

Corte Madera Housing Element Update
Transportation Analysis

E
APPENDIX



HEXAGON TRANSPORTATION CONSULTANTS, INC.

Corte Madera Housing Element Update Draft Transportation Analysis

Prepared for:

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Table of Contents

Executive Summary.....	i
1. Introduction.....	1
2. Existing Transportation Conditions.....	9
3. CEQA Transportation Analysis.....	15
4. Local Transportation Analysis.....	20

Appendices

Appendix A Traffic Counts
Appendix B Traffic Volumes
Appendix C Trip Generation Estimates by Site
Appendix D Level of Service Calculations
Appendix E Signal Warrant

List of Tables

Table 1 Housing Opportunity Sites Potential Development.....	1
Table 2 Signalized Intersection Level of Service Definitions Based on Control Delay.....	6
Table 3 Unsignalized Intersection Level of Service Definitions Based on Control Delay.....	7
Table 4 Existing Transit Facilities.....	12
Table 5 VMT Analysis.....	18
Table 6 Project Trip Generation Estimates.....	21
Table 7 Intersection Level of Service Summary.....	32

List of Figures

Figure 1 Site Locations and Study Intersections.....	3
Figure 2 Existing Bicycle Facilities.....	13
Figure 3 Existing Transit Services.....	14
Figure 4 Project Trip Distribution – Residential Uses.....	22
Figure 5 Project Trip Distribution – Commercial/Office Uses.....	23
Figure 6 Project Trip Assignment.....	24
Figure 7 Existing Lane Configurations.....	27
Figure 8 Existing Traffic Volumes.....	28
Figure 9 Existing Plus Project Traffic Volumes.....	29
Figure 10 Cumulative Traffic Volumes.....	30
Figure 11 Cumulative Plus Project Traffic Volumes.....	31

Executive Summary

This report presents the results of the transportation analysis (TA) conducted for the proposed Corte Madera Housing Element Update (HEU) project. The Town is updating its General Plan Housing Element as mandated by State law for the Regional Housing Needs Assessment (RHNA) 2023-2031 planning cycle. For analysis purposes, this amendment is projected to result in an increase in Corte Madera's housing allocation by 884 dwelling units and a reduction in the Town's commercial/office uses by 54,728 square feet.

The potential impacts of the HEU were evaluated in accordance with the standards and methodologies set forth by the Town of Corte Madera.

CEQA Transportation Analysis

Vehicle Miles Travelled (VMT) Impact

The proposed residential use would generate a VMT level (14.7 per resident) greater than the threshold (13.4 per capita), therefore the HEU would result in a significant transportation impact on VMT. Therefore, mitigation measures for the HEU are required to reduce VMT to below the threshold.

Mitigation: It is recommended that the HEU and all development projects associated with the HEU include travel demand management measures, including but not limited to the measures below, which have been identified as potentially VMT reducing in the California Air Pollution Control Officers Association (CAPCOA) Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (December 2021). Potential VMT reduction estimates are included below. It should be noted that CAPCOA research indicates that VMT reductions probably wouldn't exceed 10 percent for development projects in suburban settings such as Corte Madera.

- Unbundle parking costs (i.e. sell or lease parking separately from the housing unit). Effectiveness: up to 15.7 percent reduction in GHG from VMT per the CAPCOA Handbook.
- Provide car-sharing, bike sharing, or scooter sharing programs. Effectiveness: 0.15 – 0.18 percent reduction in GHG from VMT for car share, 0.02 – 0.06 percent for bike share, and 0.07 percent for scooter share, per the CAPCOA Handbook. The higher car share and bike share values are for electric car and bike share programs.
- Subsidize transit passes for residents of affordable housing. Effectiveness: up to 5.5 percent reduction in GHG from VMT per the CAPCOA Handbook.
- Integrate affordable and below market rate housing. Effectiveness: up to 28.6 percent reduction in GHG from VMT per the CAPCOA Handbook.

With the implementation of a residential TDM Plan to include the above measures, the HEU VMT impact would be less than significant with mitigation.

Local Transportation Analysis

Project Trip Generation

Based on the ITE trip generation rates and applicable reductions, it is estimated that the proposed project would generate 2,956 new daily trips, including 348 new trips (63 inbound and 285 outbound) during the AM peak hour, 350 new trips (200 inbound and 150 outbound) during the mid-afternoon peak hour, and 503 new trips (320 inbound and 183 outbound) during the PM peak hour

Intersection Traffic Operations

Based on the Town of Corte Madera's intersection operations analysis criteria, the added project trips would cause adverse operations effects at the all-way stop controlled intersection of Tamal Vista Boulevard and Madera Boulevard. The results of the peak-hour signal warrant check indicates that the PM peak-hour volumes at this intersection would warrant signalization under existing plus project, cumulative, and cumulative plus project conditions.

It is recommended that the intersection be monitored as growth in the City occurs, and if warranted in the future, the intersection should be signalized or a roundabout should be installed if feasible, to improve the traffic operations to meet the Town's level of service standard.

1. Introduction

This report presents the results of the transportation analysis (TA) conducted for the proposed Corte Madera Housing Element Update (HEU) project. The Town is updating its General Plan Housing Element as mandated by State law for the Regional Housing Needs Assessment (RHNA) 2023-2031 planning cycle. For analysis purposes, this amendment is project to result in an increase in Corte Madera's housing allocation by 884 dwelling units and a reduction in the Town's commercial/office uses by 54,728 square feet (hereafter known as 'project'). Figure 1 shows the location of the proposed housing sites in the Town. Table 1 shows the breakdown of the potential increase in units and reduction in commercial uses by site.

**Table 1
Housing Opportunity Sites Potential Development**

Opportunity Site	Address	Existing	Proposed	
		Commercial/Office (Square Feet)	Maximum Units	Commercial (Square Feet)
1	601 Tamalpais[1]	6,941	11	4,139
2	41 Tamal Vista[1]	11,040	73	18,382
3	400 & 500 Tamal Plaza	59,424	105	26,152
4	2 & 10 Fifer, 110 & 150 Nellen	43,249	120	30,045
5	111 Lucky	7,517	25	8,712
6	1400 Redwood Highway	109,920	300	110,811
7	5804 Paradise	7,800	40	10,106
8	5750 Paradise (3 parcels)	10,713	61	15,332
9	5651 Paradise	14,420	38	13,488
10	100 Tamal Vista	23,330	53	13,068
11	240 Tamal Vista	25,071	58	14,462
Totals		319,425	884	264,697
Net Change			+884	-54,728

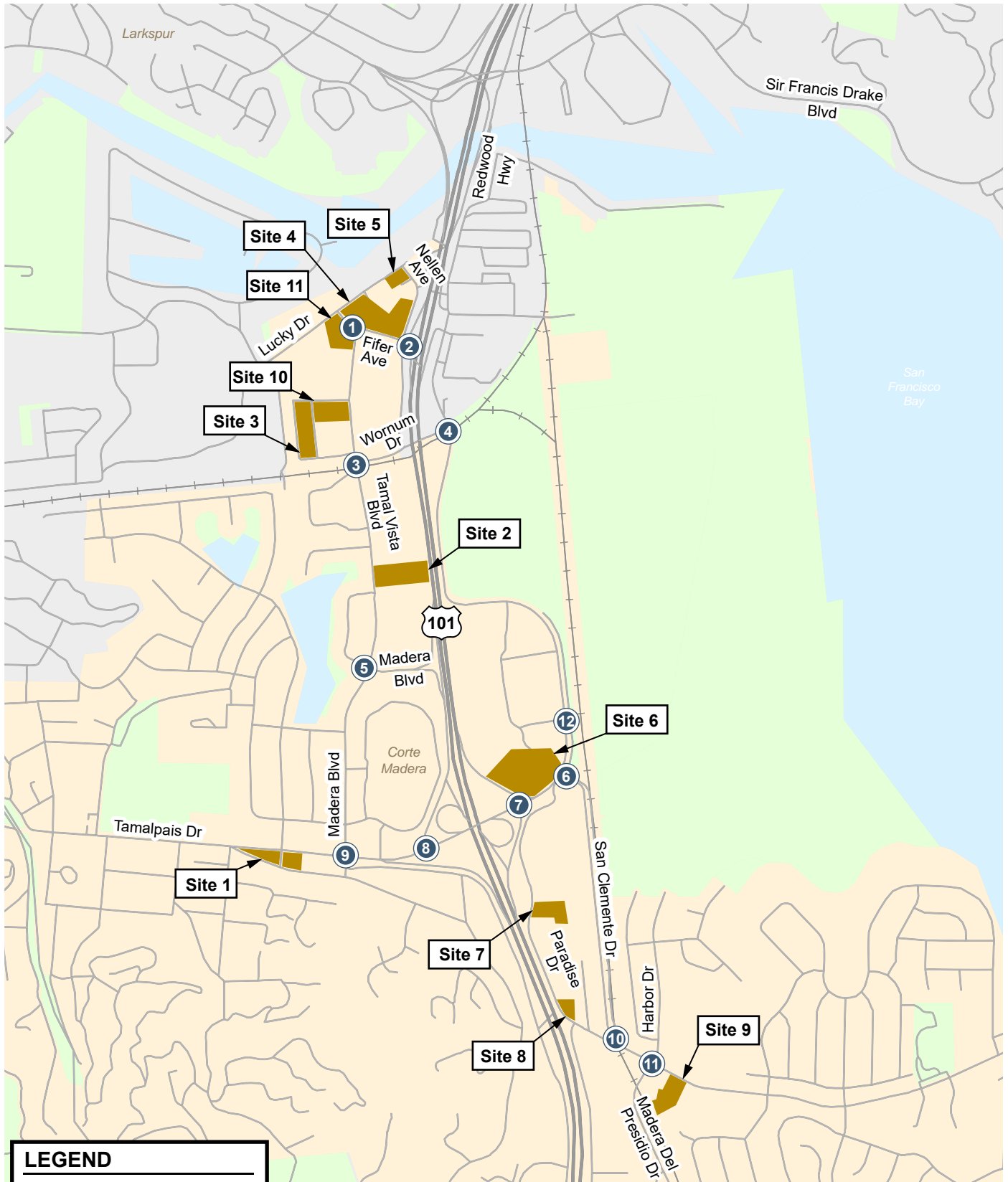
Notes:
[1] Existing commercial sites are vacant.

Scope of Study

The purpose of the study is to identify potential transportation impacts related to the proposed project. Per California Senate Bill 743 (SB 743) and CEQA Guidelines, the study includes a vehicle miles traveled (VMT) analysis. The study also includes a local transportation analysis that evaluates potential transportation effects of the project in accordance with the standards and methodologies set forth by the Town of Corte Madera.

CEQA VMT Analysis

In accordance with Senate Bill (SB) 743, an analysis of the proposed increase in housing's potential impacts on VMT was conducted as part of the environmental analysis for the project. The Town of Corte Madera has not formally adopted a VMT policy, therefore, the VMT thresholds for this project were based on the Governor's Office of Planning and Research (OPR)'s recommendations. Consistent with OPR guidelines, 85 percent of the existing County average daily VMT per resident was assumed as the VMT threshold of significance. Average VMT per resident for the project zones was reported from the Transportation Authority of Marin's Demand Model (TAMDM), and the project average VMT per resident was compared to the Marin County average.



LEGEND

- = Site Location
- X = Study Intersection

Figure 1
Site Location and Study Intersections

Local Transportation Analysis (LTA)

The LTA supplements the VMT analysis by identifying potential adverse traffic operational effects of the proposed housing sites that may arise due to the new development. This includes operations at key intersections and freeway corridors providing access to and through the study area.

The intersection operations analysis is based on the AM (7:00 AM and 9:00 AM) and PM (4:00 PM and 6:00 PM) peak-hour level of service for ten signalized intersections and two unsignalized intersections in the vicinity of the project sites as illustrated in Figure 1. Traffic counts at five study intersections were approximately similar or higher during the mid-afternoon (2:00 PM to 4:00 PM) peak hour as compared to the PM peak hour due to schools. These intersections were also analyzed for the mid-afternoon peak hour. The list of study intersections and time-periods were determined in consultation with the Town staff. The following intersections were identified for analysis:

- Tamal Vista Boulevard and Fifer Avenue*
- Nellen Avenue/US 101 ramps and Fifer Avenue (unsignalized)
- Tamal Vista Boulevard and Wornum Drive*
- Redwood Highway and Wornum Drive
- Tamal Vista Boulevard and Madera Boulevard (unsignalized)
- San Clemente Drive and Tamalpais Drive/Redwood Highway*
- US 101 Northbound off ramp and Tamalpais Drive
- US 101 Southbound off ramp and Tamalpais Drive
- Madera Boulevard and Tamalpais Drive*
- San Clemente Drive and Paradise Drive
- Madera Del Presidio/Harbor Drive and Paradise Drive
- Redwood Highway and Village South Entrance*

*Intersections analyzed during the mid-afternoon peak hour

Traffic conditions were evaluated for the following scenarios:

- **Existing Conditions.** Existing traffic volumes at the study intersections were based on pre-pandemic traffic counts conducted between 2014 and 2018 and new counts collected in 2022 where pre-pandemic counts were not available. For locations where multiple counts were available, the highest turning movement counts were used for the analysis. The 2022 counts were factored by comparing the new counts to available pre-pandemic counts (see Appendix A).
- **Existing Plus Project Conditions.** Existing plus project traffic volumes were estimated by adding to existing traffic volumes the additional traffic generated by the proposed new development. Existing plus project conditions were evaluated relative to existing conditions to determine potential adverse project effects. In addition, roadway improvements at San Clemente Drive and Tamalpais Drive/Redwood Highway were assumed as directed by Town Staff.
- **Cumulative Conditions.** The cumulative scenario assumed a year 2031 horizon, which represents the RHNA planning cycle. An annual growth factor was developed using the TAMDM model and was applied to all study intersections. In addition, roadway improvements at San Clemente Drive and Tamalpais Drive/Redwood Highway were assumed as directed by Town Staff.

- **Cumulative Plus Project Conditions.** Cumulative plus project traffic volumes were estimated by adding to cumulative traffic volumes the additional traffic generated by the project. Cumulative plus project conditions were evaluated relative to cumulative conditions to determine potential adverse project effects.

Intersection Operations Analysis Methodology

This section presents the methods used to determine the traffic conditions at the study intersections and the potential adverse operational effects due to the project. It includes descriptions of the data requirements, the analysis methodologies, the applicable intersection level of service standards, and the criteria used to determine adverse effects on intersection operations.

Data Requirements

The data required for the analysis were obtained from previous traffic studies, new traffic counts, the Town of Corte Madera, the TAM VMT webmap, and Google Earth. The following data were collected from these sources:

- Existing traffic volumes
- Lane configurations
- Signal timing and phasing

Level of Service Analysis Methodology and Standards

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The analysis methods are described below.

Signalized Intersections

The Town of Corte Madera utilizes SYNCHRO software and the Highway Capacity Manual (HCM) methodology to evaluate intersection operations. The HCM method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Control delay is the amount of delay that is attributed to the particular traffic control device at the intersection, and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The correlation between average delay and level of service is shown in Table 2. In the Town of Corte Madera, the level of service standard for signalized intersections is LOS D.

Table 2
Signalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 20.0
C	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though some vehicles may still pass through the intersection without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels.	greater than 80.0

Source: Transportation Research Board, *Highway Capacity Manual, 6th Edition*, p.10-16.

Unsignalized Intersections

The study includes the analysis of two unsignalized intersections. Level of service analysis at unsignalized intersections is generally used to determine the need for modification in the type of intersection control (i.e., all-way stop or signalization). As part of the evaluation, traffic volumes, delays and traffic signal warrants are evaluated to determine if the existing intersection control is appropriate.

For unsignalized intersections, level of service depends on the average delay experienced by vehicles on the stop-controlled approaches. Thus, for all-way stop controlled intersections, level of service is determined by the average delay for all movements through the intersection. For side street stop-controlled intersections (two-way or T-intersections), operations are defined by the average control delay experienced by vehicles entering the intersection from the stop-controlled approaches on minor streets or from left-turn approaches on major streets. For two-way or T-intersections, the level of service is reported based on the average delay for the worst approach. The level of service definitions for unsignalized intersections is shown in Table 3. The Town of Corte Madera's adopted level of service standard for unsignalized intersections is LOS D.

Table 3
Unsignalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Delay Per Vehicle (Sec.)
A	Little or no traffic delay	10.0 or less
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays	greater than 50.0

Source: Transportation Research Board, *Highway Capacity Manual, 6th Edition* p17-2.

Adverse Operational Effects on Intersections

For this analysis, the criteria used to determine an adverse effect on intersections are based on the Town of Corte Madera's Level of Service standards. The Town's General Plan specifies the following Policy and Implementation Program related to traffic operations at intersections:

- Policy CIR-1.2: Ensure that current Levels of Service at intersections are maintained when considering new development within Corte Madera
 - Implementation Program CIR-1.1.a: Level of Service Standards The town shall strive to maintain Level of Service (LOS) D operation during the weekday morning and evening peak periods at intersections of an arterial street with either another arterial or a collector street and intersections of two collector streets. For projected future conditions the LOS is to be calculated using the average traffic demand over the highest 60-minute period. For all types of controls the Level of Service standard is to be applied to the average operation of the intersection, and not that for any single movement or approach. Exceptions to meeting this standard include:
 1. Stop-controlled minor street approaches to either collector or arterial streets, where safety shall be the primary consideration;
 2. Locations where the Town Engineer deems improvement to be technically, financially, or environmentally infeasible;
 3. Conditions where the improvement would result in significant adverse impacts to other travel modes, including walking, bicycling, or transit; or
 4. Locations where attainment would ensure the loss of an area's unique character.

Report Organization

This report has a total of five chapters. Chapter 2 describes existing transportation conditions including the existing roadway network, transit service, and bicycle and pedestrian facilities. Chapter 3 describes the CEQA transportation analysis, including the project VMT impact analysis. Chapter 4 describes the local transportation analysis including operations of study intersections, the methods used to estimate project-generated traffic, the project's effects on the study intersections, and a freeway segment capacity analysis.

2. Existing Transportation Conditions

This chapter describes the existing conditions of the transportation system within Corte Madera. It describes the roadway network, transit service, and pedestrian and bicycle facilities. The analysis of existing intersection operations is included as part of the local transportation analysis (see Chapter 4).

Existing Roadway Network

Regional access to Corte Madera is provided via US 101. Major streets providing access to the housing sites include Tamal Vista Boulevard, Madera Boulevard, Redwood Highway, Paradise Drive, San Clemente Drive, Tamalpais Drive, Fifer Avenue, and Lucky Drive. These facilities are described below.

US 101 is an eight-lane freeway with three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction in the vicinity of the site. It extends north through San Francisco and south through Gilroy. Regional access to the Town is provided via its interchanges with Fifer Avenue, Madera Boulevard, and Tamalpais Drive.

Tamal Vista Boulevard is a north-south two-lane collector that extends from Fifer Avenue in the north to Madera Boulevard in the south, where it transitions into Madera Boulevard. Tamal Vista Boulevard has a two-way left turn lane with left turn pockets at intersections. Tamal Vista Boulevard has a posted speed limit of 30 mph. Sidewalks are provided on both sides of the street and new pedestrian crossings and Class II bike facilities were recently completed in 2020 as part of a “complete streets” rehabilitation. On-street parking is prohibited on both sides of the street.

Madera Boulevard is a north-south two-lane arterial that transitions from Casa Buena Drive at Tamalpais Drive and continues northward to the Council Crest Drive/Tamal Vista Boulevard intersection. At Council Crest Drive/Tamal Vista Boulevard, Madera Boulevard is a four-lane arterial that continues eastward to US 101. Between Council Crest Drive and Mohawk Avenue, Madera Boulevard has a southbound frontage street accessing the residential dwellings. Madera Boulevard has a landscaped median with left-turn pockets at intersections, a posted speed limit of 30 mph, and sidewalks on both sides of the street. On-street parking is prohibited on both sides of the street.

Redwood Highway is a north-south two to four lane collector that runs in the north-south direction between Greenbrae Boardwalk and San Clemente Drive, where it transitions into Tamalpais Drive. Redwood Highway north of Wornum Drive is in the City of Larkspur. Redwood Highway has four lanes and a landscaped median with left turn pockets south of the north village entrance driveway, after which it transitions to a two-lane street. South of Industrial Way, Redwood Highway has a posted speed limit of 30 mph. North of Industrial Way, there is a posted speed limit of 25 mph. There is a Class I bicycle and pedestrian path along the east side of the street south of Wornum Drive. Redwood Highway has

Class II bike lanes between Wornum Drive and Industrial Way. North of Industrial Way, Redwood Highway is a designated bike route. On-street parking is located on the west side of the street.

Paradise Drive is an east-west two to four lane collector between Tamalpais Drive and Tiburon city limits. Between Tamalpais Drive and San Clemente Drive, Paradise Drive has two lanes and a posted speed limit of 25 mph. A sidewalk is provided along the east side of the street along this entire section. On street parking is permitted along the east side of the street for the entire section. A small section of sidewalk and on-street parking, adjacent to Amy's Drive Thru, is provided along the west side of the street. Between San Clemente Drive and Prince Royal Drive, Paradise Drive has four lanes with a landscaped median and left turn pockets at intersections. There is a posted speed limit of 30 mph and parking is prohibited along both sides of the street. There are sidewalks along both sides of the street between San Clemente Drive and Seawolf Passage. East of Seawolf Passage, there are sidewalks along the south side of the street. East of Prince Royal Drive, Paradise Drive has two lanes with a separated bike/pedestrian path along the south side of the street until Westward Drive.

San Clemente Drive is a north-south four-lane arterial between Tamalpais Drive/Redwood Highway in the north and Paradise Drive in the south with a northbound left turn center lane. San Clemente Drive has a posted speed limit of 35 mph. There is a sidewalk along the west side of the street and a pedestrian/bicycle path along the east side of the street, separated by a landscaped median. On-street parking is prohibited on both sides of the street.

Tamalpais Drive is an east-west two-to-four lane arterial that transitions from Redwood Avenue in the west to San Clemente Drive in the east, where it transitions into Redwood Highway. Tamalpais Drive has a posted speed limit of 30 mph. There are sidewalks along both sides of the street between Redwood Avenue and the US 101 southbound off ramp. East of the US 101 southbound off ramp, there is a sidewalk on the south side of the street over the US 101 overpass. On-street parking is prohibited on both sides of the street west of Madera Boulevard. A bike route is designated west of Madera Boulevard.

Existing Pedestrian and Bicycle Facilities

Pedestrian facilities

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. The housing sites are proposed near the major streets in the Town that have pedestrian facilities: Tamal Vista Boulevard, Madera Boulevard, Redwood Highway, Paradise Drive, San Clemente Drive, and Tamalpais Drive. Continuous sidewalks are present on at least one side of these major streets.

Most of the signalized study intersections have crosswalks along at least two of the legs. Two of the study intersections have only one crosswalk: the US 101 northbound off ramp and Tamalpais Drive intersection, and the Redwood Highway and Village south entrance intersection.

Highway 101 geographically divides the Town, and connectivity between the east and west sides of the Town is limited to the Tamalpais Drive interchange, the Wornum Drive underpass, and the pedestrian overcrossing north of Wornum Drive. At the U.S. 101 ramps at Tamalpais Drive, the sidewalk merges into a pathway that brings pedestrians down from the overcrossing and provides access to bus stops near the Tamalpais Drive / U.S. 101 ramp intersections. The Caltrans U.S. Highway 101 Tamalpais Drive Overcrossing Project proposes to upgrade the structure over U.S. 101 at Tamalpais Drive overcrossing to include bike lanes and replace the existing nonstandard pedestrian facilities with Americans with Disabilities Act (ADA) compliant features.

Bicycle Facilities

Bicycle facilities in Corte Madera include bike paths, bike lanes, and bike routes. Bike paths (Class I facilities) separate pedestrians and bicyclists from motor vehicle traffic; however, pedestrians and bicyclists may have to share the path with other active transportation users. Bike lanes (Class II facilities) are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes (Class III facilities) are roadways shared between bicycles and vehicles. Bike routes are often designated for use by bicycles with “sharrow” pavement markings and signage. The existing bicycle facilities within the study area are described below and are shown on Figure 2.

A new Class I bicycle facility bridging over the Corte Madera Creek and connecting Sir Francis Drake Boulevard and Larkspur Landing to Redwood Highway was completed in July 2022, improving the multi-modal connection to the SMART Train and Larkspur ferry public transit facilities. A Class I bike path is located along the east side of Redwood Highway between Wornum Drive and San Clemente Drive and was recently rehabilitated. Additional Class I bike facilities exist on the east side of San Clemente Drive and along the former railroad right of way between Wornum Drive and Menke Park. The bike path on the south side of Wornum Drive continues into the Sandra Marker Trail and connects to the north-south path parallel to Holcomb Avenue.

Striped bike lanes (Class II bikeway) are present on Tamal Vista Boulevard for the entire street and Redwood Highway north of Wornum Drive to the US 101 northbound off-ramp. Along Redwood Highway, north of Industrial Way, in the City of Larkspur, a bike lane is present on the west side of the street and the east side of the street is signed as a bike route (Class III bikeway). Bike routes also exist along Tamalpais Drive west of Madera Boulevard.

Existing Transit Services

Existing transit service to Corte Madera is provided by Marin Transit and Golden Gate Transit (see Figure 3 and Table 4). Six Marin Transit bus routes (Route 17, 22, 36, 71, 613, 619) and three Golden Gate Transit (130, 132, 150) routes serve the Town. The Sonoma Marin Area Rapid Transit (SMART) train and Golden Gate Ferry provide regional access to cities to the north in Marin and Sonoma counties, and to San Francisco.

**Table 4
Existing Transit Facilities**

Bus Route	Route Description	Nearby Bus Stops	Weekday Hours of Operation ¹	Headway (minutes) ¹
Route 17 & 17X	Downtown San Rafael - Sausalito	US 101 at Paradise Drive Bus Pad, US 101 at Lucky Drive Bus Pad	5:30 AM - 11:30 PM	30-35
Route 22	Downtown San Rafael - Marin City	Tamalpais Drive & Casa Buena Drive	6:00 AM - 11:00 PM	60
Route 36	Canal - Marin City	US 101 at Paradise Drive Bus Pad, US 101 at Lucky Drive Bus Pad	6:00 AM - 8:20 PM	30
Route 71	Novato - Marin City	US 101 at Tamalpas Drive Bus Pad, US 101 at Lucky Drive Bus Pad	5:20 AM - 12:55 AM (next day)	30
Route 130	San Rafael - San Francisco	US 101 at Tamalpas Drive Bus Pad, US 101 at Fifer Avenue Bus Pad	5:45 AM - 12:09 AM	60
Route 132	San Anselmo - San Francisco	US 101 at Tamalpas Drive Bus Pad, US 101 at Fifer Avenue Bus Pad	5:43 AM - 9:23 AM	30
Route 150	Novato - San Francisco	US 101 at Tamalpas Drive Bus Pad, US 101 at Fifer Avenue Bus Pad	5:03 AM - 9:29 PM	60
Route 613	Paradise Cay - Hall MS - Redwood HS	Tamalpais Drive & Madera Boulevard, Paradise Drive & Prince Royal Drive	6:55 AM - 8:05 AM (westbound), 2:30 PM - 4:00 PM (eastbound)	-- ²
Route 619	Tiburon - Redwood HS	Along Tamal Vista Boulevard/Madera Drive between Fifer Avenue & Tamalpais Drive, US 101 at Paradise Drive Bus Pad	6:42 AM - 8:13 AM (westbound), 2:40 PM - 4:03 PM (eastbound)	-- ²

Note:
 1. Approximate weekday operation hours and headways during peak commute periods in the project area, as of April 2022.
 2. Headway varies based on school start and end time.

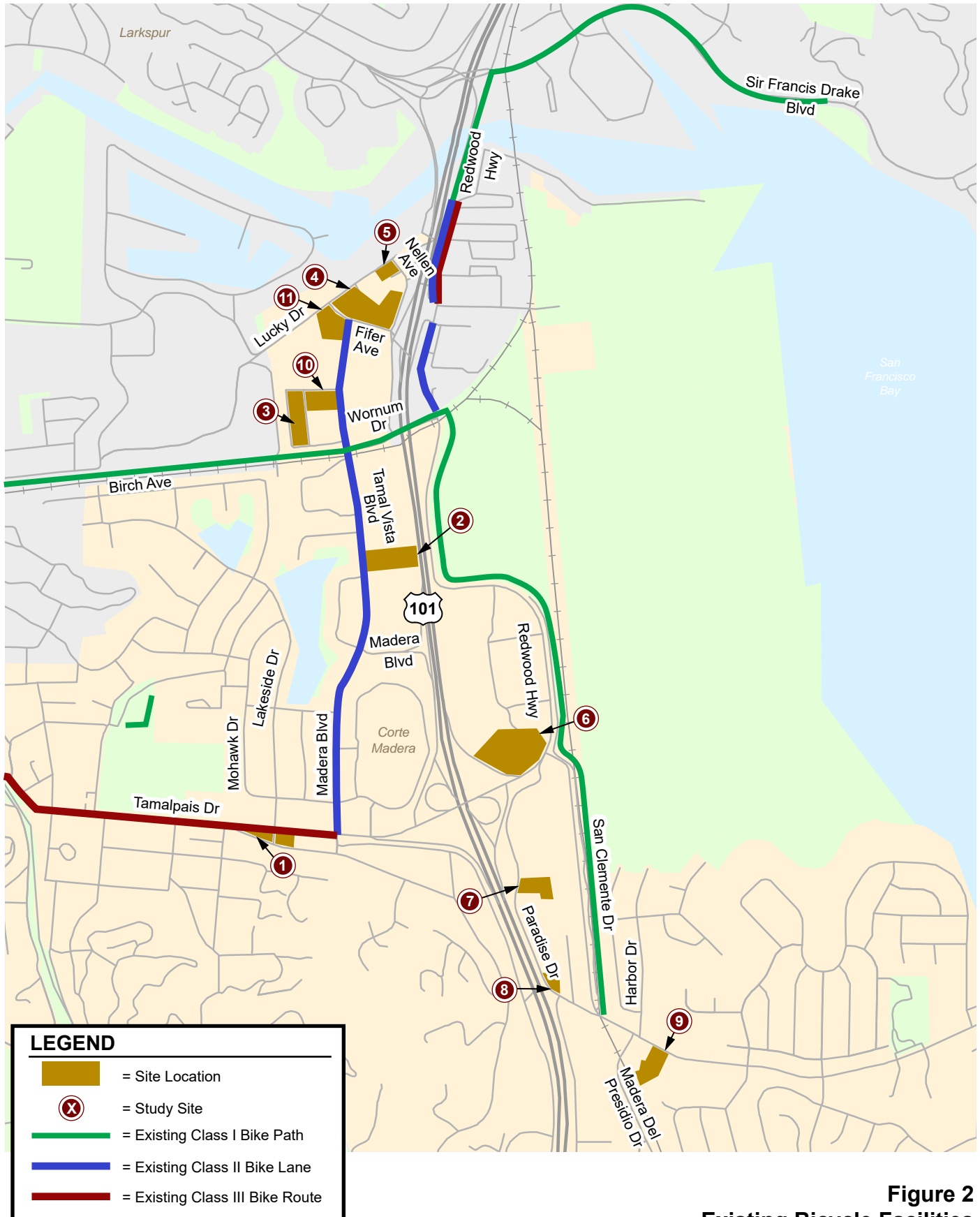


Figure 2
Existing Bicycle Facilities

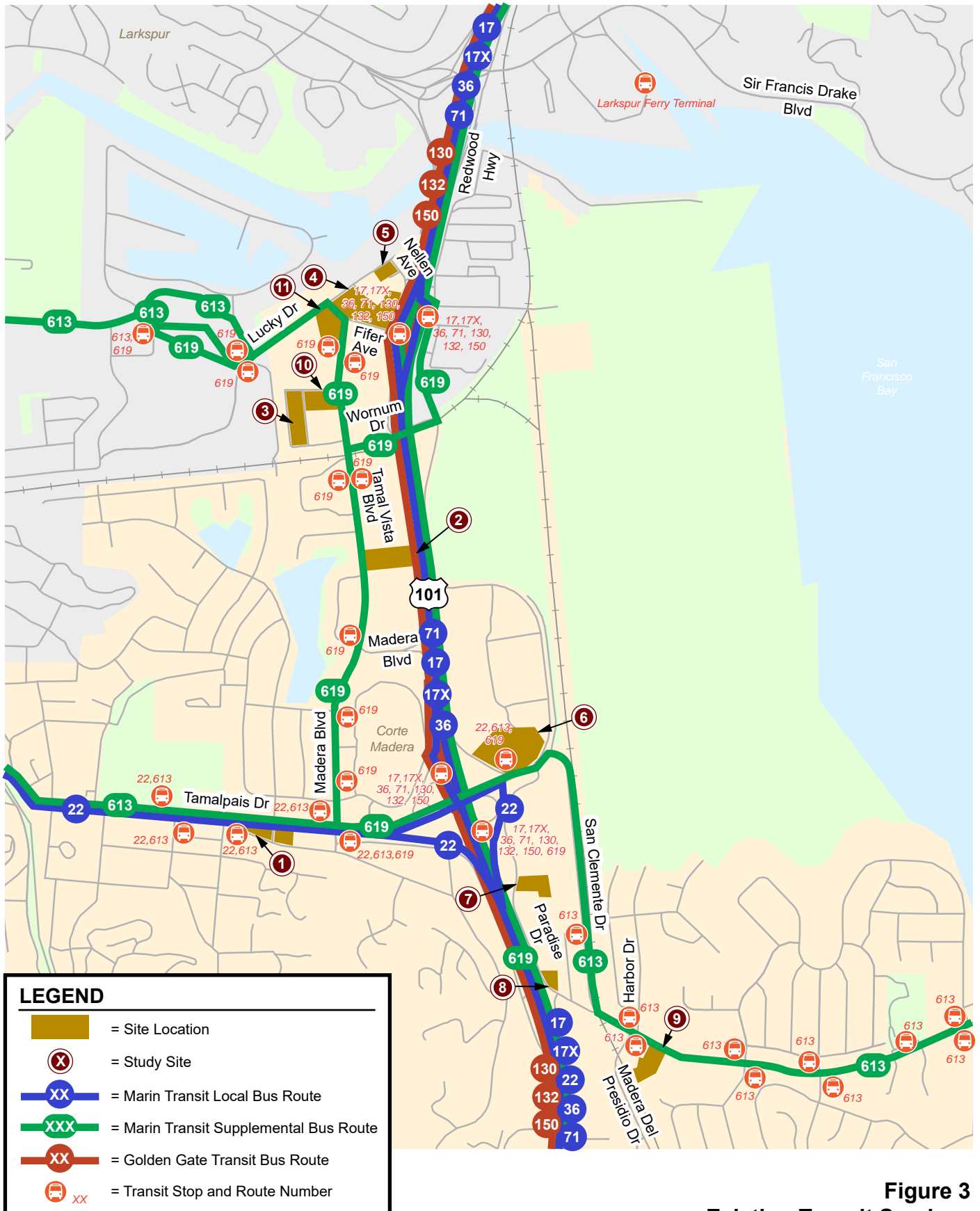


Figure 3
Existing Transit Services

3.

CEQA Transportation Analysis

This section describes the California Environmental Quality Act (CEQA) transportation analysis for the proposed project. The following describes the significance criteria used to identify impacts on the transportation system for the proposed HEU. A significant impact would occur if implementation of the HEU would:

- Conflict with an applicable program, plan, ordinance, or policy establishing measures of effectiveness for the performance of addressing the circulation system, including transit, bicycle, and pedestrian facilities.
- Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). For the purposes of this evaluation, this impact would be significant, if the implementation of the HEU would generate home-based VMT per resident within the HEU planning areas that is higher than 85 percent of the County average home-based VMT per resident.
- Result in designs for on-site circulation, access, and parking areas that fail to meet Town or industry standard design guidelines.
- Result in inadequate emergency access to development sites.

Implementation of The HEU would not conflict with an applicable program, plan, ordinance, or policy establishing measures of effectiveness for the performance of addressing the circulation system, including transit, bicycle, and pedestrian facilities.

Implementation of the HEU would be subject to and implement General Plan policies applicable to transit, bicycle, and pedestrian facilities. Additionally, development projects under the HEU would be subject to all applicable City guidelines, standards, and specifications related to transit, bicycle, or pedestrian facilities.

Specifically, any modifications or new transit, bicycle, and pedestrian facilities would be subject to and designed in accordance with all applicable General Plan policies. In particular, General Plan Policy CIR-1.1 supports safe and convenient linkages between all modes of travel within the planning area and extending between the Town and adjacent jurisdictions in the region. CIR-1.1a requires new development to incorporate convenient bicycle and pedestrian access and facilities in new development projects that link to Town and regional bicycle and pedestrian path connections. CIR-1.6 assures the adequacy and availability of the circulation system for all persons by implementing the Americans with Disabilities Act. CIR-1.7c supports streetscape design standards that support the concept of complete streets whereby all modes of transportation are accommodated. CIR-1.8 supports investment in local and regional transit and transportation plans that provide alternatives to automobile-intensive transportation programs through CIP actions aimed at reducing VMT. CIR 2.1b includes bicycle and

pedestrian improvements in the Town's updated Development Impact Fee program and within the Paradise/San Clemente Community Plan, prioritizing improved east/west connections in the Town. CIR 3.1 increases the Town's network of bicycle and pedestrian paths, especially Class I facilities, as viable alternatives to vehicular transportation, especially for access to neighborhoods, commercial centers, schools, parks, and other key activity centers. CIR 3.4 expands the number of public transit locations within Corte Madera, and CIR-3.5 emphasizes use of pedestrian pathways and sidewalks as an integral part of the Town's circulation system.

The Town has also adopted a Bicycle/Pedestrian Plan (adopted July 2016), which establishes the Town's vision for a network of bicycle and pedestrian facilities to encourage bicycling and walking as viable modes of travel around the Town. The Plan identifies specific improvement projects around the Town to improve the walking and bicycling environment. The plan proposes new or upgraded bicycle facilities and intersection improvements along major roads in the Town including Tamal Vista Boulevard, Madera Boulevard, Wornum Drive, Paradise Drive, San Clemente Drive, and Tamalpais Drive near which the proposed housing sites are located.

The proposed HEU sites are also well served by transit in the Town as shown in Figure 3. The transit services in the vicinity of the proposed housing sites include six Marin Transit bus routes (Route 17, 22, 36, 71, 613, 619) and three Golden Gate Transit (130, 132, 150) routes.

Because implementation of the HEU would be subject to all applicable City guidelines, standards, and specifications, the proposed HEU would not conflict with adopted policies, plans, or programs for transit, bicycle, or pedestrian facilities. Therefore, the HEU would result in a less-than-significant impact to transit, bicycle, and pedestrian facilities.

Mitigation Measure: None required.

Implementation of the HEU could generate home-based VMT per resident that is greater than 85 percent of the County average home-based VMT per resident.

Pursuant to SB 743, the California Natural Resources Agency finalized updates to the CEQA Guidelines in late 2018. The guidelines state that level of service will no longer be considered to be an environmental impact under CEQA and consider vehicle-miles-travelled (VMT) the most appropriate measure of transportation impact. VMT is defined as the total distance traveled by vehicles traveling to and from a land use over a typical day. Since the Town of Corte Madera has not formally adopted a VMT policy, the VMT analysis is based on Governor's Office of Planning and Research (OPR)'s guidelines.

Per OPR, a project's VMT is compared to the appropriate thresholds of significance based on the project location and type of development. When assessing a residential project, the project's VMT is divided by the number of residents expected to occupy the project to determine the VMT per capita. When assessing an office project, the project's VMT is divided by the number of employees. When assessing a retail project, the project's total VMT, as opposed to a per-capita or per-employee VMT metric, is measured. The total VMT for the region with and without the project is calculated. The difference between the two scenarios is the net change in total VMT that is attributable to the project.

If the proposed project is mixed-use, OPR recommends each component of the mixed-use project be evaluated independently and the significance threshold applied for each project type. Furthermore, if the proposed project is a redevelopment project and replaces VMT-generating land uses, and if the replacement leads to a net overall increase in VMT, then the thresholds described above for the proposed project uses should be applied.

VMT Thresholds of Significance

The HEU would result in an increase in Corte Madera's housing allocation by 884 dwelling units and a reduction in the Town's commercial/office uses by 54,728 square feet. Although there is a reduction in the Town's commercial/office uses, the increase in housing allocation would lead to a net overall increase in VMT, and the VMT threshold for the project uses (residential and commercial) would apply.

Since there is a reduction in commercial/office square footage, the VMT impact would be less than significant for these uses, and no additional VMT analysis is required for commercial/office uses.

OPR's guidelines state that for residential developments, the VMT analysis should be based on home-based VMT per resident. Consistent with OPR's guidelines, this analysis assumes 85 percent of the existing County average VMT per resident as the threshold of significance for residential development. Therefore, the HEU is considered to generate a significant VMT impact if the project sites' average home-based VMT per resident would exceed the existing County VMT per resident threshold.

Residential VMT Analysis

In order to estimate the County VMT threshold and the HEU's VMT, the TAMDM forecast model was used. The TAMDM model is the best available model to represent travel within the Town of Corte Madera and serves as the primary forecasting tool for Marin County and the Town. The model is a mathematical representation of travel within the nine Bay Area counties. The base model structure was developed by the Metropolitan Transportation Commission (MTC) and further refined by the Transportation Authority of Marin for use within Marin County.

The model uses socioeconomic inputs (i.e., population, income, employment) aggregated into geographic areas, called transportation analysis zones (TAZs) and further refined micro analysis zones (MAZ) to estimate travel within the model area. For residential land uses, the VMT threshold is expressed in terms of home-based vehicle-miles travelled per resident. As estimated by the TAMDM model, the existing (2015) Marin County average residential VMT is estimated at 15.8 daily VMT per resident. Therefore, the VMT threshold for this project is 13.4 daily VMT per resident.

Table 5 shows the existing (2015) VMT per resident for each MAZ in which a proposed housing site is located. For MAZ's that do not have any existing residential uses, it is assumed that their VMT per resident would be similar to adjacent MAZ's with similar housing characteristics. The HEU VMT per resident was evaluated by conducting a weighted average of the VMT per resident and proposed housing for all project MAZs. The average VMT per resident for the HEU would be 14.7, which is 8.3 percent above the VMT threshold of 13.4. Therefore, the HEU would cause a significant impact on VMT.

**Table 5
VMT Analysis**

Site ID	Address	MAZ ¹	Proposed Residential (du)	VMT/Res ¹
1	601 Tamalpais ²	813538	11	13.0
2	41 Tamal Vista	810084	73	13.6
3	400 & 500 Tamal Plaza ²	811733	105	13.3
4	2 & 10 Fifer, 110 & 150 Nellen ²	810924	120	13.6
5	111 Lucky ²	810924	25	13.6
6	1400 Redwood Highway ²	812476	300	16.1
7	5804 Paradise	813738	40	16.2
8	5750 Paradise	813738	61	16.2
9	5804 Paradise	810922	38	12.7
10	100 Tamal Vista ²	811733	53	13.3
11	240 Tamal Vista ²	810924	58	13.6
<i>Average VMT/Res for Proposed Housing</i>				14.7
<i>VMT/Res Threshold (15% below County Average: 15.8)</i>				13.4
Percent VMT/Res Reduction Required to Mitigate Significant Impact				8.3%

Notes:

MAZ = Micro Analysis Zone; VMT = Vehicular Miles Travelled; Res = Resident

1. Existing (2015) VMT/Res estimates reported for the MAZ in which the proposed housing site is located from the Transportation Authority of Marin's Demand Model (TAMDM).

2. These MAZs currently do not have any housing. It is assumed that their VMT/Res would be similar to the adjacent MAZs with similar housing characteristics. Therefore, VMT/Res for the MAZ was calculated using a weighted average of the adjacent MAZs.

VMT Impacts and Mitigation Measures

Because the residential use would generate a VMT level (14.7 per resident) greater than the threshold (13.4 per capita), therefore, the HEU would result in a significant transportation impact on VMT. Therefore, mitigation measures for the HEU are required to reduce VMT to below the threshold.

Mitigation: It is recommended that the HEU and all development projects associated with the HEU include travel demand management measures, including but not limited to the measures below, which have been identified as potentially VMT reducing in the California Air Pollution Control Officers Association (CAPCOA) Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (December 2021). Potential VMT reduction estimates are included below. It should be noted that CAPCOA research indicates that VMT reductions probably wouldn't exceed 10 percent for development projects in suburban settings such as Corte Madera.

- Unbundle parking costs (i.e. sell or lease parking separately from the housing unit). Effectiveness: up to 15.7 percent reduction in GHG from VMT per the CAPCOA Handbook.
- Provide car-sharing, bike sharing, or scooter sharing programs. Effectiveness: 0.15 – 0.18 percent reduction in GHG from VMT for car share, 0.02 – 0.06 percent for bike share, and 0.07 percent for scooter share, per the CAPCOA Handbook. The higher car share and bike share values are for electric car and bike share programs.

- Subsidize transit passes for residents of affordable housing. Effectiveness: up to 5.5 percent reduction in GHG from VMT per the CAPCOA Handbook.
- Integrate affordable and below market rate housing. Effectiveness: up to 28.6 percent reduction in GHG from VMT per the CAPCOA Handbook.

With the implementation of a residential TDM Plan to include the above measures, the HEU VMT impact would be less than significant with mitigation.

Implementation of the HEU would not result in designs for on-site circulation, access, and parking areas that fail to meet Town or industry standard design guidelines.

Subsequent projects under the HEU, including any new roadway, bicycle, pedestrian, and transit infrastructure improvements, would be subject to, and designed in accordance with Town standards and specifications that address potential design hazards including sight distance, driveway placement, and signage and striping. Additionally, any new transportation facilities, or improvements to such facilities associated with subsequent projects would be constructed based on industry design standards and best practices consistent with the town's zoning code and building design and inspection requirements. The Town's evaluation of projects' access and circulation will incorporate analysis with respect to Town standards for vehicular level of service and queueing, as well as for service to pedestrians, bicyclists, and transit users. Therefore, the HEU would result in a less-than-significant impact to transportation hazards.

Mitigation Measure: None required.

Implementation of the HEU would not result in inadequate emergency access to development sites.

There are no specific development projects associated with the HEU; and thus, specific housing sites developed under the HEU cannot be analyzed for adequacy of emergency access at this time. However, the Town maintains the roadway network that provides access to new development sites in accordance with industry design standards, which ensures that the physical network would be free of obstructions to emergency responders. Emergency access to new development sites proposed under the HEU would be subject to review by the Town and responsible emergency service agencies, thus ensuring the projects would be designed to meet all emergency access and design standards. The Town also requires the preparation of construction management plans that minimize temporary obstruction of traffic during site construction.

Additional vehicles associated with new development sites could increase delays for emergency response vehicles during peak commute hours. However, emergency responders maintain response plans which include use of alternate routes, sirens, and other methods to bypass congestion and minimize response times. In addition, California law requires drivers to yield the right-of-way to emergency vehicles and remain stopped until the emergency vehicle passes to ensure the safe and timely passage of emergency vehicles.

Based on the above considerations, adequate emergency access would be provided to new development sites, and the impact would be less than significant.

Mitigation Measure: None required.

4. Local Transportation Analysis

This chapter describes the local transportation analysis (LTA) including the method by which project traffic is estimated, intersection operations analysis for existing, existing plus project, cumulative, and cumulative plus project scenarios, and any adverse effects to intersection level of service caused by the project.

Intersection Operations Analysis

The intersection operations analysis is intended to quantify the operations of Corte Madera's intersections and to identify potential negative effects due to the addition of project traffic. Information required for the intersection operations analysis related to project trip generation, trip distribution, and trip assignment are presented in this section. The study intersections are evaluated based on the Town of Corte Madera's intersection analysis methodology and standards in determining potential adverse operational effects due to the project, as described in Chapter 1.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the project sites is estimated for the AM, mid-afternoon, and PM peak hours. As part of the project trip distribution, the directions to and from which the project trips would travel are estimated. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described below.

Trip Generation

AM and PM peak hour trip generation rates resulting from new development are typically estimated using trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition. Trips that would be generated by the proposed housing were estimated using the ITE trip rates for "Low-Rise Multifamily Housing" (Land use 220) and "Mid-Rise Multifamily Housing" (Land use 221) based on the proposed housing density on each site. Less than 25 dwelling units/acre were assumed to be "Low-Rise Multifamily Housing" and greater than 25 dwelling units /acre were assumed to be "Mid-Rise Multifamily Housing". Trips that are being generated by existing retail development on the sites or that would be generated by future retail development were estimated using the ITE trip rates for "Strip Retail Plaza (<40K)" (Land use 822) and "Strip Retail Plaza (40-150K) – Supermarket-No" (Land use 821). Trips that are being generated by existing office development on the sites were estimated using ITE trip rates for "General Office Building" (Land use 710). Trip credits were applied for locations where retail and office development would be removed.

ITE does not provide trip rates for a weekday mid-afternoon peak hour (2:00 PM to 4:00 PM). Mid-afternoon peak hour rates were computed based on time-of-day trip distribution data provided by the ITE Trip Generation Manual, 11th Edition.

After applying trip credits for existing uses, it is estimated that the proposed project would generate 2,956 new daily trips, including 348 new trips (63 inbound and 285 outbound) during the AM peak hour, 350 new trips (200 inbound and 150 outbound) during the mid-afternoon peak hour, and 503 new trips (320 inbound and 183 outbound) during the PM peak hour (see Table 6).

**Table 6
Project Trip Generation Estimates**

Land Use ¹	Size	Mid-Afternoon Peak														
		Daily		AM Peak Hour			Hour ^{6,7}			PM Peak Hour						
		Rate	Trips	Rate	In	Out	Total	Rate	In	Out	Total	Rate	In	Out	Total	
Proposed Uses																
Multifamily Housing (Low-Rise) ²	74 DU	6.74	499	0.40	7	23	30	0.32	14	10	24	0.51	24	14	38	
Multifamily Housing (Mid-Rise) ³	810 DU	4.54	3,677	0.37	69	231	300	0.20	100	65	165	0.39	193	123	316	
Strip Retail Plaza (<40K) ⁴	153.9 KSF	54.45	8,379	2.36	218	145	363	6.10	469	469	938	6.59	507	507	1,014	
Strip Retail Plaza (40 - 150K) ⁵	110.8 KSF	67.52	7,482	1.73	119	73	192	4.67	254	264	518	5.19	282	293	575	
Existing Uses																
Strip Retail Plaza (<40K) ⁴	-40.5 KSF	54.45	-2,203	2.36	-57	-38	-95	6.10	-124	-123	-247	6.59	-134	-133	-267	
Strip Retail Plaza (40 - 150K) ⁵	-212.6 KSF	67.52	-14,354	1.73	-228	-140	-368	4.67	-487	-506	-993	5.19	-540	-563	-1103	
General Office Building ⁶	-48.4 KSF	10.84	-525	1.52	-65	-9	-74	1.13	-26	-29	-55	1.44	-12	-58	-70	
Net Total Trips			2,956		63	285	348		200	150	350		320	183	503	

Note:

1. Trip rates are from the ITE Trip Generation Manual, 11th Edition, 2021.
2. Multifamily Housing (Low-Rise) (Land Use 220), average rates expressed in trips per dwelling unit (DU) are used.
3. Multifamily Housing (Mid-Rise) (Land Use 221), average rates expressed in trips per dwelling unit (DU) are used.
4. Strip Retail Plaza (<40K) (Land Use 822), average rates expressed in trips per 1000 square feet are used.
5. Shopping Plaza (40-150K) - Supermarket - No (Land Use 821), average rates expressed in trips per 1000 square feet are used.
6. General Office Building (Land Use 710), average rates expressed in trips per 1000 square feet are used.
7. ITE Trip Generation manual does not provide trip rates for the mid-afternoon peak hour (2PM-4PM). Mid-afternoon peak hour rates have been computed based on vehicle time of day distribution data provided by the ITE Trip Generation Manual, 11th Edition.
8. Mid-Afternoon peak hour inbound and outbound splits for Land Use 220 and Land Use 221 have been computed based on vehicle time of day distribution data provided by the ITE Trip Generation Manual, 11th Edition. The manual does not provide inbound and outbound splits during the mid-afternoon peak hour for Land Use 821 and Land Use 822. PM peak hour inbound and outbound splits have been used for these uses.

A breakdown of trip generation estimates by site is included in Appendix C.

Trip Distribution and Assignment

The trip distribution patterns for the residential, commercial, and office uses were developed based on existing travel patterns on the surrounding roadway network, the location of complementary land uses like schools, and freeway access points. Figure 4 shows the distribution patterns for the project’s residential uses during each peak hour. It is assumed that during the AM and mid-afternoon peak hours, a higher percentage of residential trips would be local due to school pick-up and drop-off, while during the PM peak hour a higher percentage of trips would be commute trips. Figure 5 shows the distribution patterns for the commercial uses, which would be predominantly local trips and the trip distribution pattern for the existing office uses. The peak-hour vehicle trips generated by the existing and proposed project uses were assigned to the roadway network in accordance with the trip distribution patterns for each land use and the locations of project sites (see Figure 6).

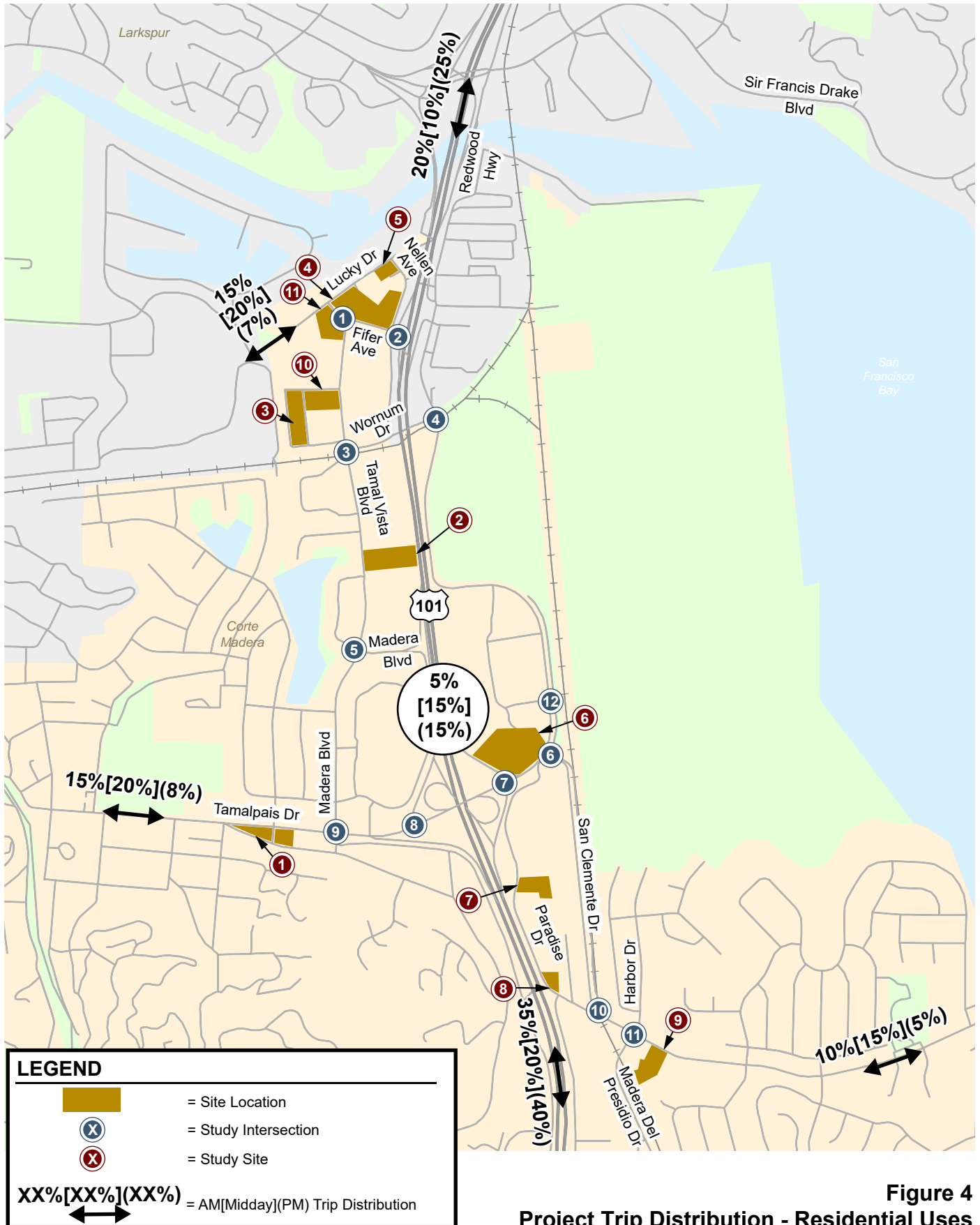


Figure 4
Project Trip Distribution - Residential Uses

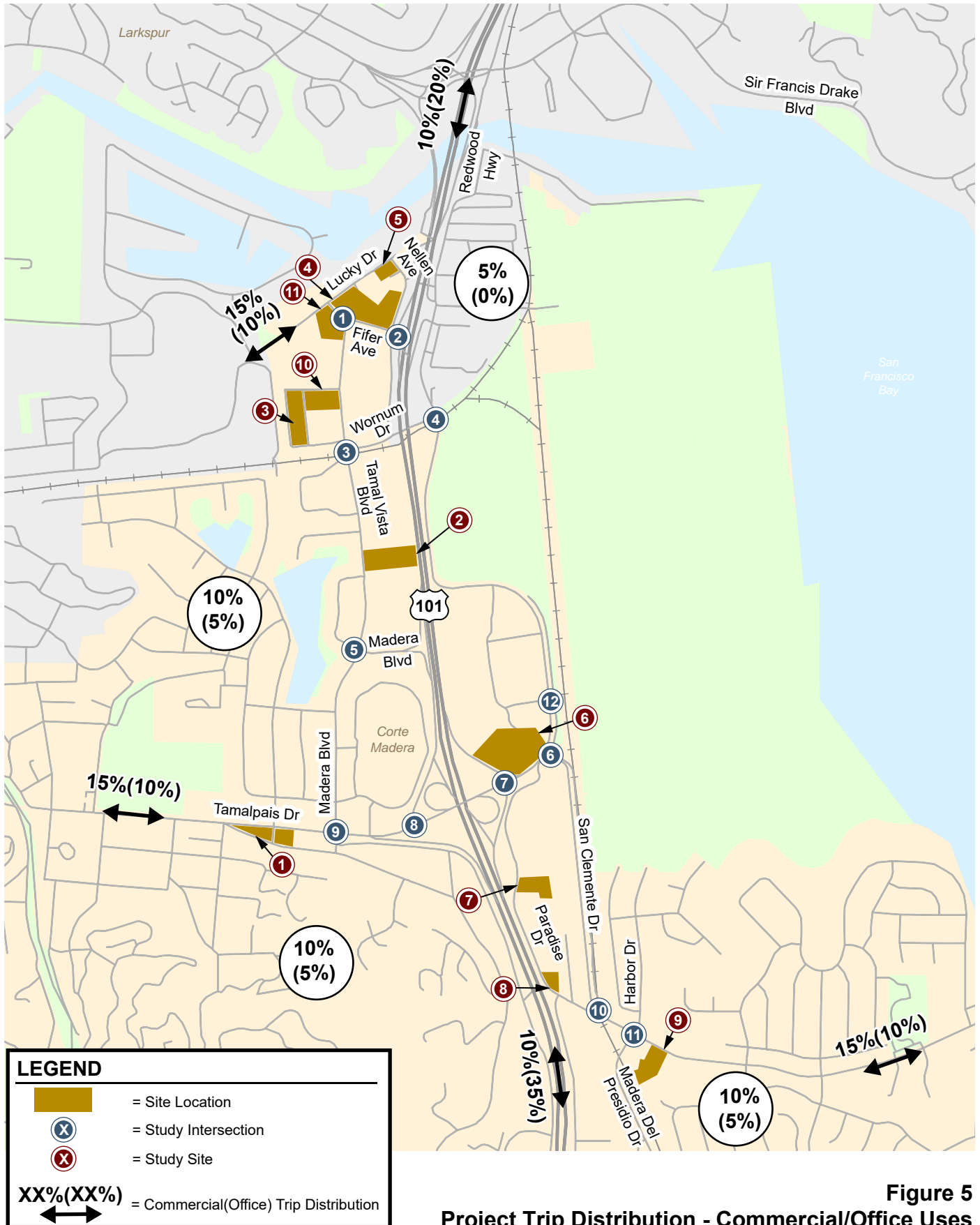
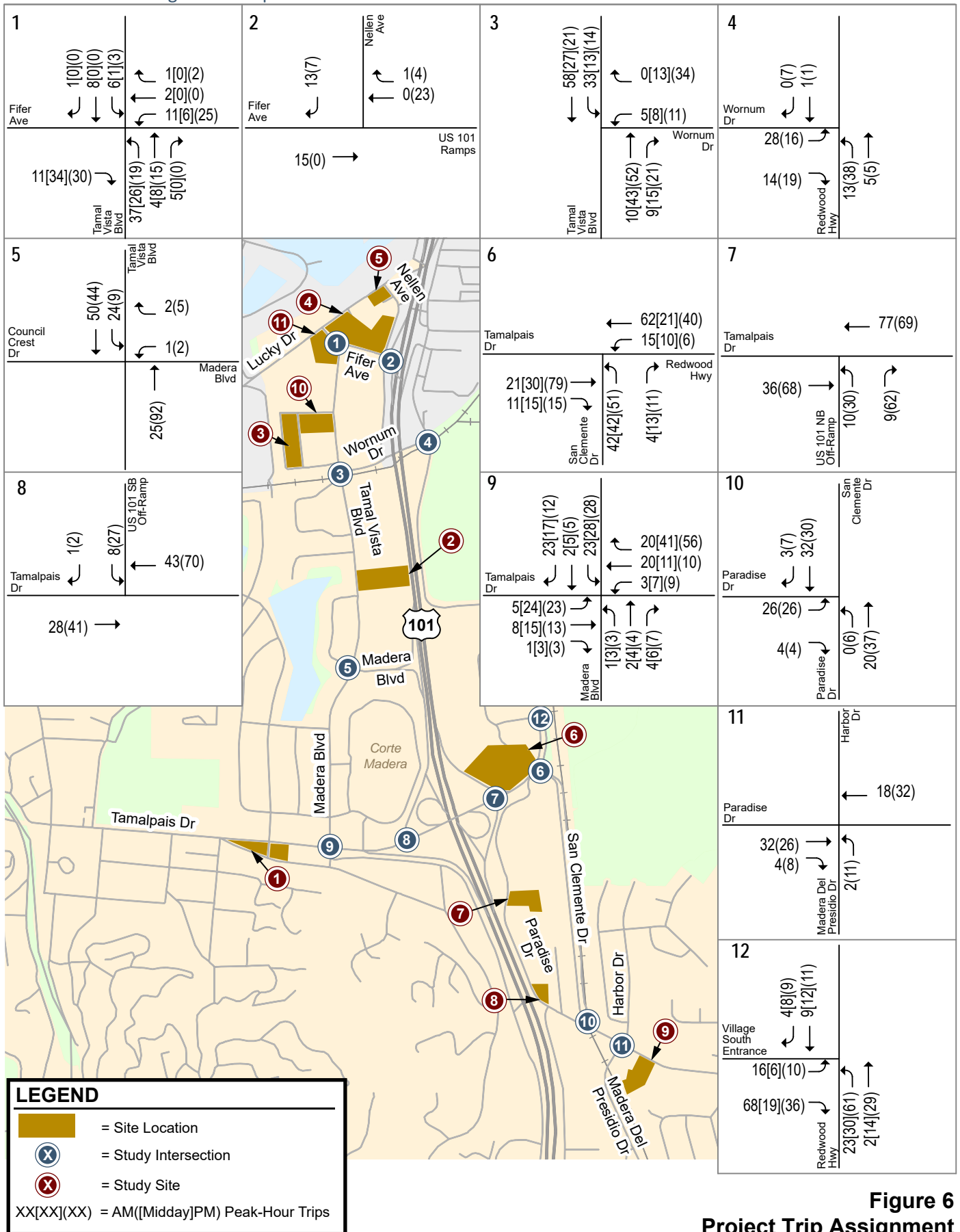


Figure 5
Project Trip Distribution - Commercial/Office Uses

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LEGEND

- = Site Location
- = Study Intersection
- = Study Site

XXXX = AM([Midday]PM) Peak-Hour Trips

Figure 6
Project Trip Assignment

Intersection Lane Configurations and Traffic Volumes Under All Scenarios

Existing Lane Configurations and Traffic Volumes

The existing lane configurations at the study intersections are shown on Figure 7.

Existing AM, mid-afternoon, and PM traffic volumes at the study intersections were based on pre-pandemic traffic counts conducted in 2014, 2015, 2016, 2017, and 2018 and new AM and PM peak hour counts collected in 2022 where pre-pandemic counts were not available. No new counts were collected during the mid-afternoon peak period.

Since the pre-pandemic counts are older than two years, intersections that had multiple years of historical count data were explored to determine whether a growth factor should be applied. However, the more recent years of intersection traffic counts showed only a marginal increase in traffic volumes during the AM peak hour and a marginal decrease in traffic volumes during the PM peak hour. Therefore, the highest available count for each intersection was used for the analysis during each analysis peak hour, and no additional growth factor was applied to increase the counts to 2022.

Due to regional shelter-in-place orders during the COVID-19 pandemic, the 2022 traffic counts do not represent typical traffic conditions. These counts were factored by comparing new counts to available pre-pandemic counts. The factor was derived based on the highest available pre-pandemic count at two intersections (San Clemente Drive & Tamalpais Drive/Redwood Highway and Madera Boulevard & Tamalpais Drive) and new counts conducted at these intersections. Compared to the pre-pandemic counts, the new 2022 counts were approximately 7 percent lower during the AM peak hour, and the PM peak hour counts were approximately 10 percent lower. These percentages were used to adjust the 2022 intersection counts to reflect pre-COVID conditions. The adjusted existing peak-hour intersection volumes are shown on Figure 8. Intersection turning-movement counts conducted for this analysis are presented in Appendix A. The volume summary sheets with the adjusted existing counts are presented in Appendix B.

Existing Plus Project Lane Configurations and Traffic Volumes

Roadway improvements identified at the Tamalpais Drive/Redwood Highway & San Clemente Drive intersection in the Village at Corte Madera Expansion EIR (2017), were assumed to be implemented under existing plus project conditions as directed by Town Staff. The improvement includes widening of eastbound Tamalpais Drive/Redwood Highway at San Clemente Drive to three lanes and widening of the northbound San Clemente Drive approach to Tamalpais Drive/Redwood Highway to three left-turn lanes and one right-turn lane. As outlined in the Village at Corte Madera Expansion EIR, The Village is conditioned to fund 100 percent of the cost of implementing the improvement. Since one of the proposed development sites is located in The Village, it is reasonable to include this improvement in the existing plus project scenario.

The intersection lane configurations under existing plus project conditions for all other intersections are assumed to be the same as under existing conditions.

Project trips were added to existing traffic volumes to obtain existing plus project traffic volumes (see Figure 9).

Cumulative Lane Configurations and Traffic Volumes

Roadway improvements identified at the Tamalpais Drive/Redwood Highway & San Clemente Drive intersection (described above) were assumed to be implemented under all cumulative scenarios as directed by Town Staff.

The cumulative scenario assumed a year 2031 horizon, which represents the RHNA planning cycle. An annual growth factor of 0.4 percent was developed using the 2015 and 2040 AM, mid-afternoon, and

PM peak hour TAMDM model link volumes along the major arterial and collector streets in the study area. The growth factor to year 2031 was applied to all study intersections. The cumulative peak-hour intersection volumes are shown on Figure 10.

Cumulative Plus Project Lane Configurations and Traffic Volumes

The intersection lane configurations under cumulative plus project conditions are assumed to be the same as under cumulative conditions.

Project trips were added to cumulative traffic volumes to obtain cumulative plus project traffic volumes (see Figure 11).

Intersection Traffic Operations

The results of the intersection level of service analysis are shown in Table 7. The detailed intersection level of service calculation sheets for all study scenarios are included in Appendix D.

Existing and Project Conditions

Intersection levels of service were evaluated against the standards of the City of Corte Madera. The results of the analysis show that all of the study intersections are currently operating at acceptable levels of service during the AM, mid-afternoon, and PM peak hours of traffic.

Most of the study intersections would continue to operate at an acceptable level of service under existing plus project conditions. The all way stop controlled intersection of Tamal Vista Boulevard and Madera Boulevard would operate at a substandard LOS E during the PM peak hour. This constitutes an adverse effect per the Town's level of service Policy CIR-1.2.

A signal warrant check per the *California Manual of Uniform Traffic Control Devices (CA MUTCD Section 4C, warrant 3)* was conducted for the intersection of Tamal Vista Boulevard and Madera Boulevard based on peak-hour traffic. The peak hour signal warrant would be met for the PM peak hour under existing plus project conditions. The peak-hour signal warrant calculation sheets can be found in Appendix E.

It is recommended that the intersection be monitored as growth in the City occurs, and if warranted in the future, the intersection should be signalized or a roundabout should be installed if feasible, to improve the traffic operations to meet the Town's level of service standard.

Cumulative and Project Conditions

Intersection levels of service were evaluated against the standards of the City of Corte Madera. The results of the analysis show that all of the study intersections would operate at acceptable levels of service during the AM, mid-afternoon, and PM peak hours of traffic under cumulative conditions.

Most of the intersections would continue to operate at an acceptable level of service under cumulative plus project conditions. The all way stop controlled intersection of Tamal Vista Boulevard and Madera Boulevard would operate at a substandard LOS E during the PM peak hour. This constitutes an adverse effect per the Town's level of service Policy CIR-1.2.

A signal warrant check per the *CA MUTCD Section 4C, warrant 3* was conducted for the intersection of Tamal Vista Boulevard and Madera Boulevard based on the peak-hour traffic. The peak hour signal warrant would be met for the PM peak hour under cumulative no project and cumulative plus project conditions. The peak-hour signal warrant calculation sheets can be found in Appendix E.

The recommendation outlined under existing plus project conditions would also be applicable under cumulative plus project conditions.

