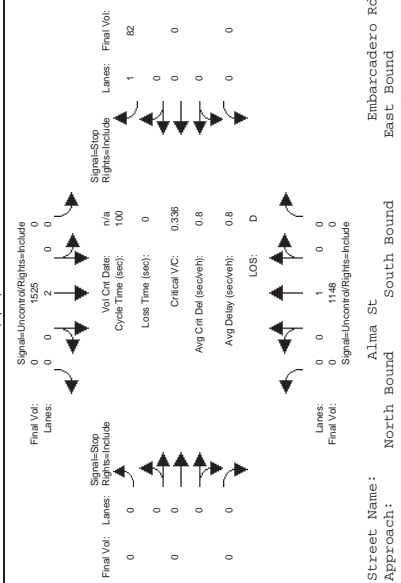
School PM Peak Hour - Cumulative + Project Condition (No Exit Restriction Alter)
 Castelli School TIA
 City of Paso Robles
 2000 HCM Operations (Future Volume Alternative)
 18 MD Cumulative + Project



Street Name:		Alma St		Churchhill Ave	
Approach:		North Bound	South Bound	East Bound	West Bound
Movement:		L - T - R	L - T - R	L - T - R	L - T - R
Min. Green:	7 10 10	7 10 10	10 10 10	10 10 10	10 10 10
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Volume Module:					
Base Vol:	196 972 28	6 1210 101	82 109 171	69 82 3	
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
Initial Bse:	196 972 28	6 1210 101	82 109 171	69 82 3	
Added Vol:	0 31 -21	0 0 0	5 -4 0	12 6 3	
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0	
Initial Fut:	196 1003 7	6 1210 101	87 105 171	81 88 6	
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
PHF Volume:	196 1003 7	6 1210 101	87 105 171	81 88 6	
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0	
Reduced Vol:	196 1003 7	6 1210 101	87 105 171	81 88 6	
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
M/F Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
Final Volume:	196 1003 7	6 1210 101	87 105 171	81 88 6	
Saturation Flow Module:					
Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900	
Adjustment:	0.88 1.00 0.92	0.88 1.00 0.78	0.90 0.98 0.78	0.90 0.98 0.78	
Lanes:	1.00 1.98 0.02	1.00 2.00 1.00	0.47 0.53 1.00	0.50 0.50 1.00	
Final Sat.:	1663 3768 26	1663 3800 1488	811 978 1488	855 928 1488	
Capacity Analysis Module:					
Vol/Sat:	0.12 0.27 0.27	0.00 0.32 0.07	0.11 0.11 0.11	0.09 0.09 0.00	
Crit Moves:	****	****	****	****	
Green Time:	16.1 47.1 47.1	12.4 43.4 43.4	15.7 15.7 15.7	12.9 12.9 12.9	
Volume/Cap:	0.73 0.57 0.57	0.03 0.73 0.16	0.69 0.69 0.73	0.73 0.73 0.03	
Delay/Veh:	50.0 19.5 19.5	38.6 25.3 17.3	46.7 46.7 51.6	53.5 53.5 38.1	
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
AdjDel/Veh:	50.0 19.5 19.5	38.6 25.3 17.3	46.7 46.7 51.6	53.5 53.5 38.1	
LOS by Move:	D B- B- D	B- B- C B D	D D D D	D- D- D- D+	
HCM2kAvqQ:	8 11 11	0 16 2	7 7 7	7 7 7	

Note: Queue reported is the number of cars per lane.

Intersection #1: El Camino Real / Embarcadero Rd-Galvez St



Street Name: El Camino Real Embarcadero Rd-Galvez St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

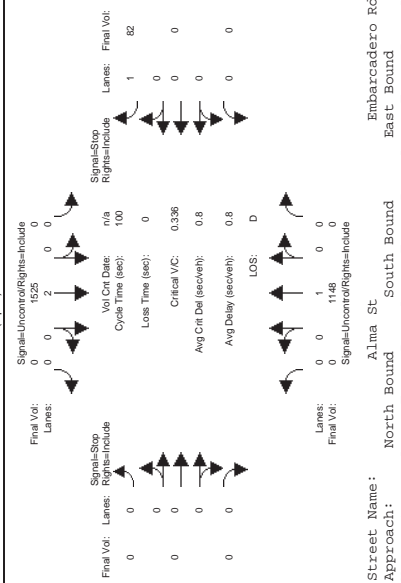
Volume Module:	North Bound	South Bound	East Bound	West Bound
Base Vol:	177 1324 214	321 1653 73	223 629 366	235 417 330
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Base:	177 1324 214	321 1653 73	223 629 366	235 417 330
Added Vol:	3 0 0	0 0 0	3 0 0	0 0 0
PassesByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	180 1324 214	321 1653 73	223 632 366	235 417 330
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	180 1324 214	321 1653 73	223 632 366	235 417 330
Reduce Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	180 1324 214	321 1653 73	223 632 366	235 417 330
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MUF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Volume:	180 1324 214	321 1653 73	223 632 366	235 417 330

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.88 1.00 0.78 0.88 0.99 0.92 0.88 1.00 0.78 0.88 0.93 0.86
 Lanes: 1.00 3.00 1.00 1.00 2.86 0.14 1.00 2.00 1.00 1.00 1.08 0.92
 Final Sat: 1663 5700 1488 1663 5407 239 1663 3800 1488 1663 1909 1511

Capacity Analysis Module:
 Vol/Sat: 0.11 0.23 0.14 0.19 0.31 0.31 0.13 0.17 0.25 0.14 0.22 0.22
 Crit Moves: ****
 Green Time: 12.3 25.6 25.6 21.3 34.6 34.6 27.1 27.1 24.1 24.1 24.1 24.1
 Volume/Cap: 0.97 1.00 0.62 1.00 0.97 0.97 0.54 0.68 1.00 0.65 1.00 1.00
 Delay/Veh: 106.5 66.6 41.2 94.2 52.5 52.5 37.6 39.4 88.1 43.1 75.6 75.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/veh: 106.5 66.6 41.2 94.2 52.5 52.5 37.6 39.4 88.1 43.1 75.6 75.6
 LOS By Move: F E D F E D F E D F E D
 HCMXavg: 11 21 8 17 25 25 8 11 19 9 19 19

Note: Queue reported is the number of cars per lane.

Intersection #2: Alma St / Embarcadero Rd (Spur)



Street Name: Alma St Embarcadero Rd (Spur)

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:	North Bound	South Bound	East Bound	West Bound
Base Vol:	0 1142 0	0 1521 0	0 0 0	0 0 0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Base:	0 1142 0	0 1521 0	0 0 0	0 0 0
Added Vol:	0 6 0	0 4 0	0 0 0	0 0 0
PassesByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 1148 0	0 1525 0	0 0 0	0 0 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	0 1148 0	0 1525 0	0 0 0	0 0 0
Reduce Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 1148 0	0 1525 0	0 0 0	0 0 0

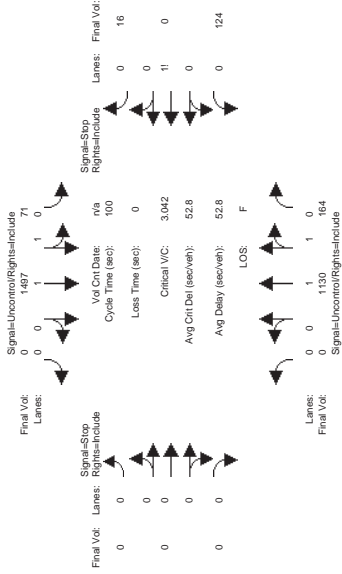
Critical Gap Module:
 Critical Gap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 FollowUpTim: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Capacity Module:
 Chflict Vol: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Potenc Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Move Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Volume/Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Level Of Service Module:
 2Way95thQ: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Control Del: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 LOS By Move: * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shrd ConDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shared LOS: * * * * *
 ApproachDel: xxxxxx xxxxxx
 ApproachLOS: * * * * *
 Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #2 Alma St / Embarcadero Rd (Spur)
 Future Volume Alternative: Peak Hour Warrant NOT Met
 Traffic 6.0.0715 Copyright (c) 2008 Dowling Associates, Inc. Licensed to WTRANS, Santa Rosa, CA

PM Peak Hour - Cumulative + Project Condition (No Exit Restriction Alternative)
 City of San Anselmo
 2000 HCM Unsignalized Future Volume Alternative
 12 PM Cumulative + Project

Intersection #3: Alma St / Kingsley Ave

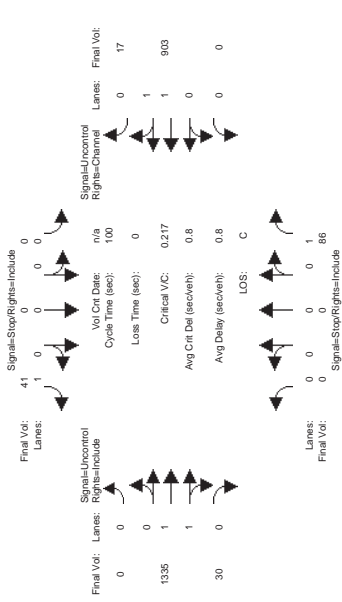


Street Name: Alma St Kingsley Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Volume Module:
 Base Vol: 0 1124 140 61 1502 0 0 0 0 0 124 0 16
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1124 140 61 1502 0 0 0 0 0 124 0 16
 Added Vol: 0 6 24 10 -5 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 1130 164 71 1497 0 0 0 0 0 124 0 16
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1130 164 71 1497 0 0 0 0 0 124 0 16
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 0 1130 164 71 1497 0 0 0 0 0 124 0 16
 Critical Gap Module:
 Critical Gap: xxxxx xxxxx 4.1 xxxxx xxxxx xxxxx xxxxx 6.8 6.5 6.9
 FollowUpTim: xxxxx xxxxx 2.2 xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3