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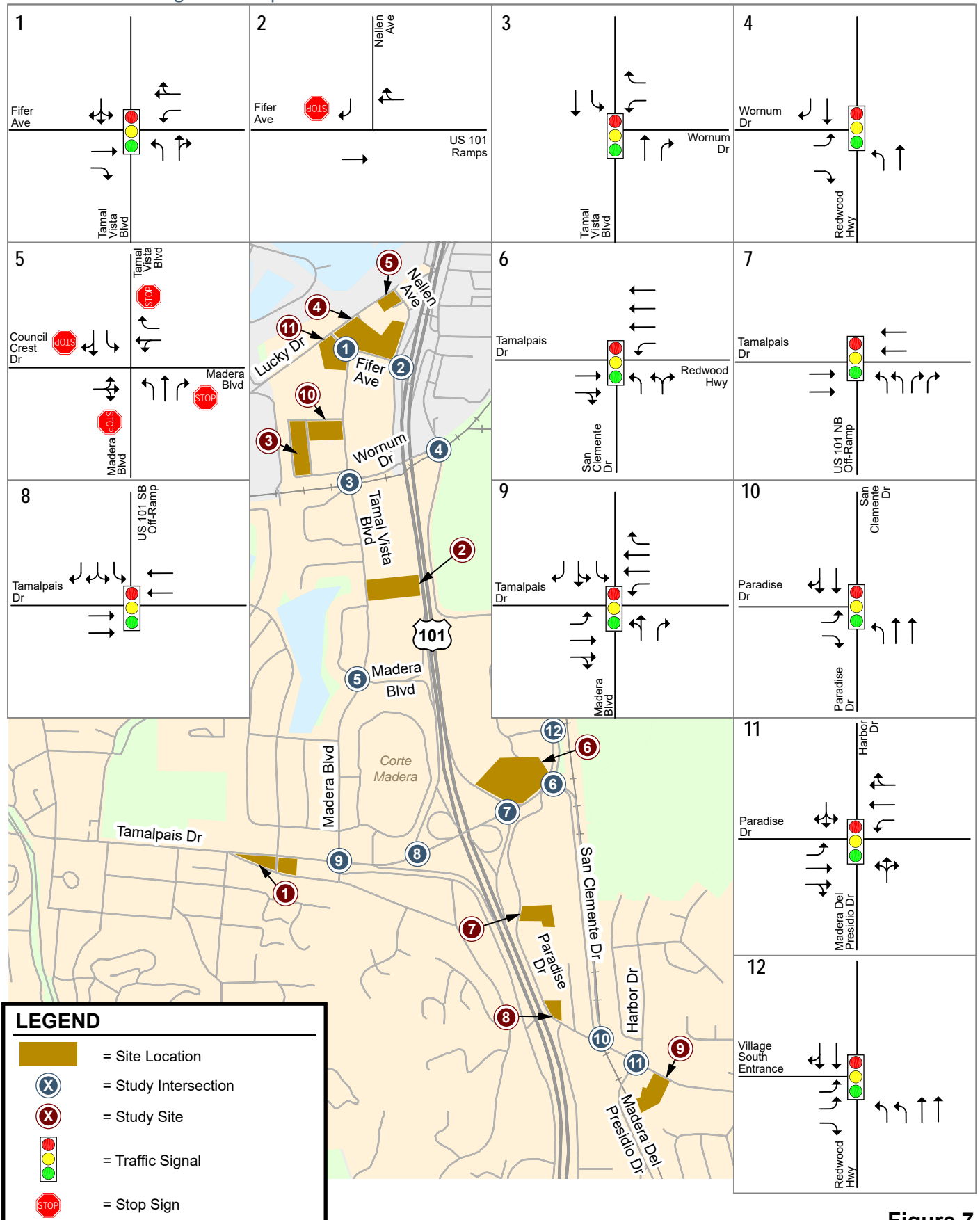


Figure 7
Existing Lane Configurations

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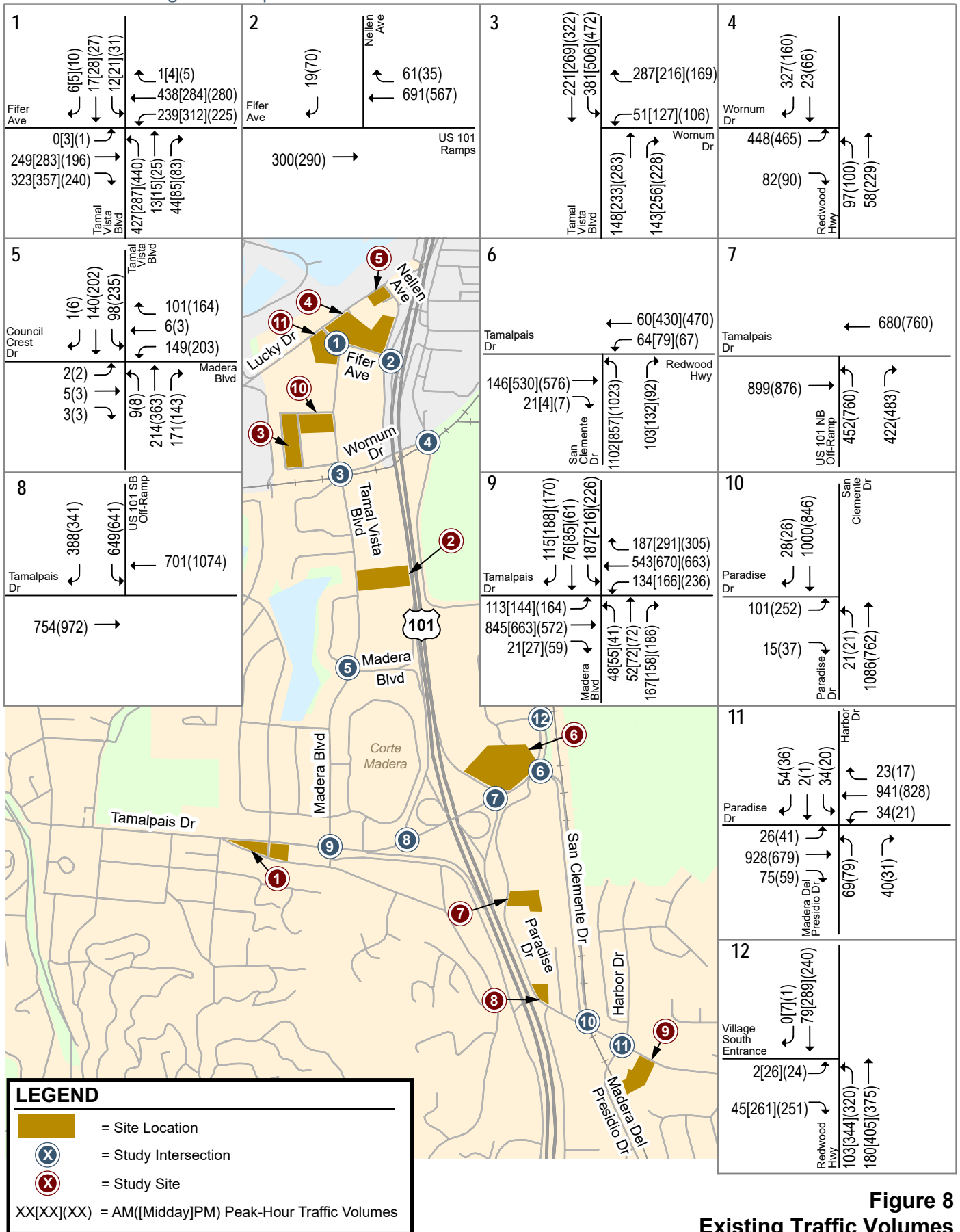


Figure 8
Existing Traffic Volumes

Corte Madera Housing Element Update TA

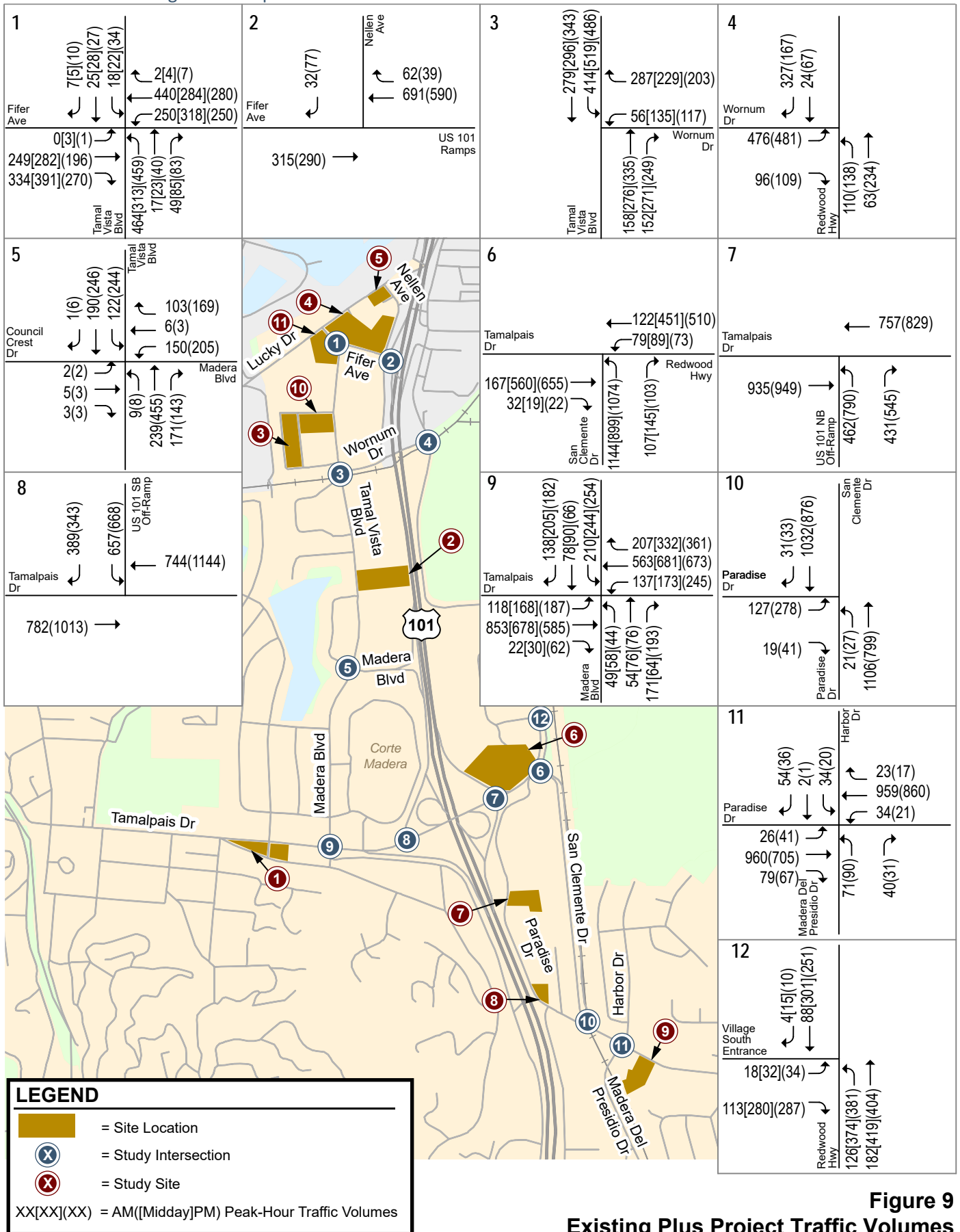


Figure 9
Existing Plus Project Traffic Volumes

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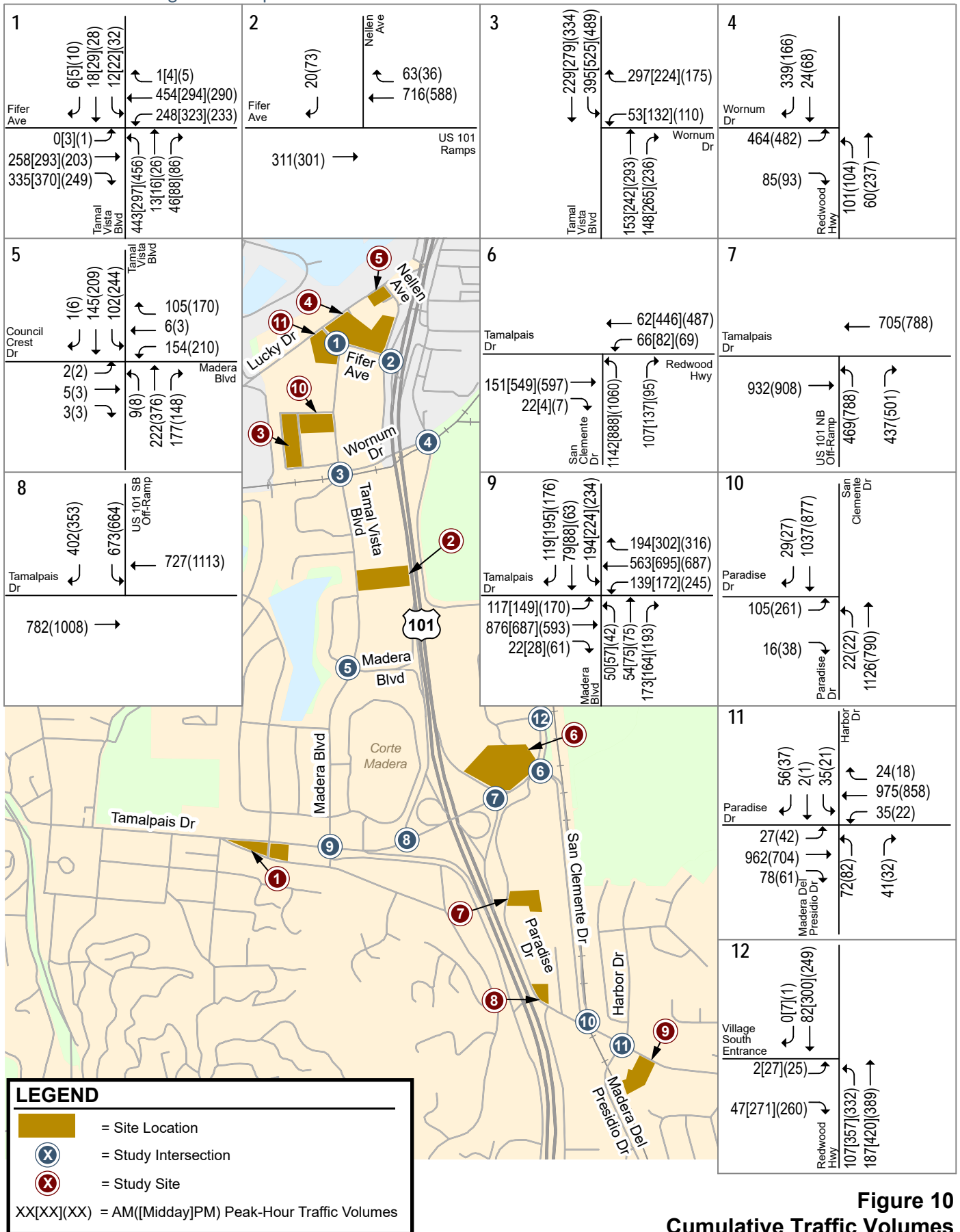


Figure 10
Cumulative Traffic Volumes

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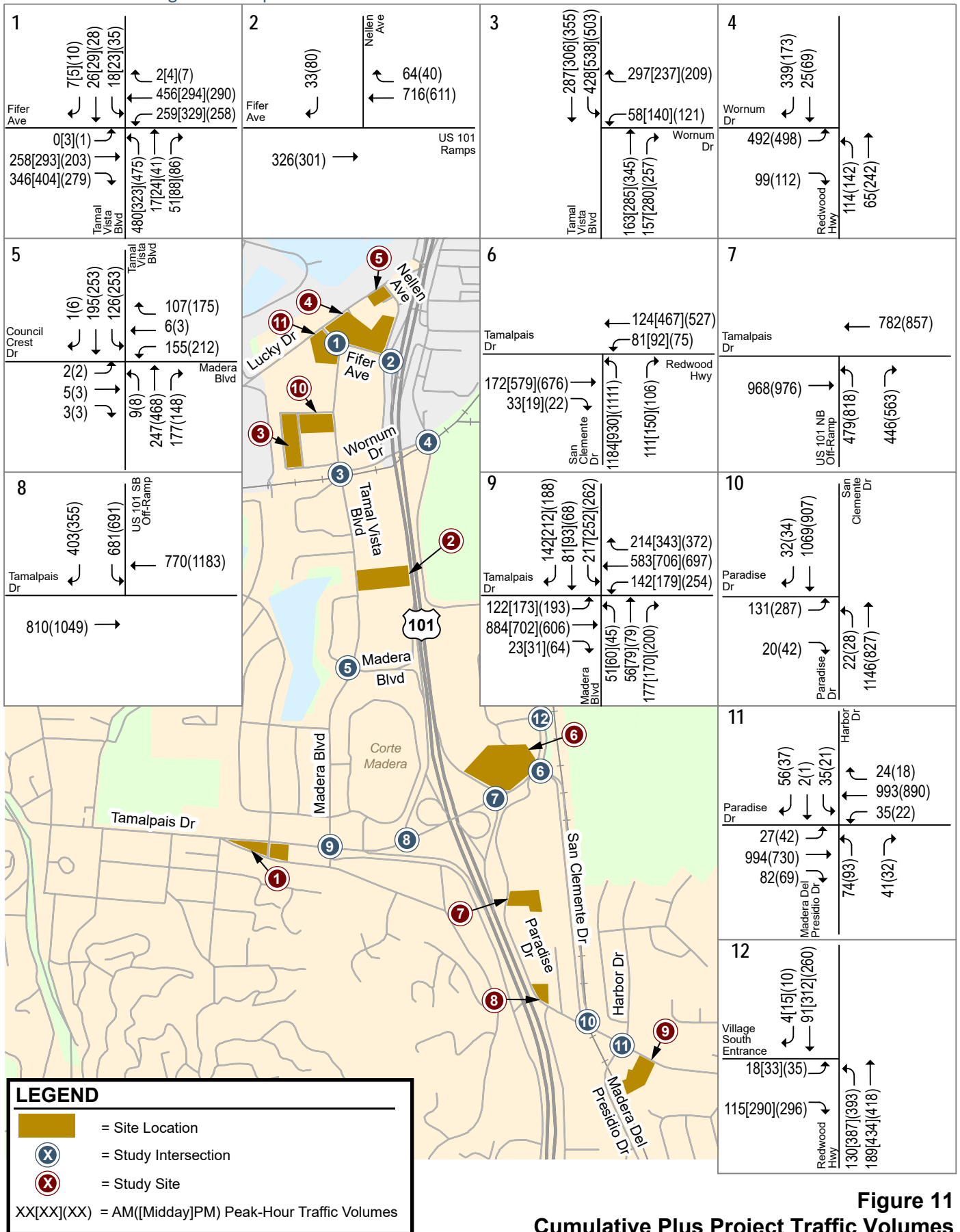


Figure 11
Cumulative Plus Project Traffic Volumes

**Table 7
Intersection Level of Service Summary**

#	Intersection	Intersection Control	LOS Standard	Peak Hour	Count Date	Existing Conditions		Existing plus Project		Cumulative Conditions		Cumulative plus Project	
						Delay ¹ (sec)	LOS	Delay ¹ (sec)	LOS	Delay ¹ (sec)	LOS	Delay ¹ (sec)	LOS
1	Tamal Vista Boulevard & Fifer Avenue[2]	Signal	D	AM	03/31/22	23.6	C	26.2	C	24.6	C	27.3	C
				MD	02/25/16	22.2	C	23.1	C	22.9	C	30.1	C
				PM	02/25/16	26.9	C	27.1	C	27.4	C	27.4	C
2	Nellen Avenue/US 101 ramps & Fifer Avenue	Side-Street Stop	D	AM	03/31/22	14.7	B	15.0	B	15.1	B	15.5	B
				PM	03/31/22	14.0	B	14.5	B	14.4	B	15.0	B
3	Tamal Vista Boulevard & Wornum Drive	Signal	D	AM	04/09/14	15.7	B	15.7	B	15.9	B	15.9	B
				MD	02/25/16	21.9	C	23.0	C	22.3	C	23.3	C
4	Redwood Highway & Wornum Drive	Signal	D	AM	03/31/22	30.3	C	31.4	C	30.6	C	31.6	C
				PM	10/15/15	29.5	C	32.4	C	29.9	C	32.8	C
5	Tamal Vista Boulevard & Madera Boulevard	All Way Stop	D	AM	04/09/14	11.9	B	13.1	B	12.2	B	13.5	B
				PM	04/09/14	23.5	C	43.7	E	26.1	D	48.5	E
6	San Clemente Drive & Tamalpais Drive/Redwood Highway	Signal	D	AM	02/27/18	16.0	B	12.9	B	12.6	B	13.0	B
				MD	02/27/18	15.6	B	12.7	B	12.5	B	13.0	B
				PM	10/15/15	17.4	B	13.6	B	13.0	B	14.0	B
7	US 101 NB off ramp & Tamalpais Drive	Signal	D	AM	04/09/14	11.4	B	11.4	B	11.6	B	11.6	B
				PM	04/09/14	15.4	B	15.8	B	15.7	B	16.2	B
8	US 101 SB off ramp & Tamalpais Drive	Signal	D	AM	02/17/18	13.7	B	13.7	B	14.0	B	14.0	B
				PM	04/09/14	12.7	B	12.9	B	13.0	B	13.3	B
9	Madera Boulevard & Tamalpais Drive	Signal	D	AM	05/25/17	30.1	C	31.2	C	30.7	C	31.9	C
				MD	02/27/18	33.9	C	36.5	D	34.8	C	37.9	D
				PM	04/09/14	41.1	D	44.1	D	42.8	D	46.1	D
10	San Clemente Drive & Paradise Drive	Signal	D	AM	05/25/17	5.5	A	6.0	A	5.6	A	6.2	A
				PM	05/25/17	9.1	A	10.1	B	9.4	A	10.5	B
11	Madera Del Presidio/Harbor Drive & Paradise Drive	Signal	D	AM	03/31/22	9.3	A	9.3	A	9.4	A	9.5	A
				PM	03/31/22	8.4	A	8.6	A	8.5	A	8.7	A
12	Redwood Highway & Village South Entrance	Signal	D	AM	03/31/22	12.3	B	20.5	C	12.5	B	20.4	C
				MD	10/15/15	23.0	C	23.5	C	23.1	C	23.6	C
				PM	10/15/15	23.4	C	24.4	C	23.5	C	24.4	C

Notes:
 MD = Mid-Afternoon peak hour
 1. The delay reported for the signalized intersections and all way stop controlled intersections is the average stopped delay for all vehicles entering the intersection and the delay reported for the side street stop controlled intersection is the delay experienced by vehicles on the stop controlled approach.
 2. Indicates the intersection level of service is calculated using the HCM 2000 module with the Synchro software. This intersection has unusual signal operations that cannot be supported by Synchro HCM 6th Edition module.
Bold Indicates substandard level of service
Bold The project would cause an adverse effect.

**Corte Madera Housing Element Update
Transportation Analysis**

Technical Appendices

September 12, 2022

Appendix A

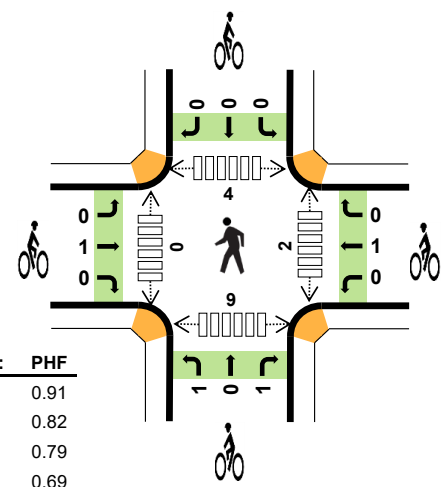
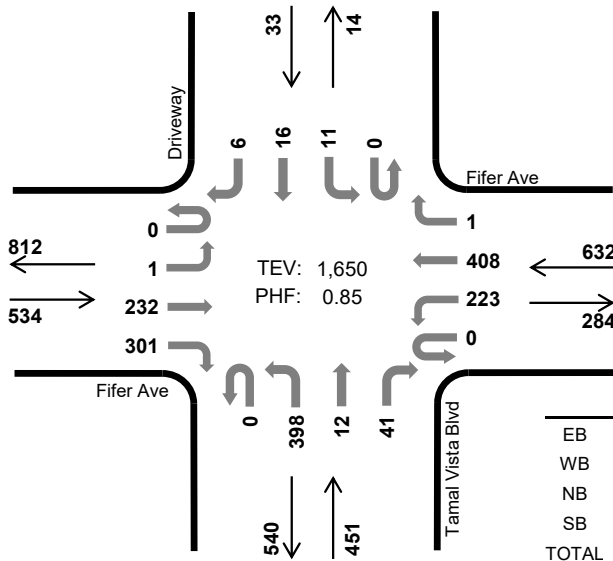
Traffic Counts

Tamal Vista Blvd Fifer Ave



Peak Hour

Date: 03/31/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	1.3%	0.91
WB	3.8%	0.82
NB	1.1%	0.79
SB	0.0%	0.69
TOTAL	2.2%	0.85

Two-Hour Count Summaries

Interval Start	Fifer Ave Eastbound				Fifer Ave Westbound				Tamal Vista Blvd Northbound				Driveway Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	37	26	0	44	42	0	0	42	1	9	0	0	0	0	201	0	
7:15 AM	0	0	38	32	0	39	64	2	0	41	0	8	0	0	0	0	224	0	
7:30 AM	0	0	44	35	0	34	83	1	0	45	1	8	0	0	2	1	254	0	
7:45 AM	0	0	45	57	0	36	109	0	0	112	1	13	0	2	2	0	377	1,056	
8:00 AM	0	0	70	72	0	58	134	0	0	134	6	2	0	5	4	3	488	1,343	
8:15 AM	0	0	62	85	0	59	102	0	0	102	1	12	0	3	6	0	432	1,551	
8:30 AM	0	1	55	87	0	70	63	1	0	50	4	14	0	1	4	3	353	1,650	
8:45 AM	0	3	32	51	0	63	54	1	0	62	3	11	0	5	6	3	294	1,567	
Count Total	0	4	383	445	0	403	651	5	0	588	17	77	0	16	24	10	2,623	0	
Peak Hour	All	0	1	232	301	0	223	408	1	0	398	12	41	0	11	16	6	1,650	0
	HV	0	0	0	7	0	14	10	0	0	5	0	0	0	0	0	0	36	0
	HV%	-	0%	0%	2%	-	6%	2%	0%	-	1%	0%	0%	-	0%	0%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	8	1	0	10	2	1	0	0	3	1	0	2	1	4
7:15 AM	2	2	0	0	4	0	0	1	0	1	0	0	0	0	0
7:30 AM	2	3	1	0	6	1	0	1	0	2	0	0	1	0	1
7:45 AM	1	6	1	0	8	0	1	1	0	2	0	0	1	4	5
8:00 AM	4	4	1	0	9	1	0	0	0	1	0	0	2	4	6
8:15 AM	2	6	1	0	9	0	0	0	0	0	1	0	1	1	3
8:30 AM	0	8	2	0	10	0	0	1	0	1	1	0	0	0	1
8:45 AM	1	4	1	0	6	0	0	0	0	0	2	0	2	0	4
Count Total	13	41	8	0	62	4	2	4	0	10	5	0	9	10	24
Peak Hour	7	24	5	0	36	1	1	2	0	4	2	0	4	9	15

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Fifer Ave				Fifer Ave				Tamal Vista Blvd				Driveway				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	1	0	5	3	0	0	0	0	1	0	0	0	0	10	0
7:15 AM	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	4	0
7:30 AM	0	0	1	1	0	2	1	0	0	0	0	1	0	0	0	0	6	0
7:45 AM	0	0	0	1	0	2	4	0	0	1	0	0	0	0	0	0	8	28
8:00 AM	0	0	0	4	0	2	2	0	0	1	0	0	0	0	0	0	9	27
8:15 AM	0	0	0	2	0	3	3	0	0	1	0	0	0	0	0	0	9	32
8:30 AM	0	0	0	0	0	7	1	0	0	2	0	0	0	0	0	0	10	36
8:45 AM	0	0	1	0	0	2	2	0	0	0	0	1	0	0	0	0	6	34
Count Total	0	0	3	10	0	25	16	0	0	5	0	3	0	0	0	0	62	0
Peak Hour	0	0	0	7	0	14	10	0	0	5	0	0	0	0	0	0	36	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Fifer Ave			Fifer Ave			Tamal Vista Blvd			Driveway			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0
7:45 AM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2	8
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	2	2	1	1	0	0	3	0	1	0	0	0	0	0	10	0
Peak Hour	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	4	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

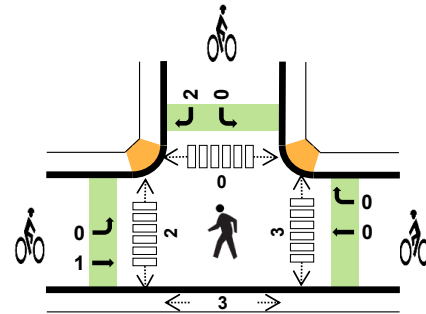
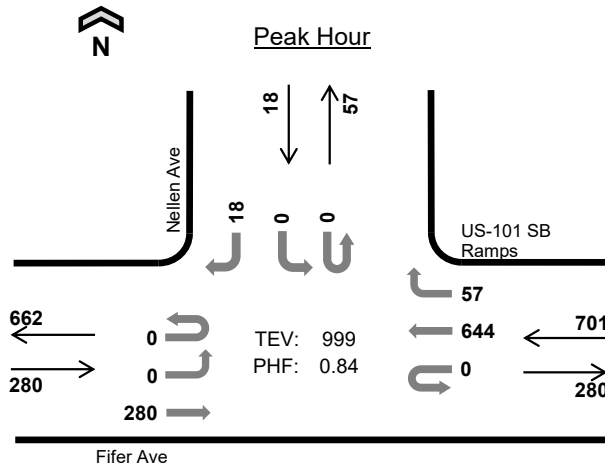


Nellen Ave Fifer Ave

Date: 03/31/2022

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	0.0%	0.91
WB	4.3%	0.82
NB	-	-
SB	5.6%	0.75
TOTAL	3.1%	0.84

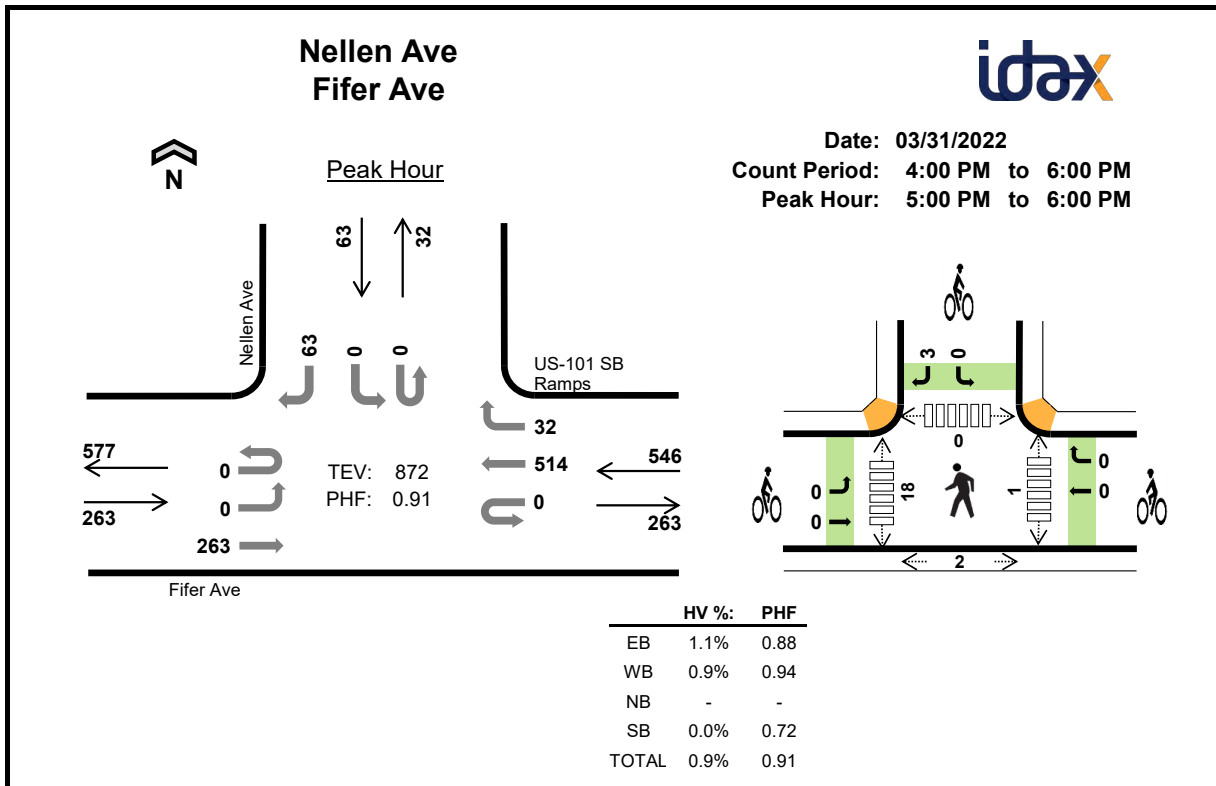
Two-Hour Count Summaries

Interval Start	Fifer Ave				US-101 SB Ramps				N/A				Nellen Ave				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Westbound		Northbound		Southbound		Southbound		Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	44	0	0	0	96	6	0	0	0	0	0	0	0	0	146	0	
7:15 AM	0	0	40	0	0	0	111	12	0	0	0	0	0	0	0	4	167	0	
7:30 AM	0	0	48	0	0	0	121	12	0	0	0	0	0	0	0	2	183	0	
7:45 AM	0	0	60	0	0	0	161	10	0	0	0	0	0	0	0	2	233	729	
8:00 AM	0	0	77	0	0	0	202	13	0	0	0	0	0	0	0	6	298	881	
8:15 AM	0	0	74	0	0	0	162	27	0	0	0	0	0	0	0	4	267	981	
8:30 AM	0	0	69	0	0	0	119	7	0	0	0	0	0	0	0	6	201	999	
8:45 AM	0	0	47	0	0	0	129	12	0	0	0	0	0	0	0	5	193	959	
Count Total	0	0	459	0	0	0	1,101	99	0	0	0	0	0	0	0	29	1,688	0	
Peak Hour	All	0	0	280	0	0	0	644	57	0	0	0	0	0	0	0	18	999	0
	HV	0	0	0	0	0	0	29	1	0	0	0	0	0	0	0	1	31	0
	HV%	-	-	0%	-	-	-	5%	2%	-	-	-	-	-	-	-	6%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	8	0	0	8	0	0	0	1	1	0	0	0	0	0
7:15 AM	1	1	0	0	2	0	0	0	0	0	4	2	0	0	6
7:30 AM	2	7	0	0	9	0	0	0	2	2	0	3	0	1	4
7:45 AM	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	8	0	0	8	1	0	0	2	3	0	0	0	1	1
8:15 AM	0	8	0	0	8	0	0	0	0	0	2	0	0	0	2
8:30 AM	0	6	0	1	7	0	0	0	0	0	1	2	0	2	5
8:45 AM	3	8	0	0	11	0	0	0	0	0	0	1	0	0	1
Count Total	6	54	0	1	61	1	0	0	5	6	7	8	0	4	19
Peak Hr	0	30	0	1	31	1	0	0	2	3	3	2	0	3	8

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Fifer Ave				US-101 SB Ramps				N/A				Nellen Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	
7:15 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0	
7:30 AM	0	0	2	0	0	0	7	0	0	0	0	0	0	0	0	9	0	
7:45 AM	0	0	0	0	0	0	7	1	0	0	0	0	0	0	0	8	27	
8:00 AM	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	27	
8:15 AM	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	33	
8:30 AM	0	0	0	0	0	0	6	0	0	0	0	0	0	1	7	31		
8:45 AM	0	0	3	0	0	0	6	2	0	0	0	0	0	0	11	34		
Count Total	0	0	6	0	0	0	51	3	0	0	0	0	0	1	61	0		
Peak Hour	0	0	0	0	0	0	29	1	0	0	0	0	0	1	31	0		
Two-Hour Count Summaries - Bikes																		
Interval Start	Fifer Ave			US-101 SB Ramps			N/A			Nellen Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	2	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	2	3	5				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
Count Total	0	1	0	0	0	0	0	0	0	0	0	5	6	0				
Peak Hour	0	1	0	0	0	0	0	0	0	0	0	2	3	0				
<i>Note: U-Turn volumes for bikes are included in Left-Turn, if any.</i>																		



Two-Hour Count Summaries

Interval Start	Fifer Ave				US-101 SB Ramps				N/A				Nellen Ave				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Westbound		Northbound		Southbound		Southbound		Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	73	0	0	0	126	13	0	0	0	0	0	0	0	20	232	0	
4:15 PM	0	0	67	0	0	0	138	3	0	0	0	0	0	0	0	12	220	0	
4:30 PM	0	0	70	0	0	0	121	7	0	0	0	0	0	0	0	9	207	0	
4:45 PM	0	0	53	0	0	0	108	6	0	0	0	0	0	0	0	15	182	841	
5:00 PM	0	0	62	0	0	0	111	9	0	0	0	0	0	0	0	19	201	810	
5:15 PM	0	0	75	0	0	0	136	7	0	0	0	0	0	0	0	22	240	830	
5:30 PM	0	0	67	0	0	0	131	7	0	0	0	0	0	0	0	7	212	835	
5:45 PM	0	0	59	0	0	0	136	9	0	0	0	0	0	0	0	15	219	872	
Count Total	0	0	526	0	0	0	1,007	61	0	0	0	0	0	0	0	119	1,713	0	
Peak Hour	All	0	0	263	0	0	0	514	32	0	0	0	0	0	0	0	63	872	0
	HV	0	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	8	0
	HV%	-	-	1%	-	-	-	1%	0%	-	-	-	-	-	-	-	0%	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
4:15 PM	0	1	0	0	1	0	0	0	0	0	1	1	0	1	3
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2
4:45 PM	0	2	0	0	2	0	0	0	0	0	0	5	0	2	7
5:00 PM	0	4	0	0	4	0	0	0	0	0	0	7	0	1	8
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
5:30 PM	1	1	0	0	2	0	0	0	3	3	0	5	0	0	5
5:45 PM	2	0	0	0	2	0	0	0	0	0	1	3	0	1	5
Count Total	3	9	0	1	13	0	0	0	3	3	2	26	0	6	34
Peak Hr	3	5	0	0	8	0	0	0	3	3	1	18	0	2	21

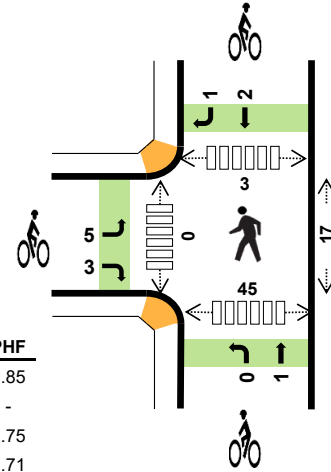
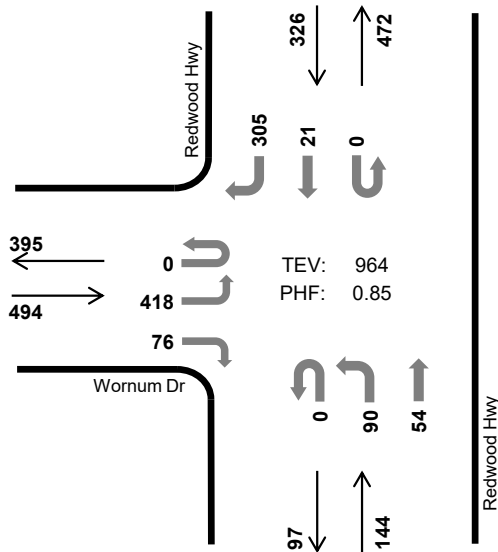
Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	Fifer Ave				US-101 SB Ramps				N/A				Nellen Ave				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	5
5:00 PM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	8
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	8
5:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8
Count Total	0	0	3	0	0	0	9	0	0	0	0	0	0	0	0	0	1	13	0
Peak Hour	0	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	8	0
Two-Hour Count Summaries - Bikes																			
Interval Start	Fifer Ave			US-101 SB Ramps			N/A			Nellen Ave			15-min Total	Rolling One Hour					
	Eastbound			Westbound			Northbound			Southbound									
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT							
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	0
Note: U-Turn volumes for bikes are included in Left-Turn, if any.																			

Redwood Hwy Wornum Dr



Peak Hour

Date: 03/31/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	3.0%	0.85
WB	-	-
NB	3.5%	0.75
SB	1.5%	0.71
TOTAL	2.6%	0.85

Two-Hour Count Summaries

Interval Start	Wornum Dr				N/A				Redwood Hwy				Redwood Hwy				15-min Total	Rolling One Hour	
	Eastbound		Westbound		UT		TH		RT		UT		TH		RT				
7:00 AM	0	70	0	8	0	0	0	0	0	10	2	0	0	0	1	31	122	0	
7:15 AM	0	62	0	9	0	0	0	0	0	8	3	0	0	0	2	28	112	0	
7:30 AM	0	68	0	11	0	0	0	0	0	12	6	0	0	0	7	46	150	0	
7:45 AM	0	73	0	16	0	0	0	0	0	34	12	0	0	0	3	89	227	611	
8:00 AM	0	100	0	21	0	0	0	0	0	34	14	0	0	0	12	102	283	772	
8:15 AM	0	119	0	19	0	0	0	0	0	17	12	0	0	0	2	66	235	895	
8:30 AM	0	126	0	20	0	0	0	0	0	5	16	0	0	0	4	48	219	964	
8:45 AM	0	87	0	14	0	0	0	0	0	21	11	0	0	0	8	51	192	929	
Count Total	0	705	0	118	0	0	0	0	0	141	76	0	0	0	39	461	1,540	0	
Peak Hour	All	0	418	0	76	0	0	0	0	0	90	54	0	0	0	21	305	964	0
	HV	0	14	0	1	0	0	0	0	0	3	2	0	0	0	1	4	25	0
	HV%	-	3%	-	1%	-	-	-	-	-	3%	4%	-	-	-	5%	1%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	2	0	0	1	3	1	0	0	0	1	4	0	0	3	7
7:15 AM	4	0	1	2	7	2	0	0	1	3	2	0	2	0	4
7:30 AM	6	0	0	2	8	1	0	0	3	4	5	0	2	5	12
7:45 AM	1	0	1	0	2	2	0	1	2	5	7	0	1	21	29
8:00 AM	6	0	1	1	8	5	0	0	1	6	7	0	0	8	15
8:15 AM	3	0	2	1	6	1	0	0	0	1	1	0	0	10	11
8:30 AM	5	0	1	3	9	0	0	0	0	0	2	0	2	6	10
8:45 AM	2	0	1	1	4	3	0	0	1	4	0	0	0	2	2
Count Total	29	0	7	11	47	15	0	1	8	24	28	0	7	55	90
Peak Hr	15	0	5	5	25	8	0	1	3	12	17	0	3	45	65

Two-Hour Count Summaries - Heavy Vehicles														15-min Total	Rolling One Hour			
Interval Start	Wornum Dr				N/A				Redwood Hwy				Redwood Hwy					
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0
7:15 AM	0	4	0	0	0	0	0	0	0	0	1	0	0	0	1	1	7	0
7:30 AM	0	5	0	1	0	0	0	0	0	0	0	0	0	0	1	1	8	0
7:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	20
8:00 AM	0	5	0	1	0	0	0	0	0	1	0	0	0	0	0	1	8	25
8:15 AM	0	3	0	0	0	0	0	0	0	1	1	0	0	0	1	0	6	24
8:30 AM	0	5	0	0	0	0	0	0	0	0	1	0	0	0	0	3	9	25
8:45 AM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4	27
Count Total	0	27	0	2	0	0	0	0	0	3	4	0	0	0	3	8	47	0
Peak Hour	0	14	0	1	0	0	0	0	0	3	2	0	0	0	1	4	25	0

Two-Hour Count Summaries - Bikes														15-min Total	Rolling One Hour
Interval Start	Wornum Dr			N/A			Redwood Hwy			Redwood Hwy					
	Eastbound			Westbound			Northbound			Southbound					
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT			
7:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	
7:15 AM	1	0	1	0	0	0	0	0	0	0	0	1	3	0	
7:30 AM	0	0	1	0	0	0	0	0	0	0	2	1	4	0	
7:45 AM	1	0	1	0	0	0	0	1	0	0	1	1	5	13	
8:00 AM	3	0	2	0	0	0	0	0	0	0	1	0	6	18	
8:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	16	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	12	
8:45 AM	1	0	2	0	0	0	0	0	0	0	0	1	4	11	
Count Total	8	0	7	0	0	0	0	1	0	0	4	4	24	0	
Peak Hour	5	0	3	0	0	0	0	1	0	0	2	1	12	0	

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Two-Hour Count Summaries

Interval Start	Dead Leg					San Clemente Dr					Tamalpais Dr					Redwood Hwy					Tamalpais Dr					15-min Total	Rolling One Hour
	Eastbound					Westbound					Northbound					Southbound					Northwestbound						
	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	BL	BR	HR		
7:00 AM	0	0	0	0	0	0	0	69	0	8	1	0	18	0	0	0	5	0	3	0	0	0	0	0	75	179	0
7:15 AM	0	0	0	0	0	0	0	100	0	11	0	0	19	0	0	0	4	0	6	0	0	0	0	0	112	252	0
7:30 AM	0	0	0	0	0	0	0	169	0	12	0	0	33	0	0	0	12	0	9	0	0	0	0	0	146	381	0
7:45 AM	0	0	0	0	0	0	0	172	0	44	0	0	32	6	0	0	14	0	25	0	0	0	0	0	251	544	1,356
8:00 AM	0	0	0	0	0	0	0	310	0	41	0	0	30	12	0	0	22	0	13	0	0	0	0	0	259	687	1,864
8:15 AM	0	0	0	0	0	0	0	326	0	22	0	0	40	1	0	0	12	0	13	0	0	0	0	0	201	615	2,227
8:30 AM	0	0	0	0	0	0	0	162	0	10	0	0	49	4	0	0	15	0	17	0	0	0	0	0	176	433	2,279
8:45 AM	0	0	0	0	0	0	0	175	0	19	0	0	51	0	0	0	13	0	19	0	0	0	0	0	157	434	2,169
Count Total	0	0	0	0	0	0	0	1,483	0	167	1	0	272	23	0	0	97	0	105	0	0	0	0	0	1,377	3,525	0
Peak Hour	All	0	0	0	0	0	0	970	0	117	0	0	151	23	0	0	63	0	68	0	0	0	0	0	887	2,279	0
	HV	0	0	0	0	0	0	25	0	3	0	0	4	0	0	0	1	0	3	0	0	0	0	0	28	64	0
	HV%	-	-	-	-	-	-	3%	-	3%	-	-	3%	0%	-	-	2%	-	4%	-	-	-	-	-	3%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals						Bicycles						Pedestrians (Crossing Leg)													
	EB	WB	NB	SB	NWB	Total	EB	WB	NB	SB	NWB	Total	East	West	North	South	Southeast	Total								
7:00 AM	0	8	1	0	3	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	5	1	1	3	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	3	1	1	7	12	0	0	0	1	1	2	0	0	1	0	1	0	1	0	1	0	0	0	2	0
7:45 AM	0	7	1	2	13	23	0	0	0	0	0	0	0	0	0	1	2	0	3	0	6	0	0	0	6	0
8:00 AM	0	6	1	1	11	19	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	11	1	0	2	14	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
8:30 AM	0	4	1	1	2	8	0	0	0	0	2	2	0	0	0	0	2	0	0	0	2	0	0	0	2	0
8:45 AM	0	7	2	1	2	12	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	51	9	7	43	110	0	0	0	4	3	7	0	1	6	0	1	6	0	4	0	0	0	4	11	0
Peak Hr	0	28	4	4	28	64	0	0	0	2	2	4	0	1	5	0	1	5	0	3	0	0	0	3	9	0

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Dead Leg Eastbound					San Clemente Dr Westbound					Tamalpais Dr Northbound					Redwood Hwy Southbound					Tamalpais Dr Northwestbound					15-min Total	Rolling One Hour
	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	BL	BR	HR		
7:00 AM	0	0	0	0	0	0	0	8	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	12	0	
7:15 AM	0	0	0	0	0	0	0	5	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	3	10	0	
7:30 AM	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	7	12	0	
7:45 AM	0	0	0	0	0	0	0	6	0	1	0	0	1	0	0	0	1	0	1	0	0	0	13	23	57		
8:00 AM	0	0	0	0	0	0	0	5	0	1	0	0	1	0	0	0	0	0	1	0	0	0	11	19	64		
8:15 AM	0	0	0	0	0	0	0	10	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	14	68		
8:30 AM	0	0	0	0	0	0	0	4	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2	8	64		
8:45 AM	0	0	0	0	0	0	0	7	0	0	0	0	2	0	0	0	0	0	1	0	0	0	2	12	53		
Count Total	0	0	0	0	0	0	0	48	0	3	0	0	9	0	0	0	1	0	6	0	0	0	43	110	0		
Peak Hour	0	0	0	0	0	0	0	25	0	3	0	0	4	0	0	0	1	0	3	0	0	0	28	64	0		

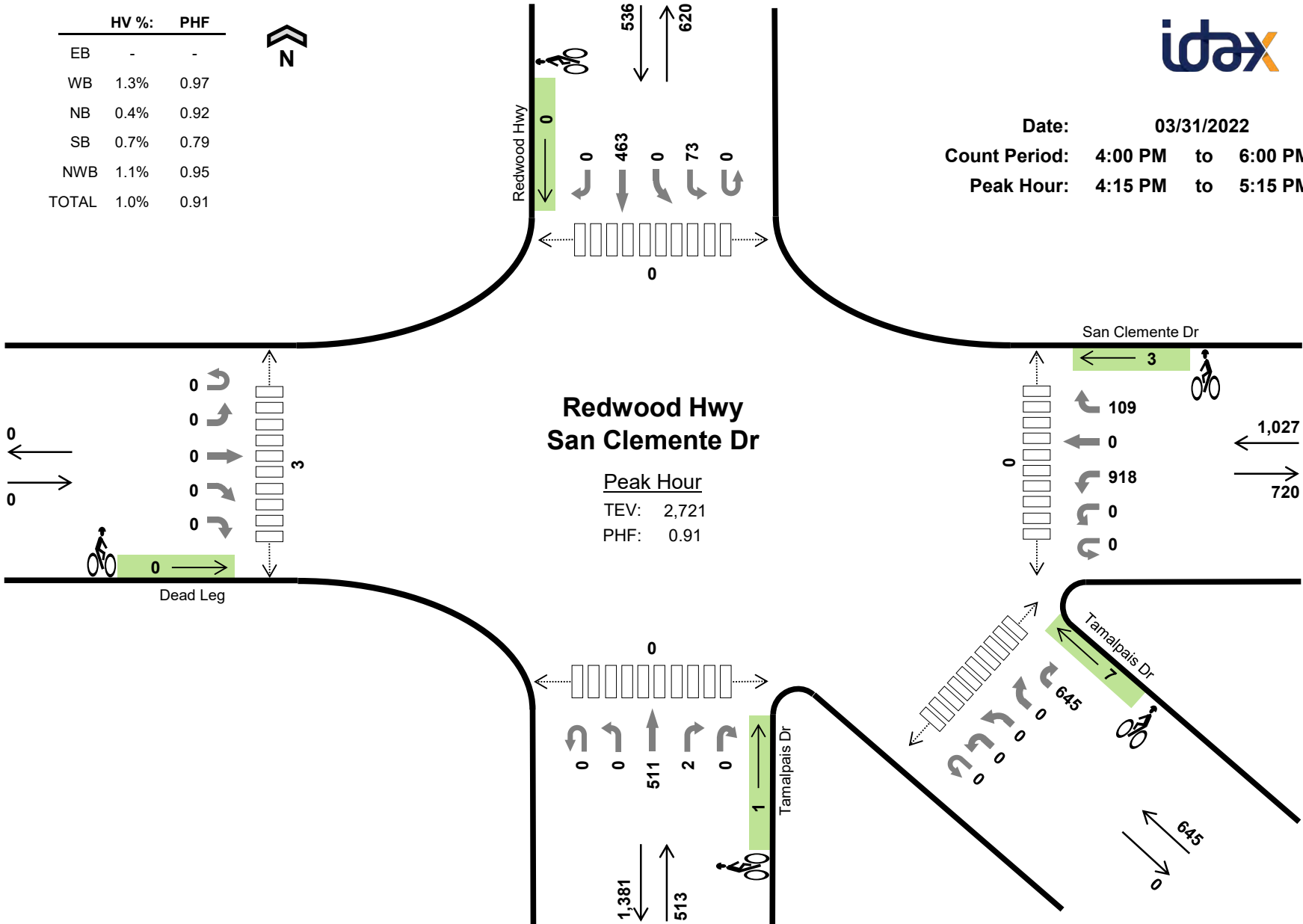
Two-Hour Count Summaries - Bikes

Interval Start	Dead Leg Eastbound					San Clemente Dr Westbound					Tamalpais Dr Northbound					Redwood Hwy Southbound					Tamalpais Dr Northwestbound					15-min Total	Rolling One Hour
	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	BL	BR	HR		
7:00 AM	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	
7:15 AM	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	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2	0	
7:45 AM	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	2	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	4	4	
8:15 AM	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	4	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	5		
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	3	7	0		
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	4	0		



Date: 03/31/2022
 Count Period: 4:00 PM to 6:00 PM
 Peak Hour: 4:15 PM to 5:15 PM

	HV %:	PHF
EB	-	-
WB	1.3%	0.97
NB	0.4%	0.92
SB	0.7%	0.79
NWB	1.1%	0.95
TOTAL	1.0%	0.91



Two-Hour Count Summaries

Interval Start	Dead Leg					San Clemente Dr					Tamalpais Dr					Redwood Hwy					Tamalpais Dr					15-min Total	Rolling One Hour
	Eastbound					Westbound					Northbound					Southbound					Northwestbound						
	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	BL	BR	HR		
4:00 PM	0	0	0	0	0	0	0	221	0	27	0	0	141	0	0	0	16	0	129	0	0	0	0	0	139	673	0
4:15 PM	0	0	0	0	0	0	0	240	0	26	0	0	140	0	0	0	24	0	145	0	0	0	0	0	169	744	0
4:30 PM	0	0	0	0	0	0	0	213	0	29	0	0	121	1	0	0	20	0	105	0	0	0	0	0	155	644	0
4:45 PM	0	0	0	0	0	0	0	236	0	23	0	0	112	1	0	0	12	0	99	0	0	0	0	0	165	648	2,709
5:00 PM	0	0	0	0	0	0	0	229	0	31	0	0	138	0	0	0	17	0	114	0	0	0	0	0	156	685	2,721
5:15 PM	0	0	0	0	0	0	0	264	0	28	0	0	134	1	0	0	10	0	115	0	0	0	0	0	156	708	2,685
5:30 PM	0	0	0	0	0	0	0	194	0	26	0	0	139	0	0	0	26	0	76	0	0	0	0	0	157	618	2,659
5:45 PM	0	0	0	0	0	0	0	198	0	26	0	0	147	0	0	0	14	0	113	0	0	0	0	0	173	671	2,682
Count Total	0	0	0	0	0	0	0	1,795	0	216	0	0	1,072	3	0	0	139	0	896	0	0	0	0	0	1,270	5,391	0
Peak Hour	All	0	0	0	0	0	0	918	0	109	0	0	511	2	0	0	73	0	463	0	0	0	0	0	645	2,721	0
	HV	0	0	0	0	0	0	11	0	2	0	0	2	0	0	0	2	0	2	0	0	0	0	0	7	26	0
	HV%	-	-	-	-	-	-	1%	-	2%	-	-	0%	0%	-	-	3%	-	0%	-	-	-	-	-	1%	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals						Bicycles						Pedestrians (Crossing Leg)						
	EB	WB	NB	SB	NWB	Total	EB	WB	NB	SB	NWB	Total	East	West	North	South	Southeast	Total	
4:00 PM	0	8	0	3	4	15	0	1	0	0	2	3	0	0	3	0	0	1	4
4:15 PM	0	4	2	1	2	9	0	1	0	0	0	1	0	0	0	0	0	0	3
4:30 PM	0	3	0	2	1	6	0	1	0	0	3	4	0	1	0	0	0	1	
4:45 PM	0	2	0	0	1	3	0	0	0	0	1	1	0	1	0	0	0	4	
5:00 PM	0	4	0	1	3	8	0	1	1	0	3	5	0	1	0	0	1	2	
5:15 PM	0	2	1	0	0	3	0	0	0	0	1	1	0	0	0	0	1	1	
5:30 PM	0	0	0	0	1	1	0	1	0	3	1	5	0	0	0	0	1	1	
5:45 PM	0	1	0	0	1	2	0	1	0	0	3	4	0	0	0	0	4	4	
Count Total	0	24	3	7	13	47	0	6	1	3	14	24	0	3	3	0	14	20	
Peak Hr	0	13	2	4	7	26	0	3	1	0	7	11	0	3	0	0	7	10	

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Dead Leg Eastbound					San Clemente Dr Westbound					Tamalpais Dr Northbound					Redwood Hwy Southbound					Tamalpais Dr Northwestbound					15-min Total	Rolling One Hour
	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	BL	BR	HR		
4:00 PM	0	0	0	0	0	0	0	7	0	1	0	0	0	0	0	0	1	0	2	0	0	0	0	0	4	15	0
4:15 PM	0	0	0	0	0	0	0	4	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	2	9	0
4:30 PM	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	6	0
4:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	33
5:00 PM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	8	26
5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	20
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	15
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	14
Count Total	0	0	0	0	0	0	0	21	0	3	0	0	3	0	0	0	3	0	4	0	0	0	0	0	13	47	0
Peak Hour	0	0	0	0	0	0	0	11	0	2	0	0	2	0	0	0	2	0	2	0	0	0	0	0	7	26	0

Two-Hour Count Summaries - Bikes

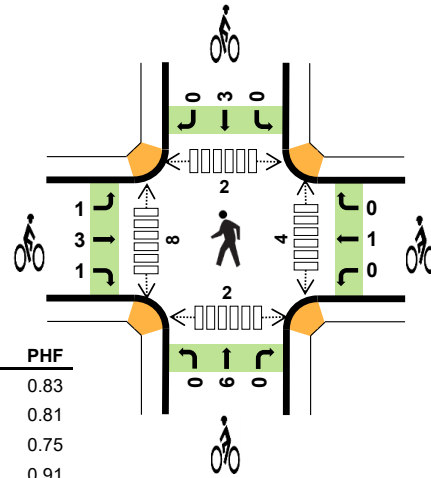
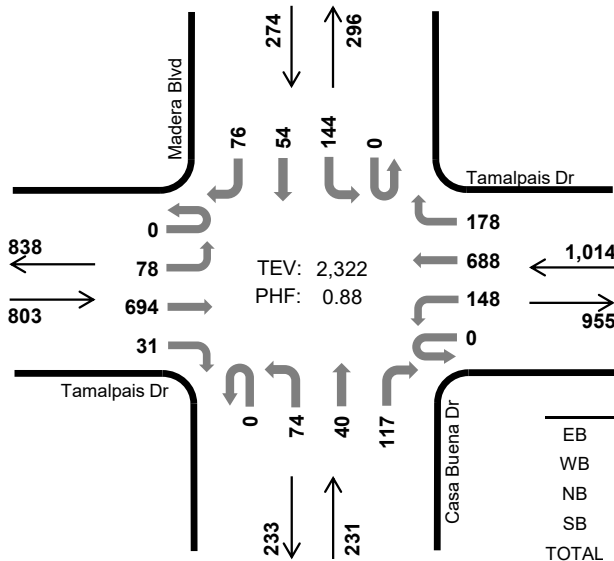
Interval Start	Dead Leg Eastbound					San Clemente Dr Westbound					Tamalpais Dr Northbound					Redwood Hwy Southbound					Tamalpais Dr Northwestbound					15-min Total	Rolling One Hour
	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	BL	BR	HR		
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	9
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	5	11
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	11
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1	5	12
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	15
Count Total	0	0	0	0	0	0	0	6	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	14	24	0
Peak Hour	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	7	11	0

Madera Blvd Tamalpais Dr



Peak Hour

Date: 03/31/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	1.9%	0.83
WB	2.6%	0.81
NB	1.7%	0.75
SB	1.5%	0.91
TOTAL	2.1%	0.88

Two-Hour Count Summaries

Interval Start	Tamalpais Dr Eastbound				Tamalpais Dr Westbound				Casa Buena Dr Northbound				Madera Blvd Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	9	55	4	1	23	37	13	0	8	7	21	1	10	7	4	200	0	
7:15 AM	0	7	63	1	0	21	76	13	0	19	5	23	1	14	9	3	255	0	
7:30 AM	0	9	95	8	0	15	90	29	0	15	16	27	0	12	12	3	331	0	
7:45 AM	0	16	132	6	0	26	158	39	0	25	11	30	0	23	14	14	494	1,280	
8:00 AM	0	16	175	6	0	42	206	65	0	27	14	36	0	38	14	22	661	1,741	
8:15 AM	0	26	206	10	0	42	201	44	0	18	13	23	0	47	17	11	658	2,144	
8:30 AM	0	20	181	9	0	38	123	30	0	4	2	28	0	36	9	29	509	2,322	
8:45 AM	0	13	128	7	0	36	121	38	0	24	6	25	0	42	13	13	466	2,294	
Count Total	0	116	1,035	51	1	243	1,012	271	0	140	74	213	2	222	95	99	3,574	0	
Peak Hour	All	0	78	694	31	0	148	688	178	0	74	40	117	0	144	54	76	2,322	0
	HV	0	2	13	0	0	7	16	3	0	0	0	4	0	3	0	1	49	0
	HV%	-	3%	2%	0%	-	5%	2%	2%	-	0%	0%	3%	-	2%	0%	1%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	2	5	0	1	8	0	0	0	0	0	1	2	1	1	5
7:15 AM	0	4	4	1	9	0	0	2	2	4	4	1	1	1	7
7:30 AM	5	3	0	2	10	2	0	0	1	3	3	3	0	0	6
7:45 AM	3	5	2	2	12	0	1	2	2	5	3	1	0	0	4
8:00 AM	4	5	1	1	11	2	0	1	0	3	0	0	0	0	0
8:15 AM	3	5	1	0	9	1	0	2	1	4	0	6	1	1	8
8:30 AM	5	11	0	1	17	2	0	1	0	3	1	1	1	1	4
8:45 AM	2	12	2	3	19	0	0	1	1	2	0	0	0	1	1
Count Total	24	50	10	11	95	7	1	9	7	24	12	14	4	5	35
Peak Hour	15	26	4	4	49	5	1	6	3	15	4	8	2	2	16

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Tamalpais Dr				Tamalpais Dr				Casa Buena Dr				Madera Blvd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	1	0	1	3	1	0	0	0	0	0	0	0	1	8	0
7:15 AM	0	0	0	0	0	1	3	0	0	2	1	1	0	1	0	0	9	0
7:30 AM	0	0	5	0	0	1	2	0	0	0	0	0	0	1	1	0	10	0
7:45 AM	0	0	3	0	0	0	5	0	0	0	0	2	0	2	0	0	12	39
8:00 AM	0	1	3	0	0	2	3	0	0	0	0	1	0	1	0	0	11	42
8:15 AM	0	0	3	0	0	1	3	1	0	0	0	1	0	0	0	0	9	42
8:30 AM	0	1	4	0	0	4	5	2	0	0	0	0	0	0	0	1	17	49
8:45 AM	0	0	1	1	0	2	9	1	0	1	0	1	0	2	0	1	19	56
Count Total	0	2	20	2	0	12	33	5	0	3	1	6	0	7	1	3	95	0
Peak Hour	0	2	13	0	0	7	16	3	0	0	0	4	0	3	0	1	49	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Tamalpais Dr			Tamalpais Dr			Casa Buena Dr			Madera Blvd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	4	0
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0
7:45 AM	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	5	12
8:00 AM	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	3	15
8:15 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	1	0	0	4	15
8:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	15
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	12
Count Total	1	5	1	0	0	1	0	0	0	9	0	0	0	7	0	0	24	0
Peak Hour	1	3	1	0	0	1	0	0	0	6	0	0	0	3	0	0	15	0

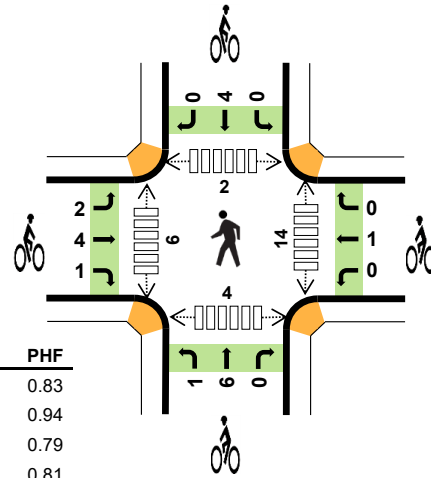
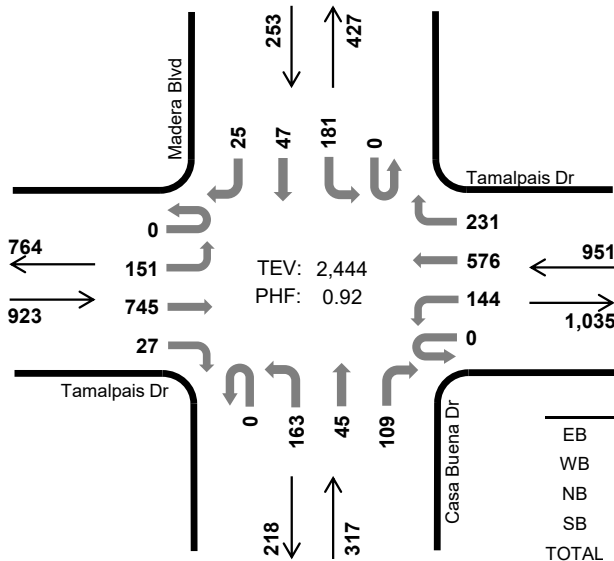
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Madera Blvd Tamalpais Dr



Peak Hour

Date: 03/31/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	2.2%	0.83
WB	1.2%	0.94
NB	1.9%	0.79
SB	0.8%	0.81
TOTAL	1.6%	0.92

Two-Hour Count Summaries

Interval Start	Tamalpais Dr Eastbound				Tamalpais Dr Westbound				Casa Buena Dr Northbound				Madera Blvd Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	44	194	8	1	33	138	55	0	33	11	29	0	42	8	1	597	0	
4:15 PM	0	36	236	7	0	43	125	61	0	44	10	20	0	40	9	5	636	0	
4:30 PM	0	40	171	8	0	22	148	59	0	35	10	26	0	54	15	9	597	0	
4:45 PM	0	36	147	3	0	37	147	57	0	32	12	28	0	34	12	5	550	2,380	
5:00 PM	0	39	191	9	0	42	156	54	0	52	13	35	0	53	11	6	661	2,444	
5:15 PM	0	33	167	3	0	38	178	69	0	33	8	30	0	42	22	13	636	2,444	
5:30 PM	0	37	132	7	0	24	121	46	0	46	8	22	0	50	13	10	516	2,363	
5:45 PM	0	30	146	1	0	15	145	46	0	25	5	34	0	58	14	2	521	2,334	
Count Total	0	295	1,384	46	1	254	1,158	447	0	300	77	224	0	373	104	51	4,714	0	
Peak Hour	All	0	151	745	27	0	144	576	231	0	163	45	109	0	181	47	25	2,444	0
	HV	0	1	19	0	0	4	5	2	0	2	0	4	0	1	1	0	39	0
	HV%	-	1%	3%	0%	-	3%	1%	1%	-	1%	0%	4%	-	1%	2%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	9	6	1	0	16	2	1	3	3	9	3	2	0	1	6
4:15 PM	5	5	2	1	13	0	0	1	0	1	2	1	0	1	4
4:30 PM	5	2	2	0	9	3	0	4	0	7	3	4	2	0	9
4:45 PM	6	2	1	1	10	2	1	1	3	7	7	1	0	1	9
5:00 PM	4	2	1	0	7	2	0	1	1	4	2	0	0	2	4
5:15 PM	6	1	0	6	13	2	0	6	1	9	2	0	1	1	4
5:30 PM	4	0	0	0	4	1	1	2	0	4	2	1	0	2	5
5:45 PM	1	0	0	1	2	1	2	3	4	10	4	0	5	1	10
Count Total	40	18	7	9	74	13	5	21	12	51	25	9	8	9	51
Peak Hour	20	11	6	2	39	7	1	7	4	19	14	6	2	4	26

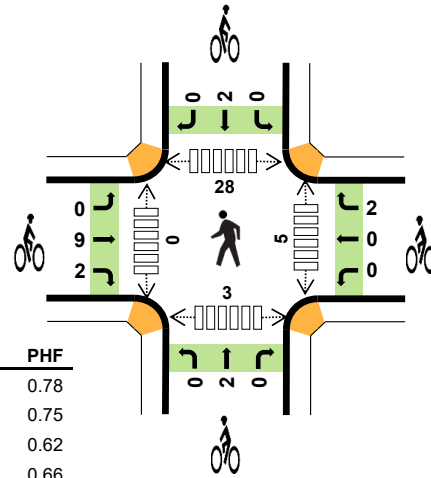
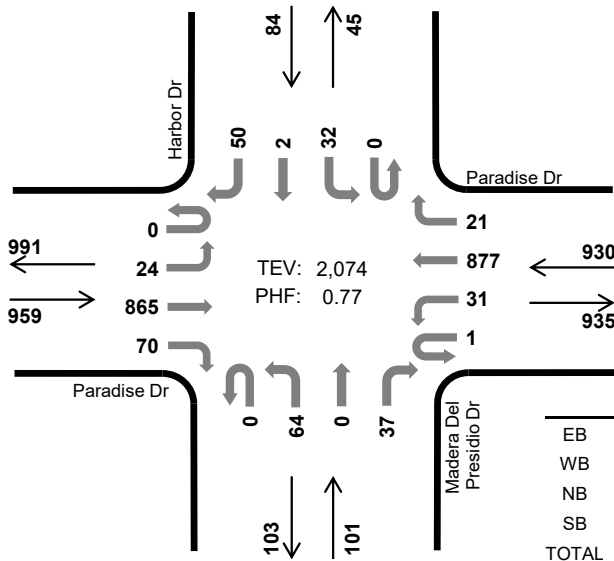
Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Tamalpais Dr				Tamalpais Dr				Casa Buena Dr				Madera Blvd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	8	0	0	1	3	2	0	0	0	1	0	0	0	0	16	0
4:15 PM	0	0	5	0	0	1	2	2	0	1	0	1	0	0	1	0	13	0
4:30 PM	0	0	5	0	0	1	1	0	0	1	0	1	0	0	0	0	9	0
4:45 PM	0	1	5	0	0	1	1	0	0	0	0	1	0	1	0	0	10	48
5:00 PM	0	0	4	0	0	1	1	0	0	0	0	1	0	0	0	0	7	39
5:15 PM	0	0	6	0	0	1	0	0	0	0	0	0	0	4	1	1	13	39
5:30 PM	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4	34
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	26
Count Total	0	2	37	1	0	6	8	4	0	2	0	5	0	6	2	1	74	0
Peak Hour	0	1	19	0	0	4	5	2	0	2	0	4	0	1	1	0	39	0
Two-Hour Count Summaries - Bikes																		
Interval Start	Tamalpais Dr			Tamalpais Dr			Casa Buena Dr			Madera Blvd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	2	0	1	0	0	3	0	0	1	2	9	0				
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0				
4:30 PM	1	1	1	0	0	0	0	4	0	0	0	0	7	0				
4:45 PM	1	1	0	0	1	0	0	1	0	0	3	0	7	24				
5:00 PM	0	2	0	0	0	0	1	0	0	0	1	0	4	19				
5:15 PM	1	1	0	0	0	0	0	6	0	0	0	1	9	27				
5:30 PM	0	1	0	0	1	0	0	2	0	0	0	0	4	24				
5:45 PM	0	1	0	0	2	0	0	3	0	1	2	1	10	27				
Count Total	3	7	3	0	5	0	1	20	0	1	7	4	51	0				
Peak Hour	2	4	1	0	1	0	1	6	0	0	4	0	19	0				
<i>Note: U-Turn volumes for bikes are included in Left-Turn, if any.</i>																		

Madera Del Presidio Dr Paradise Dr



Peak Hour

Date: 03/31/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	3.2%	0.78
WB	1.8%	0.75
NB	3.0%	0.62
SB	0.0%	0.66
TOTAL	2.5%	0.77

Two-Hour Count Summaries

Interval Start	Paradise Dr Eastbound				Paradise Dr Westbound				Madera Del Presidio Dr Northbound				Harbor Dr Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	1	67	4	0	0	61	0	0	7	0	0	0	0	0	4	144	0	
7:15 AM	0	2	99	6	0	3	75	0	0	7	1	2	0	0	1	5	201	0	
7:30 AM	0	5	147	8	0	2	123	2	0	12	0	9	0	2	0	7	317	0	
7:45 AM	0	6	230	10	0	2	162	2	0	32	0	9	0	9	1	12	475	1,137	
8:00 AM	0	3	289	17	0	5	300	1	0	10	0	19	0	15	0	17	676	1,669	
8:15 AM	0	8	193	19	1	18	281	11	0	11	0	2	0	3	1	5	553	2,021	
8:30 AM	0	7	153	24	0	6	134	7	0	11	0	7	0	5	0	16	370	2,074	
8:45 AM	0	6	142	24	0	4	154	1	0	14	0	4	0	0	0	8	357	1,956	
Count Total	0	38	1,320	112	1	40	1,290	24	0	104	1	52	0	34	3	74	3,093	0	
Peak Hour	All	0	24	865	70	1	31	877	21	0	64	0	37	0	32	2	50	2,074	0
	HV	0	0	30	1	0	0	17	0	0	3	0	0	0	0	0	0	51	0
	HV%	-	0%	3%	1%	0%	0%	2%	0%	-	5%	-	0%	-	0%	0%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	3	4	1	1	9	0	1	0	0	1	3	0	3	0	6
7:15 AM	2	2	0	0	4	0	0	0	0	0	0	0	1	0	1
7:30 AM	9	2	0	0	11	4	1	0	0	5	2	0	6	0	8
7:45 AM	13	3	1	0	17	5	0	0	0	5	1	0	13	0	14
8:00 AM	10	5	0	0	15	1	1	2	2	6	1	0	7	0	8
8:15 AM	6	7	0	0	13	2	1	0	0	3	1	0	4	1	6
8:30 AM	2	2	2	0	6	3	0	0	0	3	2	0	4	2	8
8:45 AM	2	8	0	0	10	2	0	0	0	2	4	0	6	1	11
Count Total	47	33	4	1	85	17	4	2	2	25	14	0	44	4	62
Peak Hour	31	17	3	0	51	11	2	2	2	17	5	0	28	3	36