Capacity Module:
 Conflic Vol: xxx xxxxx xxxxx 1294 xxx xxxxx xxxxx xxxxx 2103 2851 647
 Potent Cap.: xxx xxxxx xxxxx 542 xxx xxxxx xxxxx xxxxx 46 17 418
 Move Cap.: xxx xxxxx xxxxx 542 xxx xxxxx xxxxx xxxxx 41 15 418
 Volume/Cap.: xxx xxxxx xxxxx 0.13 xxx xxxxx xxxxx xxxxx 3.04 0.00 0.04
 Level of Service Module:
 2Way95thQ: xxx xxxxx xxxxx 0.4 xxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Control Del: xxxxx xxxxx xxxxx 12.6 xxx xxxxx xxxxx xxxxx xxxxx xxxxx
 LOS by Move: * * * * * B * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 45 xxxxx
 SharedQueue: xxxxx xxxxx xxxxx 0.4 xxx xxxxx xxxxx xxxxx 15.3 xxxxx
 Shrd ConDel: xxxxx xxxxx xxxxx 12.6 xxx xxxxx xxxxx xxxxx 1126 xxxxx
 Shared LOS: * * * * * B * * * * * F * * * * *
 ApproachDel: xxxxxx xxxxxxx xxxxxx 1125.7
 ApproachLOS: C B * * * * *
 Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #3 Alma St / Kingsley Ave
 Future Volume Alternative: Peak Hour Warrant Met
 Traffic 6.0.0715 Copyright (c) 2009 Dowling Associates, Inc. Licensed to WTRANS, Santa Rosa, CA

PM Peak Hour - Cumulative + Project Condition (No Exit Restriction Alternative)
 City of San Anselmo
 2000 HCM Unsignalized Future Volume Alternative
 12 PM Cumulative + Project

Intersection #4: Emerson St / Embarcadero Rd

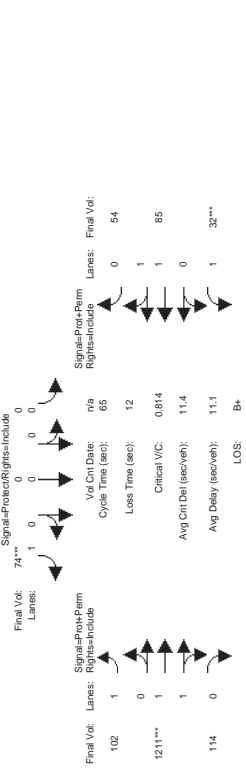


Street Name: Emerson St Embarcadero Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Volume Module:
 Base Vol: 0 0 46 0 0 41 0 1298 30 0 903 17
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 46 0 0 41 0 1298 30 0 903 17
 Added Vol: 0 0 0 0 0 0 0 0 37 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 86 0 0 41 0 1335 30 0 903 17
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 86 0 0 41 0 1335 30 0 903 17
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 0 0 86 0 0 41 0 1335 30 0 903 17
 Critical Gap Module:
 Critical Gap: xxxxx xxxxx 6.9 xxxxx xxxxx 6.9 xxxxx xxxxx xxxxx xxxxx xxxxx
 FollowUpTim: xxxxx xxxxx 3.3 xxxxx xxxxx 3.3 xxxxx xxxxx xxxxx xxxxx xxxxx

Capacity Module:
 Conflic Vol: xxx xxxxx xxxxx 683 xxx xxxxx 452 xxx xxxxx xxxxx xxxxx xxxxx
 Potent Cap.: xxx xxxxx xxxxx 397 xxx xxxxx 561 xxx xxxxx xxxxx xxxxx xxxxx
 Move Cap.: xxx xxxxx xxxxx 397 xxx xxxxx 561 xxx xxxxx xxxxx xxxxx xxxxx
 Volume/Cap.: xxx xxxxx xxxxx 0.22 xxx xxxxx 0.07 xxx xxxxx xxxxx xxxxx xxxxx
 Level of Service Module:
 2Way95thQ: xxx xxxxx xxxxx 0.8 xxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Control Del: xxxxx xxxxx xxxxx 16.6 xxx xxxxx xxxxx 11.9 xxxxx xxxxx xxxxx
 LOS by Move: * * * * * C * * * * * B * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: *
 ApproachDel: 16.6 11.9 xxxxxx xxxxxx
 ApproachLOS: C B * * * * *
 Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report
 Intersection #4 Emerson St / Embarcadero Rd
 Future Volume Alternative: Peak Hour Warrant NOT Met
 Traffic 6.0.0715 Copyright (c) 2009 Dowling Associates, Inc. Licensed to WTRANS, Santa Rosa, CA

PM Peak Hour - Cumulative + Project Condition (No Exit Restriction Alternative)
City of Paso Robles
2000 HCM Operations (Future Volume Alternative)
12 PM Cumulative + Project

Intersection #5: Bryant St / Embarcadero Rd



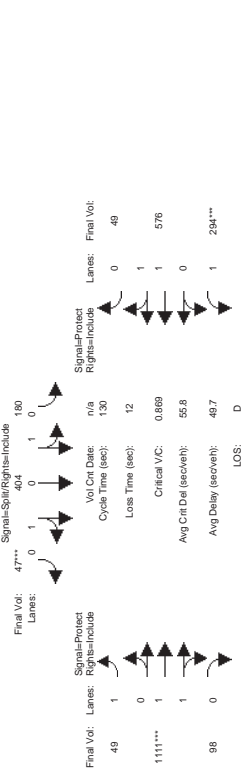
Final Vol: 74... Signal-Protect/Right-Include
Lanes: 0 0 0 0 0 0
Final Vol: 0... Signal-Protect/Right-Include
Lanes: 0 0 0 0 1 15

Table with columns: Street Name, Approach, Movement, North Bound, South Bound, East Bound, West Bound. Includes Volume Module and Saturation Flow Module data.

Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.01 0.00 0.00 0.05 0.06 0.36 0.02 0.04 0.04
Crit Moves: ****
Green Time: 0.0 0.0 10.0 0.0 10.0 46.0 36.0 32.3 25.3 25.3

PM Peak Hour - Cumulative + Project Condition (No Exit Restriction Alternative)
City of Paso Robles
2000 HCM Operations (Future Volume Alternative)
12 PM Cumulative + Project

Intersection #6: Middlefield Rd / Embarcadero Rd



Final Vol: 47... Signal-Protect/Right-Include
Lanes: 0 1 0 1 0 0
Final Vol: 72... Signal-Protect/Right-Include
Lanes: 0 1 0 1 0 1 51

Table with columns: Street Name, Approach, Movement, North Bound, South Bound, East Bound, West Bound. Includes Volume Module and Saturation Flow Module data.

Capacity Analysis Module: Vol/Sat: 0.11 0.11 0.11 0.18 0.18 0.18 0.03 0.32 0.18 0.17 0.17
Crit Moves: ****
Green Time: 16.8 16.8 16.8 26.2 26.2 26.2 18.2 48.5 48.5 26.4 56.7 56.7

PM Peak Hour - Cumulative + Project Condition (No Exit Restriction Alternative)
City of Paso Del Rio
2000 HCM Unsignalized Future Volume Alternative
12 PM Cumulative + Project

Intersection #9: Emerson St/Kellogg Ave

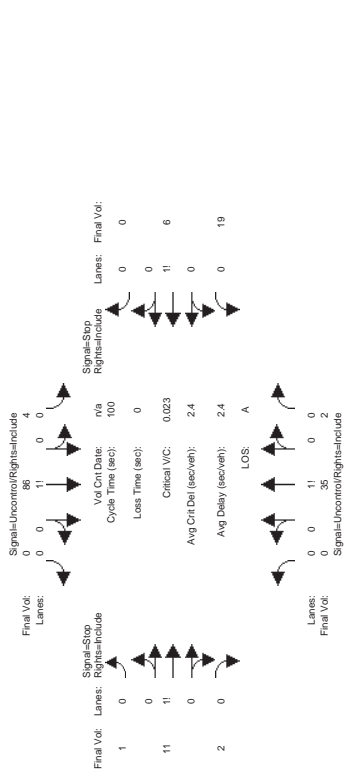


Table with columns for Street Name, Approach, Movement, and Volume Module. Includes data for Emerson St, South Bound, East Bound, and West Bound. Rows include Base Vol, Growth Adj, Initial Base, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Critical Gap, Critical Sp, FollowUpTim, Capacity Module, Potent Cap, Move Cap, Volume/Cap, Level of Service Module, Control Del, LOS by Move, Movement, Shared Cap, Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

PM Peak Hour - Cumulative + Project Condition (No Exit Restriction Alternative)
City of Paso Del Rio
2000 HCM Unsignalized Future Volume Alternative
12 PM Cumulative + Project

Intersection #10: Emerson St/Churchill Ave

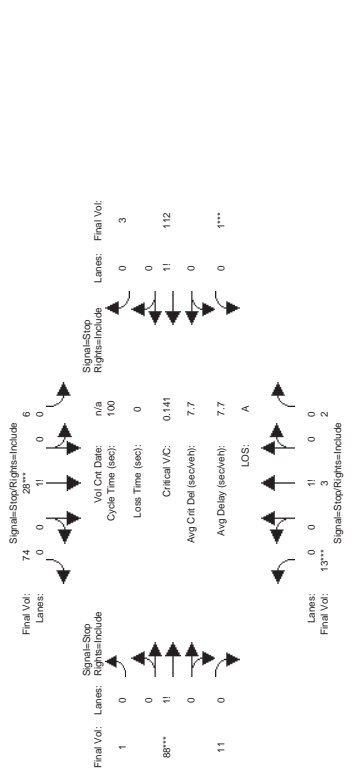


Table with columns for Street Name, Approach, Movement, and Volume Module. Includes data for Emerson St, North Bound, South Bound, East Bound, and West Bound. Rows include Base Vol, Growth Adj, Initial Base, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, PCE Adj, M/F Adj, Final Volume, Saturation Flow Module, Adjustment, Lane Sat, Final Sat, Capacity Analysis Module, Vol/Sat, Crit Moves, Delay/Veh, Delay/Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, AllWayAVGO, and Note.