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	Paradise Dr				Paradise Dr				Madera Del Presidio Dr				Harbor Dr				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	3	0	0	0	4	0	0	1	0	0	0	0	0	0	1	9	0
7:15 AM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4	0
7:30 AM	0	0	8	1	0	0	2	0	0	0	0	0	0	0	0	0	0	11	0
7:45 AM	0	0	13	0	0	0	3	0	0	1	0	0	0	0	0	0	0	17	41
8:00 AM	0	0	10	0	0	0	5	0	0	0	0	0	0	0	0	0	0	15	47
8:15 AM	0	0	6	0	0	0	7	0	0	0	0	0	0	0	0	0	0	13	56
8:30 AM	0	0	1	1	0	0	2	0	0	2	0	0	0	0	0	0	0	6	51
8:45 AM	0	1	1	0	0	0	8	0	0	0	0	0	0	0	0	0	0	10	44
Count Total	0	1	44	2	0	0	33	0	0	4	0	0	0	0	0	0	1	85	0
Peak Hour	0	0	30	1	0	0	17	0	0	3	0	0	0	0	0	0	0	51	0

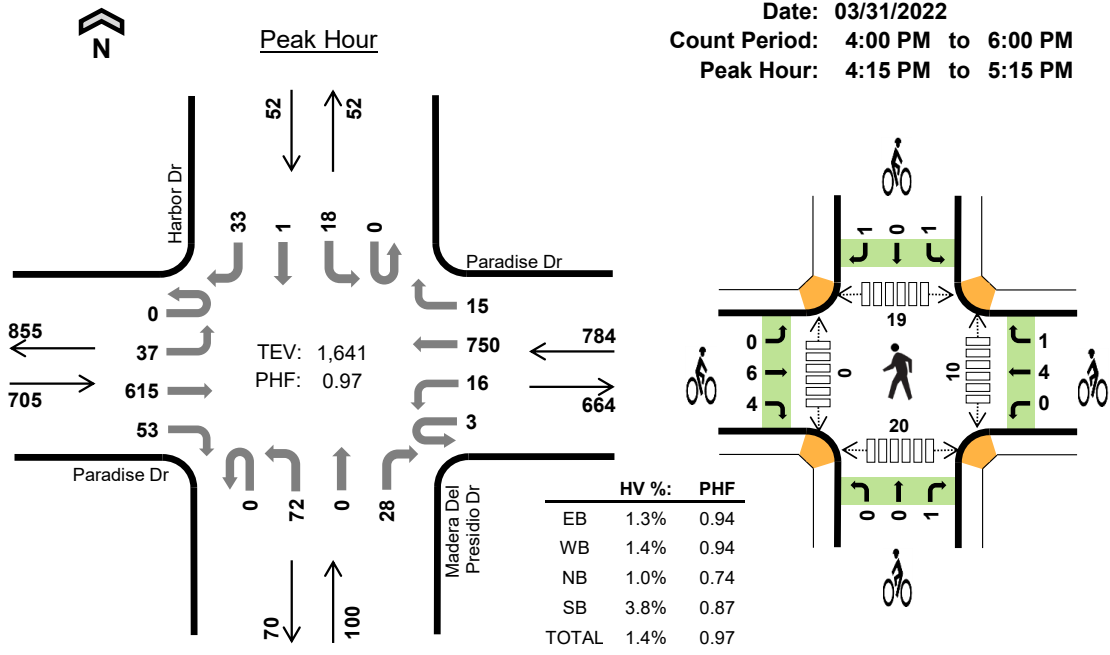
Two-Hour Count Summaries - Bikes																			
Interval Start	Paradise Dr			Paradise Dr			Madera Del Presidio Dr			Harbor Dr			15-min Total	Rolling One Hour					
	Eastbound			Westbound			Northbound			Southbound									
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT							
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	0
7:45 AM	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	11
8:00 AM	0	1	0	0	0	1	0	2	0	0	2	0	0	2	0	0	0	6	16
8:15 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	19
8:30 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17
8:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	14
Count Total	0	15	2	0	2	2	0	2	0	0	2	0	0	2	0	0	0	25	0
Peak Hour	0	9	2	0	0	2	0	2	0	0	2	0	0	2	0	0	0	17	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Madera Del Presidio Dr Paradise Dr



Date: 03/31/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



Two-Hour Count Summaries

Interval Start	Paradise Dr Eastbound				Paradise Dr Westbound				Madera Del Presidio Dr Northbound				Harbor Dr Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	6	119	19	2	8	201	4	0	21	0	3	0	4	0	7	394	0	
4:15 PM	0	12	163	12	0	6	168	2	0	21	0	9	0	5	0	9	407	0	
4:30 PM	0	10	135	21	2	3	191	3	0	12	0	6	0	4	0	5	392	0	
4:45 PM	0	7	172	9	0	3	193	5	0	15	0	3	0	6	1	7	421	1,614	
5:00 PM	0	8	145	11	1	4	198	5	0	24	0	10	0	3	0	12	421	1,641	
5:15 PM	0	16	143	11	0	7	138	5	0	22	0	1	0	4	0	8	355	1,589	
5:30 PM	0	8	146	22	0	3	120	4	0	25	0	4	0	2	0	4	338	1,535	
5:45 PM	0	13	159	11	0	3	119	2	0	23	0	17	0	8	0	4	359	1,473	
Count Total	0	80	1,182	116	5	37	1,328	30	0	163	0	53	0	36	1	56	3,087	0	
Peak Hour	All	0	37	615	53	3	16	750	15	0	72	0	28	0	18	1	33	1,641	0
	HV	0	1	5	3	0	0	11	0	0	1	0	0	0	1	0	1	23	0
	HV%	-	3%	1%	6%	0%	0%	1%	0%	-	1%	-	0%	-	6%	0%	3%	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

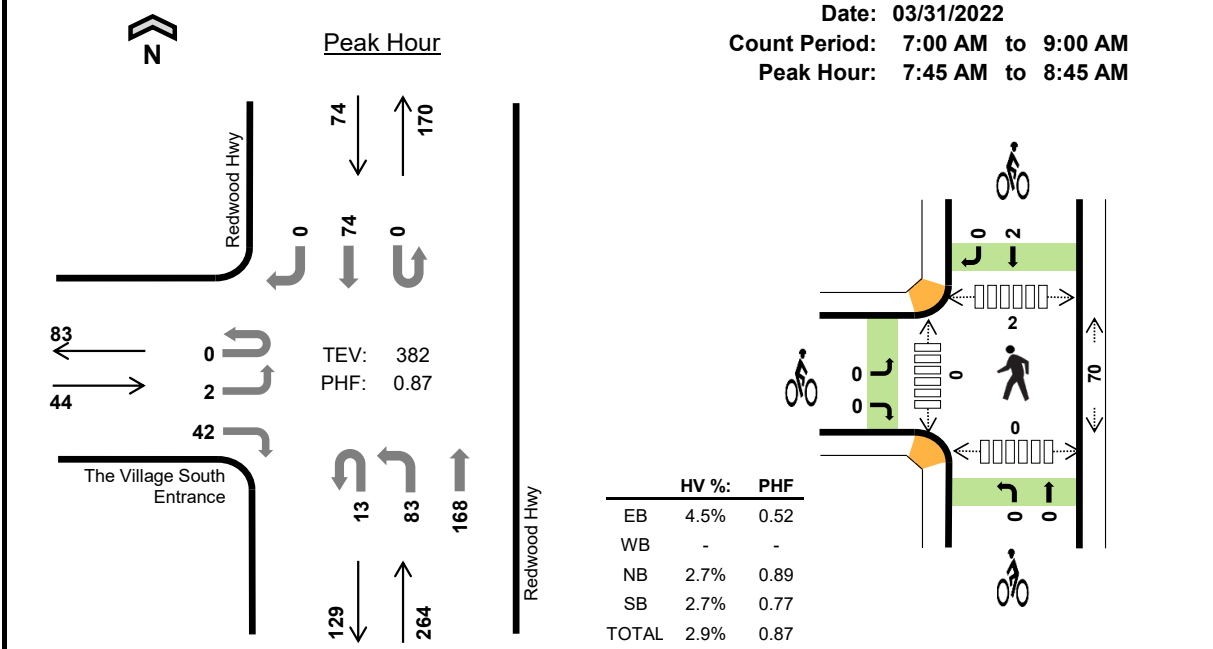
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	6	5	0	0	11	5	0	1	0	6	2	0	6	5	13
4:15 PM	1	3	0	0	4	0	2	0	2	4	1	0	9	5	15
4:30 PM	0	3	0	1	4	3	2	0	0	5	7	0	6	5	18
4:45 PM	2	1	0	0	3	2	1	1	0	4	1	0	2	5	8
5:00 PM	6	4	1	1	12	5	0	0	0	5	1	0	2	5	8
5:15 PM	0	1	0	0	1	6	1	0	0	7	3	0	4	0	7
5:30 PM	1	0	0	0	1	7	4	0	0	11	3	0	6	1	10
5:45 PM	1	2	0	1	4	6	3	0	0	9	2	0	4	1	7
Count Total	17	19	1	3	40	34	13	2	2	51	20	0	39	27	86
Peak Hour	9	11	1	2	23	10	5	1	2	18	10	0	19	20	49

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Paradise Dr				Paradise Dr				Madera Del Presidio Dr				Harbor Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	4	1	0	0	5	0	0	0	0	0	0	0	0	11	0	
4:15 PM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	4	0	
4:30 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1	4	0	
4:45 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	3	22	
5:00 PM	0	1	2	3	0	0	4	0	0	1	0	0	0	1	0	12	23	
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	20	
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	17	
5:45 PM	0	0	1	0	0	0	1	1	0	0	0	0	0	0	1	4	18	
Count Total	0	2	11	4	0	0	18	1	0	1	0	0	0	1	0	40	0	
Peak Hour	0	1	5	3	0	0	11	0	0	1	0	0	0	1	0	23	0	

Two-Hour Count Summaries - Bikes																	
Interval Start	Paradise Dr			Paradise Dr			Madera Del Presidio Dr			Harbor Dr			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	5	0	0	0	0	0	0	1	0	0	0	6	0			
4:15 PM	0	0	0	0	2	0	0	0	0	1	0	1	4	0			
4:30 PM	0	2	1	0	2	0	0	0	0	0	0	0	5	0			
4:45 PM	0	1	1	0	0	1	0	0	1	0	0	0	4	19			
5:00 PM	0	3	2	0	0	0	0	0	0	0	0	0	5	18			
5:15 PM	0	4	2	0	1	0	0	0	0	0	0	0	7	21			
5:30 PM	0	7	0	0	4	0	0	0	0	0	0	0	11	27			
5:45 PM	0	6	0	0	3	0	0	0	0	0	0	0	9	32			
Count Total	0	28	6	0	12	1	0	0	2	1	0	1	51	0			
Peak Hour	0	6	4	0	4	1	0	0	1	1	0	1	18	0			

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Redwood Hwy The Village South Entrance



Two-Hour Count Summaries

Interval Start	The Village South Entrance				N/A				Redwood Hwy				Redwood Hwy				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		UT		LT		TH						
7:00 AM	0	0	0	1	0	0	0	0	2	7	18	0	0	0	5	0	33	0	
7:15 AM	0	0	0	3	0	0	0	0	3	13	14	0	0	0	5	0	38	0	
7:30 AM	0	1	0	5	0	0	0	0	4	16	24	0	1	0	12	1	64	0	
7:45 AM	0	0	0	21	0	0	0	0	2	13	59	0	0	0	15	0	110	245	
8:00 AM	0	0	0	8	0	0	0	0	2	18	51	0	0	0	24	0	103	315	
8:15 AM	0	2	0	6	0	0	0	0	5	29	27	0	0	0	17	0	86	363	
8:30 AM	0	0	0	7	0	0	0	0	4	23	31	0	0	0	18	0	83	382	
8:45 AM	0	0	0	7	0	0	0	0	8	25	36	0	0	0	17	1	94	366	
Count Total	0	3	0	58	0	0	0	0	30	144	260	0	1	0	113	2	611	0	
Peak Hour	All	0	2	0	42	0	0	0	0	13	83	168	0	0	0	74	0	382	0
	HV	0	0	0	2	0	0	0	0	0	3	4	0	0	0	2	0	11	0
	HV%	-	0%	-	5%	-	-	-	-	0%	4%	2%	-	-	-	3%	-	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	1	1	2	0	0	0	0	0	3	0	0	0	3
7:15 AM	1	0	1	0	2	0	0	0	0	0	2	0	0	0	2
7:30 AM	1	0	1	0	2	0	0	1	2	3	14	0	0	0	14
7:45 AM	1	0	1	1	3	0	0	0	0	0	29	0	1	0	30
8:00 AM	1	0	3	0	4	0	0	0	2	2	14	0	0	0	14
8:15 AM	0	0	2	0	2	0	0	0	0	0	16	0	1	0	17
8:30 AM	0	0	1	1	2	0	0	0	0	0	11	0	0	0	11
8:45 AM	1	0	2	0	3	0	0	2	1	3	6	0	0	0	6
Count Total	5	0	12	3	20	0	0	3	5	8	95	0	2	0	97
Peak Hr	2	0	7	2	11	0	0	0	2	2	70	0	2	0	72

Two-Hour Count Summaries - Heavy Vehicles																				
Interval Start	The Village South Entrance				N/A				Redwood Hwy				Redwood Hwy				15-min Total	Rolling One Hour		
	Eastbound				Westbound				Northbound				Southbound							
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT				
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2	0	
7:15 AM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	
7:30 AM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	
7:45 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	3	9
8:00 AM	0	0	0	1	0	0	0	0	0	0	1	2	0	0	0	0	0	4	11	
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	11	
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	11	
8:45 AM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3	11	
Count Total	0	0	0	5	0	0	0	0	0	0	8	4	0	0	0	3	0	20	0	
Peak Hour	0	0	0	2	0	0	0	0	0	0	3	4	0	0	0	2	0	11	0	

Two-Hour Count Summaries - Bikes																			
Interval Start	The Village South Entrance				N/A				Redwood Hwy				Redwood Hwy				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT				
7:00 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0
7:15 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0
7:30 AM	0	0	0		0	0	0		0	1	0		0	2	0		3	0	0
7:45 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	3
8:00 AM	0	0	0		0	0	0		0	0	0		0	2	0		2	5	5
8:15 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	5	5
8:30 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	2	2
8:45 AM	0	0	0		0	0	0		0	2	0		0	1	0		3	5	5
Count Total	0	0	0		0	0	0		0	3	0		0	5	0		8	0	0
Peak Hour	0	0	0		0	0	0		0	0	0		0	2	0		2	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

MARKS TRAFFIC DATA

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916.806.0250

TOWN OF CORTE MADERA

File Name : tamal vista-wornum-a

Site Code : 1

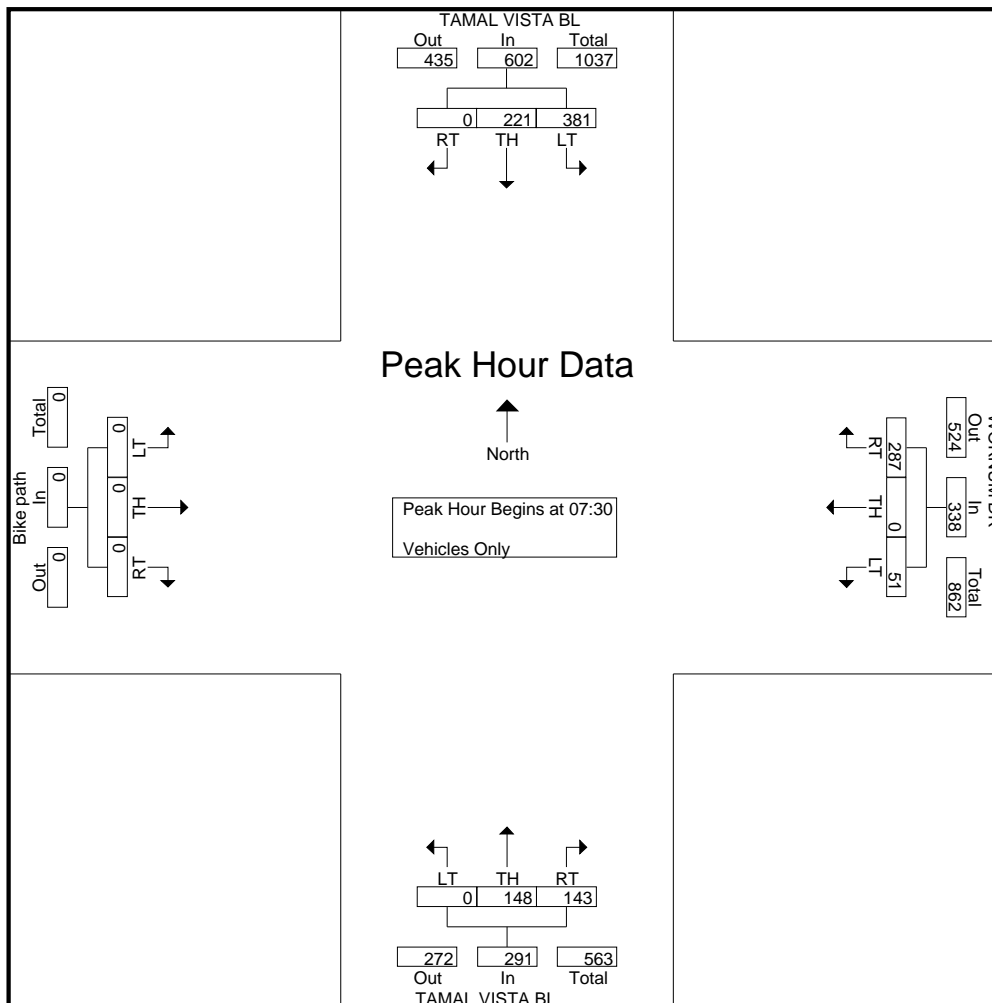
Start Date : 4/9/2014

Page No : 1

Groups Printed- Vehicles Only

Start Time	TAMAL VISTA BL Southbound				WORNUM DR Westbound				TAMAL VISTA BL Northbound				Bike path Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
07:00	0	25	78	103	27	0	0	27	18	14	0	32	0	0	0	0	162
07:15	0	19	57	76	69	0	8	77	18	17	0	35	0	0	0	0	188
07:30	0	54	69	123	141	0	11	152	24	42	0	66	0	0	0	0	341
07:45	0	44	94	138	58	0	13	71	36	34	0	70	0	0	0	0	279
Total	0	142	298	440	295	0	32	327	96	107	0	203	0	0	0	0	970
08:00	0	65	102	167	56	0	14	70	34	52	0	86	0	0	0	0	323
08:15	0	58	116	174	32	0	13	45	49	20	0	69	0	0	0	0	288
08:30	0	61	92	153	49	0	14	63	27	40	0	67	0	0	0	0	283
08:45	0	67	85	152	33	0	18	51	34	37	0	71	0	0	0	0	274
Total	0	251	395	646	170	0	59	229	144	149	0	293	0	0	0	0	1168
Grand Total	0	393	693	1086	465	0	91	556	240	256	0	496	0	0	0	0	2138
Apprch %	0	36.2	63.8		83.6	0	16.4		48.4	51.6	0		0	0	0		
Total %	0	18.4	32.4	50.8	21.7	0	4.3	26	11.2	12	0	23.2	0	0	0	0	

Start Time	TAMAL VISTA BL Southbound				WORNUM DR Westbound				TAMAL VISTA BL Northbound				Bike path Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30																	
07:30	0	54	69	123	141	0	11	152	24	42	0	66	0	0	0	0	341
07:45	0	44	94	138	58	0	13	71	36	34	0	70	0	0	0	0	279
08:00	0	65	102	167	56	0	14	70	34	52	0	86	0	0	0	0	323
08:15	0	58	116	174	32	0	13	45	49	20	0	69	0	0	0	0	288
Total Volume	0	221	381	602	287	0	51	338	143	148	0	291	0	0	0	0	1231
% App. Total	0	36.7	63.3		84.9	0	15.1		49.1	50.9	0		0	0	0		
PHF	.000	.850	.821	.865	.509	.000	.911	.556	.730	.712	.000	.846	.000	.000	.000	.000	.902



MARKS TRAFFIC DATA
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 916.806.0250

TOWN OF CORTE MADERA

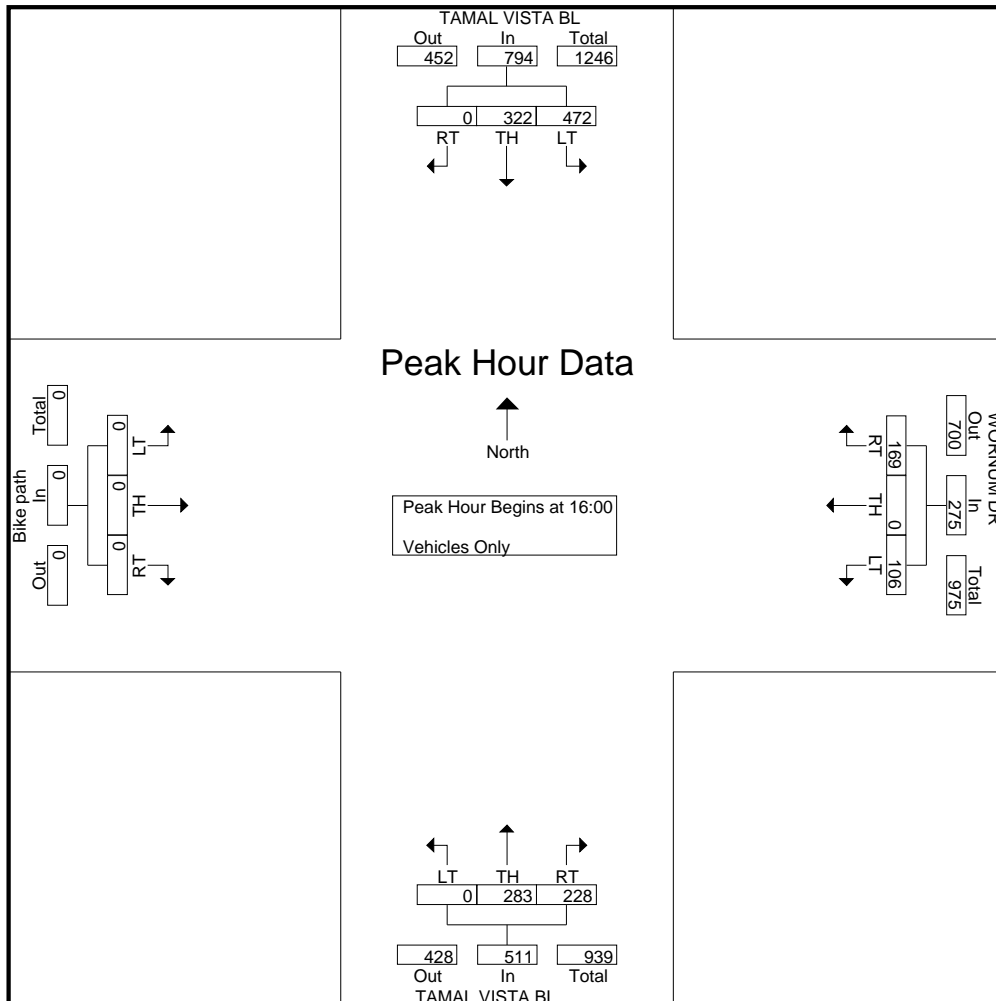
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 Site Code : 1
 Start Date : 4/9/2014
 Page No : 1

Groups Printed- Vehicles Only

Start Time	TAMAL VISTA BL Southbound				WORNUM DR Westbound				TAMAL VISTA BL Northbound				Bike path Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
16:00	0	92	136	228	43	0	32	75	46	70	0	116	0	0	0	0	419
16:15	0	74	138	212	40	0	30	70	56	58	0	114	0	0	0	0	396
16:30	0	74	108	182	40	0	26	66	65	71	0	136	0	0	0	0	384
16:45	0	82	90	172	46	0	18	64	61	84	0	145	0	0	0	0	381
Total	0	322	472	794	169	0	106	275	228	283	0	511	0	0	0	0	1580
17:00	0	89	113	202	42	0	18	60	48	86	0	134	0	0	0	0	396
17:15	0	96	97	193	44	0	28	72	48	85	0	133	0	0	0	0	398
17:30	0	68	92	160	37	0	15	52	53	81	0	134	0	0	0	0	346
17:45	0	70	111	181	44	0	19	63	37	86	0	123	0	0	0	0	367
Total	0	323	413	736	167	0	80	247	186	338	0	524	0	0	0	0	1507
Grand Total	0	645	885	1530	336	0	186	522	414	621	0	1035	0	0	0	0	3087
Apprch %	0	42.2	57.8		64.4	0	35.6		40	60	0		0	0	0		
Total %	0	20.9	28.7	49.6	10.9	0	6	16.9	13.4	20.1	0	33.5	0	0	0	0	

Start Time	TAMAL VISTA BL Southbound				WORNUM DR Westbound				TAMAL VISTA BL Northbound				Bike path Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
16:00	0	92	136	228	43	0	32	75	46	70	0	116	0	0	0	0	419
16:15	0	74	138	212	40	0	30	70	56	58	0	114	0	0	0	0	396
16:30	0	74	108	182	40	0	26	66	65	71	0	136	0	0	0	0	384
16:45	0	82	90	172	46	0	18	64	61	84	0	145	0	0	0	0	381
Total Volume	0	322	472	794	169	0	106	275	228	283	0	511	0	0	0	0	1580
% App. Total	0	40.6	59.4		61.5	0	38.5		44.6	55.4	0		0	0	0		
PHF	.000	.875	.855	.871	.918	.000	.828	.917	.877	.842	.000	.881	.000	.000	.000	.000	.943

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 16:00



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TOWN OF CORTE MADERA

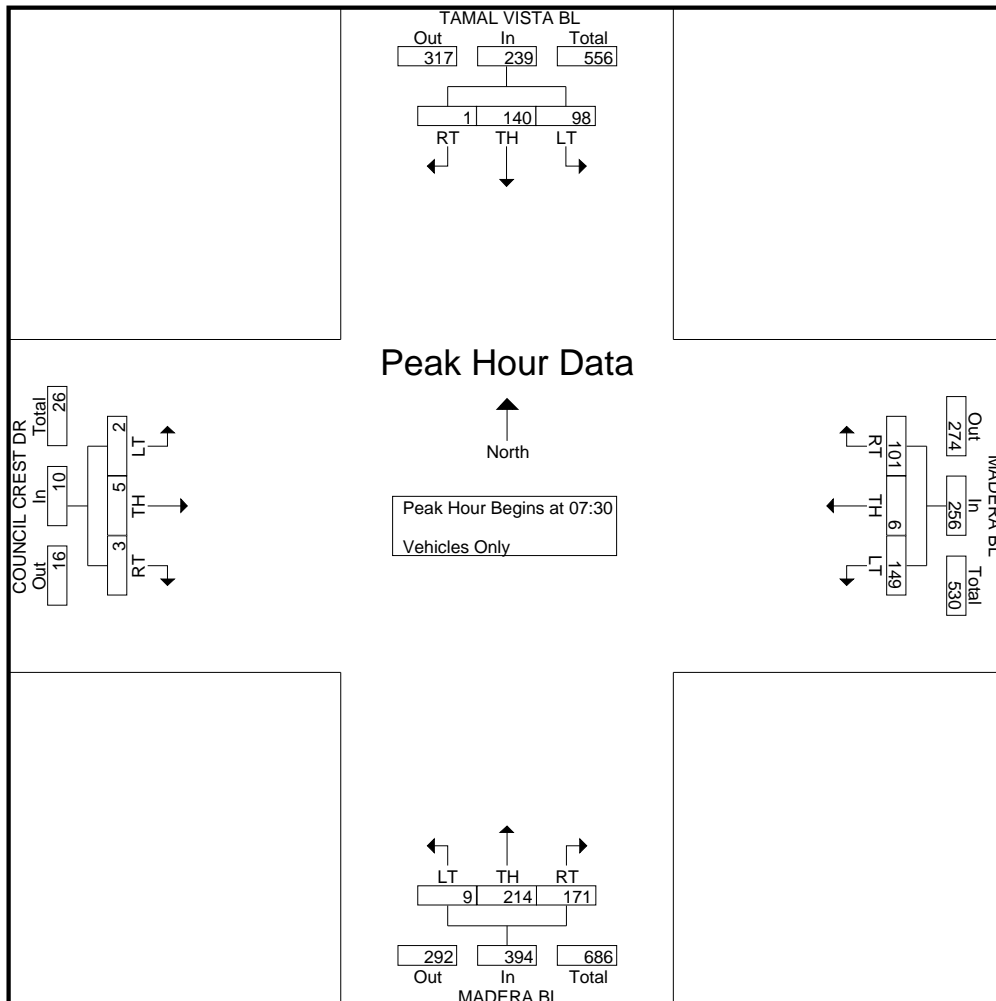
File Name : tamal vista-madera-a
Site Code : 2
Start Date : 4/9/2014
Page No : 1

Groups Printed- Vehicles Only

Start Time	TAMAL VISTA BL Southbound				MADERA BL Westbound				MADERA BL Northbound				COUNCIL CREST DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
07:00	1	14	11	26	23	0	12	35	24	14	1	39	1	0	0	1	101
07:15	0	16	11	27	10	4	25	39	16	24	0	40	1	0	1	2	108
07:30	0	36	24	60	28	0	34	62	37	42	1	80	0	3	0	3	205
07:45	0	35	23	58	21	5	37	63	43	49	4	96	1	0	0	1	218
Total	1	101	69	171	82	9	108	199	120	129	6	255	3	3	1	7	632
08:00	0	38	34	72	28	0	47	75	54	77	0	131	2	1	2	5	283
08:15	1	31	17	49	24	1	31	56	37	46	4	87	0	1	0	1	193
08:30	0	25	24	49	13	1	38	52	35	55	2	92	1	1	0	2	195
08:45	0	30	17	47	32	1	28	61	27	49	0	76	0	1	0	1	185
Total	1	124	92	217	97	3	144	244	153	227	6	386	3	4	2	9	856
Grand Total	2	225	161	388	179	12	252	443	273	356	12	641	6	7	3	16	1488
Apprch %	0.5	58	41.5		40.4	2.7	56.9		42.6	55.5	1.9		37.5	43.8	18.8		
Total %	0.1	15.1	10.8	26.1	12	0.8	16.9	29.8	18.3	23.9	0.8	43.1	0.4	0.5	0.2	1.1	

Start Time	TAMAL VISTA BL Southbound				MADERA BL Westbound				MADERA BL Northbound				COUNCIL CREST DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
07:30	0	36	24	60	28	0	34	62	37	42	1	80	0	3	0	3	205
07:45	0	35	23	58	21	5	37	63	43	49	4	96	1	0	0	1	218
08:00	0	38	34	72	28	0	47	75	54	77	0	131	2	1	2	5	283
08:15	1	31	17	49	24	1	31	56	37	46	4	87	0	1	0	1	193
Total Volume	1	140	98	239	101	6	149	256	171	214	9	394	3	5	2	10	899
% App. Total	0.4	58.6	41		39.5	2.3	58.2		43.4	54.3	2.3		30	50	20		
PHF	.250	.921	.721	.830	.902	.300	.793	.853	.792	.695	.563	.752	.375	.417	.250	.500	.794

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:30



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TOWN OF CORTE MADERA

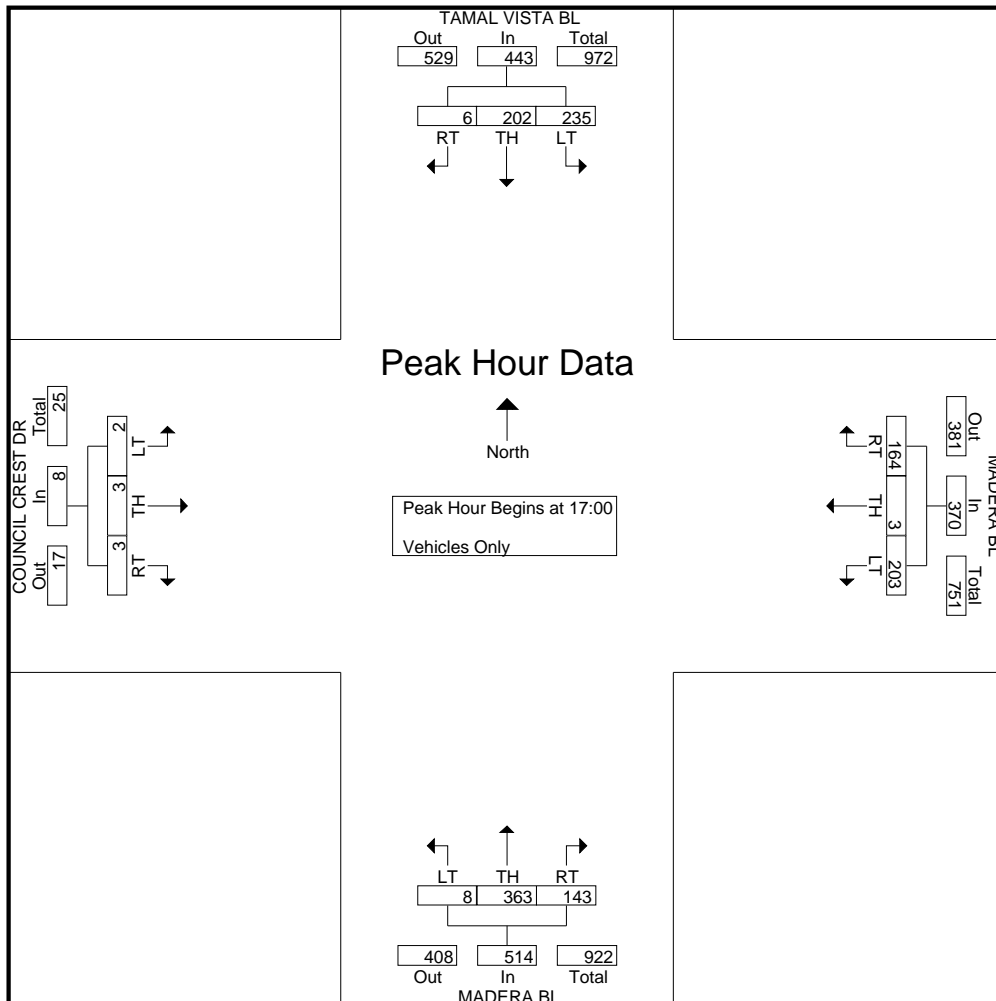
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 Site Code : 2
 Start Date : 4/9/2014
 Page No : 1

Groups Printed- Vehicles Only

Start Time	TAMAL VISTA BL Southbound				MADERA BL Westbound				MADERA BL Northbound				COUNCIL CREST DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
16:00	1	55	53	109	38	1	54	93	28	74	1	103	3	0	0	3	308
16:15	0	60	54	114	58	0	41	99	27	66	1	94	2	2	0	4	311
16:30	0	46	52	98	47	1	40	88	21	65	4	90	1	1	0	2	278
16:45	0	61	42	103	37	1	50	88	23	86	5	114	2	3	0	5	310
Total	1	222	201	424	180	3	185	368	99	291	11	401	8	6	0	14	1207
17:00	1	54	80	135	49	1	49	99	36	98	3	137	0	1	0	1	372
17:15	3	62	56	121	42	1	61	104	29	84	4	117	0	0	2	2	344
17:30	1	40	44	85	36	0	53	89	32	84	1	117	3	1	0	4	295
17:45	1	46	55	102	37	1	40	78	46	97	0	143	0	1	0	1	324
Total	6	202	235	443	164	3	203	370	143	363	8	514	3	3	2	8	1335
Grand Total	7	424	436	867	344	6	388	738	242	654	19	915	11	9	2	22	2542
Apprch %	0.8	48.9	50.3		46.6	0.8	52.6		26.4	71.5	2.1		50	40.9	9.1		
Total %	0.3	16.7	17.2	34.1	13.5	0.2	15.3	29	9.5	25.7	0.7	36	0.4	0.4	0.1	0.9	

Start Time	TAMAL VISTA BL Southbound				MADERA BL Westbound				MADERA BL Northbound				COUNCIL CREST DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
17:00	1	54	80	135	49	1	49	99	36	98	3	137	0	1	0	1	372
17:15	3	62	56	121	42	1	61	104	29	84	4	117	0	0	2	2	344
17:30	1	40	44	85	36	0	53	89	32	84	1	117	3	1	0	4	295
17:45	1	46	55	102	37	1	40	78	46	97	0	143	0	1	0	1	324
Total Volume	6	202	235	443	164	3	203	370	143	363	8	514	3	3	2	8	1335
% App. Total	1.4	45.6	53		44.3	0.8	54.9		27.8	70.6	1.6		37.5	37.5	25		
PHF	.500	.815	.734	.820	.837	.750	.832	.889	.777	.926	.500	.899	.250	.750	.250	.500	.897

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 17:00



MARKS TRAFFIC DATA

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TOWN OF CORTE MADERA

File Name : madera-tamalpais-a

Site Code : 4

Start Date : 4/9/2014

Page No : 1

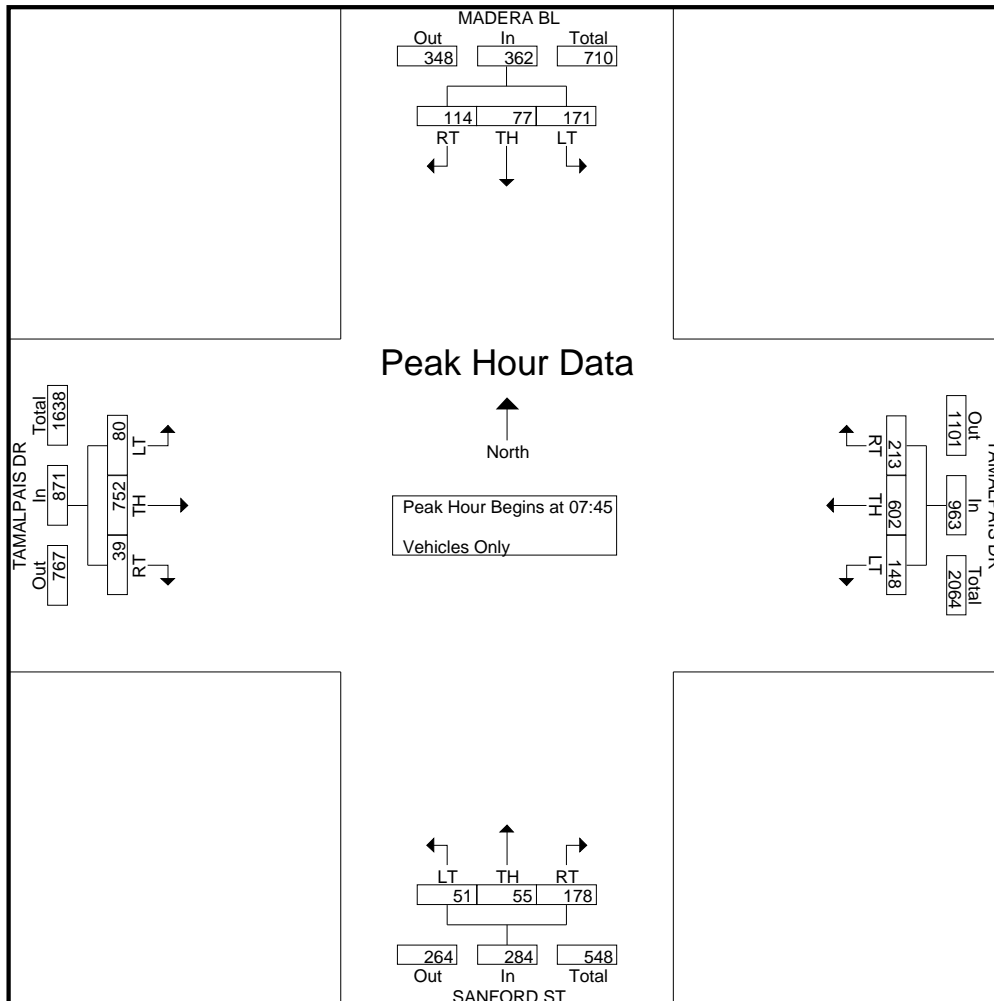
Groups Printed- Vehicles Only

Start Time	MADERA BL Southbound				TAMALPAIS DR Westbound				SANFORD ST Northbound				TAMALPAIS DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
07:00	7	7	20	34	17	46	21	84	30	3	1	34	8	81	11	100	252
07:15	19	9	16	44	22	60	23	105	26	4	6	36	9	118	9	136	321
07:30	21	9	32	62	43	106	25	174	46	15	9	70	9	148	13	170	476
07:45	28	10	33	71	65	198	52	315	47	17	21	85	8	165	16	189	660
Total	75	35	101	211	147	410	121	678	149	39	37	225	34	512	49	595	1709
08:00	26	28	56	110	72	180	31	283	43	18	12	73	9	201	22	232	698
08:15	26	22	53	101	34	134	32	200	46	9	8	63	12	209	18	239	603
08:30	34	17	29	80	42	90	33	165	42	11	10	63	10	177	24	211	519
08:45	27	11	31	69	51	117	46	214	51	11	7	69	10	209	24	243	595
Total	113	78	169	360	199	521	142	862	182	49	37	268	41	796	88	925	2415
Grand Total	188	113	270	571	346	931	263	1540	331	88	74	493	75	1308	137	1520	4124
Apprch %	32.9	19.8	47.3		22.5	60.5	17.1		67.1	17.8	15		4.9	86.1	9		
Total %	4.6	2.7	6.5	13.8	8.4	22.6	6.4	37.3	8	2.1	1.8	12	1.8	31.7	3.3	36.9	

Start Time	MADERA BL Southbound				TAMALPAIS DR Westbound				SANFORD ST Northbound				TAMALPAIS DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
07:45	28	10	33	71	65	198	52	315	47	17	21	85	8	165	16	189	660
08:00	26	28	56	110	72	180	31	283	43	18	12	73	9	201	22	232	698
08:15	26	22	53	101	34	134	32	200	46	9	8	63	12	209	18	239	603
08:30	34	17	29	80	42	90	33	165	42	11	10	63	10	177	24	211	519
Total Volume	114	77	171	362	213	602	148	963	178	55	51	284	39	752	80	871	2480
% App. Total	31.5	21.3	47.2		22.1	62.5	15.4		62.7	19.4	18		4.5	86.3	9.2		
PHF	.838	.688	.763	.823	.740	.760	.712	.764	.947	.764	.607	.835	.813	.900	.833	.911	.888

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45



MARKS TRAFFIC DATA

mietekm@comcast.net

916.806.0250

TOWN OF CORTE MADERA

File Name : madera-tamalpais-p

Site Code : 4

Start Date : 4/9/2014

Page No : 1

Groups Printed- Vehicles Only

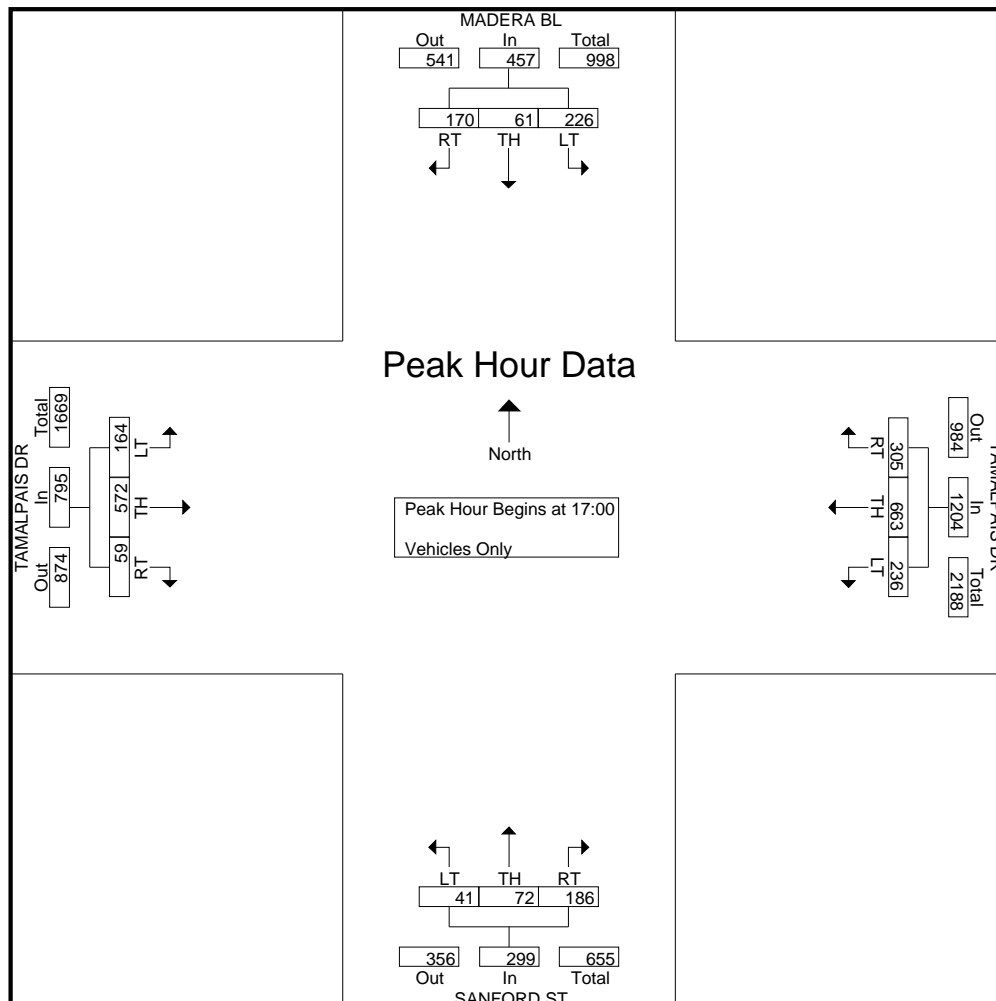
Start Time	MADERA BL Southbound				TAMALPAIS DR Westbound				SANFORD ST Northbound				TAMALPAIS DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
16:00	48	13	57	118	59	135	39	233	44	17	7	68	12	144	29	185	604
16:15	46	18	59	123	47	146	40	233	37	12	8	57	8	158	41	207	620
16:30	53	15	53	121	58	127	41	226	44	15	8	67	10	151	40	201	615
16:45	50	21	45	116	65	171	47	283	45	10	8	63	13	158	41	212	674
Total	197	67	214	478	229	579	167	975	170	54	31	255	43	611	151	805	2513
17:00	39	22	57	118	74	150	46	270	47	21	6	74	15	139	41	195	657
17:15	51	17	56	124	66	182	63	311	40	17	9	66	19	172	54	245	746
17:30	36	14	59	109	76	168	62	306	50	15	10	75	12	144	29	185	675
17:45	44	8	54	106	89	163	65	317	49	19	16	84	13	117	40	170	677
Total	170	61	226	457	305	663	236	1204	186	72	41	299	59	572	164	795	2755
Grand Total	367	128	440	935	534	1242	403	2179	356	126	72	554	102	1183	315	1600	5268
Apprch %	39.3	13.7	47.1		24.5	57	18.5		64.3	22.7	13		6.4	73.9	19.7		
Total %	7	2.4	8.4	17.7	10.1	23.6	7.6	41.4	6.8	2.4	1.4	10.5	1.9	22.5	6	30.4	

Start Time	MADERA BL Southbound				TAMALPAIS DR Westbound				SANFORD ST Northbound				TAMALPAIS DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 17:00

17:00	39	22	57	118	74	150	46	270	47	21	6	74	15	139	41	195	657
17:15	51	17	56	124	66	182	63	311	40	17	9	66	19	172	54	245	746
17:30	36	14	59	109	76	168	62	306	50	15	10	75	12	144	29	185	675
17:45	44	8	54	106	89	163	65	317	49	19	16	84	13	117	40	170	677
Total Volume	170	61	226	457	305	663	236	1204	186	72	41	299	59	572	164	795	2755
% App. Total	37.2	13.3	49.5		25.3	55.1	19.6		62.2	24.1	13.7		7.4	71.9	20.6		
PHF	.833	.693	.958	.921	.857	.911	.908	.950	.930	.857	.641	.890	.776	.831	.759	.811	.923



MARKS TRAFFIC DATA

mietekm@comcast.net

916.806.0250

TOWN OF CORTE MADERA

File Name : 101sb-tamalpais-a

Site Code : 5

Start Date : 4/9/2014

Page No : 1

Groups Printed- Vehicles Only

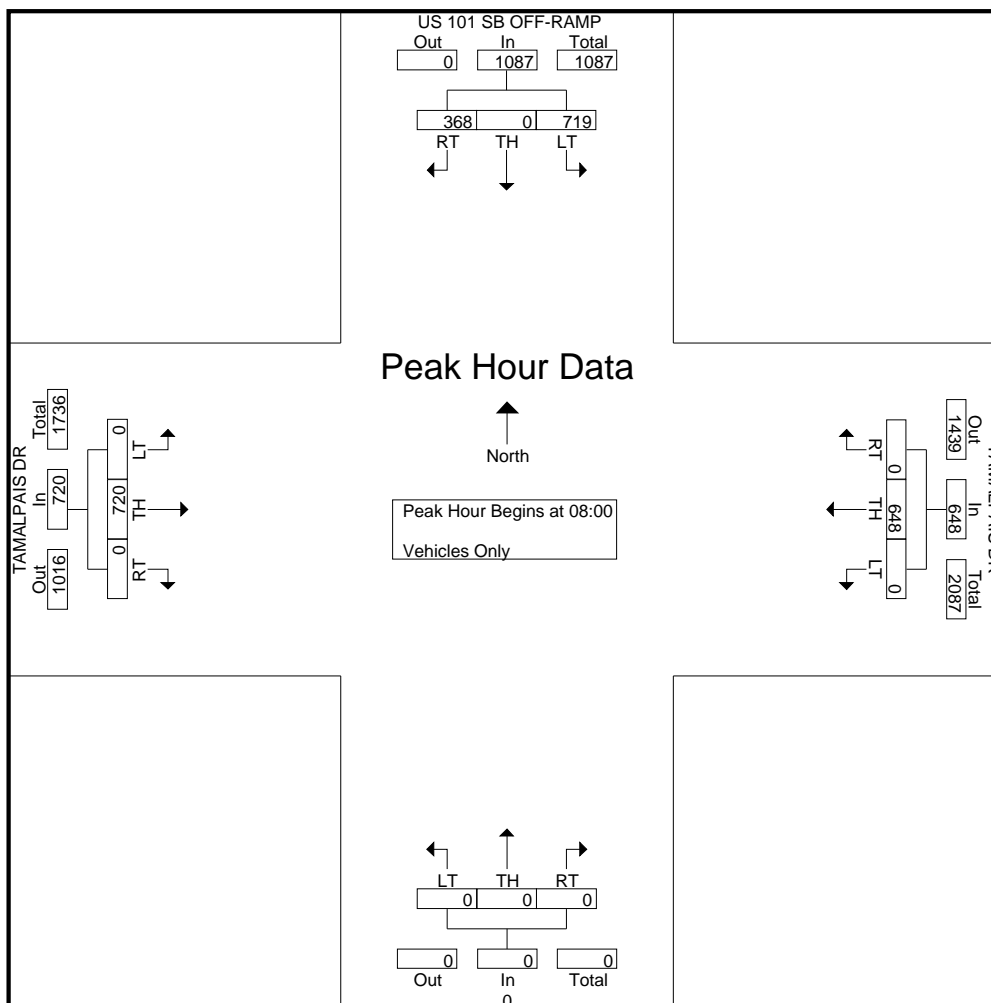
Start Time	US 101 SB OFF-RAMP Southbound				TAMALPAIS DR Westbound				0 Northbound				TAMALPAIS DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
07:00	51	0	120	171	0	49	0	49	0	0	0	0	0	68	0	68	288
07:15	52	0	103	155	0	65	0	65	0	0	0	0	0	99	0	99	319
07:30	63	0	131	194	0	153	0	153	0	0	0	0	0	113	0	113	460
07:45	81	0	128	209	0	251	0	251	0	0	0	0	0	135	0	135	595
Total	247	0	482	729	0	518	0	518	0	0	0	0	0	415	0	415	1662
08:00	103	0	188	291	0	212	0	212	0	0	0	0	0	191	0	191	694
08:15	90	0	170	260	0	135	0	135	0	0	0	0	0	181	0	181	576
08:30	83	0	185	268	0	141	0	141	0	0	0	0	0	167	0	167	576
08:45	92	0	176	268	0	160	0	160	0	0	0	0	0	181	0	181	609
Total	368	0	719	1087	0	648	0	648	0	0	0	0	0	720	0	720	2455
Grand Total	615	0	1201	1816	0	1166	0	1166	0	0	0	0	0	1135	0	1135	4117
Apprch %	33.9	0	66.1		0	100	0		0	0	0	0	0	100	0		
Total %	14.9	0	29.2	44.1	0	28.3	0	28.3	0	0	0	0	0	27.6	0	27.6	

Start Time	US 101 SB OFF-RAMP Southbound				TAMALPAIS DR Westbound				0 Northbound				TAMALPAIS DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00

08:00	103	0	188	291	0	212	0	212	0	0	0	0	0	191	0	191	694
08:15	90	0	170	260	0	135	0	135	0	0	0	0	0	181	0	181	576
08:30	83	0	185	268	0	141	0	141	0	0	0	0	0	167	0	167	576
08:45	92	0	176	268	0	160	0	160	0	0	0	0	0	181	0	181	609
Total Volume	368	0	719	1087	0	648	0	648	0	0	0	0	0	720	0	720	2455
% App. Total	33.9	0	66.1		0	100	0		0	0	0	0	0	100	0		
PHF	.893	.000	.956	.934	.000	.764	.000	.764	.000	.000	.000	.000	.000	.942	.000	.942	.884



MARKS TRAFFIC DATA
 mietekm@comcast.net
 916.806.0250

TOWN OF CORTE MADERA

File Name : 101sb-tamalpais-p
 Site Code : 5
 Start Date : 4/9/2014
 Page No : 1

Groups Printed- Vehicles Only

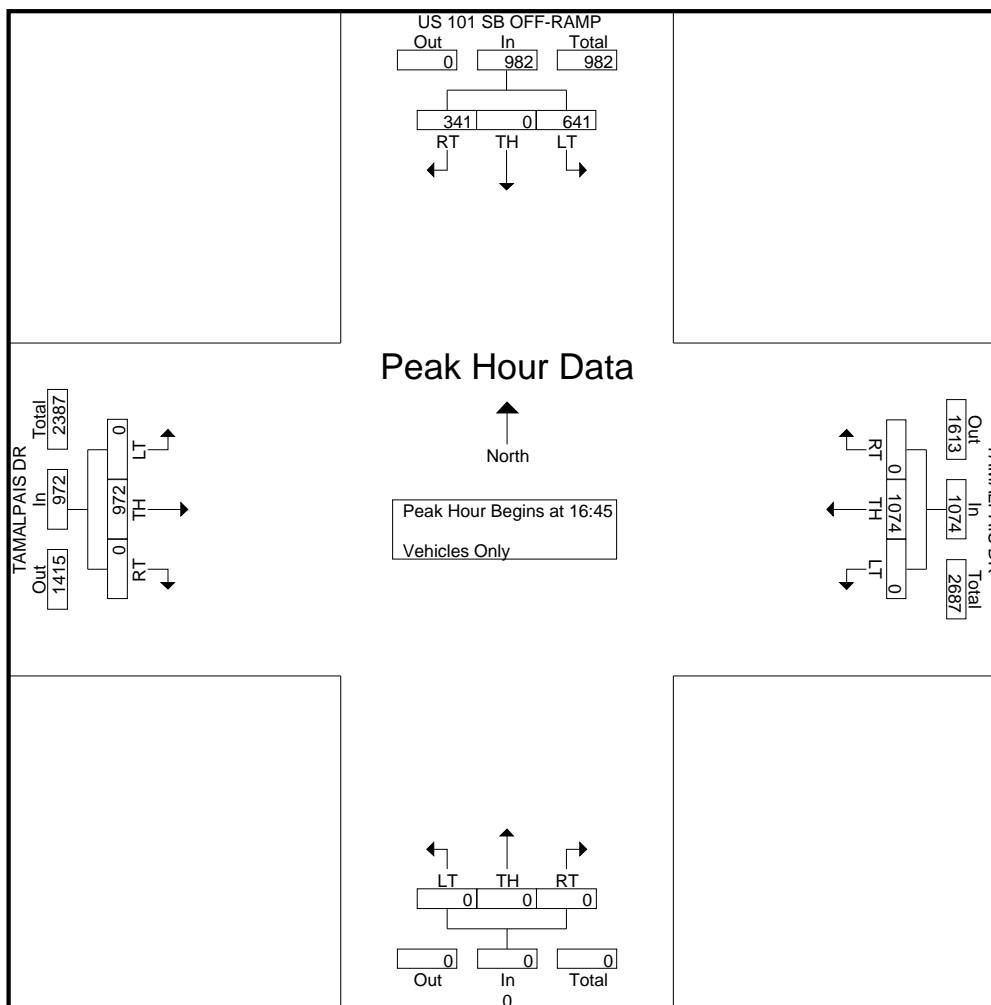
Start Time	US 101 SB OFF-RAMP Southbound				TAMALPAIS DR Westbound				0 Northbound				TAMALPAIS DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
16:00	65	0	130	195	0	219	0	219	0	0	0	0	0	218	0	218	632
16:15	73	0	152	225	0	219	0	219	0	0	0	0	0	238	0	238	682
16:30	76	0	150	226	0	223	0	223	0	0	0	0	0	228	0	228	677
16:45	83	0	167	250	0	246	0	246	0	0	0	0	0	248	0	248	744
Total	297	0	599	896	0	907	0	907	0	0	0	0	0	932	0	932	2735
17:00	85	0	160	245	0	256	0	256	0	0	0	0	0	231	0	231	732
17:15	84	0	148	232	0	269	0	269	0	0	0	0	0	252	0	252	753
17:30	89	0	166	255	0	303	0	303	0	0	0	0	0	241	0	241	799
17:45	87	0	135	222	0	293	0	293	0	0	0	0	0	206	0	206	721
Total	345	0	609	954	0	1121	0	1121	0	0	0	0	0	930	0	930	3005
Grand Total	642	0	1208	1850	0	2028	0	2028	0	0	0	0	0	1862	0	1862	5740
Apprch %	34.7	0	65.3		0	100	0		0	0	0	0	0	100	0		
Total %	11.2	0	21	32.2	0	35.3	0	35.3	0	0	0	0	0	32.4	0	32.4	

Start Time	US 101 SB OFF-RAMP Southbound				TAMALPAIS DR Westbound				0 Northbound				TAMALPAIS DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 16:45

16:45	83	0	167	250	0	246	0	246	0	0	0	0	0	248	0	248	744
17:00	85	0	160	245	0	256	0	256	0	0	0	0	0	231	0	231	732
17:15	84	0	148	232	0	269	0	269	0	0	0	0	0	252	0	252	753
17:30	89	0	166	255	0	303	0	303	0	0	0	0	0	241	0	241	799
Total Volume	341	0	641	982	0	1074	0	1074	0	0	0	0	0	972	0	972	3028
% App. Total	34.7	0	65.3		0	100	0		0	0	0	0	0	100	0		
PHF	.958	.000	.960	.963	.000	.886	.000	.886	.000	.000	.000	.000	.000	.964	.000	.964	.947



MARKS TRAFFIC DATA
 mietekm@comcast.net
 916.806.0250

TOWN OF CORTE MADERA

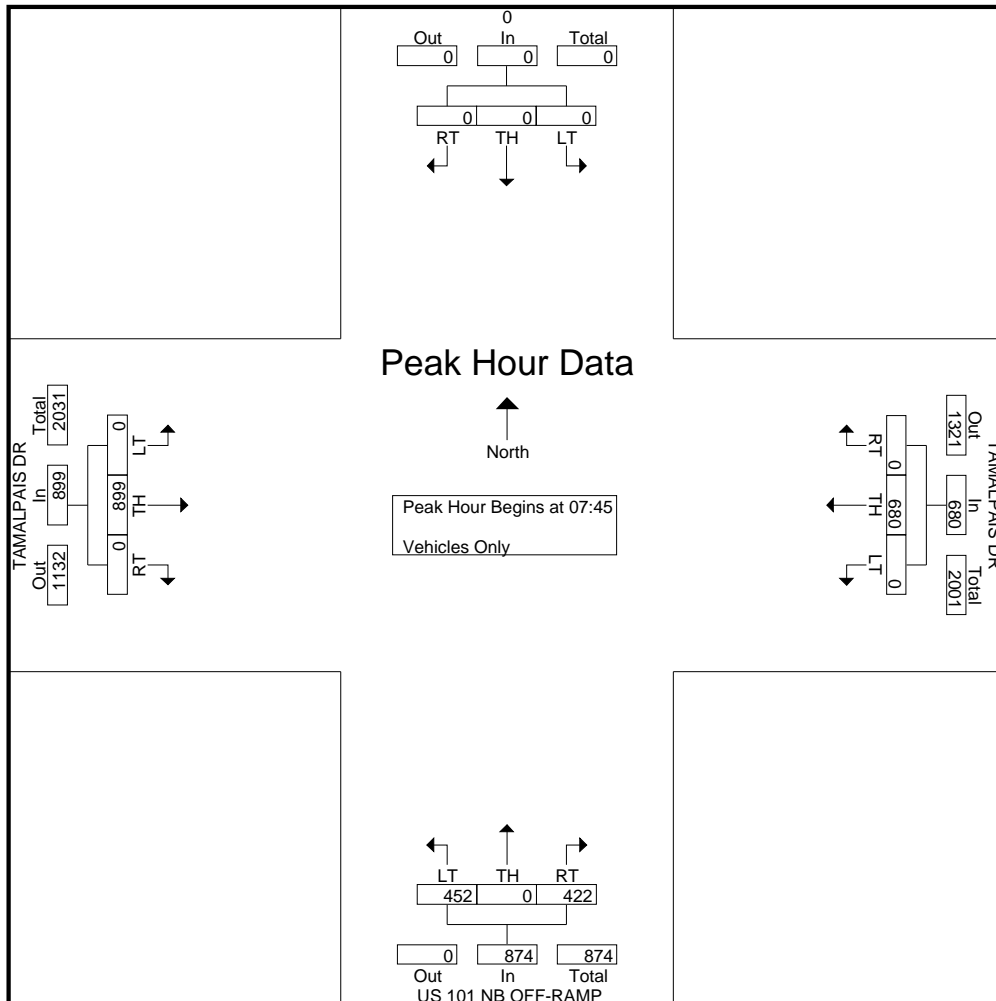
File Name : 101nb-tamalpais-a
 Site Code : 6
 Start Date : 4/9/2014
 Page No : 1

Groups Printed- Vehicles Only

Start Time	0 Southbound				TAMALPAIS DR Westbound				US 101 NB OFF-RAMP Northbound				TAMALPAIS DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
07:00	0	0	0	0	0	63	0	63	25	0	35	60	0	128	0	128	251
07:15	0	0	0	0	0	90	0	90	40	0	53	93	0	114	0	114	297
07:30	0	0	0	0	0	138	0	138	47	0	108	155	0	145	0	145	438
07:45	0	0	0	0	0	202	0	202	97	0	155	252	0	193	0	193	647
Total	0	0	0	0	0	493	0	493	209	0	351	560	0	580	0	580	1633
08:00	0	0	0	0	0	182	0	182	120	0	121	241	0	229	0	229	652
08:15	0	0	0	0	0	162	0	162	104	0	76	180	0	239	0	239	581
08:30	0	0	0	0	0	134	0	134	101	0	100	201	0	238	0	238	573
08:45	0	0	0	0	0	125	0	125	120	0	113	233	0	215	0	215	573
Total	0	0	0	0	0	603	0	603	445	0	410	855	0	921	0	921	2379
Grand Total	0	0	0	0	0	1096	0	1096	654	0	761	1415	0	1501	0	1501	4012
Apprch %	0	0	0	0	0	100	0	100	46.2	0	53.8	100	0	100	0	100	
Total %	0	0	0	0	0	27.3	0	27.3	16.3	0	19	35.3	0	37.4	0	37.4	

Start Time	0 Southbound				TAMALPAIS DR Westbound				US 101 NB OFF-RAMP Northbound				TAMALPAIS DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
07:45	0	0	0	0	0	202	0	202	97	0	155	252	0	193	0	193	647
08:00	0	0	0	0	0	182	0	182	120	0	121	241	0	229	0	229	652
08:15	0	0	0	0	0	162	0	162	104	0	76	180	0	239	0	239	581
08:30	0	0	0	0	0	134	0	134	101	0	100	201	0	238	0	238	573
Total Volume	0	0	0	0	0	680	0	680	422	0	452	874	0	899	0	899	2453
% App. Total	0	0	0	0	0	100	0	100	48.3	0	51.7	100	0	100	0	100	
PHF	.000	.000	.000	.000	.000	.842	.000	.842	.879	.000	.729	.867	.000	.940	.000	.940	.941

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:45



MARKS TRAFFIC DATA

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TOWN OF CORTE MADERA

File Name : 101nb-tamalpais-p

Site Code : 6

Start Date : 4/9/2014

Page No : 1

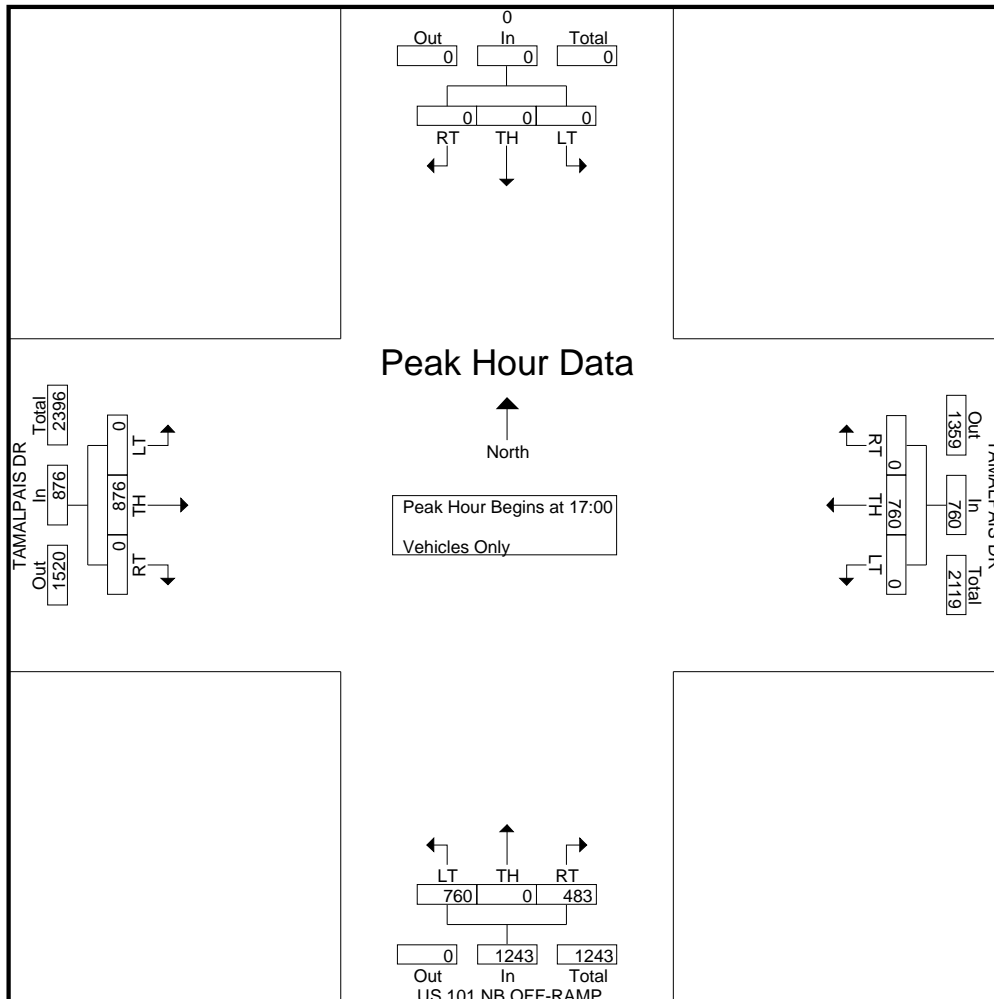
Groups Printed- Vehicles Only

Start Time	0 Southbound				TAMALPAIS DR Westbound				US 101 NB OFF-RAMP Northbound				TAMALPAIS DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
16:00	0	0	0	0	0	191	0	191	127	0	169	296	0	255	0	255	742
16:15	0	0	0	0	0	142	0	142	117	0	128	245	0	204	0	204	591
16:30	0	0	0	0	0	183	0	183	110	0	152	262	0	197	0	197	642
16:45	0	0	0	0	0	200	0	200	101	0	166	267	0	228	0	228	695
Total	0	0	0	0	0	716	0	716	455	0	615	1070	0	884	0	884	2670
17:00	0	0	0	0	0	204	0	204	122	0	172	294	0	223	0	223	721
17:15	0	0	0	0	0	178	0	178	120	0	186	306	0	215	0	215	699
17:30	0	0	0	0	0	194	0	194	116	0	195	311	0	238	0	238	743
17:45	0	0	0	0	0	184	0	184	125	0	207	332	0	200	0	200	716
Total	0	0	0	0	0	760	0	760	483	0	760	1243	0	876	0	876	2879
Grand Total	0	0	0	0	0	1476	0	1476	938	0	1375	2313	0	1760	0	1760	5549
Apprch %	0	0	0	0	0	100	0	100	40.6	0	59.4	100	0	100	0	100	
Total %	0	0	0	0	0	26.6	0	26.6	16.9	0	24.8	41.7	0	31.7	0	31.7	

Start Time	0 Southbound				TAMALPAIS DR Westbound				US 101 NB OFF-RAMP Northbound				TAMALPAIS DR Eastbound				Int. Total
	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	RT	TH	LT	App. Total	
17:00	0	0	0	0	0	204	0	204	122	0	172	294	0	223	0	223	721
17:15	0	0	0	0	0	178	0	178	120	0	186	306	0	215	0	215	699
17:30	0	0	0	0	0	194	0	194	116	0	195	311	0	238	0	238	743
17:45	0	0	0	0	0	184	0	184	125	0	207	332	0	200	0	200	716
Total Volume	0	0	0	0	0	760	0	760	483	0	760	1243	0	876	0	876	2879
% App. Total	0	0	0	0	0	100	0	100	38.9	0	61.1	100	0	100	0	100	
PHF	.000	.000	.000	.000	.000	.931	.000	.931	.966	.000	.918	.936	.000	.920	.000	.920	.969

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 17:00



National Data & Surveying Services Intersection Turning Movement Count

Location: San Clemente Dr & Tamalpais Dr/Redwood Hwy
City: Corte Madera
Control: Signalized

Project ID: 18-08080-001
Date: 2/27/2018

Total

NS/EW Streets:	San Clemente Dr				San Clemente Dr				Tamalpais Dr/Redwood Hwy				Tamalpais Dr/Redwood Hwy				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	125	0	28	0	0	0	0	0	0	15	0	0	11	9	0	0	188
7:15 AM	171	0	24	0	0	0	0	0	0	20	0	0	12	9	0	0	236
7:30 AM	230	0	49	0	0	0	0	0	0	19	4	0	7	2	0	0	311
7:45 AM	253	0	20	0	0	0	0	0	0	37	10	0	24	9	0	0	353
8:00 AM	313	0	24	0	0	0	0	0	0	30	10	0	11	14	0	0	402
8:15 AM	305	0	34	0	0	0	0	0	0	38	0	0	15	17	0	0	409
8:30 AM	231	0	25	0	0	0	0	0	0	41	1	0	14	20	0	0	332
8:45 AM	193	0	25	0	0	0	0	0	0	57	0	0	13	25	0	0	313
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	1821	0	229	0	0	0	0	0	0	257	25	0	107	105	0	0	2544
	88.83%	0.00%	11.17%	0.00%					0.00%	91.13%	8.87%	0.00%	50.47%	49.53%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	1102	0	103	0	0	0	0	0	0	146	21	0	64	60	0	0	1496
PEAK HR FACTOR :	0.880	0.000	0.757	0.000	0.000	0.000	0.000	0.000	0.000	0.890	0.525	0.000	0.667	0.750	0.000	0.000	0.914
			0.889							0.888				0.912			
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	150	0	19	0	0	0	0	0	0	115	1	0	26	123	0	0	434
2:15 PM	160	0	9	0	0	0	0	0	0	109	3	0	20	120	0	0	421
2:30 PM	176	0	25	0	0	0	0	0	0	117	1	0	23	113	0	0	455
2:45 PM	184	0	42	0	0	0	0	0	0	140	2	0	17	113	0	0	498
3:00 PM	258	0	38	0	0	0	0	0	0	118	1	0	13	106	0	0	534
3:15 PM	230	0	26	0	0	0	0	0	0	140	0	0	23	119	0	0	538
3:30 PM	185	0	26	0	0	0	0	0	0	132	1	0	26	92	0	0	462
3:45 PM	175	0	24	0	0	0	0	0	0	112	1	0	21	119	0	0	452
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	1518	0	209	0	0	0	0	0	0	983	10	0	169	905	0	0	3794
	87.90%	0.00%	12.10%	0.00%					0.00%	98.99%	1.01%	0.00%	15.74%	84.26%	0.00%	0.00%	
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	857	0	132	0	0	0	0	0	0	530	4	0	79	430	0	0	2032
PEAK HR FACTOR :	0.830	0.000	0.786	0.000	0.000	0.000	0.000	0.000	0.000	0.946	0.500	0.000	0.760	0.903	0.000	0.000	0.944
			0.835							0.940				0.896			

National Data & Surveying Services Intersection Turning Movement Count

Location: NB US-101 Ramps & Tamalpais Dr
City: Corte Madera
Control: Signalized

Project ID: 18-08080-002
Date: 2/27/2018

Total

NS/EW Streets:	NB US-101 Ramps				NB US-101 Ramps				Tamalpais Dr				Tamalpais Dr				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	52	0	20	0	0	0	0	0	0	105	63	0	0	55	53	0	348
7:15 AM	70	0	46	0	0	0	0	0	0	166	87	0	0	92	58	0	519
7:30 AM	86	0	63	0	0	0	0	0	0	164	105	0	0	146	85	0	649
7:45 AM	112	0	100	0	0	0	0	0	0	219	115	0	0	154	93	0	793
8:00 AM	105	0	126	0	0	0	0	0	0	282	136	0	0	187	136	0	972
8:15 AM	104	0	80	0	0	0	0	0	0	222	144	0	0	212	138	0	900
8:30 AM	92	0	88	0	0	0	0	0	0	187	109	0	0	145	127	0	748
8:45 AM	118	0	100	0	0	0	0	0	0	202	105	0	0	132	104	0	761
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	739	0	623	0	0	0	0	0	0	1547	864	0	0	1123	794	0	5690
APPROACH %'s :	54.26%	0.00%	45.74%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	64.16%	35.84%	0.00%	0.00%	58.58%	41.42%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	413	0	394	0	0	0	0	0	0	910	504	0	0	698	494	0	3413
PEAK HR FACTOR :	0.922	0.000	0.782	0.000	0.000	0.000	0.000	0.000	0.000	0.807	0.875	0.000	0.000	0.823	0.895	0.000	0.878
	0.873								0.846				0.851				
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	126	0	94	0	0	0	0	0	0	202	144	0	0	138	129	0	833
2:15 PM	148	0	110	0	0	0	0	0	0	204	153	0	0	140	130	0	885
2:30 PM	129	0	113	0	0	0	0	0	0	198	149	0	0	151	127	0	867
2:45 PM	145	0	117	0	0	0	0	0	0	226	135	0	0	132	148	0	903
3:00 PM	166	0	117	0	0	0	0	0	0	211	187	0	0	196	155	0	1032
3:15 PM	168	0	116	0	0	0	0	0	0	184	196	0	0	211	161	0	1036
3:30 PM	173	0	99	0	0	0	0	0	0	198	218	0	0	169	133	0	990
3:45 PM	167	0	102	0	0	0	0	0	0	190	195	0	0	145	132	0	931
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	1222	0	868	0	0	0	0	0	0	1613	1377	0	0	1282	1115	0	7477
APPROACH %'s :	58.47%	0.00%	41.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	53.95%	46.05%	0.00%	0.00%	53.48%	46.52%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	674	0	434	0	0	0	0	0	0	783	796	0	0	721	581	0	3989
PEAK HR FACTOR :	0.974	0.000	0.927	0.000	0.000	0.000	0.000	0.000	0.000	0.928	0.913	0.000	0.000	0.854	0.902	0.000	0.963
	0.975								0.949				0.875				

National Data & Surveying Services Intersection Turning Movement Count

Location: SB US-101 Ramps & Tamalpais Dr
City: Corte Madera
Control: Signalized

Project ID: 18-08080-003
Date: 2/27/2018

Total

NS/EW Streets:	SB US-101 Ramps				SB US-101 Ramps				Tamalpais Dr				Tamalpais Dr				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	97	0	76	0	0	72	60	0	0	62	43	0	410
7:15 AM	0	0	0	0	146	0	69	0	0	113	88	0	0	89	69	0	574
7:30 AM	0	0	0	0	137	0	85	0	0	129	112	0	0	141	90	0	694
7:45 AM	0	0	0	0	174	0	112	0	0	164	108	0	0	174	76	0	808
8:00 AM	0	0	0	0	169	0	87	0	0	236	105	0	0	196	110	0	903
8:15 AM	0	0	0	0	158	0	89	0	0	203	145	0	0	181	120	0	896
8:30 AM	0	0	0	0	148	0	100	0	0	151	118	0	0	150	98	0	765
8:45 AM	0	0	0	0	169	0	103	0	0	140	101	0	0	172	72	0	757
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	1198	0	721	0	0	1208	837	0	0	1165	678	0	5807
					62.43%	0.00%	37.57%	0.00%	0.00%	59.07%	40.93%	0.00%	0.00%	63.21%	36.79%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	649	0	388	0	0	754	476	0	0	701	404	0	3372
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.932	0.000	0.866	0.000	0.000	0.799	0.821	0.000	0.000	0.894	0.842	0.000	0.934
							0.906				0.884				0.903		
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	0	0	0	144	0	70	0	0	196	109	0	0	159	96	0	774
2:15 PM	0	0	0	0	157	0	70	0	0	204	100	0	0	217	84	0	832
2:30 PM	0	0	0	0	143	0	84	0	0	199	87	0	0	183	88	0	784
2:45 PM	0	0	0	0	178	0	77	0	0	202	86	0	0	212	72	0	827
3:00 PM	0	0	0	0	161	0	80	0	0	215	91	0	0	250	90	0	887
3:15 PM	0	0	0	0	163	0	89	0	0	232	105	0	0	274	124	0	987
3:30 PM	0	0	0	0	159	0	82	0	0	251	93	0	0	235	98	0	918
3:45 PM	0	0	0	0	149	0	77	0	0	248	121	0	0	240	75	0	910
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	1254	0	629	0	0	1747	792	0	0	1770	727	0	6919
					66.60%	0.00%	33.40%	0.00%	0.00%	68.81%	31.19%	0.00%	0.00%	70.89%	29.11%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	632	0	328	0	0	946	410	0	0	999	387	0	3702
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.969	0.000	0.921	0.000	0.000	0.942	0.847	0.000	0.000	0.911	0.780	0.000	0.938
							0.952				0.919				0.871		

National Data & Surveying Services Intersection Turning Movement Count

Location: Town Center Entrance & Tamalpais Dr
City: Corte Madera
Control: Signalized

Project ID: 18-08080-004
Date: 2/27/2018

Total

NS/EW Streets:	Town Center Entrance				Town Center Entrance				Tamalpais Dr				Tamalpais Dr				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	2	0	1	0	0	2	0	0	0	2	1	0	281
7:15 AM	0	0	0	0	20	0	5	0	0	191	0	0	0	137	23	0	376
7:30 AM	0	0	0	0	27	0	4	0	0	214	0	0	0	191	31	0	467
7:45 AM	0	0	0	0	26	0	4	0	0	257	0	0	0	248	43	0	578
8:00 AM	0	0	0	0	20	0	6	0	0	313	0	0	0	228	52	0	619
8:15 AM	0	0	0	0	32	0	2	0	0	316	0	0	0	204	65	0	619
8:30 AM	0	0	0	0	24	0	2	0	0	246	0	0	0	195	55	0	522
8:45 AM	0	0	0	0	28	0	4	0	0	201	0	0	0	198	77	0	508
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	186	0	32	0	0	1869	0	0	0	1507	376	0	3970
					85.32%	0.00%	14.68%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	80.03%	19.97%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	102	0	14	0	0	1132	0	0	0	875	215	0	2338
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.797	0.000	0.583	0.000	0.000	0.896	0.000	0.000	0.000	0.882	0.827	0.000	0.944
							0.853			0.896				0.936			
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	0	0	0	95	0	9	0	0	219	0	0	0	164	72	0	559
2:15 PM	0	0	0	0	73	0	17	0	0	227	0	0	0	219	65	0	601
2:30 PM	0	0	0	0	78	0	10	0	0	208	0	0	0	200	71	0	567
2:45 PM	0	0	0	0	63	0	11	0	0	226	0	0	0	224	60	0	584
3:00 PM	0	0	0	0	89	0	10	0	0	216	0	0	0	285	43	0	643
3:15 PM	0	0	0	0	77	0	10	0	0	268	0	0	0	291	73	0	719
3:30 PM	0	0	0	0	74	0	10	0	0	272	0	0	0	246	69	0	671
3:45 PM	0	0	0	0	83	0	11	0	0	281	0	0	0	271	44	0	690
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	632	0	88	0	0	1917	0	0	0	1900	497	0	5034
					87.78%	0.00%	12.22%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	79.27%	20.73%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	323	0	41	0	0	1037	0	0	0	1093	229	0	2723
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.907	0.000	0.932	0.000	0.000	0.923	0.000	0.000	0.000	0.939	0.784	0.000	0.947
							0.919			0.923				0.908			

National Data & Surveying Services Intersection Turning Movement Count

Location: Madera Blvd & Tamalpais Dr
City: Corte Madera
Control: Signalized

Project ID: 18-08080-005
Date: 2/27/2018

Total

NS/EW Streets:	Madera Blvd				Madera Blvd				Tamalpais Dr				Tamalpais Dr				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0.5	0.5	1	0	1.5	0.5	1	0	1	2	0	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	4	5	32	0	19	9	27	0	14	83	5	0	26	72	16	0	312
7:15 AM	2	15	38	0	26	9	23	1	9	126	3	0	26	78	31	0	387
7:30 AM	6	13	30	0	32	11	21	0	8	156	7	0	41	114	36	0	475
7:45 AM	16	32	40	0	40	19	32	0	21	186	5	0	34	166	49	0	640
8:00 AM	17	19	52	0	45	22	32	1	10	211	6	0	37	145	45	0	642
8:15 AM	7	13	42	0	51	23	18	0	30	227	5	0	43	137	34	0	630
8:30 AM	4	8	36	0	28	17	24	1	28	180	8	0	40	114	38	0	526
8:45 AM	7	14	45	0	26	16	28	0	32	127	9	0	44	108	47	0	503
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	63	119	315	0	267	126	205	3	152	1296	48	0	291	934	296	0	4115
	12.68%	23.94%	63.38%	0.00%	44.43%	20.97%	34.11%	0.50%	10.16%	86.63%	3.21%	0.00%	19.13%	61.41%	19.46%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	44	72	170	0	164	81	106	2	89	804	24	0	154	562	166	0	2438
PEAK HR FACTOR :	0.647	0.563	0.817	0.000	0.804	0.880	0.828	0.500	0.742	0.885	0.750	0.000	0.895	0.846	0.847	0.000	0.949
			0.813				0.883				0.875				0.886		
PM	0.5	0.5	1	0	1.5	0.5	1	0	1	2	0	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
2:00 PM	9	20	39	0	55	12	34	0	27	134	6	0	34	101	33	0	504
2:15 PM	8	11	34	0	53	14	43	0	36	137	7	0	40	140	60	0	583
2:30 PM	10	8	33	0	53	12	45	1	29	130	4	0	42	113	49	0	529
2:45 PM	10	17	43	0	57	11	42	0	26	118	10	0	33	127	55	0	549
3:00 PM	20	18	33	0	50	15	48	0	38	135	8	0	51	172	77	0	665
3:15 PM	7	18	42	0	53	18	42	0	32	175	4	0	46	181	75	0	693
3:30 PM	15	18	42	0	62	23	52	1	39	174	5	0	30	142	79	0	682
3:45 PM	13	18	41	0	50	29	46	0	35	179	10	0	39	175	60	0	695
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	92	128	307	0	433	134	352	2	262	1182	54	0	315	1151	488	0	4900
	17.46%	24.29%	58.25%	0.00%	47.01%	14.55%	38.22%	0.22%	17.49%	78.91%	3.60%	0.00%	16.12%	58.90%	24.97%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	55	72	158	0	215	85	188	1	144	663	27	0	166	670	291	0	2735
PEAK HR FACTOR :	0.688	1.000	0.940	0.000	0.867	0.733	0.904	0.250	0.923	0.926	0.675	0.000	0.814	0.925	0.921	0.000	0.984
			0.950				0.886				0.931				0.933		

National Data & Surveying Services Intersection Turning Movement Count

Location: Paradise Dr & San Clemente Dr/Tamalpais Dr
City: Corte Madera
Control: 1-Way Stop(NB)

Project ID: 18-08080-006
Date: 2/27/2018

Total

NS/EW Streets:	Paradise Dr					Paradise Dr					San Clemente Dr/Tamalpais Dr					San Clemente Dr/Tamalpais Dr					
AM	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					TOTAL
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	ET2	WL	WT	WR	WU			
7:00 AM	0	1	0	0	0	0	0	0	0	0	1.5	0.5	0	0	0	3	0	0	232		
7:15 AM	0	0	3	0	0	0	0	0	0	0	14	38	0	71	0	106	0	367			
7:30 AM	0	0	4	0	0	0	0	0	0	0	15	47	0	146	0	156	0	448			
7:45 AM	0	0	7	0	1	0	0	0	0	0	30	61	0	224	0	244	0	567			
8:00 AM	0	0	6	0	1	0	0	0	0	0	44	57	0	307	0	313	0	728			
8:15 AM	0	0	9	0	0	0	0	0	0	0	24	84	0	190	0	342	0	649			
8:30 AM	0	0	11	0	3	0	0	0	0	0	28	84	0	165	0	261	0	552			
8:45 AM	0	0	12	0	2	0	0	0	0	0	38	87	0	174	0	236	0	549			
TOTAL VOLUMES :	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	ET2	WL	WT	WR	WU	TOTAL		
APPROACH %'s :	0	0	55	0	7	0	0	0	0	0	208	511	0	1435	0	1876	0	0	4092		
PEAK HR :	07:45 AM - 08:45 AM																				TOTAL
PEAK HR VOL :	0	0	33	0	5	0	0	0	0	0	126	286	0	886	0	1160	0	0	2496		
PEAK HR FACTOR :	0.000	0.000	0.750	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.716	0.851	0.000	0.721	0.000	0.848	0.000	0.000	0.857		
	0.679										0.795					0.848					

NS/EW Streets:	Paradise Dr					Paradise Dr					San Clemente Dr/Tamalpais Dr					San Clemente Dr/Tamalpais Dr					
PM	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					TOTAL
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	ET2	WL	WT	WR	WU			
2:00 PM	0	1	0	0	0	0	0	0	0	0	1.5	0.5	0	0	0	3	0	0	582		
2:15 PM	0	0	22	0	1	0	0	0	0	0	106	48	0	144	0	261	0	598			
2:30 PM	0	0	15	0	5	0	0	0	0	0	98	51	0	162	0	267	0	608			
2:45 PM	0	0	17	0	5	0	0	0	0	0	91	45	0	172	0	278	0	653			
3:00 PM	0	0	23	0	5	0	0	0	0	0	98	41	0	207	0	279	0	696			
3:15 PM	0	0	20	0	8	0	0	0	0	0	117	23	0	182	0	346	0	681			
3:30 PM	0	0	16	0	3	0	0	0	0	0	105	46	0	151	0	360	0	608			
3:45 PM	0	0	22	0	4	0	0	0	0	0	110	34	0	147	0	291	0	584			
	0	0	23	0	3	0	0	0	0	0	110	35	0	144	0	269	0	584			
TOTAL VOLUMES :	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	ET2	WL	WT	WR	WU	TOTAL		
APPROACH %'s :	0	0	158	0	34	0	0	0	0	0	835	323	0	1309	0	2351	0	0	5010		
PEAK HR :	02:30 PM - 03:30 PM																				TOTAL
PEAK HR VOL :	0	0	76	0	21	0	0	0	0	0	411	155	0	712	0	1263	0	0	2638		
PEAK HR FACTOR :	0.000	0.000	0.826	0.000	0.656	0.000	0.000	0.000	0.000	0.000	0.878	0.842	0.000	0.860	0.000	0.877	0.000	0.000	0.948		
	0.866										0.923					0.877					

National Data & Surveying Services Intersection Turning Movement Count

Location: Paradise Dr & San Clemente Dr
City: Corte Madera
Control: Signalized

Project ID: 18-08080-007
Date: 2/27/2018

Total

NS/EW Streets:	Paradise Dr				Paradise Dr				San Clemente Dr				San Clemente Dr				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1 NL	2 NT	0 NR	0 NU	1 SL	1 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	0	4	103	0	20	3	0	0	0	0	0	0	82	0	2	0	214
7:15 AM	0	4	160	0	16	1	0	0	0	0	0	0	137	0	4	0	322
7:30 AM	0	3	222	0	30	6	0	0	0	0	0	0	152	0	2	0	415
7:45 AM	0	4	256	0	18	13	0	0	0	0	0	0	243	0	5	0	539
8:00 AM	0	4	319	0	30	1	0	0	0	0	0	0	334	0	5	0	693
8:15 AM	0	2	337	0	15	8	0	0	0	0	0	0	191	0	12	0	565
8:30 AM	0	8	226	0	32	1	0	0	0	0	0	0	166	0	16	0	449
8:45 AM	0	7	195	0	22	6	0	0	0	0	0	0	178	0	9	0	417
TOTAL VOLUMES :	0	36	1818	0	183	39	0	0	0	0	0	0	1483	0	55	0	3614
APPROACH %'s :	0.00%	1.94%	98.06%	0.00%	82.43%	17.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	96.42%	0.00%	3.58%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM				95	23	0	0	0	0	0	0	934	0	38	0	2246
PEAK HR VOL :	0	18	1138	0	0.742	0.442	0.000	0.000	0.000	0.000	0.000	0.000	0.699	0.000	0.594	0.000	0.810
PEAK HR FACTOR :	0.000	0.563	0.844	0.000	0.894								0.717				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1 NL	2 NT	0 NR	0 NU	1 SL	1 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	TOTAL
2:00 PM	0	3	112	0	26	5	0	0	0	0	0	0	154	0	6	0	306
2:15 PM	0	6	150	0	15	1	0	0	0	0	0	0	173	0	6	0	351
2:30 PM	0	2	132	0	29	3	0	0	0	0	0	0	176	0	9	0	351
2:45 PM	0	6	164	0	20	8	0	0	0	0	0	0	224	0	6	0	428
3:00 PM	0	8	267	0	32	4	0	0	0	0	0	0	195	0	6	0	512
3:15 PM	0	14	250	1	22	8	0	0	0	0	0	0	146	0	9	0	450
3:30 PM	0	8	157	0	29	4	0	0	0	0	0	0	160	0	7	0	365
3:45 PM	0	3	181	0	21	4	0	0	0	0	0	0	154	0	8	0	371
TOTAL VOLUMES :	0	50	1413	1	194	37	0	0	0	0	0	0	1382	0	57	0	3134
APPROACH %'s :	0.00%	3.42%	96.52%	0.07%	83.98%	16.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	96.04%	0.00%	3.96%	0.00%	
PEAK HR :	02:45 PM - 03:45 PM				103	24	0	0	0	0	0	0	725	0	28	0	1755
PEAK HR VOL :	0	36	838	1	0.805	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.809	0.000	0.778	0.000	0.857
PEAK HR FACTOR :	0.000	0.643	0.785	0.250	0.882								0.818				

National Data and Surveying Services

City of Corte Madera
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Heavy Trucks On Bank 2

(323) 782-0090
info@ndsdata.com

File Name : 17-7456-001 San Clemente Dr & Tamalpais Dr / Redwood Hwy
 Date : 5/25/2017

Unshifted Count = All Vehicles & Uturns

START TIME	San Clemente Dr Southbound					Tamalpais Dr / Redwood Hwy Westbound					San Clemente Dr Northbound					Tamalpais Dr / Redwood Hwy Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	0	0	0	0	0	7	7	0	0	14	109	0	16	0	125	0	22	0	0	22	161	0
7:15	0	0	0	0	0	7	10	0	0	17	171	0	46	0	217	0	15	2	0	17	251	0
7:30	0	0	0	0	0	13	9	0	0	22	205	0	30	0	235	0	23	1	0	24	281	0
7:45	0	0	0	0	0	10	10	0	0	20	247	0	44	0	291	0	37	1	0	38	349	0
Total	0	0	0	0	0	37	36	0	0	73	732	0	136	0	868	0	97	4	0	101	1042	0
8:00	0	0	0	0	0	21	9	0	0	30	259	0	30	0	289	0	29	17	0	46	365	0
8:15	0	0	0	0	0	20	19	0	0	39	288	0	31	0	319	0	46	3	0	49	407	0
8:30	0	0	0	0	0	21	26	0	0	47	237	0	21	0	258	0	40	0	0	40	345	0
8:45	0	0	0	0	0	10	16	0	0	26	216	0	15	0	231	0	45	0	0	45	302	0
Total	0	0	0	0	0	72	70	0	0	142	1000	0	97	0	1097	0	160	20	0	180	1419	0
16:00	0	0	0	0	0	27	133	0	0	160	212	0	26	0	238	0	129	1	0	130	528	0
16:15	0	0	0	0	0	23	112	0	0	135	232	0	34	0	266	0	133	0	0	133	534	0
16:30	0	0	0	0	0	22	118	0	0	140	205	0	29	0	234	0	138	1	0	139	513	0
16:45	0	0	0	0	0	18	108	0	0	126	203	0	38	0	241	0	114	1	0	115	482	0
Total	0	0	0	0	0	90	471	0	0	561	852	0	127	0	979	0	514	3	0	517	2057	0
17:00	0	0	0	0	0	29	117	0	0	146	215	0	27	0	242	0	129	2	0	131	519	0
17:15	0	0	0	0	0	21	93	0	0	114	278	0	25	0	303	0	159	1	0	160	577	0
17:30	0	0	0	0	0	22	104	0	0	126	233	0	24	0	257	0	147	2	0	149	532	0
17:45	0	0	0	0	0	23	99	0	0	122	200	0	27	0	227	0	139	0	0	139	488	0
Total	0	0	0	0	0	95	413	0	0	508	926	0	103	0	1029	0	574	5	0	579	2116	0
Grand Total	0	0	0	0	0	294	990	0	0	1284	3510	0	463	0	3973	0	1345	32	0	1377	6634	0
Apprch %	0.0%	0.0%	0.0%	0.0%		22.9%	77.1%	0.0%	0.0%		88.3%	0.0%	11.7%	0.0%		0.0%	97.7%	2.3%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	4.4%	14.9%	0.0%	0.0%	19.4%	52.9%	0.0%	7.0%	0.0%	59.9%	0.0%	20.3%	0.5%	0.0%	20.8%	100.0%	

AM PEAK HOUR	San Clemente Dr Southbound					Tamalpais Dr / Redwood Hwy Westbound					San Clemente Dr Northbound					Tamalpais Dr / Redwood Hwy Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	0	0	0	0	0	10	10	0	0	20	247	0	44	0	291	0	37	1	0	38	349
8:00	0	0	0	0	0	21	9	0	0	30	259	0	30	0	289	0	29	17	0	46	365
8:15	0	0	0	0	0	20	19	0	0	39	288	0	31	0	319	0	46	3	0	49	407
8:30	0	0	0	0	0	21	26	0	0	47	237	0	21	0	258	0	40	0	0	40	345
Total Volume	0	0	0	0	0	72	64	0	0	136	1031	0	126	0	1157	0	152	21	0	173	1466
% App Total	0.0%	0.0%	0.0%	0.0%		52.9%	47.1%	0.0%	0.0%		89.1%	0.0%	10.9%	0.0%		0.0%	87.9%	12.1%	0.0%		
PHF	.000	.000	.000	.000	.000	.857	.615	.000	.000	.723	.895	.000	.716	.000	.907	.000	.826	.309	.000	.883	.900

PM PEAK HOUR	San Clemente Dr Southbound					Tamalpais Dr / Redwood Hwy Westbound					San Clemente Dr Northbound					Tamalpais Dr / Redwood Hwy Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	0	0	0	0	0	29	117	0	0	146	215	0	27	0	242	0	129	2	0	131	519
17:15	0	0	0	0	0	21	93	0	0	114	278	0	25	0	303	0	159	1	0	160	577
17:30	0	0	0	0	0	22	104	0	0	126	233	0	24	0	257	0	147	2	0	149	532
17:45	0	0	0	0	0	23	99	0	0	122	200	0	27	0	227	0	139	0	0	139	488
Total Volume	0	0	0	0	0	95	413	0	0	508	926	0	103	0	1029	0	574	5	0	579	2116
% App Total	0.0%	0.0%	0.0%	0.0%		18.7%	81.3%	0.0%	0.0%		90.0%	0.0%	10.0%	0.0%		0.0%	99.1%	0.9%	0.0%		
PHF	.000	.000	.000	.000	.000	.819	.882	.000	.000	.870	.833	.000	.954	.000	.849	.000	.903	.625	.000	.905	.917

National Data and Surveying Services

City of Corte Madera
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Heavy Trucks On Bank 2

(323) 782-0090
info@ndsdata.com

File Name : 17-7456-002 Nbound US-101 Ramps & Tamalpais Dr
 Date : 5/25/2017

Unshifted Count = All Vehicles & Uturns

START TIME	Nbound US-101 Ramps Southbound					Tamalpais Dr Westbound					Nbound US-101 Ramps Northbound					Tamalpais Dr Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	0	0	0	0	0	0	72	48	0	120	50	0	23	0	73	0	136	85	0	221	414	0
7:15	0	0	0	0	0	0	100	77	0	177	75	0	49	0	124	0	163	88	0	251	552	0
7:30	0	0	0	0	0	0	135	90	0	225	75	0	66	0	141	0	169	108	0	277	643	0
7:45	0	0	0	0	0	0	166	98	0	264	111	0	89	0	200	0	207	108	0	315	779	0
Total	0	0	0	0	0	0	473	313	0	786	311	0	227	0	538	0	675	389	0	1064	2388	0
8:00	0	0	0	0	0	0	149	124	0	273	116	0	142	0	258	0	275	113	0	388	919	0
8:15	0	0	0	0	0	0	175	136	0	311	98	0	123	0	221	0	220	128	0	348	880	0
8:30	0	0	0	0	0	0	144	121	0	265	107	0	71	0	178	0	197	117	0	314	757	0
8:45	0	0	0	0	0	0	120	98	0	218	118	0	107	0	225	0	204	114	0	318	761	0
Total	0	0	0	0	0	0	588	479	0	1067	439	0	443	0	882	0	896	472	0	1368	3317	0
16:00	0	0	0	0	0	0	166	172	0	338	144	0	110	0	254	0	194	217	0	411	1003	0
16:15	0	0	0	0	0	0	183	177	0	360	161	0	104	0	265	0	241	220	0	461	1086	0
16:30	0	0	0	0	0	0	163	151	0	314	115	0	91	0	206	0	232	207	0	439	959	0
16:45	0	0	0	0	0	0	150	167	0	317	115	0	104	0	219	0	225	184	0	409	945	0
Total	0	0	0	0	0	0	662	667	0	1329	535	0	409	0	944	0	892	828	0	1720	3993	0
17:00	0	0	0	0	0	0	168	162	0	330	129	0	109	0	238	0	226	208	0	434	1002	0
17:15	0	0	0	0	0	0	204	155	0	359	142	0	118	0	260	0	267	150	0	417	1036	0
17:30	0	0	0	0	0	0	170	165	0	335	192	0	133	0	325	0	220	172	0	392	1052	0
17:45	0	0	0	0	0	0	160	139	0	299	169	0	153	0	322	0	243	127	0	370	991	0
Total	0	0	0	0	0	0	702	621	0	1323	632	0	513	0	1145	0	956	657	0	1613	4081	0
Grand Total	0	0	0	0	0	0	2425	2080	0	4505	1917	0	1592	0	3509	0	3419	2346	0	5765	13779	0
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	53.8%	46.2%	0.0%	32.7%	54.6%	0.0%	45.4%	0.0%	25.5%	0.0%	59.3%	40.7%	0.0%	41.8%	100.0%	0
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.6%	15.1%	0.0%	32.7%	13.9%	0.0%	11.6%	0.0%	25.5%	0.0%	24.8%	17.0%	0.0%	41.8%	100.0%	0

AM PEAK HOUR	Nbound US-101 Ramps Southbound					Tamalpais Dr Westbound					Nbound US-101 Ramps Northbound					Tamalpais Dr Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	0	0	0	0	0	0	166	98	0	264	111	0	89	0	200	0	207	108	0	315	779
8:00	0	0	0	0	0	0	149	124	0	273	116	0	142	0	258	0	275	113	0	388	919
8:15	0	0	0	0	0	0	175	136	0	311	98	0	123	0	221	0	220	128	0	348	880
8:30	0	0	0	0	0	0	144	121	0	265	107	0	71	0	178	0	197	117	0	314	757
Total Volume	0	0	0	0	0	0	634	479	0	1113	432	0	425	0	857	0	899	466	0	1365	3335
% App Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	57.0%	43.0%	0.0%	32.7%	50.4%	0.0%	49.6%	0.0%	25.5%	0.0%	65.9%	34.1%	0.0%	41.8%	100.0%
PHF	.000	.000	.000	.000	.000	.000	.906	.881	.000	.895	.931	.000	.748	.000	.830	.000	.817	.910	.000	.880	.907

PM PEAK HOUR	Nbound US-101 Ramps Southbound					Tamalpais Dr Westbound					Nbound US-101 Ramps Northbound					Tamalpais Dr Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	0	0	0	0	0	0	168	162	0	330	129	0	109	0	238	0	226	208	0	434	1002
17:15	0	0	0	0	0	0	204	155	0	359	142	0	118	0	260	0	267	150	0	417	1036
17:30	0	0	0	0	0	0	170	165	0	335	192	0	133	0	325	0	220	172	0	392	1052
17:45	0	0	0	0	0	0	160	139	0	299	169	0	153	0	322	0	243	127	0	370	991
Total Volume	0	0	0	0	0	0	702	621	0	1323	632	0	513	0	1145	0	956	657	0	1613	4081
% App Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	53.1%	46.9%	0.0%	32.7%	55.2%	0.0%	44.8%	0.0%	25.5%	0.0%	59.3%	40.7%	0.0%	41.8%	100.0%
PHF	.000	.000	.000	.000	.000	.000	.860	.941	.000	.921	.823	.000	.838	.000	.881	.000	.895	.790	.000	.929	.970

National Data and Surveying Services

City of Corte Madera
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Heavy Trucks On Bank 2

(323) 782-0090
info@ndsdata.com

File Name : 17-7456-004 Town Center Entrance & Tamalpais Dr
 Date : 5/25/2017

Unshifted Count = All Vehicles & Uturns

START TIME	Town Center Entrance Southbound					Tamalpais Dr Westbound					Town Center Entrance Northbound					Tamalpais Dr Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	13	6	5	0	24	0	128	18	0	146	0	0	0	0	0	0	97	70	0	167	337	0
7:15	8	4	2	0	14	0	175	17	0	192	0	0	0	0	0	0	85	94	0	179	385	0
7:30	10	2	2	0	14	0	181	23	0	204	0	0	0	0	0	0	126	109	0	235	453	0
7:45	9	4	1	0	14	0	235	44	0	279	0	0	0	0	0	0	151	126	0	277	570	0
Total	40	16	10	0	66	0	719	102	0	821	0	0	0	0	0	0	459	399	0	858	1745	0
8:00	12	6	4	0	22	0	233	40	0	273	0	0	0	0	0	0	212	107	0	319	614	0
8:15	14	9	6	0	29	0	215	32	0	247	0	0	0	0	0	0	184	154	0	338	614	0
8:30	9	4	0	0	13	0	189	53	0	242	0	0	0	0	0	0	135	132	0	267	522	0
8:45	13	6	2	0	21	0	199	59	0	258	0	0	0	0	0	0	129	99	0	228	507	0
Total	48	25	12	0	85	0	836	184	0	1020	0	0	0	0	0	0	660	492	0	1152	2257	0
16:00	57	19	10	0	86	0	238	53	0	291	0	0	0	0	0	0	222	75	0	297	674	0
16:15	45	23	11	0	79	0	300	62	0	362	0	0	0	0	0	0	251	75	0	326	767	0
16:30	47	24	12	0	83	0	201	48	0	249	0	0	0	0	0	0	229	56	0	285	617	0
16:45	63	25	15	0	103	0	220	48	0	268	0	0	0	0	0	0	162	61	0	223	594	0
Total	212	91	48	0	351	0	959	211	0	1170	0	0	0	0	0	0	864	267	0	1131	2652	0
17:00	57	29	16	0	102	0	250	47	0	297	0	0	0	0	0	0	199	93	0	292	691	0
17:15	50	28	9	0	87	0	276	51	0	327	0	0	0	0	0	0	188	69	0	257	671	0
17:30	42	18	10	0	70	0	281	59	0	340	0	0	0	0	0	0	176	61	0	237	647	0
17:45	44	20	20	0	84	0	277	71	0	348	0	0	0	0	0	0	155	72	0	227	659	0
Total	193	95	55	0	343	0	1084	228	0	1312	0	0	0	0	0	0	718	295	0	1013	2668	0
Grand Total	493	227	125	0	845	0	3598	725	0	4323	0	0	0	0	0	0	2701	1453	0	4154	9322	0
Apprch %	58.3%	26.9%	14.8%	0.0%		0.0%	83.2%	16.8%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	65.0%	35.0%	0.0%			
Total %	5.3%	2.4%	1.3%	0.0%	9.1%	0.0%	38.6%	7.8%	0.0%	46.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	29.0%	15.6%	0.0%	44.6%	100.0%	

AM PEAK HOUR	Town Center Entrance Southbound					Tamalpais Dr Westbound					Town Center Entrance Northbound					Tamalpais Dr Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	9	4	1	0	14	0	235	44	0	279	0	0	0	0	0	0	151	126	0	277	570
8:00	12	6	4	0	22	0	233	40	0	273	0	0	0	0	0	0	212	107	0	319	614
8:15	14	9	6	0	29	0	215	32	0	247	0	0	0	0	0	0	184	154	0	338	614
8:30	9	4	0	0	13	0	189	53	0	242	0	0	0	0	0	0	135	132	0	267	522
Total Volume	44	23	11	0	78	0	872	169	0	1041	0	0	0	0	0	0	682	519	0	1201	2320
% App Total	56.4%	29.5%	14.1%	0.0%		0.0%	83.8%	16.2%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	56.8%	43.2%	0.0%		
PHF	.786	.639	.458	.000	.672	.000	.928	.797	.000	.933	.000	.000	.000	.000	.000	.000	.804	.843	.000	.888	.945

PM PEAK HOUR	Town Center Entrance Southbound					Tamalpais Dr Westbound					Town Center Entrance Northbound					Tamalpais Dr Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:15 to 17:15																					
Peak Hour For Entire Intersection Begins at 16:15																					
16:15	45	23	11	0	79	0	300	62	0	362	0	0	0	0	0	0	251	75	0	326	767
16:30	47	24	12	0	83	0	201	48	0	249	0	0	0	0	0	0	229	56	0	285	617
16:45	63	25	15	0	103	0	220	48	0	268	0	0	0	0	0	0	162	61	0	223	594
17:00	57	29	16	0	102	0	250	47	0	297	0	0	0	0	0	0	199	93	0	292	691
Total Volume	212	101	54	0	367	0	971	205	0	1176	0	0	0	0	0	0	841	285	0	1126	2669
% App Total	57.8%	27.5%	14.7%	0.0%		0.0%	82.6%	17.4%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	74.7%	25.3%	0.0%		
PHF	.841	.871	.844	.000	.891	.000	.809	.827	.000	.812	.000	.000	.000	.000	.000	.000	.838	.766	.000	.863	.870

National Data and Surveying Services

City of Corte Madera
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Heavy Trucks On Bank 2

(323) 782-0090
info@ndsdata.com

File Name : 17-7456-003 Sbound US-101 Ramps & Tamalpais Dr
 Date : 5/25/2017

Unshifted Count = All Vehicles & Uturns

START TIME	Sbound US-101 Ramps Southbound					Tamalpais Dr Westbound					Sbound US-101 Ramps Northbound					Tamalpais Dr Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	115	0	58	0	173	0	83	42	0	125	0	0	0	0	0	0	99	0	0	99	397	0
7:15	138	0	82	0	220	0	106	63	0	169	0	0	0	0	0	0	100	0	0	100	489	0
7:30	129	0	71	0	200	0	139	77	0	216	0	0	0	0	0	0	134	0	0	134	550	0
7:45	156	0	99	0	255	0	177	99	0	276	0	0	0	0	0	0	158	0	0	158	689	0
Total	538	0	310	0	848	0	505	281	0	786	0	0	0	0	0	0	491	0	0	491	2125	0
8:00	198	0	95	0	293	0	178	86	0	264	0	0	0	0	0	0	233	0	0	233	790	0
8:15	170	0	79	0	249	0	170	106	0	276	0	0	0	0	0	0	191	0	0	191	716	0
8:30	156	0	82	0	238	0	163	80	0	243	0	0	0	0	0	0	150	0	0	150	631	0
8:45	175	0	94	0	269	0	167	65	0	232	0	0	0	0	0	0	138	0	0	138	639	0
Total	699	0	350	0	1049	0	678	337	0	1015	0	0	0	0	0	0	712	0	0	712	2776	0
16:00	145	0	68	0	213	0	224	68	0	292	0	0	0	0	0	0	275	0	0	275	780	0
16:15	175	0	75	0	250	0	283	74	0	357	0	0	0	0	0	0	292	0	0	292	899	0
16:30	167	0	70	0	237	0	184	72	0	256	0	0	0	0	0	0	282	0	0	282	775	0
16:45	173	0	79	0	252	0	185	103	0	288	0	0	0	0	0	0	227	0	0	227	767	0
Total	660	0	292	0	952	0	876	317	0	1193	0	0	0	0	0	0	1076	0	0	1076	3221	0
17:00	196	0	77	0	273	0	217	63	0	280	0	0	0	0	0	0	249	0	0	249	802	0
17:15	167	0	81	0	248	0	245	84	0	329	0	0	0	0	0	0	236	0	0	236	813	0
17:30	169	0	85	0	254	0	264	105	0	369	0	0	0	0	0	0	228	0	0	228	851	0
17:45	174	0	86	0	260	0	250	90	0	340	0	0	0	0	0	0	191	0	0	191	791	0
Total	706	0	329	0	1035	0	976	342	0	1318	0	0	0	0	0	0	904	0	0	904	3257	0
Grand Total	2603	0	1281	0	3884	0	3035	1277	0	4312	0	0	0	0	0	0	3183	0	0	3183	11379	0
Apprch %	67.0%	0.0%	33.0%	0.0%		0.0%	70.4%	29.6%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%			
Total %	22.9%	0.0%	11.3%	0.0%	34.1%	0.0%	26.7%	11.2%	0.0%	37.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	28.0%	0.0%	0.0%	28.0%	100.0%	

AM PEAK HOUR	Sbound US-101 Ramps Southbound					Tamalpais Dr Westbound					Sbound US-101 Ramps Northbound					Tamalpais Dr Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	156	0	99	0	255	0	177	99	0	276	0	0	0	0	0	0	158	0	0	158	689
8:00	198	0	95	0	293	0	178	86	0	264	0	0	0	0	0	0	233	0	0	233	790
8:15	170	0	79	0	249	0	170	106	0	276	0	0	0	0	0	0	191	0	0	191	716
8:30	156	0	82	0	238	0	163	80	0	243	0	0	0	0	0	0	150	0	0	150	631
Total Volume	680	0	355	0	1035	0	688	371	0	1059	0	0	0	0	0	0	732	0	0	732	2826
% App Total	65.7%	0.0%	34.3%	0.0%		0.0%	65.0%	35.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%		
PHF	.859	.000	.896	.000	.883	.000	.966	.875	.000	.959	.000	.000	.000	.000	.000	.000	.785	.000	.000	.785	.894

PM PEAK HOUR	Sbound US-101 Ramps Southbound					Tamalpais Dr Westbound					Sbound US-101 Ramps Northbound					Tamalpais Dr Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	196	0	77	0	273	0	217	63	0	280	0	0	0	0	0	0	249	0	0	249	802
17:15	167	0	81	0	248	0	245	84	0	329	0	0	0	0	0	0	236	0	0	236	813
17:30	169	0	85	0	254	0	264	105	0	369	0	0	0	0	0	0	228	0	0	228	851
17:45	174	0	86	0	260	0	250	90	0	340	0	0	0	0	0	0	191	0	0	191	791
Total Volume	706	0	329	0	1035	0	976	342	0	1318	0	0	0	0	0	0	904	0	0	904	3257
% App Total	68.2%	0.0%	31.8%	0.0%		0.0%	74.1%	25.9%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%		
PHF	.901	.000	.956	.000	.948	.000	.924	.814	.000	.893	.000	.000	.000	.000	.000	.000	.908	.000	.000	.908	.957

National Data and Surveying Services

City of Corte Madera
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Heavy Trucks On Bank 2

(323) 782-0090
info@ndsdata.com

File Name : 17-7456-005 Madera Blvd & Tamalpais Dr
 Date : 5/25/2017

Unshifted Count = All Vehicles & Uturns

START TIME	Madera Blvd Southbound					Tamalpais Dr Westbound					Madera Blvd Northbound					Tamalpais Dr Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	18	7	15	0	40	35	71	24	0	130	4	3	32	0	39	7	118	7	0	132	341	0
7:15	19	12	22	0	53	29	111	28	0	168	5	11	42	0	58	8	116	6	0	130	409	0
7:30	26	9	20	0	55	34	125	22	0	181	9	13	37	0	59	13	164	8	0	185	480	0
7:45	41	17	31	0	89	24	155	52	0	231	20	21	39	0	80	19	194	3	0	216	616	0
Total	104	45	88	0	237	122	462	126	0	710	38	48	150	0	236	47	592	24	0	663	1846	0
8:00	55	25	34	0	114	42	140	40	0	222	13	15	55	0	83	36	213	7	0	256	675	0
8:15	55	14	24	0	93	41	138	52	0	231	10	9	47	0	66	32	229	6	0	267	657	0
8:30	36	20	26	0	82	27	110	43	0	180	5	7	26	0	38	26	209	5	0	240	540	0
8:45	37	13	31	0	81	43	107	45	0	195	9	16	40	0	65	28	155	11	0	194	535	0
Total	183	72	115	0	370	153	495	180	0	828	37	47	168	0	252	122	806	29	0	957	2407	0
16:00	39	17	36	0	92	24	157	61	0	242	10	23	39	0	72	43	221	9	0	273	679	0
16:15	43	18	37	0	98	51	183	80	0	314	6	23	34	0	63	40	243	14	0	297	772	0
16:30	55	14	38	0	107	40	122	50	0	212	12	17	35	0	64	55	194	7	0	256	639	0
16:45	61	9	48	0	118	30	143	44	0	217	12	17	29	0	58	35	135	7	0	177	570	0
Total	198	58	159	0	415	145	605	235	0	985	40	80	137	0	257	173	793	37	0	1003	2660	0
17:00	54	19	48	0	121	51	148	64	0	263	14	14	46	0	74	48	188	10	0	246	704	0
17:15	62	19	42	0	123	42	154	89	0	285	10	13	35	0	58	39	165	8	0	212	678	0
17:30	59	16	46	0	121	38	174	66	0	278	5	13	33	0	51	31	147	4	0	182	632	0
17:45	40	14	33	0	87	61	149	83	0	293	13	25	33	0	71	41	149	8	0	198	649	0
Total	215	68	169	0	452	192	625	302	0	1119	42	65	147	0	254	159	649	30	0	838	2663	0
Grand Total	700	243	531	0	1474	612	2187	843	0	3642	157	240	602	0	999	501	2840	120	0	3461	9576	0
Apprch %	47.5%	16.5%	36.0%	0.0%		16.8%	60.0%	23.1%	0.0%		15.7%	24.0%	60.3%	0.0%		14.5%	82.1%	3.5%	0.0%			
Total %	7.3%	2.5%	5.5%	0.0%	15.4%	6.4%	22.8%	8.8%	0.0%	38.0%	1.6%	2.5%	6.3%	0.0%	10.4%	5.2%	29.7%	1.3%	0.0%	36.1%	100.0%	

AM PEAK HOUR	Madera Blvd Southbound					Tamalpais Dr Westbound					Madera Blvd Northbound					Tamalpais Dr Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	41	17	31	0	89	24	155	52	0	231	20	21	39	0	80	19	194	3	0	216	616
8:00	55	25	34	0	114	42	140	40	0	222	13	15	55	0	83	36	213	7	0	256	675
8:15	55	14	24	0	93	41	138	52	0	231	10	9	47	0	66	32	229	6	0	267	657
8:30	36	20	26	0	82	27	110	43	0	180	5	7	26	0	38	26	209	5	0	240	540
Total Volume	187	76	115	0	378	134	543	187	0	864	48	52	167	0	267	113	845	21	0	979	2488
% App Total	49.5%	20.1%	30.4%	0.0%		15.5%	62.8%	21.6%	0.0%		18.0%	19.5%	62.5%	0.0%		11.5%	86.3%	2.1%	0.0%		
PHF	.850	.760	.846	.000	.829	.798	.876	.899	.000	.935	.600	.619	.759	.000	.804	.785	.922	.750	.000	.917	.921

PM PEAK HOUR	Madera Blvd Southbound					Tamalpais Dr Westbound					Madera Blvd Northbound					Tamalpais Dr Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:15 to 17:15																					
Peak Hour For Entire Intersection Begins at 16:15																					
16:15	43	18	37	0	98	51	183	80	0	314	6	23	34	0	63	40	243	14	0	297	772
16:30	55	14	38	0	107	40	122	50	0	212	12	17	35	0	64	55	194	7	0	256	639
16:45	61	9	48	0	118	30	143	44	0	217	12	17	29	0	58	35	135	7	0	177	570
17:00	54	19	48	0	121	51	148	64	0	263	14	14	46	0	74	48	188	10	0	246	704
Total Volume	213	60	171	0	444	172	596	238	0	1006	44	71	144	0	259	178	760	38	0	976	2685
% App Total	48.0%	13.5%	38.5%	0.0%		17.1%	59.2%	23.7%	0.0%		17.0%	27.4%	55.6%	0.0%		18.2%	77.9%	3.9%	0.0%		
PHF	.873	.789	.891	.000	.917	.843	.814	.744	.000	.801	.786	.772	.783	.000	.875	.809	.782	.679	.000	.822	.869

National Data and Surveying Services

City of Corte Madera
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Heavy Trucks On Bank 2

(323) 782-0090
info@ndsdata.com

File Name : 17-7456-006 San Clemente Dr & Paradise Dr
 Date : 5/25/2017

Unshifted Count = All Vehicles & Uturns

START TIME	San Clemente Dr Southbound					Paradise Dr Westbound					San Clemente Dr Northbound					Paradise Dr Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	0	97	7	0	104	0	0	0	0	0	4	102	0	0	106	24	0	1	0	25	235	0
7:15	0	134	3	0	137	0	0	0	0	0	0	195	0	0	195	24	0	3	0	27	359	0
7:30	0	180	4	0	184	0	0	0	0	0	3	221	0	0	224	29	0	3	0	32	440	0
7:45	0	226	2	0	228	0	0	0	0	0	3	280	0	0	283	20	0	5	0	25	536	0
Total	0	637	16	0	653	0	0	0	0	0	10	798	0	0	808	97	0	12	0	109	1570	0
8:00	0	346	9	0	355	0	0	0	0	0	7	258	0	1	266	29	0	3	0	32	653	1
8:15	0	239	6	0	245	0	0	0	0	0	3	324	0	0	327	25	0	4	0	29	601	0
8:30	0	189	11	0	200	0	0	0	0	0	7	224	0	0	231	27	0	3	0	30	461	0
8:45	0	165	5	0	170	0	0	0	0	0	7	198	0	0	205	20	0	7	0	27	402	0
Total	0	939	31	0	970	0	0	0	0	0	24	1004	0	1	1029	101	0	17	0	118	2117	1
16:00	0	167	5	0	172	0	0	0	0	0	4	228	0	0	232	33	0	11	0	44	448	0
16:15	0	203	9	0	212	0	0	0	0	0	6	209	0	0	215	43	0	11	0	54	481	0
16:30	0	174	3	0	177	0	0	0	0	0	6	203	0	0	209	39	0	11	0	50	436	0
16:45	0	184	5	0	189	0	0	0	0	0	9	165	0	0	174	54	0	11	0	65	428	0
Total	0	728	22	0	750	0	0	0	0	0	25	805	0	0	830	169	0	44	0	213	1793	0
17:00	0	196	9	0	205	0	0	0	0	0	5	207	0	0	212	73	0	9	0	82	499	0
17:15	0	196	7	0	203	0	0	0	0	0	7	200	0	0	207	56	0	13	0	69	479	0
17:30	0	204	6	0	210	0	0	0	0	0	2	185	0	0	187	61	0	8	0	69	466	0
17:45	0	250	4	0	254	0	0	0	0	0	7	170	0	0	177	62	0	7	0	69	500	0
Total	0	846	26	0	872	0	0	0	0	0	21	762	0	0	783	252	0	37	0	289	1944	0
Grand Total	0	3150	95	0	3245	0	0	0	0	0	80	3369	0	1	3450	619	0	110	0	729	7424	1
Apprch %	0.0%	97.1%	2.9%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	97.7%	0.0%	0.0%		84.9%	0.0%	15.1%	0.0%			
Total %	0.0%	42.4%	1.3%	0.0%	43.7%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	45.4%	0.0%	0.0%	46.5%	8.3%	0.0%	1.5%	0.0%	9.8%	100.0%	

AM PEAK HOUR	San Clemente Dr Southbound					Paradise Dr Westbound					San Clemente Dr Northbound					Paradise Dr Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	0	226	2	0	228	0	0	0	0	0	3	280	0	0	283	20	0	5	0	25	536
8:00	0	346	9	0	355	0	0	0	0	0	7	258	0	1	266	29	0	3	0	32	653
8:15	0	239	6	0	245	0	0	0	0	0	3	324	0	0	327	25	0	4	0	29	601
8:30	0	189	11	0	200	0	0	0	0	0	7	224	0	0	231	27	0	3	0	30	461
Total Volume	0	1000	28	0	1028	0	0	0	0	0	20	1086	0	1	1107	101	0	15	0	116	2251
% App Total	0.0%	97.3%	2.7%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	98.1%	0.0%	0.1%		87.1%	0.0%	12.9%	0.0%		
PHF	.000	.723	.636	.000	.724	.000	.000	.000	.000	.000	.714	.838	.000	.250	.846	.871	.000	.750	.000	.906	.862

PM PEAK HOUR	San Clemente Dr Southbound					Paradise Dr Westbound					San Clemente Dr Northbound					Paradise Dr Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	0	196	9	0	205	0	0	0	0	0	5	207	0	0	212	73	0	9	0	82	499
17:15	0	196	7	0	203	0	0	0	0	0	7	200	0	0	207	56	0	13	0	69	479
17:30	0	204	6	0	210	0	0	0	0	0	2	185	0	0	187	61	0	8	0	69	466
17:45	0	250	4	0	254	0	0	0	0	0	7	170	0	0	177	62	0	7	0	69	500
Total Volume	0	846	26	0	872	0	0	0	0	0	21	762	0	0	783	252	0	37	0	289	1944
% App Total	0.0%	97.0%	3.0%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	97.3%	0.0%	0.0%		87.2%	0.0%	12.8%	0.0%		
PHF	.000	.846	.722	.000	.858	.000	.000	.000	.000	.000	.750	.920	.000	.000	.923	.863	.000	.712	.000	.881	.972

National Data and Surveying Services

City of Corte Madera
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Heavy Trucks On Bank 2

(323) 782-0090
info@ndsdata.com

File Name : 17-7456-101 Paradise Dr & Tamalpais Dr
 Date : 5/25/2017

Unshifted Count = All Vehicles & Uturns

START TIME	Paradise Dr Southbound					Tamalpais Dr Westbound					Paradise Dr Northbound					Tamalpais Dr Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	98	50	0	148	150	0
7:15	0	0	0	0	0	0	0	0	0	0	0	8	3	0	11	0	127	60	0	187	198	0
7:30	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	167	48	0	215	222	0
7:45	0	0	0	0	0	0	0	0	0	0	0	10	2	0	12	0	220	51	0	271	283	0
Total	0	0	0	0	0	0	0	0	0	0	0	27	5	0	32	0	612	209	0	821	853	0
8:00	0	0	0	0	0	0	0	0	0	0	0	7	3	0	10	0	313	77	0	390	400	0
8:15	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	0	222	74	0	296	307	0
8:30	0	0	0	0	0	0	0	0	0	0	0	13	1	0	14	0	178	67	0	245	259	0
8:45	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	0	158	107	0	265	273	0
Total	0	0	0	0	0	0	0	0	0	0	0	39	4	0	43	0	871	325	0	1196	1239	0
16:00	0	0	0	0	0	0	0	0	0	0	0	15	1	0	16	0	152	33	0	185	201	0
16:15	0	0	0	0	0	0	0	0	0	0	0	18	2	0	20	0	189	40	0	229	249	0
16:30	0	0	0	0	0	0	0	0	0	0	0	14	3	0	17	0	168	39	0	207	224	0
16:45	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	181	32	0	213	221	0
Total	0	0	0	0	0	0	0	0	0	0	0	54	7	0	61	0	690	144	0	834	895	0
17:00	0	0	0	0	0	0	0	0	0	0	0	17	4	0	21	0	175	48	0	223	244	0
17:15	0	0	0	0	0	0	0	0	0	0	0	14	3	0	17	0	195	36	0	231	248	0
17:30	0	0	0	0	0	0	0	0	0	0	0	22	1	0	23	0	192	28	0	220	243	0
17:45	0	0	0	0	0	0	0	0	0	0	0	12	4	0	16	0	241	33	0	274	290	0
Total	0	0	0	0	0	0	0	0	0	0	0	65	12	0	77	0	803	145	0	948	1025	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	185	28	0	213	0	2976	823	0	3799	4012	0
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	86.9%	13.1%	0.0%	0.0%	0.0%	78.3%	21.7%	0.0%	0.0%	0.0%	0.0%
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	0.7%	0.0%	5.3%	0.0%	74.2%	20.5%	0.0%	94.7%	100.0%	0.0%

AM PEAK HOUR	Paradise Dr Southbound					Tamalpais Dr Westbound					Paradise Dr Northbound					Tamalpais Dr Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	0	0	0	0	0	0	0	0	0	0	0	10	2	0	12	0	220	51	0	271	283
8:00	0	0	0	0	0	0	0	0	0	0	0	7	3	0	10	0	313	77	0	390	400
8:15	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	0	222	74	0	296	307
8:30	0	0	0	0	0	0	0	0	0	0	0	13	1	0	14	0	178	67	0	245	259
Total Volume	0	0	0	0	0	0	0	0	0	0	0	41	6	0	47	0	933	269	0	1202	1249
% App Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.2%	12.8%	0.0%	0.0%	0.0%	77.6%	22.4%	0.0%	0.0%	0.0%
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.788	.500	.000	.839	.000	.745	.873	.000	.771	.781

PM PEAK HOUR	Paradise Dr Southbound					Tamalpais Dr Westbound					Paradise Dr Northbound					Tamalpais Dr Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	0	0	0	0	0	0	0	0	0	0	0	17	4	0	21	0	175	48	0	223	244
17:15	0	0	0	0	0	0	0	0	0	0	0	14	3	0	17	0	195	36	0	231	248
17:30	0	0	0	0	0	0	0	0	0	0	0	22	1	0	23	0	192	28	0	220	243
17:45	0	0	0	0	0	0	0	0	0	0	0	12	4	0	16	0	241	33	0	274	290
Total Volume	0	0	0	0	0	0	0	0	0	0	0	65	12	0	77	0	803	145	0	948	1025
% App Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	84.4%	15.6%	0.0%	0.0%	0.0%	84.7%	15.3%	0.0%	0.0%	0.0%
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.739	.750	.000	.837	.000	.833	.755	.000	.865	.884

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-001 Redwood Highway-Wornum Drive.ppd

Date : 10/15/2015

Unshifted Count = All Vehicles

START TIME	Redwood Highway Southbound					Wornum Drive Westbound					Redwood Highway Northbound					Wornum Drive Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
16:00	0	13	48	0	61	0	0	0	0	0	21	64	0	0	85	142	0	27	0	169	315	0
16:15	0	20	34	1	55	0	0	0	0	0	29	58	0	0	87	122	0	25	0	147	289	1
16:30	0	14	36	0	50	0	0	0	0	0	26	61	0	0	87	110	0	23	0	133	270	0
16:45	0	19	42	0	61	0	0	0	0	0	24	46	0	0	70	91	0	15	0	106	237	0
Total	0	66	160	1	227	0	0	0	0	0	100	229	0	0	329	465	0	90	0	555	1111	1
17:00	0	15	38	0	53	0	0	0	0	0	44	51	0	0	95	87	0	18	0	105	253	0
17:15	0	16	47	0	63	0	0	0	0	0	19	60	0	0	79	78	0	22	0	100	242	0
17:30	0	13	32	0	45	0	0	0	0	0	31	47	0	0	78	114	0	27	0	141	264	0
17:45	0	16	32	0	48	0	0	0	0	0	30	54	0	0	84	85	0	15	0	100	232	0
Total	0	60	149	0	209	0	0	0	0	0	124	212	0	0	336	364	0	82	0	446	991	0
Grand Total	0	126	309	1	436	0	0	0	0	0	224	441	0	0	665	829	0	172	0	1001	2102	1
Apprch %	0.0%	28.9%	70.9%	0.2%		0.0%	0.0%	0.0%	0.0%	0.0%	33.7%	66.3%	0.0%	0.0%		82.8%	0.0%	17.2%	0.0%			
Total %	0.0%	6.0%	14.7%	0.0%	20.7%	0.0%	0.0%	0.0%	0.0%	0.0%	10.7%	21.0%	0.0%	0.0%	31.6%	39.4%	0.0%	8.2%	0.0%	47.6%	100.0%	

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-001 Redwood Highway-Wornum Drive.ppd

Date : 10/15/2015

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

Unshifted Count = All Vehicles

PM PEAK HOUR	Redwood Highway Southbound					Wornum Drive Westbound					Redwood Highway Northbound					Wornum Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	0	13	48	0	61	0	0	0	0	0	21	64	0	0	85	142	0	27	0	169	315
16:15	0	20	34	1	55	0	0	0	0	0	29	58	0	0	87	122	0	25	0	147	289
16:30	0	14	36	0	50	0	0	0	0	0	26	61	0	0	87	110	0	23	0	133	270
16:45	0	19	42	0	61	0	0	0	0	0	24	46	0	0	70	91	0	15	0	106	237
Total Volume	0	66	160	1	227	0	0	0	0	0	100	229	0	0	329	465	0	90	0	555	1111
% App Total	0.0%	29.1%	70.5%	0.4%		0.0%	0.0%	0.0%	0.0%		30.4%	69.6%	0.0%	0.0%		83.8%	0.0%	16.2%	0.0%		
PHF	.000	.825	.833	.250	.930	.000	.000	.000	.000	.000	.862	.895	.000	.000	.945	.819	.000	.833	.000	.821	.882

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-002 Northeast Village Entrance-Redwood Highway

Date : 10/15/2015

Unshifted Count = All Vehicles

START TIME	Parking Lot Entrance Southbound					Redwood Highway Westbound					Northeast Village Entrance Northbound					Redwood Highway Eastbound					Total	Utturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
14:00	3	0	6	0	9	5	43	1	0	49	26	0	16	0	42	1	19	20	0	40	140	0
14:15	0	0	2	0	2	2	61	0	0	63	35	0	13	1	49	2	16	14	0	32	146	1
14:30	0	0	2	0	2	7	55	0	0	62	27	0	13	0	40	1	35	12	0	48	152	0
14:45	1	0	1	0	2	7	58	4	0	69	22	0	9	0	31	2	36	14	0	52	154	0
Total	4	0	11	0	15	21	217	5	0	243	110	0	51	1	162	6	106	60	0	172	592	1
15:00	0	0	1	0	1	2	79	1	0	82	28	0	12	0	40	3	23	11	0	37	160	0
15:15	1	0	1	0	2	3	86	1	0	90	21	0	6	0	27	2	27	11	0	40	159	0
15:30	1	0	3	0	4	2	75	1	1	79	12	0	9	0	21	3	23	12	0	38	142	1
15:45	4	1	3	0	8	4	68	1	0	73	13	0	9	0	22	3	24	12	0	39	142	0
Total	6	1	8	0	15	11	308	4	1	324	74	0	36	0	110	11	97	46	0	154	603	1
16:00	1	1	3	0	5	5	71	0	0	76	10	0	7	0	17	6	27	12	0	45	143	0
16:15	0	0	3	0	3	6	67	0	0	73	19	1	8	1	29	4	20	13	0	37	142	1
16:30	1	0	2	0	3	5	61	0	0	66	9	0	5	0	14	4	24	13	0	41	124	0
16:45	3	1	3	0	7	4	62	1	0	67	7	0	8	0	15	1	28	11	0	40	129	0
Total	5	2	11	0	18	20	261	1	0	282	45	1	28	1	75	15	99	49	0	163	538	1
17:00	1	0	4	0	5	4	52	0	0	56	15	0	13	0	28	2	20	11	0	33	122	0
17:15	6	0	6	0	12	7	59	0	0	66	10	0	5	0	15	1	23	13	0	37	130	0
17:30	1	0	0	0	1	3	49	2	0	54	13	0	3	0	16	0	31	12	0	43	114	0
17:45	1	0	1	0	2	3	70	0	0	73	12	0	10	0	22	0	24	9	0	33	130	0
Total	9	0	11	0	20	17	230	2	0	249	50	0	31	0	81	3	98	45	0	146	496	0
Grand Total	24	3	41	0	68	69	1016	12	1	1098	279	1	146	2	428	35	400	200	0	635	2229	3
Apprch %	35.3%	4.4%	60.3%	0.0%		6.3%	92.5%	1.1%	0.1%		65.2%	0.2%	34.1%	0.5%		5.5%	63.0%	31.5%	0.0%			
Total %	1.1%	0.1%	1.8%	0.0%	3.1%	3.1%	45.6%	0.5%	0.0%	49.3%	12.5%	0.0%	6.6%	0.1%	19.2%	1.6%	17.9%	9.0%	0.0%	28.5%	100.0%	

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-002 Northeast Village Entrance-Redwood Highway

Date : 10/15/2015

Unshifted Count = All Vehicles

PM PEAK HOUR	Parking Lot Entrance Southbound					Redwood Highway Westbound					Northeast Village Entrance Northbound					Redwood Highway Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 14:30 to 15:30																					
Peak Hour For Entire Intersection Begins at 14:30																					
14:30	0	0	2	0	2	7	55	0	0	62	27	0	13	0	40	1	35	12	0	48	152
14:45	1	0	1	0	2	7	58	4	0	69	22	0	9	0	31	2	36	14	0	52	154
15:00	0	0	1	0	1	2	79	1	0	82	28	0	12	0	40	3	23	11	0	37	160
15:15	1	0	1	0	2	3	86	1	0	90	21	0	6	0	27	2	27	11	0	40	159
Total Volume	2	0	5	0	7	19	278	6	0	303	98	0	40	0	138	8	121	48	0	177	625
% App Total	28.6%	0.0%	71.4%	0.0%		6.3%	91.7%	2.0%	0.0%		71.0%	0.0%	29.0%	0.0%		4.5%	68.4%	27.1%	0.0%		
PHF	.500	.000	.625	.000	.875	.679	.808	.375	.000	.842	.875	.000	.769	.000	.863	.667	.840	.857	.000	.851	.977

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-003 Redwood Highway-East Village Entrance.ppd

Date : 10/15/2015

Unshifted Count = All Vehicles

START TIME	Redwood Highway Southbound					Westbound					Redwood Highway Northbound					East Village Entrance Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
14:00	0	38	2	0	40	0	0	0	0	0	32	39	0	1	72	8	0	35	0	43	155	1
14:15	0	30	0	0	30	0	0	0	0	0	46	56	0	1	103	4	0	33	0	37	170	1
14:30	0	43	0	0	43	0	0	0	0	0	45	57	0	0	102	8	0	34	0	42	187	0
14:45	0	44	1	0	45	0	0	0	0	0	33	62	0	1	96	3	0	39	0	42	183	1
Total	0	155	3	0	158	0	0	0	0	0	156	214	0	3	373	23	0	141	0	164	695	3
15:00	0	37	0	0	37	0	0	0	0	0	28	75	0	1	104	11	0	44	0	55	196	1
15:15	0	34	1	0	35	0	0	0	0	0	29	85	0	3	117	6	0	40	0	46	198	3
15:30	0	34	1	0	35	0	0	0	0	0	32	73	0	4	109	6	0	23	0	29	173	4
15:45	0	40	2	0	42	0	0	0	0	0	36	68	0	0	104	4	0	36	0	40	186	0
Total	0	145	4	0	149	0	0	0	0	0	125	301	0	8	434	27	0	143	0	170	753	8
16:00	0	36	0	0	36	0	0	0	0	0	23	71	0	0	94	5	0	27	0	32	162	0
16:15	0	26	1	0	27	0	0	0	0	0	26	66	0	1	93	7	0	29	0	36	156	1
16:30	0	31	0	0	31	0	0	0	0	0	32	62	0	0	94	4	0	26	0	30	155	0
16:45	0	38	0	0	38	0	0	0	0	0	46	66	0	0	112	2	0	24	0	26	176	0
Total	0	131	1	0	132	0	0	0	0	0	127	265	0	1	393	18	0	106	0	124	649	1
17:00	0	35	0	0	35	0	0	0	0	0	25	52	0	0	77	5	0	23	0	28	140	0
17:15	0	32	1	0	33	0	0	0	0	0	36	63	0	0	99	4	0	27	0	31	163	0
17:30	0	36	0	0	36	0	0	0	0	0	21	53	0	0	74	2	0	27	0	29	139	0
17:45	0	33	1	0	34	0	0	0	0	0	35	69	0	0	104	4	0	26	0	30	168	0
Total	0	136	2	0	138	0	0	0	0	0	117	237	0	0	354	15	0	103	0	118	610	0
Grand Total	0	567	10	0	577	0	0	0	0	0	525	1017	0	12	1554	83	0	493	0	576	2707	12
Apprch %	0.0%	98.3%	1.7%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	33.8%	65.4%	0.0%	0.8%		14.4%	0.0%	85.6%	0.0%			
Total %	0.0%	20.9%	0.4%	0.0%	21.3%	0.0%	0.0%	0.0%	0.0%	0.0%	19.4%	37.6%	0.0%	0.4%	57.4%	3.1%	0.0%	18.2%	0.0%	21.3%	100.0%	

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-003 Redwood Highway-East Village Entrance.ppd

Date : 10/15/2015

Unshifted Count = All Vehicles

PM PEAK HOUR	Redwood Highway Southbound					Westbound					Redwood Highway Northbound					East Village Entrance Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 14:30 to 15:30																					
Peak Hour For Entire Intersection Begins at 14:30																					
14:30	0	43	0	0	43	0	0	0	0	0	45	57	0	0	102	8	0	34	0	42	187
14:45	0	44	1	0	45	0	0	0	0	0	33	62	0	1	96	3	0	39	0	42	183
15:00	0	37	0	0	37	0	0	0	0	0	28	75	0	1	104	11	0	44	0	55	196
15:15	0	34	1	0	35	0	0	0	0	0	29	85	0	3	117	6	0	40	0	46	198
Total Volume	0	158	2	0	160	0	0	0	0	0	135	279	0	5	419	28	0	157	0	185	764
% App Total	0.0%	98.8%	1.3%	0.0%		0.0%	0.0%	0.0%	0.0%		32.2%	66.6%	0.0%	1.2%		15.1%	0.0%	84.9%	0.0%		
PHF	.000	.898	.500	.000	.889	.000	.000	.000	.000	.000	.750	.821	.000	.417	.895	.636	.000	.892	.000	.841	.965

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-004 Redwood Highway-Southeast Village Entrance

Date : 10/15/2015

Unshifted Count = All Vehicles

START TIME	Redwood Highway Southbound					Westbound					Redwood Highway Northbound					Southeast Village Entrance Eastbound					Total	Utturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
14:00	0	69	1	0	70	0	0	0	0	0	69	68	0	3	140	5	0	54	0	59	269	3
14:15	0	70	0	0	70	0	0	0	0	0	60	93	0	9	162	10	0	71	0	81	313	9
14:30	0	71	3	0	74	0	0	0	0	0	80	90	0	6	176	11	0	67	0	78	328	6
14:45	0	87	1	0	88	0	0	0	0	0	61	86	0	8	155	11	0	56	0	67	310	8
Total	0	297	5	0	302	0	0	0	0	0	270	337	0	26	633	37	0	248	0	285	1220	26
15:00	0	81	1	1	83	0	0	0	0	0	74	97	0	11	182	5	0	77	0	82	347	12
15:15	0	76	3	0	79	0	0	0	0	0	74	108	0	10	192	7	0	60	0	67	338	10
15:30	0	59	1	0	60	0	0	0	0	0	87	102	0	11	200	8	0	57	0	65	325	11
15:45	0	73	2	0	75	0	0	0	0	0	68	98	0	9	175	6	0	67	0	73	323	9
Total	0	289	7	1	297	0	0	0	0	0	303	405	0	41	749	26	0	261	0	287	1333	42
16:00	0	63	1	0	64	0	0	0	0	0	80	88	0	9	177	7	0	58	0	65	306	9
16:15	0	59	0	0	59	0	0	0	0	0	64	89	0	9	162	4	0	68	1	73	294	10
16:30	0	55	0	0	55	0	0	0	0	0	75	88	0	19	182	6	0	61	0	67	304	19
16:45	0	63	0	0	63	0	0	0	0	0	54	110	0	10	174	6	0	64	0	70	307	10
Total	0	240	1	0	241	0	0	0	0	0	273	375	0	47	695	23	0	251	1	275	1211	48
17:00	0	59	0	0	59	0	0	0	0	0	67	76	0	11	154	2	0	72	0	74	287	11
17:15	0	55	0	1	56	0	0	0	0	0	65	94	0	8	167	7	0	57	0	64	287	9
17:30	0	63	2	0	65	0	0	0	0	0	41	66	0	8	115	5	0	52	0	57	237	8
17:45	0	57	0	0	57	0	0	0	0	0	74	100	0	4	178	3	0	58	0	61	296	4
Total	0	234	2	1	237	0	0	0	0	0	247	336	0	31	614	17	0	239	0	256	1107	32
Grand Total	0	1060	15	2	1077	0	0	0	0	0	1093	1453	0	145	2691	103	0	999	1	1103	4871	148
Apprch %	0.0%	98.4%	1.4%	0.2%		0.0%	0.0%	0.0%	0.0%	0.0%	40.6%	54.0%	0.0%	5.4%		9.3%	0.0%	90.6%	0.1%			
Total %	0.0%	21.8%	0.3%	0.0%	22.1%	0.0%	0.0%	0.0%	0.0%	0.0%	22.4%	29.8%	0.0%	3.0%	55.2%	2.1%	0.0%	20.5%	0.0%	22.6%	100.0%	

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-004 Redwood Highway-Southeast Village Entrance

Date : 10/15/2015

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

Unshifted Count = All Vehicles

PM PEAK HOUR	Redwood Highway Southbound					Westbound					Redwood Highway Northbound					Southeast Village Entrance Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 15:00 to 16:00																					
Peak Hour For Entire Intersection Begins at 15:00																					
15:00	0	81	1	1	83	0	0	0	0	0	74	97	0	11	182	5	0	77	0	82	347
15:15	0	76	3	0	79	0	0	0	0	0	74	108	0	10	192	7	0	60	0	67	338
15:30	0	59	1	0	60	0	0	0	0	0	87	102	0	11	200	8	0	57	0	65	325
15:45	0	73	2	0	75	0	0	0	0	0	68	98	0	9	175	6	0	67	0	73	323
Total Volume	0	289	7	1	297	0	0	0	0	0	303	405	0	41	749	26	0	261	0	287	1333
% App Total	0.0%	97.3%	2.4%	0.3%		0.0%	0.0%	0.0%	0.0%		40.5%	54.1%	0.0%	5.5%		9.1%	0.0%	90.9%	0.0%		
PHF	.000	.892	.583	.250	.895	.000	.000	.000	.000	.000	.871	.938	.000	.932	.936	.813	.000	.847	.000	.875	.960

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-005 San Clemente Drive-Redwood Highway-Tama