Final Report - Cumulative + Project Condition (No Exit Restriction Alternative)
 City of Paso Robles
 2000 HCM Operations (Future Volume Alternative)
 12 PM Cumulative + Project

Intersection #11: Alma St / Churchhill Ave



Street Name:	North Bound	South Bound	East Bound	West Bound
Approach:	L - T - R	L - T - R	L - T - R	L - T - R
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Min. Green:	7 10 10	7 10 10	10 10 10	10 10 10
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0

Volume Module:	Base Vol:	187 1182	22	3 1507	127	79	90	215	86	92	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	187 1182	22	3 1507	127	79 90	215	86	92	7		
Added Vol:	0	19	-13	0	0	0	3	-2	0	8	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	187 1201	9	3 1507	127	82 88	215	94	96	9		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	187 1201	9	3 1507	127	82 88	215	94	96	9		
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	187 1201	9	3 1507	127	82 88	215	94	96	9		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
M/F Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	187 1201	9	3 1507	127	82 88	215	94	96	9		

Saturation Flow Module:	Sat/Lane:	0.11	0.32	0.32	0.00	0.40	0.09	0.10	0.10	0.14	0.11	0.11	0.01
Capacities:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
AdjSmt:	0.88	1.00	0.92	0.88	1.00	0.78	0.90	0.98	0.78	0.90	0.98	0.78	0.78
Lanes:	1.00	1.98	0.02	1.00	2.00	1.00	0.50	0.50	1.00	0.52	0.48	1.00	1.00
Final Sat:	1663	3766	28	1663	3800	1488	859	922	1488	880	899	1488	1488

Capacity Analysis Module:
 Vol/Sat: 0.11 0.32 0.32 0.00 0.40 0.09 0.10 0.10 0.14 0.11 0.11 0.01
 Crit Moves: ****
 Green Time: 13.0 48.3 48.3 10.6 45.9 45.9 16.7 16.7 16.7 12.4 12.4 12.4
 Volume/Cap: 0.86 0.66 0.66 0.02 0.86 0.19 0.57 0.57 0.86 0.86 0.86 0.05
 Delay/Veh: 70.9 20.5 20.5 40.1 29.0 16.1 41.0 41.0 66.0 70.9 70.9 38.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 70.9 20.5 20.5 40.1 29.0 16.1 41.0 41.0 66.0 70.9 70.9 38.7
 LOS by Move: E C+ C+ B D D E E D+
 HCM2kAvq: 9 15 15 0 24 2 6 6 10 9 9 9 0
 Note: Queue reported is the number of cars per lane.

Appendix D

Peak Hour Volume Warrant Worksheets



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Embarcadero Rd
City of Palo Alto

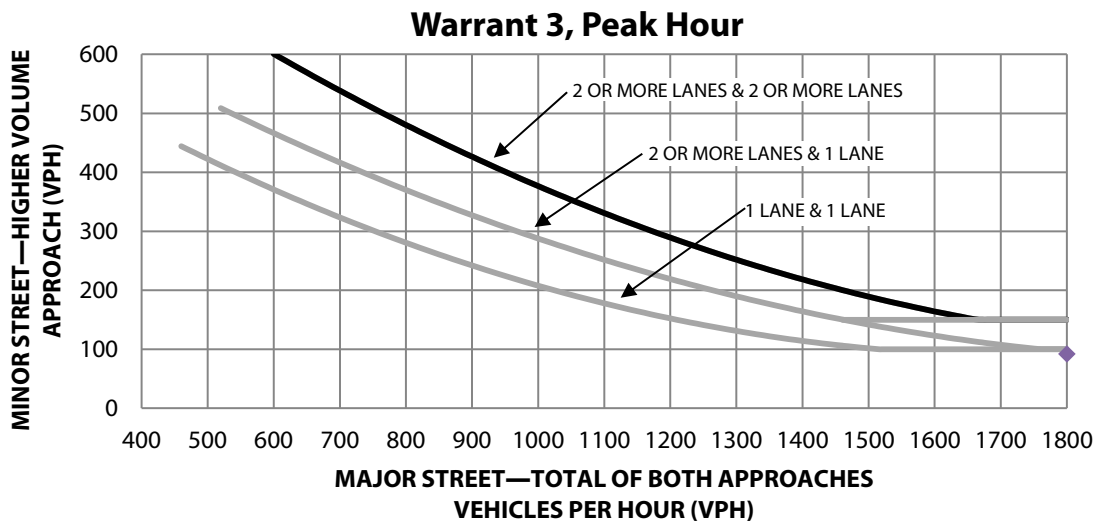
Project Name: Castilleja School Expansion

Intersection: 2

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Embarcadero Rd
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: Thursday, January 26, 2017
Scenario: Existing Condition AM

Warrant 3 Met?: Met when either Condition A or B is met		No
Condition A: Met when conditions A1, A2, and A3 are met		<u>Not Met</u>
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 1.39 vehicle-hours		<u>Not Met</u>
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 92 vph		<u>Not Met</u>
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2292 vph		<u>Met</u>
Condition B The plotted point falls above the curve		<u>Not Met</u>



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

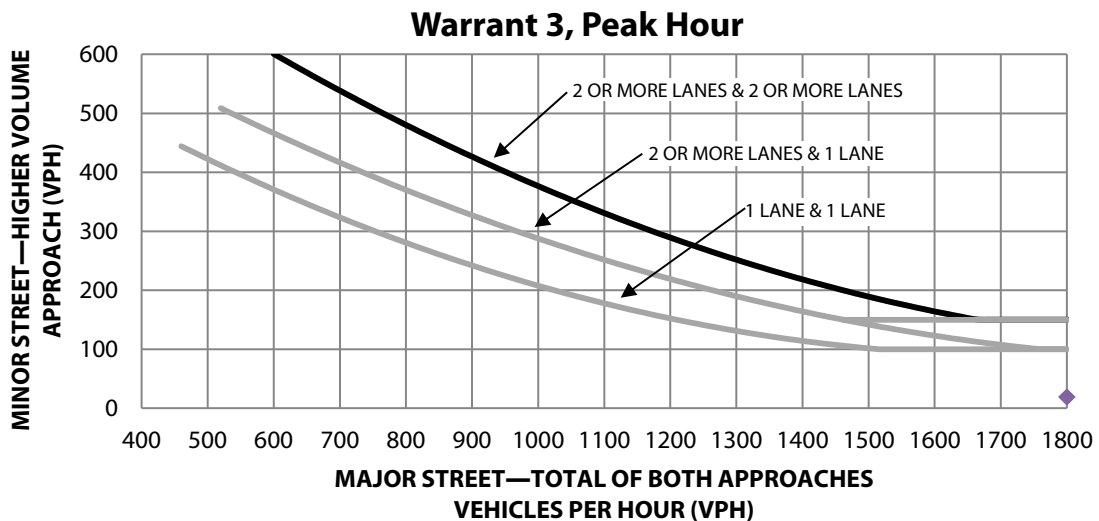
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: Thursday, January 26, 2017
Scenario: Existing Condition AM

Warrant 3 Met?: Met when either Condition A or B is met		No
Condition A: Met when conditions A1, A2, and A3 are met		<u>Not Met</u>
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 0.37 vehicle-hours		<u>Not Met</u>
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 19 vph		<u>Not Met</u>
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2238 vph		<u>Met</u>
Condition B The plotted point falls above the curve		<u>Not Met</u>



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

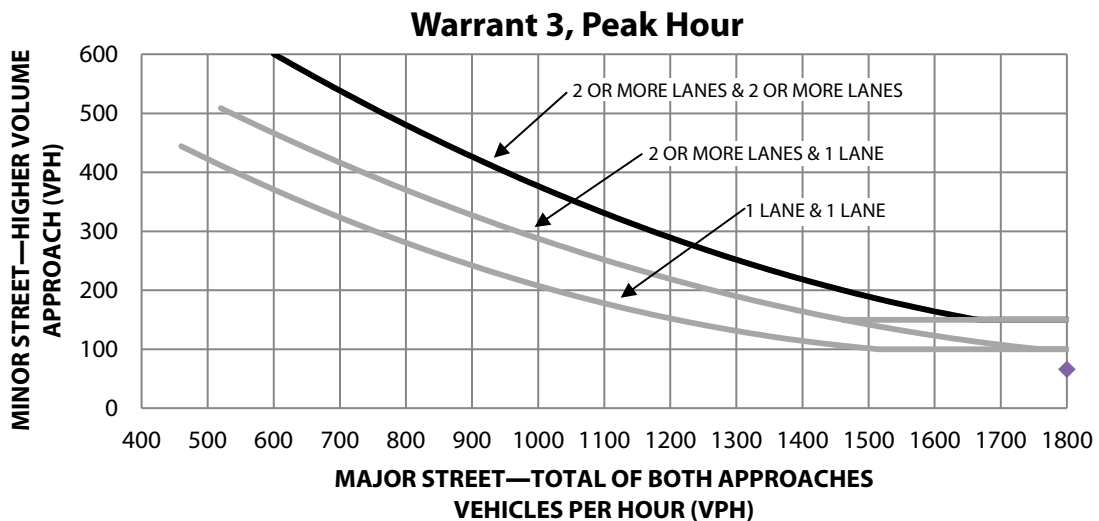
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: Thursday, January 26, 2017
Scenario: Existing Condition PM

Warrant 3 Met?: Met when either Condition A or B is met		No
Condition A: Met when conditions A1, A2, and A3 are met		<u>Not Met</u>
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 2.73 vehicle-hours		<u>Not Met</u>
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 66 vph		<u>Not Met</u>
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2444 vph		<u>Met</u>
Condition B The plotted point falls above the curve		<u>Not Met</u>



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

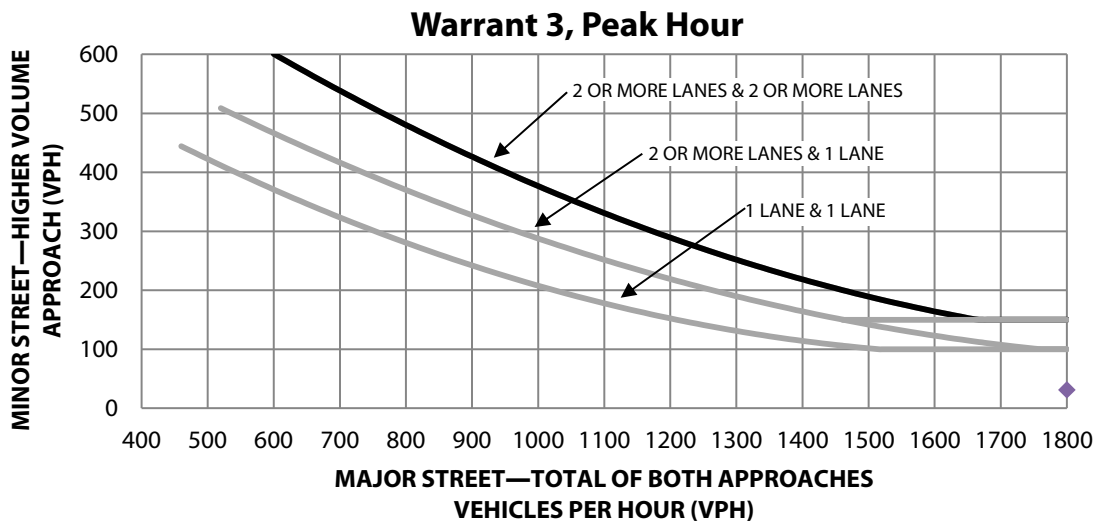
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Existing plus Project AM

Warrant 3 Met?: Met when either Condition A or B is met		No
Condition A: Met when conditions A1, A2, and A3 are met		<u>Not Met</u>
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 0.83 vehicle-hours		<u>Not Met</u>
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 31 vph		<u>Not Met</u>
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2287 vph		<u>Met</u>
Condition B The plotted point falls above the curve		<u>Not Met</u>



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

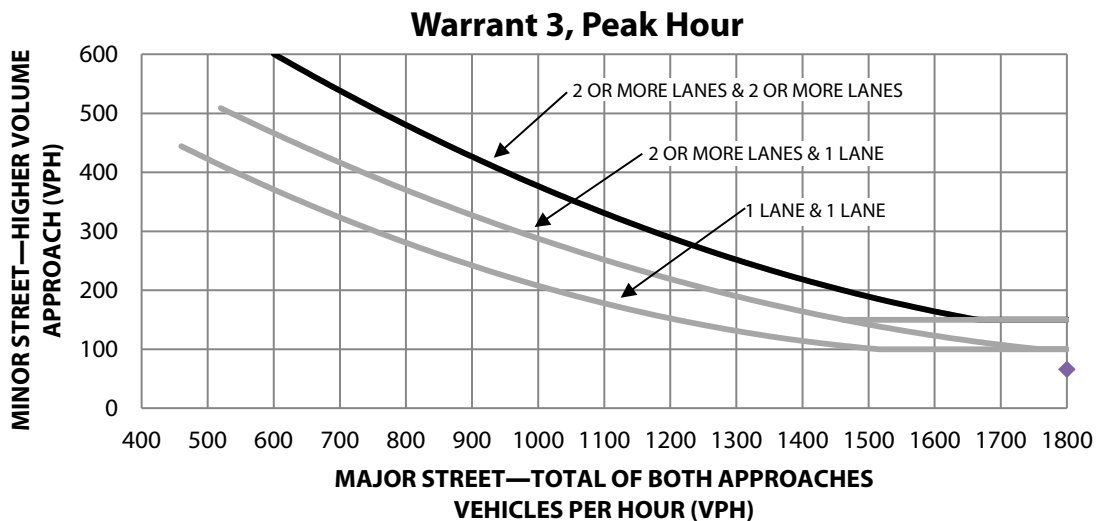
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Existing plus Project PM

Warrant 3 Met?: Met when either Condition A or B is met		No
Condition A: Met when conditions A1, A2, and A3 are met		<u>Not Met</u>
Condition A1		<u>Not Met</u>
The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 3.11 vehicle-hours		
Condition A2		<u>Not Met</u>
The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 66 vph		
Condition A3		<u>Met</u>
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2451 vph		
Condition B		<u>Not Met</u>
The plotted point falls above the curve		



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Embarcadero Rd
City of Palo Alto

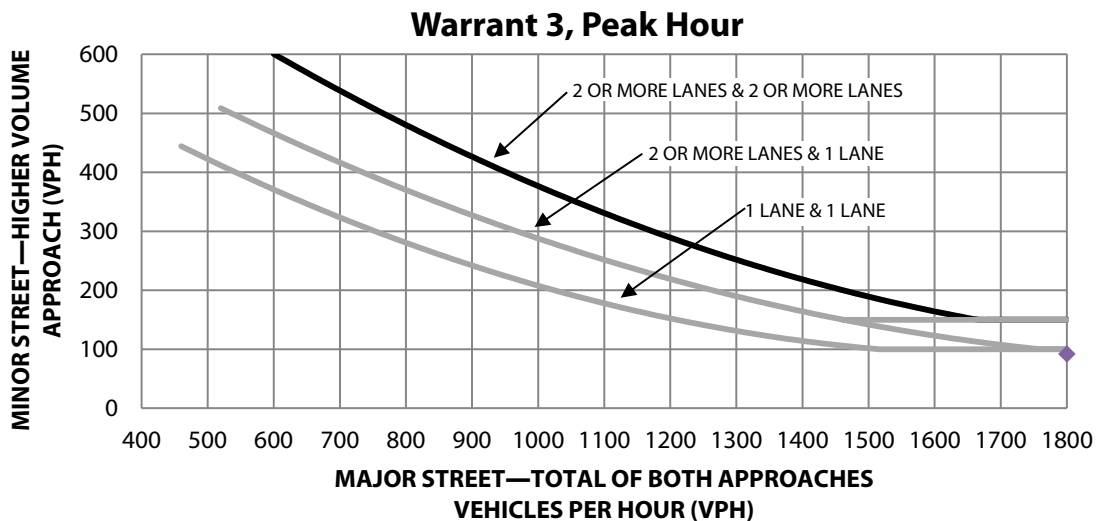
Project Name: Castilleja School Expansion

Intersection: 2

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Embarcadero Rd
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Cumulative Condition AM

Warrant 3 Met?: Met when either Condition A or B is met		No
Condition A: Met when conditions A1, A2, and A3 are met		<u>Not Met</u>
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 2.81 vehicle-hours		<u>Not Met</u>
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 92 vph		<u>Not Met</u>
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2740 vph		<u>Met</u>
Condition B The plotted point falls above the curve		<u>Not Met</u>



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

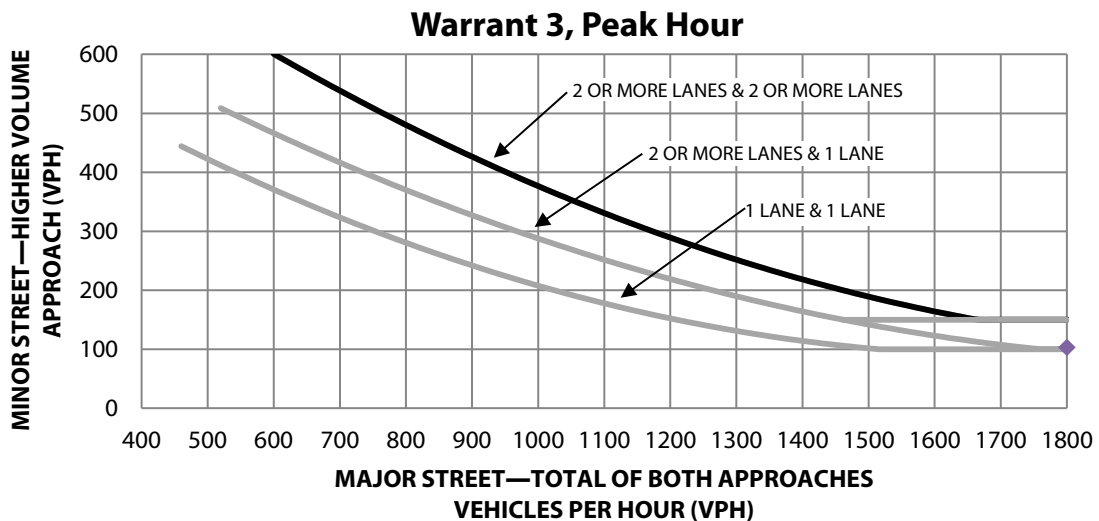
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Cumulative Condition AM