Date : 10/15/2015

Unshifted Count = All Vehicles

START TIME	Southbound					Redwood Highway Westbound					San Clemente Drive Northbound					Tamalpais Drive Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
16:00	0	0	0	0	0	24	105	0	0	129	230	0	23	0	253	0	150	3	1	154	536	1
16:15	0	0	0	0	0	19	115	0	0	134	224	0	30	0	254	0	134	1	1	136	524	1
16:30	0	0	0	0	0	24	108	0	0	132	231	0	23	0	254	0	159	1	0	160	546	0
16:45	0	0	0	0	0	18	115	0	0	133	268	0	24	0	292	0	145	2	0	147	572	0
Total	0	0	0	0	0	85	443	0	0	528	953	0	100	0	1053	0	588	7	2	597	2178	2
17:00	0	0	0	0	0	9	142	0	0	151	266	0	22	0	288	0	128	2	0	130	569	0
17:15	0	0	0	0	0	16	105	0	0	121	258	0	23	0	281	0	144	2	0	146	548	0
17:30	0	0	0	0	0	19	102	0	0	121	198	0	17	0	215	0	107	3	0	110	446	0
17:45	0	0	0	0	0	19	101	0	0	120	236	0	30	0	266	0	146	0	0	146	532	0
Total	0	0	0	0	0	63	450	0	0	513	958	0	92	0	1050	0	525	7	0	532	2095	0
Grand Total	0	0	0	0	0	148	893	0	0	1041	1911	0	192	0	2103	0	1113	14	2	1129	4273	2
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	14.2%	85.8%	0.0%	0.0%	24.4%	90.9%	0.0%	9.1%	0.0%	49.2%	0.0%	98.6%	1.2%	0.2%	26.4%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%	20.9%	0.0%	0.0%	24.4%	44.7%	0.0%	4.5%	0.0%	49.2%	0.0%	26.0%	0.3%	0.0%	26.4%	100.0%	

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-005 San Clemente Drive-Redwood Highway-Tama

Date : 10/15/2015

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

Unshifted Count = All Vehicles

PM PEAK HOUR	Southbound					Redwood Highway Westbound					San Clemente Drive Northbound					Tamalpais Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	24	108	0	0	132	231	0	23	0	254	0	159	1	0	160	546
16:45	0	0	0	0	0	18	115	0	0	133	268	0	24	0	292	0	145	2	0	147	572
17:00	0	0	0	0	0	9	142	0	0	151	266	0	22	0	288	0	128	2	0	130	569
17:15	0	0	0	0	0	16	105	0	0	121	258	0	23	0	281	0	144	2	0	146	548
Total Volume	0	0	0	0	0	67	470	0	0	537	1023	0	92	0	1115	0	576	7	0	583	2235
% App Total	0.0%	0.0%	0.0%	0.0%		12.5%	87.5%	0.0%	0.0%		91.7%	0.0%	8.3%	0.0%		0.0%	98.8%	1.2%	0.0%		
PHF	.000	.000	.000	.000	.000	.698	.827	.000	.000	.889	.954	.000	.958	.000	.955	.000	.906	.875	.000	.911	.977

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-005B Paradise Drive-Tamalpais Drive.ppd

Date : 10/15/2015

Unshifted Count = All Vehicles

START TIME	Paradise Drive Southbound					Tamalpais Drive Westbound					Paradise Drive Northbound					Tamalpais Drive Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
16:00	0	0	0	0	0	0	0	0	0	0	0	16	1	0	17	0	128	32	0	160	177	0
16:15	0	0	0	0	0	0	0	0	0	0	0	13	4	0	17	0	142	49	0	191	208	0
16:30	0	0	0	0	0	0	0	0	0	0	0	16	3	0	19	3	168	27	0	198	217	0
16:45	0	0	0	0	0	0	0	0	0	0	0	16	4	0	20	0	138	27	0	165	185	0
Total	0	0	0	0	0	0	0	0	0	0	0	61	12	0	73	3	576	135	0	714	787	0
17:00	0	0	0	0	0	0	0	0	0	0	0	18	4	0	22	0	188	41	0	229	251	0
17:15	0	0	0	0	0	0	0	0	0	0	0	11	1	0	12	0	164	26	0	190	202	0
17:30	0	0	0	0	0	0	0	0	0	0	0	12	1	0	13	0	171	23	0	194	207	0
17:45	0	0	0	0	0	0	0	0	0	0	0	10	2	0	12	1	159	33	0	193	205	0
Total	0	0	0	0	0	0	0	0	0	0	0	51	8	0	59	1	682	123	0	806	865	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	112	20	0	132	4	1258	258	0	1520	1652	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	84.8%	15.2%	0.0%		0.3%	82.8%	17.0%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.8%	1.2%	0.0%	8.0%	0.2%	76.2%	15.6%	0.0%	92.0%	100.0%	

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-005B Paradise Drive-Tamalpais Drive.ppd

Date : 10/15/2015

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

Unshifted Count = All Vehicles

PM PEAK HOUR	Paradise Drive Southbound					Tamalpais Drive Westbound					Paradise Drive Northbound					Tamalpais Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	0	0	0	0	0	0	0	0	0	0	0	18	4	0	22	0	188	41	0	229	251
17:15	0	0	0	0	0	0	0	0	0	0	0	11	1	0	12	0	164	26	0	190	202
17:30	0	0	0	0	0	0	0	0	0	0	0	12	1	0	13	0	171	23	0	194	207
17:45	0	0	0	0	0	0	0	0	0	0	0	10	2	0	12	1	159	33	0	193	205
Total Volume	0	0	0	0	0	0	0	0	0	0	0	51	8	0	59	1	682	123	0	806	865
% App Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	86.4%	13.6%	0.0%	0.0%	0.1%	84.6%	15.3%	0.0%	0.0%	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.708	.500	.000	.670	.250	.907	.750	.000	.880	.862

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-006 US 101 NB Ramps-Tamalpais Drive.ppd

Date : 10/15/2015

Unshifted Count = All Vehicles

START TIME	US 101 NB Ramps Southbound					Tamalpais Drive Westbound					US 101 NB Ramps Northbound					Tamalpais Drive Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
16:00	0	0	0	0	0	0	154	178	0	332	150	0	85	0	235	0	203	230	0	433	1000	0
16:15	0	0	0	0	0	0	175	160	0	335	146	0	97	0	243	0	228	212	0	440	1018	0
16:30	0	0	0	0	0	0	159	181	0	340	132	0	107	0	239	0	230	200	0	430	1009	0
16:45	0	0	0	0	0	0	193	189	0	382	131	0	101	0	232	0	226	190	0	416	1030	0
Total	0	0	0	0	0	0	681	708	0	1389	559	0	390	0	949	0	887	832	0	1719	4057	0
17:00	0	0	0	0	0	0	207	199	0	406	160	0	107	0	267	0	224	201	0	425	1098	0
17:15	0	0	0	0	0	0	182	183	0	365	155	0	96	0	251	0	210	203	0	413	1029	0
17:30	0	0	0	0	0	0	167	139	0	306	166	0	104	0	270	0	213	171	0	384	960	0
17:45	0	0	0	0	0	0	179	157	0	336	117	0	84	0	201	0	212	139	0	351	888	0
Total	0	0	0	0	0	0	735	678	0	1413	598	0	391	0	989	0	859	714	0	1573	3975	0
Grand Total	0	0	0	0	0	0	1416	1386	0	2802	1157	0	781	0	1938	0	1746	1546	0	3292	8032	0
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.5%	49.5%	0.0%	34.9%	59.7%	0.0%	40.3%	0.0%	24.1%	0.0%	53.0%	47.0%	0.0%	41.0%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.6%	17.3%	0.0%	34.9%	14.4%	0.0%	9.7%	0.0%	24.1%	0.0%	21.7%	19.2%	0.0%	41.0%	100.0%	

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-006 US 101 NB Ramps-Tamalpais Drive.ppd

Date : 10/15/2015

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

Unshifted Count = All Vehicles

PM PEAK HOUR	US 101 NB Ramps Southbound					Tamalpais Drive Westbound					US 101 NB Ramps Northbound					Tamalpais Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	0	159	181	0	340	132	0	107	0	239	0	230	200	0	430	1009
16:45	0	0	0	0	0	0	193	189	0	382	131	0	101	0	232	0	226	190	0	416	1030
17:00	0	0	0	0	0	0	207	199	0	406	160	0	107	0	267	0	224	201	0	425	1098
17:15	0	0	0	0	0	0	182	183	0	365	155	0	96	0	251	0	210	203	0	413	1029
Total Volume	0	0	0	0	0	0	741	752	0	1493	578	0	411	0	989	0	890	794	0	1684	4166
% App Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	49.6%	50.4%	0.0%		58.4%	0.0%	41.6%	0.0%		0.0%	52.9%	47.1%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.895	.945	.000	.919	.903	.000	.960	.000	.926	.000	.967	.978	.000	.979	.949

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-007 US 101 SB Ramps-Tamalpais Drive.ppd

Date : 10/15/2015

Unshifted Count = All Vehicles

START TIME	US 101 SB Ramps Southbound					Tamalpais Drive Westbound					US 101 SB Ramps Northbound					Tamalpais Drive Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
16:00	168	0	77	0	245	0	209	99	0	308	0	0	0	0	0	0	269	90	0	359	912	0
16:15	164	0	63	0	227	0	229	93	0	322	0	0	0	0	0	0	270	101	0	371	920	0
16:30	190	0	90	0	280	0	207	82	0	289	0	0	0	0	0	0	250	96	0	346	915	0
16:45	182	0	70	0	252	0	225	100	0	325	0	0	0	0	0	0	238	96	0	334	911	0
Total	704	0	300	0	1004	0	870	374	0	1244	0	0	0	0	0	0	1027	383	0	1410	3658	0
17:00	169	0	87	0	256	0	253	103	0	356	0	0	0	0	0	0	255	97	0	352	964	0
17:15	163	0	86	0	249	0	244	98	0	342	0	0	0	0	0	0	246	93	0	339	930	0
17:30	167	0	76	0	243	0	234	96	0	330	0	0	0	0	0	0	221	81	0	302	875	0
17:45	160	0	70	0	230	0	203	95	0	298	0	0	0	0	0	0	187	87	0	274	802	0
Total	659	0	319	0	978	0	934	392	0	1326	0	0	0	0	0	0	909	358	0	1267	3571	0
Grand Total	1363	0	619	0	1982	0	1804	766	0	2570	0	0	0	0	0	0	1936	741	0	2677	7229	0
Apprch %	68.8%	0.0%	31.2%	0.0%		0.0%	70.2%	29.8%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	72.3%	27.7%	0.0%			
Total %	18.9%	0.0%	8.6%	0.0%	27.4%	0.0%	25.0%	10.6%	0.0%	35.6%	0.0%	0.0%	0.0%	0.0%		0.0%	26.8%	10.3%	0.0%	37.0%	100.0%	

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-007 US 101 SB Ramps-Tamalpais Drive.ppd

Date : 10/15/2015

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

Unshifted Count = All Vehicles

PM PEAK HOUR	US 101 SB Ramps Southbound					Tamalpais Drive Westbound					US 101 SB Ramps Northbound					Tamalpais Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	190	0	90	0	280	0	207	82	0	289	0	0	0	0	0	0	250	96	0	346	915
16:45	182	0	70	0	252	0	225	100	0	325	0	0	0	0	0	0	238	96	0	334	911
17:00	169	0	87	0	256	0	253	103	0	356	0	0	0	0	0	0	255	97	0	352	964
17:15	163	0	86	0	249	0	244	98	0	342	0	0	0	0	0	0	246	93	0	339	930
Total Volume	704	0	333	0	1037	0	929	383	0	1312	0	0	0	0	0	0	989	382	0	1371	3720
% App Total	67.9%	0.0%	32.1%	0.0%		0.0%	70.8%	29.2%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	72.1%	27.9%	0.0%		
PHF	.926	.000	.925	.000	.926	.000	.918	.930	.000	.921	.000	.000	.000	.000	.000	.000	.970	.985	.000	.974	.965

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-008 Town Center Entrance-Tamalpais Drive.ppd

Date : 10/15/2015

Unshifted Count = All Vehicles

START TIME	Town Center Entrance Southbound					Tamalpais Drive Westbound					Northbound					Tamalpais Drive Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
16:00	67	0	6	0	73	0	232	55	0	287	0	0	0	0	0	0	304	0	0	304	664	0
16:15	68	0	10	0	78	0	231	54	0	285	0	0	0	0	0	0	284	0	0	284	647	0
16:30	81	0	9	0	90	0	243	52	0	295	0	0	0	0	0	0	273	0	0	273	658	0
16:45	69	0	3	0	72	0	240	58	0	298	0	0	0	0	0	0	265	0	0	265	635	0
Total	285	0	28	0	313	0	946	219	0	1165	0	0	0	0	0	0	1126	0	0	1126	2604	0
17:00	96	0	7	0	103	0	265	71	0	336	0	0	0	0	0	0	260	0	0	260	699	0
17:15	73	0	11	0	84	0	261	68	0	329	0	0	0	0	0	0	264	0	0	264	677	0
17:30	66	0	11	0	77	0	261	51	0	312	0	0	0	0	0	0	233	0	0	233	622	0
17:45	81	0	8	0	89	0	219	55	0	274	0	0	0	0	0	0	190	0	0	190	553	0
Total	316	0	37	0	353	0	1006	245	0	1251	0	0	0	0	0	0	947	0	0	947	2551	0
Grand Total	601	0	65	0	666	0	1952	464	0	2416	0	0	0	0	0	0	2073	0	0	2073	5155	0
Apprch %	90.2%	0.0%	9.8%	0.0%		0.0%	80.8%	19.2%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%			
Total %	11.7%	0.0%	1.3%	0.0%	12.9%	0.0%	37.9%	9.0%	0.0%	46.9%	0.0%	0.0%	0.0%	0.0%		0.0%	40.2%	0.0%	0.0%	40.2%	100.0%	

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-008 Town Center Entrance-Tamalpais Drive.ppd

Date : 10/15/2015

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

Unshifted Count = All Vehicles

PM PEAK HOUR	Town Center Entrance Southbound					Tamalpais Drive Westbound					Northbound					Tamalpais Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
START TIME																					
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	81	0	9	0	90	0	243	52	0	295	0	0	0	0	0	0	273	0	0	273	658
16:45	69	0	3	0	72	0	240	58	0	298	0	0	0	0	0	0	265	0	0	265	635
17:00	96	0	7	0	103	0	265	71	0	336	0	0	0	0	0	0	260	0	0	260	699
17:15	73	0	11	0	84	0	261	68	0	329	0	0	0	0	0	0	264	0	0	264	677
Total Volume	319	0	30	0	349	0	1009	249	0	1258	0	0	0	0	0	0	1062	0	0	1062	2669
% App Total	91.4%	0.0%	8.6%	0.0%		0.0%	80.2%	19.8%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%		
PHF	.831	.000	.682	.000	.847	.000	.952	.877	.000	.936	.000	.000	.000	.000	.000	.000	.973	.000	.000	.973	.955

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-009 Madera Boulevard-Tamalpais Drive.ppd

Date : 10/15/2015

Unshifted Count = All Vehicles

START TIME	Madera Boulevard Southbound					Tamalpais Drive Westbound					Sanford Street Northbound					Tamalpais Drive Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
16:00	60	13	36	0	109	40	130	72	0	242	9	21	46	0	76	46	197	13	0	256	683	0
16:15	52	33	44	0	129	45	112	76	1	234	7	14	35	0	56	42	197	11	0	250	669	1
16:30	41	15	39	0	95	46	144	67	0	257	11	14	59	0	84	51	170	13	0	234	670	0
16:45	53	16	48	0	117	26	134	73	2	235	12	21	51	0	84	37	156	12	0	205	641	2
Total	206	77	167	0	450	157	520	288	3	968	39	70	191	0	300	176	720	49	0	945	2663	3
17:00	54	18	47	1	120	56	146	62	2	266	9	17	36	0	62	54	169	11	0	234	682	3
17:15	66	14	38	0	118	40	151	77	0	268	13	19	57	0	89	42	143	10	0	195	670	0
17:30	53	16	37	0	106	53	140	82	0	275	7	9	36	0	52	54	139	11	0	204	637	0
17:45	41	16	34	2	93	30	127	69	1	227	15	19	31	0	65	39	119	9	0	167	552	3
Total	214	64	156	3	437	179	564	290	3	1036	44	64	160	0	268	189	570	41	0	800	2541	6
Grand Total	420	141	323	3	887	336	1084	578	6	2004	83	134	351	0	568	365	1290	90	0	1745	5204	9
Apprch %	47.4%	15.9%	36.4%	0.3%		16.8%	54.1%	28.8%	0.3%		14.6%	23.6%	61.8%	0.0%		20.9%	73.9%	5.2%	0.0%			
Total %	8.1%	2.7%	6.2%	0.1%	17.0%	6.5%	20.8%	11.1%	0.1%	38.5%	1.6%	2.6%	6.7%	0.0%	10.9%	7.0%	24.8%	1.7%	0.0%	33.5%	100.0%	

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-009 Madera Boulevard-Tamalpais Drive.ppd

Date : 10/15/2015

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

Unshifted Count = All Vehicles

PM PEAK HOUR	Madera Boulevard Southbound					Tamalpais Drive Westbound					Sanford Street Northbound					Tamalpais Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	60	13	36	0	109	40	130	72	0	242	9	21	46	0	76	46	197	13	0	256	683
16:15	52	33	44	0	129	45	112	76	1	234	7	14	35	0	56	42	197	11	0	250	669
16:30	41	15	39	0	95	46	144	67	0	257	11	14	59	0	84	51	170	13	0	234	670
16:45	53	16	48	0	117	26	134	73	2	235	12	21	51	0	84	37	156	12	0	205	641
Total Volume	206	77	167	0	450	157	520	288	3	968	39	70	191	0	300	176	720	49	0	945	2663
% App Total	45.8%	17.1%	37.1%	0.0%		16.2%	53.7%	29.8%	0.3%		13.0%	23.3%	63.7%	0.0%		18.6%	76.2%	5.2%	0.0%		
PHF	.858	.583	.870	.000	.872	.853	.903	.947	.375	.942	.813	.833	.809	.000	.893	.863	.914	.942	.000	.923	.975

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-010 North Village Entrance-Redwood Highway.ppc

Date : 10/15/2015

Unshifted Count = All Vehicles

START TIME	North Village Entrance Southbound					Redwood Highway Westbound					Northbound					Redwood Highway Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
14:00	0	0	0	0	0	2	70	0	0	72	5	0	8	0	13	0	29	10	0	39	124	0
14:15	0	0	0	0	0	3	98	0	0	101	10	0	2	0	12	0	31	7	0	38	151	0
14:30	0	0	0	0	0	1	80	0	1	82	7	0	3	0	10	0	44	10	1	55	147	2
14:45	0	0	0	0	0	4	77	0	0	81	12	0	3	0	15	0	49	8	0	57	153	0
Total	0	0	0	0	0	10	325	0	1	336	34	0	16	0	50	0	153	35	1	189	575	2
15:00	0	0	0	0	0	1	109	0	0	110	9	0	5	0	14	0	31	12	0	43	167	0
15:15	0	0	0	0	0	1	108	0	0	109	6	0	8	0	14	0	34	5	0	39	162	0
15:30	0	0	0	0	0	3	84	0	0	87	12	0	2	0	14	0	35	5	0	40	141	0
15:45	0	0	0	0	0	3	83	0	0	86	9	0	6	0	15	0	33	7	1	41	142	1
Total	0	0	0	0	0	8	384	0	0	392	36	0	21	0	57	0	133	29	1	163	612	1
Grand Total	0	0	0	0	0	18	709	0	1	728	70	0	37	0	107	0	286	64	2	352	1187	3
Apprch %	0.0%	0.0%	0.0%	0.0%		2.5%	97.4%	0.0%	0.1%		65.4%	0.0%	34.6%	0.0%		0.0%	81.3%	18.2%	0.6%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	59.7%	0.0%	0.1%	61.3%	5.9%	0.0%	3.1%	0.0%	9.0%	0.0%	24.1%	5.4%	0.2%	29.7%	100.0%	

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles on Unshifted
 Peds & Bikes on Bank 1
 Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7802-010 North Village Entrance-Redwood Highway.ppc

Date : 10/15/2015

Unshifted Count = All Vehicles

PM PEAK HOUR	North Village Entrance Southbound					Redwood Highway Westbound					Redwood Highway Northbound					Redwood Highway Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
START TIME																					
Peak Hour Analysis From 14:30 to 15:30																					
Peak Hour For Entire Intersection Begins at 14:30																					
14:30	0	0	0	0	0	1	80	0	1	82	7	0	3	0	10	0	44	10	1	55	147
14:45	0	0	0	0	0	4	77	0	0	81	12	0	3	0	15	0	49	8	0	57	153
15:00	0	0	0	0	0	1	109	0	0	110	9	0	5	0	14	0	31	12	0	43	167
15:15	0	0	0	0	0	1	108	0	0	109	6	0	8	0	14	0	34	5	0	39	162
Total Volume	0	0	0	0	0	7	374	0	1	382	34	0	19	0	53	0	158	35	1	194	629
% App Total	0.0%	0.0%	0.0%	0.0%		1.8%	97.9%	0.0%	0.3%		64.2%	0.0%	35.8%	0.0%		0.0%	81.4%	18.0%	0.5%		
PHF	.000	.000	.000	.000	.000	.438	.858	.000	.250	.868	.708	.000	.594	.000	.883	.000	.806	.729	.250	.851	.942

National Data and Surveying Services

City of Corte Madera
 All Vehicles & Uturns On Unshifted
 Nothing On Bank 1
 Nothing On Bank 2

(323) 782-0090
info@ndsdata.com

File Name : 17-7141-001 Redwood Hwy & Industrial Way
 Date : 2/23/2017

Unshifted Count = All Vehicles & Uturns

START TIME	Redwood Hwy Southbound					Industrial Way Westbound					Redwood Hwy Northbound					Industrial Way Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
16:00	0	11	22	0	33	6	15	2	0	23	142	30	21	0	193	0	0	0	0	0	249	0
16:15	1	4	17	0	22	13	12	1	0	26	121	16	13	0	150	0	0	0	0	0	198	0
16:30	0	8	8	0	16	7	15	0	0	22	126	25	9	0	160	0	0	0	0	0	198	0
16:45	0	10	9	0	19	11	5	0	0	16	103	17	12	0	132	0	0	0	0	0	167	0
Total	1	33	56	0	90	37	47	3	0	87	492	88	55	0	635	0	0	0	0	0	812	0
17:00	1	7	22	0	30	6	12	2	0	20	136	29	12	0	177	0	0	0	0	0	227	0
17:15	0	4	13	0	17	6	15	1	0	22	102	12	7	0	121	0	0	0	0	0	160	0
17:30	0	5	21	0	26	5	3	1	0	9	129	22	4	0	155	0	0	0	0	0	190	0
17:45	0	12	12	0	24	7	4	2	0	13	107	22	10	0	139	0	0	0	0	0	176	0
Total	1	28	68	0	97	24	34	6	0	64	474	85	33	0	592	0	0	0	0	0	753	0
Grand Total	2	61	124	0	187	61	81	9	0	151	966	173	88	0	1227	0	0	0	0	0	1565	0
Apprch %	1.1%	32.6%	66.3%	0.0%		40.4%	53.6%	6.0%	0.0%		78.7%	14.1%	7.2%	0.0%		0.0%	0.0%	0.0%	0.0%			
Total %	0.1%	3.9%	7.9%	0.0%	11.9%	3.9%	5.2%	0.6%	0.0%	9.6%	61.7%	11.1%	5.6%	0.0%	78.4%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

PM PEAK HOUR	Redwood Hwy Southbound					Industrial Way Westbound					Redwood Hwy Northbound					Industrial Way Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	0	11	22	0	33	6	15	2	0	23	142	30	21	0	193	0	0	0	0	0	249
16:15	1	4	17	0	22	13	12	1	0	26	121	16	13	0	150	0	0	0	0	0	198
16:30	0	8	8	0	16	7	15	0	0	22	126	25	9	0	160	0	0	0	0	0	198
16:45	0	10	9	0	19	11	5	0	0	16	103	17	12	0	132	0	0	0	0	0	167
Total Volume	1	33	56	0	90	37	47	3	0	87	492	88	55	0	635	0	0	0	0	0	812
% App Total	1.1%	36.7%	62.2%	0.0%		42.5%	54.0%	3.4%	0.0%		77.5%	13.9%	8.7%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.250	.750	.636	.000	.682	.712	.783	.375	.000	.837	.866	.733	.655	.000	.823	.000	.000	.000	.000	.000	.815

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles & Uturns On Unshifted
 Nothing On Bank 1
 Nothing On Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 16-7106-001 Tamal Vista Boulevard & Fifer Avenue
 Date : 2/25/2016

Unshifted Count = All Vehicles & Uturns

START TIME	Tamal Vista Boulevard Southbound					Fifer Avenue Westbound					Tamal Vista Boulevard Northbound					Fifer Avenue Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
14:00	5	7	0	0	12	98	46	0	0	144	76	6	20	0	102	0	31	66	0	97	355	0
14:15	5	8	0	0	13	84	95	3	0	182	78	2	23	0	103	0	62	72	0	134	432	0
14:30	7	7	2	0	16	80	71	1	0	152	59	5	22	0	86	1	103	118	0	222	476	0
14:45	6	8	1	0	15	75	60	0	0	135	64	4	15	0	83	0	73	112	0	185	418	0
Total	23	30	3	0	56	337	272	4	0	613	277	17	80	0	374	1	269	368	0	638	1681	0
15:00	3	5	2	0	10	73	58	0	0	131	86	4	25	0	115	2	45	55	0	102	358	0
15:15	3	4	4	0	11	65	65	2	0	132	84	7	16	0	107	0	49	92	0	141	391	0
15:30	6	8	0	0	14	76	49	0	0	125	69	4	16	0	89	2	79	104	0	185	413	0
15:45	4	3	0	0	7	78	66	1	0	145	85	5	21	0	111	0	59	67	0	126	389	0
Total	16	20	6	0	42	292	238	3	0	533	324	20	78	0	422	4	232	318	0	554	1551	0
16:00	7	0	3	0	10	77	65	1	0	143	75	8	17	0	100	0	57	80	0	137	390	0
16:15	7	7	4	0	18	83	65	3	0	151	89	7	14	0	110	1	41	70	0	112	391	0
16:30	5	2	1	0	8	85	48	1	0	134	101	6	16	0	123	1	48	82	0	131	396	0
16:45	8	3	3	0	14	67	57	3	0	127	88	8	24	0	120	0	62	58	0	120	381	0
Total	27	12	11	0	50	312	235	8	0	555	353	29	71	0	453	2	208	290	0	500	1558	0
17:00	7	10	2	0	19	50	74	0	0	124	103	3	18	0	124	1	35	61	0	97	364	0
17:15	8	5	3	0	16	42	66	1	0	109	134	7	22	0	163	0	47	57	0	104	392	0
17:30	8	9	2	0	19	66	83	1	0	150	115	7	19	0	141	0	52	64	0	116	426	0
17:45	6	3	3	0	12	52	75	1	0	128	115	7	18	0	140	0	47	42	0	89	369	0
Total	29	27	10	0	66	210	298	3	0	511	467	24	77	0	568	1	181	224	0	406	1551	0
Grand Total	95	89	30	0	214	1151	1043	18	0	2212	1421	90	306	0	1817	8	890	1200	0	2098	6341	0
Apprch %	44.4%	41.6%	14.0%	0.0%		52.0%	47.2%	0.8%	0.0%		78.2%	5.0%	16.8%	0.0%		0.4%	42.4%	57.2%	0.0%			
Total %	1.5%	1.4%	0.5%	0.0%	3.4%	18.2%	16.4%	0.3%	0.0%	34.9%	22.4%	1.4%	4.8%	0.0%	28.7%	0.1%	14.0%	18.9%	0.0%	33.1%	100.0%	

NOON PEAK START TIME	Tamal Vista Boulevard Southbound					Fifer Avenue Westbound					Tamal Vista Boulevard Northbound					Fifer Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
Peak Hour Analysis From 14:15 to 15:15																						
Peak Hour For Entire Intersection Begins at 14:15																						
14:15	5	8	0	0	13	84	95	3	0	182	78	2	23	0	103	0	62	72	0	134	432	
14:30	7	7	2	0	16	80	71	1	0	152	59	5	22	0	86	1	103	118	0	222	476	
14:45	6	8	1	0	15	75	60	0	0	135	64	4	15	0	83	0	73	112	0	185	418	
15:00	3	5	2	0	10	73	58	0	0	131	86	4	25	0	115	2	45	55	0	102	358	
Total Volume	21	28	5	0	54	312	284	4	0	600	287	15	85	0	387	3	283	357	0	643	1684	
% App Total	38.9%	51.9%	9.3%	0.0%		52.0%	47.3%	0.7%	0.0%		74.2%	3.9%	22.0%	0.0%		0.5%	44.0%	55.5%	0.0%			
PHF	.750	.875	.625	.000	.844	.929	.747	.333	.000	.824	.834	.750	.850	.000	.841	.375	.687	.756	.000	.724	.884	

PM PEAK START TIME	Tamal Vista Boulevard Southbound					Fifer Avenue Westbound					Tamal Vista Boulevard Northbound					Fifer Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
Peak Hour Analysis From 16:45 to 17:45																						
Peak Hour For Entire Intersection Begins at 16:45																						
16:45	8	3	3	0	14	67	57	3	0	127	88	8	24	0	120	0	62	58	0	120	381	
17:00	7	10	2	0	19	50	74	0	0	124	103	3	18	0	124	1	35	61	0	97	364	
17:15	8	5	3	0	16	42	66	1	0	109	134	7	22	0	163	0	47	57	0	104	392	
17:30	8	9	2	0	19	66	83	1	0	150	115	7	19	0	141	0	52	64	0	116	426	
Total Volume	31	27	10	0	68	225	280	5	0	510	440	25	83	0	548	1	196	240	0	437	1563	
% App Total	45.6%	39.7%	14.7%	0.0%		44.1%	54.9%	1.0%	0.0%		80.3%	4.6%	15.1%	0.0%		0.2%	44.9%	54.9%	0.0%			
PHF	.969	.675	.833	.000	.895	.840	.843	.417	.000	.850	.821	.781	.865	.000	.840	.250	.790	.938	.000	.910	.917	

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles & Uturns On Unshifted
 Nothing On Bank 1
 Nothing On Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 16-7106-002 Tamal Vista Boulevard & Wornum Drive
 Date : 2/25/2016

Unshifted Count = All Vehicles & Uturns

START TIME	Tamal Vista Boulevard Southbound					Wornum Drive Westbound					Tamal Vista Boulevard Northbound					Wornum Drive Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
14:00	134	52	0	0	186	32	0	55	0	87	0	62	59	0	121	0	0	0	0	0	394	0
14:15	96	75	0	0	171	22	0	70	0	92	0	63	65	0	128	0	0	0	0	0	391	0
14:30	142	80	0	0	222	33	0	53	0	86	0	38	63	0	101	0	0	0	0	0	409	0
14:45	126	70	0	0	196	29	0	56	0	85	0	46	67	0	113	0	0	0	0	0	394	0
Total	498	277	0	0	775	116	0	234	0	350	0	209	254	0	463	0	0	0	0	0	1588	0
15:00	131	57	0	0	188	35	0	50	0	85	0	71	68	0	139	0	0	0	0	0	412	0
15:15	107	62	0	0	169	30	0	57	0	87	0	78	58	0	136	0	0	0	0	0	392	0
15:30	143	66	0	0	209	19	0	34	0	53	0	71	51	0	122	0	0	0	0	0	384	0
15:45	118	59	0	0	177	13	0	41	0	54	0	75	42	0	117	0	0	0	0	0	348	0
Total	499	244	0	0	743	97	0	182	0	279	0	295	219	0	514	0	0	0	0	0	1536	0
16:00	111	62	0	0	173	22	0	40	0	62	0	66	46	0	112	0	0	0	0	0	347	0
16:15	106	62	0	0	168	18	0	45	0	63	0	86	43	0	129	0	0	0	0	0	360	0
16:30	117	102	0	0	219	26	0	45	0	71	0	74	44	0	118	0	0	0	0	0	408	0
16:45	80	79	0	0	159	18	0	42	0	60	0	68	35	0	103	0	0	0	0	0	322	0
Total	414	305	0	0	719	84	0	172	0	256	0	294	168	0	462	0	0	0	0	0	1437	0
17:00	75	73	0	1	149	17	0	46	0	63	0	81	47	0	128	0	0	0	0	0	340	1
17:15	72	55	0	0	127	18	0	49	0	67	0	113	37	0	150	0	0	0	0	0	344	0
17:30	80	84	0	0	164	17	0	56	0	73	0	77	31	0	108	0	0	0	0	0	345	0
17:45	57	56	0	0	113	20	0	64	0	84	0	84	41	0	125	0	0	0	0	0	322	0
Total	284	268	0	1	553	72	0	215	0	287	0	355	156	0	511	0	0	0	0	0	1351	1
Grand Total	1695	1094	0	1	2790	369	0	803	0	1172	0	1153	797	0	1950	0	0	0	0	0	5912	1
Apprch %	60.8%	39.2%	0.0%	0.0%		31.5%	0.0%	68.5%	0.0%		0.0%	59.1%	40.9%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%		
Total %	28.7%	18.5%	0.0%	0.0%	47.2%	6.2%	0.0%	13.6%	0.0%	19.8%	0.0%	19.5%	13.5%	0.0%	33.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

NOON PEAK START TIME	Tamal Vista Boulevard Southbound					Wornum Drive Westbound					Tamal Vista Boulevard Northbound					Wornum Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 14:30 to 15:30																					
Peak Hour For Entire Intersection Begins at 14:30																					
14:30	142	80	0	0	222	33	0	53	0	86	0	38	63	0	101	0	0	0	0	0	409
14:45	126	70	0	0	196	29	0	56	0	85	0	46	67	0	113	0	0	0	0	0	394
15:00	131	57	0	0	188	35	0	50	0	85	0	71	68	0	139	0	0	0	0	0	412
15:15	107	62	0	0	169	30	0	57	0	87	0	78	58	0	136	0	0	0	0	0	392
Total Volume	506	269	0	0	775	127	0	216	0	343	0	233	256	0	489	0	0	0	0	0	1607
% App Total	65.3%	34.7%	0.0%	0.0%		37.0%	0.0%	63.0%	0.0%		0.0%	47.6%	52.4%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	
PHF	.891	.841	.000	.000	.873	.907	.000	.947	.000	.986	.000	.747	.941	.000	.879	.000	.000	.000	.000	.000	.975

PM PEAK START TIME	Tamal Vista Boulevard Southbound					Wornum Drive Westbound					Tamal Vista Boulevard Northbound					Wornum Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	111	62	0	0	173	22	0	40	0	62	0	66	46	0	112	0	0	0	0	0	347
16:15	106	62	0	0	168	18	0	45	0	63	0	86	43	0	129	0	0	0	0	0	360
16:30	117	102	0	0	219	26	0	45	0	71	0	74	44	0	118	0	0	0	0	0	408
16:45	80	79	0	0	159	18	0	42	0	60	0	68	35	0	103	0	0	0	0	0	322
Total Volume	414	305	0	0	719	84	0	172	0	256	0	294	168	0	462	0	0	0	0	0	1437
% App Total	57.6%	42.4%	0.0%	0.0%		32.8%	0.0%	67.2%	0.0%		0.0%	63.6%	36.4%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	
PHF	.885	.748	.000	.000	.821	.808	.000	.956	.000	.901	.000	.855	.913	.000	.895	.000	.000	.000	.000	.000	.881

ALL TRAFFIC DATA

City of Corte Madera
 All Vehicles & Uturns On Unshifted
 Nothing On Bank 1
 Nothing On Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 16-7106-003 Nellen Avenue & Wornum Drive
 Date : 2/25/2016

Unshifted Count = All Vehicles & Uturns

START TIME	Nellen Avenue Southbound					Wornum Drive Westbound					Nellen Avenue Northbound					Wornum Drive Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
14:00	1	0	1	0	2	0	84	0	1	85	0	0	0	0	0	2	188	0	0	190	277	1
14:15	5	0	3	0	8	0	89	0	0	89	0	0	0	0	0	1	159	0	0	160	257	0
14:30	3	0	3	0	6	0	82	0	0	82	0	0	0	0	0	2	204	0	0	206	294	0
14:45	3	0	3	0	6	0	81	0	1	82	0	0	0	0	0	2	184	0	0	186	274	1
Total	12	0	10	0	22	0	336	0	2	338	0	0	0	0	0	7	735	0	0	742	1102	2
15:00	2	0	2	0	4	0	87	1	0	88	0	0	0	0	0	3	204	0	0	207	299	0
15:15	4	0	2	0	6	0	80	0	0	80	0	0	0	0	0	1	166	0	0	167	253	0
15:30	14	0	0	0	14	0	55	1	1	57	0	0	0	0	0	0	193	0	0	193	264	1
15:45	2	0	3	0	5	0	52	1	0	53	0	0	0	0	0	2	160	0	0	162	220	0
Total	22	0	7	0	29	0	274	3	1	278	0	0	0	0	0	6	723	0	0	729	1036	1
16:00	2	0	2	0	4	0	60	1	0	61	0	0	0	0	0	3	155	0	0	158	223	0
16:15	2	0	3	0	5	0	61	1	0	62	0	0	0	0	0	0	148	0	1	149	216	1
16:30	8	0	3	0	11	0	68	0	0	68	0	0	0	0	0	1	169	0	0	170	249	0
16:45	2	0	0	0	2	0	62	1	0	63	0	0	0	0	0	2	108	0	0	110	175	0
Total	14	0	8	0	22	0	251	3	0	254	0	0	0	0	0	6	580	0	1	587	863	1
17:00	0	0	1	0	1	0	64	0	1	65	0	0	0	0	0	1	123	0	0	124	190	1
17:15	3	0	2	0	5	0	62	0	0	62	0	0	0	0	0	0	108	0	0	108	175	0
17:30	2	0	1	0	3	0	71	0	0	71	0	0	0	0	0	0	100	0	3	103	177	3
17:45	1	0	2	0	3	0	70	0	1	71	0	0	0	0	0	1	90	0	2	93	167	3
Total	6	0	6	0	12	0	267	0	2	269	0	0	0	0	0	2	421	0	5	428	709	7
Grand Total	54	0	31	0	85	0	1128	6	5	1139	0	0	0	0	0	21	2459	0	6	2486	3710	11
Apprch %	63.5%	0.0%	36.5%	0.0%		0.0%	99.0%	0.5%	0.4%		0.0%	0.0%	0.0%	0.0%		0.8%	98.9%	0.0%	0.2%			
Total %	1.5%	0.0%	0.8%	0.0%	2.3%	0.0%	30.4%	0.2%	0.1%	30.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	66.3%	0.0%	0.2%	67.0%	100.0%	

NOON PEAK START TIME	Nellen Avenue Southbound					Wornum Drive Westbound					Nellen Avenue Northbound					Wornum Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 14:15 to 15:15																					
Peak Hour For Entire Intersection Begins at 14:15																					
14:15	5	0	3	0	8	0	89	0	0	89	0	0	0	0	0	1	159	0	0	160	257
14:30	3	0	3	0	6	0	82	0	0	82	0	0	0	0	0	2	204	0	0	206	294
14:45	3	0	3	0	6	0	81	0	1	82	0	0	0	0	0	2	184	0	0	186	274
15:00	2	0	2	0	4	0	87	1	0	88	0	0	0	0	0	3	204	0	0	207	299
Total Volume	13	0	11	0	24	0	339	1	1	341	0	0	0	0	0	8	751	0	0	759	1124
% App Total	54.2%	0.0%	45.8%	0.0%		0.0%	99.4%	0.3%	0.3%		0.0%	0.0%	0.0%	0.0%		1.1%	98.9%	0.0%	0.0%		
PHF	.650	.000	.917	.000	.750	.000	.952	.250	.250	.958	.000	.000	.000	.000	.000	.667	.920	.000	.000	.917	.940

PM PEAK START TIME	Nellen Avenue Southbound					Wornum Drive Westbound					Nellen Avenue Northbound					Wornum Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	2	0	2	0	4	0	60	1	0	61	0	0	0	0	0	3	155	0	0	158	223
16:15	2	0	3	0	5	0	61	1	0	62	0	0	0	0	0	0	148	0	1	149	216
16:30	8	0	3	0	11	0	68	0	0	68	0	0	0	0	0	1	169	0	0	170	249
16:45	2	0	0	0	2	0	62	1	0	63	0	0	0	0	0	2	108	0	0	110	175
Total Volume	14	0	8	0	22	0	251	3	0	254	0	0	0	0	0	6	580	0	1	587	863
% App Total	63.6%	0.0%	36.4%	0.0%		0.0%	98.8%	1.2%	0.0%		0.0%	0.0%	0.0%	0.0%		1.0%	98.8%	0.0%	0.2%		
PHF	.438	.000	.667	.000	.500	.000	.923	.750	.000	.934	.000	.000	.000	.000	.000	.500	.858	.000	.250	.863	.866

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7885-001 Redwood Highway & Southeast Village Entrance

Date : 11/7/2015

City of Corte Madera
All Vehicles & Uturns On Unshifted
Nothing On Bank 1
Nothing On Bank 2

Unshifted Count = All Vehicles & Uturns

START TIME	Redwood Highway Southbound					Southeast Village Entrance Westbound					Redwood Highway Northbound					Southeast Village Entrance Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
13:00	0	83	4	0	87	0	0	0	0	0	134	137	0	4	275	16	0	109	0	125	487	4
13:15	0	88	5	0	93	0	0	0	0	0	134	128	0	8	270	7	0	125	0	132	495	8
13:30	0	79	3	0	82	0	0	0	0	0	136	117	0	5	258	11	0	124	0	135	475	5
13:45	0	92	5	0	97	0	0	0	0	0	156	128	0	6	290	11	0	123	1	135	522	7
Total	0	342	17	0	359	0	0	0	0	0	560	510	0	23	1093	45	0	481	1	527	1979	24
14:00	0	90	4	0	94	0	0	0	0	0	152	112	0	11	275	4	0	128	0	132	501	11
14:15	0	79	1	0	80	0	0	0	0	0	147	105	0	8	260	7	0	120	0	127	467	8
14:30	0	97	1	0	98	0	0	0	0	0	142	88	0	7	237	11	0	109	0	120	455	7
14:45	0	100	3	0	103	0	0	0	0	0	158	105	0	2	265	20	0	102	0	122	490	2
Total	0	366	9	0	375	0	0	0	0	0	599	410	0	28	1037	42	0	459	0	501	1913	28
Grand Total	0	708	26	0	734	0	0	0	0	0	1159	920	0	51	2130	87	0	940	1	1028	3892	52
Apprch %	0.0%	96.5%	3.5%	0.0%		0.0%	0.0%	0.0%	0.0%		54.4%	43.2%	0.0%	2.4%		8.5%	0.0%	91.4%	0.1%			
Total %	0.0%	18.2%	0.7%	0.0%	18.9%	0.0%	0.0%	0.0%	0.0%	0.0%	29.8%	23.6%	0.0%	1.3%	54.7%	2.2%	0.0%	24.2%	0.0%	26.4%	100.0%	

NOON PEAK	Redwood Highway Southbound					Southeast Village Entrance Westbound					Redwood Highway Northbound					Southeast Village Entrance Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 13:15 to 14:15																					
Peak Hour For Entire Intersection Begins at 13:15																					
13:15	0	88	5	0	93	0	0	0	0	0	134	128	0	8	270	7	0	125	0	132	495
13:30	0	79	3	0	82	0	0	0	0	0	136	117	0	5	258	11	0	124	0	135	475
13:45	0	92	5	0	97	0	0	0	0	0	156	128	0	6	290	11	0	123	1	135	522
14:00	0	90	4	0	94	0	0	0	0	0	152	112	0	11	275	4	0	128	0	132	501
Total Volume	0	349	17	0	366	0	0	0	0	0	578	485	0	30	1093	33	0	500	1	534	1993
% App Total	0.0%	95.4%	4.6%	0.0%		0.0%	0.0%	0.0%	0.0%		52.9%	44.4%	0.0%	2.7%		6.2%	0.0%	93.6%	0.2%		
PHF	.000	.948	.850	.000	.943	.000	.000	.000	.000	.000	.926	.947	.000	.682	.942	.750	.000	.977	.250	.989	.955

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7885-002 Redwood Highway & East Village Entrance

Date : 11/7/2015

City of Corte Madera
 All Vehicles & Uturns On Unshifted
 Nothing On Bank 1
 Nothing On Bank 2

Unshifted Count = All Vehicles & Uturns

START TIME	Redwood Highway Southbound					East Village Entrance Westbound					Redwood Highway Northbound					East Village Entrance Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
13:00	0	45	6	0	51	0	0	0	0	0	65	83	0	4	152	18	0	40	0	58	261	4
13:15	0	43	6	0	49	0	0	0	0	0	72	63	0	1	136	9	0	47	0	56	241	1
13:30	0	28	1	0	29	0	0	0	0	0	66	61	0	0	127	10	0	55	0	65	221	0
13:45	0	56	2	0	58	0	0	0	0	0	70	70	0	0	140	7	0	39	0	46	244	0
Total	0	172	15	0	187	0	0	0	0	0	273	277	0	5	555	44	0	181	0	225	967	5
14:00	0	47	5	0	52	0	0	0	0	0	55	59	0	0	114	12	0	45	0	57	223	0
14:15	0	34	5	0	39	0	0	0	0	0	58	53	0	1	112	12	0	52	0	64	215	1
14:30	0	41	5	0	46	0	0	0	0	0	50	49	0	2	101	20	0	52	0	72	219	2
14:45	0	44	1	0	45	0	0	0	0	0	57	65	0	1	123	17	0	55	0	72	240	1
Total	0	166	16	0	182	0	0	0	0	0	220	226	0	4	450	61	0	204	0	265	897	4
Grand Total	0	338	31	0	369	0	0	0	0	0	493	503	0	9	1005	105	0	385	0	490	1864	9
Apprch %	0.0%	91.6%	8.4%	0.0%		0.0%	0.0%	0.0%	0.0%		49.1%	50.0%	0.0%	0.9%		21.4%	0.0%	78.6%	0.0%			
Total %	0.0%	18.1%	1.7%	0.0%	19.8%	0.0%	0.0%	0.0%	0.0%	0.0%	26.4%	27.0%	0.0%	0.5%	53.9%	5.6%	0.0%	20.7%	0.0%	26.3%	100.0%	

NOON PEAK	Redwood Highway Southbound					East Village Entrance Westbound					Redwood Highway Northbound					East Village Entrance Eastbound					Total	
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
Peak Hour Analysis From 13:00 to 14:00																						
Peak Hour For Entire Intersection Begins at 13:00																						
13:00	0	45	6	0	51	0	0	0	0	0	65	83	0	4	152	18	0	40	0	58	261	
13:15	0	43	6	0	49	0	0	0	0	0	72	63	0	1	136	9	0	47	0	56	241	
13:30	0	28	1	0	29	0	0	0	0	0	66	61	0	0	127	10	0	55	0	65	221	
13:45	0	56	2	0	58	0	0	0	0	0	70	70	0	0	140	7	0	39	0	46	244	
Total Volume	0	172	15	0	187	0	0	0	0	0	273	277	0	5	555	44	0	181	0	225	967	
% App Total	0.0%	92.0%	8.0%	0.0%		0.0%	0.0%	0.0%	0.0%		49.2%	49.9%	0.0%	0.9%		19.6%	0.0%	80.4%	0.0%			
PHF	.000	.768	.625	.000	.806	.000	.000	.000	.000	.000	.948	.834	.000	.313	.913	.611	.000	.823	.000	.865	.926	

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7885-003 Northeast Village Entrance & Redwood Highway

Date : 11/7/2015

City of Corte Madera
All Vehicles & Uturns On Unshifted
Nothing On Bank 1
Nothing On Bank 2

Unshifted Count = All Vehicles & Uturns

START TIME	Northeast Village Entrance Southbound					Redwood Highway Westbound					Northeast Village Entrance Northbound					Redwood Highway Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
13:00	7	1	6	0	14	13	95	4	0	112	28	24	20	0	72	3	24	34	0	61	259	0
13:15	7	5	11	0	23	13	54	4	1	72	26	28	11	0	65	8	22	42	0	72	232	1
13:30	6	2	11	0	19	8	60	4	0	72	31	16	4	0	51	5	17	24	0	46	188	0
13:45	11	3	4	0	18	11	66	1	0	78	37	23	16	0	76	7	25	35	0	67	239	0
Total	31	11	32	0	74	45	275	13	1	334	122	91	51	0	264	23	88	135	0	246	918	1
14:00	7	6	7	0	20	10	55	4	0	69	25	21	15	0	61	1	27	26	0	54	204	0
14:15	8	5	9	0	22	7	68	2	0	77	23	20	13	0	56	4	14	30	1	49	204	1
14:30	7	1	9	0	17	10	63	2	0	75	20	27	16	0	63	0	18	31	0	49	204	0
14:45	7	0	12	0	19	10	73	1	0	84	31	6	14	1	52	3	18	36	0	57	212	1
Total	29	12	37	0	78	37	259	9	0	305	99	74	58	1	232	8	77	123	1	209	824	2
Grand Total	60	23	69	0	152	82	534	22	1	639	221	165	109	1	496	31	165	258	1	455	1742	3
Apprch %	39.5%	15.1%	45.4%	0.0%		12.8%	83.6%	3.4%	0.2%		44.6%	33.3%	22.0%	0.2%		6.8%	36.3%	56.7%	0.2%			
Total %	3.4%	1.3%	4.0%	0.0%	8.7%	4.7%	30.7%	1.3%	0.1%	36.7%	12.7%	9.5%	6.3%	0.1%	28.5%	1.8%	9.5%	14.8%	0.1%	26.1%	100.0%	

NOON PEAK	Northeast Village Entrance Southbound					Redwood Highway Westbound					Northeast Village Entrance Northbound					Redwood Highway Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 13:00 to 14:00																					
Peak Hour For Entire Intersection Begins at 13:00																					
13:00	7	1	6	0	14	13	95	4	0	112	28	24	20	0	72	3	24	34	0	61	259
13:15	7	5	11	0	23	13	54	4	1	72	26	28	11	0	65	8	22	42	0	72	232
13:30	6	2	11	0	19	8	60	4	0	72	31	16	4	0	51	5	17	24	0	46	188
13:45	11	3	4	0	18	11	66	1	0	78	37	23	16	0	76	7	25	35	0	67	239
Total Volume	31	11	32	0	74	45	275	13	1	334	122	91	51	0	264	23	88	135	0	246	918
% App Total	41.9%	14.9%	43.2%	0.0%		13.5%	82.3%	3.9%	0.3%		46.2%	34.5%	19.3%	0.0%		9.3%	35.8%	54.9%	0.0%		
PHF	.705	.550	.727	.000	.804	.865	.724	.813	.250	.746	.824	.813	.638	.000	.868	.719	.880	.804	.000	.854	.886

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 15-7885-004 North Village Entrance & Redwood Highway

Date : 11/7/2015

City of Corte Madera
All Vehicles & Uturns On Unshifted
Nothing On Bank 1
Nothing On Bank 2

Unshifted Count = All Vehicles & Uturns

START TIME	North Village Entrance Southbound					Redwood Highway Westbound					North Village Entrance Northbound					Redwood Highway Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
13:00	0	0	0	0	0	14	113	0	0	127	7	0	9	0	16	0	55	15	0	70	213	0
13:15	0	0	0	0	0	3	86	0	1	90	5	0	6	0	11	0	62	12	0	74	175	1
13:30	0	0	0	0	0	8	95	0	0	103	6	0	9	0	15	0	37	12	0	49	167	0
13:45	0	0	0	0	0	12	92	0	1	105	7	0	9	0	16	0	61	13	0	74	195	1
Total	0	0	0	0	0	37	386	0	2	425	25	0	33	0	58	0	215	52	0	267	750	2
14:00	0	0	0	0	0	6	80	0	0	86	11	0	5	0	16	0	44	10	0	54	156	0
14:15	0	0	0	0	0	8	95	0	0	103	16	0	6	0	22	0	44	13	0	57	182	0
14:30	0	0	0	0	0	7	82	0	0	89	10	0	6	0	16	0	42	16	0	58	163	0
14:45	0	0	0	0	0	9	109	0	0	118	7	0	6	0	13	0	51	13	0	64	195	0
Total	0	0	0	0	0	30	366	0	0	396	44	0	23	0	67	0	181	52	0	233	696	0
Grand Total	0	0	0	0	0	67	752	0	2	821	69	0	56	0	125	0	396	104	0	500	1446	2
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	8.2%	91.6%	0.0%	0.2%	56.8%	55.2%	0.0%	44.8%	0.0%	8.6%	0.0%	79.2%	20.8%	0.0%	34.6%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	52.0%	0.0%	0.1%	56.8%	4.8%	0.0%	3.9%	0.0%	8.6%	0.0%	27.4%	7.2%	0.0%	34.6%	100.0%	

NOON PEAK	North Village Entrance Southbound					Redwood Highway Westbound					North Village Entrance Northbound					Redwood Highway Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 13:00 to 14:00																					
Peak Hour For Entire Intersection Begins at 13:00																					
13:00	0	0	0	0	0	14	113	0	0	127	7	0	9	0	16	0	55	15	0	70	213
13:15	0	0	0	0	0	3	86	0	1	90	5	0	6	0	11	0	62	12	0	74	175
13:30	0	0	0	0	0	8	95	0	0	103	6	0	9	0	15	0	37	12	0	49	167
13:45	0	0	0	0	0	12	92	0	1	105	7	0	9	0	16	0	61	13	0	74	195
Total Volume	0	0	0	0	0	37	386	0	2	425	25	0	33	0	58	0	215	52	0	267	750
% App Total	0.0%	0.0%	0.0%	0.0%	0.0%	8.7%	90.8%	0.0%	0.5%	56.8%	43.1%	0.0%	56.9%	0.0%	8.6%	0.0%	80.5%	19.5%	0.0%	34.6%	100.0%
PHF	.000	.000	.000	.000	.000	.661	.854	.000	.500	.837	.893	.000	.917	.000	.906	.000	.867	.867	.000	.902	.880

Appendix B

Traffic Volumes

Intersection Number: **1**
 Synchro Node Number: 1
 Intersection Name: Tamal Vista Boulevard and Fifer Avenue
 Peak Hour: AM
 Count Date: 03/31/22
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	6	17	12	1	438	239	44	13	427	323	249	0	1769
Proposed Project Trips	1	8	6	1	2	11	5	4	37	11	0	0	86
Existing + Project Conditions	7	25	18	2	440	250	49	17	464	334	249	0	1855
Cumulative Conditions	6	18	12	1	454	248	46	13	443	335	258	0	1834
Cumulative + Project Conditions	7	26	18	2	456	259	51	17	480	346	258	0	1920

Intersection Number: **2**
 Synchro Node Number: 2
 Intersection Name: Nellen Avenue/US 101 ramps and Fifer Avenue
 Peak Hour: AM
 Count Date: 03/31/22
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	19	0	0	61	691	0	0	0	0	0	300	0	1071
Proposed Project Trips	13	0	0	1	0	0	0	0	0	0	15	0	29
Existing + Project Conditions	32	0	0	62	691	0	0	0	0	0	315	0	1100
Cumulative Conditions	20	0	0	63	716	0	0	0	0	0	311	0	1110
Cumulative + Project Conditions	33	0	0	64	716	0	0	0	0	0	326	0	1139

Intersection Number: **3**
 Synchro Node Number: 3
 Intersection Name: Tamal Vista Boulevard and Wornum Drive
 Peak Hour: AM
 Count Date: 04/09/14
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	221	381	287	0	51	143	148	0	0	0	0	1231
Proposed Project Trips	0	58	33	0	0	5	9	10	0	0	0	0	115
Existing + Project Conditions	0	279	414	287	0	56	152	158	0	0	0	0	1346
Cumulative Conditions	0	229	395	297	0	53	148	153	0	0	0	0	1275
Cumulative + Project Conditions	0	287	428	297	0	58	157	163	0	0	0	0	1390

Intersection Number: **4**
 Synchro Node Number: 4
 Intersection Name: Redwood Highway and Wornum Drive
 Peak Hour: AM
 Count Date: 03/31/22
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	327	23	0	0	0	0	0	58	97	82	0	448	1035
Proposed Project Trips	0	1	0	0	0	0	0	5	13	14	0	28	61
Existing + Project Conditions	327	24	0	0	0	0	0	63	110	96	0	476	1096
Cumulative Conditions	339	24	0	0	0	0	0	60	101	85	0	464	1073
Cumulative + Project Conditions	339	25	0	0	0	0	0	65	114	99	0	492	1134

Intersection Number: **5**
 Synchro Node Number: 5
 Intersection Name: Tamal Vista Boulevard and Madera Boulevard
 Peak Hour: AM
 Count Date: 04/09/14
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	1	140	98	101	6	149	171	214	9	3	5	2	899
Proposed Project Trips	0	50	24	2	0	1	0	25	0	0	0	0	102
Existing + Project Conditions	1	190	122	103	6	150	171	239	9	3	5	2	1001
Cumulative Conditions	1	145	102	105	6	154	177	222	9	3	5	2	931
Cumulative + Project Conditions	1	195	126	107	6	155	177	247	9	3	5	2	1033

Intersection Number: **6**
 Synchro Node Number: 6
 Intersection Name: San Clemente Drive and Tamalpais Drive/Redwood Highway
 Peak Hour: AM
 Count Date: 02/27/18
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	0	0	0	60	64	103	0	1102	21	146	0	1496
Proposed Project Trips	0	0	0	0	62	15	4	0	42	11	21	0	155
Existing + Project Conditions	0	0	0	0	122	79	107	0	1144	32	167	0	1651
Cumulative Conditions	0	0	0	0	62	66	107	0	1142	22	151	0	1550
Cumulative + Project Conditions	0	0	0	0	124	81	111	0	1184	33	172	0	1705

Intersection Number: **7**
 Synchro Node Number: 7
 Intersection Name: US 101 NB off ramp and Tamalpais Drive
 Peak Hour: AM
 Count Date: 04/09/14
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	0	0	0	680	0	422	0	452	0	899	0	2453
Proposed Project Trips	0	0	0	0	77	0	9	0	10	0	36	0	132
Existing + Project Conditions	0	0	0	0	757	0	431	0	462	0	935	0	2585
Cumulative Conditions	0	0	0	0	705	0	437	0	469	0	932	0	2543
Cumulative + Project Conditions	0	0	0	0	782	0	446	0	479	0	968	0	2675

Intersection Number: **8**
 Synchro Node Number: 8
 Intersection Name: US 101 SB off ramp and Tamalpais Drive
 Peak Hour: AM
 Count Date: 02/17/18
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	388	0	649	0	701	0	0	0	0	0	754	0	2492
Proposed Project Trips	1	0	8	0	43	0	0	0	0	0	28	0	80
Existing + Project Conditions	389	0	657	0	744	0	0	0	0	0	782	0	2572
Cumulative Conditions	402	0	673	0	727	0	0	0	0	0	782	0	2584
Cumulative + Project Conditions	403	0	681	0	770	0	0	0	0	0	810	0	2664

Intersection Number: **9**
 Synchro Node Number: 9
 Intersection Name: Madera Boulevard and Tamalpais Drive
 Peak Hour: AM
 Count Date: 05/25/17
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	115	76	187	187	543	134	167	52	48	21	845	113	2488
Proposed Project Trips	23	2	23	20	20	3	4	2	1	1	8	5	112
Existing + Project Conditions	138	78	210	207	563	137	171	54	49	22	853	118	2600
Cumulative Conditions	119	79	194	194	563	139	173	54	50	22	876	117	2580
Cumulative + Project Conditions	142	81	217	214	583	142	177	56	51	23	884	122	2692

Intersection Number: **10**
 Synchro Node Number: 10
 Intersection Name: San Clemente Drive and Paradise Drive
 Peak Hour: AM
 Count Date: 05/25/17
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	28	1000	0	0	0	0	0	1086	21	15	0	101	2251
Proposed Project Trips	3	32	0	0	0	0	0	20	0	4	0	26	85
Existing + Project Conditions	31	1032	0	0	0	0	0	1106	21	19	0	127	2336
Cumulative Conditions	29	1037	0	0	0	0	0	1126	22	16	0	105	2335
Cumulative + Project Conditions	32	1069	0	0	0	0	0	1146	22	20	0	131	2420

Intersection Number: **11**
 Synchro Node Number: 11
 Intersection Name: Madera Del Presidio/Harbor Drive and Paradise Drive
 Peak Hour: AM
 Count Date: 03/31/22
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	54	2	34	23	941	34	40	0	69	75	928	26	2226
Proposed Project Trips	0	0	0	0	18	0	0	0	2	4	32	0	56
Existing + Project Conditions	54	2	34	23	959	34	40	0	71	79	960	26	2282
Cumulative Conditions	56	2	35	24	975	35	41	0	72	78	962	27	2307
Cumulative + Project Conditions	56	2	35	24	993	35	41	0	74	82	994	27	2363

Intersection Number: **12**
 Synchro Node Number: 12
 Intersection Name: Redwood Hwy. and Village South Entrance
 Peak Hour: AM
 Count Date: 03/31/22
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	79	0	0	0	0	0	180	103	45	0	2	409
Proposed Project Trips	4	9	0	0	0	0	0	2	23	68	0	16	122
Existing + Project Conditions	4	88	0	0	0	0	0	182	126	113	0	18	531
Cumulative Conditions	0	82	0	0	0	0	0	187	107	47	0	2	425
Cumulative + Project Conditions	4	91	0	0	0	0	0	189	130	115	0	18	547

Intersection Number: **1**
 Synchro Node Number: 1
 Intersection Name: Tamal Vista Boulevard and Fifer Avenue
 Peak Hour: MD
 Count Date: 03/31/22
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	5	28	21	4	284	312	85	15	287	357	283	3	1684
Proposed Project Trips	0	0	1	0	0	6	0	8	26	34	0	0	75
Existing + Project Conditions	5	28	22	4	284	318	85	23	313	391	283	3	1759
Cumulative Conditions	5	29	22	4	294	323	88	16	297	370	293	3	1744
Cumulative + Project Conditions	5	29	23	4	294	329	88	24	323	404	293	3	1819

Intersection Number: **3**
 Synchro Node Number: 3
 Intersection Name: Tamal Vista Boulevard and Wornum Drive
 Peak Hour: MD
 Count Date: 04/09/14
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	269	506	216	0	127	256	233	0	0	0	0	1607
Proposed Project Trips	0	27	13	13	0	8	15	43	0	0	0	0	119
Existing + Project Conditions	0	296	519	229	0	135	271	276	0	0	0	0	1726
Cumulative Conditions	0	279	525	224	0	132	265	242	0	0	0	0	1667
Cumulative + Project Conditions	0	306	538	237	0	140	280	285	0	0	0	0	1786

Intersection Number: **6**
 Synchro Node Number: 6
 Intersection Name: San Clemente Drive and Tamalpais Drive/Redwood Highway
 Peak Hour: MD
 Count Date: 02/27/18
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	0	0	0	430	79	132	0	857	4	530	0	2032
Proposed Project Trips	0	0	0	0	21	10	13	0	42	15	30	0	131
Existing + Project Conditions	0	0	0	0	451	89	145	0	899	19	560	0	2163
Cumulative Conditions	0	0	0	0	446	82	137	0	888	4	549	0	2106
Cumulative + Project Conditions	0	0	0	0	467	92	150	0	930	19	579	0	2237

Intersection Number: **9**
 Synchro Node Number: 9
 Intersection Name: Madera Boulevard and Tamalpais Drive
 Peak Hour: MD
 Count Date: 05/25/17
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	188	85	216	291	670	166	158	72	55	27	663	144	2735
Proposed Project Trips	17	5	28	41	11	7	6	4	3	3	15	24	164
Existing + Project Conditions	205	90	244	332	681	173	164	76	58	30	678	168	2899
Cumulative Conditions	195	88	224	302	695	172	164	75	57	28	687	149	2836
Cumulative + Project Conditions	212	93	252	343	706	179	170	79	60	31	702	173	3000

Intersection Number: **12**
 Synchro Node Number: 12
 Intersection Name: Redwood Hwy. and Village South Entrance
 Peak Hour: MD
 Count Date: 03/31/22
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	7	289	0	0	0	0	0	405	344	261	0	26	1332
Proposed Project Trips	8	12	0	0	0	0	0	14	30	19	0	6	89
Existing + Project Conditions	15	301	0	0	0	0	0	419	374	280	0	32	1421
Cumulative Conditions	7	300	0	0	0	0	0	420	357	271	0	27	1382
Cumulative + Project Conditions	15	312	0	0	0	0	0	434	387	290	0	33	1471

Intersection Number: **1**
 Synchro Node Number: 1
 Intersection Name: Tamal Vista Boulevard and Fifer Avenue
 Peak Hour: AM
 Count Date: 03/31/22
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	10	27	31	5	280	225	83	25	440	240	196	1	1563
Proposed Project Trips	0	0	3	2	0	25	0	15	19	30	0	0	94
Existing + Project Conditions	10	27	34	7	280	250	83	40	459	270	196	1	1657
Cumulative Conditions	10	28	32	5	290	233	86	26	456	249	203	1	1619
Cumulative + Project Conditions	10	28	35	7	290	258	86	41	475	279	203	1	1713

Intersection Number: **2**
 Synchro Node Number: 2
 Intersection Name: Nellen Avenue/US 101 ramps and Fifer Avenue
 Peak Hour: AM
 Count Date: 03/31/22
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	70	0	0	35	567	0	0	0	0	0	290	0	962
Proposed Project Trips	7	0	0	4	23	0	0	0	0	0	0	0	34
Existing + Project Conditions	77	0	0	39	590	0	0	0	0	0	290	0	996
Cumulative Conditions	73	0	0	36	588	0	0	0	0	0	301	0	998
Cumulative + Project Conditions	80	0	0	40	611	0	0	0	0	0	301	0	1032

Intersection Number: **3**
 Synchro Node Number: 3
 Intersection Name: Tamal Vista Boulevard and Wornum Drive
 Peak Hour: AM
 Count Date: 04/09/14
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	322	472	169	0	106	228	283	0	0	0	0	1580
Proposed Project Trips	0	21	14	34	0	11	21	52	0	0	0	0	153
Existing + Project Conditions	0	343	486	203	0	117	249	335	0	0	0	0	1733
Cumulative Conditions	0	334	489	175	0	110	236	293	0	0	0	0	1637
Cumulative + Project Conditions	0	355	503	209	0	121	257	345	0	0	0	0	1790

Intersection Number: **4**
 Synchro Node Number: 4
 Intersection Name: Redwood Highway and Wornum Drive
 Peak Hour: AM
 Count Date: 03/31/22
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	160	66	0	0	0	0	0	229	100	90	0	465	1110
Proposed Project Trips	7	1	0	0	0	0	0	5	38	19	0	16	86
Existing + Project Conditions	167	67	0	0	0	0	0	234	138	109	0	481	1196
Cumulative Conditions	166	68	0	0	0	0	0	237	104	93	0	482	1150
Cumulative + Project Conditions	173	69	0	0	0	0	0	242	142	112	0	498	1236

Intersection Number: **5**
 Synchro Node Number: 5
 Intersection Name: Tamal Vista Boulevard and Madera Boulevard
 Peak Hour: AM
 Count Date: 04/09/14
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	6	202	235	164	3	203	143	363	8	3	3	2	1335
Proposed Project Trips	0	44	9	5	0	2	0	92	0	0	0	0	152
Existing + Project Conditions	6	246	244	169	3	205	143	455	8	3	3	2	1487
Cumulative Conditions	6	209	244	170	3	210	148	376	8	3	3	2	1382
Cumulative + Project Conditions	6	253	253	175	3	212	148	468	8	3	3	2	1534

Intersection Number: **6**
 Synchro Node Number: 6
 Intersection Name: San Clemente Drive and Tamalpais Drive/Redwood Highway
 Peak Hour: AM
 Count Date: 02/27/18
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	0	0	0	470	67	92	0	1023	7	576	0	2235
Proposed Project Trips	0	0	0	0	40	6	11	0	51	15	79	0	202
Existing + Project Conditions	0	0	0	0	510	73	103	0	1074	22	655	0	2437
Cumulative Conditions	0	0	0	0	487	69	95	0	1060	7	597	0	2315
Cumulative + Project Conditions	0	0	0	0	527	75	106	0	1111	22	676	0	2517

Intersection Number: **7**
 Synchro Node Number: 7
 Intersection Name: US 101 NB off ramp and Tamalpais Drive
 Peak Hour: AM
 Count Date: 04/09/14
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	0	0	0	760	0	483	0	760	0	876	0	2879
Proposed Project Trips	0	0	0	0	69	0	62	0	30	0	68	0	229
Existing + Project Conditions	0	0	0	0	829	0	545	0	790	0	944	0	3108
Cumulative Conditions	0	0	0	0	788	0	501	0	788	0	908	0	2985
Cumulative + Project Conditions	0	0	0	0	857	0	563	0	818	0	976	0	3214

Intersection Number: **8**
 Synchro Node Number: 8
 Intersection Name: US 101 SB off ramp and Tamalpais Drive
 Peak Hour: AM
 Count Date: 02/17/18
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	341	0	641	0	1074	0	0	0	0	0	972	0	3028
Proposed Project Trips	2	0	27	0	70	0	0	0	0	0	41	0	140
Existing + Project Conditions	343	0	668	0	1144	0	0	0	0	0	1013	0	3168
Cumulative Conditions	353	0	664	0	1113	0	0	0	0	0	1008	0	3138
Cumulative + Project Conditions	355	0	691	0	1183	0	0	0	0	0	1049	0	3278

Intersection Number: **9**
 Synchro Node Number: 9
 Intersection Name: Madera Boulevard and Tamalpais Drive
 Peak Hour: AM
 Count Date: 05/25/17
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	170	61	226	305	663	236	186	72	41	59	572	164	2755
Proposed Project Trips	12	5	28	56	10	9	7	4	3	3	13	23	173
Existing + Project Conditions	182	66	254	361	673	245	193	76	44	62	585	187	2928
Cumulative Conditions	176	63	234	316	687	245	193	75	42	61	593	170	2855
Cumulative + Project Conditions	188	68	262	372	697	254	200	79	45	64	606	193	3028

Intersection Number: **10**
 Synchro Node Number: 10
 Intersection Name: San Clemente Drive and Paradise Drive
 Peak Hour: AM
 Count Date: 05/25/17
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	26	846	0	0	0	0	0	762	21	37	0	252	1944
Proposed Project Trips	7	30	0	0	0	0	0	37	6	4	0	26	110
Existing + Project Conditions	33	876	0	0	0	0	0	799	27	41	0	278	2054
Cumulative Conditions	27	877	0	0	0	0	0	790	22	38	0	261	2015
Cumulative + Project Conditions	34	907	0	0	0	0	0	827	28	42	0	287	2125

Intersection Number: **11**
 Synchro Node Number: 11
 Intersection Name: Madera Del Presidio/Harbor Drive and Paradise Drive
 Peak Hour: AM
 Count Date: 03/31/22
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	36	1	20	17	828	21	31	0	79	59	679	41	1812
Proposed Project Trips	0	0	0	0	32	0	0	0	11	8	26	0	77
Existing + Project Conditions	36	1	20	17	860	21	31	0	90	67	705	41	1889
Cumulative Conditions	37	1	21	18	858	22	32	0	82	61	704	42	1878
Cumulative + Project Conditions	37	1	21	18	890	22	32	0	93	69	730	42	1955

Intersection Number: **12**
 Synchro Node Number: 12
 Intersection Name: Redwood Hwy. and Village South Entrance
 Peak Hour: AM
 Count Date: 03/31/22
 Date of Analysis: 4/7/2022

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	1	240	0	0	0	0	0	375	320	251	0	24	1211
Proposed Project Trips	9	11	0	0	0	0	0	29	61	36	0	10	156
Existing + Project Conditions	10	251	0	0	0	0	0	404	381	287	0	34	1367
Cumulative Conditions	1	249	0	0	0	0	0	389	332	260	0	25	1256
Cumulative + Project Conditions	10	260	0	0	0	0	0	418	393	296	0	35	1412