Warrant 3 Met?: Met when either Condition A or B is met		Yes
Condition A: Met when conditions A1, A2, and A3 are met		Met
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 35.31 vehicle-hours		Met
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 103 vph		Met
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2854 vph		Met
Condition B The plotted point falls above the curve		Not Met



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

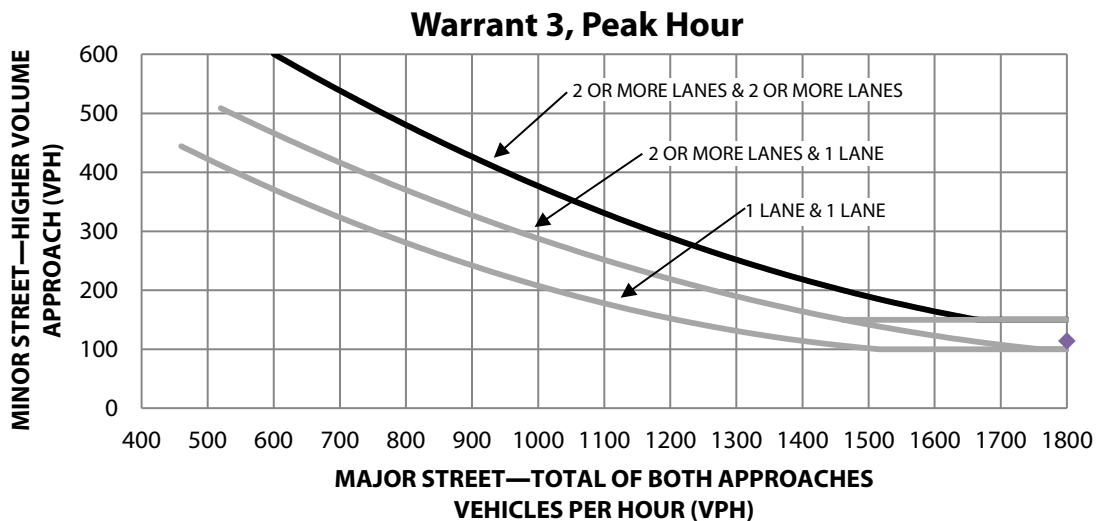
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Cumulative Condition MD

Warrant 3 Met?: Met when either Condition A or B is met		Yes
Condition A: Met when conditions A1, A2, and A3 are met		Met
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 10.32 vehicle-hours		Met
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 114 vph		Met
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2447 vph		Met
Condition B The plotted point falls above the curve		Not Met



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

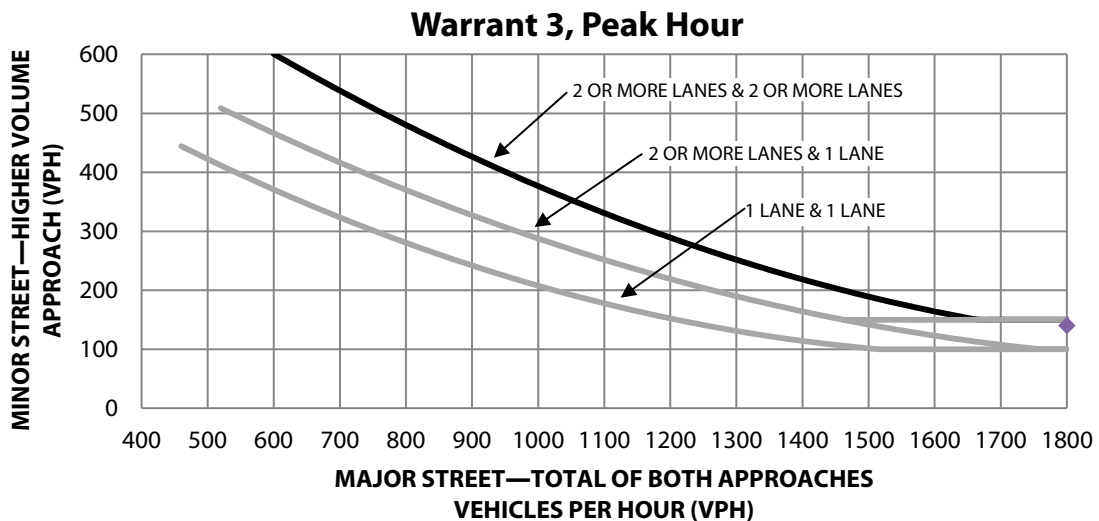
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Cumulative Condition PM

Warrant 3 Met?: Met when either Condition A or B is met		Yes
Condition A: Met when conditions A1, A2, and A3 are met		Met
<i>Condition A1</i>		Met
The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 39.53 vehicle-hours		
<i>Condition A2</i>		Met
The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 140 vph		
<i>Condition A3</i>		Met
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2967 vph		
Condition B		Not Met
The plotted point falls above the curve		



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Embarcadero Rd
City of Palo Alto

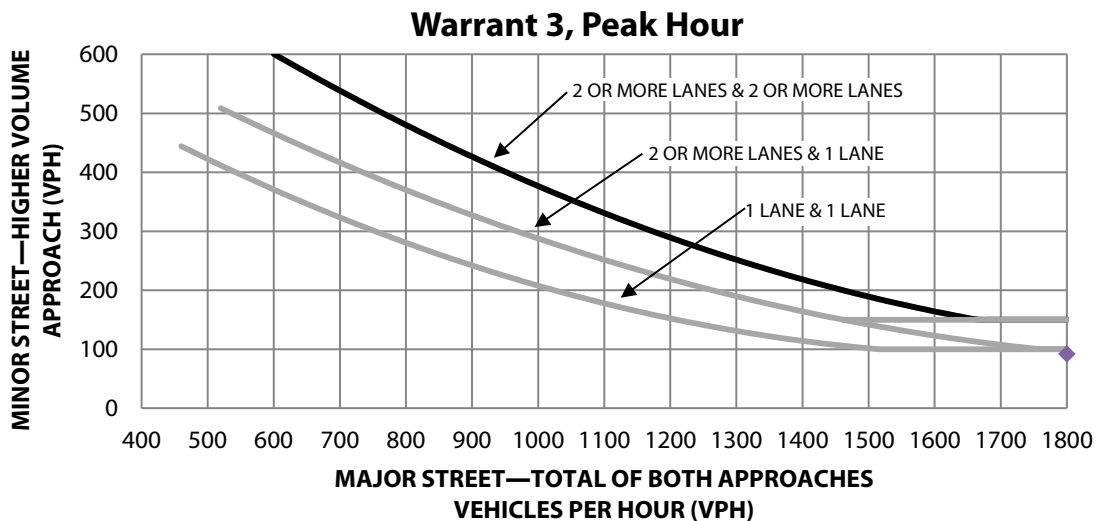
Project Name: Castilleja School Expansion

Intersection: 2

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Embarcadero Rd
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Cumulative plus Project AM

Warrant 3 Met?: Met when either Condition A or B is met		No
Condition A: Met when conditions A1, A2, and A3 are met		<u>Not Met</u>
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 2.52 vehicle-hours		<u>Not Met</u>
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 92 vph		<u>Not Met</u>
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2657 vph		<u>Met</u>
Condition B The plotted point falls above the curve		<u>Not Met</u>



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

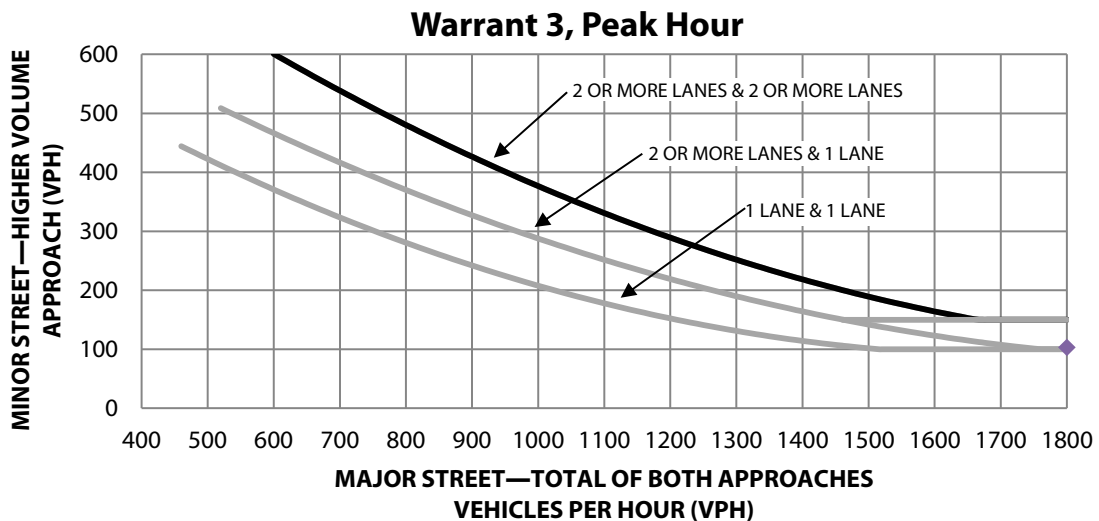
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Cumulative plus Project AM

Warrant 3 Met?: Met when either Condition A or B is met		Yes
Condition A: Met when conditions A1, A2, and A3 are met		Met
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 50.96 vehicle-hours		Met
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 103 vph		Met
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2891 vph		Met
Condition B The plotted point falls above the curve		Not Met



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

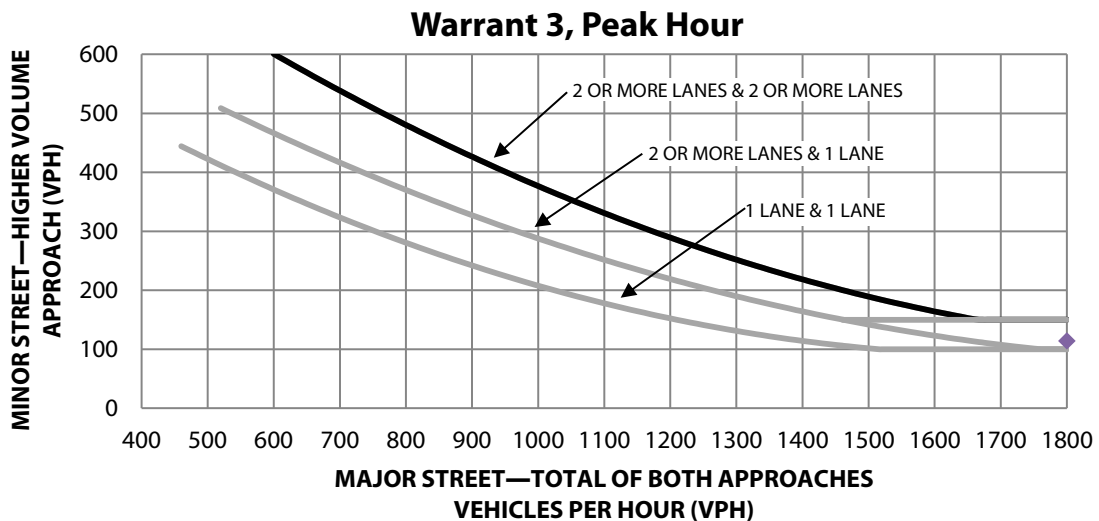
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Cumulative plus Project MD

Warrant 3 Met?: Met when either Condition A or B is met		Yes
Condition A: Met when conditions A1, A2, and A3 are met		Met
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 12.47 vehicle-hours		Met
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 114 vph		Met
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2458 vph		Met
Condition B The plotted point falls above the curve		Not Met



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

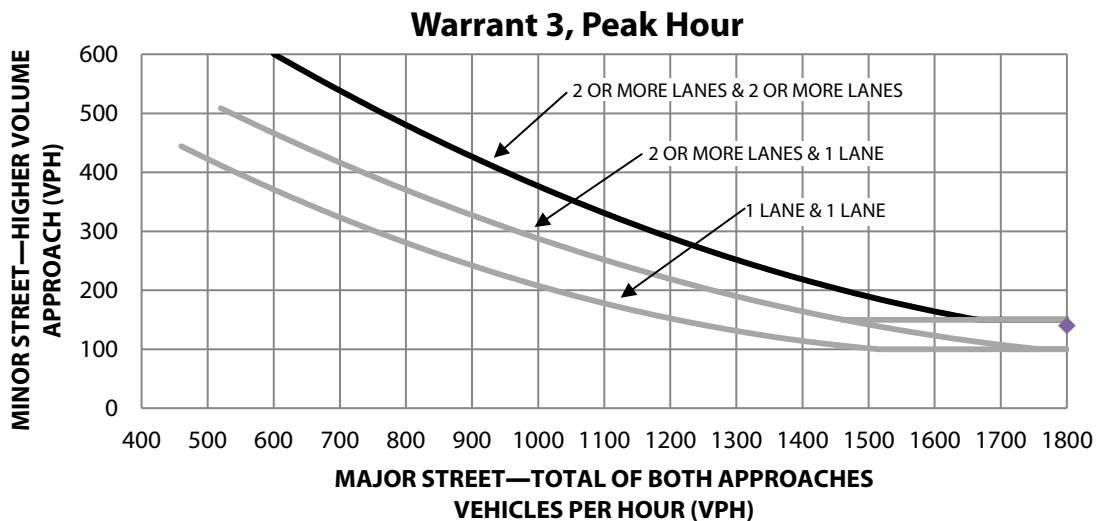
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Cumulative plus Project PM

Warrant 3 Met?: Met when either Condition A or B is met		Yes
Condition A: Met when conditions A1, A2, and A3 are met		Met
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 43.41 vehicle-hours		Met
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 140 vph		Met
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2974 vph		Met
Condition B The plotted point falls above the curve		Not Met



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Melville Av
City of Palo Alto

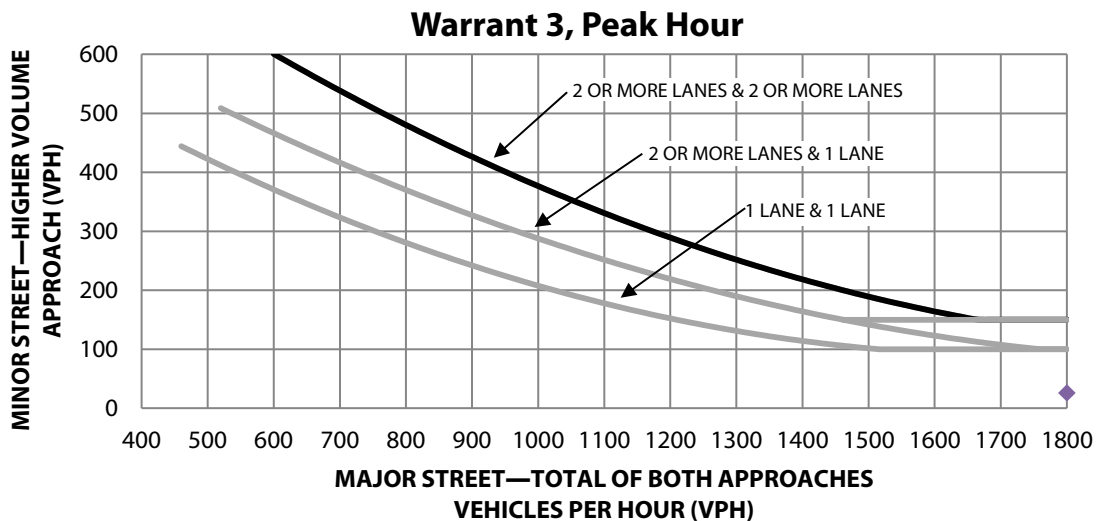
Project Name: Castilleja School Expansion

Intersection: 8

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Melville Av
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Cumulative Condition AM

Warrant 3 Met?: Met when either Condition A or B is met		No
Condition A: Met when conditions A1, A2, and A3 are met		<u>Not Met</u>
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 0.36 vehicle-hours		<u>Not Met</u>
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 26 vph		<u>Not Met</u>
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2784 vph		<u>Met</u>
Condition B The plotted point falls above the curve		<u>Not Met</u>



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Embarcadero Rd
City of Palo Alto

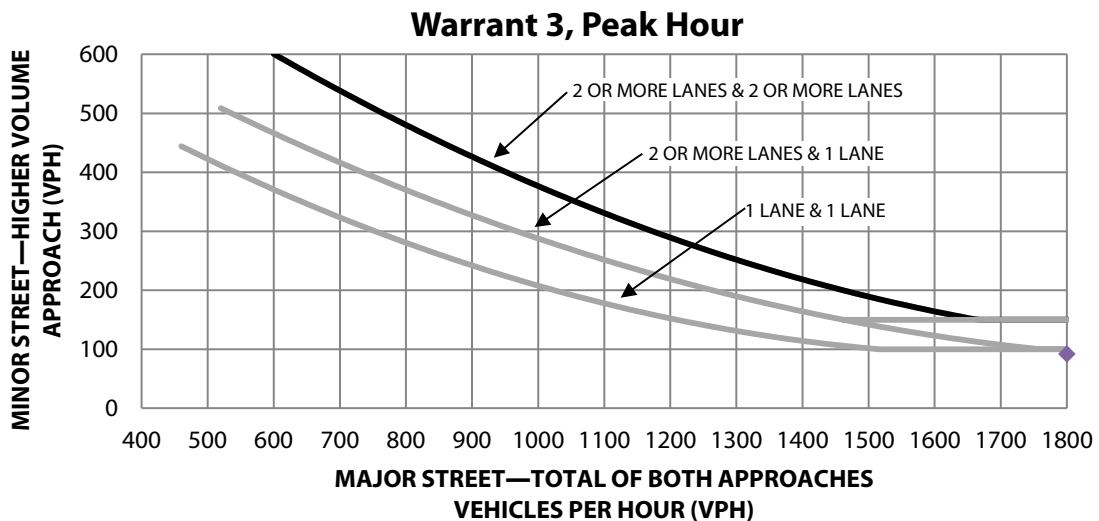
Project Name: Castilleja School Expansion

Intersection: 2

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Embarcadero Rd
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Existing plus Project AM (No Turn Restriction Alt)

Warrant 3 Met?: Met when either Condition A or B is met		No
Condition A: Met when conditions A1, A2, and A3 are met		<u>Not Met</u>
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 1.43 vehicle-hours		<u>Not Met</u>
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 92 vph		<u>Not Met</u>
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2312 vph		<u>Met</u>
Condition B The plotted point falls above the curve		<u>Not Met</u>