Appendix C

Trip Generation Estimates by Site

CORTE MADERA HOUSING ELEMENT - TRIP GENERATION BY SITE

Land Use ¹	Size	Daily			AM Peak Hour					Mid-Afternoon Peak Hour ^{7,8}					PM Peak Hour							
		Rate	Trips		Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total
Site 1 - 601 Tamalpais																						
Multifamily Housing (Low-Rise) ²	11	DU	6.74	74	0.40	24%	76%	1	3	4	0.32	57%	43%	2	2	4	0.51	63%	37%	4	2	6
Strip Retail Plaza (<40K) ⁴	4.1	KSF	54.45	225	2.36	60%	40%	6	4	10	6.10	50%	50%	13	12	25	6.59	50%	50%	14	13	27
Net Site Trips				300				7	7	14				15	14	29				18	15	33
Site 2 - 41 Tamal Vista Boulevard																						
Multifamily Housing (Mid-Rise) ³	73	DU	4.54	331	0.37	23%	77%	6	21	27	0.20	61%	39%	9	6	15	0.39	61%	39%	17	11	28
Strip Retail Plaza (<40K) ⁴	18.4	KSF	54.45	1,001	2.36	60%	40%	26	17	43	6.10	50%	50%	56	56	112	6.59	50%	50%	61	60	121
Net Site Trips				1,332				32	38	70				65	62	127				78	71	149
Site 3 - 400 & 500 Tamal Vista Plaza																						
Multifamily Housing (Mid-Rise) ³	105	DU	4.54	477	0.37	23%	77%	9	30	39	0.20	61%	39%	13	8	21	0.39	61%	39%	25	16	41
Strip Retail Plaza (<40K) ⁴	26.2	KSF	54.45	1,424	2.36	60%	40%	37	25	62	6.10	50%	50%	80	79	159	6.59	50%	50%	86	86	172
Existing - Strip Retail Plaza (40 - 150K)	-59.4	KSF	67.52	-4,012	1.73	62%	38%	-64	-39	-103	4.67	49%	51%	-136	-142	-278	5.19	49%	51%	-151	-157	-308
Net Site Trips				-2,112				-18	16	-2				-43	-55	-98				-40	-55	-95
Site 4 - 2 & 10 Fifer Avenue, 110 & 150 Nellen Avenue																						
Multifamily Housing (Mid-Rise) ³	120	DU	4.54	545	0.37	23%	77%	10	34	44	0.20	61%	39%	15	9	24	0.39	61%	39%	29	18	47
Strip Retail Plaza (<40K) ⁴	30.0	KSF	54.45	1,636	2.36	60%	40%	43	28	71	6.10	50%	50%	92	91	183	6.59	50%	50%	99	99	198
Existing - Strip Retail Plaza (40 - 150K) ⁵	-43.2	KSF	67.52	-2,920	1.73	62%	38%	-47	-28	-75	4.67	49%	51%	-99	-103	-202	5.19	49%	51%	-110	-114	-224
Net Site Trips				-739				6	34	40				8	-3	5				18	3	21
Site 5 - 111 Lucky Drive																						
Multifamily Housing (Low-Rise) ²	25	DU	6.74	169	0.40	24%	76%	2	8	10	0.32	57%	43%	5	3	8	0.51	63%	37%	8	5	13
Strip Retail Plaza (<40K) ⁴	8.7	KSF	54.45	474	2.36	60%	40%	13	8	21	6.10	50%	50%	27	26	53	6.59	50%	50%	29	28	57
Existing - Strip Retail Plaza (<40K) ⁴	-7.5	KSF	54.45	-409	2.36	60%	40%	-11	-7	-18	6.10	50%	50%	-23	-23	-46	6.59	50%	50%	-25	-25	-50
Net Site Trips				234				4	9	13				9	6	15				12	8	20
Site 6 - 1400 Redwood Highway																						
Multifamily Housing (Mid-Rise) ³	300	DU	4.54	1,362	0.37	23%	77%	26	85	111	0.20	61%	39%	37	24	61	0.39	61%	39%	71	46	117
Strip Retail Plaza (40 - 150K) ⁵	110.8	KSF	67.52	7,482	1.73	62%	38%	119	73	192	4.67	49%	51%	254	264	518	5.19	49%	51%	282	293	575
Existing - Strip Retail Plaza (40 - 150K) ⁵	-109.9	KSF	67.52	-7,422	1.73	62%	38%	-118	-72	-190	4.67	49%	51%	-251	-262	-513	5.19	49%	51%	-279	-291	-570
Net Site Trips				1,422				27	86	113				40	26	66				74	48	122
Site 7 - 5804 Paradise Drive																						
Multifamily Housing (Mid-Rise) ³	40	DU	4.54	182	0.37	23%	77%	3	12	15	0.20	61%	39%	5	3	8	0.39	61%	39%	10	6	16
Strip Retail Plaza (<40K) ⁴	10	KSF	54.45	550	2.36	60%	40%	14	10	24	6.10	50%	50%	31	31	62	6.59	50%	50%	34	33	67
Existing - Strip Retail Plaza (<40K) ⁴	-7.8	KSF	54.45	-425	2.36	60%	40%	-11	-7	-18	6.10	50%	50%	-24	-24	-48	6.59	50%	50%	-26	-25	-51
Net Site Trips				307				6	15	21				12	10	22				18	14	32
Site 8 - 5750 Paradise Drive																						
Multifamily Housing (Mid-Rise) ³	61	DU	4.54	277	0.37	23%	77%	5	18	23	0.20	61%	39%	7	5	12	0.39	61%	39%	15	9	24
Strip Retail Plaza (<40K) ⁴	15	KSF	54.45	835	2.36	60%	40%	22	14	36	6.10	50%	50%	47	46	93	6.59	50%	50%	51	50	101
Existing - Strip Retail Plaza (<40K) ⁴	-10.7	KSF	54.45	-583	2.36	60%	40%	-15	-10	-25	6.10	50%	50%	-33	-32	-65	6.59	50%	50%	-36	-35	-71
Net Site Trips				528				12	22	34				21	19	40				30	24	54
Site 9 - 5651 Paradise Drive																						
Multifamily Housing (Low-Rise) ²	38	DU	6.74	256	0.40	24%	76%	4	11	15	0.32	57%	43%	7	5	12	0.51	63%	37%	12	7	19
Strip Retail Plaza (<40K) ⁴	13	KSF	54.45	734	2.36	60%	40%	19	13	32	6.10	50%	50%	41	41	82	6.59	50%	50%	45	44	89
Existing - Strip Retail Plaza (<40K) ⁴	-14.4	KSF	54.45	-785	2.36	60%	40%	-20	-14	-34	6.10	50%	50%	-44	-44	-88	6.59	50%	50%	-48	-47	-95
Net Site Trips				205				3	10	13				4	2	6				9	4	13
Site 10 - 100 Tamal Vista Boulevard																						
Multifamily Housing (Mid-Rise) ³	53	DU	4.54	241	0.37	23%	77%	5	15	20	0.20	61%	39%	7	4	11	0.39	61%	39%	13	8	21
Strip Retail Plaza (<40K) ⁴	13	KSF	54.45	712	2.36	60%	40%	19	12	31	6.10	50%	50%	40	40	80	6.59	50%	50%	43	43	86
Existing - General Office Building ⁶	-23.3	KSF	10.84	-253	1.52	88%	12%	-31	-4	-35	1.13	46%	54%	-12	-14	-26	1.44	17%	83%	-6	-28	-34
Net Site Trips				699				-7	23	16				35	30	65				50	23	73




















Appendix D

Level of Service Calculations

HCM Signalized Intersection Capacity Analysis

1: Tamal Vista Blvd & Fifer Ave & Dwy

05/17/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	249	323	239	438	1	427	13	44	12	17	6
Future Volume (vph)	0	249	323	239	438	1	427	13	44	12	17	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.88			0.98	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1863	1583	1770	1862		1770	1646			1786	
Flt Permitted		1.00	1.00	0.39	1.00		0.95	1.00			0.98	
Satd. Flow (perm)		1863	1583	720	1862		1770	1646			1786	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	271	351	260	476	1	464	14	48	13	18	7
RTOR Reduction (vph)	0	0	126	0	0	0	0	32	0	0	7	0
Lane Group Flow (vph)	0	271	225	260	477	0	464	30	0	0	31	0
Turn Type		NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases		2	8	1	6		8	8		7	7	
Permitted Phases			2	6								
Actuated Green, G (s)		30.0	64.1	47.7	47.7		34.1	34.1			5.0	
Effective Green, g (s)		30.0	64.1	47.7	47.7		34.1	34.1			5.0	
Actuated g/C Ratio		0.30	0.64	0.48	0.48		0.34	0.34			0.05	
Clearance Time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		558	1014	487	888		603	561			89	
v/s Ratio Prot		0.15	0.08	0.07	c0.26		c0.26	0.02			c0.02	
v/s Ratio Perm			0.07	0.18								
v/c Ratio		0.49	0.22	0.53	0.54		0.77	0.05			0.35	
Uniform Delay, d1		28.7	7.5	16.9	18.4		29.4	22.1			45.9	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		3.0	0.1	1.1	2.3		5.9	0.0			2.4	
Delay (s)		31.7	7.6	18.1	20.7		35.3	22.2			48.3	
Level of Service		C	A	B	C		D	C			D	
Approach Delay (s)		18.1			19.8			33.8			48.3	
Approach LOS		B			B			C			D	
Intersection Summary												
HCM 2000 Control Delay			23.6				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)			17.2		
Intersection Capacity Utilization			67.7%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Tamal Vista Blvd & Wornum Drive

05/17/2022



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	51	287	148	143	381	221
Future Volume (vph)	51	287	148	143	381	221
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	312	161	155	414	240
RTOR Reduction (vph)	0	118	0	117	0	0
Lane Group Flow (vph)	55	194	161	38	414	240
Turn Type	custom	pm+ov	NA	custom	Prot	NA
Protected Phases	3	1	2	3	1	6
Permitted Phases	4	4		2 4		
Actuated Green, G (s)	8.4	62.2	16.2	24.6	62.2	82.4
Effective Green, g (s)	8.4	62.2	16.2	24.6	62.2	82.4
Actuated g/C Ratio	0.08	0.62	0.16	0.25	0.62	0.82
Clearance Time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Vehicle Extension (s)	1.0	2.7	5.5	1.0	2.7	3.5
Lane Grp Cap (vph)	148	984	301	462	1100	1535
v/s Ratio Prot	c0.03	0.12	c0.09	0.01	c0.23	0.13
v/s Ratio Perm				0.02		
v/c Ratio	0.37	0.20	0.53	0.08	0.38	0.16
Uniform Delay, d1	43.3	8.1	38.4	29.0	9.3	1.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.0	3.8	0.0	1.0	0.2
Delay (s)	43.9	8.2	42.3	29.0	10.3	2.0
Level of Service	D	A	D	C	B	A
Approach Delay (s)	13.5		35.8			7.3
Approach LOS	B		D			A

Intersection Summary

HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 11: Madera Del Presidio Drive/Harbor Drive & Paradise Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	928	75	34	941	23	69	0	40	34	2	54
Future Volume (vph)	26	928	75	34	941	23	69	0	40	34	2	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.95			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.98	
Satd. Flow (prot)	1770	3499		1770	3527			1717			1680	
Flt Permitted	0.95	1.00		0.95	1.00			0.83			0.87	
Satd. Flow (perm)	1770	3499		1770	3527			1477			1492	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	1009	82	37	1023	25	75	0	43	37	2	59
RTOR Reduction (vph)	0	7	0	0	2	0	0	91	0	0	53	0
Lane Group Flow (vph)	28	1084	0	37	1046	0	0	27	0	0	45	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)	3.6	36.8		4.0	37.2			6.4			6.0	
Effective Green, g (s)	3.6	36.8		4.0	37.2			6.4			6.0	
Actuated g/C Ratio	0.06	0.61		0.07	0.62			0.11			0.10	
Clearance Time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Vehicle Extension (s)	2.0	3.0		2.0	3.0			2.0			2.0	
Lane Grp Cap (vph)	106	2146		118	2186			157			149	
v/s Ratio Prot	0.02	c0.31		c0.02	0.30							
v/s Ratio Perm								0.02			c0.03	
v/c Ratio	0.26	0.51		0.31	0.48			0.17			0.30	
Uniform Delay, d1	26.9	6.5		26.7	6.2			24.4			25.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.5	0.9		0.6	0.8			0.2			0.4	
Delay (s)	27.4	7.4		27.2	6.9			24.6			25.5	
Level of Service	C	A		C	A			C			C	
Approach Delay (s)		7.9			7.6			24.6			25.5	
Approach LOS		A			A			C			C	

Intersection Summary

HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	46.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th TWSC
 2: Fifer Ave/US 101 SB Ramp & Nellen Ave

05/17/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	300	691	61	0	19
Future Vol, veh/h	0	300	691	61	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	326	751	66	0	21

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 784
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.22
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.318
Pot Cap-1 Maneuver	0	-	- 0 393
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	- - -
Mov Cap-1 Maneuver	-	-	- - 393
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	393
HCM Lane V/C Ratio	-	-	-	0.053
HCM Control Delay (s)	-	-	-	14.7
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

HCM 6th Signalized Intersection Summary
 4: Redwood Hwy & Wornum Dr

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	448	82	97	58	23	327
Future Volume (veh/h)	448	82	97	58	23	327
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	487	0	105	63	25	228
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	522	465	168	1165	923	1247
Arrive On Green	0.29	0.00	0.09	0.62	0.49	0.49
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	487	0	105	63	25	228
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	26.6	0.0	5.7	1.3	0.7	3.6
Cycle Q Clear(g_c), s	26.6	0.0	5.7	1.3	0.7	3.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	522	465	168	1165	923	1247
V/C Ratio(X)	0.93	0.00	0.62	0.05	0.03	0.18
Avail Cap(c_a), veh/h	816	726	258	1165	923	1247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	0.0	43.6	7.4	13.0	2.7
Incr Delay (d2), s/veh	9.4	0.0	1.4	0.1	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	0.0	2.6	0.5	0.3	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.8	0.0	45.0	7.4	13.1	3.0
LnGrp LOS	D	A	D	A	B	A
Approach Vol, veh/h	487			168	253	
Approach Delay, s/veh	43.8			30.9	4.0	
Approach LOS	D			C	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.0	53.5		33.5		66.5
Change Period (Y+Rc), s	3.5	* 4.2		* 4.2		* 4.2
Max Green Setting (Gmax), s	14.5	* 28		* 46		* 28
Max Q Clear Time (g_c+I1), s	7.7	5.6		28.6		3.3
Green Ext Time (p_c), s	0.0	0.5		0.7		0.2
Intersection Summary						
HCM 6th Ctrl Delay			30.3			
HCM 6th LOS			C			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th AWSC
 5: Madera Blvd & Council Crest Dr & Tamal Vista Blvd

05/17/2022

Intersection

Intersection Delay, s/veh 11.9

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	
Traffic Vol, veh/h	2	5	3	149	6	101	9	214	171	98	140	1
Future Vol, veh/h	2	5	3	149	6	101	9	214	171	98	140	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	5	3	162	7	110	10	233	186	107	152	1
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	2	1
HCM Control Delay	10.2	12.1	11.9	11.8
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	20%	96%	0%	100%	0%
Vol Thru, %	0%	100%	0%	50%	4%	0%	0%	99%
Vol Right, %	0%	0%	100%	30%	0%	100%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	9	214	171	10	155	101	98	141
LT Vol	9	0	0	2	149	0	98	0
Through Vol	0	214	0	5	6	0	0	140
RT Vol	0	0	171	3	0	101	0	1
Lane Flow Rate	10	233	186	11	168	110	107	153
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.018	0.404	0.286	0.022	0.332	0.18	0.208	0.278
Departure Headway (Hd)	6.756	6.25	5.542	7.251	7.093	5.904	7.042	6.53
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	529	575	647	491	505	606	509	549
Service Time	4.508	4.002	3.293	5.031	4.848	3.658	4.799	4.287
HCM Lane V/C Ratio	0.019	0.405	0.287	0.022	0.333	0.182	0.21	0.279
HCM Control Delay	9.6	13.2	10.5	10.2	13.4	10	11.7	11.8
HCM Lane LOS	A	B	B	B	B	A	B	B
HCM 95th-tile Q	0.1	1.9	1.2	0.1	1.4	0.7	0.8	1.1

HCM 6th Signalized Intersection Summary

6: San Clemente Dr & Tamalpais Dr/Redwood Hwy

05/17/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑↑	↵↵	
Traffic Volume (veh/h)	146	21	64	60	1102	103
Future Volume (veh/h)	146	21	64	60	1102	103
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	159	23	70	65	1303	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	581	83	215	1946	1609	716
Arrive On Green	0.19	0.19	0.12	0.38	0.45	0.00
Sat Flow, veh/h	3216	444	1781	5274	3563	1585
Grp Volume(v), veh/h	89	93	70	65	1303	0
Grp Sat Flow(s),veh/h/ln	1777	1790	1781	1702	1781	1585
Q Serve(g_s), s	2.3	2.4	1.9	0.4	17.0	0.0
Cycle Q Clear(g_c), s	2.3	2.4	1.9	0.4	17.0	0.0
Prop In Lane		0.25	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	331	333	215	1946	1609	716
V/C Ratio(X)	0.27	0.28	0.33	0.03	0.81	0.00
Avail Cap(c_a), veh/h	1127	1136	331	4559	1856	826
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.8	18.8	21.6	10.4	12.7	0.0
Incr Delay (d2), s/veh	0.2	0.2	1.2	0.0	2.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.9	0.8	0.1	6.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.9	18.9	22.9	10.4	15.5	0.0
LnGrp LOS	B	B	C	B	B	A
Approach Vol, veh/h	182			135	1303	
Approach Delay, s/veh	18.9			16.9	15.5	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.5	15.0		28.3		25.5
Change Period (Y+Rc), s	4.0	* 5		4.0		5.0
Max Green Setting (Gmax), s	10.0	* 34		28.0		48.0
Max Q Clear Time (g_c+I), s	13.0	4.4		19.0		2.4
Green Ext Time (p_c), s	0.1	0.7		5.3		0.6

Intersection Summary

HCM 6th Ctrl Delay	16.0
HCM 6th LOS	B

Notes

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

User approved volume balancing among the lanes for turning movement.

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

HCM 6th Signalized Intersection Summary

7: US101 NB off ramp & Tamalpais Dr

05/17/2022

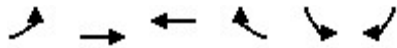


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↔↔	↔↔
Traffic Volume (veh/h)	899	0	0	680	452	422
Future Volume (veh/h)	899	0	0	680	452	422
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	0	0	1870	1870	1870
Adj Flow Rate, veh/h	977	0	0	739	491	275
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	0	2	2	2
Cap, veh/h	2387	0	0	2387	593	479
Arrive On Green	0.67	0.00	0.00	0.67	0.17	0.17
Sat Flow, veh/h	3741	0	0	3741	3456	2790
Grp Volume(v), veh/h	977	0	0	739	491	275
Grp Sat Flow(s),veh/h/ln	1777	0	0	1777	1728	1395
Q Serve(g_s), s	7.7	0.0	0.0	5.3	8.5	5.6
Cycle Q Clear(g_c), s	7.7	0.0	0.0	5.3	8.5	5.6
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2387	0	0	2387	593	479
V/C Ratio(X)	0.41	0.00	0.00	0.31	0.83	0.57
Avail Cap(c_a), veh/h	2387	0	0	2387	909	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.6	0.0	0.0	4.2	24.8	23.6
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.3	2.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	1.4	3.4	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.1	0.0	0.0	4.6	27.0	24.0
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h	977			739	766	
Approach Delay, s/veh	5.1			4.6	25.9	
Approach LOS	A			A	C	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		46.7			46.7	15.3
Change Period (Y+Rc), s		5.0			5.0	4.7
Max Green Setting (Gmax), s		36.0			36.0	16.3
Max Q Clear Time (g_c+I1), s		9.7			7.3	10.5
Green Ext Time (p_c), s		1.5			1.1	0.1
Intersection Summary						
HCM 6th Ctrl Delay			11.4			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

8: Tamalpais Dr & US101 SB off-ramp

05/17/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	754	701	0	649	388
Future Volume (veh/h)	0	754	701	0	649	388
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	820	762	0	705	346
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2125	2125	0	875	389
Arrive On Green	0.00	0.60	0.60	0.00	0.25	0.25
Sat Flow, veh/h	0	3741	3741	0	3563	1585
Grp Volume(v), veh/h	0	820	762	0	705	346
Grp Sat Flow(s),veh/h/ln	0	1777	1777	0	1781	1585
Q Serve(g_s), s	0.0	7.5	6.8	0.0	11.5	13.1
Cycle Q Clear(g_c), s	0.0	7.5	6.8	0.0	11.5	13.1
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2125	2125	0	875	389
V/C Ratio(X)	0.00	0.39	0.36	0.00	0.81	0.89
Avail Cap(c_a), veh/h	0	2125	2125	0	1511	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	6.5	6.4	0.0	22.0	22.6
Incr Delay (d2), s/veh	0.0	0.5	0.5	0.0	0.7	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	2.1	0.0	4.5	4.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	7.0	6.8	0.0	22.7	26.3
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h		820	762		1051	
Approach Delay, s/veh		7.0	6.8		23.9	
Approach LOS		A	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		42.1		19.9		42.1
Change Period (Y+Rc), s		5.0		* 4.7		5.0
Max Green Setting (Gmax), s		26.0		* 26		26.0
Max Q Clear Time (g_c+I1), s		9.5		15.1		8.8
Green Ext Time (p_c), s		1.2		0.2		1.1

Intersection Summary

HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

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

HCM 6th Signalized Intersection Summary

9: Casa Buena Dr/Madera Blvd & Tamalpais Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	845	21	134	543	187	48	52	167	187	76	115
Future Volume (veh/h)	113	845	21	134	543	187	48	52	167	187	76	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	123	918	22	146	590	50	52	57	105	143	167	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	2019	48	172	2070	923	69	75	278	194	203	172
Arrive On Green	0.08	0.57	0.57	0.10	0.58	0.58	0.08	0.08	0.08	0.11	0.11	0.11
Sat Flow, veh/h	1781	3547	85	1781	3554	1585	871	955	1585	1781	1870	1585
Grp Volume(v), veh/h	123	460	480	146	590	50	109	0	105	143	167	5
Grp Sat Flow(s),veh/h/ln	1781	1777	1855	1781	1777	1585	1827	0	1585	1781	1870	1585
Q Serve(g_s), s	8.4	18.7	18.7	10.0	10.3	1.7	7.2	0.0	7.3	9.6	10.8	0.3
Cycle Q Clear(g_c), s	8.4	18.7	18.7	10.0	10.3	1.7	7.2	0.0	7.3	9.6	10.8	0.3
Prop In Lane	1.00		0.05	1.00		1.00	0.48		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	1011	1056	172	2070	923	144	0	278	194	203	172
V/C Ratio(X)	0.83	0.45	0.45	0.85	0.29	0.05	0.76	0.00	0.38	0.74	0.82	0.03
Avail Cap(c_a), veh/h	230	1011	1056	230	2070	923	418	0	516	365	383	325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	15.5	15.5	55.1	13.0	11.2	56.0	0.0	45.2	53.6	54.1	49.4
Incr Delay (d2), s/veh	7.7	1.5	1.4	15.6	0.3	0.1	3.1	0.0	0.3	2.1	3.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	7.8	8.2	5.2	4.2	0.6	3.5	0.0	2.9	4.4	5.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	17.0	16.9	70.7	13.3	11.3	59.0	0.0	45.5	55.6	57.2	49.4
LnGrp LOS	E	B	B	E	B	B	E	A	D	E	E	D
Approach Vol, veh/h		1063			786			214			315	
Approach Delay, s/veh		22.4			23.8			52.4			56.4	
Approach LOS		C			C			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.3	77.2		14.4	16.0	75.6		18.1				
Change Period (Y+Rc), s	4.0	5.0		4.6	4.0	5.0		4.6				
Max Green Setting (Gmax), s	16.0	36.0		28.4	16.0	36.0		25.4				
Max Q Clear Time (g_c+110), s	110.4	12.3		9.3	12.0	20.7		12.8				
Green Ext Time (p_c), s	0.1	4.3		0.5	0.1	5.5		0.6				

Intersection Summary

HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

10: Paradise Dr & San Clemente Dr

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	101	15	21	1086	1000	28
Future Volume (veh/h)	101	15	21	1086	1000	28
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	0	23	1180	1087	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	175		424	2702	2380	61
Arrive On Green	0.10	0.00	0.02	0.76	0.67	0.67
Sat Flow, veh/h	1781	1585	1781	3647	3633	91
Grp Volume(v), veh/h	110	0	23	1180	546	569
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1854
Q Serve(g_s), s	3.6	0.0	0.2	7.1	8.7	8.7
Cycle Q Clear(g_c), s	3.6	0.0	0.2	7.1	8.7	8.7
Prop In Lane	1.00	1.00	1.00			0.05
Lane Grp Cap(c), veh/h	175		424	2702	1195	1247
V/C Ratio(X)	0.63		0.05	0.44	0.46	0.46
Avail Cap(c_a), veh/h	564		505	2702	1195	1247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	0.0	3.3	2.6	4.6	4.6
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.5	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.0	1.2	2.4	2.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.4	0.0	3.3	3.1	5.9	5.9
LnGrp LOS	C		A	A	A	A
Approach Vol, veh/h	110	A		1203	1115	
Approach Delay, s/veh	27.4			3.1	5.9	
Approach LOS	C			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		50.1		9.9	5.3	44.8
Change Period (Y+Rc), s		4.5		4.0	4.0	4.5
Max Green Setting (Gmax), s		32.5		19.0	4.0	24.5
Max Q Clear Time (g_c+l1), s		9.1		5.6	2.2	10.7
Green Ext Time (p_c), s		9.6		0.1	0.0	6.3
Intersection Summary						
HCM 6th Ctrl Delay			5.5			
HCM 6th LOS			A			
Notes						
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.						

HCM 6th Signalized Intersection Summary

12: Redwood Hwy & Village South Entrance

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↶↶	↷	↶↶	↶↶	↶↶	↶↶	
Traffic Volume (veh/h)	2	45	103	180	79	0	
Future Volume (veh/h)	2	45	103	180	79	0	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	2	0	112	196	86	0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	7	3	351	3214	2677	0	
Arrive On Green	0.00	0.00	0.10	0.90	0.75	0.00	
Sat Flow, veh/h	3456	1585	3456	3647	3741	0	
Grp Volume(v), veh/h	2	0	112	196	86	0	
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	0	
Q Serve(g_s), s	0.1	0.0	2.8	0.5	0.6	0.0	
Cycle Q Clear(g_c), s	0.1	0.0	2.8	0.5	0.6	0.0	
Prop In Lane	1.00	1.00	1.00			0.00	
Lane Grp Cap(c), veh/h	7	3	351	3214	2677	0	
V/C Ratio(X)	0.27	0.00	0.32	0.06	0.03	0.00	
Avail Cap(c_a), veh/h	1226	562	944	3214	2677	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	46.3	0.0	38.8	0.5	2.9	0.0	
Incr Delay (d2), s/veh	18.0	0.0	0.5	0.0	0.0	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.2	0.0	0.2	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	64.3	0.0	39.3	0.5	2.9	0.0	
LnGrp LOS	E	A	D	A	A	A	
Approach Vol, veh/h	2			308	86		
Approach Delay, s/veh	64.3			14.6	2.9		
Approach LOS	E			B	A		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		88.8			14.0	74.8	4.2
Change Period (Y+Rc), s		* 4.7			4.6	* 4.7	4.0
Max Green Setting (Gmax), s		* 51			25.4	* 21	33.0
Max Q Clear Time (g_c+I1), s		2.5			4.8	2.6	2.1
Green Ext Time (p_c), s		2.0			0.3	0.5	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.3
HCM 6th LOS	B




















Notes

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

HCM Signalized Intersection Capacity Analysis

1: Tamal Vista Blvd & Fifer Ave & Dwy

05/17/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	283	357	312	284	4	287	15	85	21	28	5
Future Volume (vph)	3	283	357	312	284	4	287	15	85	21	28	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.87			0.99	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1862	1583	1770	1859		1770	1625			1805	
Flt Permitted		1.00	1.00	0.39	1.00		0.95	1.00			0.98	
Satd. Flow (perm)		1858	1583	730	1859		1770	1625			1805	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	308	388	339	309	4	312	16	92	23	30	5
RTOR Reduction (vph)	0	0	158	0	0	0	0	71	0	0	4	0
Lane Group Flow (vph)	0	311	230	339	313	0	312	37	0	0	54	0
Turn Type	Perm	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases		2	8	1	6		8	8		7	7	
Permitted Phases	2		2	6								
Actuated Green, G (s)		36.4	59.4	56.5	56.5		23.0	23.0			7.3	
Effective Green, g (s)		36.4	59.4	56.5	56.5		23.0	23.0			7.3	
Actuated g/C Ratio		0.36	0.59	0.56	0.56		0.23	0.23			0.07	
Clearance Time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		676	940	579	1050		407	373			131	
v/s Ratio Prot			0.06	c0.09	0.17		c0.18	0.02			c0.03	
v/s Ratio Perm	0.17	0.09	c0.24									
v/c Ratio		0.46	0.25	0.59	0.30		0.77	0.10			0.41	
Uniform Delay, d1		24.3	9.6	12.9	11.4		36.0	30.3			44.3	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		2.2	0.1	1.5	0.7		8.4	0.1			2.1	
Delay (s)		26.5	9.8	14.4	12.1		44.4	30.5			46.4	
Level of Service		C	A	B	B		D	C			D	
Approach Delay (s)		17.2			13.3			40.8			46.4	
Approach LOS		B			B			D			D	
Intersection Summary												
HCM 2000 Control Delay			22.2				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)			17.2		
Intersection Capacity Utilization			66.4%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Tamal Vista Blvd & Wornum Drive

05/17/2022



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	127	216	233	256	506	269
Future Volume (vph)	127	216	233	256	506	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	138	235	253	278	550	292
RTOR Reduction (vph)	0	106	0	25	0	0
Lane Group Flow (vph)	138	129	253	253	550	292
Turn Type	custom	pm+ov	NA	custom	Prot	NA
Protected Phases	3	1	2	3	1	6
Permitted Phases	4	4		2 4		
Actuated Green, G (s)	11.0	54.7	21.1	32.1	54.7	79.8
Effective Green, g (s)	11.0	54.7	21.1	32.1	54.7	79.8
Actuated g/C Ratio	0.11	0.55	0.21	0.32	0.55	0.80
Clearance Time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Vehicle Extension (s)	1.0	2.7	5.5	1.0	2.7	3.5
Lane Grp Cap (vph)	194	865	393	580	968	1486
v/s Ratio Prot	c0.08	0.08	c0.14	0.05	c0.31	0.16
v/s Ratio Perm				0.11		
v/c Ratio	0.71	0.15	0.64	0.44	0.57	0.20
Uniform Delay, d1	43.0	11.2	36.0	26.8	14.9	2.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.8	0.0	5.4	0.2	2.4	0.3
Delay (s)	52.7	11.2	41.4	27.0	17.3	2.7
Level of Service	D	B	D	C	B	A
Approach Delay (s)	26.6		33.8			12.2
Approach LOS	C		C			B

Intersection Summary

HCM 2000 Control Delay	21.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary

6: San Clemente Dr & Tamalpais Dr/Redwood Hwy

06/07/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑↑	↘↘	
Traffic Volume (veh/h)	530	4	79	430	857	132
Future Volume (veh/h)	530	4	79	430	857	132
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	576	4	86	467	1065	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	820	6	240	2230	1406	626
Arrive On Green	0.23	0.23	0.13	0.44	0.39	0.00
Sat Flow, veh/h	3711	25	1781	5274	3563	1585
Grp Volume(v), veh/h	283	297	86	467	1065	0
Grp Sat Flow(s),veh/h/ln	1777	1866	1781	1702	1781	1585
Q Serve(g_s), s	7.8	7.8	2.3	3.0	13.8	0.0
Cycle Q Clear(g_c), s	7.8	7.8	2.3	3.0	13.8	0.0
Prop In Lane		0.01	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	403	423	240	2230	1406	626
V/C Ratio(X)	0.70	0.70	0.36	0.21	0.76	0.00
Avail Cap(c_a), veh/h	1135	1192	334	4591	1868	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.0	19.0	21.0	9.3	13.9	0.0
Incr Delay (d2), s/veh	0.8	0.8	1.3	0.1	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.1	1.0	0.9	4.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.8	19.8	22.3	9.4	15.5	0.0
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	580			553	1065	
Approach Delay, s/veh	19.8			11.4	15.5	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.2	17.1		25.1		28.3
Change Period (Y+Rc), s	4.0	* 5		4.0		5.0
Max Green Setting (Gmax), s	10.0	* 34		28.0		48.0
Max Q Clear Time (g_c+I1), s	4.3	9.8		15.8		5.0
Green Ext Time (p_c), s	0.1	2.3		5.3		5.1

Intersection Summary

HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

9: Casa Buena Dr/Madera Blvd & Tamalpais Dr

06/07/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	663	27	166	670	291	55	72	158	216	85	188
Future Volume (veh/h)	144	663	27	166	670	291	55	72	158	216	85	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	157	721	28	180	728	163	60	78	95	164	192	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	1812	70	207	1892	844	75	98	334	219	230	195
Arrive On Green	0.10	0.52	0.52	0.12	0.53	0.53	0.09	0.09	0.09	0.12	0.12	0.12
Sat Flow, veh/h	1781	3487	135	1781	3554	1585	796	1035	1585	1781	1870	1585
Grp Volume(v), veh/h	157	367	382	180	728	163	138	0	95	164	192	84
Grp Sat Flow(s),veh/h/ln	1781	1777	1846	1781	1777	1585	1831	0	1585	1781	1870	1585
Q Serve(g_s), s	10.7	15.5	15.5	12.3	14.9	6.6	9.2	0.0	6.2	11.0	12.4	6.1
Cycle Q Clear(g_c), s	10.7	15.5	15.5	12.3	14.9	6.6	9.2	0.0	6.2	11.0	12.4	6.1
Prop In Lane	1.00		0.07	1.00		1.00	0.43		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	184	923	959	207	1892	844	173	0	334	219	230	195
V/C Ratio(X)	0.85	0.40	0.40	0.87	0.38	0.19	0.80	0.00	0.28	0.75	0.83	0.43
Avail Cap(c_a), veh/h	259	923	959	259	1892	844	434	0	560	351	368	312
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	18.0	18.0	53.9	17.0	15.1	55.0	0.0	41.1	52.5	53.1	50.3
Incr Delay (d2), s/veh	13.3	1.3	1.2	19.5	0.6	0.5	3.2	0.0	0.2	1.9	4.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	6.7	6.9	6.6	6.2	2.5	4.4	0.0	2.5	5.1	6.1	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.0	19.3	19.3	73.4	17.6	15.6	58.1	0.0	41.3	54.4	57.6	50.9
LnGrp LOS	E	B	B	E	B	B	E	A	D	D	E	D
Approach Vol, veh/h		906		1071		233		440				
Approach Delay, s/veh		27.7		26.7		51.3		55.1				
Approach LOS		C		C		D		E				
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	71.0		16.3	18.4	69.4		19.9				
Change Period (Y+Rc), s	4.0	5.0		4.6	4.0	5.0		4.6				
Max Green Setting (Gmax), s	34.0	34.0		29.4	18.0	34.0		24.4				
Max Q Clear Time (g_c+1/2T), s	16.9	16.9		11.2	14.3	17.5		14.4				
Green Ext Time (p_c), s	0.1	5.3		0.6	0.1	4.3		0.8				

Intersection Summary

HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

12: Redwood Hwy & Village South Entrance

06/07/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↖↗	↖	↖↗	↑↑	↑↓		
Traffic Volume (veh/h)	26	261	344	405	289	7	
Future Volume (veh/h)	26	261	344	405	289	7	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	28	235	374	440	314	8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	600	275	478	2604	1930	49	
Arrive On Green	0.17	0.17	0.14	0.73	0.55	0.55	
Sat Flow, veh/h	3456	1585	3456	3647	3634	90	
Grp Volume(v), veh/h	28	235	374	440	157	165	
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	1854	
Q Serve(g_s), s	0.6	13.4	9.7	3.5	4.1	4.1	
Cycle Q Clear(g_c), s	0.6	13.4	9.7	3.5	4.1	4.1	
Prop In Lane	1.00	1.00	1.00			0.05	
Lane Grp Cap(c), veh/h	600	275	478	2604	969	1011	
V/C Ratio(X)	0.05	0.85	0.78	0.17	0.16	0.16	
Avail Cap(c_a), veh/h	1226	562	944	2604	969	1011	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	32.0	37.3	38.7	3.8	10.6	10.6	
Incr Delay (d2), s/veh	0.0	7.4	2.9	0.1	0.4	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.3	5.7	4.3	1.1	1.6	1.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	32.0	44.7	41.6	3.9	10.9	10.9	
LnGrp LOS	C	D	D	A	B	B	
Approach Vol, veh/h	263			814	322		
Approach Delay, s/veh	43.3			21.2	10.9		
Approach LOS	D			C	B		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		72.8			17.5	55.4	20.2
Change Period (Y+Rc), s		* 4.7			4.6	* 4.7	4.0
Max Green Setting (Gmax), s		* 51			25.4	* 21	33.0
Max Q Clear Time (g_c+I1), s		5.5			11.7	6.1	15.4
Green Ext Time (p_c), s		4.8			1.1	2.2	0.8

Intersection Summary

HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C




















Notes

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

HCM Signalized Intersection Capacity Analysis

1: Tamal Vista Blvd & Fifer Ave & Dwy

05/17/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	196	240	225	280	5	440	25	83	31	27	10
Future Volume (vph)	1	196	240	225	280	5	440	25	83	31	27	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.88			0.98	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1862	1583	1770	1858		1770	1648			1784	
Flt Permitted		1.00	1.00	0.45	1.00		0.95	1.00			0.98	
Satd. Flow (perm)		1861	1583	843	1858		1770	1648			1784	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	213	261	245	304	5	478	27	90	34	29	11
RTOR Reduction (vph)	0	0	103	0	1	0	0	61	0	0	6	0
Lane Group Flow (vph)	0	214	158	245	308	0	478	56	0	0	68	0
Turn Type	Perm	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases		2	8	1	6		8	8		7	7	
Permitted Phases	2		2	6								
Actuated Green, G (s)		28.8	60.7	46.9	46.9		31.9	31.9			8.0	
Effective Green, g (s)		28.8	60.7	46.9	46.9		31.9	31.9			8.0	
Actuated g/C Ratio		0.29	0.61	0.47	0.47		0.32	0.32			0.08	
Clearance Time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		535	960	526	871		564	525			142	
v/s Ratio Prot			0.05	c0.07	0.17		c0.27	0.03			c0.04	
v/s Ratio Perm		0.12	0.05	c0.15								
v/c Ratio		0.40	0.17	0.47	0.35		0.85	0.11			0.48	
Uniform Delay, d1		28.6	8.6	16.9	16.9		31.8	24.0			44.0	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		2.2	0.1	0.7	1.1		11.3	0.1			2.5	
Delay (s)		30.9	8.7	17.5	18.0		43.1	24.1			46.5	
Level of Service		C	A	B	B		D	C			D	
Approach Delay (s)		18.7			17.8			39.4			46.5	
Approach LOS		B			B			D			D	
Intersection Summary												
HCM 2000 Control Delay			26.9				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.63									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)				17.2	
Intersection Capacity Utilization			68.0%				ICU Level of Service				C	
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Tamal Vista Blvd & Wornum Drive

05/17/2022



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	106	169	283	228	472	322
Future Volume (vph)	106	169	283	228	472	322
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	115	184	308	248	513	350
RTOR Reduction (vph)	0	88	0	63	0	0
Lane Group Flow (vph)	115	96	308	185	513	350
Turn Type	custom	pm+ov	NA	custom	Prot	NA
Protected Phases	3	1	2	3	1	6
Permitted Phases	4	4		2 4		
Actuated Green, G (s)	10.3	52.4	24.1	34.4	52.4	80.5
Effective Green, g (s)	10.3	52.4	24.1	34.4	52.4	80.5
Actuated g/C Ratio	0.10	0.52	0.24	0.34	0.52	0.80
Clearance Time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Vehicle Extension (s)	1.0	2.7	5.5	1.0	2.7	3.5
Lane Grp Cap (vph)	182	829	448	617	927	1499
v/s Ratio Prot	c0.06	0.06	c0.17	0.03	c0.29	0.19
v/s Ratio Perm				0.09		
v/c Ratio	0.63	0.12	0.69	0.30	0.55	0.23
Uniform Delay, d1	43.0	12.1	34.5	24.0	16.0	2.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.2	0.0	6.1	0.1	2.4	0.4
Delay (s)	48.2	12.1	40.6	24.1	18.3	2.7
Level of Service	D	B	D	C	B	A
Approach Delay (s)	26.0		33.2			12.0
Approach LOS	C		C			B

Intersection Summary

HCM 2000 Control Delay	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

11: Madera Del Presidio Drive/Harbor Drive & Paradise Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	679	59	21	828	17	79	0	31	20	1	36
Future Volume (vph)	41	679	59	21	828	17	79	0	31	20	1	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.96			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.98	
Satd. Flow (prot)	1770	3497		1770	3529			1730			1675	
Flt Permitted	0.95	1.00		0.95	1.00			0.75			0.89	
Satd. Flow (perm)	1770	3497		1770	3529			1340			1512	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	738	64	23	900	18	86	0	34	22	1	39
RTOR Reduction (vph)	0	7	0	0	2	0	0	91	0	0	35	0
Lane Group Flow (vph)	45	795	0	23	916	0	0	29	0	0	27	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)	3.6	39.0		2.0	37.4			6.2			5.8	
Effective Green, g (s)	3.6	39.0		2.0	37.4			6.2			5.8	
Actuated g/C Ratio	0.06	0.65		0.03	0.62			0.10			0.10	
Clearance Time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Vehicle Extension (s)	2.0	3.0		2.0	3.0			2.0			2.0	
Lane Grp Cap (vph)	106	2273		59	2199			138			146	
v/s Ratio Prot	c0.03	0.23		0.01	c0.26							
v/s Ratio Perm								c0.02			0.02	
v/c Ratio	0.42	0.35		0.39	0.42			0.21			0.18	
Uniform Delay, d1	27.2	4.8		28.4	5.8			24.6			24.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.0	0.4		1.6	0.6			0.3			0.2	
Delay (s)	28.2	5.2		30.0	6.3			24.9			25.1	
Level of Service	C	A		C	A			C			C	
Approach Delay (s)		6.4			6.9			24.9			25.1	
Approach LOS		A			A			C			C	

Intersection Summary

HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th TWSC
 2: Fifer Ave/US 101 SB Ramp & Nellen Ave

05/17/2022

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	290	567	35	0	70
Future Vol, veh/h	0	290	567	35	0	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	315	616	38	0	76

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 635
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.22
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.318
Pot Cap-1 Maneuver	0	-	- 0 478
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 478
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	478
HCM Lane V/C Ratio	-	-	-	0.159
HCM Control Delay (s)	-	-	-	14
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.6

HCM 6th Signalized Intersection Summary

4: Redwood Hwy & Wornum Dr

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	465	90	100	229	66	160
Future Volume (veh/h)	465	90	100	229	66	160
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	505	9	109	249	72	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	541	481	170	1146	902	1246
Arrive On Green	0.30	0.30	0.10	0.61	0.48	0.48
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	505	9	109	249	72	47
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	27.6	0.4	5.9	6.0	2.1	0.7
Cycle Q Clear(g_c), s	27.6	0.4	5.9	6.0	2.1	0.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	541	481	170	1146	902	1246
V/C Ratio(X)	0.93	0.02	0.64	0.22	0.08	0.04
Avail Cap(c_a), veh/h	905	805	223	1146	902	1246
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	24.4	43.6	8.7	13.9	2.4
Incr Delay (d2), s/veh	7.1	0.0	1.5	0.4	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	0.4	2.7	2.4	0.9	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.0	24.4	45.1	9.1	14.1	2.4
LnGrp LOS	D	C	D	A	B	A
Approach Vol, veh/h	514			358	119	
Approach Delay, s/veh	40.7			20.1	9.5	
Approach LOS	D			C	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.0	52.4		34.5		65.5
Change Period (Y+Rc), s	3.5	* 4.2		* 4.2		* 4.2
Max Green Setting (Gmax), s	12.5	* 25		* 51		* 25
Max Q Clear Time (g_c+I1), s	7.9	4.1		29.6		8.0
Green Ext Time (p_c), s	0.0	0.3		0.8		0.8

Intersection Summary

HCM 6th Ctrl Delay			29.5			
HCM 6th LOS			C			

Notes

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

HCM 6th AWSC
 5: Madera Blvd & Council Crest Dr & Tamal Vista Blvd

05/17/2022

Intersection

Intersection Delay, s/veh 23.5

Intersection LOS C

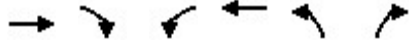
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	
Traffic Vol, veh/h	2	3	3	203	3	164	8	363	143	235	202	6
Future Vol, veh/h	2	3	3	203	3	164	8	363	143	235	202	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	3	3	221	3	178	9	395	155	255	220	7
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	2	1
HCM Control Delay	12.4	17.8	30.7	20
HCM LOS	B	C	D	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	25%	99%	0%	100%	0%
Vol Thru, %	0%	100%	0%	38%	1%	0%	0%	97%
Vol Right, %	0%	0%	100%	38%	0%	100%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	363	143	8	206	164	235	208
LT Vol	8	0	0	2	203	0	235	0
Through Vol	0	363	0	3	3	0	0	202
RT Vol	0	0	143	3	0	164	0	6
Lane Flow Rate	9	395	155	9	224	178	255	226
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.02	0.834	0.298	0.023	0.531	0.363	0.586	0.485
Departure Headway (Hd)	8.119	7.607	6.891	9.367	8.536	7.321	8.263	7.729
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	441	477	521	381	423	490	437	466
Service Time	5.871	5.359	4.643	7.158	6.293	5.077	6.022	5.488
HCM Lane V/C Ratio	0.02	0.828	0.298	0.024	0.53	0.363	0.584	0.485
HCM Control Delay	11	38.3	12.6	12.4	20.6	14.2	22.1	17.6
HCM Lane LOS	B	E	B	B	C	B	C	C
HCM 95th-tile Q	0.1	8.2	1.2	0.1	3	1.6	3.7	2.6

HCM 6th Signalized Intersection Summary
 6: San Clemente Dr & Tamalpais Dr/Redwood Hwy

05/17/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑↑	↵↵	
Traffic Volume (veh/h)	576	7	67	470	1023	92
Future Volume (veh/h)	576	7	67	470	1023	92
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	626	8	73	511	1205	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	858	11	213	2184	1483	660
Arrive On Green	0.24	0.24	0.12	0.43	0.42	0.00
Sat Flow, veh/h	3687	46	1781	5274	3563	1585
Grp Volume(v), veh/h	309	325	73	511	1205	0
Grp Sat Flow(s),veh/h/ln	1777	1862	1781	1702	1781	1585
Q Serve(g_s), s	9.3	9.3	2.2	3.7	17.2	0.0
Cycle Q Clear(g_c), s	9.3	9.3	2.2	3.7	17.2	0.0
Prop In Lane		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	425	445	213	2184	1483	660
V/C Ratio(X)	0.73	0.73	0.34	0.23	0.81	0.00
Avail Cap(c_a), veh/h	1050	1100	309	4246	1728	769
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.2	20.2	23.3	10.5	14.9	0.0
Incr Delay (d2), s/veh	0.9	0.9	1.4	0.1	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	3.8	0.9	1.2	6.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.2	21.1	24.7	10.6	17.8	0.0
LnGrp LOS	C	C	C	B	B	A
Approach Vol, veh/h	634			584	1205	
Approach Delay, s/veh	21.1			12.3	17.8	
Approach LOS	C			B	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.9	18.8		28.0		29.7
Change Period (Y+Rc), s	4.0	* 5		4.0		5.0
Max Green Setting (Gmax), s	10.0	* 34		28.0		48.0
Max Q Clear Time (g_c+14), s	14.2	11.3		19.2		5.7
Green Ext Time (p_c), s	0.1	2.5		4.8		5.7

Intersection Summary

HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

7: US101 NB off ramp & Tamalpais Dr

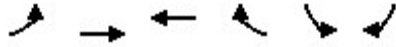
05/17/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↔↔	↔↔
Traffic Volume (veh/h)	876	0	0	760	760	483
Future Volume (veh/h)	876	0	0	760	760	483
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	0	0	1870	1870	1870
Adj Flow Rate, veh/h	952	0	0	826	826	341
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	0	2	2	2
Cap, veh/h	2052	0	0	2052	919	742
Arrive On Green	0.58	0.00	0.00	0.58	0.27	0.27
Sat Flow, veh/h	3741	0	0	3741	3456	2790
Grp Volume(v), veh/h	952	0	0	826	826	341
Grp Sat Flow(s),veh/h/ln	1777	0	0	1777	1728	1395
Q Serve(g_s), s	9.6	0.0	0.0	7.9	14.3	6.3
Cycle Q Clear(g_c), s	9.6	0.0	0.0	7.9	14.3	6.3
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2052	0	0	2052	919	742
V/C Ratio(X)	0.46	0.00	0.00	0.40	0.90	0.46
Avail Cap(c_a), veh/h	2052	0	0	2052	1131	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.6	0.0	0.0	7.2	21.9	19.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.6	7.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	2.5	6.3	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.3	0.0	0.0	7.8	29.4	19.2
LnGrp LOS	A	A	A	A	C	B
Approach Vol, veh/h	952			826	1167	
Approach Delay, s/veh	8.3			7.8	26.4	
Approach LOS	A			A	C	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		40.8			40.8	21.2
Change Period (Y+Rc), s		5.0			5.0	4.7
Max Green Setting (Gmax), s		32.0			32.0	20.3
Max Q Clear Time (g_c+I1), s		11.6			9.9	16.3
Green Ext Time (p_c), s		1.5			1.2	0.2
Intersection Summary						
HCM 6th Ctrl Delay			15.4			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 8: Tamalpais Dr & US101 SB off-ramp

05/17/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	972	1074	0	641	341
Future Volume (veh/h)	0	972	1074	0	641	341
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	1057	1167	0	697	295
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2203	2203	0	796	354
Arrive On Green	0.00	0.62	0.62	0.00	0.22	0.22
Sat Flow, veh/h	0	3741	3741	0	3563	1585
Grp Volume(v), veh/h	0	1057	1167	0	697	295
Grp Sat Flow(s),veh/h/ln	0	1777	1777	0	1781	1585
Q Serve(g_s), s	0.0	10.0	11.5	0.0	11.7	11.0
Cycle Q Clear(g_c), s	0.0	10.0	11.5	0.0	11.7	11.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2203	2203	0	796	354
V/C Ratio(X)	0.00	0.48	0.53	0.00	0.88	0.83
Avail Cap(c_a), veh/h	0	2203	2203	0	1437	639
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	6.4	6.7	0.0	23.2	23.0
Incr Delay (d2), s/veh	0.0	0.8	0.9	0.0	1.2	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.0	3.5	0.0	4.7	4.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	7.1	7.6	0.0	24.5	24.9
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h		1057	1167		992	
Approach Delay, s/veh		7.1	7.6		24.6	
Approach LOS		A	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		43.4		18.6		43.4
Change Period (Y+Rc), s		5.0		* 4.7		5.0
Max Green Setting (Gmax), s		27.3		* 25		27.3
Max Q Clear Time (g_c+I1), s		12.0		13.7		13.5
Green Ext Time (p_c), s		1.6		0.2		1.8

Intersection Summary

HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 9: Casa Buena Dr/Madera Blvd & Tamalpais Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	572	59	236	663	305	41	72	186	226	61	170
Future Volume (veh/h)	164	572	59	236	663	305	41	72	186	226	61	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	178	622	63	257	721	179	45	78	125	156	192	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	1649	167	244	1878	838	59	102	356	219	230	195
Arrive On Green	0.11	0.51	0.51	0.14	0.53	0.53	0.09	0.09	0.09	0.12	0.12	0.12
Sat Flow, veh/h	1781	3258	330	1781	3554	1585	672	1165	1585	1781	1870	1585
Grp Volume(v), veh/h	178	339	346	257	721	179	123	0	125	156	192	65
Grp Sat Flow(s),veh/h/ln	1781	1777	1811	1781	1777	1585	1837	0	1585	1781	1870	1585
Q Serve(g_s), s	12.2	14.4	14.5	17.0	14.9	7.4	8.1	0.0	8.2	10.4	12.4	4.7
Cycle Q Clear(g_c), s	12.2	14.4	14.5	17.0	14.9	7.4	8.1	0.0	8.2	10.4	12.4	4.7
Prop In Lane	1.00		0.18	1.00		1.00	0.37		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	204	899	917	244	1878	838	160	0	356	219	230	195
V/C Ratio(X)	0.87	0.38	0.38	1.05	0.38	0.21	0.77	0.00	0.35	0.71	0.84	0.33
Avail Cap(c_a), veh/h	244	899	917	244	1878	838	435	0	593	351	368	312
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.0	18.7	18.7	53.5	17.3	15.5	55.4	0.0	40.5	52.3	53.2	49.8
Incr Delay (d2), s/veh	21.7	1.2	1.2	72.0	0.6	0.6	2.9	0.0	0.2	1.6	4.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	6.2	6.4	12.5	6.2	2.8	3.9	0.0	3.3	4.8	6.1	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.7	19.9	19.9	125.5	17.9	16.1	58.2	0.0	40.7	53.9	57.7	50.1
LnGrp LOS	E	B	B	F	B	B	E	A	D	D	E	D
Approach Vol, veh/h		863			1157			248			413	
Approach Delay, s/veh		31.4			41.5			49.4			55.1	
Approach LOS		C			D			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	70.5		15.4	21.0	67.8		19.8				
Change Period (Y+Rc), s	4.0	5.0		4.6	4.0	5.0		4.6				
Max Green Setting (Gmax), s	7.0	35.0		29.4	17.0	35.0		24.4				
Max Q Clear Time (g_c+1/4), s	14.2	16.9		10.2	19.0	16.5		14.4				
Green Ext Time (p_c), s	0.1	5.4		0.6	0.0	4.1		0.8				

Intersection Summary

HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

10: Paradise Dr & San Clemente Dr

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	252	37	21	762	846	26
Future Volume (veh/h)	252	37	21	762	846	26
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	274	0	23	828	920	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	328		419	2396	2069	58
Arrive On Green	0.18	0.00	0.02	0.67	0.59	0.59
Sat Flow, veh/h	1781	1585	1781	3647	3623	100
Grp Volume(v), veh/h	274	0	23	828	463	483
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1852
Q Serve(g_s), s	8.9	0.0	0.3	5.9	8.8	8.8
Cycle Q Clear(g_c), s	8.9	0.0	0.3	5.9	8.8	8.8
Prop In Lane	1.00	1.00	1.00			0.05
Lane Grp Cap(c), veh/h	328		419	2396	1042	1086
V/C Ratio(X)	0.84		0.05	0.35	0.44	0.44
Avail Cap(c_a), veh/h	564		500	2396	1042	1086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	0.0	4.9	4.2	6.9	6.9
Incr Delay (d2), s/veh	2.2	0.0	0.0	0.4	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	0.1	1.5	2.9	3.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.8	0.0	4.9	4.5	8.3	8.3
LnGrp LOS	C		A	A	A	A
Approach Vol, veh/h	274	A		851	946	
Approach Delay, s/veh	25.8			4.6	8.3	
Approach LOS	C			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		44.9		15.1	5.3	39.7
Change Period (Y+Rc), s		4.5		4.0	4.0	4.5
Max Green Setting (Gmax), s		32.5		19.0	4.0	24.5
Max Q Clear Time (g_c+I1), s		7.9		10.9	2.3	10.8
Green Ext Time (p_c), s		6.3		0.3	0.0	5.2
Intersection Summary						
HCM 6th Ctrl Delay			9.1			
HCM 6th LOS			A			
Notes						
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.						

HCM 6th Signalized Intersection Summary

12: Redwood Hwy & Village South Entrance

05/17/2022






















Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↖↗	↖	↖↗	↑↑	↑↓		
Traffic Volume (veh/h)	24	251	320	375	240	1	
Future Volume (veh/h)	24	251	320	375	240	1	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	26	224	348	408	261	1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	576	264	450	2629	2034	8	
Arrive On Green	0.17	0.17	0.13	0.74	0.56	0.56	
Sat Flow, veh/h	3456	1585	3456	3647	3724	14	
Grp Volume(v), veh/h	26	224	348	408	128	134	
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	1868	
Q Serve(g_s), s	0.6	12.8	9.1	3.1	3.2	3.2	
Cycle Q Clear(g_c), s	0.6	12.8	9.1	3.1	3.2	3.2	
Prop In Lane	1.00	1.00	1.00			0.01	
Lane Grp Cap(c), veh/h	576	264	450	2629	995	1046	
V/C Ratio(X)	0.05	0.85	0.77	0.16	0.13	0.13	
Avail Cap(c_a), veh/h	1226	562	944	2629	995	1046	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	32.5	37.6	39.1	3.6	9.7	9.7	
Incr Delay (d2), s/veh	0.0	7.4	2.9	0.1	0.3	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.2	5.4	4.0	0.9	1.2	1.3	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	32.6	45.1	42.0	3.7	10.0	9.9	
LnGrp LOS	C	D	D	A	A	A	
Approach Vol, veh/h	250			756	262		
Approach Delay, s/veh	43.8			21.3	10.0		
Approach LOS	D			C	A		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		73.5			16.7	56.8	19.5
Change Period (Y+Rc), s		* 4.7			4.6	* 4.7	4.0
Max Green Setting (Gmax), s		* 51			25.4	* 21	33.0
Max Q Clear Time (g_c+I1), s		5.1			11.1	5.2	14.8
Green Ext Time (p_c), s		4.4			1.1	1.8	0.8
Intersection Summary							
HCM 6th Ctrl Delay			23.4				
HCM 6th LOS			C				
Notes							
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.							

HCM Signalized Intersection Capacity Analysis

1: Tamal Vista Blvd & Fifer Ave & Dwy

05/17/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	249	334	250	440	2	464	17	49	18	25	7
Future Volume (vph)	0	249	334	250	440	2	464	17	49	18	25	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.89			0.98	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1863	1583	1770	1862		1770	1654			1794	
Flt Permitted		1.00	1.00	0.34	1.00		0.95	1.00			0.98	
Satd. Flow (perm)		1863	1583	637	1862		1770	1654			1794	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	271	363	272	478	2	504	18	53	20	27	8
RTOR Reduction (vph)	0	0	139	0	0	0	0	34	0	0	7	0
Lane Group Flow (vph)	0	271	224	272	480	0	504	37	0	0	48	0
Turn Type		NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases		2	8	1	6		8	8		7	7	
Permitted Phases			2	6								
Actuated Green, G (s)		25.7	61.7	43.9	43.9		36.0	36.0			6.9	
Effective Green, g (s)		25.7	61.7	43.9	43.9		36.0	36.0			6.9	
Actuated g/C Ratio		0.26	0.62	0.44	0.44		0.36	0.36			0.07	
Clearance Time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		478	976	440	817		637	595			123	
v/s Ratio Prot		0.15	0.08	0.09	c0.26		c0.28	0.02			c0.03	
v/s Ratio Perm			0.06	c0.18								
v/c Ratio		0.57	0.23	0.62	0.59		0.79	0.06			0.39	
Uniform Delay, d1		32.3	8.5	19.6	21.2		28.6	21.0			44.5	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		4.8	0.1	2.6	3.1		6.7	0.0			2.1	
Delay (s)		37.1	8.7	22.2	24.3		35.3	21.0			46.6	
Level of Service		D	A	C	C		D	C			D	
Approach Delay (s)		20.8			23.5			33.5			46.6	
Approach LOS		C			C			C			D	
Intersection Summary												
HCM 2000 Control Delay			26.2				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)			17.2		
Intersection Capacity Utilization			70.3%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Tamal Vista Blvd & Wornum Drive

05/17/2022



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	56	287	158	152	414	279
Future Volume (vph)	56	287	158	152	414	279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	312	172	165	450	303
RTOR Reduction (vph)	0	120	0	98	0	0
Lane Group Flow (vph)	61	192	172	67	450	303
Turn Type	custom	pm+ov	NA	custom	Prot	NA
Protected Phases	3	1	2	3	1	6
Permitted Phases	4	4		2 4		
Actuated Green, G (s)	8.5	61.6	16.7	25.2	61.6	82.3
Effective Green, g (s)	8.5	61.6	16.7	25.2	61.6	82.3
Actuated g/C Ratio	0.08	0.62	0.17	0.25	0.62	0.82
Clearance Time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Vehicle Extension (s)	1.0	2.7	5.5	1.0	2.7	3.5
Lane Grp Cap (vph)	150	975	311	471	1090	1533
v/s Ratio Prot	c0.03	0.12	c0.09	0.01	c0.25	0.16
v/s Ratio Perm				0.03		
v/c Ratio	0.41	0.20	0.55	0.14	0.41	0.20
Uniform Delay, d1	43.4	8.4	38.2	29.0	9.9	1.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.0	4.1	0.1	1.2	0.3
Delay (s)	44.0	8.4	42.3	29.1	11.0	2.2
Level of Service	D	A	D	C	B	A
Approach Delay (s)	14.2		35.8			7.5
Approach LOS	B		D			A

Intersection Summary

HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	48.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

11: Madera Del Presidio Drive/Harbor Drive & Paradise Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	960	79	34	959	23	71	0	40	34	2	54
Future Volume (vph)	26	960	79	34	959	23	71	0	40	34	2	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.95			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.98	
Satd. Flow (prot)	1770	3499		1770	3527			1718			1680	
Flt Permitted	0.95	1.00		0.95	1.00			0.83			0.87	
Satd. Flow (perm)	1770	3499		1770	3527			1476			1490	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	1043	86	37	1042	25	77	0	43	37	2	59
RTOR Reduction (vph)	0	7	0	0	2	0	0	91	0	0	53	0
Lane Group Flow (vph)	28	1122	0	37	1065	0	0	29	0	0	45	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)	3.6	36.8		4.0	37.2			6.4			6.0	
Effective Green, g (s)	3.6	36.8		4.0	37.2			6.4			6.0	
Actuated g/C Ratio	0.06	0.61		0.07	0.62			0.11			0.10	
Clearance Time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Vehicle Extension (s)	2.0	3.0		2.0	3.0			2.0			2.0	
Lane Grp Cap (vph)	106	2146		118	2186			157			149	
v/s Ratio Prot	0.02	c0.32		c0.02	0.30							
v/s Ratio Perm								0.02			c0.03	
v/c Ratio	0.26	0.52		0.31	0.49			0.18			0.30	
Uniform Delay, d1	26.9	6.6		26.7	6.2			24.4			25.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.5	0.9		0.6	0.8			0.2			0.4	
Delay (s)	27.4	7.5		27.2	7.0			24.6			25.5	
Level of Service	C	A		C	A			C			C	
Approach Delay (s)		8.0			7.7			24.6			25.5	
Approach LOS		A			A			C			C	

Intersection Summary

HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	47.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th TWSC
 2: Fifer Ave/US 101 SB Ramp & Nellen Ave

06/07/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	315	691	62	0	32
Future Vol, veh/h	0	315	691	62	0	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	342	751	67	0	35

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	393
HCM Lane V/C Ratio	-	-	-	0.089
HCM Control Delay (s)	-	-	-	15
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.3

HCM 6th Signalized Intersection Summary

4: Redwood Hwy & Wornum Dr

06/07/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	476	96	110	63	24	327
Future Volume (veh/h)	476	96	110	63	24	327
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	517	15	120	68	26	228
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	552	491	172	1133	888	1244
Arrive On Green	0.31	0.31	0.10	0.61	0.47	0.47
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	517	15	120	68	26	228
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	28.2	0.7	6.5	1.5	0.7	3.6
Cycle Q Clear(g_c), s	28.2	0.7	6.5	1.5	0.7	3.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	552	491	172	1133	888	1244
V/C Ratio(X)	0.94	0.03	0.70	0.06	0.03	0.18
Avail Cap(c_a), veh/h	816	726	258	1133	888	1244
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	24.0	43.8	8.1	14.0	2.7
Incr Delay (d2), s/veh	11.2	0.0	1.9	0.1	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.6	0.7	2.9	0.6	0.3	3.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.8	24.0	45.7	8.2	14.1	3.0
LnGrp LOS	D	C	D	A	B	A
Approach Vol, veh/h	532			188	254	
Approach Delay, s/veh	44.2			32.1	4.2	
Approach LOS	D			C	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.1	51.7		35.2		64.8
Change Period (Y+Rc), s	3.5	* 4.2		* 4.2		* 4.2
Max Green Setting (Gmax), s	14.5	* 28		* 46		* 28
Max Q Clear Time (g_c+I1), s	8.5	5.6		30.2		3.5
Green Ext Time (p_c), s	0.0	0.5		0.8		0.2
Intersection Summary						
HCM 6th Ctrl Delay			31.4			
HCM 6th LOS			C			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Intersection

Intersection Delay, s/veh 13.1

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	
Traffic Vol, veh/h	2	5	3	150	6	103	9	239	171	122	190	1
Future Vol, veh/h	2	5	3	150	6	103	9	239	171	122	190	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	5	3	163	7	112	10	260	186	133	207	1
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	0

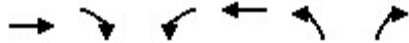
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	3
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	2	3	1	2
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	3	2	2	1
HCM Control Delay	10.7	12.7	13.3	13.2
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	20%	96%	0%	100%	0%
Vol Thru, %	0%	100%	0%	50%	4%	0%	0%	99%
Vol Right, %	0%	0%	100%	30%	0%	100%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	9	239	171	10	156	103	122	191
LT Vol	9	0	0	2	150	0	122	0
Through Vol	0	239	0	5	6	0	0	190
RT Vol	0	0	171	3	0	103	0	1
Lane Flow Rate	10	260	186	11	170	112	133	208
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.019	0.47	0.3	0.023	0.35	0.194	0.265	0.385
Departure Headway (Hd)	7.019	6.512	5.802	7.769	7.439	6.247	7.188	6.676
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	508	551	617	464	482	571	497	536
Service Time	4.787	4.28	3.569	5.469	5.215	4.022	4.963	4.451
HCM Lane V/C Ratio	0.02	0.472	0.301	0.024	0.353	0.196	0.268	0.388
HCM Control Delay	9.9	15	11.1	10.7	14.2	10.5	12.6	13.6
HCM Lane LOS	A	B	B	B	B	B	B	B
HCM 95th-tile Q	0.1	2.5	1.3	0.1	1.6	0.7	1.1	1.8

HCM 6th Signalized Intersection Summary

6: San Clemente Dr & Tamalpais Dr/Redwood Hwy

06/07/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵↵↵	↵
Traffic Volume (veh/h)	167	32	79	122	1144	107
Future Volume (veh/h)	167	32	79	122	1144	107
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	182	35	86	133	1243	116
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	875	161	249	2158	1987	627
Arrive On Green	0.20	0.20	0.14	0.42	0.40	0.40
Sat Flow, veh/h	4502	797	1781	5274	5023	1585
Grp Volume(v), veh/h	141	76	86	133	1243	116
Grp Sat Flow(s),veh/h/ln	1702	1727	1781	1702	1674	1585
Q Serve(g_s), s	1.7	1.8	2.2	0.8	9.8	2.4
Cycle Q Clear(g_c), s	1.7	1.8	2.2	0.8	9.8	2.4
Prop In Lane		0.46	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	687	349	249	2158	1987	627
V/C Ratio(X)	0.21	0.22	0.34	0.06	0.63	0.18
Avail Cap(c_a), veh/h	2343	1189	360	4948	2840	896
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	16.5	19.2	8.5	12.0	9.8
Incr Delay (d2), s/veh	0.1	0.1	1.2	0.0	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.7	0.9	0.2	3.1	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.5	16.6	20.4	8.5	12.5	10.0
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	217			219	1359	
Approach Delay, s/veh	16.5			13.2	12.3	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.9	15.0		23.6		25.9
Change Period (Y+Rc), s	4.0	* 5		4.0		5.0
Max Green Setting (Gmax), s	10.0	* 34		28.0		48.0
Max Q Clear Time (g_c+14), s	14.2	3.8		11.8		2.8
Green Ext Time (p_c), s	0.1	0.9		7.8		1.3

Intersection Summary

HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

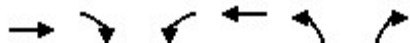
Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

7: US101 NB off ramp & Tamalpais Dr

06/07/2022

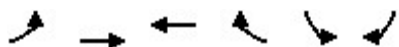


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↔↔	↔↔
Traffic Volume (veh/h)	935	0	0	757	462	431
Future Volume (veh/h)	935	0	0	757	462	431
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	0	0	1870	1870	1870
Adj Flow Rate, veh/h	1016	0	0	823	502	284
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	0	2	2	2
Cap, veh/h	2376	0	0	2376	604	488
Arrive On Green	0.67	0.00	0.00	0.67	0.17	0.17
Sat Flow, veh/h	3741	0	0	3741	3456	2790
Grp Volume(v), veh/h	1016	0	0	823	502	284
Grp Sat Flow(s),veh/h/ln	1777	0	0	1777	1728	1395
Q Serve(g_s), s	8.2	0.0	0.0	6.2	8.7	5.8
Cycle Q Clear(g_c), s	8.2	0.0	0.0	6.2	8.7	5.8
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2376	0	0	2376	604	488
V/C Ratio(X)	0.43	0.00	0.00	0.35	0.83	0.58
Avail Cap(c_a), veh/h	2376	0	0	2376	909	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.8	0.0	0.0	4.4	24.7	23.5
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.4	2.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	1.6	3.5	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.3	0.0	0.0	4.8	27.2	23.9
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h	1016			823	786	
Approach Delay, s/veh	5.3			4.8	26.0	
Approach LOS	A			A	C	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		46.5			46.5	15.5
Change Period (Y+Rc), s		5.0			5.0	4.7
Max Green Setting (Gmax), s		36.0			36.0	16.3
Max Q Clear Time (g_c+I1), s		10.2			8.2	10.7
Green Ext Time (p_c), s		1.6			1.3	0.1
Intersection Summary						
HCM 6th Ctrl Delay			11.4			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

8: Tamalpais Dr & US101 SB off-ramp

06/07/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	782	744	0	657	389
Future Volume (veh/h)	0	782	744	0	657	389
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	850	809	0	714	347
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2123	2123	0	877	390
Arrive On Green	0.00	0.60	0.60	0.00	0.25	0.25
Sat Flow, veh/h	0	3741	3741	0	3563	1585
Grp Volume(v), veh/h	0	850	809	0	714	347
Grp Sat Flow(s),veh/h/ln	0	1777	1777	0	1781	1585
Q Serve(g_s), s	0.0	7.8	7.4	0.0	11.7	13.1
Cycle Q Clear(g_c), s	0.0	7.8	7.4	0.0	11.7	13.1
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2123	2123	0	877	390
V/C Ratio(X)	0.00	0.40	0.38	0.00	0.81	0.89
Avail Cap(c_a), veh/h	0	2123	2123	0	1511	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	6.6	6.5	0.0	22.0	22.6
Incr Delay (d2), s/veh	0.0	0.6	0.5	0.0	0.7	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.4	2.3	0.0	4.6	4.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	7.2	7.0	0.0	22.7	26.3
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h		850	809		1061	
Approach Delay, s/veh		7.2	7.0		23.9	
Approach LOS		A	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		42.0		20.0		42.0
Change Period (Y+Rc), s		5.0		* 4.7		5.0
Max Green Setting (Gmax), s		26.0		* 26		26.0
Max Q Clear Time (g_c+I1), s		9.8		15.1		9.4
Green Ext Time (p_c), s		1.3		0.2		1.2

Intersection Summary

HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

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

HCM 6th Signalized Intersection Summary

9: Casa Buena Dr/Madera Blvd & Tamalpais Dr

06/07/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	853	22	137	563	207	49	54	171	210	78	138
Future Volume (veh/h)	118	853	22	137	563	207	49	54	171	210	78	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	128	927	23	149	612	72	53	59	109	156	185	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	154	1967	49	175	2015	899	70	78	284	212	222	188
Arrive On Green	0.09	0.56	0.56	0.10	0.57	0.57	0.08	0.08	0.08	0.12	0.12	0.12
Sat Flow, veh/h	1781	3543	88	1781	3554	1585	865	963	1585	1781	1870	1585
Grp Volume(v), veh/h	128	465	485	149	612	72	112	0	109	156	185	30
Grp Sat Flow(s),veh/h/ln	1781	1777	1855	1781	1777	1585	1827	0	1585	1781	1870	1585
Q Serve(g_s), s	8.8	19.5	19.5	10.2	11.2	2.6	7.4	0.0	7.5	10.5	12.0	2.1
Cycle Q Clear(g_c), s	8.8	19.5	19.5	10.2	11.2	2.6	7.4	0.0	7.5	10.5	12.0	2.1
Prop In Lane	1.00		0.05	1.00		1.00	0.47		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	154	986	1030	175	2015	899	148	0	284	212	222	188
V/C Ratio(X)	0.83	0.47	0.47	0.85	0.30	0.08	0.76	0.00	0.38	0.74	0.83	0.16
Avail Cap(c_a), veh/h	230	986	1030	230	2015	899	418	0	519	365	383	325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	16.6	16.6	55.0	14.0	12.2	55.8	0.0	44.8	52.8	53.4	49.1
Incr Delay (d2), s/veh	9.5	1.6	1.5	16.5	0.4	0.2	3.0	0.0	0.3	1.9	3.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	8.3	8.6	5.4	4.6	0.9	3.6	0.0	3.0	4.8	5.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	18.2	18.2	71.5	14.4	12.3	58.8	0.0	45.2	54.6	56.5	49.2
LnGrp LOS	E	B	B	E	B	B	E	A	D	D	E	D
Approach Vol, veh/h		1078			833			221			371	
Approach Delay, s/veh		23.8			24.5			52.1			55.1	
Approach LOS		C			C			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.7	75.3		14.6	16.2	73.8		19.3				
Change Period (Y+Rc), s	4.0	5.0		4.6	4.0	5.0		4.6				
Max Green Setting (Gmax), s	16.0	36.0		28.4	16.0	36.0		25.4				
Max Q Clear Time (g_c+110), s	11.0	13.2		9.5	12.2	21.5		14.0				
Green Ext Time (p_c), s	0.1	4.6		0.5	0.1	5.4		0.7				

Intersection Summary

HCM 6th Ctrl Delay	31.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

10: Paradise Dr & San Clemente Dr

06/07/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	127	19	21	1106	1032	31
Future Volume (veh/h)	127	19	21	1106	1032	31
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	138	0	23	1202	1122	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	187		406	2677	2348	67
Arrive On Green	0.10	0.00	0.02	0.75	0.67	0.67
Sat Flow, veh/h	1781	1585	1781	3647	3622	101
Grp Volume(v), veh/h	138	0	23	1202	565	589
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1852
Q Serve(g_s), s	4.5	0.0	0.2	7.6	9.4	9.4
Cycle Q Clear(g_c), s	4.5	0.0	0.2	7.6	9.4	9.4
Prop In Lane	1.00	1.00	1.00			0.05
Lane Grp Cap(c), veh/h	187		406	2677	1182	1233
V/C Ratio(X)	0.74		0.06	0.45	0.48	0.48
Avail Cap(c_a), veh/h	564		487	2677	1182	1233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	0.0	3.5	2.8	4.9	4.9
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.5	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	1.3	2.7	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.2	0.0	3.5	3.3	6.3	6.3
LnGrp LOS	C		A	A	A	A
Approach Vol, veh/h	138	A		1225	1154	
Approach Delay, s/veh	28.2			3.3	6.3	
Approach LOS	C			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		49.7		10.3	5.3	44.4
Change Period (Y+Rc), s		4.5		4.0	4.0	4.5
Max Green Setting (Gmax), s		32.5		19.0	4.0	24.5
Max Q Clear Time (g_c+I1), s		9.6		6.5	2.2	11.4
Green Ext Time (p_c), s		9.7		0.1	0.0	6.3
Intersection Summary						
HCM 6th Ctrl Delay			6.0			
HCM 6th LOS			A			
Notes						
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.						