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

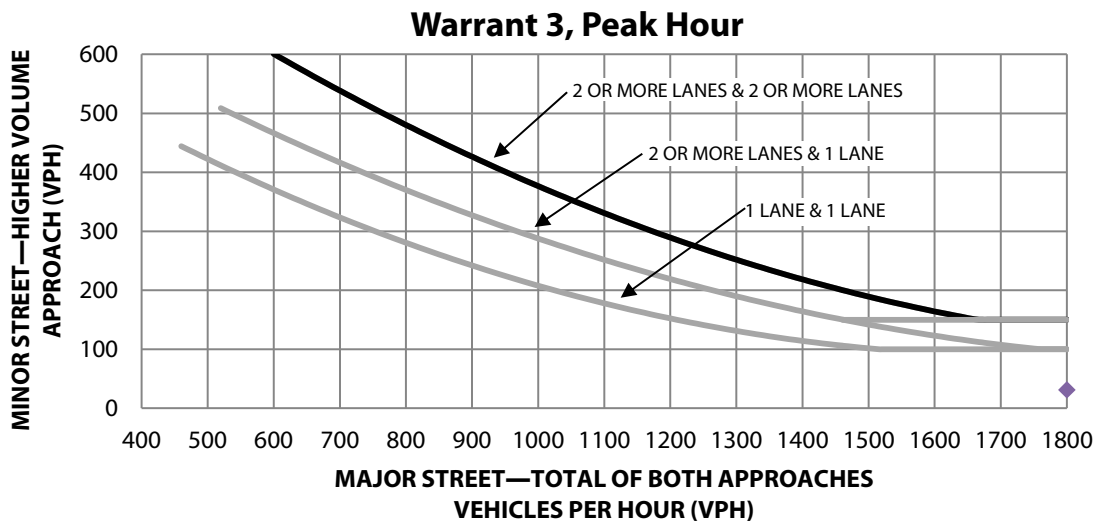
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Existing plus Project AM (No Turn Restriction Alt)

Warrant 3 Met?: Met when either Condition A or B is met		No
Condition A: Met when conditions A1, A2, and A3 are met		<u>Not Met</u>
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 0.79 vehicle-hours		<u>Not Met</u>
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 31 vph		<u>Not Met</u>
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2331 vph		<u>Met</u>
Condition B The plotted point falls above the curve		<u>Not Met</u>



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

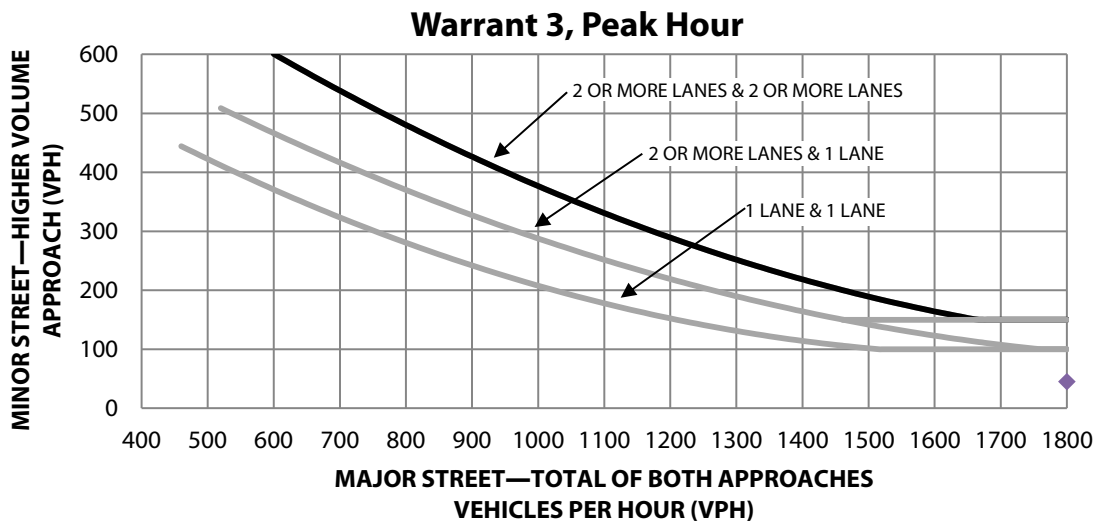
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Existing plus Project MD (No Turn Restriction Alt)

Warrant 3 Met?: Met when either Condition A or B is met		No
Condition A: Met when conditions A1, A2, and A3 are met		<u>Not Met</u>
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 0.62 vehicle-hours		<u>Not Met</u>
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 45 vph		<u>Not Met</u>
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 1981 vph		<u>Met</u>
Condition B The plotted point falls above the curve		<u>Not Met</u>



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

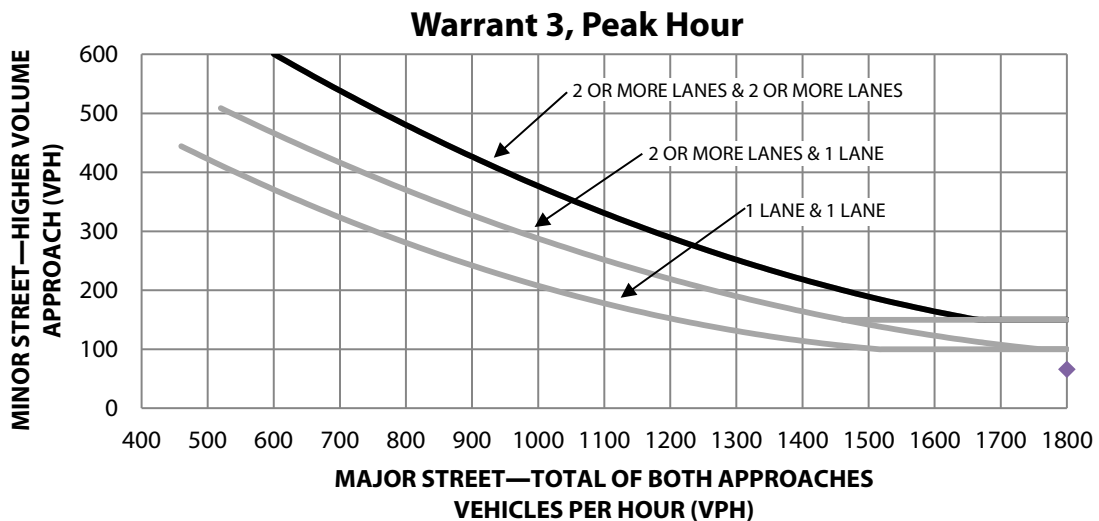
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Existing plus Project PM (No Turn Restriction Alt)

Warrant 3 Met?: Met when either Condition A or B is met		No
Condition A: Met when conditions A1, A2, and A3 are met		<u>Not Met</u>
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 3.17 vehicle-hours		<u>Not Met</u>
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 66 vph		<u>Not Met</u>
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2479 vph		<u>Met</u>
Condition B The plotted point falls above the curve		<u>Not Met</u>



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Embarcadero Rd
City of Palo Alto

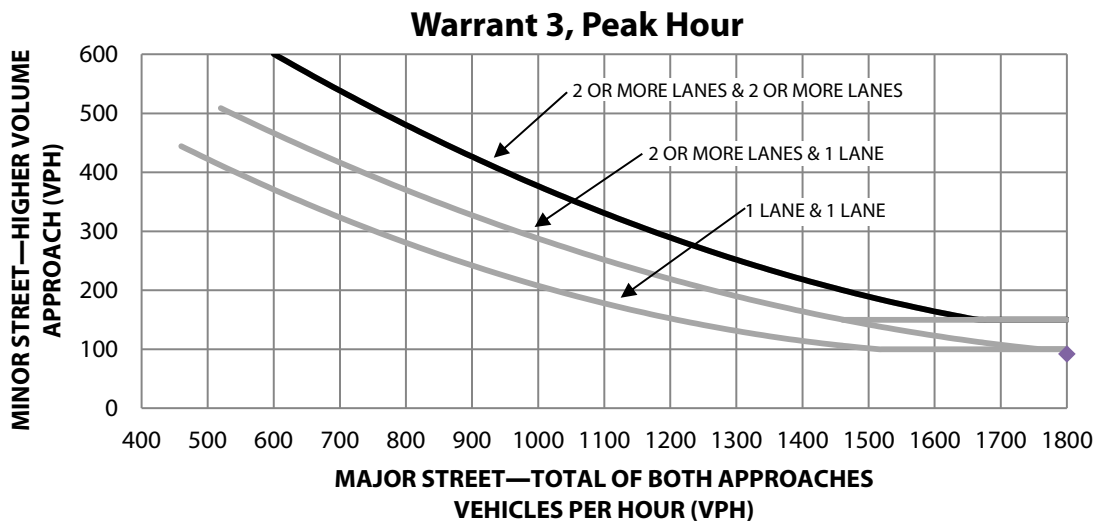
Project Name: Castilleja School Expansion

Intersection: 2

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Embarcadero Rd
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Cumulative plus Project AM (No Turn Restriction A)

Warrant 3 Met?: Met when either Condition A or B is met		No
Condition A: Met when conditions A1, A2, and A3 are met		<u>Not Met</u>
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 2.89 vehicle-hours		<u>Not Met</u>
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 92 vph		<u>Not Met</u>
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2760 vph		<u>Met</u>
Condition B The plotted point falls above the curve		<u>Not Met</u>



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

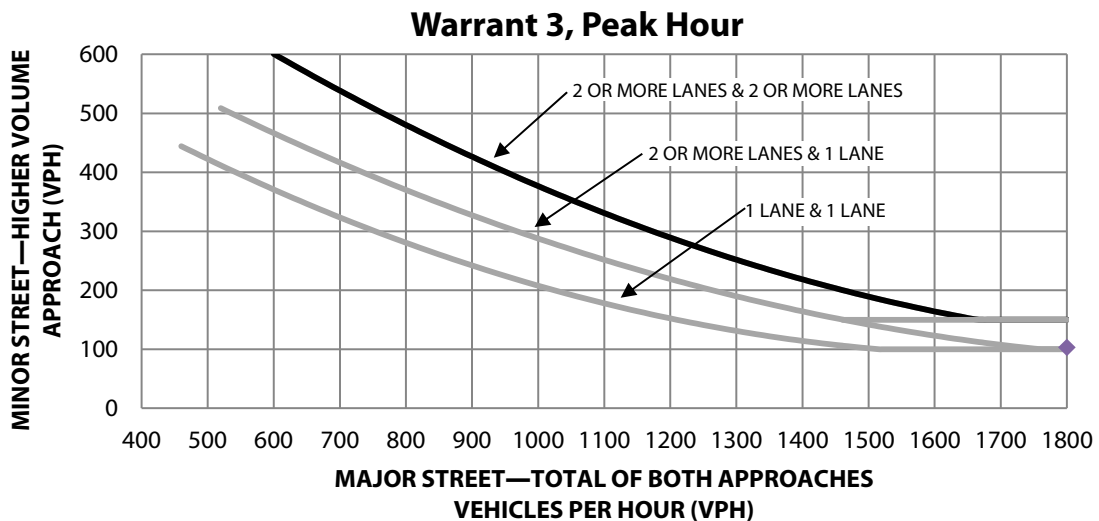
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Cumulative plus Project AM (No Turn Restriction A)

Warrant 3 Met?: Met when either Condition A or B is met		Yes
Condition A: Met when conditions A1, A2, and A3 are met		Met
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 46.95 vehicle-hours		Met
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 103 vph		Met
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2935 vph		Met
Condition B The plotted point falls above the curve		Not Met



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

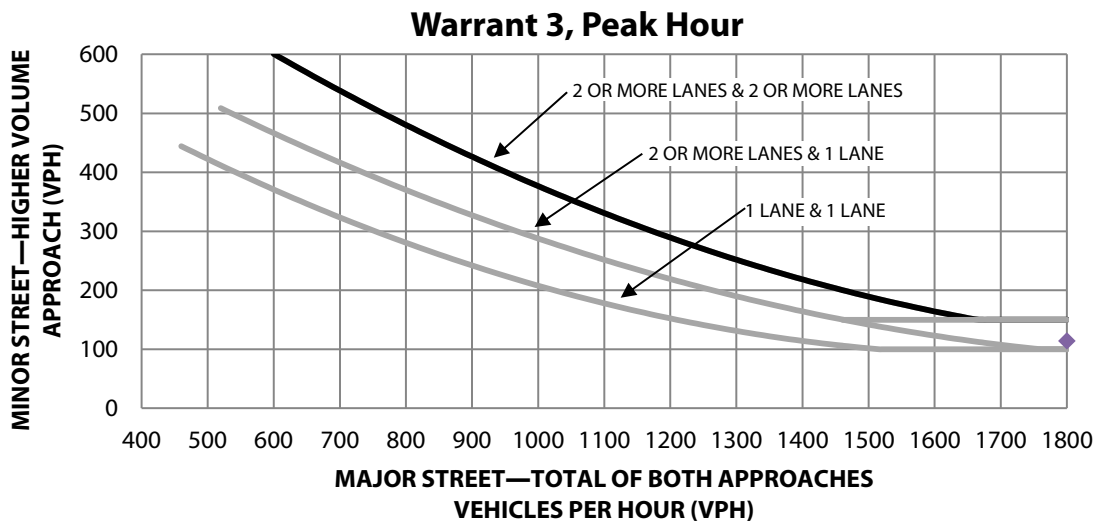
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Cumulative plus Project MD (No Turn Restriction A)

Warrant 3 Met?: Met when either Condition A or B is met		Yes
Condition A: Met when conditions A1, A2, and A3 are met		Met
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 12.08 vehicle-hours		Met
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 114 vph		Met
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2499 vph		Met
Condition B The plotted point falls above the curve		Not Met



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Kingsley Ave
City of Palo Alto

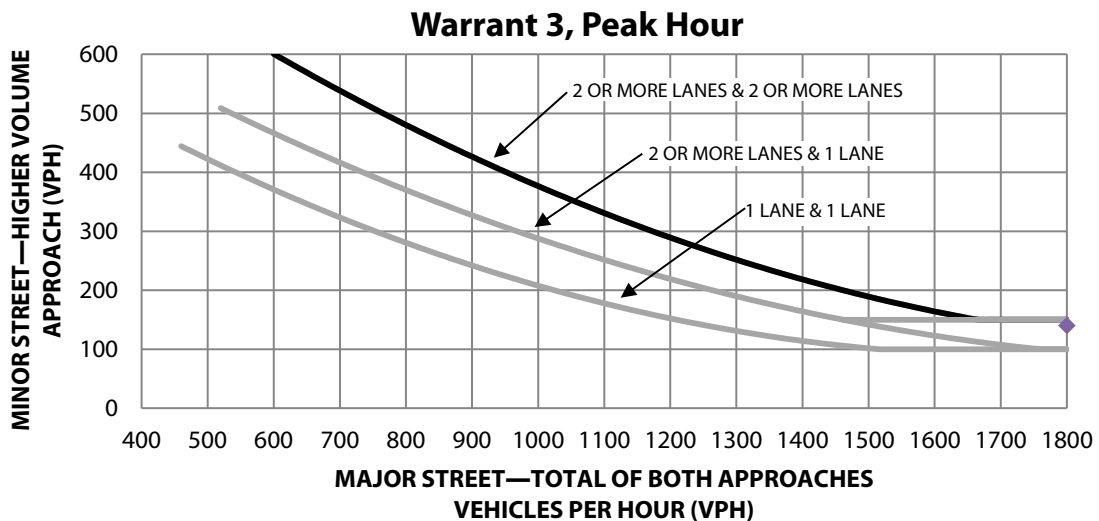
Project Name: Castilleja School Expansion

Intersection: 3

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Kingsley Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Cumulative plus Project PM (No Turn Restriction A)

Warrant 3 Met?: Met when either Condition A or B is met		Yes
Condition A: Met when conditions A1, A2, and A3 are met		Met
<i>Condition A1</i> The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 43.78 vehicle-hours		Met
<i>Condition A2</i> The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 140 vph		Met
<i>Condition A3</i> The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 3002 vph		Met
Condition B The plotted point falls above the curve		Not Met



Warrant 3: Peak-Hour Volumes and Delay

Alma St & Melville Ave
City of Palo Alto

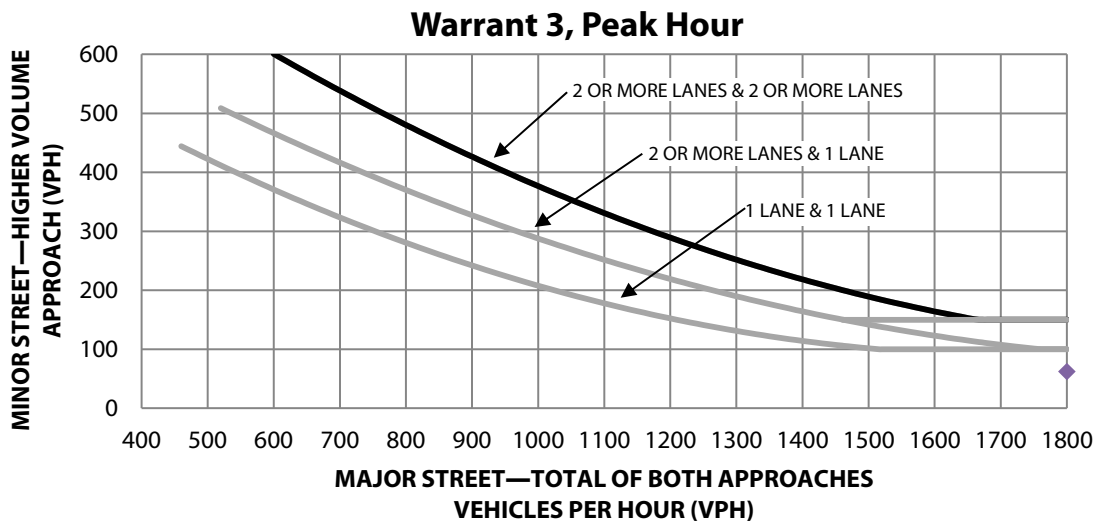
Project Name: Castilleja School Expansion

Intersection: 8

	<u>Major Street</u>	<u>Minor Street</u>
Street Name	Alma St	Melville Ave
Direction	N-S	E-W
Number of Lanes	3	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: N/A
Scenario: Cumulative plus Project AM (No Turn Restriction A)

Warrant 3 Met?: Met when either Condition A or B is met		No
Condition A: Met when conditions A1, A2, and A3 are met		<u>Not Met</u>
Condition A1		<u>Not Met</u>
The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach Minor Approach Delay: 0.7 vehicle-hours		
Condition A2		<u>Not Met</u>
The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes Minor Approach Volume: 62 vph		
Condition A3		<u>Met</u>
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches Total Entering Volume: 2843 vph		
Condition B		<u>Not Met</u>
The plotted point falls above the curve		



Appendix E

Calculation of Average Distance Traveled

Calculation of Average Distance Traveled per Person at Castilleja School

Total Distance ¹ (Students)	1,858.6
Total Distance ¹ (Employees)	1,948.0
Combined	3,806.6
Number of Students at Time of Record	331
Number of Employees at Time of Record	164
Total Number of Persons	495
Avg Distance Traveled (Students)	5.62
Avg Distance Traveled (Employees)	11.88
Weighted Average Distance per Person	7.69

Notes:

1) Based on distance between "home ZIP Code" and school campus