HCM 6th Signalized Intersection Summary

12: Redwood Hwy & Village South Entrance

06/07/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↗	↗	↖↗	↑↑	↑↑	
Traffic Volume (veh/h)	18	113	126	182	88	4
Future Volume (veh/h)	18	113	126	182	88	4
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	74	137	198	96	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	221	101	361	2994	2394	99
Arrive On Green	0.06	0.06	0.10	0.84	0.69	0.69
Sat Flow, veh/h	3456	1585	3456	3647	3571	144
Grp Volume(v), veh/h	20	74	137	198	49	51
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	1844
Q Serve(g_s), s	0.5	4.3	3.4	0.9	0.8	0.8
Cycle Q Clear(g_c), s	0.5	4.3	3.4	0.9	0.8	0.8
Prop In Lane	1.00	1.00	1.00			0.08
Lane Grp Cap(c), veh/h	221	101	361	2994	1224	1270
V/C Ratio(X)	0.09	0.73	0.38	0.07	0.04	0.04
Avail Cap(c_a), veh/h	1226	562	944	2994	1224	1270
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	42.7	38.8	1.2	4.6	4.6
Incr Delay (d2), s/veh	0.2	9.6	0.7	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.9	1.5	0.1	0.3	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.2	52.3	39.5	1.3	4.7	4.7
LnGrp LOS	D	D	D	A	A	A
Approach Vol, veh/h	94			335	100	
Approach Delay, s/veh	50.0			16.9	4.7	
Approach LOS	D			B	A	
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s					14.3	68.7
Change Period (Y+Rc), s		* 4.7			4.6	* 4.7
Max Green Setting (Gmax), s		* 51			25.4	* 21
Max Q Clear Time (g_c+I1), s		2.9			5.4	2.8
Green Ext Time (p_c), s		2.0			0.4	0.6

Intersection Summary

HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C





















Notes

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

HCM Signalized Intersection Capacity Analysis

1: Tamal Vista Blvd & Fifer Ave & Dwy

05/17/2022













												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	283	391	318	284	4	313	23	85	22	28	5
Future Volume (vph)	3	283	391	318	284	4	313	23	85	22	28	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.88			0.99	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1862	1583	1770	1859		1770	1643			1805	
Flt Permitted		1.00	1.00	0.38	1.00		0.95	1.00			0.98	
Satd. Flow (perm)		1858	1583	706	1859		1770	1643			1805	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	308	425	346	309	4	340	25	92	24	30	5
RTOR Reduction (vph)	0	0	174	0	0	0	0	70	0	0	4	0
Lane Group Flow (vph)	0	311	251	346	313	0	340	47	0	0	55	0
Turn Type	Perm	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases		2	8	1	6		8	8		7	7	
Permitted Phases	2		2	6								
Actuated Green, G (s)		34.7	59.0	55.1	55.1		24.3	24.3			7.4	
Effective Green, g (s)		34.7	59.0	55.1	55.1		24.3	24.3			7.4	
Actuated g/C Ratio		0.35	0.59	0.55	0.55		0.24	0.24			0.07	
Clearance Time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		644	933	563	1024		430	399			133	
v/s Ratio Prot			0.07	c0.10	0.17		c0.19	0.03			c0.03	
v/s Ratio Perm		0.17	0.09	c0.24								
v/c Ratio		0.48	0.27	0.61	0.31		0.79	0.12			0.42	
Uniform Delay, d1		25.6	10.0	13.8	12.1		35.5	29.5			44.2	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		2.6	0.2	2.0	0.8		9.6	0.1			2.1	
Delay (s)		28.2	10.1	15.8	12.9		45.0	29.6			46.3	
Level of Service		C	B	B	B		D	C			D	
Approach Delay (s)		17.8			14.4			41.1			46.3	
Approach LOS		B			B			D			D	
Intersection Summary												
HCM 2000 Control Delay			23.1				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)			17.2		
Intersection Capacity Utilization			68.2%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Tamal Vista Blvd & Wornum Drive

05/17/2022

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	135	229	276	271	519	296
Future Volume (vph)	135	229	276	271	519	296
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	147	249	300	295	564	322
RTOR Reduction (vph)	0	120	0	22	0	0
Lane Group Flow (vph)	147	129	300	273	564	322
Turn Type	custom	pm+ov	NA	custom	Prot	NA
Protected Phases	3	1	2	3	1	6
Permitted Phases	4	4		2 4		
Actuated Green, G (s)	11.1	51.9	23.8	34.9	51.9	79.7
Effective Green, g (s)	11.1	51.9	23.8	34.9	51.9	79.7
Actuated g/C Ratio	0.11	0.52	0.24	0.35	0.52	0.80
Clearance Time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Vehicle Extension (s)	1.0	2.7	5.5	1.0	2.7	3.5
Lane Grp Cap (vph)	196	821	443	625	918	1484
v/s Ratio Prot	c0.08	0.08	c0.16	0.05	c0.32	0.17
v/s Ratio Perm				0.12		
v/c Ratio	0.75	0.16	0.68	0.44	0.61	0.22
Uniform Delay, d1	43.1	12.6	34.6	25.0	17.0	2.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	13.3	0.0	5.8	0.2	3.1	0.3
Delay (s)	56.4	12.6	40.4	25.2	20.1	2.8
Level of Service	E	B	D	C	C	A
Approach Delay (s)	28.9		32.8			13.8
Approach LOS	C		C			B
Intersection Summary						
HCM 2000 Control Delay			23.0		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.68			
Actuated Cycle Length (s)			100.0		Sum of lost time (s)	17.2
Intersection Capacity Utilization			61.8%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary

6: San Clemente Dr & Tamalpais Dr/Redwood Hwy

06/07/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵↵↵	↵
Traffic Volume (veh/h)	560	19	89	451	899	145
Future Volume (veh/h)	560	19	89	451	899	145
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	609	21	97	490	977	158
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1097	38	275	2334	1748	552
Arrive On Green	0.22	0.22	0.15	0.46	0.35	0.35
Sat Flow, veh/h	5237	174	1781	5274	5023	1585
Grp Volume(v), veh/h	408	222	97	490	977	158
Grp Sat Flow(s),veh/h/ln	1702	1839	1781	1702	1674	1585
Q Serve(g_s), s	4.9	5.0	2.3	2.7	7.3	3.3
Cycle Q Clear(g_c), s	4.9	5.0	2.3	2.7	7.3	3.3
Prop In Lane		0.09	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	737	398	275	2334	1748	552
V/C Ratio(X)	0.55	0.56	0.35	0.21	0.56	0.29
Avail Cap(c_a), veh/h	2513	1357	386	5305	3044	961
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.1	16.1	17.5	7.5	12.2	10.9
Incr Delay (d2), s/veh	0.2	0.5	1.1	0.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.9	0.9	0.7	2.3	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.4	16.6	18.6	7.6	12.6	11.3
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	630			587	1135	
Approach Delay, s/veh	16.4			9.4	12.4	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.1	15.0		20.1		26.1
Change Period (Y+Rc), s	4.0	* 5		4.0		5.0
Max Green Setting (Gmax), s	10.0	* 34		28.0		48.0
Max Q Clear Time (g_c+I1), s	4.3	7.0		9.3		4.7
Green Ext Time (p_c), s	0.1	2.8		6.8		5.4

Intersection Summary

HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Notes

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

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

HCM 6th Signalized Intersection Summary

9: Casa Buena Dr/Madera Blvd & Tamalpais Dr

06/07/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	678	30	173	681	332	58	76	164	244	90	205
Future Volume (veh/h)	168	678	30	173	681	332	58	76	164	244	90	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	737	32	188	740	208	63	83	101	182	215	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	1728	75	214	1780	794	78	103	348	241	253	215
Arrive On Green	0.12	0.50	0.50	0.12	0.50	0.50	0.10	0.10	0.10	0.14	0.14	0.14
Sat Flow, veh/h	1781	3470	151	1781	3554	1585	790	1041	1585	1781	1870	1585
Grp Volume(v), veh/h	183	377	392	188	740	208	146	0	101	182	215	103
Grp Sat Flow(s),veh/h/ln	1781	1777	1843	1781	1777	1585	1831	0	1585	1781	1870	1585
Q Serve(g_s), s	12.5	16.8	16.8	12.9	16.3	9.3	9.7	0.0	6.6	12.2	13.9	7.4
Cycle Q Clear(g_c), s	12.5	16.8	16.8	12.9	16.3	9.3	9.7	0.0	6.6	12.2	13.9	7.4
Prop In Lane	1.00		0.08	1.00		1.00	0.43		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	210	885	918	214	1780	794	182	0	348	241	253	215
V/C Ratio(X)	0.87	0.43	0.43	0.88	0.42	0.26	0.80	0.00	0.29	0.75	0.85	0.48
Avail Cap(c_a), veh/h	259	885	918	259	1780	794	434	0	567	351	368	312
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	19.8	19.8	53.6	19.5	17.8	54.7	0.0	40.3	51.6	52.4	49.6
Incr Delay (d2), s/veh	20.2	1.5	1.5	21.4	0.7	0.8	3.2	0.0	0.2	2.6	8.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	7.3	7.5	7.0	6.9	3.6	4.6	0.0	2.6	5.6	7.1	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.0	21.3	21.3	75.1	20.2	18.6	57.8	0.0	40.5	54.2	60.7	50.2
LnGrp LOS	E	C	C	E	C	B	E	A	D	D	E	D
Approach Vol, veh/h		952			1136			247			500	
Approach Delay, s/veh		31.4			29.0			50.7			56.1	
Approach LOS		C			C			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	67.1		16.9	18.9	66.8		21.4				
Change Period (Y+Rc), s	4.0	5.0		4.6	4.0	5.0		4.6				
Max Green Setting (Gmax), s	34.0	34.0		29.4	18.0	34.0		24.4				
Max Q Clear Time (g_c+1/4), s	14.5	18.3		11.7	14.9	18.8		15.9				
Green Ext Time (p_c), s	0.1	5.3		0.6	0.1	4.3		0.9				

Intersection Summary

HCM 6th Ctrl Delay	36.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

12: Redwood Hwy & Village South Entrance

06/07/2022






















Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↗	↗	↖↗	↑↑	↑↑	
Traffic Volume (veh/h)	32	280	374	419	301	15
Future Volume (veh/h)	32	280	374	419	301	15
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	255	407	455	327	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	645	296	512	2558	1800	88
Arrive On Green	0.19	0.19	0.15	0.72	0.52	0.52
Sat Flow, veh/h	3456	1585	3456	3647	3542	168
Grp Volume(v), veh/h	35	255	407	455	168	175
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	1840
Q Serve(g_s), s	0.8	14.5	10.6	3.8	4.6	4.7
Cycle Q Clear(g_c), s	0.8	14.5	10.6	3.8	4.6	4.7
Prop In Lane	1.00	1.00	1.00			0.09
Lane Grp Cap(c), veh/h	645	296	512	2558	927	961
V/C Ratio(X)	0.05	0.86	0.79	0.18	0.18	0.18
Avail Cap(c_a), veh/h	1226	562	944	2558	927	961
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	36.7	38.2	4.2	11.7	11.7
Incr Delay (d2), s/veh	0.0	7.3	2.8	0.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	6.1	4.6	1.2	1.9	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.1	44.0	41.1	4.3	12.2	12.2
LnGrp LOS	C	D	D	A	B	B
Approach Vol, veh/h	290			862	343	
Approach Delay, s/veh	42.4			21.7	12.2	
Approach LOS	D			C	B	
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s					18.4	53.2
Change Period (Y+Rc), s		* 4.7			4.6	* 4.7
Max Green Setting (Gmax), s		* 51			25.4	* 21
Max Q Clear Time (g_c+I1), s		5.8			12.6	6.7
Green Ext Time (p_c), s		4.9			1.2	2.3
Green Ext Time (p_c), s						0.9
Intersection Summary						
HCM 6th Ctrl Delay			23.5			
HCM 6th LOS			C			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM Signalized Intersection Capacity Analysis

1: Tamal Vista Blvd & Fifer Ave & Dwy

05/17/2022













												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	196	270	250	280	7	459	40	83	34	27	10
Future Volume (vph)	1	196	270	250	280	7	459	40	83	34	27	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.90			0.98	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1862	1583	1770	1856		1770	1674			1784	
Flt Permitted		1.00	1.00	0.44	1.00		0.95	1.00			0.98	
Satd. Flow (perm)		1861	1583	814	1856		1770	1674			1784	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	213	293	272	304	8	499	43	90	37	29	11
RTOR Reduction (vph)	0	0	117	0	1	0	0	60	0	0	6	0
Lane Group Flow (vph)	0	214	176	272	311	0	499	73	0	0	71	0
Turn Type	Perm	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases		2	8	1	6		8	8		7	7	
Permitted Phases	2		2	6								
Actuated Green, G (s)		26.9	60.0	45.6	45.6		33.1	33.1			8.1	
Effective Green, g (s)		26.9	60.0	45.6	45.6		33.1	33.1			8.1	
Actuated g/C Ratio		0.27	0.60	0.46	0.46		0.33	0.33			0.08	
Clearance Time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		500	949	511	846		585	554			144	
v/s Ratio Prot			0.06	c0.08	0.17		c0.28	0.04			c0.04	
v/s Ratio Perm		0.12	0.05	c0.16								
v/c Ratio		0.43	0.19	0.53	0.37		0.85	0.13			0.49	
Uniform Delay, d1		30.2	9.0	18.0	17.8		31.2	23.4			44.0	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		2.7	0.1	1.1	1.2		11.6	0.1			2.6	
Delay (s)		32.9	9.1	19.1	19.0		42.7	23.5			46.6	
Level of Service		C	A	B	B		D	C			D	
Approach Delay (s)		19.1			19.1			38.7			46.6	
Approach LOS		B			B			D			D	
Intersection Summary												
HCM 2000 Control Delay			27.1				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)			17.2		
Intersection Capacity Utilization			69.5%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Tamal Vista Blvd & Wornum Drive

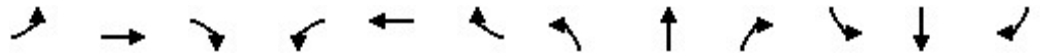
05/17/2022

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	117	203	335	249	486	343
Future Volume (vph)	117	203	335	249	486	343
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	127	221	364	271	528	373
RTOR Reduction (vph)	0	114	0	55	0	0
Lane Group Flow (vph)	127	107	364	216	528	373
Turn Type	custom	pm+ov	NA	custom	Prot	NA
Protected Phases	3	1	2	3	1	6
Permitted Phases	4	4		2 4		
Actuated Green, G (s)	10.7	48.2	27.9	38.6	48.2	80.1
Effective Green, g (s)	10.7	48.2	27.9	38.6	48.2	80.1
Actuated g/C Ratio	0.11	0.48	0.28	0.39	0.48	0.80
Clearance Time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Vehicle Extension (s)	1.0	2.7	5.5	1.0	2.7	3.5
Lane Grp Cap (vph)	189	763	519	683	853	1492
v/s Ratio Prot	c0.07	0.07	c0.20	0.03	c0.30	0.20
v/s Ratio Perm				0.10		
v/c Ratio	0.67	0.14	0.70	0.32	0.62	0.25
Uniform Delay, d1	43.0	14.4	32.3	21.5	19.1	2.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.2	0.0	5.8	0.1	3.4	0.4
Delay (s)	50.1	14.4	38.1	21.6	22.5	2.9
Level of Service	D	B	D	C	C	A
Approach Delay (s)	27.5		31.0			14.4
Approach LOS	C		C			B
Intersection Summary						
HCM 2000 Control Delay			22.4		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.68			
Actuated Cycle Length (s)			100.0		Sum of lost time (s)	17.2
Intersection Capacity Utilization			62.2%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

11: Madera Del Presidio Drive/Harbor Drive & Paradise Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	705	67	21	860	17	90	0	31	20	1	36
Future Volume (vph)	41	705	67	21	860	17	90	0	31	20	1	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.97			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.96			0.98	
Satd. Flow (prot)	1770	3493		1770	3529			1734			1675	
Flt Permitted	0.95	1.00		0.95	1.00			0.74			0.89	
Satd. Flow (perm)	1770	3493		1770	3529			1333			1510	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	766	73	23	935	18	98	0	34	22	1	39
RTOR Reduction (vph)	0	7	0	0	2	0	0	91	0	0	35	0
Lane Group Flow (vph)	45	832	0	23	951	0	0	41	0	0	27	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)	3.6	38.7		2.0	37.1			6.5			6.1	
Effective Green, g (s)	3.6	38.7		2.0	37.1			6.5			6.1	
Actuated g/C Ratio	0.06	0.65		0.03	0.62			0.11			0.10	
Clearance Time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Vehicle Extension (s)	2.0	3.0		2.0	3.0			2.0			2.0	
Lane Grp Cap (vph)	106	2252		59	2182			144			153	
v/s Ratio Prot	c0.03	0.24		0.01	c0.27							
v/s Ratio Perm								c0.03			0.02	
v/c Ratio	0.42	0.37		0.39	0.44			0.29			0.18	
Uniform Delay, d1	27.2	5.0		28.4	6.0			24.6			24.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.0	0.5		1.6	0.6			0.4			0.2	
Delay (s)	28.2	5.4		30.0	6.6			25.0			24.9	
Level of Service	C	A		C	A			C			C	
Approach Delay (s)		6.6			7.2			25.0			24.9	
Approach LOS		A			A			C			C	

Intersection Summary

HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th TWSC
 2: Fifer Ave/US 101 SB Ramp & Nellen Ave

06/07/2022

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	290	590	39	0	77
Future Vol, veh/h	0	290	590	39	0	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	315	641	42	0	84

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	6.22
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.318
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	462
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	462
HCM Lane V/C Ratio	-	-	-	0.181
HCM Control Delay (s)	-	-	-	14.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.7

HCM 6th Signalized Intersection Summary

4: Redwood Hwy & Wornum Dr

06/07/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	481	109	138	234	67	167
Future Volume (veh/h)	481	109	138	234	67	167
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	523	29	150	254	73	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	559	497	180	1126	872	1236
Arrive On Green	0.31	0.31	0.10	0.60	0.47	0.47
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	523	29	150	254	73	55
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	28.5	1.3	8.3	6.3	2.2	0.8
Cycle Q Clear(g_c), s	28.5	1.3	8.3	6.3	2.2	0.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	559	497	180	1126	872	1236
V/C Ratio(X)	0.94	0.06	0.83	0.23	0.08	0.04
Avail Cap(c_a), veh/h	905	805	223	1126	872	1236
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	24.0	44.1	9.2	14.8	2.5
Incr Delay (d2), s/veh	8.2	0.0	16.3	0.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	1.4	4.4	2.5	1.0	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.5	24.0	60.4	9.6	15.0	2.6
LnGrp LOS	D	C	E	A	B	A
Approach Vol, veh/h	552			404	128	
Approach Delay, s/veh	40.6			28.5	9.7	
Approach LOS	D			C	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.6	50.8		35.6		64.4
Change Period (Y+Rc), s	3.5	* 4.2		* 4.2		* 4.2
Max Green Setting (Gmax), s	12.5	* 25		* 51		* 25
Max Q Clear Time (g_c+I1), s	10.3	4.2		30.5		8.3
Green Ext Time (p_c), s	0.0	0.3		0.9		0.8
Intersection Summary						
HCM 6th Ctrl Delay			32.4			
HCM 6th LOS			C			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Intersection

Intersection Delay, s/veh 43.7

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	
Traffic Vol, veh/h	2	3	3	205	3	169	8	455	143	244	246	6
Future Vol, veh/h	2	3	3	205	3	169	8	455	143	244	246	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	3	3	223	3	184	9	495	155	265	267	7
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	0

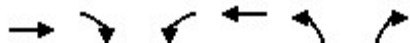
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	3
Conflicting Approach Left		NB	EB	WB
Conflicting Lanes Left	2	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	2	1
HCM Control Delay	13.1	19.6	75.2	23.9
HCM LOS	B	C	F	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	25%	99%	0%	100%	0%
Vol Thru, %	0%	100%	0%	38%	1%	0%	0%	98%
Vol Right, %	0%	0%	100%	38%	0%	100%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	455	143	8	208	169	244	252
LT Vol	8	0	0	2	205	0	244	0
Through Vol	0	455	0	3	3	0	0	246
RT Vol	0	0	143	3	0	169	0	6
Lane Flow Rate	9	495	155	9	226	184	265	274
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.02	1.088	0.311	0.024	0.559	0.392	0.627	0.607
Departure Headway (Hd)	8.433	7.92	7.202	10.186	9.139	7.915	8.749	8.217
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	427	460	502	354	398	457	416	441
Service Time	6.133	5.62	4.902	7.886	6.839	5.615	6.449	5.917
HCM Lane V/C Ratio	0.021	1.076	0.309	0.025	0.568	0.403	0.637	0.621
HCM Control Delay	11.3	95.8	13.1	13.1	22.8	15.6	25.1	22.8
HCM Lane LOS	B	F	B	B	C	C	D	C
HCM 95th-tile Q	0.1	16.3	1.3	0.1	3.3	1.8	4.1	3.9

HCM 6th Signalized Intersection Summary

6: San Clemente Dr & Tamalpais Dr/Redwood Hwy

06/07/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵↵↵	↵
Traffic Volume (veh/h)	655	22	73	510	1074	103
Future Volume (veh/h)	655	22	73	510	1074	103
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	712	24	79	554	1167	112
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1177	40	237	2271	1887	595
Arrive On Green	0.23	0.23	0.13	0.44	0.38	0.38
Sat Flow, veh/h	5242	171	1781	5274	5023	1585
Grp Volume(v), veh/h	477	259	79	554	1167	112
Grp Sat Flow(s),veh/h/ln	1702	1840	1781	1702	1674	1585
Q Serve(g_s), s	6.3	6.3	2.0	3.4	9.5	2.4
Cycle Q Clear(g_c), s	6.3	6.3	2.0	3.4	9.5	2.4
Prop In Lane		0.09	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	790	427	237	2271	1887	595
V/C Ratio(X)	0.60	0.61	0.33	0.24	0.62	0.19
Avail Cap(c_a), veh/h	2316	1251	355	4889	2806	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	17.2	19.7	8.7	12.7	10.5
Incr Delay (d2), s/veh	0.3	0.5	1.2	0.1	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.4	0.8	1.0	3.0	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.5	17.7	20.9	8.7	13.2	10.7
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	736			633	1279	
Approach Delay, s/veh	17.6			10.3	13.0	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.7	16.6		22.8		27.3
Change Period (Y+Rc), s	4.0	* 5		4.0		5.0
Max Green Setting (Gmax), s	10.0	* 34		28.0		48.0
Max Q Clear Time (g_c+14), s	14.0	8.3		11.5		5.4
Green Ext Time (p_c), s	0.1	3.3		7.4		6.2

Intersection Summary

HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

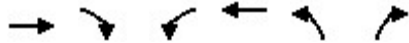
Notes

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

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

HCM 6th Signalized Intersection Summary
 7: US101 NB off ramp & Tamalpais Dr

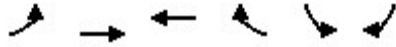
06/07/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↔↔	↔↔
Traffic Volume (veh/h)	944	0	0	829	790	545
Future Volume (veh/h)	944	0	0	829	790	545
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	0	0	1870	1870	1870
Adj Flow Rate, veh/h	1026	0	0	901	859	408
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	0	2	2	2
Cap, veh/h	2019	0	0	2019	952	768
Arrive On Green	0.57	0.00	0.00	0.57	0.28	0.28
Sat Flow, veh/h	3741	0	0	3741	3456	2790
Grp Volume(v), veh/h	1026	0	0	901	859	408
Grp Sat Flow(s),veh/h/ln	1777	0	0	1777	1728	1395
Q Serve(g_s), s	10.9	0.0	0.0	9.1	14.9	7.7
Cycle Q Clear(g_c), s	10.9	0.0	0.0	9.1	14.9	7.7
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2019	0	0	2019	952	768
V/C Ratio(X)	0.51	0.00	0.00	0.45	0.90	0.53
Avail Cap(c_a), veh/h	2019	0	0	2019	1131	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.1	0.0	0.0	7.7	21.7	19.1
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.7	8.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	0.0	2.9	6.6	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.0	0.0	0.0	8.5	29.9	19.3
LnGrp LOS	A	A	A	A	C	B
Approach Vol, veh/h	1026			901	1267	
Approach Delay, s/veh	9.0			8.5	26.5	
Approach LOS	A			A	C	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		40.2			40.2	21.8
Change Period (Y+Rc), s		5.0			5.0	4.7
Max Green Setting (Gmax), s		32.0			32.0	20.3
Max Q Clear Time (g_c+I1), s		12.9			11.1	16.9
Green Ext Time (p_c), s		1.6			1.4	0.2
Intersection Summary						
HCM 6th Ctrl Delay			15.8			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 8: Tamalpais Dr & US101 SB off-ramp

06/07/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1013	1144	0	668	343
Future Volume (veh/h)	0	1013	1144	0	668	343
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	1101	1243	0	726	297
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2175	2175	0	825	367
Arrive On Green	0.00	0.61	0.61	0.00	0.23	0.23
Sat Flow, veh/h	0	3741	3741	0	3563	1585
Grp Volume(v), veh/h	0	1101	1243	0	726	297
Grp Sat Flow(s),veh/h/ln	0	1777	1777	0	1781	1585
Q Serve(g_s), s	0.0	10.8	12.9	0.0	12.2	11.0
Cycle Q Clear(g_c), s	0.0	10.8	12.9	0.0	12.2	11.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2175	2175	0	825	367
V/C Ratio(X)	0.00	0.51	0.57	0.00	0.88	0.81
Avail Cap(c_a), veh/h	0	2175	2175	0	1437	639
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	6.8	7.2	0.0	23.0	22.5
Incr Delay (d2), s/veh	0.0	0.8	1.1	0.0	1.4	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.3	4.0	0.0	4.9	4.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	7.6	8.3	0.0	24.4	24.2
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h		1101	1243		1023	
Approach Delay, s/veh		7.6	8.3		24.3	
Approach LOS		A	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		42.9		19.1		42.9
Change Period (Y+Rc), s		5.0		* 4.7		5.0
Max Green Setting (Gmax), s		27.3		* 25		27.3
Max Q Clear Time (g_c+l1), s		12.8		14.2		14.9
Green Ext Time (p_c), s		1.7		0.2		1.9

Intersection Summary

HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

9: Casa Buena Dr/Madera Blvd & Tamalpais Dr

06/07/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	585	62	245	673	361	44	76	193	254	66	182
Future Volume (veh/h)	187	585	62	245	673	361	44	76	193	254	66	182
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	203	636	66	266	732	239	48	83	133	174	215	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	229	1590	165	244	1769	789	62	107	363	241	253	214
Arrive On Green	0.13	0.49	0.49	0.14	0.50	0.50	0.09	0.09	0.09	0.14	0.14	0.14
Sat Flow, veh/h	1781	3250	337	1781	3554	1585	673	1164	1585	1781	1870	1585
Grp Volume(v), veh/h	203	347	355	266	732	239	131	0	133	174	215	78
Grp Sat Flow(s),veh/h/ln	1781	1777	1810	1781	1777	1585	1837	0	1585	1781	1870	1585
Q Serve(g_s), s	13.9	15.4	15.4	17.0	16.2	11.1	8.6	0.0	8.8	11.6	13.9	5.6
Cycle Q Clear(g_c), s	13.9	15.4	15.4	17.0	16.2	11.1	8.6	0.0	8.8	11.6	13.9	5.6
Prop In Lane	1.00		0.19	1.00		1.00	0.37		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	229	869	885	244	1769	789	169	0	363	241	253	214
V/C Ratio(X)	0.89	0.40	0.40	1.09	0.41	0.30	0.78	0.00	0.37	0.72	0.85	0.36
Avail Cap(c_a), veh/h	244	869	885	244	1769	789	435	0	593	351	368	312
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	20.1	20.1	53.5	19.7	18.4	55.1	0.0	40.2	51.4	52.4	48.8
Incr Delay (d2), s/veh	27.7	1.4	1.4	83.4	0.7	1.0	2.9	0.0	0.2	1.5	8.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	6.7	6.8	13.3	6.8	4.3	4.1	0.0	3.5	5.3	7.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.8	21.5	21.5	136.9	20.4	19.4	58.0	0.0	40.5	52.9	60.9	49.2
LnGrp LOS	F	C	C	F	C	B	E	A	D	D	E	D
Approach Vol, veh/h		905			1237			264			467	
Approach Delay, s/veh		34.8			45.3			49.1			55.9	
Approach LOS		C			D			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	66.7		16.0	21.0	65.7		21.4				
Change Period (Y+Rc), s	4.0	5.0		4.6	4.0	5.0		4.6				
Max Green Setting (Gmax), s	35.0			29.4	17.0	35.0		24.4				
Max Q Clear Time (g_c+1/3g), s	18.2			10.8	19.0	17.4		15.9				
Green Ext Time (p_c), s	0.0	5.6		0.6	0.0	4.2		0.8				

Intersection Summary

HCM 6th Ctrl Delay	44.1
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

10: Paradise Dr & San Clemente Dr

06/07/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	278	41	27	799	876	33
Future Volume (veh/h)	278	41	27	799	876	33
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	0	29	868	952	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	356		396	2339	1981	71
Arrive On Green	0.20	0.00	0.03	0.66	0.57	0.57
Sat Flow, veh/h	1781	1585	1781	3647	3593	125
Grp Volume(v), veh/h	302	0	29	868	483	503
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1848
Q Serve(g_s), s	9.8	0.0	0.4	6.6	9.7	9.7
Cycle Q Clear(g_c), s	9.8	0.0	0.4	6.6	9.7	9.7
Prop In Lane	1.00	1.00	1.00			0.07
Lane Grp Cap(c), veh/h	356		396	2339	1006	1046
V/C Ratio(X)	0.85		0.07	0.37	0.48	0.48
Avail Cap(c_a), veh/h	564		469	2339	1006	1046
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	5.5	4.6	7.8	7.8
Incr Delay (d2), s/veh	3.9	0.0	0.0	0.5	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	0.1	1.8	3.3	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.0	0.0	5.5	5.1	9.4	9.3
LnGrp LOS	C		A	A	A	A
Approach Vol, veh/h	302	A		897	986	
Approach Delay, s/veh	27.0			5.1	9.4	
Approach LOS	C			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		44.0		16.0	5.5	38.5
Change Period (Y+Rc), s		4.5		4.0	4.0	4.5
Max Green Setting (Gmax), s		32.5		19.0	4.0	24.5
Max Q Clear Time (g_c+I1), s		8.6		11.8	2.4	11.7
Green Ext Time (p_c), s		6.6		0.3	0.0	5.2

Intersection Summary

HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Notes

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

HCM 6th Signalized Intersection Summary

12: Redwood Hwy & Village South Entrance

06/07/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↖↗	↗	↖↗	↑↑	↑↑		
Traffic Volume (veh/h)	34	287	381	404	251	10	
Future Volume (veh/h)	34	287	381	404	251	10	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	37	263	414	439	273	11	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	663	304	520	2539	1792	72	
Arrive On Green	0.19	0.19	0.15	0.71	0.51	0.51	
Sat Flow, veh/h	3456	1585	3456	3647	3576	140	
Grp Volume(v), veh/h	37	263	414	439	139	145	
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	1845	
Q Serve(g_s), s	0.8	15.0	10.8	3.7	3.8	3.9	
Cycle Q Clear(g_c), s	0.8	15.0	10.8	3.7	3.8	3.9	
Prop In Lane	1.00	1.00	1.00			0.08	
Lane Grp Cap(c), veh/h	663	304	520	2539	915	950	
V/C Ratio(X)	0.06	0.86	0.80	0.17	0.15	0.15	
Avail Cap(c_a), veh/h	1226	562	944	2539	915	950	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	30.7	36.4	38.1	4.3	11.9	11.9	
Incr Delay (d2), s/veh	0.0	7.3	2.8	0.1	0.4	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.3	6.3	4.7	1.2	1.5	1.6	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	30.7	43.7	41.0	4.5	12.2	12.2	
LnGrp LOS	C	D	D	A	B	B	
Approach Vol, veh/h	300			853	284		
Approach Delay, s/veh	42.1			22.2	12.2		
Approach LOS	D			C	B		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		71.2			18.6	52.6	21.8
Change Period (Y+Rc), s		* 4.7			4.6	* 4.7	4.0
Max Green Setting (Gmax), s		* 51			25.4	* 21	33.0
Max Q Clear Time (g_c+I1), s		5.7			12.8	5.9	17.0
Green Ext Time (p_c), s		4.7			1.2	1.9	0.9
Intersection Summary							
HCM 6th Ctrl Delay			24.4				
HCM 6th LOS			C				
Notes							
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.							

HCM Signalized Intersection Capacity Analysis

1: Tamal Vista Blvd & Fifer Ave & Dwy

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↖		↗	↖			↕	
Traffic Volume (vph)	0	258	335	248	454	1	443	13	46	12	18	6
Future Volume (vph)	0	258	335	248	454	1	443	13	46	12	18	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.88			0.98	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1863	1583	1770	1862		1770	1644			1790	
Flt Permitted		1.00	1.00	0.35	1.00		0.95	1.00			0.98	
Satd. Flow (perm)		1863	1583	660	1862		1770	1644			1790	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	280	364	270	493	1	482	14	50	13	20	7
RTOR Reduction (vph)	0	0	135	0	0	0	0	33	0	0	7	0
Lane Group Flow (vph)	0	280	229	270	494	0	482	32	0	0	33	0
Turn Type		NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases		2	8	1	6		8	8		7	7	
Permitted Phases			2	6								
Actuated Green, G (s)		27.9	62.9	46.7	46.7		35.0	35.0			5.1	
Effective Green, g (s)		27.9	62.9	46.7	46.7		35.0	35.0			5.1	
Actuated g/C Ratio		0.28	0.63	0.47	0.47		0.35	0.35			0.05	
Clearance Time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		519	995	472	869		619	575			91	
v/s Ratio Prot		0.15	0.08	0.08	c0.27		c0.27	0.02			c0.02	
v/s Ratio Perm			0.06	c0.18								
v/c Ratio		0.54	0.23	0.57	0.57		0.78	0.05			0.37	
Uniform Delay, d1		30.6	8.0	17.8	19.3		29.0	21.5			45.9	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		4.0	0.1	1.7	2.7		6.1	0.0			2.5	
Delay (s)		34.6	8.2	19.5	22.0		35.2	21.6			48.4	
Level of Service		C	A	B	C		D	C			D	
Approach Delay (s)		19.7			21.1			33.6			48.4	
Approach LOS		B			C			C			D	

Intersection Summary

HCM 2000 Control Delay	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	69.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Tamal Vista Blvd & Wornum Drive

05/17/2022



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	53	297	153	148	395	229
Future Volume (vph)	53	297	153	148	395	229
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	323	166	161	429	249
RTOR Reduction (vph)	0	123	0	109	0	0
Lane Group Flow (vph)	58	200	166	52	429	249
Turn Type	custom	pm+ov	NA	custom	Prot	NA
Protected Phases	3	1	2	3	1	6
Permitted Phases	4	4		2 4		
Actuated Green, G (s)	8.4	62.0	16.4	24.8	62.0	82.4
Effective Green, g (s)	8.4	62.0	16.4	24.8	62.0	82.4
Actuated g/C Ratio	0.08	0.62	0.16	0.25	0.62	0.82
Clearance Time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Vehicle Extension (s)	1.0	2.7	5.5	1.0	2.7	3.5
Lane Grp Cap (vph)	148	981	305	465	1097	1535
v/s Ratio Prot	c0.03	0.13	c0.09	0.01	c0.24	0.13
v/s Ratio Perm				0.02		
v/c Ratio	0.39	0.20	0.54	0.11	0.39	0.16
Uniform Delay, d1	43.4	8.3	38.4	29.1	9.5	1.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.0	4.0	0.0	1.0	0.2
Delay (s)	44.0	8.3	42.3	29.1	10.6	2.0
Level of Service	D	A	D	C	B	A
Approach Delay (s)	13.7		35.8			7.4
Approach LOS	B		D			A

Intersection Summary

HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

11: Madera Del Presidio Drive/Harbor Drive & Paradise Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	962	78	35	975	24	72	0	41	35	2	56
Future Volume (vph)	27	962	78	35	975	24	72	0	41	35	2	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.95			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.98	
Satd. Flow (prot)	1770	3499		1770	3527			1716			1679	
Flt Permitted	0.95	1.00		0.95	1.00			0.83			0.87	
Satd. Flow (perm)	1770	3499		1770	3527			1466			1485	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	1046	85	38	1060	26	78	0	45	38	2	61
RTOR Reduction (vph)	0	7	0	0	2	0	0	91	0	0	55	0
Lane Group Flow (vph)	29	1124	0	38	1084	0	0	32	0	0	46	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)	3.6	36.8		4.0	37.2			6.4			6.0	
Effective Green, g (s)	3.6	36.8		4.0	37.2			6.4			6.0	
Actuated g/C Ratio	0.06	0.61		0.07	0.62			0.11			0.10	
Clearance Time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Vehicle Extension (s)	2.0	3.0		2.0	3.0			2.0			2.0	
Lane Grp Cap (vph)	106	2146		118	2186			156			148	
v/s Ratio Prot	0.02	c0.32		c0.02	0.31							
v/s Ratio Perm								0.02			c0.03	
v/c Ratio	0.27	0.52		0.32	0.50			0.20			0.31	
Uniform Delay, d1	27.0	6.6		26.7	6.3			24.5			25.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.5	0.9		0.6	0.8			0.2			0.4	
Delay (s)	27.5	7.5		27.3	7.1			24.7			25.5	
Level of Service	C	A		C	A			C			C	
Approach Delay (s)		8.0			7.7			24.7			25.5	
Approach LOS		A			A			C			C	

Intersection Summary

HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	47.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th TWSC
2: Fifer Ave/US 101 SB Ramp & Nellen Ave

05/17/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	311	716	63	0	20
Future Vol, veh/h	0	311	716	63	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	338	778	68	0	22

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	379
HCM Lane V/C Ratio	-	-	-	0.057
HCM Control Delay (s)	-	-	-	15.1
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.2

HCM 6th Signalized Intersection Summary

4: Redwood Hwy & Wornum Dr

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	464	85	101	60	24	339
Future Volume (veh/h)	464	85	101	60	24	339
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	504	3	110	65	26	241
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	539	480	170	1147	904	1245
Arrive On Green	0.30	0.30	0.10	0.61	0.48	0.48
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	504	3	110	65	26	241
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	27.5	0.1	6.0	1.4	0.7	3.8
Cycle Q Clear(g_c), s	27.5	0.1	6.0	1.4	0.7	3.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	539	480	170	1147	904	1245
V/C Ratio(X)	0.93	0.01	0.65	0.06	0.03	0.19
Avail Cap(c_a), veh/h	816	726	258	1147	904	1245
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	24.4	43.6	7.7	13.5	2.7
Incr Delay (d2), s/veh	10.5	0.0	1.5	0.1	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	0.1	2.7	0.6	0.3	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.4	24.4	45.2	7.8	13.6	3.1
LnGrp LOS	D	C	D	A	B	A
Approach Vol, veh/h	507			175	267	
Approach Delay, s/veh	44.3			31.3	4.1	
Approach LOS	D			C	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.0	52.5		34.5		65.5
Change Period (Y+Rc), s	3.5	* 4.2		* 4.2		* 4.2
Max Green Setting (Gmax), s	14.5	* 28		* 46		* 28
Max Q Clear Time (g_c+I1), s	8.0	5.8		29.5		3.4
Green Ext Time (p_c), s	0.0	0.5		0.7		0.2
Intersection Summary						
HCM 6th Ctrl Delay			30.6			
HCM 6th LOS			C			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th AWSC
 5: Madera Blvd & Council Crest Dr & Tamal Vista Blvd

05/17/2022

Intersection

Intersection Delay, s/veh 12.2

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	
Traffic Vol, veh/h	2	5	3	154	6	105	9	222	177	102	145	1
Future Vol, veh/h	2	5	3	154	6	105	9	222	177	102	145	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	5	3	167	7	114	10	241	192	111	158	1
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	2	1
HCM Control Delay	10.3	12.3	12.4	12
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	20%	96%	0%	100%	0%
Vol Thru, %	0%	100%	0%	50%	4%	0%	0%	99%
Vol Right, %	0%	0%	100%	30%	0%	100%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	9	222	177	10	160	105	102	146
LT Vol	9	0	0	2	154	0	102	0
Through Vol	0	222	0	5	6	0	0	145
RT Vol	0	0	177	3	0	105	0	1
Lane Flow Rate	10	241	192	11	174	114	111	159
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.019	0.424	0.3	0.022	0.347	0.19	0.219	0.291
Departure Headway (Hd)	6.831	6.325	5.616	7.373	7.176	5.986	7.124	6.611
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	523	567	639	483	501	597	502	541
Service Time	4.586	4.079	3.37	5.16	4.936	3.745	4.889	4.376
HCM Lane V/C Ratio	0.019	0.425	0.3	0.023	0.347	0.191	0.221	0.294
HCM Control Delay	9.7	13.7	10.8	10.3	13.7	10.2	11.9	12.1
HCM Lane LOS	A	B	B	B	B	B	B	B
HCM 95th-tile Q	0.1	2.1	1.3	0.1	1.5	0.7	0.8	1.2

HCM 6th Signalized Intersection Summary
 6: San Clemente Dr & Tamalpais Dr/Redwood Hwy

05/17/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵↵↵	↵
Traffic Volume (veh/h)	151	22	66	62	1142	107
Future Volume (veh/h)	151	22	66	62	1142	107
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	164	24	72	67	1241	116
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	930	131	228	2124	2004	632
Arrive On Green	0.21	0.21	0.13	0.42	0.40	0.40
Sat Flow, veh/h	4689	638	1781	5274	5023	1585
Grp Volume(v), veh/h	122	66	72	67	1241	116
Grp Sat Flow(s),veh/h/ln	1702	1755	1781	1702	1674	1585
Q Serve(g_s), s	1.4	1.5	1.8	0.4	9.6	2.3
Cycle Q Clear(g_c), s	1.4	1.5	1.8	0.4	9.6	2.3
Prop In Lane		0.36	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	700	361	228	2124	2004	632
V/C Ratio(X)	0.17	0.18	0.32	0.03	0.62	0.18
Avail Cap(c_a), veh/h	2388	1231	366	5042	2893	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	15.9	19.3	8.4	11.7	9.5
Incr Delay (d2), s/veh	0.0	0.1	1.1	0.0	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.5	0.7	0.1	3.0	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.9	16.0	20.4	8.4	12.1	9.7
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	188			139	1357	
Approach Delay, s/veh	16.0			14.6	11.9	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.2	15.0		23.4		25.2
Change Period (Y+Rc), s	4.0	* 5		4.0		5.0
Max Green Setting (Gmax), s	10.0	* 34		28.0		48.0
Max Q Clear Time (g_c+I), s	13.8	3.5		11.6		2.4
Green Ext Time (p_c), s	0.1	0.8		7.8		0.6

Intersection Summary

HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

7: US101 NB off ramp & Tamalpais Dr

05/17/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↔↔	↔↔
Traffic Volume (veh/h)	932	0	0	705	469	437
Future Volume (veh/h)	932	0	0	705	469	437
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	0	0	1870	1870	1870
Adj Flow Rate, veh/h	1013	0	0	766	510	291
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	0	2	2	2
Cap, veh/h	2368	0	0	2368	612	494
Arrive On Green	0.67	0.00	0.00	0.67	0.18	0.18
Sat Flow, veh/h	3741	0	0	3741	3456	2790
Grp Volume(v), veh/h	1013	0	0	766	510	291
Grp Sat Flow(s),veh/h/ln	1777	0	0	1777	1728	1395
Q Serve(g_s), s	8.2	0.0	0.0	5.7	8.8	5.9
Cycle Q Clear(g_c), s	8.2	0.0	0.0	5.7	8.8	5.9
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2368	0	0	2368	612	494
V/C Ratio(X)	0.43	0.00	0.00	0.32	0.83	0.59
Avail Cap(c_a), veh/h	2368	0	0	2368	909	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.8	0.0	0.0	4.4	24.6	23.4
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.4	2.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	1.5	3.6	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.4	0.0	0.0	4.8	27.4	23.9
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h	1013			766	801	
Approach Delay, s/veh	5.4			4.8	26.1	
Approach LOS	A			A	C	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		46.3			46.3	15.7
Change Period (Y+Rc), s		5.0			5.0	4.7
Max Green Setting (Gmax), s		36.0			36.0	16.3
Max Q Clear Time (g_c+I1), s		10.2			7.7	10.8
Green Ext Time (p_c), s		1.6			1.2	0.1
Intersection Summary						
HCM 6th Ctrl Delay			11.6			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

8: Tamalpais Dr & US101 SB off-ramp

05/17/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	782	727	0	673	402
Future Volume (veh/h)	0	782	727	0	673	402
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	850	790	0	732	361
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2093	2093	0	907	404
Arrive On Green	0.00	0.59	0.59	0.00	0.25	0.25
Sat Flow, veh/h	0	3741	3741	0	3563	1585
Grp Volume(v), veh/h	0	850	790	0	732	361
Grp Sat Flow(s),veh/h/ln	0	1777	1777	0	1781	1585
Q Serve(g_s), s	0.0	8.0	7.3	0.0	11.9	13.6
Cycle Q Clear(g_c), s	0.0	8.0	7.3	0.0	11.9	13.6
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2093	2093	0	907	404
V/C Ratio(X)	0.00	0.41	0.38	0.00	0.81	0.89
Avail Cap(c_a), veh/h	0	2093	2093	0	1511	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	6.9	6.7	0.0	21.7	22.3
Incr Delay (d2), s/veh	0.0	0.6	0.5	0.0	0.7	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.5	2.3	0.0	4.7	5.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	7.5	7.3	0.0	22.3	27.3
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h		850	790		1093	
Approach Delay, s/veh		7.5	7.3		24.0	
Approach LOS		A	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		41.5		20.5		41.5
Change Period (Y+Rc), s		5.0		* 4.7		5.0
Max Green Setting (Gmax), s		26.0		* 26		26.0
Max Q Clear Time (g_c+I1), s		10.0		15.6		9.3
Green Ext Time (p_c), s		1.3		0.2		1.2

Intersection Summary

HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

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

HCM 6th Signalized Intersection Summary

9: Casa Buena Dr/Madera Blvd & Tamalpais Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	876	22	139	563	194	50	54	173	194	79	119
Future Volume (veh/h)	117	876	22	139	563	194	50	54	173	194	79	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	952	23	151	612	58	54	59	111	148	173	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	1985	48	177	2038	909	72	78	288	200	210	178
Arrive On Green	0.09	0.56	0.56	0.10	0.57	0.57	0.08	0.08	0.08	0.11	0.11	0.11
Sat Flow, veh/h	1781	3546	86	1781	3554	1585	873	954	1585	1781	1870	1585
Grp Volume(v), veh/h	127	477	498	151	612	58	113	0	111	148	173	9
Grp Sat Flow(s),veh/h/ln	1781	1777	1855	1781	1777	1585	1827	0	1585	1781	1870	1585
Q Serve(g_s), s	8.7	20.0	20.0	10.3	11.0	2.0	7.5	0.0	7.6	10.0	11.2	0.6
Cycle Q Clear(g_c), s	8.7	20.0	20.0	10.3	11.0	2.0	7.5	0.0	7.6	10.0	11.2	0.6
Prop In Lane	1.00		0.05	1.00		1.00	0.48		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	153	994	1038	177	2038	909	150	0	288	200	210	178
V/C Ratio(X)	0.83	0.48	0.48	0.85	0.30	0.06	0.75	0.00	0.39	0.74	0.83	0.05
Avail Cap(c_a), veh/h	230	994	1038	230	2038	909	418	0	521	365	383	325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	16.4	16.4	54.9	13.6	11.7	55.7	0.0	44.7	53.3	53.9	49.2
Incr Delay (d2), s/veh	9.2	1.7	1.6	17.1	0.4	0.1	2.9	0.0	0.3	2.0	3.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	8.5	8.8	5.5	4.5	0.7	3.6	0.0	3.0	4.6	5.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.0	18.1	18.0	72.1	14.0	11.8	58.6	0.0	45.0	55.4	57.0	49.2
LnGrp LOS	E	B	B	E	B	B	E	A	D	E	E	D
Approach Vol, veh/h		1102			821			224			330	
Approach Delay, s/veh		23.5			24.5			51.8			56.1	
Approach LOS		C			C			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	76.1		14.8	16.3	74.4		18.5				
Change Period (Y+Rc), s	4.0	5.0		4.6	4.0	5.0		4.6				
Max Green Setting (Gmax), s	16.0	36.0		28.4	16.0	36.0		25.4				
Max Q Clear Time (g_c+110), s	11.0	13.0		9.6	12.3	22.0		13.2				
Green Ext Time (p_c), s	0.1	4.5		0.5	0.1	5.4		0.7				

Intersection Summary

HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

10: Paradise Dr & San Clemente Dr

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	105	16	22	1126	1037	29
Future Volume (veh/h)	105	16	22	1126	1037	29
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	114	0	24	1224	1127	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	177		410	2698	2371	63
Arrive On Green	0.10	0.00	0.02	0.76	0.67	0.67
Sat Flow, veh/h	1781	1585	1781	3647	3630	94
Grp Volume(v), veh/h	114	0	24	1224	566	591
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1853
Q Serve(g_s), s	3.7	0.0	0.2	7.6	9.2	9.3
Cycle Q Clear(g_c), s	3.7	0.0	0.2	7.6	9.2	9.3
Prop In Lane	1.00	1.00	1.00			0.05
Lane Grp Cap(c), veh/h	177		410	2698	1191	1243
V/C Ratio(X)	0.65		0.06	0.45	0.48	0.48
Avail Cap(c_a), veh/h	564		489	2698	1191	1243
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	0.0	3.4	2.7	4.8	4.8
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.6	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.0	1.3	2.6	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.5	0.0	3.4	3.2	6.1	6.1
LnGrp LOS	C		A	A	A	A
Approach Vol, veh/h	114	A		1248	1157	
Approach Delay, s/veh	27.5			3.2	6.1	
Approach LOS	C			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		50.0		10.0	5.3	44.7
Change Period (Y+Rc), s		4.5		4.0	4.0	4.5
Max Green Setting (Gmax), s		32.5		19.0	4.0	24.5
Max Q Clear Time (g_c+l1), s		9.6		5.7	2.2	11.3
Green Ext Time (p_c), s		9.9		0.1	0.0	6.4
Intersection Summary						
HCM 6th Ctrl Delay			5.6			
HCM 6th LOS			A			
Notes						
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.						

HCM 6th Signalized Intersection Summary

12: Redwood Hwy & Village South Entrance

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↗	↗	↖↗	↑↑	↑↑	
Traffic Volume (veh/h)	2	47	107	187	82	0
Future Volume (veh/h)	2	47	107	187	82	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	2	116	203	89	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	15	7	353	3206	2667	0
Arrive On Green	0.00	0.00	0.10	0.90	0.75	0.00
Sat Flow, veh/h	3456	1585	3456	3647	3741	0
Grp Volume(v), veh/h	2	2	116	203	89	0
Grp Sat Flow(s),veh/h/ln1728		1585	1728	1777	1777	0
Q Serve(g_s), s	0.1	0.1	2.9	0.6	0.6	0.0
Cycle Q Clear(g_c), s	0.1	0.1	2.9	0.6	0.6	0.0
Prop In Lane	1.00	1.00	1.00			0.00
Lane Grp Cap(c), veh/h	15	7	353	3206	2667	0
V/C Ratio(X)	0.14	0.30	0.33	0.06	0.03	0.00
Avail Cap(c_a), veh/h	1226	562	944	3206	2667	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.1	46.2	38.8	0.5	3.0	0.0
Incr Delay (d2), s/veh	4.2	23.1	0.5	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr0.0	0.0	0.1	1.2	0.0	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.3	69.2	39.3	0.5	3.0	0.0
LnGrp LOS	D	E	D	A	A	A
Approach Vol, veh/h	4			319	89	
Approach Delay, s/veh	59.8			14.6	3.0	
Approach LOS	E			B	A	
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		88.6			14.1	74.5
Change Period (Y+Rc), s		* 4.7			4.6	* 4.7
Max Green Setting (Gmax), s		* 51			25.4	* 21
Max Q Clear Time (g_c+I1), s		2.6			4.9	2.6
Green Ext Time (p_c), s		2.0			0.3	0.5
					0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Notes

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

HCM Signalized Intersection Capacity Analysis

1: Tamal Vista Blvd & Fifer Ave & Dwy

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↖	↗	↖	↗			↕	↕
Traffic Volume (vph)	3	293	370	323	294	4	297	16	88	22	29	5
Future Volume (vph)	3	293	370	323	294	4	297	16	88	22	29	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.87			0.99	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1862	1583	1770	1859		1770	1625			1807	
Flt Permitted		1.00	1.00	0.37	1.00		0.95	1.00			0.98	
Satd. Flow (perm)		1858	1583	695	1859		1770	1625			1807	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	318	402	351	320	4	323	17	96	24	32	5
RTOR Reduction (vph)	0	0	166	0	0	0	0	74	0	0	4	0
Lane Group Flow (vph)	0	321	236	351	324	0	323	39	0	0	57	0
Turn Type	Perm	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases		2	8	1	6		8	8		7	7	
Permitted Phases	2		2	6								
Actuated Green, G (s)		35.4	58.8	55.9	55.9		23.4	23.4			7.5	
Effective Green, g (s)		35.4	58.8	55.9	55.9		23.4	23.4			7.5	
Actuated g/C Ratio		0.35	0.59	0.56	0.56		0.23	0.23			0.08	
Clearance Time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		657	930	565	1039		414	380			135	
v/s Ratio Prot			0.06	c0.10	0.17		c0.18	0.02			c0.03	
v/s Ratio Perm		0.17	0.09	c0.24								
v/c Ratio		0.49	0.25	0.62	0.31		0.78	0.10			0.42	
Uniform Delay, d1		25.2	10.0	13.5	11.8		35.9	30.1			44.2	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		2.6	0.1	2.1	0.8		9.2	0.1			2.1	
Delay (s)		27.8	10.1	15.6	12.6		45.1	30.2			46.3	
Level of Service		C	B	B	B		D	C			D	
Approach Delay (s)		18.0			14.1			41.2			46.3	
Approach LOS		B			B			D			D	

Intersection Summary

HCM 2000 Control Delay	22.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Tamal Vista Blvd & Wornum Drive

05/17/2022



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	132	224	242	265	525	279
Future Volume (vph)	132	224	242	265	525	279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	143	243	263	288	571	303
RTOR Reduction (vph)	0	112	0	22	0	0
Lane Group Flow (vph)	143	131	263	266	571	303
Turn Type	custom	pm+ov	NA	custom	Prot	NA
Protected Phases	3	1	2	3	1	6
Permitted Phases	4	4		2 4		
Actuated Green, G (s)	11.1	54.1	21.6	32.7	54.1	79.7
Effective Green, g (s)	11.1	54.1	21.6	32.7	54.1	79.7
Actuated g/C Ratio	0.11	0.54	0.22	0.33	0.54	0.80
Clearance Time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Vehicle Extension (s)	1.0	2.7	5.5	1.0	2.7	3.5
Lane Grp Cap (vph)	196	856	402	590	957	1484
v/s Ratio Prot	c0.08	0.08	c0.14	0.05	c0.32	0.16
v/s Ratio Perm				0.12		
v/c Ratio	0.73	0.15	0.65	0.45	0.60	0.20
Uniform Delay, d1	43.0	11.5	35.8	26.6	15.6	2.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.9	0.0	5.6	0.2	2.7	0.3
Delay (s)	53.9	11.5	41.4	26.8	18.3	2.8
Level of Service	D	B	D	C	B	A
Approach Delay (s)	27.2		33.7			12.9
Approach LOS	C		C			B

Intersection Summary

HCM 2000 Control Delay	22.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary

6: San Clemente Dr & Tamalpais Dr/Redwood Hwy

06/07/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵↵↵	↵
Traffic Volume (veh/h)	549	4	82	446	888	137
Future Volume (veh/h)	549	4	82	446	888	137
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	597	4	89	485	965	149
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1149	8	264	2328	1741	549
Arrive On Green	0.22	0.22	0.15	0.46	0.35	0.35
Sat Flow, veh/h	5401	35	1781	5274	5023	1585
Grp Volume(v), veh/h	388	213	89	485	965	149
Grp Sat Flow(s),veh/h/ln	1702	1864	1781	1702	1674	1585
Q Serve(g_s), s	4.6	4.6	2.0	2.6	7.1	3.1
Cycle Q Clear(g_c), s	4.6	4.6	2.0	2.6	7.1	3.1
Prop In Lane		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	748	409	264	2328	1741	549
V/C Ratio(X)	0.52	0.52	0.34	0.21	0.55	0.27
Avail Cap(c_a), veh/h	2549	1396	391	5383	3089	975
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.6	15.7	17.4	7.4	12.0	10.7
Incr Delay (d2), s/veh	0.2	0.4	1.1	0.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.7	0.8	0.7	2.2	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.9	16.0	18.4	7.5	12.4	11.1
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	601			574	1114	
Approach Delay, s/veh	15.9			9.2	12.3	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.8	15.0		19.8		25.8
Change Period (Y+Rc), s	4.0	* 5		4.0		5.0
Max Green Setting (Gmax), s	10.0	* 34		28.0		48.0
Max Q Clear Time (g_c+I1), s	4.0	6.6		9.1		4.6
Green Ext Time (p_c), s	0.1	2.6		6.7		5.3
Intersection Summary						
HCM 6th Ctrl Delay			12.5			
HCM 6th LOS			B			
Notes						
User approved pedestrian interval to be less than phase max green.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th Signalized Intersection Summary

9: Casa Buena Dr/Madera Blvd & Tamalpais Dr

06/07/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	687	28	172	695	302	57	75	164	224	88	195
Future Volume (veh/h)	149	687	28	172	695	302	57	75	164	224	88	195
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	162	747	29	187	755	175	62	82	101	170	199	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	1773	69	213	1856	828	77	102	345	226	237	201
Arrive On Green	0.11	0.51	0.51	0.12	0.52	0.52	0.10	0.10	0.10	0.13	0.13	0.13
Sat Flow, veh/h	1781	3487	135	1781	3554	1585	788	1043	1585	1781	1870	1585
Grp Volume(v), veh/h	162	380	396	187	755	175	144	0	101	170	199	92
Grp Sat Flow(s),veh/h/ln	1781	1777	1846	1781	1777	1585	1831	0	1585	1781	1870	1585
Q Serve(g_s), s	11.1	16.6	16.6	12.8	16.0	7.4	9.5	0.0	6.6	11.4	12.9	6.7
Cycle Q Clear(g_c), s	11.1	16.6	16.6	12.8	16.0	7.4	9.5	0.0	6.6	11.4	12.9	6.7
Prop In Lane	1.00		0.07	1.00		1.00	0.43		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	903	939	213	1856	828	180	0	345	226	237	201
V/C Ratio(X)	0.86	0.42	0.42	0.88	0.41	0.21	0.80	0.00	0.29	0.75	0.84	0.46
Avail Cap(c_a), veh/h	259	903	939	259	1856	828	434	0	566	351	368	312
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	19.1	19.1	53.7	18.0	15.9	54.7	0.0	40.5	52.2	52.9	50.2
Incr Delay (d2), s/veh	14.7	1.4	1.4	21.2	0.7	0.6	3.2	0.0	0.2	1.9	5.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	7.2	7.4	7.0	6.7	2.8	4.6	0.0	2.6	5.2	6.4	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.2	20.5	20.5	74.9	18.6	16.5	57.9	0.0	40.7	54.2	58.5	50.8
LnGrp LOS	E	C	C	E	B	B	E	A	D	D	E	D
Approach Vol, veh/h		938			1117			245			461	
Approach Delay, s/veh		28.9			27.7			50.8			55.4	
Approach LOS		C			C			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	69.8		16.8	18.9	68.0		20.3				
Change Period (Y+Rc), s	4.0	5.0		4.6	4.0	5.0		4.6				
Max Green Setting (Gmax), s	34.0	34.0		29.4	18.0	34.0		24.4				
Max Q Clear Time (g_c+I), s	18.0	18.0		11.5	14.8	18.6		14.9				
Green Ext Time (p_c), s	0.1	5.4		0.6	0.1	4.4		0.8				

Intersection Summary

HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

12: Redwood Hwy & Village South Entrance

06/07/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↖↗	↖	↖↗	↑↑	↑↑		
Traffic Volume (veh/h)	27	271	357	420	300	7	
Future Volume (veh/h)	27	271	357	420	300	7	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	29	246	388	457	326	8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	625	287	492	2579	1892	46	
Arrive On Green	0.18	0.18	0.14	0.73	0.53	0.53	
Sat Flow, veh/h	3456	1585	3456	3647	3638	87	
Grp Volume(v), veh/h	29	246	388	457	163	171	
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	1855	
Q Serve(g_s), s	0.6	14.0	10.1	3.8	4.4	4.4	
Cycle Q Clear(g_c), s	0.6	14.0	10.1	3.8	4.4	4.4	
Prop In Lane	1.00	1.00	1.00			0.05	
Lane Grp Cap(c), veh/h	625	287	492	2579	948	990	
V/C Ratio(X)	0.05	0.86	0.79	0.18	0.17	0.17	
Avail Cap(c_a), veh/h	1226	562	944	2579	948	990	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	31.5	36.9	38.5	4.0	11.1	11.1	
Incr Delay (d2), s/veh	0.0	7.4	2.8	0.2	0.4	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/lr	0.3	5.9	4.4	1.2	1.7	1.8	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	31.5	44.3	41.4	4.2	11.5	11.5	
LnGrp LOS	C	D	D	A	B	B	
Approach Vol, veh/h	275			845	334		
Approach Delay, s/veh	43.0			21.2	11.5		
Approach LOS	D			C	B		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		72.2			17.9	54.3	20.8
Change Period (Y+Rc), s		* 4.7			4.6	* 4.7	4.0
Max Green Setting (Gmax), s		* 51			25.4	* 21	33.0
Max Q Clear Time (g_c+I1), s		5.8			12.1	6.4	16.0
Green Ext Time (p_c), s		5.0			1.2	2.2	0.8

Intersection Summary

HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C




















Notes

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

HCM Signalized Intersection Capacity Analysis

1: Tamal Vista Blvd & Fifer Ave & Dwy

05/17/2022













												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	203	249	233	290	5	456	26	86	32	28	10
Future Volume (vph)	1	203	249	233	290	5	456	26	86	32	28	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.88			0.98	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1862	1583	1770	1858		1770	1648			1785	
Flt Permitted		1.00	1.00	0.43	1.00		0.95	1.00			0.98	
Satd. Flow (perm)		1861	1583	807	1858		1770	1648			1785	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	221	271	253	315	5	496	28	93	35	30	11
RTOR Reduction (vph)	0	0	107	0	1	0	0	63	0	0	6	0
Lane Group Flow (vph)	0	222	164	253	319	0	496	58	0	0	70	0
Turn Type	Perm	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases		2	8	1	6		8	8		7	7	
Permitted Phases	2		2	6								
Actuated Green, G (s)		27.8	60.5	46.1	46.1		32.7	32.7			8.0	
Effective Green, g (s)		27.8	60.5	46.1	46.1		32.7	32.7			8.0	
Actuated g/C Ratio		0.28	0.60	0.46	0.46		0.33	0.33			0.08	
Clearance Time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		517	957	509	856		578	538			142	
v/s Ratio Prot			0.06	c0.07	0.17		c0.28	0.04			c0.04	
v/s Ratio Perm		0.12	0.05	c0.16								
v/c Ratio		0.43	0.17	0.50	0.37		0.86	0.11			0.49	
Uniform Delay, d1		29.6	8.7	17.5	17.5		31.5	23.5			44.0	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		2.6	0.1	0.8	1.2		12.0	0.1			2.6	
Delay (s)		32.2	8.8	18.3	18.8		43.5	23.6			46.7	
Level of Service		C	A	B	B		D	C			D	
Approach Delay (s)		19.3			18.6			39.6			46.7	
Approach LOS		B			B			D			D	
Intersection Summary												
HCM 2000 Control Delay			27.4				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.66									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)			17.2		
Intersection Capacity Utilization			69.7%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Tamal Vista Blvd & Wornum Drive

05/17/2022

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	110	175	293	236	489	334
Future Volume (vph)	110	175	293	236	489	334
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	190	318	257	532	363
RTOR Reduction (vph)	0	92	0	56	0	0
Lane Group Flow (vph)	120	98	318	201	532	363
Turn Type	custom	pm+ov	NA	custom	Prot	NA
Protected Phases	3	1	2	3	1	6
Permitted Phases	4	4		2 4		
Actuated Green, G (s)	10.7	51.4	24.7	35.4	51.4	80.1
Effective Green, g (s)	10.7	51.4	24.7	35.4	51.4	80.1
Actuated g/C Ratio	0.11	0.51	0.25	0.35	0.51	0.80
Clearance Time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Vehicle Extension (s)	1.0	2.7	5.5	1.0	2.7	3.5
Lane Grp Cap (vph)	189	813	460	633	909	1492
v/s Ratio Prot	c0.07	0.06	c0.17	0.03	c0.30	0.19
v/s Ratio Perm				0.09		
v/c Ratio	0.63	0.12	0.69	0.32	0.59	0.24
Uniform Delay, d1	42.8	12.6	34.2	23.5	16.9	2.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.0	0.0	6.1	0.1	2.8	0.4
Delay (s)	47.8	12.6	40.3	23.6	19.6	2.8
Level of Service	D	B	D	C	B	A
Approach Delay (s)	26.2		32.8			12.8
Approach LOS	C		C			B
Intersection Summary						
HCM 2000 Control Delay			21.6		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.65			
Actuated Cycle Length (s)			100.0		Sum of lost time (s)	17.2
Intersection Capacity Utilization			60.2%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

11: Madera Del Presidio Drive/Harbor Drive & Paradise Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	704	61	22	858	18	82	0	32	21	1	37
Future Volume (vph)	42	704	61	22	858	18	82	0	32	21	1	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.96			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.98	
Satd. Flow (prot)	1770	3497		1770	3528			1730			1675	
Flt Permitted	0.95	1.00		0.95	1.00			0.77			0.88	
Satd. Flow (perm)	1770	3497		1770	3528			1375			1507	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	765	66	24	933	20	89	0	35	23	1	40
RTOR Reduction (vph)	0	7	0	0	2	0	0	91	0	0	36	0
Lane Group Flow (vph)	46	824	0	24	951	0	0	33	0	0	28	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)	3.6	38.9		2.0	37.3			6.3			5.9	
Effective Green, g (s)	3.6	38.9		2.0	37.3			6.3			5.9	
Actuated g/C Ratio	0.06	0.65		0.03	0.62			0.10			0.10	
Clearance Time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Vehicle Extension (s)	2.0	3.0		2.0	3.0			2.0			2.0	
Lane Grp Cap (vph)	106	2267		59	2193			144			148	
v/s Ratio Prot	c0.03	0.24		0.01	c0.27							
v/s Ratio Perm								c0.02			0.02	
v/c Ratio	0.43	0.36		0.41	0.43			0.23			0.19	
Uniform Delay, d1	27.2	4.9		28.4	5.9			24.6			24.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.0	0.5		1.7	0.6			0.3			0.2	
Delay (s)	28.3	5.3		30.1	6.5			24.9			25.1	
Level of Service	C	A		C	A			C			C	
Approach Delay (s)		6.5			7.1			24.9			25.1	
Approach LOS		A			A			C			C	

Intersection Summary

HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	54.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	301	588	36	0	73
Future Vol, veh/h	0	301	588	36	0	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	327	639	39	0	79

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	464
HCM Lane V/C Ratio	-	-	-	0.171
HCM Control Delay (s)	-	-	-	14.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.6

HCM 6th Signalized Intersection Summary

4: Redwood Hwy & Wornum Dr

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	482	93	104	237	68	166
Future Volume (veh/h)	482	93	104	237	68	166
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	524	12	113	258	74	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	559	498	170	1126	881	1245
Arrive On Green	0.31	0.31	0.10	0.60	0.47	0.47
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	524	12	113	258	74	53
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	28.6	0.5	6.1	6.4	2.2	0.7
Cycle Q Clear(g_c), s	28.6	0.5	6.1	6.4	2.2	0.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	559	498	170	1126	881	1245
V/C Ratio(X)	0.94	0.02	0.66	0.23	0.08	0.04
Avail Cap(c_a), veh/h	905	805	223	1126	881	1245
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	23.7	43.7	9.2	14.6	2.4
Incr Delay (d2), s/veh	8.3	0.0	1.9	0.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	0.6	2.8	2.6	1.0	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.6	23.7	45.6	9.7	14.7	2.4
LnGrp LOS	D	C	D	A	B	A
Approach Vol, veh/h	536			371	127	
Approach Delay, s/veh	41.2			20.6	9.6	
Approach LOS	D			C	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.1	51.3		35.6		64.4
Change Period (Y+Rc), s	3.5	* 4.2		* 4.2		* 4.2
Max Green Setting (Gmax), s	12.5	* 25		* 51		* 25
Max Q Clear Time (g_c+I1), s	8.1	4.2		30.6		8.4
Green Ext Time (p_c), s	0.0	0.3		0.8		0.8
Intersection Summary						
HCM 6th Ctrl Delay			29.9			
HCM 6th LOS			C			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Intersection

Intersection Delay, s/veh 26.1

Intersection LOS D

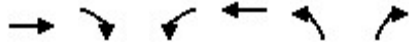
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	
Traffic Vol, veh/h	2	3	3	210	3	170	8	376	148	244	209	6
Future Vol, veh/h	2	3	3	210	3	170	8	376	148	244	209	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	3	3	228	3	185	9	409	161	265	227	7
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	3
Conflicting Approach Left		NB	EB	WB
Conflicting Lanes Left	2	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	2	1
HCM Control Delay	12.6	18.7	35.7	21.5
HCM LOS	B	C	E	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	25%	99%	0%	100%	0%
Vol Thru, %	0%	100%	0%	38%	1%	0%	0%	97%
Vol Right, %	0%	0%	100%	38%	0%	100%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	376	148	8	213	170	244	215
LT Vol	8	0	0	2	210	0	244	0
Through Vol	0	376	0	3	3	0	0	209
RT Vol	0	0	148	3	0	170	0	6
Lane Flow Rate	9	409	161	9	232	185	265	234
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.02	0.879	0.314	0.023	0.558	0.383	0.619	0.511
Departure Headway (Hd)	8.253	7.741	7.023	9.6	8.681	7.463	8.407	7.873
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	433	466	512	371	414	482	430	458
Service Time	6.008	5.496	4.778	7.397	6.438	5.22	6.167	5.633
HCM Lane V/C Ratio	0.021	0.878	0.314	0.024	0.56	0.384	0.616	0.511
HCM Control Delay	11.2	45.1	13	12.6	21.9	14.8	24	18.6
HCM Lane LOS	B	E	B	B	C	B	C	C
HCM 95th-tile Q	0.1	9.3	1.3	0.1	3.3	1.8	4.1	2.8

HCM 6th Signalized Intersection Summary
 6: San Clemente Dr & Tamalpais Dr/Redwood Hwy

05/17/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵↵↵	↵
Traffic Volume (veh/h)	597	7	69	487	1060	95
Future Volume (veh/h)	597	7	69	487	1060	95
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	649	8	75	529	1152	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1118	14	235	2200	1912	603
Arrive On Green	0.22	0.22	0.13	0.43	0.38	0.38
Sat Flow, veh/h	5367	64	1781	5274	5023	1585
Grp Volume(v), veh/h	425	232	75	529	1152	103
Grp Sat Flow(s),veh/h/ln	1702	1859	1781	1702	1674	1585
Q Serve(g_s), s	5.3	5.4	1.8	3.1	8.8	2.1
Cycle Q Clear(g_c), s	5.3	5.4	1.8	3.1	8.8	2.1
Prop In Lane		0.03	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	732	400	235	2200	1912	603
V/C Ratio(X)	0.58	0.58	0.32	0.24	0.60	0.17
Avail Cap(c_a), veh/h	2432	1328	373	5134	2946	930
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	16.8	18.8	8.6	11.9	9.8
Incr Delay (d2), s/veh	0.3	0.5	1.1	0.1	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.0	0.7	0.9	2.7	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.1	17.3	19.9	8.7	12.3	10.0
LnGrp LOS	B	B	B	A	B	A
Approach Vol, veh/h	657			604	1255	
Approach Delay, s/veh	17.2			10.1	12.1	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.3	15.3		22.2		25.6
Change Period (Y+Rc), s	4.0	* 5		4.0		5.0
Max Green Setting (Gmax), s	10.0	* 34		28.0		48.0
Max Q Clear Time (g_c+13), s	13.8	7.4		10.8		5.1
Green Ext Time (p_c), s	0.1	2.9		7.4		5.9

Intersection Summary

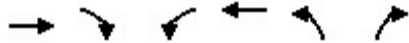
HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 7: US101 NB off ramp & Tamalpais Dr

05/17/2022

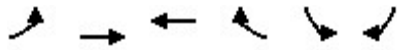


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↔↔	↔↔
Traffic Volume (veh/h)	908	0	0	788	788	501
Future Volume (veh/h)	908	0	0	788	788	501
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	0	0	1870	1870	1870
Adj Flow Rate, veh/h	987	0	0	857	857	361
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	0	2	2	2
Cap, veh/h	2021	0	0	2021	949	766
Arrive On Green	0.57	0.00	0.00	0.57	0.27	0.27
Sat Flow, veh/h	3741	0	0	3741	3456	2790
Grp Volume(v), veh/h	987	0	0	857	857	361
Grp Sat Flow(s),veh/h/ln	1777	0	0	1777	1728	1395
Q Serve(g_s), s	10.3	0.0	0.0	8.5	14.8	6.7
Cycle Q Clear(g_c), s	10.3	0.0	0.0	8.5	14.8	6.7
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2021	0	0	2021	949	766
V/C Ratio(X)	0.49	0.00	0.00	0.42	0.90	0.47
Avail Cap(c_a), veh/h	2021	0	0	2021	1131	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.0	0.0	0.0	7.6	21.7	18.7
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.7	8.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	0.0	2.8	6.6	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.8	0.0	0.0	8.2	29.9	18.9
LnGrp LOS	A	A	A	A	C	B
Approach Vol, veh/h	987			857	1218	
Approach Delay, s/veh	8.8			8.2	26.6	
Approach LOS	A			A	C	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		40.3			40.3	21.7
Change Period (Y+Rc), s		5.0			5.0	4.7
Max Green Setting (Gmax), s		32.0			32.0	20.3
Max Q Clear Time (g_c+l1), s		12.3			10.5	16.8
Green Ext Time (p_c), s		1.5			1.3	0.2
Intersection Summary						
HCM 6th Ctrl Delay			15.7			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

8: Tamalpais Dr & US101 SB off-ramp

05/17/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1008	1113	0	664	353
Future Volume (veh/h)	0	1008	1113	0	664	353
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	1096	1210	0	722	308
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2179	2179	0	821	365
Arrive On Green	0.00	0.61	0.61	0.00	0.23	0.23
Sat Flow, veh/h	0	3741	3741	0	3563	1585
Grp Volume(v), veh/h	0	1096	1210	0	722	308
Grp Sat Flow(s),veh/h/ln	0	1777	1777	0	1781	1585
Q Serve(g_s), s	0.0	10.7	12.4	0.0	12.1	11.5
Cycle Q Clear(g_c), s	0.0	10.7	12.4	0.0	12.1	11.5
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2179	2179	0	821	365
V/C Ratio(X)	0.00	0.50	0.56	0.00	0.88	0.84
Avail Cap(c_a), veh/h	0	2179	2179	0	1437	639
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	6.7	7.0	0.0	23.0	22.8
Incr Delay (d2), s/veh	0.0	0.8	1.0	0.0	1.3	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.2	3.8	0.0	4.9	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	7.5	8.1	0.0	24.4	24.9
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h		1096	1210		1030	
Approach Delay, s/veh		7.5	8.1		24.5	
Approach LOS		A	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		43.0		19.0		43.0
Change Period (Y+Rc), s		5.0		* 4.7		5.0
Max Green Setting (Gmax), s		27.3		* 25		27.3
Max Q Clear Time (g_c+l1), s		12.7		14.1		14.4
Green Ext Time (p_c), s		1.7		0.2		1.9

Intersection Summary

HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

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

HCM 6th Signalized Intersection Summary

9: Casa Buena Dr/Madera Blvd & Tamalpais Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	593	61	245	687	316	42	75	193	234	63	176
Future Volume (veh/h)	170	593	61	245	687	316	42	75	193	234	63	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	185	645	65	266	747	190	46	82	133	161	198	71
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	1625	164	244	1837	819	61	108	363	225	236	200
Arrive On Green	0.12	0.50	0.50	0.14	0.52	0.52	0.09	0.09	0.09	0.13	0.13	0.13
Sat Flow, veh/h	1781	3260	328	1781	3554	1585	660	1177	1585	1781	1870	1585
Grp Volume(v), veh/h	185	351	359	266	747	190	128	0	133	161	198	71
Grp Sat Flow(s),veh/h/ln	1781	1777	1811	1781	1777	1585	1837	0	1585	1781	1870	1585
Q Serve(g_s), s	12.7	15.3	15.4	17.0	15.9	8.2	8.4	0.0	8.8	10.8	12.8	5.1
Cycle Q Clear(g_c), s	12.7	15.3	15.4	17.0	15.9	8.2	8.4	0.0	8.8	10.8	12.8	5.1
Prop In Lane	1.00		0.18	1.00		1.00	0.36		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	885	903	244	1837	819	169	0	363	225	236	200
V/C Ratio(X)	0.88	0.40	0.40	1.09	0.41	0.23	0.76	0.00	0.37	0.72	0.84	0.36
Avail Cap(c_a), veh/h	244	885	903	244	1837	819	436	0	593	351	368	312
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	19.4	19.5	53.5	18.3	16.4	55.0	0.0	40.2	52.1	53.0	49.6
Incr Delay (d2), s/veh	23.5	1.3	1.3	83.4	0.7	0.7	2.6	0.0	0.2	1.6	5.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	6.6	6.8	13.3	6.7	3.1	4.0	0.0	3.5	4.9	6.4	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.2	20.8	20.8	136.9	19.0	17.1	57.6	0.0	40.5	53.7	58.5	50.0
LnGrp LOS	E	C	C	F	B	B	E	A	D	D	E	D
Approach Vol, veh/h		895			1203			261			430	
Approach Delay, s/veh		32.4			44.8			48.9			55.3	
Approach LOS		C			D			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	69.1		16.0	21.0	66.8		20.2				
Change Period (Y+Rc), s	4.0	5.0		4.6	4.0	5.0		4.6				
Max Green Setting (Gmax), s	35.0			29.4	17.0	35.0		24.4				
Max Q Clear Time (g_c+1/4), s	17.9			10.8	19.0	17.4		14.8				
Green Ext Time (p_c), s	0.1	5.5		0.6	0.0	4.2		0.8				

Intersection Summary

HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

10: Paradise Dr & San Clemente Dr

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	261	38	22	790	877	27
Future Volume (veh/h)	261	38	22	790	877	27
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	284	0	24	859	953	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	338		403	2375	2046	58
Arrive On Green	0.19	0.00	0.02	0.67	0.58	0.58
Sat Flow, veh/h	1781	1585	1781	3647	3623	100
Grp Volume(v), veh/h	284	0	24	859	480	500
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1852
Q Serve(g_s), s	9.2	0.0	0.3	6.3	9.3	9.3
Cycle Q Clear(g_c), s	9.2	0.0	0.3	6.3	9.3	9.3
Prop In Lane	1.00	1.00	1.00			0.05
Lane Grp Cap(c), veh/h	338		403	2375	1030	1074
V/C Ratio(X)	0.84		0.06	0.36	0.47	0.47
Avail Cap(c_a), veh/h	564		482	2375	1030	1074
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	5.2	4.3	7.3	7.3
Incr Delay (d2), s/veh	2.3	0.0	0.0	0.4	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	0.1	1.6	3.2	3.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.8	0.0	5.2	4.8	8.8	8.7
LnGrp LOS	C		A	A	A	A
Approach Vol, veh/h	284	A		883	980	
Approach Delay, s/veh	25.8			4.8	8.7	
Approach LOS	C			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		44.6		15.4	5.3	39.3
Change Period (Y+Rc), s		4.5		4.0	4.0	4.5
Max Green Setting (Gmax), s		32.5		19.0	4.0	24.5
Max Q Clear Time (g_c+l1), s		8.3		11.2	2.3	11.3
Green Ext Time (p_c), s		6.6		0.3	0.0	5.3
Intersection Summary						
HCM 6th Ctrl Delay			9.4			
HCM 6th LOS			A			
Notes						
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.						

HCM 6th Signalized Intersection Summary

12: Redwood Hwy & Village South Entrance

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↖↗	↖	↖↗	↑↑	↑↓		
Traffic Volume (veh/h)	25	260	332	389	249	1	
Future Volume (veh/h)	25	260	332	389	249	1	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	27	234	361	423	271	1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	598	274	464	2606	1996	7	
Arrive On Green	0.17	0.17	0.13	0.73	0.55	0.55	
Sat Flow, veh/h	3456	1585	3456	3647	3725	13	
Grp Volume(v), veh/h	27	234	361	423	133	139	
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	1868	
Q Serve(g_s), s	0.6	13.3	9.4	3.3	3.4	3.4	
Cycle Q Clear(g_c), s	0.6	13.3	9.4	3.3	3.4	3.4	
Prop In Lane	1.00	1.00	1.00			0.01	
Lane Grp Cap(c), veh/h	598	274	464	2606	977	1027	
V/C Ratio(X)	0.05	0.85	0.78	0.16	0.14	0.14	
Avail Cap(c_a), veh/h	1226	562	944	2606	977	1027	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	32.1	37.3	38.9	3.8	10.2	10.2	
Incr Delay (d2), s/veh	0.0	7.4	2.9	0.1	0.3	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/lr	0.3	5.6	4.1	1.0	1.3	1.4	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	32.1	44.7	41.8	3.9	10.5	10.5	
LnGrp LOS	C	D	D	A	B	B	
Approach Vol, veh/h	261			784	272		
Approach Delay, s/veh	43.4			21.3	10.5		
Approach LOS	D			C	B		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		72.9			17.1	55.8	20.1
Change Period (Y+Rc), s		* 4.7			4.6	* 4.7	4.0
Max Green Setting (Gmax), s		* 51			25.4	* 21	33.0
Max Q Clear Time (g_c+I1), s		5.3			11.4	5.4	15.3
Green Ext Time (p_c), s		4.5			1.1	1.8	0.8

Intersection Summary

HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C





















Notes

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

HCM Signalized Intersection Capacity Analysis

1: Tamal Vista Blvd & Fifer Ave & Dwy

05/17/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	258	346	259	456	2	480	17	51	18	26	7
Future Volume (vph)	0	258	346	259	456	2	480	17	51	18	26	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.89			0.98	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1863	1583	1770	1862		1770	1652			1795	
Flt Permitted		1.00	1.00	0.31	1.00		0.95	1.00			0.98	
Satd. Flow (perm)		1863	1583	571	1862		1770	1652			1795	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	280	376	282	496	2	522	18	55	20	28	8
RTOR Reduction (vph)	0	0	148	0	0	0	0	35	0	0	7	0
Lane Group Flow (vph)	0	280	228	282	498	0	522	38	0	0	49	0
Turn Type		NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases		2	8	1	6		8	8		7	7	
Permitted Phases			2	6								
Actuated Green, G (s)		24.0	60.7	43.2	43.2		36.7	36.7			6.9	
Effective Green, g (s)		24.0	60.7	43.2	43.2		36.7	36.7			6.9	
Actuated g/C Ratio		0.24	0.61	0.43	0.43		0.37	0.37			0.07	
Clearance Time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		447	960	428	804		649	606			123	
v/s Ratio Prot		0.15	0.09	0.10	c0.27		c0.29	0.02			c0.03	
v/s Ratio Perm			0.06	c0.18								
v/c Ratio		0.63	0.24	0.66	0.62		0.80	0.06			0.40	
Uniform Delay, d1		34.0	9.0	20.4	22.0		28.4	20.5			44.6	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		6.5	0.1	3.6	3.6		7.2	0.0			2.1	
Delay (s)		40.5	9.2	24.0	25.6		35.6	20.6			46.7	
Level of Service		D	A	C	C		D	C			D	
Approach Delay (s)		22.5			25.0			33.7			46.7	
Approach LOS		C			C			C			D	
Intersection Summary												
HCM 2000 Control Delay			27.3				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.72									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)			17.2		
Intersection Capacity Utilization			72.2%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Tamal Vista Blvd & Wornum Drive

05/17/2022



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	58	297	163	157	428	287
Future Volume (vph)	58	297	163	157	428	287
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	323	177	171	465	312
RTOR Reduction (vph)	0	126	0	90	0	0
Lane Group Flow (vph)	63	197	177	81	465	312
Turn Type	custom	pm+ov	NA	custom	Prot	NA
Protected Phases	3	1	2	3	1	6
Permitted Phases	4	4		2 4		
Actuated Green, G (s)	8.7	61.1	17.0	25.7	61.1	82.1
Effective Green, g (s)	8.7	61.1	17.0	25.7	61.1	82.1
Actuated g/C Ratio	0.09	0.61	0.17	0.26	0.61	0.82
Clearance Time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Vehicle Extension (s)	1.0	2.7	5.5	1.0	2.7	3.5
Lane Grp Cap (vph)	153	967	316	479	1081	1529
v/s Ratio Prot	c0.04	0.12	c0.10	0.01	c0.26	0.17
v/s Ratio Perm				0.04		
v/c Ratio	0.41	0.20	0.56	0.17	0.43	0.20
Uniform Delay, d1	43.2	8.6	38.1	28.9	10.3	1.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.0	4.2	0.1	1.3	0.3
Delay (s)	43.9	8.7	42.2	28.9	11.5	2.2
Level of Service	D	A	D	C	B	A
Approach Delay (s)	14.4		35.7			7.8
Approach LOS	B		D			A

Intersection Summary

HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

11: Madera Del Presidio Drive/Harbor Drive & Paradise Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	994	82	35	993	24	74	0	41	35	2	56
Future Volume (vph)	27	994	82	35	993	24	74	0	41	35	2	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.95			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.98	
Satd. Flow (prot)	1770	3499		1770	3527			1717			1679	
Flt Permitted	0.95	1.00		0.95	1.00			0.83			0.87	
Satd. Flow (perm)	1770	3499		1770	3527			1465			1484	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	1080	89	38	1079	26	80	0	45	38	2	61
RTOR Reduction (vph)	0	7	0	0	2	0	0	91	0	0	55	0
Lane Group Flow (vph)	29	1162	0	38	1103	0	0	34	0	0	46	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)	3.6	36.8		4.0	37.2			6.4			6.0	
Effective Green, g (s)	3.6	36.8		4.0	37.2			6.4			6.0	
Actuated g/C Ratio	0.06	0.61		0.07	0.62			0.11			0.10	
Clearance Time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Vehicle Extension (s)	2.0	3.0		2.0	3.0			2.0			2.0	
Lane Grp Cap (vph)	106	2146		118	2186			156			148	
v/s Ratio Prot	0.02	c0.33		c0.02	0.31							
v/s Ratio Perm								0.02			c0.03	
v/c Ratio	0.27	0.54		0.32	0.50			0.22			0.31	
Uniform Delay, d1	27.0	6.7		26.7	6.3			24.5			25.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.5	1.0		0.6	0.8			0.3			0.4	
Delay (s)	27.5	7.7		27.3	7.1			24.8			25.5	
Level of Service	C	A		C	A			C			C	
Approach Delay (s)		8.2			7.8			24.8			25.5	
Approach LOS		A			A			C			C	

Intersection Summary

HCM 2000 Control Delay	9.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th TWSC
2: Fifer Ave/US 101 SB Ramp & Nellen Ave

05/17/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	326	716	64	0	33
Future Vol, veh/h	0	326	716	64	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	354	778	70	0	36

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	813
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	378
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	378
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.5
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	378
HCM Lane V/C Ratio	-	-	-	0.095
HCM Control Delay (s)	-	-	-	15.5
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.3

HCM 6th Signalized Intersection Summary

4: Redwood Hwy & Wornum Dr

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	492	99	114	65	25	339
Future Volume (veh/h)	492	99	114	65	25	339
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	535	19	124	71	27	241
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	570	507	172	1115	868	1243
Arrive On Green	0.32	0.32	0.10	0.60	0.46	0.46
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	535	19	124	71	27	241
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	29.2	0.8	6.8	1.6	0.8	3.9
Cycle Q Clear(g_c), s	29.2	0.8	6.8	1.6	0.8	3.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	570	507	172	1115	868	1243
V/C Ratio(X)	0.94	0.04	0.72	0.06	0.03	0.19
Avail Cap(c_a), veh/h	816	726	258	1115	868	1243
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	23.4	43.8	8.5	14.6	2.7
Incr Delay (d2), s/veh	12.2	0.0	2.1	0.1	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.2	0.9	3.1	0.6	0.3	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.3	23.4	45.9	8.6	14.6	3.1
LnGrp LOS	D	C	D	A	B	A
Approach Vol, veh/h	554			195	268	
Approach Delay, s/veh	44.5			32.3	4.3	
Approach LOS	D			C	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.2	50.6		36.2		63.8
Change Period (Y+Rc), s	3.5	* 4.2		* 4.2		* 4.2
Max Green Setting (Gmax), s	14.5	* 28		* 46		* 28
Max Q Clear Time (g_c+I1), s	8.8	5.9		31.2		3.6
Green Ext Time (p_c), s	0.0	0.5		0.8		0.2
Intersection Summary						
HCM 6th Ctrl Delay			31.6			
HCM 6th LOS			C			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Intersection

Intersection Delay, s/veh 13.5

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	
Traffic Vol, veh/h	2	5	3	155	6	107	9	247	177	126	195	1
Future Vol, veh/h	2	5	3	155	6	107	9	247	177	126	195	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	5	3	168	7	116	10	268	192	137	212	1
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	2	1
HCM Control Delay	10.8	13.1	13.8	13.6
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	20%	96%	0%	100%	0%
Vol Thru, %	0%	100%	0%	50%	4%	0%	0%	99%
Vol Right, %	0%	0%	100%	30%	0%	100%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	9	247	177	10	161	107	126	196
LT Vol	9	0	0	2	155	0	126	0
Through Vol	0	247	0	5	6	0	0	195
RT Vol	0	0	177	3	0	107	0	1
Lane Flow Rate	10	268	192	11	175	116	137	213
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.019	0.491	0.314	0.024	0.366	0.205	0.277	0.4
Departure Headway (Hd)	7.097	6.589	5.879	7.904	7.525	6.331	7.277	6.765
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	502	545	608	456	476	563	492	528
Service Time	4.872	4.365	3.654	5.604	5.304	4.11	5.057	4.545
HCM Lane V/C Ratio	0.02	0.492	0.316	0.024	0.368	0.206	0.278	0.403
HCM Control Delay	10	15.6	11.4	10.8	14.6	10.8	12.9	14
HCM Lane LOS	A	C	B	B	B	B	B	B
HCM 95th-tile Q	0.1	2.7	1.3	0.1	1.7	0.8	1.1	1.9

HCM 6th Signalized Intersection Summary

6: San Clemente Dr & Tamalpais Dr/Redwood Hwy

05/17/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵↵↵	↵
Traffic Volume (veh/h)	172	33	81	124	1184	111
Future Volume (veh/h)	172	33	81	124	1184	111
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	187	36	88	135	1287	121
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	861	159	251	2138	2021	638
Arrive On Green	0.20	0.20	0.14	0.42	0.40	0.40
Sat Flow, veh/h	4501	798	1781	5274	5023	1585
Grp Volume(v), veh/h	145	78	88	135	1287	121
Grp Sat Flow(s),veh/h/ln	1702	1727	1781	1702	1674	1585
Q Serve(g_s), s	1.8	1.9	2.2	0.8	10.4	2.5
Cycle Q Clear(g_c), s	1.8	1.9	2.2	0.8	10.4	2.5
Prop In Lane		0.46	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	676	343	251	2138	2021	638
V/C Ratio(X)	0.21	0.23	0.35	0.06	0.64	0.19
Avail Cap(c_a), veh/h	2306	1170	354	4870	2795	882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	16.9	19.5	8.7	12.1	9.7
Incr Delay (d2), s/veh	0.1	0.1	1.2	0.0	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.7	0.9	0.2	3.2	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.9	17.0	20.7	8.7	12.6	9.9
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	223			223	1408	
Approach Delay, s/veh	17.0			13.5	12.3	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.1	15.0		24.3		26.1
Change Period (Y+Rc), s	4.0	* 5		4.0		5.0
Max Green Setting (Gmax), s	10.0	* 34		28.0		48.0
Max Q Clear Time (g_c+1/2), s	14.2	3.9		12.4		2.8
Green Ext Time (p_c), s	0.1	0.9		7.9		1.3

Intersection Summary

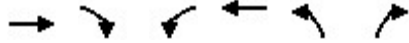
HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 7: US101 NB off ramp & Tamalpais Dr

05/17/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↔↔	↔↔
Traffic Volume (veh/h)	968	0	0	782	479	446
Future Volume (veh/h)	968	0	0	782	479	446
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	0	0	1870	1870	1870
Adj Flow Rate, veh/h	1052	0	0	850	521	301
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	0	2	2	2
Cap, veh/h	2357	0	0	2357	623	503
Arrive On Green	0.66	0.00	0.00	0.66	0.18	0.18
Sat Flow, veh/h	3741	0	0	3741	3456	2790
Grp Volume(v), veh/h	1052	0	0	850	521	301
Grp Sat Flow(s),veh/h/ln	1777	0	0	1777	1728	1395
Q Serve(g_s), s	8.8	0.0	0.0	6.6	9.0	6.1
Cycle Q Clear(g_c), s	8.8	0.0	0.0	6.6	9.0	6.1
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2357	0	0	2357	623	503
V/C Ratio(X)	0.45	0.00	0.00	0.36	0.84	0.60
Avail Cap(c_a), veh/h	2357	0	0	2357	909	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.0	0.0	0.0	4.6	24.5	23.4
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.4	3.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.0	1.8	3.7	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.6	0.0	0.0	5.0	27.6	23.8
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h	1052			850	822	
Approach Delay, s/veh	5.6			5.0	26.2	
Approach LOS	A			A	C	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		46.1			46.1	15.9
Change Period (Y+Rc), s		5.0			5.0	4.7
Max Green Setting (Gmax), s		36.0			36.0	16.3
Max Q Clear Time (g_c+I1), s		10.8			8.6	11.0
Green Ext Time (p_c), s		1.7			1.3	0.2
Intersection Summary						
HCM 6th Ctrl Delay			11.6			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

8: Tamalpais Dr & US101 SB off-ramp

05/17/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	810	770	0	681	403
Future Volume (veh/h)	0	810	770	0	681	403
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	880	837	0	740	362
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2090	2090	0	910	405
Arrive On Green	0.00	0.59	0.59	0.00	0.26	0.26
Sat Flow, veh/h	0	3741	3741	0	3563	1585
Grp Volume(v), veh/h	0	880	837	0	740	362
Grp Sat Flow(s),veh/h/ln	0	1777	1777	0	1781	1585
Q Serve(g_s), s	0.0	8.4	7.9	0.0	12.1	13.7
Cycle Q Clear(g_c), s	0.0	8.4	7.9	0.0	12.1	13.7
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2090	2090	0	910	405
V/C Ratio(X)	0.00	0.42	0.40	0.00	0.81	0.89
Avail Cap(c_a), veh/h	0	2090	2090	0	1511	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	7.0	6.9	0.0	21.7	22.3
Incr Delay (d2), s/veh	0.0	0.6	0.6	0.0	0.7	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.7	2.5	0.0	4.7	5.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	7.6	7.5	0.0	22.4	27.4
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h		880	837		1102	
Approach Delay, s/veh		7.6	7.5		24.0	
Approach LOS		A	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		41.5		20.5		41.5
Change Period (Y+Rc), s		5.0		* 4.7		5.0
Max Green Setting (Gmax), s		26.0		* 26		26.0
Max Q Clear Time (g_c+I1), s		10.4		15.7		9.9
Green Ext Time (p_c), s		1.3		0.2		1.2
Intersection Summary						
HCM 6th Ctrl Delay			14.0			
HCM 6th LOS			B			

Notes

User approved volume balancing among the lanes for turning movement.

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

HCM 6th Signalized Intersection Summary
 9: Casa Buena Dr/Madera Blvd & Tamalpais Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	884	23	142	583	214	51	56	177	217	81	142
Future Volume (veh/h)	122	884	23	142	583	214	51	56	177	217	81	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	133	961	24	154	634	80	55	61	115	162	192	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	1931	48	180	1980	883	73	81	294	219	229	194
Arrive On Green	0.09	0.55	0.55	0.10	0.56	0.56	0.08	0.08	0.08	0.12	0.12	0.12
Sat Flow, veh/h	1781	3543	88	1781	3554	1585	866	961	1585	1781	1870	1585
Grp Volume(v), veh/h	133	482	503	154	634	80	116	0	115	162	192	34
Grp Sat Flow(s),veh/h/ln	1781	1777	1854	1781	1777	1585	1827	0	1585	1781	1870	1585
Q Serve(g_s), s	9.1	21.0	21.0	10.5	11.9	2.9	7.7	0.0	7.9	10.9	12.4	2.4
Cycle Q Clear(g_c), s	9.1	21.0	21.0	10.5	11.9	2.9	7.7	0.0	7.9	10.9	12.4	2.4
Prop In Lane	1.00		0.05	1.00		1.00	0.47		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	159	969	1011	180	1980	883	154	0	294	219	229	194
V/C Ratio(X)	0.84	0.50	0.50	0.85	0.32	0.09	0.75	0.00	0.39	0.74	0.84	0.17
Avail Cap(c_a), veh/h	230	969	1011	230	1980	883	418	0	523	365	383	325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.6	17.6	17.6	54.8	14.8	12.8	55.5	0.0	44.4	52.5	53.2	48.8
Incr Delay (d2), s/veh	11.3	1.8	1.7	18.0	0.4	0.2	2.8	0.0	0.3	1.9	3.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	9.0	9.3	5.6	4.9	1.1	3.7	0.0	3.1	5.0	6.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.9	19.4	19.4	72.9	15.2	13.0	58.3	0.0	44.7	54.4	56.4	48.9
LnGrp LOS	E	B	B	E	B	B	E	A	D	D	E	D
Approach Vol, veh/h		1118			868			231			388	
Approach Delay, s/veh		25.0			25.3			51.5			54.9	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	74.1		15.0	16.5	72.6		19.8				
Change Period (Y+Rc), s	4.0	5.0		4.6	4.0	5.0		4.6				
Max Green Setting (Gmax), s	16.0	36.0		28.4	16.0	36.0		25.4				
Max Q Clear Time (g_c+fl), s	13.9			9.9	12.5	23.0		14.4				
Green Ext Time (p_c), s	0.1	4.7		0.5	0.1	5.3		0.8				

Intersection Summary

HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

10: Paradise Dr & San Clemente Dr

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	131	20	22	1146	1069	32
Future Volume (veh/h)	131	20	22	1146	1069	32
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	142	0	24	1246	1162	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	188		393	2675	2343	67
Arrive On Green	0.11	0.00	0.02	0.75	0.66	0.66
Sat Flow, veh/h	1781	1585	1781	3647	3622	100
Grp Volume(v), veh/h	142	0	24	1246	585	610
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1852
Q Serve(g_s), s	4.6	0.0	0.2	8.0	9.9	9.9
Cycle Q Clear(g_c), s	4.6	0.0	0.2	8.0	9.9	9.9
Prop In Lane	1.00	1.00	1.00			0.05
Lane Grp Cap(c), veh/h	188		393	2675	1180	1230
V/C Ratio(X)	0.75		0.06	0.47	0.50	0.50
Avail Cap(c_a), veh/h	564		472	2675	1180	1230
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	0.0	3.6	2.8	5.1	5.1
Incr Delay (d2), s/veh	2.3	0.0	0.0	0.6	1.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	1.4	2.9	3.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.4	0.0	3.7	3.4	6.5	6.5
LnGrp LOS	C		A	A	A	A
Approach Vol, veh/h	142	A		1270	1195	
Approach Delay, s/veh	28.4			3.4	6.5	
Approach LOS	C			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		49.7		10.3	5.3	44.3
Change Period (Y+Rc), s		4.5		4.0	4.0	4.5
Max Green Setting (Gmax), s		32.5		19.0	4.0	24.5
Max Q Clear Time (g_c+I1), s		10.0		6.6	2.2	11.9
Green Ext Time (p_c), s		10.1		0.1	0.0	6.4
Intersection Summary						
HCM 6th Ctrl Delay			6.2			
HCM 6th LOS			A			
Notes						
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.						

HCM 6th Signalized Intersection Summary

12: Redwood Hwy & Village South Entrance

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↗	↖	↖↗	↑↑	↑↗	
Traffic Volume (veh/h)	18	115	130	189	91	4
Future Volume (veh/h)	18	115	130	189	91	4
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	76	141	205	99	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	226	104	362	2989	2392	96
Arrive On Green	0.07	0.07	0.10	0.84	0.69	0.69
Sat Flow, veh/h	3456	1585	3456	3647	3576	140
Grp Volume(v), veh/h	20	76	141	205	50	53
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	1845
Q Serve(g_s), s	0.5	4.4	3.5	0.9	0.8	0.9
Cycle Q Clear(g_c), s	0.5	4.4	3.5	0.9	0.8	0.9
Prop In Lane	1.00	1.00	1.00			0.08
Lane Grp Cap(c), veh/h	226	104	362	2989	1220	1267
V/C Ratio(X)	0.09	0.73	0.39	0.07	0.04	0.04
Avail Cap(c_a), veh/h	1226	562	944	2989	1220	1267
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	42.7	38.9	1.2	4.7	4.7
Incr Delay (d2), s/veh	0.2	9.5	0.7	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr	0.2	2.0	1.5	0.1	0.3	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.0	52.2	39.5	1.3	4.8	4.8
LnGrp LOS	D	D	D	A	A	A
Approach Vol, veh/h	96			346	103	
Approach Delay, s/veh	49.8			16.9	4.8	
Approach LOS	D			B	A	
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s					14.3	68.6
Change Period (Y+Rc), s		* 4.7			4.6	* 4.7
Max Green Setting (Gmax), s		* 51			25.4	* 21
Max Q Clear Time (g_c+I1), s		2.9			5.5	2.9
Green Ext Time (p_c), s		2.1			0.4	0.6

Intersection Summary

HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C





















Notes

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

HCM Signalized Intersection Capacity Analysis

1: Tamal Vista Blvd & Fifer Ave & Dwy

05/17/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	293	404	329	294	4	323	24	88	23	29	5
Future Volume (vph)	3	293	404	329	294	4	323	24	88	23	29	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.88			0.99	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1862	1583	1770	1859		1770	1643			1806	
Flt Permitted		1.00	1.00	0.17	1.00		0.95	1.00			0.98	
Satd. Flow (perm)		1856	1583	317	1859		1770	1643			1806	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	318	439	358	320	4	351	26	96	25	32	5
RTOR Reduction (vph)	0	0	198	0	0	0	0	69	0	0	4	0
Lane Group Flow (vph)	0	321	241	358	324	0	351	53	0	0	58	0
Turn Type	Perm	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases		2	8	1	6		8	8		7	7	
Permitted Phases	2		2	6								
Actuated Green, G (s)		19.5	48.0	51.2	51.2		28.5	28.5			7.1	
Effective Green, g (s)		19.5	48.0	51.2	51.2		28.5	28.5			7.1	
Actuated g/C Ratio		0.20	0.48	0.51	0.51		0.28	0.28			0.07	
Clearance Time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		361	759	564	951		504	468			128	
v/s Ratio Prot			0.09	c0.18	0.17		c0.20	0.03			c0.03	
v/s Ratio Perm		c0.17	0.06	0.15								
v/c Ratio		0.89	0.32	0.63	0.34		0.70	0.11			0.46	
Uniform Delay, d1		39.2	15.9	18.7	14.4		31.9	26.4			44.6	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		26.2	0.2	2.3	1.0		4.2	0.1			2.6	
Delay (s)		65.4	16.2	21.0	15.4		36.1	26.5			47.2	
Level of Service		E	B	C	B		D	C			D	
Approach Delay (s)		37.0			18.3			33.6			47.2	
Approach LOS		D			B			C			D	
Intersection Summary												
HCM 2000 Control Delay			30.1				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)			17.2		
Intersection Capacity Utilization			69.9%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Tamal Vista Blvd & Wornum Drive

05/17/2022



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	140	237	285	280	538	306
Future Volume (vph)	140	237	285	280	538	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	258	310	304	585	333
RTOR Reduction (vph)	0	126	0	43	0	0
Lane Group Flow (vph)	152	132	310	261	585	333
Turn Type	custom	pm+ov	NA	custom	Prot	NA
Protected Phases	3	1	2	3	1	6
Permitted Phases	4	4		2 4		
Actuated Green, G (s)	11.6	51.0	24.2	35.8	51.0	79.2
Effective Green, g (s)	11.6	51.0	24.2	35.8	51.0	79.2
Actuated g/C Ratio	0.12	0.51	0.24	0.36	0.51	0.79
Clearance Time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Vehicle Extension (s)	1.0	2.7	5.5	1.0	2.7	3.5
Lane Grp Cap (vph)	205	807	450	639	902	1475
v/s Ratio Prot	c0.09	0.08	c0.17	0.05	c0.33	0.18
v/s Ratio Perm				0.12		
v/c Ratio	0.74	0.16	0.69	0.41	0.65	0.23
Uniform Delay, d1	42.7	13.1	34.5	24.1	17.9	2.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.9	0.0	6.1	0.2	3.6	0.4
Delay (s)	54.6	13.1	40.6	24.3	21.5	3.0
Level of Service	D	B	D	C	C	A
Approach Delay (s)	28.5		32.5			14.8
Approach LOS	C		C			B

Intersection Summary			
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	63.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary

9: Casa Buena Dr/Madera Blvd & Tamalpais Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	702	31	179	706	343	60	79	170	252	93	212
Future Volume (veh/h)	173	702	31	179	706	343	60	79	170	252	93	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	763	33	195	767	220	65	86	108	188	222	110
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	1693	73	221	1747	779	80	106	358	249	261	221
Arrive On Green	0.12	0.49	0.49	0.12	0.49	0.49	0.10	0.10	0.10	0.14	0.14	0.14
Sat Flow, veh/h	1781	3470	150	1781	3554	1585	788	1043	1585	1781	1870	1585
Grp Volume(v), veh/h	188	391	405	195	767	220	151	0	108	188	222	110
Grp Sat Flow(s),veh/h/ln	1781	1777	1843	1781	1777	1585	1831	0	1585	1781	1870	1585
Q Serve(g_s), s	12.9	17.9	17.9	13.4	17.4	10.2	10.0	0.0	7.0	12.6	14.4	8.0
Cycle Q Clear(g_c), s	12.9	17.9	17.9	13.4	17.4	10.2	10.0	0.0	7.0	12.6	14.4	8.0
Prop In Lane	1.00		0.08	1.00		1.00	0.43		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	214	867	899	221	1747	779	187	0	358	249	261	221
V/C Ratio(X)	0.88	0.45	0.45	0.88	0.44	0.28	0.81	0.00	0.30	0.76	0.85	0.50
Avail Cap(c_a), veh/h	230	867	899	230	1747	779	419	0	559	365	383	325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	20.9	20.9	53.4	20.4	18.6	54.5	0.0	39.9	51.3	52.1	49.3
Incr Delay (d2), s/veh	27.2	1.7	1.6	28.9	0.8	0.9	3.2	0.0	0.2	2.4	7.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	7.8	8.1	7.7	7.4	3.9	4.8	0.0	2.8	5.8	7.3	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.9	22.5	22.5	82.3	21.2	19.5	57.7	0.0	40.1	53.7	60.0	50.0
LnGrp LOS	F	C	C	F	C	B	E	A	D	D	E	D
Approach Vol, veh/h		984			1182			259			520	
Approach Delay, s/veh		33.7			31.0			50.3			55.6	
Approach LOS		C			C			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.9	66.0		17.2	19.4	65.5		21.9				
Change Period (Y+Rc), s	4.0	5.0		4.6	4.0	5.0		4.6				
Max Green Setting (Gmax), s	16.0	36.0		28.4	16.0	36.0		25.4				
Max Q Clear Time (g_c+1/4), s	14.5	19.4		12.0	15.4	19.9		16.4				
Green Ext Time (p_c), s	0.0	5.7		0.6	0.0	4.6		1.0				

Intersection Summary

HCM 6th Ctrl Delay	37.9
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

12: Redwood Hwy & Village South Entrance

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↖↗	↗	↖↗	↑↑	↑↑		
Traffic Volume (veh/h)	33	290	387	434	312	15	
Future Volume (veh/h)	33	290	387	434	312	15	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	36	266	421	472	339	16	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	670	307	527	2533	1765	83	
Arrive On Green	0.19	0.19	0.15	0.71	0.51	0.51	
Sat Flow, veh/h	3456	1585	3456	3647	3549	163	
Grp Volume(v), veh/h	36	266	421	472	174	181	
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	1841	
Q Serve(g_s), s	0.8	15.1	10.9	4.1	4.9	5.0	
Cycle Q Clear(g_c), s	0.8	15.1	10.9	4.1	4.9	5.0	
Prop In Lane	1.00	1.00	1.00			0.09	
Lane Grp Cap(c), veh/h	670	307	527	2533	907	940	
V/C Ratio(X)	0.05	0.87	0.80	0.19	0.19	0.19	
Avail Cap(c_a), veh/h	1226	562	944	2533	907	940	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	30.5	36.3	38.0	4.4	12.3	12.3	
Incr Delay (d2), s/veh	0.0	7.3	2.8	0.2	0.5	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.3	6.4	4.8	1.3	2.0	2.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	30.6	43.6	40.9	4.6	12.8	12.8	
LnGrp LOS	C	D	D	A	B	B	
Approach Vol, veh/h	302			893	355		
Approach Delay, s/veh	42.1			21.7	12.8		
Approach LOS	D			C	B		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		71.0			18.8	52.2	22.0
Change Period (Y+Rc), s		* 4.7			4.6	* 4.7	4.0
Max Green Setting (Gmax), s		* 51			25.4	* 21	33.0
Max Q Clear Time (g_c+I1), s		6.1			12.9	7.0	17.1
Green Ext Time (p_c), s		5.2			1.3	2.4	0.9

Intersection Summary

HCM 6th Ctrl Delay	23.6
HCM 6th LOS	C




















Notes

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

HCM Signalized Intersection Capacity Analysis

1: Tamal Vista Blvd & Fifer Ave & Dwy

05/17/2022













												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	203	279	258	290	7	475	41	86	35	28	10
Future Volume (vph)	1	203	279	258	290	7	475	41	86	35	28	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.90			0.98	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1862	1583	1770	1856		1770	1674			1785	
Flt Permitted		1.00	1.00	0.41	1.00		0.95	1.00			0.98	
Satd. Flow (perm)		1861	1583	766	1856		1770	1674			1785	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	221	303	280	315	8	516	45	93	38	30	11
RTOR Reduction (vph)	0	0	122	0	1	0	0	61	0	0	6	0
Lane Group Flow (vph)	0	222	181	280	322	0	516	77	0	0	73	0
Turn Type	Perm	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases		2	8	1	6		8	8		7	7	
Permitted Phases	2		2	6								
Actuated Green, G (s)		25.4	59.7	44.4	44.4		34.3	34.3			8.1	
Effective Green, g (s)		25.4	59.7	44.4	44.4		34.3	34.3			8.1	
Actuated g/C Ratio		0.25	0.60	0.44	0.44		0.34	0.34			0.08	
Clearance Time (s)		4.6	4.6	4.0	4.6		4.6	4.6			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		472	945	490	824		607	574			144	
v/s Ratio Prot			0.07	c0.09	0.17		c0.29	0.05			c0.04	
v/s Ratio Perm		0.12	0.05	c0.17								
v/c Ratio		0.47	0.19	0.57	0.39		0.85	0.13			0.50	
Uniform Delay, d1		31.6	9.2	19.0	18.7		30.5	22.6			44.0	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		3.3	0.1	1.6	1.4		11.0	0.1			2.8	
Delay (s)		34.9	9.3	20.6	20.1		41.5	22.7			46.8	
Level of Service		C	A	C	C		D	C			D	
Approach Delay (s)		20.1			20.3			37.5			46.8	
Approach LOS		C			C			D			D	
Intersection Summary												
HCM 2000 Control Delay			27.4				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)			17.2		
Intersection Capacity Utilization			71.3%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Tamal Vista Blvd & Wornum Drive

05/17/2022

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	121	209	345	257	503	355
Future Volume (vph)	121	209	345	257	503	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	132	227	375	279	547	386
RTOR Reduction (vph)	0	120	0	49	0	0
Lane Group Flow (vph)	132	107	375	230	547	386
Turn Type	custom	pm+ov	NA	custom	Prot	NA
Protected Phases	3	1	2	3	1	6
Permitted Phases	4	4		2 4		
Actuated Green, G (s)	10.9	47.1	28.8	39.7	47.1	79.9
Effective Green, g (s)	10.9	47.1	28.8	39.7	47.1	79.9
Actuated g/C Ratio	0.11	0.47	0.29	0.40	0.47	0.80
Clearance Time (s)	4.6	4.0	4.6	4.6	4.0	4.6
Vehicle Extension (s)	1.0	2.7	5.5	1.0	2.7	3.5
Lane Grp Cap (vph)	192	745	536	701	833	1488
v/s Ratio Prot	c0.07	0.07	c0.20	0.04	c0.31	0.21
v/s Ratio Perm				0.11		
v/c Ratio	0.69	0.14	0.70	0.33	0.66	0.26
Uniform Delay, d1	42.9	15.0	31.7	20.9	20.3	2.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.9	0.0	5.5	0.1	4.0	0.4
Delay (s)	50.8	15.0	37.2	21.0	24.3	3.0
Level of Service	D	B	D	C	C	A
Approach Delay (s)	28.2		30.3			15.5
Approach LOS	C		C			B

Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

11: Madera Del Presidio Drive/Harbor Drive & Paradise Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	730	69	22	890	18	93	0	32	21	1	37
Future Volume (vph)	42	730	69	22	890	18	93	0	32	21	1	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.97			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.96			0.98	
Satd. Flow (prot)	1770	3493		1770	3528			1734			1675	
Flt Permitted	0.95	1.00		0.95	1.00			0.75			0.88	
Satd. Flow (perm)	1770	3493		1770	3528			1351			1506	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	793	75	24	967	20	101	0	35	23	1	40
RTOR Reduction (vph)	0	7	0	0	2	0	0	91	0	0	36	0
Lane Group Flow (vph)	46	861	0	24	985	0	0	45	0	0	28	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)	3.6	38.6		2.0	37.0			6.6			6.2	
Effective Green, g (s)	3.6	38.6		2.0	37.0			6.6			6.2	
Actuated g/C Ratio	0.06	0.64		0.03	0.62			0.11			0.10	
Clearance Time (s)	4.0	4.6		4.0	4.6			4.2			4.6	
Vehicle Extension (s)	2.0	3.0		2.0	3.0			2.0			2.0	
Lane Grp Cap (vph)	106	2247		59	2175			148			155	
v/s Ratio Prot	c0.03	0.25		0.01	c0.28							
v/s Ratio Perm								c0.03			0.02	
v/c Ratio	0.43	0.38		0.41	0.45			0.31			0.18	
Uniform Delay, d1	27.2	5.1		28.4	6.1			24.6			24.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.0	0.5		1.7	0.7			0.4			0.2	
Delay (s)	28.3	5.6		30.1	6.8			25.0			24.8	
Level of Service	C	A		C	A			C			C	
Approach Delay (s)		6.7			7.4			25.0			24.8	
Approach LOS		A			A			C			C	

Intersection Summary

HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th TWSC
 2: Fifer Ave/US 101 SB Ramp & Nellen Ave

05/17/2022

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	301	611	40	0	80
Future Vol, veh/h	0	301	611	40	0	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	327	664	43	0	87

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	6.22
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.318
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	447
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	447
HCM Lane V/C Ratio	-	-	-	0.195
HCM Control Delay (s)	-	-	-	15
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.7

HCM 6th Signalized Intersection Summary

4: Redwood Hwy & Wornum Dr

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	498	112	142	242	69	173
Future Volume (veh/h)	498	112	142	242	69	173
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	541	33	154	263	75	61
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	577	513	184	1108	848	1232
Arrive On Green	0.32	0.32	0.10	0.59	0.45	0.45
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	541	33	154	263	75	61
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	29.5	1.4	8.5	6.7	2.3	0.9
Cycle Q Clear(g_c), s	29.5	1.4	8.5	6.7	2.3	0.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	577	513	184	1108	848	1232
V/C Ratio(X)	0.94	0.06	0.84	0.24	0.09	0.05
Avail Cap(c_a), veh/h	905	805	223	1108	848	1232
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	23.3	44.0	9.7	15.5	2.6
Incr Delay (d2), s/veh	9.2	0.0	17.3	0.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	1.5	4.6	2.7	1.0	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.1	23.4	61.3	10.2	15.8	2.7
LnGrp LOS	D	C	E	B	B	A
Approach Vol, veh/h	574			417	136	
Approach Delay, s/veh	41.0			29.1	9.9	
Approach LOS	D			C	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.9	49.6		36.6		63.4
Change Period (Y+Rc), s	3.5	* 4.2		* 4.2		* 4.2
Max Green Setting (Gmax), s	12.5	* 25		* 51		* 25
Max Q Clear Time (g_c+I1), s	10.5	4.3		31.5		8.7
Green Ext Time (p_c), s	0.0	0.3		0.9		0.9
Intersection Summary						
HCM 6th Ctrl Delay			32.8			
HCM 6th LOS			C			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th AWSC
 5: Madera Blvd & Council Crest Dr & Tamal Vista Blvd

05/17/2022

Intersection

Intersection Delay, s/veh 48.5

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	
Traffic Vol, veh/h	2	3	3	212	3	175	8	468	148	253	253	6
Future Vol, veh/h	2	3	3	212	3	175	8	468	148	253	253	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	3	3	230	3	190	9	509	161	275	275	7
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	2	1
HCM Control Delay	13.3	20.2	85.9	25
HCM LOS	B	C	F	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	25%	99%	0%	100%	0%
Vol Thru, %	0%	100%	0%	38%	1%	0%	0%	98%
Vol Right, %	0%	0%	100%	38%	0%	100%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	468	148	8	215	175	253	259
LT Vol	8	0	0	2	212	0	253	0
Through Vol	0	468	0	3	3	0	0	253
RT Vol	0	0	148	3	0	175	0	6
Lane Flow Rate	9	509	161	9	234	190	275	282
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.021	1.13	0.325	0.024	0.574	0.404	0.646	0.621
Departure Headway (Hd)	8.507	7.994	7.276	10.349	9.241	8.017	8.854	8.321
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	423	458	497	348	393	453	410	436
Service Time	6.207	5.694	4.976	8.049	6.941	5.717	6.554	6.021
HCM Lane V/C Ratio	0.021	1.111	0.324	0.026	0.595	0.419	0.671	0.647
HCM Control Delay	11.4	110.1	13.4	13.3	23.7	16	26.3	23.7
HCM Lane LOS	B	F	B	B	C	C	D	C
HCM 95th-tile Q	0.1	17.9	1.4	0.1	3.5	1.9	4.4	4.1

HCM 6th Signalized Intersection Summary
 6: San Clemente Dr & Tamalpais Dr/Redwood Hwy

05/17/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵↵↵	↵
Traffic Volume (veh/h)	676	22	75	527	1111	106
Future Volume (veh/h)	676	22	75	527	1111	106
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	735	24	82	573	1208	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1194	39	239	2279	1906	601
Arrive On Green	0.23	0.23	0.13	0.45	0.38	0.38
Sat Flow, veh/h	5248	165	1781	5274	5023	1585
Grp Volume(v), veh/h	492	267	82	573	1208	115
Grp Sat Flow(s),veh/h/ln	1702	1841	1781	1702	1674	1585
Q Serve(g_s), s	6.7	6.7	2.2	3.6	10.2	2.5
Cycle Q Clear(g_c), s	6.7	6.7	2.2	3.6	10.2	2.5
Prop In Lane		0.09	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	800	433	239	2279	1906	601
V/C Ratio(X)	0.62	0.62	0.34	0.25	0.63	0.19
Avail Cap(c_a), veh/h	2247	1215	345	4744	2723	859
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	17.7	20.3	8.9	13.1	10.7
Incr Delay (d2), s/veh	0.3	0.5	1.2	0.1	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	2.6	0.9	1.1	3.3	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.0	18.2	21.5	9.0	13.6	10.9
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	759			655	1323	
Approach Delay, s/veh	18.0			10.6	13.4	
Approach LOS	B			B	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.9	17.1		23.6		28.1
Change Period (Y+Rc), s	4.0	* 5		4.0		5.0
Max Green Setting (Gmax), s	10.0	* 34		28.0		48.0
Max Q Clear Time (g_c+1/4), s	11.2	8.7		12.2		5.6
Green Ext Time (p_c), s	0.1	3.4		7.5		6.5

Intersection Summary

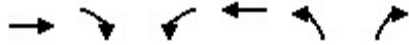
HCM 6th Ctrl Delay		14.0				
HCM 6th LOS			B			

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 7: US101 NB off ramp & Tamalpais Dr

05/17/2022

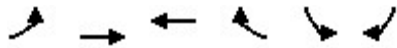


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↔↔	↔↔
Traffic Volume (veh/h)	976	0	0	857	818	563
Future Volume (veh/h)	976	0	0	857	818	563
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	0	0	1870	1870	1870
Adj Flow Rate, veh/h	1061	0	0	932	889	428
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	0	2	2	2
Cap, veh/h	1989	0	0	1989	980	792
Arrive On Green	0.56	0.00	0.00	0.56	0.28	0.28
Sat Flow, veh/h	3741	0	0	3741	3456	2790
Grp Volume(v), veh/h	1061	0	0	932	889	428
Grp Sat Flow(s),veh/h/ln	1777	0	0	1777	1728	1395
Q Serve(g_s), s	11.6	0.0	0.0	9.7	15.4	8.0
Cycle Q Clear(g_c), s	11.6	0.0	0.0	9.7	15.4	8.0
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1989	0	0	1989	980	792
V/C Ratio(X)	0.53	0.00	0.00	0.47	0.91	0.54
Avail Cap(c_a), veh/h	1989	0	0	1989	1131	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.6	0.0	0.0	8.1	21.4	18.8
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.8	8.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	0.0	3.2	6.9	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.6	0.0	0.0	8.9	30.3	19.0
LnGrp LOS	A	A	A	A	C	B
Approach Vol, veh/h	1061			932	1317	
Approach Delay, s/veh	9.6			8.9	26.6	
Approach LOS	A			A	C	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		39.7			39.7	22.3
Change Period (Y+Rc), s		5.0			5.0	4.7
Max Green Setting (Gmax), s		32.0			32.0	20.3
Max Q Clear Time (g_c+I1), s		13.6			11.7	17.4
Green Ext Time (p_c), s		1.7			1.4	0.2
Intersection Summary						
HCM 6th Ctrl Delay			16.2			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

8: Tamalpais Dr & US101 SB off-ramp

05/17/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1049	1183	0	691	355
Future Volume (veh/h)	0	1049	1183	0	691	355
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	1140	1286	0	751	310
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2151	2151	0	849	378
Arrive On Green	0.00	0.61	0.61	0.00	0.24	0.24
Sat Flow, veh/h	0	3741	3741	0	3563	1585
Grp Volume(v), veh/h	0	1140	1286	0	751	310
Grp Sat Flow(s),veh/h/ln	0	1777	1777	0	1781	1585
Q Serve(g_s), s	0.0	11.6	13.9	0.0	12.6	11.5
Cycle Q Clear(g_c), s	0.0	11.6	13.9	0.0	12.6	11.5
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2151	2151	0	849	378
V/C Ratio(X)	0.00	0.53	0.60	0.00	0.88	0.82
Avail Cap(c_a), veh/h	0	2151	2151	0	1437	639
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	7.1	7.6	0.0	22.8	22.4
Incr Delay (d2), s/veh	0.0	0.9	1.2	0.0	1.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.6	4.3	0.0	5.1	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	8.1	8.8	0.0	24.7	24.1
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h		1140	1286		1061	
Approach Delay, s/veh		8.1	8.8		24.5	
Approach LOS		A	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		42.5		19.5		42.5
Change Period (Y+Rc), s		5.0		* 4.7		5.0
Max Green Setting (Gmax), s		27.3		* 25		27.3
Max Q Clear Time (g_c+l1), s		13.6		14.6		15.9
Green Ext Time (p_c), s		1.8		0.2		2.0

Intersection Summary

HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

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

HCM 6th Signalized Intersection Summary
 9: Casa Buena Dr/Madera Blvd & Tamalpais Dr

05/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	606	64	254	697	372	45	79	200	262	68	188
Future Volume (veh/h)	193	606	64	254	697	372	45	79	200	262	68	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	210	659	69	276	758	251	49	86	140	180	222	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	1563	163	244	1728	771	64	112	369	247	260	220
Arrive On Green	0.13	0.48	0.48	0.14	0.49	0.49	0.10	0.10	0.10	0.14	0.14	0.14
Sat Flow, veh/h	1781	3247	340	1781	3554	1585	667	1170	1585	1781	1870	1585
Grp Volume(v), veh/h	210	360	368	276	758	251	135	0	140	180	222	84
Grp Sat Flow(s),veh/h/ln	1781	1777	1809	1781	1777	1585	1837	0	1585	1781	1870	1585
Q Serve(g_s), s	14.4	16.4	16.4	17.0	17.3	12.0	8.9	0.0	9.2	12.0	14.4	6.0
Cycle Q Clear(g_c), s	14.4	16.4	16.4	17.0	17.3	12.0	8.9	0.0	9.2	12.0	14.4	6.0
Prop In Lane	1.00		0.19	1.00		1.00	0.36		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	855	871	244	1728	771	176	0	369	247	260	220
V/C Ratio(X)	0.89	0.42	0.42	1.13	0.44	0.33	0.77	0.00	0.38	0.73	0.85	0.38
Avail Cap(c_a), veh/h	244	855	871	244	1728	771	436	0	593	351	368	312
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	20.9	20.9	53.5	20.8	19.4	54.7	0.0	40.0	51.1	52.2	48.5
Incr Delay (d2), s/veh	29.2	1.5	1.5	97.2	0.8	1.1	2.6	0.0	0.2	2.0	9.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	7.1	7.3	14.2	7.3	4.7	4.2	0.0	3.6	5.5	7.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.2	22.4	22.4	150.7	21.6	20.6	57.4	0.0	40.3	53.1	61.7	48.9
LnGrp LOS	F	C	C	F	C	C	E	A	D	D	E	D
Approach Vol, veh/h		938			1285			275			486	
Approach Delay, s/veh		35.8			49.1			48.7			56.3	
Approach LOS		D			D			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.4	65.3		16.5	21.0	64.7		21.8				
Change Period (Y+Rc), s	4.0	5.0		4.6	4.0	5.0		4.6				
Max Green Setting (Gmax), s	7.0	35.0		29.4	17.0	35.0		24.4				
Max Q Clear Time (g_c+11g), s	11.0	19.3		11.2	19.0	18.4		16.4				
Green Ext Time (p_c), s	0.0	5.6		0.7	0.0	4.2		0.8				

Intersection Summary

HCM 6th Ctrl Delay	46.1
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

10: Paradise Dr & San Clemente Dr

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	287	42	28	827	907	34
Future Volume (veh/h)	287	42	28	827	907	34
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	312	0	30	899	986	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	366		380	2319	1959	70
Arrive On Green	0.21	0.00	0.03	0.65	0.56	0.56
Sat Flow, veh/h	1781	1585	1781	3647	3594	124
Grp Volume(v), veh/h	312	0	30	899	500	521
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1848
Q Serve(g_s), s	10.1	0.0	0.4	7.1	10.4	10.4
Cycle Q Clear(g_c), s	10.1	0.0	0.4	7.1	10.4	10.4
Prop In Lane	1.00	1.00	1.00			0.07
Lane Grp Cap(c), veh/h	366		380	2319	995	1034
V/C Ratio(X)	0.85		0.08	0.39	0.50	0.50
Avail Cap(c_a), veh/h	564		453	2319	995	1034
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	5.8	4.8	8.1	8.1
Incr Delay (d2), s/veh	4.7	0.0	0.0	0.5	1.8	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	0.1	1.9	3.6	3.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.6	0.0	5.8	5.3	9.9	9.8
LnGrp LOS	C		A	A	A	A
Approach Vol, veh/h	312	A		929	1021	
Approach Delay, s/veh	27.6			5.4	9.9	
Approach LOS	C			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		43.7		16.3	5.6	38.1
Change Period (Y+Rc), s		4.5		4.0	4.0	4.5
Max Green Setting (Gmax), s		32.5		19.0	4.0	24.5
Max Q Clear Time (g_c+l1), s		9.1		12.1	2.4	12.4
Green Ext Time (p_c), s		6.9		0.3	0.0	5.3
Intersection Summary						
HCM 6th Ctrl Delay			10.5			
HCM 6th LOS			B			
Notes						
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.						

HCM 6th Signalized Intersection Summary

12: Redwood Hwy & Village South Entrance

05/17/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↖↗	↖	↖↗	↑↑	↑↘		
Traffic Volume (veh/h)	35	296	393	418	260	10	
Future Volume (veh/h)	35	296	393	418	260	10	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	38	273	427	454	283	11	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	685	314	533	2517	1759	68	
Arrive On Green	0.20	0.20	0.15	0.71	0.50	0.50	
Sat Flow, veh/h	3456	1585	3456	3647	3581	135	
Grp Volume(v), veh/h	38	273	427	454	144	150	
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	1846	
Q Serve(g_s), s	0.8	15.5	11.1	4.0	4.1	4.1	
Cycle Q Clear(g_c), s	0.8	15.5	11.1	4.0	4.1	4.1	
Prop In Lane	1.00	1.00	1.00			0.07	
Lane Grp Cap(c), veh/h	685	314	533	2517	896	931	
V/C Ratio(X)	0.06	0.87	0.80	0.18	0.16	0.16	
Avail Cap(c_a), veh/h	1226	562	944	2517	896	931	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	30.2	36.1	37.9	4.5	12.4	12.4	
Incr Delay (d2), s/veh	0.0	7.3	2.8	0.2	0.4	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.3	6.5	4.8	1.3	1.6	1.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	30.3	43.4	40.8	4.7	12.8	12.8	
LnGrp LOS	C	D	D	A	B	B	
Approach Vol, veh/h	311			881	294		
Approach Delay, s/veh	41.8			22.2	12.8		
Approach LOS	D			C	B		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		70.6			19.0	51.6	22.4
Change Period (Y+Rc), s		* 4.7			4.6	* 4.7	4.0
Max Green Setting (Gmax), s		* 51			25.4	* 21	33.0
Max Q Clear Time (g_c+I1), s		6.0			13.1	6.1	17.5
Green Ext Time (p_c), s		4.9			1.3	2.0	0.9

Intersection Summary

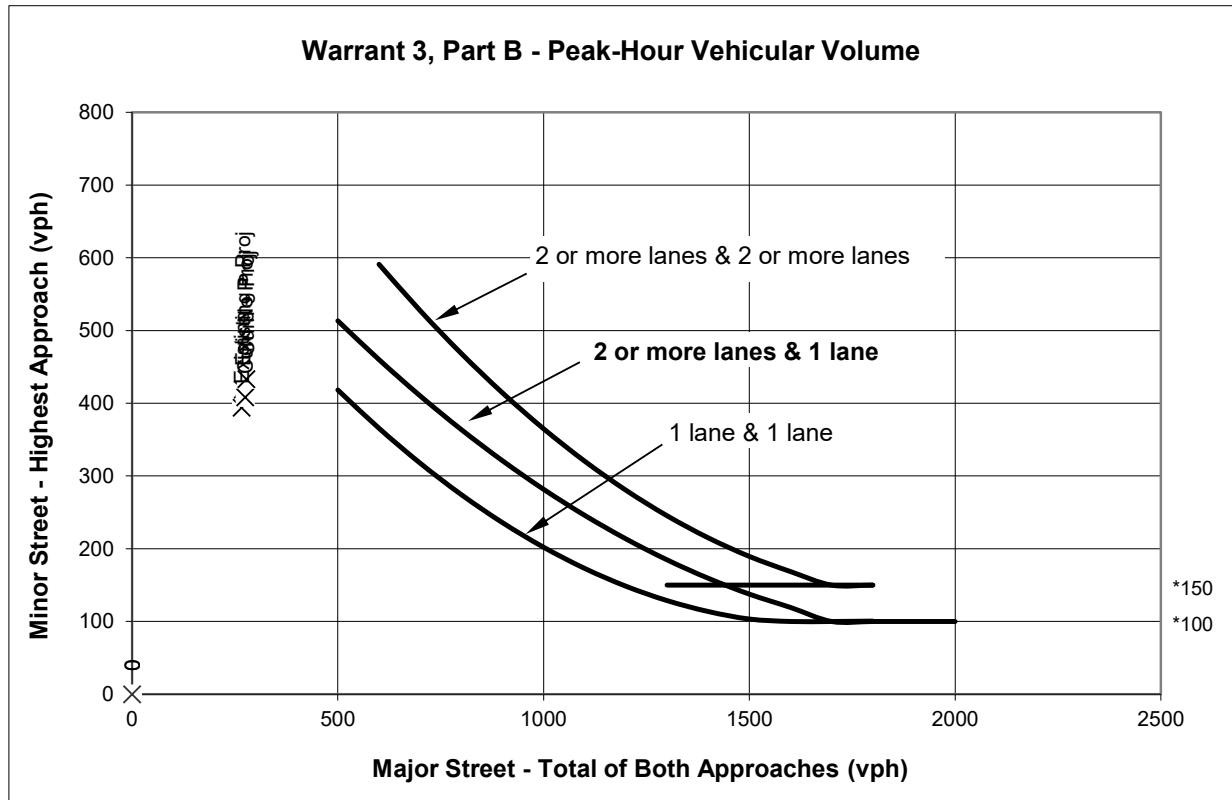
HCM 6th Ctrl Delay	24.4
HCM 6th LOS	C

Notes

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

Appendix E

Signal Warrant



Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3, Part B - Peak-Hour Vehicular Volume

		AM PEAK PERIOD								
		Approach Lanes		Existing	Existing + Proj	Cum No Proj	Cum + Proj	0	0	0
		2 or	One More							
Major Street - Both Approaches	Council Crest Dr / Madera	X		266	269	275	278	0	0	0
Minor Street - Highest Approach	Madera/ Tamal Vista		X	394	419	408	433	0	0	0
Signal Warranted Based on Part B - Peak-Hour Volumes?				No	No	No	No			

*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

TRAFFIC SIGNAL WARRANTS WORKSHEET

Major Street: Council Crest Dr / Madera
 Minor Street: Madera/ Tamal Vista

Analyst: SJ date: 5/4/22
 Critical Approach Speed* (mph) 25
 Critical Approach Speed* (mph) 30
 *Posted Speed.

- Critical speed of major street traffic > 50 mph (64 km/h)..... }
 In built up area of isolated community of < 10,000 population..... } **Rural (R)**
 Urban (U)

AM PEAK PERIOD

Warrant 3 - Peak Hour

PART A

(All parts 1, 2, and 3 below must be satisfied)

	AM PEAK PERIOD							
	Existing	Existing + Proj	Cum No Proj	Cum + Proj	0:00	0:00	0:00	
Minor Street Approach Direction w/ Highest Delay	NB	NB	NB	NB				
Highest Minor Street Average Delay (sec/veh)	11.9	13.3	12.4	13.8				
Corresponding Minor Street Approach Volume (veh/hr)	394	419	408	433				
Minor Street Total Delay (veh-hrs)	1.3	1.5	1.4	1.7				
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; <u>AND</u>	No	No	No	No				
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; <u>AND</u>	Yes	Yes	Yes	Yes				
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	Yes	Yes	Yes	Yes				
Signal Warranted based on Part A?	No	No	No	No				

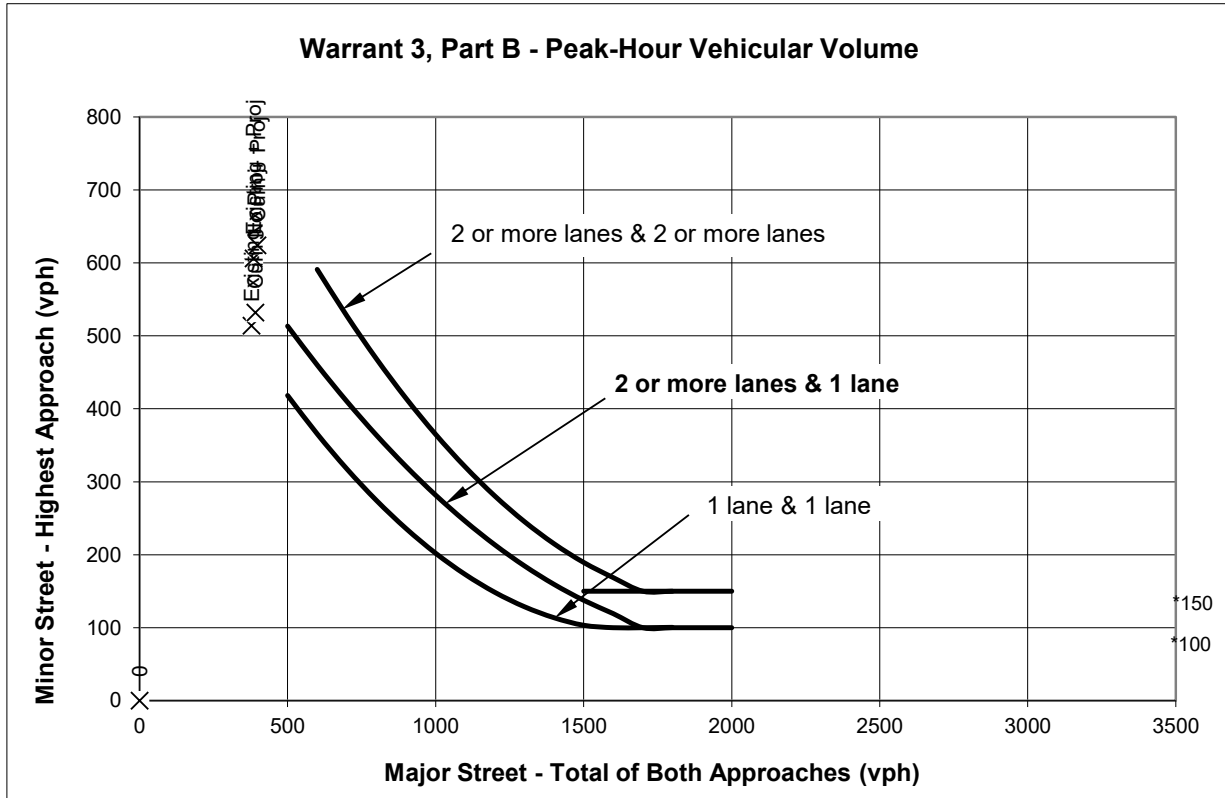
PART B

	Approach Lanes	AM PEAK PERIOD									
		2 or More		Existing	Existing + Proj	Cum No Proj	Cum + Proj	0:00	0:00		
		One	More								
Major Street - Both Approaches	Council Crest Dr / Madera	X		266	269	275	278	0	0		
Minor Street - Highest Approach	Madera/ Tamal Vista		X	394	419	408	433	0	0		
Signal Warranted based on Part B?				No	No	No	No	0	No		

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

Notes:



Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3, Part B - Peak-Hour Vehicular Volume

		Approach Lanes		PM PEAK HOUR							
		2 or More	One	Existing	Existing + Proj	Cum No Proj	Cum + Proj	0	0		
Major Street - Both Approaches	Council Crest Dr / Madera	X		378	385	391	398	0	0		
Minor Street - Highest Approach	Madera/ Tamal Vista		X	514	606	532	624	0	0		
Signal Warranted Based on Part B - Peak-Hour Volumes?				No	Yes	Yes	Yes				

*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

TRAFFIC SIGNAL WARRANTS WORKSHEET

Major Street: Council Crest Dr / Madera
 Minor Street: Madera/ Tamal Vista

Analyst: SJ date: 5/4/22
 Critical Approach Speed* (mph) 25
 Critical Approach Speed* (mph) 30
 *Posted Speed.

- Critical speed of major street traffic > 50 mph (64 km/h)..... }
 or
 In built up area of isolated community of < 10,000 population..... } **Rural (R)**
 Urban (U)

PM PEAK HOUR

Warrant 3 - Peak Hour

PART A

(All parts 1, 2, and 3 below must be satisfied)

	PM PEAK HOUR							
	Existing	Existing + Proj	Cum No Proj	Cum + Proj				
Minor Street Approach Direction w/ Highest Delay	NB	NB	NB	NB				
Highest Minor Street Average Delay (sec/veh)	30.7	75.2	35.7	85.9				
Corresponding Minor Street Approach Volume (veh/hr)	514	606	532	624				
Minor Street Total Delay (veh-hrs)	4.4	12.7	5.3	14.9				
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; <u>AND</u>	No	Yes	Yes	Yes				
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; <u>AND</u>	Yes	Yes	Yes	Yes				
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	Yes	Yes	Yes	Yes				
Signal Warranted based on Part A?	No	Yes	Yes	Yes				

PART B

	Approach Lanes	PM PEAK HOUR				0:00	0:00	0:00			
		2 or More		Existing	Existing + Proj					Cum No Proj	Cum + Proj
		One	More								
Major Street - Both Approaches	Council Crest Dr / Madera	X		378	385	391	398	0	0	0	
Minor Street - Highest Approach	Madera/ Tamal Vista		X	514	606	532	624	0	0	0	
Signal Warranted based on Part B?				No	Yes	Yes	Yes	0	0	0	

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).
 Notes:

