

Appendix TRA

Multi-Modal Transportation Analysis

Multi-Modal Transportation Analysis

1155 & 1185 Terra Bella Avenue

Draft

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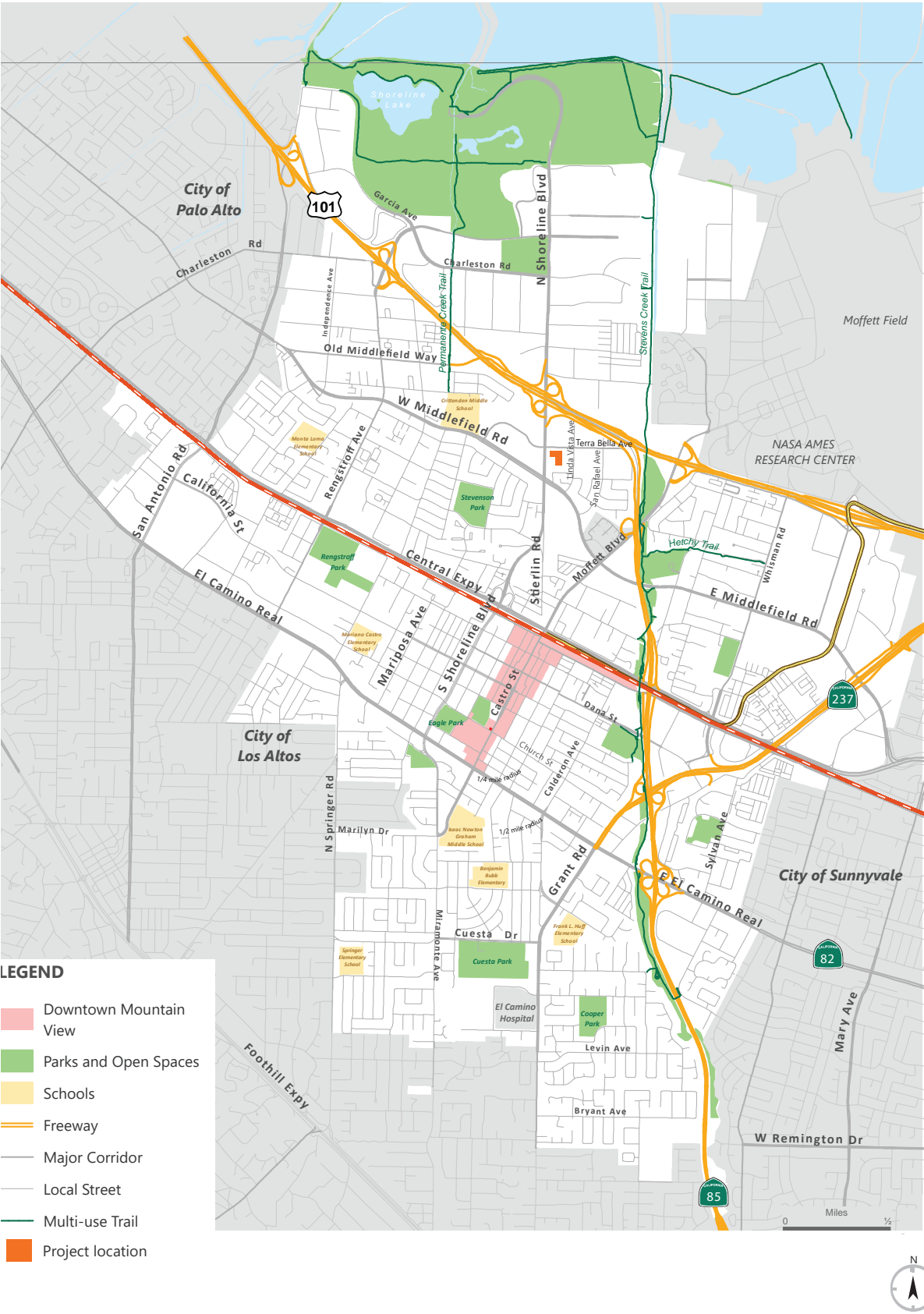
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1. INTRODUCTION

This report presents the results of the Multi-Modal Transportation Analysis (MTA) for the proposed office development project located at 1155 & 1185 Terra Bella Avenue in the City of Mountain View, California. The purpose of this MTA is to assess operational effects of the proposed project for all modes of transportation and to identify adverse effects and potential transportation improvements to address the adverse effects. The reporting requirements of this MTA is based on the MTA Requirement Checklist provided in **Appendix A. Figure 1** shows the location of the proposed project site in the City of Mountain View.

Figure 1. Project Location



1.1 Project Description and Surrounding Areas

The proposed development is a 1.3-acre site in the Terra Bella District in Mountain View, CA, comprising two parcels, 1185 Terra Bella Avenue (APN:153-16-011) and 1155 Terra Bella Avenue (APN: 153-16-012). The site is located east of N Shoreline Boulevard, across the street from the recently approved Shoreline Gateway mixed-use office-residential development. A bus stop is located on the corner of N Shoreline Boulevard and Terra Bella Avenue. The closest existing residential neighborhood is over 500 feet away.

The existing building on the site has been demolished, and the proposed project is envisioned as a freestanding three-story office building of approximately 20,000 square foot size on the Terra Bella Avenue frontage, and associated surface parking lot adjacent to the new building. A plaza is proposed along the Terra Bella Avenue frontage, and the entire street frontage is designed to create a very pedestrian-friendly experience. The proposed project provides a total of 75 parking spaces on site, including three accessible parking stalls, 10 regular electric vehicle (EV) parking stalls, two EV accessible parking stalls, one loading space parking stall, and six clean air vehicles. The proposed project will also provide one short-term bicycle rack and 4 long-term bicycle enclosures. The proposed project has a single driveway that provides ingress and egress at Terra Bella Avenue for all modes of traffic. In addition to this, emergency vehicles have an access at Terra Bella Avenue. **Figure 2** shows the project site plan.

The proposed project is located along Terra Bella Avenue and is surrounded by commercial and residential land uses.

1.2 Study Area

Based on the expected extent of impacts, the study area is generally bounded by N Shoreline Boulevard, and Terra Bella Avenue. **Figure 3** shows the study area, its surrounding areas and street network.

Figure 2: Project Site Plan

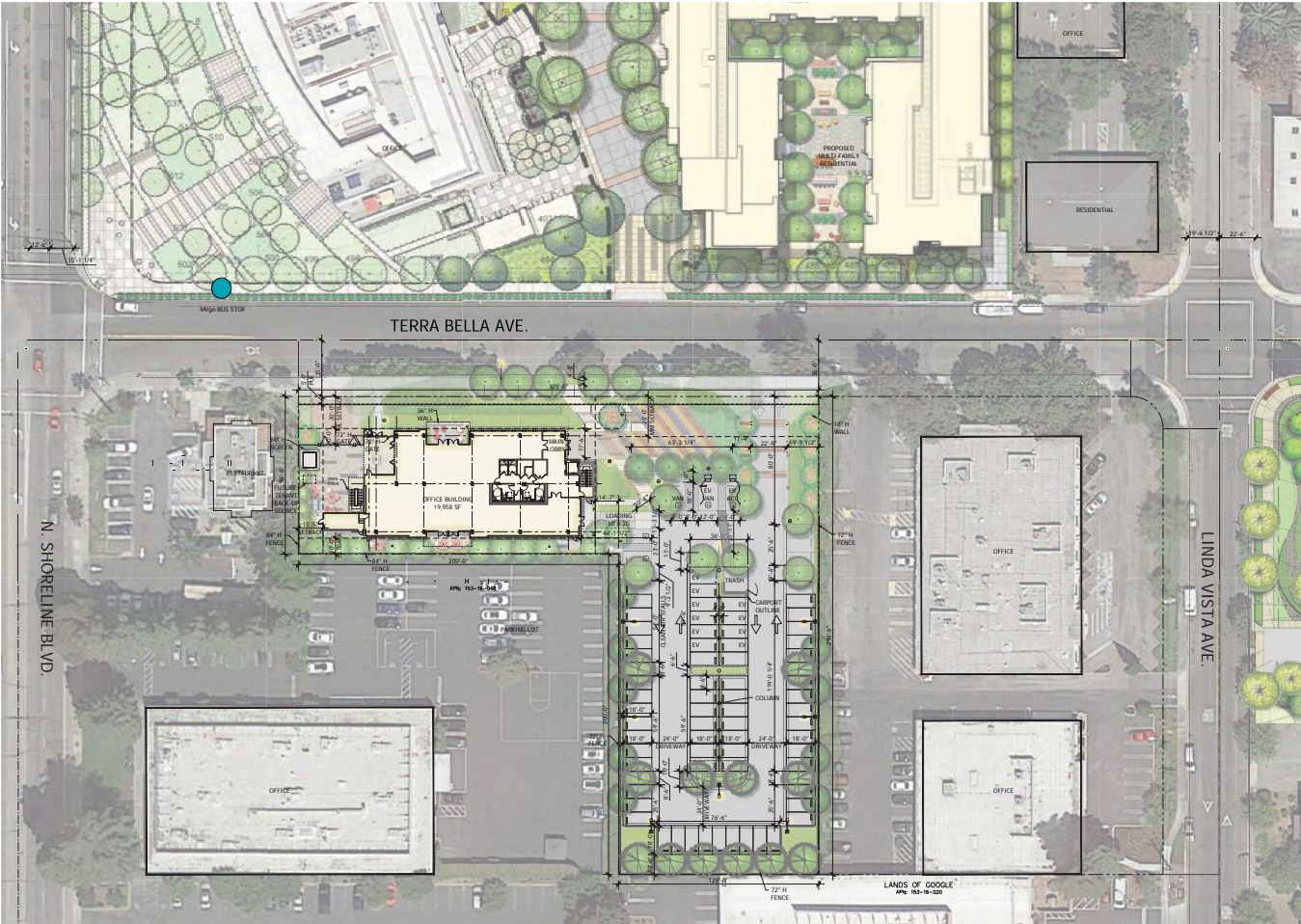
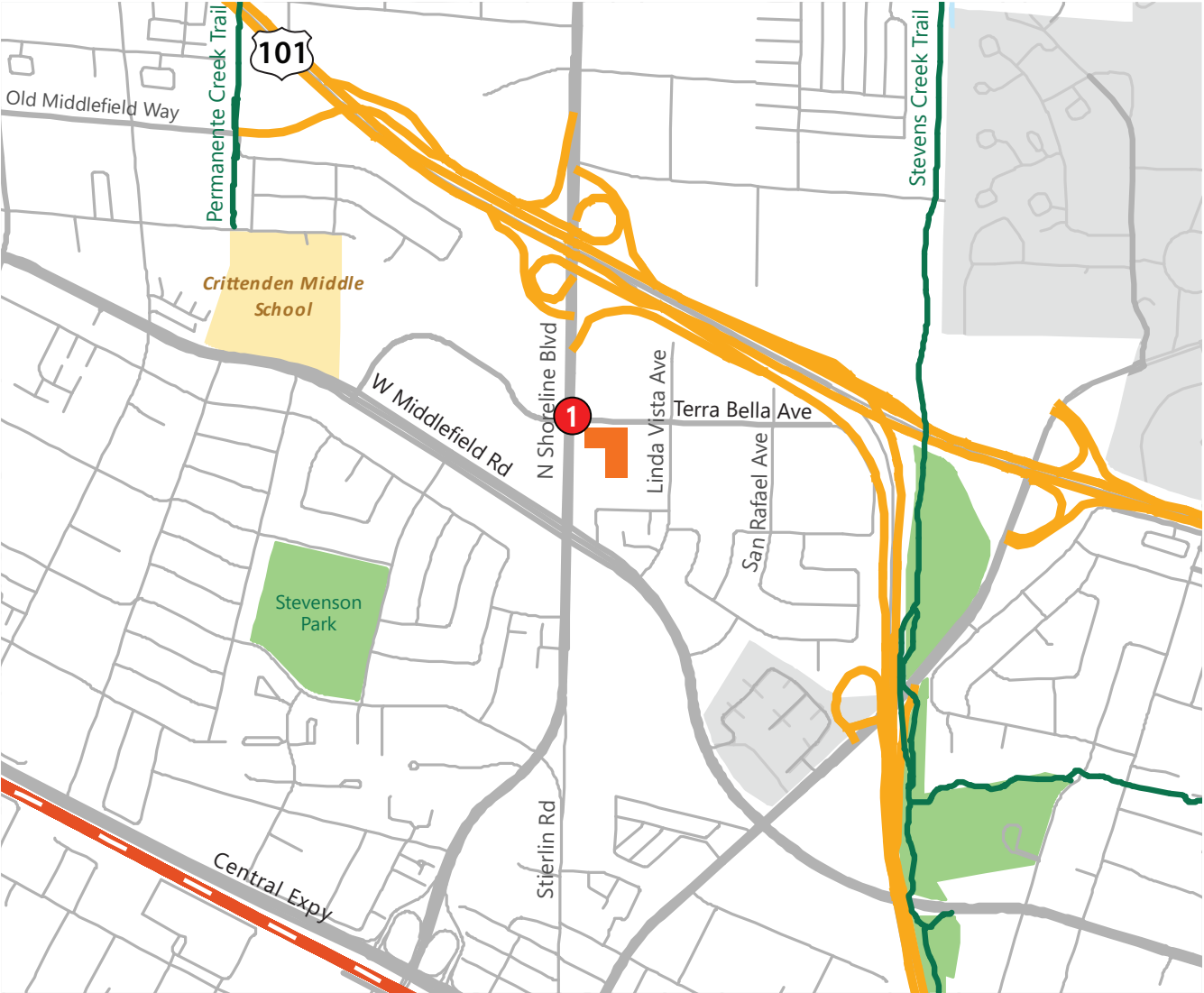




Figure 3: Study Area



LEGEND

-  Project Location
-  Study Intersection



2. EXISTING CONDITIONS

This chapter describes existing conditions in the immediate vicinity of the proposed project, including roadway facilities, bicycle and pedestrian facilities, and available transit services.

2.1 Planning Context: Mountain View City Code Chapter 36.Zoning

The Zoning Ordinance is Chapter 36 of the City Code and consists of land use regulations, based on policies of the General Plan, enacted in order to promote the public health, safety, morals, comfort and general welfare throughout the City of Mountain View. The Zoning Ordinance recognizes the importance of protecting land from other uses which are unrelated or incompatible, as well as the importance of well-designed and properly integrated developments to the public welfare in all districts of the City.

The proposed project will be in full compliance with the City of Mountain View's current zoning code for the Limited Industrial (ML) District and General Industrial (MM) District zones, including height, Floor Area Ratio (FAR), setback and parking requirements. Detailed policy conformance of the proposed project is provided in the next chapter.

2.2 Existing Setting and Roadway System

Regional roadway facilities providing access to the proposed development site is provided via US 101, State Route (SR) 237, SR 85, and SR 82. Local access to the proposed project is provided generally via N Shoreline Boulevard, Terra Bella Avenue, W Middlefield Road, and Linda Vista Avenue. Descriptions of the existing roadways are provided as follows:

US 101 is a north-south, eight-lane freeway with three mixed-flow lanes and one High Occupancy Vehicle (HOV) lane in each direction in the vicinity of the project. HOV Lanes, also known as diamond or carpool lanes, are restricted for use by vehicles occupied by two or more persons or motorcycles between 5-9 a.m. and between 3-7 p.m. HOV includes carpools, vanpools, and buses. US 101 is located north of the project site and provides regional freeway access north through the City of San Francisco and south through the City of San Jose. Near the project site, US 101 is oriented in an east-west direction. Access from US 101 to the project site is provided via interchanges at N Shoreline Boulevard, SR 85, and SR 237.

SR 85 is a north-south, six-lane freeway with two mixed-flow lanes per direction and one HOV lane in each direction during peak periods in the vicinity of the project site. SR 85 extends from the SR 85/US 101 interchange in Mountain View to the SR 85/US 101 interchange in south San Jose. Access from SR 85 to the project site is provided via interchanges at Moffett Boulevard, Central Expressway/Evelyn Avenue, SR 237, and El Camino Real.

SR 237 is an east-west freeway extending between the City of Mountain View (El Camino Real/SR 85) and the City of Milpitas (I-680). SR 237 includes two mixed flow lanes in the City of Mountain View. Access from SR 237 to the project site is provided via an interchange at W Middlefield Road.

SR 82 (El Camino Real) provides regional access between the City of San Francisco to the north and the City of San Jose to the south. It is a regionally significant east-west (in the project vicinity) arterial with three mixed-flow lanes in each direction. The roadway provides local connections to the project site via N Shoreline Boulevard.

N Shoreline Boulevard is a four-lane and six-lane roadway aligned in a mostly north-south orientation in the vicinity of the site. N Shoreline Boulevard extends from SR 82 (El Camino Real) to Shoreline Park. Access from N Shoreline Boulevard to the project site is provided via Terra Bella Avenue.

Terra Bella Avenue is a two-lane roadway aligned in an east-west orientation in the vicinity of the site. It runs between W Middlefield Road and San Leandro Street. Terra Bella Avenue would provide direct access to the project site. In the project vicinity, on-street parking is available on the entire south side of Terra Bella Avenue and on a portion of the north side.

W Middlefield Road is a four-lane roadway that begins at Veterans Boulevard in Redwood City, extends south to Winslow Street, and continues eastward until it terminates at Central Expressway in Sunnyvale.

Linda Vista Avenue is a two-lane north-south roadway that begins at W Middlefield Road and extends north until it terminates in a cul-de-sac just south of US 101.

2.3 Existing Pedestrian Facilities

Pedestrian facilities are comprised of crosswalks, sidewalks, pedestrian signals, and off-street paths which provide safe and convenient routes for pedestrians to access the destinations such as institutions, businesses, public transportation, and recreation facilities. Sidewalks are available in front of the project site on Terra Bella Avenue.

In the project vicinity, signalized study intersections are equipped with countdown pedestrian signal heads. Crosswalks also are provided on all approaches of the unsignalized intersection of Linda Vista Avenue/Terra Bella Avenue and on some approaches of the Linda Vista Avenue/W Middlefield Road and N. N Shoreline Boulevard/US 101 on-ramps intersections. A continuous pedestrian network is available crossing northbound and southbound over US 101. Overall, the existing network of sidewalks and crosswalks provides pedestrians with safe routes to bus stops and other points of interest within the area. The existing pedestrian facilities in the study area are shown in **Figure 4**.

2.4 Existing Bicycle Facilities

Existing bicycle facilities¹ are described below and shown in **Figure 5**. The City of Mountain View 2015 Bicycle Transportation Plan Update² describes the four bikeway classifications in the City.

¹ Access MV (Comprehensive Modal Plan), City of Mountain View, March 2021

² Bicycle Transportation Plan Update, City of Mountain View, November 17, 2015, Page 14-18

- **Class I Bikeways/Multi-Use Paths:** Class I bikeways are also referred to as multi-use or shared-use paths. They provide completely separated, exclusive right of way for people to walk and bike. Stevens Creek Trail located approximately a mile east of the Project is a north-south Class I bikeway providing north-south intercity connections.
- **Class II Bikeways/On-Street Bike Lanes:** Class II bikeways are striped lanes on roadways for one-way bicycle travel. Some Class II bikeways can also have painted buffers that add a few feet of separation between the bike lane and the traffic lane.
- **Class III Bikeways/Bike Routes:** Class III bikeways are signed bike routes where bicyclists share a travel lane with motorists. Class III bike routes are appropriate for low-volume streets with slow travel speeds, especially those on which vehicular traffic volumes are low enough that passing maneuvers can use the full street width, on roadways with bicycle demand but without adequate space for Class II striped bike lanes, and as “gap fillers” where there are short breaks in Class II lanes due to right-of-way constraints.
- **Class III Bicycle Boulevards:** Bicycle Boulevards are a type of Class III bikeway with additional treatments that prioritize bicycle use. Bike Boulevards are signed, shared roadways with low motor vehicle volume, such that motorists passing bicyclists can use the full width of the roadway. Bicycle Boulevards prioritize convenient and safe bicycle travel through traffic calming strategies, wayfinding signage, and other measures.
- **Class IV Bikeways/Protected On-Street Bike Lane/Cycle tracks:** A Class IV bikeway, known as a cycle track or protected bike lane, is an on-street bike lane that is physically separated from motor-vehicle traffic by a vertical separation, such as a raised curb, bollard, or car parking

The Stevens Creek Trail is a Class I bicycle path that extends from the intersection of Heatherstone Way/Dale Avenue in the south to the Bay Trail network in the North Bayshore area north of US 101. The trail can be accessed from W Middlefield Road, Moffett Boulevard, and La Avenida Street, which are all about one-mile biking distance from the project site.

N Shoreline Boulevard has striped Class II bicycle lanes from El Camino Real in the south to Charleston Road in the north. Shoreline Boulevard provides bicycle access from the project site to the Bailey Park Plaza Shopping Center and the North Bayshore area.

W Middlefield Road has Class II bicycle lanes across the City of Mountain View, from Old Middlefield Way in the west to Bernardo Avenue in the east. W Middlefield Road provides bicycle access to the Stevens Creek Trail.

La Avenida Street has Class II bicycle lanes from Inigo Way in the west to a cul-de-sac in the east that provides access to the Stevens Creek Trail. The VTA Bikeways Map and the City of Mountain View Bike

Map show a Class III bicycle route on La Avenida Street between N Shoreline Boulevard and Inigo Way. However, there is no signage on the roadway to suggest that this segment is a bicycle route.

Inigo Way has Class II bicycle lanes along its entirety from La Avenida Street to Pear Avenue.

2.5 Existing Transit Services and Facilities

Mountain View has a variety of transit options that provide access to regional destinations as well as intercity travel, including Caltrain, VTA Light Rail Transit (LRT), VTA bus, MVgo Shuttle, and Mountain View Community Shuttle services. The existing transit services and facilities in the study area are shown in **Figure 6**. VTA services are based on the VTA 2019 New Transit Service Plan³, which reflects what are likely to be more permanent baseline conditions prior to the temporary service changes associated with COVID-19.

Caltrain. Caltrain provides commuter rail service along the San Francisco Bay Area Peninsula between Gilroy, through the south bay in San Jose, to San Francisco. Mountain View has two stations: San Antonio Station located at 190 Showers Drive and the Mountain View Station located at 600 W. Evelyn Avenue. The Caltrain Mountain View Station is an integral part of the Mountain View Transit Center, which has connections to VTA buses and light rail, community shuttles, bicycle share, and parking facilities. This station offers the Baby Bullet Express service which travels between San Francisco and San Jose in about an hour, stopping at a few popular stations.

The Caltrain Mountain View Station is about 1.25 miles from the proposed project site.

VTA Light Rail Transit and Bus Services. The VTA operates bus and light rail transit (LRT) services in the City of Mountain View, feeding into the entire Santa Clara County system. There are two VTA bus stops within 250 feet of the project site on N Shoreline Boulevard. Based on a regular service plan adopted in 2019, Routes 40 and Route B operate at these two stops providing regional and local services.

Mountain View Community Shuttle. The Mountain View Community Shuttle provides free connections between residential neighborhoods and points of interest, such as city offices, libraries, parks, medical offices, shopping centers, and entertainment venues, throughout Mountain View. The Red Route, traveling westbound on W Middlefield Road, and the Gray Route, traveling eastbound on W Middlefield Road, stop at two bus stops at the intersection of N Shoreline Boulevard and W Middlefield Road, which are both less than a half mile walking distance from the project site.

³ 2019 new transit service plan. Retrieved March 26, 2021, from <https://www.vta.org/projects/2019-new-transit-service-plan>

Mountain View Transportation Management Association (MTMA) Shuttle. The MTMA operates the MVgo shuttle system. This shuttle system is provided through the collection of MTMA member dues. MVgo operates four shuttle routes that provide service to employment areas from the Mountain View Transit Center during the peak commute hours. Route B provides service along N Shoreline Boulevard, Pear Avenue, and at Google offices in the North Bayshore area. The closest stops are located at the intersection of N Shoreline Boulevard and Terra Bella Avenue, which are both less than 500 feet walking distance from the project site. The shuttles are fare-free and open to the public. MVgo shuttle service resumed with reduced service levels.

Table 1 shows the existing and shuttle services within the project site.

Table 1. Existing Bus and Shuttle Services

Route	Route Description	Weekday Hours of Operation	Headways ¹ (minutes)	Nearby Bus Stop	Walking Distance from Nearest Stop to Project Site (feet)
VTA Local Route 40	Foothill College - Mountain View Transit Center	6:15 AM - 8:30 PM	30	Shoreline Boulevard and Terra Bella Avenue	270
Mountain View Community Shuttle ²	Throughout Mountain View (via Middlefield Rd)	10:00 AM - 6:00 PM	30	Shoreline Boulevard and Middlefield Road	1,060
MVgo Route B ³	Shoreline, Pear, Crittenden	N/A	N/A	Shoreline Boulevard and Terra Bella Avenue	270

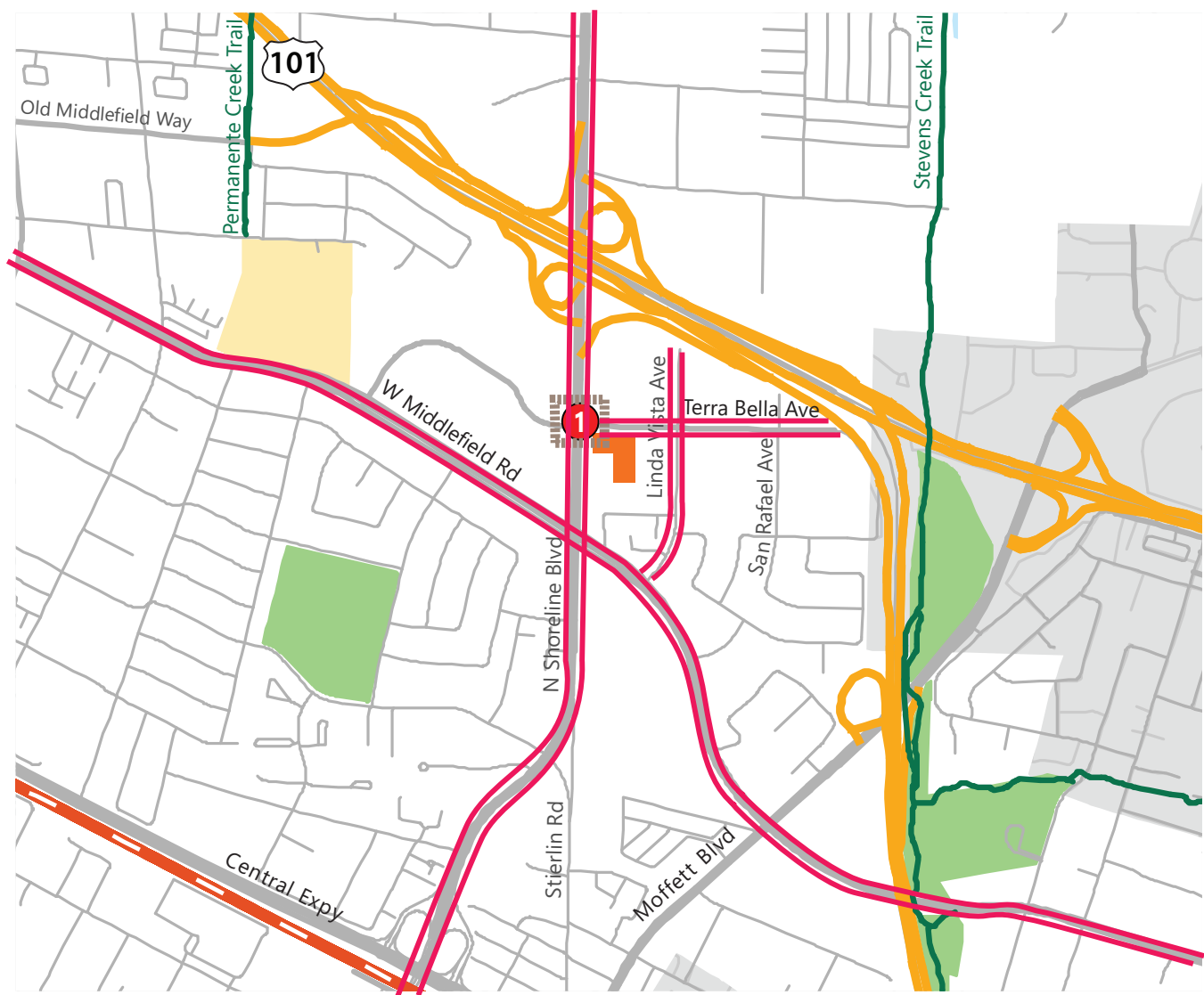
Notes:

1. Headways during weekday peak periods in the project area.
2. Operated by the City of Mountain View and Google. It provides free transportation connections between many residential neighborhoods, senior residences and services, city offices, library, park and recreational facilities, medical offices, shopping centers, and entertainment venues throughout Mountain View.
3. Due to COVID-19, all MVgo Routes have been resumed with reduced service levels.

2.6 Existing Parking

On-street parking is available with varying time limits and restrictions along Terra Bella Avenue and Linda Vista Avenue.

Figure 4: Existing Pedestrian Facilities

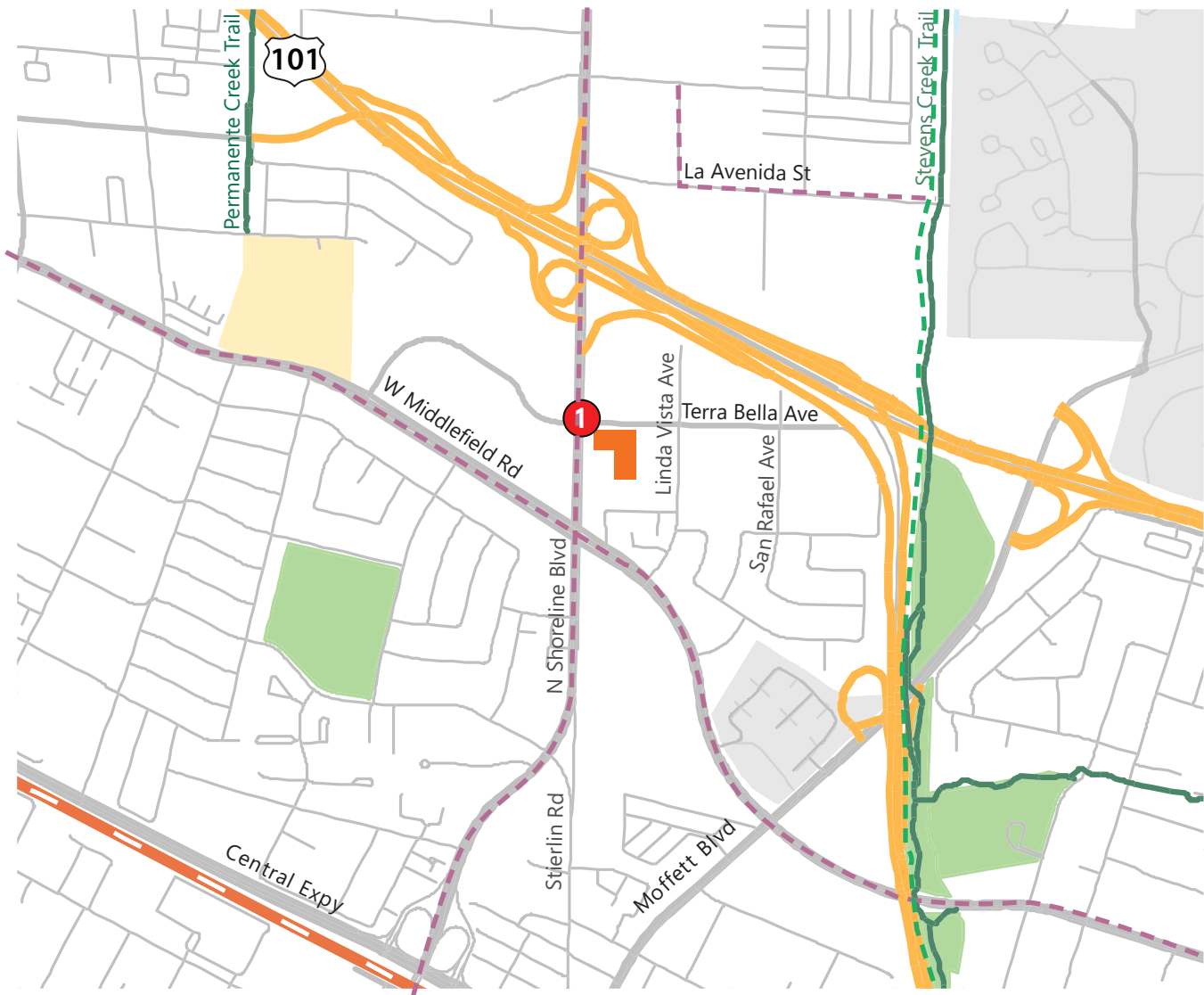


LEGEND

- Project Location
- Study Intersection
- Sidewalk
- Marked Crosswalk



Figure 5. Existing Bicycle Facilities

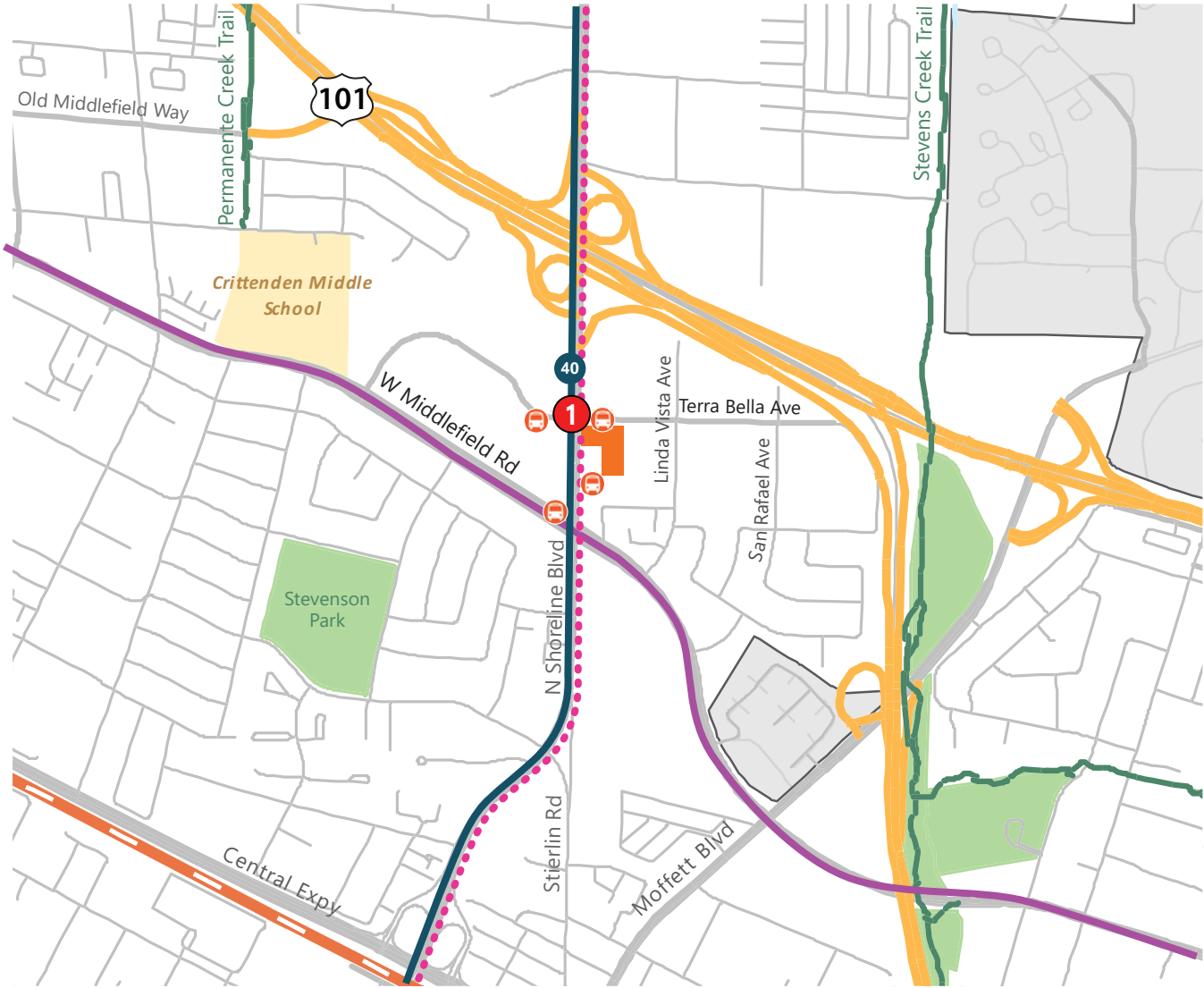


LEGEND

- Project Location
- Class I Bike Path
- Study Intersection
- Class II Bike Lane



Figure 6. Existing Transit Facilities



LEGEND

- Project Location
- Study Intersection
- Bus Stop
- VTA Local Route 40
- Mountain View Community Shuttle (Weekend/Holiday Service)
- Mountain View Community Shuttle



3. CITY POLICY CONFORMANCE

The proposed project is located in Mountain View City Code Chapter 36. Zoning- Limited Industrial (ML) District and General Industrial (MM) District⁴. The requirements specific to the project site were and lot area, lot width, floor area ratio, setbacks, height limits, landscaping, parking, signs, and other development standards. The proposed project meets all requirements set forth in the Mountain View City Code Chapter 36. Zoning.

4. SITE ACCESS AND CIRCULATION

This chapter describes the evaluation of site access and circulation and identifies potential conflicts and proposed solutions for each mode of transportation.

4.1 Pedestrian Access and Circulation

Pedestrian access to the project site will be facilitated by existing sidewalks on Terra Bella Avenue, N Shoreline Boulevard, and Linda Vista Avenue, as well as proposed internal pedestrian circulation facilities within the project. The proposed project increases open space and pedestrian amenities in the area by widening the site-adjacent sidewalks and upgrading site-adjacent landscaping.

Open Space

The project proposes to provide well designed landscaping and a linear accent planting garden.

Street-Oriented Entrances

The main entrance of the building is located on the street side of the building on Terra Bella Avenue at the northeast corner of the building. The building's street frontage will create an inviting pedestrian space. The proposed project's multiple windows also allow clear view into and out of the building facing Terra Bella Avenue. There is also an emergency access entrance at the northwest corner of the building.

Crossing Conditions

All existing marked crosswalks in the vicinity of the proposed project are retained.

4.2 Bicycle Access and Circulation

The project proposes to have one short-term bicycle parking rack located at the first floor near the main entrance. In addition the project will have four long term parking storage lockers located near the parking lot. These bicycle lockers can be accessed from the proposed driveway.

⁴ Mountain View City Code Chapter 36. Zoning- Limited Industrial (ML) District and General Industrial (MM) District

4.3 Vehicle Access and Circulation

In terms of external access, the project site plan (dated August 26, 2021) shows a single driveway that the proposed project would use. The driveway on Terra Bella Avenue serves vehicle ingress and egress which is approximately 225 feet west of the N Shoreline boulevard/Terra Bella Avenue intersection. Vehicle access for the project is shown in Figure 2. The Terra Bella Avenue driveway would be approximately 23 feet wide and accommodate inbound and outbound project traffic. This driveway would provide access to the surface level parking. It is anticipated that this driveway would accommodate 23 a.m. peak hour trips, 20 midday peak hour trips, and 23 p.m. peak hour trips. TJKM conducted a vehicle queuing and level of service (LOS analysis) at the project driveway on Terra Bella Avenue. The 95th percentile (maximum) queues were analyzed using the HCM 2000 Queue methodology contained in TRAFFIX software for the project driveways. Table 2 summarizes the 95th percentile queue lengths and LOS at the project driveways under all scenarios. Based on the level of service (LOS) analysis as shown in Table 2, this driveway would operate at LOS A/B during the p.m. peak hours under project conditions. In addition, the 95th percentile queueing at the outbound approach of project driveways is expected to be minimal.

Table 2. 95th Percentile Queues and Level of Service Analysis at Project Driveways

#	Study Intersection	Con trol	Peak Hour	Existing plus Project Conditions			Background plus Project Conditions			Cumulative plus Project Conditions		
				Delay ¹	LOS ²	95 th Percentile Queue	Delay ¹	LOS ²	95 th Percentile Queue	Delay ¹	LOS ²	95 th Percentile Queue
1	Terra Bella Avenue/Project Driveway	One Way Stop	AM	0.0	A	<25	0.0	A	<25	0.0	A	<25
			MID	0.0	A	<25	0.0	A	<25	0.0	A	<25
			PM	9.6	A	<25	11.2	B	<25	11.2	B	<25
Notes: AM – morning peak hour, MID - Midday peak hour, PM – evening peak hour 1. Delay –Total control delay for the worst movement is presented for side-street stop – controlled intersections. 2. LOS – Level of Service 95th percentile queue is expressed in feet per lane Reported values of 95th percentile Queues are for the outbound movements at the project driveways												

The driveway provides access to a loading zone and trash area on the east side of the building. The trash enclosures can be accessed by garbage trucks via Terra Bella Avenue. The internal circulation for the proposed surface parking lot was reviewed for issues related to queuing, safety, dead-end aisles, and parking spaces with difficult maneuvers. All of the circulation aisles will adequately accommodate two-way travel.

Service vehicles have access to the proposed development via the proposed driveway on Terra Bella Avenue for the loading and trash enclosure. These vehicles will circulate to the trash enclosures and the

service entrance via Terra Bella Avenue, and exit via Terra Bella Avenue. The internal circulation including entrance and exit paths for vehicles is illustrated in the **Figure 7**.

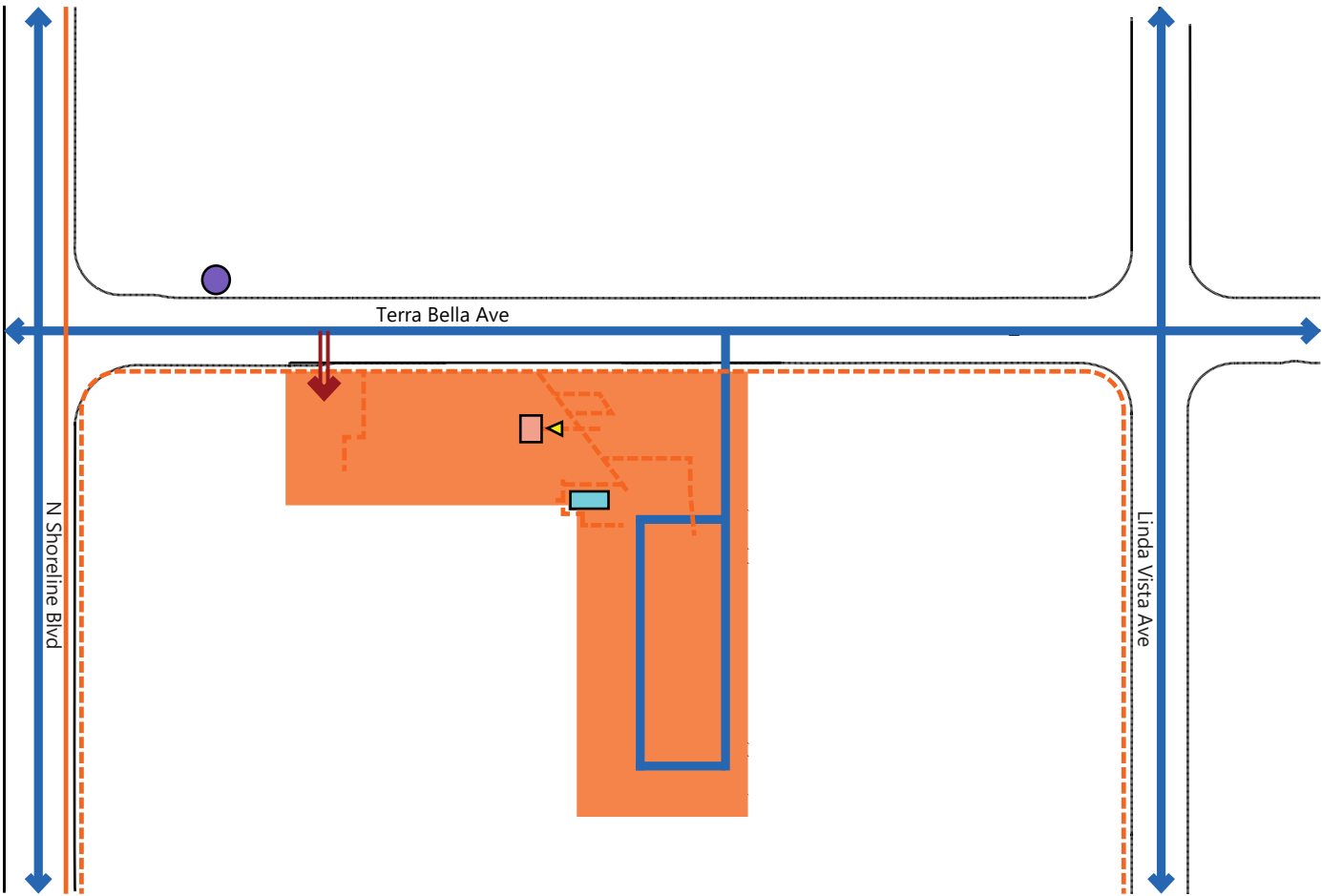
From the site plan, it appears that fire trucks would serve the site from the public street frontages, and there will be onsite fire suppression systems, wharf hydrants, etc. to provide service to the buildings and site interior per the Municipal Fire Code.

According to American Association of State Highway and Transportation Officials (AASHTO)⁵, the required minimum stopping sight distance for right turn vehicles with a design speed of 25 mph is 155 feet. The project driveway at Terra Bella Avenue has a sight distance of 225 feet to see passenger cars coming from the N Shoreline boulevard/Terra Bella Avenue intersection. Sight distance for a right turn maneuver at the driveway is adequate.










The nearest intersection at N Shoreline Boulevard and Terra Bella Avenue is Case D1; which indicates intersections with traffic signal control (Section 9.5.3.4). At signalized intersections, the first vehicle stopped on one approach should be visible to the driver of the first vehicle stopped on each of the other approaches. Left-turning vehicles should have sufficient sight distance to select gaps in oncoming traffic and complete left turns. Apart from these sight distance conditions, there are generally no other approach or departure sight triangles needed for signalized intersections. The sight distance requirements are met at the intersection of N Shoreline Boulevard and Terra Bella Avenue.

⁵ A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, 2018, Table 9-9.

Figure 7. Site Circulation Diagram



LEGEND

- | | | |
|--|--|---|
|  Project Location |  Vehicular Circulation | Lobby Entry |
|  Study Intersection |  Pedestrian Circulation |  Lobby & Amenity |
| |  Bicycle Lane |  Loading |
| |  EVA Access |  MVgo Bus Stop |



4.4 Driveway Pedestrian and Vehicular Triangle of Safety

Sight lines to the pedestrian and vehicular triangle of safety was also evaluated for the proposed driveway at Terra Bella Avenue using the City of Mountain View's Public Works Department Standard Detail. The pedestrian triangle of safety extends 25 feet from both sides of the driveway at Terra Bella Avenue and 25 feet from the back of sidewalk. In addition to the pedestrian triangle of safety the vehicular triangle of safety extends 15 feet from the back of sidewalk to 90 feet west and 65 feet east. In these areas fences, shrubs, bushes or hedges shall be a maximum height of 3 feet and tree canopy must be a minimum of 6 feet off the ground. Pedestrian and vehicular triangle of safety are shown in **Figure 8**.

Figure 8. Safety Triangle Diagram



4.5 Emergency and Service Vehicle Access

The project site plan review would be subject to final review by the City of Mountain View Public Works Department and Mountain View Fire Department to ensure the project site would include adequate vehicular access for emergency vehicles and that all existing and/or newly constructed emergency facilities (e.g., hydrants) are clearly marked, unobstructed, and accessible for emergency responders. The project has incorporated an emergency and service vehicle access to the project via Terra Bella Avenue via a driveway on the west side of the site, see **Figure 7**. In addition, the project must comply with all regulations set forth in the City's Fire Code and applicable emergency design measures (e.g., Standard Details and Specifications for Fire Apparatus Turnaround Access). The project does not conflict with existing and planned emergency access therefore there are no adverse effects to emergency and service vehicle access. Emergency vehicle access is shown in the **Figure 7**.

4.6 Loading Areas

Service vehicles and passenger loading vehicles have access to the proposed development via the proposed driveway on Terra Bella Avenue for the loading and trash enclosure. One designated loading parking space is provided. These vehicles will circulate to the trash enclosures and the service entrance via Terra Bella Avenue, and exit via Terra Bella Avenue. The loading area is shown in the **Figure 7**.

5. MOTOR VEHICLE OPERATIONS

5.1 Signalized Intersection Level of Service (LOS)

Level of Service Analysis Methodology

LOS is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers. The LOS generally describes these conditions in terms of such factors as speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The operational LOS are given letter designations from A to F, with A representing the best operating conditions (free-flow) and F the worst (severely-congested flow with high delays). Intersections generally are the capacity-controlling locations with respect to traffic operations on arterial and collector streets. The LOS methodologies for roadway segments, signalized and unsignalized intersections are described in detail in **Appendix B**.

Signalized Intersections

The study intersections under traffic signal control were analyzed using the 2000 Highway Capacity Manual (HCM) Operations Methodology for signalized intersections described in Chapter 16 (HCM 2000). This methodology determines LOS based on average control delay per vehicle for the overall intersection during peak-hour intersection operating conditions. The LOS methodology is approved by VTA and adopted by the City. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Unsignalized Intersections

The study intersections under stop control (Unsignalized) were analyzed using the 2000 HCM Operations Methodology for unsignalized intersections described in Chapter 17 (HCM 2000). LOS ratings for stop-sign controlled intersections are based on the average control delay expressed in seconds per vehicle. At the side street, controlled intersections or two-way stop sign intersections, the control delay is calculated for each movement, not for the intersection as a whole. For approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. The weighted average delay for the entire intersections is presented for all-way stop controlled intersections.

The average control delay for both signalized and unsignalized intersections were calculated using TRAFFIX 8.0 analysis software and were correlated to a LOS designation as shown in **Appendix B**.

5.2 Adverse Intersection Operation Effects

According to the City of Mountain View⁶, an adverse effect on intersection operations occurs when the analysis demonstrates that a project would cause the operational conditions at a study intersection to fall

⁶ Multi-Modal Transportation Analysis Handbook Version 1.0 (February 2021)

below LOS D with the addition of project vehicle trips when comparing either existing conditions (baseline) to project conditions or background conditions (baseline) to project conditions.

For Congestion Management Program (CMP) intersections, an adverse effect on intersection operations occurs when the analysis demonstrates that a project would cause the operations at a CMP intersection to degrade to LOS F; or the addition of traffic causes increases in critical delay by four or more seconds and critical volume/capacity to increase 0.010 (one percent) or more.

For an intersection operating at LOS E or F under baseline conditions, an adverse effect is defined as:

- An increase in average critical delay by 4.0 seconds or more AND an increase in the critical volume-to-capacity (V/C) ratio of 0.010 or more; OR
- A decrease in average critical delay AND an increase in the critical V/C ratio of 0.010 or more.

Addressing Adverse Effects on Intersection Operations

There are three possible approaches to address adverse effects at signalized intersections:

- Reduce project vehicle-trips to eliminate the adverse effect and bring the intersection back to the background or baseline condition. The Santa Clara Countywide VMT Evaluation Tool (VMT Tool) can be used to select measures that would achieve the reduction of vehicle-trips.
- Construct improvements to the affected intersection or other roadway segments of the citywide transportation system to improve operations provided the proposed improvements are consistent with Mountain View plans and policies and do not result in other impacts or adverse effects.
- Construct multi-modal improvements to increase transportation capacity for pedestrian, bicycle, and transit modes, and/or improve access to transit.

5.3 Existing Conditions

Study Intersections

TJKM evaluated traffic conditions at one study intersection during the a.m., midday, and p.m. peak hours for a typical weekday. The study intersections were selected in consultation with the City of Mountain View staff. The peak periods observed were between 7:00 a.m.-10:00 a.m., 11:30 a.m.-1:30 p.m., and 4:00 p.m.-7:00 p.m. The study intersection and associated traffic controls are as follows:

1. N Shoreline Boulevard/Terra Bella Avenue (Signal)

Analysis Scenarios

This study addresses the following six traffic scenarios:

- **Existing Conditions** – This scenario evaluates the study intersections based on existing traffic volumes, existing lane geometry, and traffic controls.

- **Existing plus Project Conditions** – This scenario is identical to Existing Conditions, but with the addition of traffic from the proposed project.
- **Background (Existing plus Approved and Planned Development Projects) Conditions** – This scenario is similar to Existing Conditions, but with the addition of traffic from approved and planned developments within the vicinity of the proposed project.
- **Background plus Project Conditions** – This scenario is identical to Background Conditions, but with the addition of traffic from the proposed project.
- **Cumulative Conditions** – This scenario is similar to the Background Conditions but with the projected growth rate of two percent per year for five years, which was applied to Existing traffic volumes, and then background project trips were added, in accordance with standard Mountain View procedures.
- **Cumulative plus Project Conditions** – This scenario is identical to Cumulative Conditions, but with the addition of traffic from the proposed project.

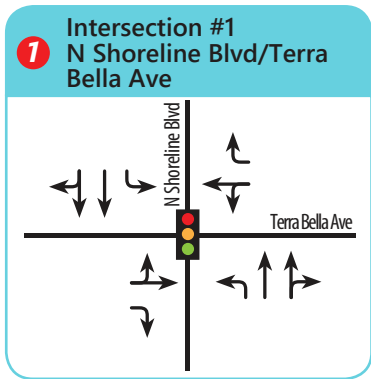
Data Collection

The existing operations of the study intersections were evaluated for the highest one-hour traffic volumes during weekday morning, midday and evening peak periods. TJKM collected the peak period turning movement counts on Thursday, October 14, 2021 at one study intersection using video cameras installed on the side streets:

1. N Shoreline Boulevard/Terra Bella Avenue

TJKM conducted the counts in 15-minute intervals during the weekday a.m. peak period (7:00 to 9:00 a.m.), midday peak period (11:30 a.m. to 1:30 p.m.) and p.m. peak period (4:00 to 7:00 p.m.) at the study intersections. Data collection at each study intersection consists of three primary components: vehicles, bicycles, and pedestrians. **Figure 9** illustrates the existing lane geometry, and traffic controls at the study intersections. **Figure 10** illustrates the existing a.m., midday and p.m. peak hour pedestrian and bicycle volumes at the study intersections. **Figure 11** illustrates the existing a.m., midday and p.m. peak hour vehicle turning movement volumes at the study intersections. Collected traffic volumes are contained in **Appendix C**.

Figure 9. Existing Conditions Lane Geometry and Traffic Controls

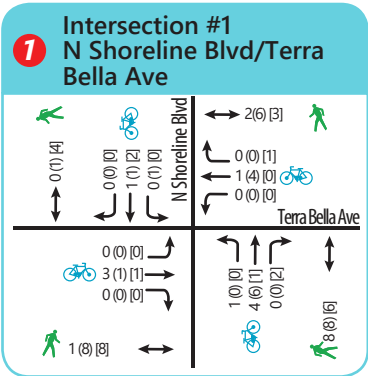


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 Traffic Signal



Figure 10. Existing Pedestrian and Bicycle Volumes



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XX(XX)[XX] AM(MID)[PM] Peak Hour Ped/Bike Volumes



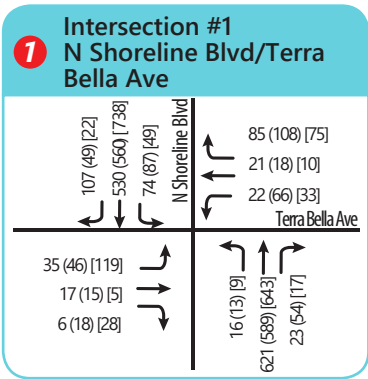
Pedestrian Crossing Volume



Bicycle Turn Movement Volume



Figure 11. Existing Conditions Peak Hour Traffic Volumes



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XX(XX)[XX] AM(MID)[PM] Peak Hour Traffic Volumes



Intersection Level of Service Analysis – Existing Conditions

Existing intersection lane configurations, signal timings, and existing turning movement volumes are used to calculate the level of service for the study intersections during each peak hour. The peak hour factor of 1.00 was used at all study intersections for the existing conditions analysis. The results of the LOS analysis using the TRAFFIX software program for Existing Conditions are summarized in **Table 3**.

The Existing Conditions LOS analysis for purpose of this MTA is based on an isolated intersection analysis of traffic volumes, rather than analysis of the corridor as a whole. The standalone LOS results sometimes can be misleading if a corridor operates under forced flow, or congested, traffic conditions. Forced flow traffic operations can reduce overall vehicle throughput per hour at intersections, leading to LOS analysis results that suggest there is less corridor congestion than is actually occurring under existing field conditions. Where there is known congestion, additional analysis of field conditions becomes necessary in order to review and evaluate the extent of forced flow operations. Under the Existing Conditions scenario, the study intersection operates at acceptable service levels (LOS D or better for non-CMP intersections) during a.m., midday and p.m. peak hours. LOS worksheets are provided in **Appendix D**.

Table 3. Intersection Level of Service Analysis – Existing Conditions

#	Study Intersections	Control	Peak Hour	Existing Conditions			
				Delay ¹	LOS ²	Critical V/C ³	Critical Delay ⁴
1	N Shoreline Boulevard/Terra Bella Avenue	Signalized	AM	20.6	C	0.304	19.0
			MID	23.4	C	0.330	21.8
			PM	21.9	C	0.346	18.2
Notes: AM – morning peak hour, MID - Midday peak hour, PM – evening peak hour 1. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized intersections. 2. LOS – Level of Service 3. Critical volume to capacity ratio 4. Critical movement delay Non-CMP intersections with LOS D threshold							

5.4 Background Conditions

This scenario is similar to Existing Conditions, but with the addition of traffic from approved and planned developments located within the immediate vicinity of the project. City staff provided the list of approved but not constructed projects. Approved trip inventory (ATI) volumes were added to the Existing Conditions volumes to project the peak hour turning movements at the study intersections under Background Conditions. The ATI sheets are included in **Appendix D**.

Approved Projects and Planned Developments

Approved and planned developments located within the immediate vicinity of the project are:

Approved developments located within the immediate vicinity of the project which are not completed are:

- 555 West Middlefield Road – 341 residential units
- 730 Central Avenue – 21 residential units
- 1265 Montecito Avenue – 84 affordable rental units
- 1020 Terra Bella Avenue – 110 affordable rental units
- 1040 Terra Bella Avenue – 177,383 sf of public storage building
- 777 West Middlefield Road – 716 residential units
- 870 Leong Drive – 74 room hotel
- 1555 West Middlefield Road – 115 rowhouse residential units
- 1001 N Shoreline Boulevard – 303 residential units

Figure 12 shows projected turning movement volumes at all of the study intersections under Background Conditions for a.m., midday and p.m. peak hours.

Intersections Level of Service Analysis – Background Conditions

The intersection LOS analysis results for Background Conditions are summarized in **Table 4**. Detailed calculation sheets for Background Conditions (Existing plus Approved and Planned Development Projects) are contained in **Appendix D**. The study intersection operates at acceptable service levels (LOS D or better for non-CMP intersections) during a.m., midday and p.m. peak hours under this scenario.

Table 4. Intersection Level of Service Analysis – Background Conditions

#	Study Intersections	Control	Peak Hour	Background Conditions			
				Delay ¹	LOS ²	Critical V/C ³	Critical Delay ⁴
1	N Shoreline Boulevard/Terra Bella Avenue	Signalized	AM	32.0	C	0.744	35.2
			MID	33.7	C	0.584	36.3
			PM	36.4	D	0.686	38.5

Notes:

AM – morning peak hour, MID - Midday peak hour, PM – evening peak hour

1. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized intersections.

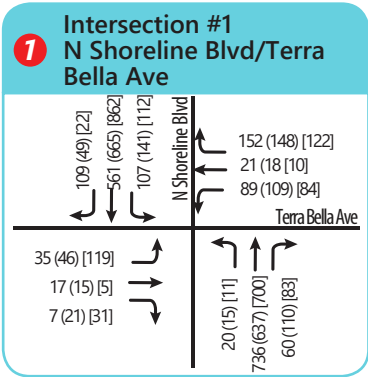
2. LOS – Level of Service

3. Critical volume to capacity ratio

4. Critical movement delay

Non-CMP intersections with LOS D threshold

Figure 12. Background Conditions Peak Hour Traffic Volumes



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XX(XX)XX AM(MID)[PM] Peak Hour Traffic Volumes



5.5 Project Conditions

The impacts of the proposed project on the transportation system are discussed in this chapter. First, the method used to estimate the amount of traffic generated by the project is described. Then, the results of the level of service calculations for Existing plus Project Conditions are presented. (Existing plus Project Conditions are defined as Existing conditions plus traffic generated by the proposed project). A comparison of intersections under Existing plus Project Conditions and Existing Conditions is presented and the impacts of the project on the study intersections are discussed.

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

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

Project Trip Generation

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

TJKM used published trip rates for General Office Building (ITE Code 710) for this project. **Table 5** shows the trips expected to be generated by the proposed project. The proposed project is expected to generate approximately 195 weekday a.m. peak hour trips (20 inbound trips, 3 outbound trips), 20 midday peak hour trips (3 inbound trips, 17 outbound trips) and 23 weekday p.m. peak hour trips (4 inbound trips, 19 outbound trips).

Table 5. Project Trip Generation

Land Use & ITE Code	Building Area	Units	Daily		AM Peak						Midday Peak*						PM Peak					
			Rate	Trips	Rate	In %	Out %	In	Out	Total	Rate	In %	Out %	In	Out	Total	Rate	In %	Out %	In	Out	Total
Proposed Land Use																						
General Office Building (ITE Code 710)	20.0	k.s.f	9.74	195	1.16	86	14	20	3	23	0.98	14	86	3	17	20	1.15	16	84	4	19	23
Proposed Trips (A)				195				20	3	23				3	17	20				4	19	23
Notes: Source - ITE Trip Generation Manual, 10th Edition (2017)																						
K.S.F=Thousand Square Feet																						

Project Trip Distribution and Assignment




Trip distribution is a process of developing study assumptions that estimate the direction of travel vehicular trips will arrive from and depart to. It also estimates the specific streets and turning movements at study intersections for project-related or site traffic. Trip distribution assumptions for the proposed project are developed based on existing travel patterns and knowledge of the study area.

Figure 13 illustrates the trip distribution percentages developed for the proposed development project and the trip assignment project volumes developed for the proposed project. The assigned project trips were then added to traffic volumes under baseline conditions to generate Existing plus Project Conditions traffic volumes.

Figure 13. Project Trip Distribution and Trip Assignment



LEGEND

-  Project Location
-  Trip Distribution
-  Study Intersection
- XX(X)[XX] AM(MID)[PM] Peak Hour Traffic Volumes



Intersection Level of Service Analysis – Existing plus Project Conditions

The intersection LOS analysis results for Existing plus Project Conditions are summarized in **Table 6**. Detailed calculation sheets for Existing plus Project Conditions are contained in **Appendix D**. The study intersection operates at acceptable service levels (LOS D or better for non-CMP intersections) during a.m., midday and p.m. peak hours under this scenario.

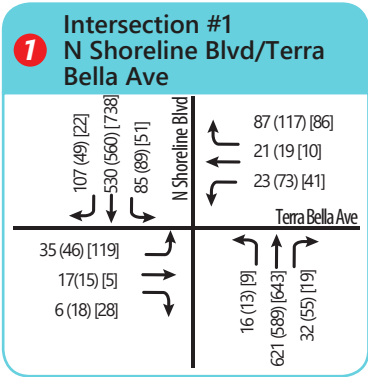
Based on the City of Mountain View LOS standards, the project would not have any adverse effects at the study intersection evaluated in this MTA.

Figure 14 displays projected peak hour turning movement volumes at the study intersection for Existing plus Project Conditions. The results for Existing Conditions are included for comparison purposes, along with the projected increases in critical delay and critical V/C ratios. It should be noted that the study intersection shows a decrease in average intersection delay due to the addition of project trips to non-critical turn movements. That is, more vehicles would be using the intersection during the peak hour but on non-critical lanes and movements, so the average delay per vehicle decreases.

Table 6. Intersection Level of Service Analysis – Existing plus Project Conditions

#	Study Intersections	Control	Peak Hour	Existing Conditions		Existing plus Project Conditions		Change in	
				Delay ¹	LOS ²	Delay ¹	LOS ²	Critical V/C ³	Critical Delay ⁴
1	N Shoreline Boulevard/Terra Bella Avenue	Signalized	AM	20.6	C	21.0	C	0.012	0.9
			MID	23.4	C	23.6	C	0.000	-0.4
			PM	21.9	C	22.1	C	0.000	0.0
Notes: AM – morning peak hour, MID - Midday peak hour, PM – evening peak hour 1. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized intersections. 2. LOS – Level of Service 3. Change in critical volume to capacity ratio between Baseline and Baseline plus Project Conditions 4. Change in average critical movement delay between Baseline and Baseline plus Project Conditions Non-CMP intersections with LOS D threshold									

Figure 14. Existing plus Project Peak Hour Traffic Volumes



LEGEND

XX(XX)[XX] AM(MID)[PM] Peak Hour Traffic Volumes



Background plus Project Conditions

This scenario is identical to Background Conditions, but with the addition of projected traffic from the proposed development project.

Intersection Level of Service Analysis – Background plus Project Conditions

The intersection LOS analysis results for Background plus Project Conditions are summarized in **Table 7**. Detailed calculation sheets for Background plus Project Conditions are contained in **Appendix D**. The study intersection operates at acceptable service levels (LOS D or better for non-CMP intersections) during a.m., midday and p.m. peak hours under this scenario. There will be an increase in average critical delay by 0.7 seconds and an increase in the critical volume-to-capacity (V/C) ratio of 0.011.

Based on the City of Mountain View LOS standards, the project would not have any adverse effects at the study intersection evaluated in this MTA.

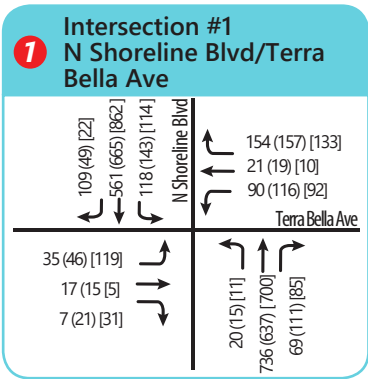
Figure 15 displays projected peak hour turning movement volumes at the study intersections for Background plus Project Conditions.

The results for Background Conditions are included for comparison purposes, along with the projected increases in critical delay and critical V/C ratios.

Table 7. Intersection Level of Service Analysis – Background plus Project Conditions

#	Study Intersections	Control	Peak Hour	Background Conditions		Background plus Project Conditions		Change in	
				Delay ¹	LOS ²	Delay ¹	LOS ²	Critical V/C ³	Critical Delay ⁴
1	N Shoreline Boulevard/Terra Bella Avenue	Signalized	AM	24.3	C	24.6	C	0.011	0.7
			MID	25.6	C	26.1	C	0.009	0.5
			PM	22.7	C	23.0	C	0.003	0.2
Notes: AM – morning peak hour, MID - Midday peak hour, PM – evening peak hour 1. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized intersections. 2. LOS – Level of Service 3. Change in critical volume to capacity ratio between Background and Background plus Project Conditions 4. Change in average critical movement delay between Background and Background plus Project Conditions Non-CMP intersections with LOS D threshold									

Figure 15. Background plus Project Conditions Peak Hour Traffic Volumes



LEGEND

XX(XX)[XX] AM(MID)[PM] Peak Hour Traffic Volumes



5.6 Cumulative Conditions

This section details expected traffic conditions at the study intersections under Cumulative (No Project) Conditions. The Cumulative conditions reflect a five year horizon. The cumulative baseline traffic volumes were estimated based on the assumption of a two percent annual growth factor, compounded annually for 5 years, or a factor of 1.104, applied to the baseline traffic volumes plus traffic expected to be generated by approved and pending developments in the study area that are not yet built or occupied.

Intersection Level of Service Analysis – Cumulative Conditions

The intersection LOS analysis results for Cumulative Conditions are summarized in **Table 8**. Detailed calculation sheets for Cumulative Conditions are contained in **Appendix D**. The study intersection operates at acceptable service levels (LOS D or better for non-CMP intersections) during a.m., midday and p.m. peak hours under this scenario.

Figure 16 shows projected peak hour turning movement volumes at all of the study intersections for Cumulative Conditions.

Table 8. Intersection Level of Service Analysis – Cumulative Conditions

#	Study Intersections	Control	Peak Hour	Cumulative Conditions			
				Delay ¹	LOS ²	Critical V/C ³	Critical Delay ⁴
1	N Shoreline Boulevard/Terra Bella Avenue	Signalized	AM	24.1	C	0.452	23.8
			MID	25.6	C	0.463	26.0
			PM	23.0	C	0.433	18.6

Notes:

AM – morning peak hour, MID - Midday peak hour, PM – evening peak hour

1. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized intersections.

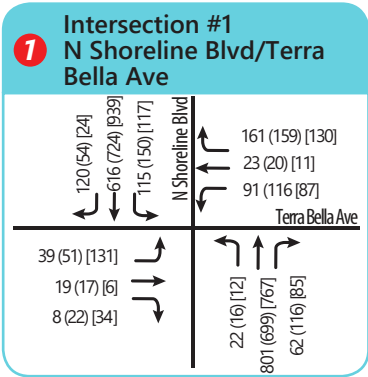
2. LOS – Level of Service

3. Critical volume to capacity ratio

4. Critical movement delay

Non-CMP intersections with LOS D threshold

Figure 16. Cumulative Conditions Peak Hour Traffic Volumes



LEGEND

XX(XX)[XX] AM(MID)[PM] Peak Hour Traffic Volumes



Cumulative plus Project Conditions

This scenario is identical to Cumulative Conditions, but with the addition of projected traffic from the proposed office development project. Trip generation and distribution for the proposed project are identical to that assumed under Existing plus Project Conditions.

Intersection Level of Service Analysis – Cumulative plus Project Conditions

The intersection LOS analysis results for Cumulative plus Project Conditions are summarized in **Table 9**. Detailed calculation sheets for Cumulative plus Project Conditions are contained in **Appendix D**. The study intersection operates at acceptable service levels (LOS D or better for non-CMP intersections) during a.m., midday and p.m. peak hours under this scenario.

Based on the City of Mountain View LOS standards, the project would not have any adverse effects at the study intersection evaluated in this MTA.

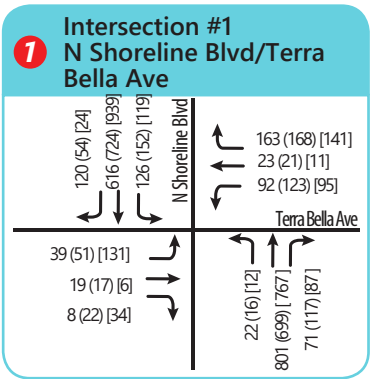
Figure 17 displays projected peak hour turning movement volumes at the study intersection for Cumulative plus Project Conditions.

The results for Cumulative Conditions are included for comparison purposes, along with the projected increases in critical delay and critical V/C ratios.

Table 9. Intersection Level of Service Analysis – Cumulative plus Project Conditions

#	Study Intersections	Control	Peak Hour	Cumulative Conditions		Cumulative plus Project Conditions		Change in	
				Delay ¹	LOS ²	Delay ¹	LOS ²	Critical V/C ³	Critical Delay ⁴
1	N Shoreline Boulevard/Terra Bella Avenue	Signalized	AM	24.1	C	24.4	C	0.011	0.6
			MID	25.6	C	26.1	C	0.008	0.5
			PM	23.0	C	23.3	C	0.003	0.2
Notes: AM – morning peak hour, MID - Midday peak hour, PM – evening peak hour 1. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized intersections. 2. LOS – Level of Service 3. Change in critical volume to capacity ratio between Cumulative and Cumulative plus Project Conditions 4. Change in average critical movement delay between Cumulative and Cumulative plus Project Conditions Non-CMP intersections with LOS D threshold									

Figure 17. Cumulative plus Project Conditions Peak Hour Traffic Volumes



LEGEND

XX(XX)[XX] AM(MID)[PM] Peak Hour Traffic Volumes



5.7 CMP Conformance Requirements

As per the MTA Handbook (CMP Conformance Requirements, Page 28), a CMP analysis is required for land use projects that generate 100 peak hour trips or more. Studies should assess the effects of Project traffic on the designated CMP roadway system using the current version of the VTA Transportation Impact Analysis (TIA) Guidelines, the VTA Traffic Level of Service Analysis Guidelines and MTA Handbook. The following are the CMP conformance requirements:

Intersections:

A CMP intersection shall be included in a TIA if it meets any one of the following conditions:

1. The proposed development project is expected to add 10 or more peak hour vehicles per lane to any intersection movement, or
2. The intersection is adjacent to the project, or
3. Based on engineering judgement, Lead Agency staff determines that the intersection should be included in the analysis. Study intersection should be selected without consideration for jurisdictional boundaries. The 10 or more vehicles per lane requirement applies to any intersection movement (left turn, through, or right turn).

For the 1155 & 1185 Terra Bella Avenue study, there are no CMP intersections within the vicinity of the project. The project does not meet any of the intersection requirements. Hence, this MTA does not include the CMP intersection analysis.

Freeway Segments:

As per the MTA Handbook, a freeway segment shall be included in a TIA if it meets any one of the following conditions:

1. The proposed development project is expected to add traffic equal to or greater than 1 percent of the freeway segment's capacity, or
2. The proposed development project is adjacent to one of the freeway segment's access or egress points, or
3. Based on engineering judgment, Lead Agency staff determines that the freeway segment should be included in the analysis.

The project does not meet any of the freeway segments requirements. Hence, this MTA does not include the freeway segment analysis.

5.8 Signal Operations Analysis

TJKM conducted a signal operations analysis at the intersection of N Shoreline Boulevard/Terra Bella Avenue under existing conditions. Currently, N Shoreline Boulevard/Terra Bella Avenue is operating as a six-phase signal with protected left-turn movements on N Shoreline Boulevard. All approaches at N Shoreline Boulevard include two through lanes, and have left turn lanes. Terra Bella Avenue has one shared through left turn lane and one exclusive right turn lane and operates as permissive signal phasing. The intersection includes crosswalks across all legs.

TJKM reviewed signal operations using the following phasing operations at the N Shoreline Boulevard/Terra Bella Avenue under No Project and plus Project scenarios for Existing, and Cumulative Conditions:

Scenario 1: Six Phase Traffic Signal Operations (Protected phasing), consists of having a separate phase for left-turning traffic allowing left-turns to be made only on a green left arrow signal, with no pedestrian movement. It has protected phasing for left-turns on the major street approaches and split phasing for the minor street approaches.

At the intersection of N Shoreline Boulevard/Terra Bella Avenue, this scenario consists of modifying the existing six-phase signal, with protected phasing for left-turn movements on N Shoreline Boulevard and split phasing for Terra Bella Avenue. It is recommended that the cycle length be changed to 125 seconds. Six-phase signal operations increases the delay under all conditions. However, it may reduce the conflicts between pedestrians and left-turning vehicles on Terra Bella Avenue for eastbound and westbound approaches. The intersection LOS analysis results for the No Project and plus Project scenarios for Existing and Cumulative Conditions are summarized in **Table 10**. For all scenarios, optimized signal timings were used at the intersection. Approximately 5 seconds of delay was reduced using optimized signal timings compared to existing signal timing. Detailed calculation sheets are contained in **Appendix D**.

Table 10. Level of Service Analysis – Six Phase Signal Conditions

#	Study Intersections	Control	Peak Hour	Existing Conditions		Existing plus Project Conditions		Cumulative Conditions		Cumulative plus Project Conditions	
				Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²
1	N Shoreline Boulevard/Terra Bella Avenue	Signalized	AM	16.8	B	16.9	B	22.0	C	22.8	C
			MID	20.4	C	20.6	C	23.0	C	23.2	C
			PM	17.6	B	17.7	B	23.6	C	23.7	C

Notes:

AM – morning peak hour, MID - Midday peak hour, PM – evening peak hour

1. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized intersections.

2. LOS – Level of Service

Non-CMP intersections with LOS D threshold

5.9 Queuing Analysis

Left-Turn and Right-Turn Storage Analysis

TJKM conducted a vehicle queuing and storage analysis for all exclusive left and right turn storage lanes (pockets) at signalized study intersection where the proposed project would add measurable traffic under Existing plus Project Conditions. The 95th percentile (maximum) queues were analyzed using the HCM 2000 Queue methodology contained in TRAFFIX software. Detailed calculations are included in the LOS appendices corresponding to each analysis scenario. **Table 11** summarizes the 95th percentile queue lengths at selected study intersections under Existing and Existing plus Project Conditions scenarios.

At N Shoreline Boulevard/Terra Bella Avenue, the queue lengths for all left turn and right turns would not exceed the available storage length in the dedicated lane or lanes during one or more peak hours.

Table 11. 95th Percentile Queues at Turn Pockets Affected by Project Traffic

#	Study Intersections	Lane Group	Storage Length (ft.)	Existing Conditions			Existing plus Project Conditions			Change		
				AM	MD	PM	AM	MD	PM	AM	MD	PM
1	N Shoreline Boulevard/Terra Bella Avenue	NBL	75	10	10	10	10	10	10	0	0	0
		NBT	695	150	170	215	160	170	215	10	0	0
		NBTR	695	150	170	215	160	170	215	10	0	0
		SBL	150	65	75	35	75	80	40	10	5	5
		SBT	670	185	185	200	185	185	200	0	0	0
		SBTR	670	185	185	200	185	185	200	0	0	0
		EBTL	30	45	50	100	45	50	100	0	0	0
		EBR	30	5	15	20	5	15	20	0	0	0
		WBTL	30	35	70	30	35	75	35	0	5	5
		WBR	30	70	90	55	75	100	65	5	10	10
Notes: Storage length and 95 th percentile queue is expressed in feet per lane AM-Morning Peak Hour; MD-Midday peak Hour; PM-Evening Peak Hour NB-northbound; SB-southbound; EB-eastbound; WB-westbound. L-left; T-through; R-right; TR-through and right shared lane; TL-through and left shared lane.												

6. TRAFFIC CALMING AND NEIGHBORHOOD INTRUSION

6.1 Pedestrian Operations

Pedestrian access to the project site will be facilitated by existing sidewalks on Terra Bella Avenue, N Shoreline Boulevard, and Linda Vista Avenue, as well as proposed internal pedestrian circulation facilities on the project site. The following section describes an evaluation of ADA access, consistency with current City plans, proposed or needed improvements, and pedestrian quality of service.

ADA Compliance

The proposed improvements will comply with ADA requirements and provide adequate and appropriate facilities for safe non-motorized mobility. An accessible walkway will be provided through the site per state ADA guidelines as well as provide five accessible parking spaces.

Consistency with Current City Adopted Plans and Policies

An impact to pedestrians occurs if the proposed project disrupts existing pedestrian facilities; or creates inconsistencies with planned pedestrian facilities or adopted pedestrian system plans, guidelines, policies, or standards. The proposed project will not result in any impacts to existing or planned pedestrian facilities in the immediate vicinity of the project. The project will improve pedestrian quality in the project vicinity with enhanced landscaping, lighting and a proposed plaza.

Pedestrian Network Facilities

The location of fire hydrants, streetlight poles, and landscaping do not have an adverse effect on the pedestrian travel paths. The proposed project would not have any adverse effect in relation to the City's Vision Zero policy. Within the project vicinity pedestrians are able to easily access bus stops, restaurants, and retail stores such as Taco Bell and a pharmacy. There are two bus stops in the immediate vicinity of the project site. The bus stops are at the intersection of N Shoreline Boulevard and Terra Belle Avenue. Both bus stops are accessible via existing sidewalks. The project site is in close proximity, about a 10 minute walk, to the Bailey Park shopping center, which has a Safeway and other amenities and is accessible via existing sidewalks.

PQOS Evaluation

The proposed project is required to meet a pedestrian quality of service (PQOS) and therefore a PQOS assessment is included in this study. Because the proposed project is not anticipated to drastically affect speed and motor vehicle traffic volume, crossing conditions and the number of motor vehicle travel lanes, the assessment uses the PQOS map in Appendix F of Mountain View's Multi-modal Transportation Analysis Handbook to evaluate PQOS scores for Mountain View streets. Terra Bella Avenue adjacent to the

project area has a PQOS score of 3, which corresponds to the medium/low pedestrian quality of service. No adverse conditions are anticipated related to an increase in vehicle trips.

Figure 18. Mountain View PQOS Maps (2020)



6.1.5 Proposed or Needed Pedestrian Improvements

The project proposes multiple pedestrian improvements to the site including lighting, wider sidewalks, improved landscaping and pedestrian amenities. Adequate street lighting will be provided by additional proposed street lighting and internal lighting on the project site. The project's site plan shows 9 foot wide sidewalks at the project frontages along Terra Bella Avenue, an increase from the current 5 foot wide sidewalk, as well as additional landscaping. All these improvements are expected to improve the pedestrian experience in the nearby area.

6.2 Bicycle Operations

Consistency with Adopted Plans and Policies

An impact to bicycling occurs if the proposed project disrupts existing bicycle facilities; or creates an inconsistency with planned bicycle facilities, adopted City standards, or VTA Bicycle Technical Guidelines. The proposed project will not result in any impacts to existing or planned bicycle facilities in the immediate vicinity of the project. The project will improve bicycle access in the project vicinity with additional bicycle parking on the project site.

Bicycle Network Facilities

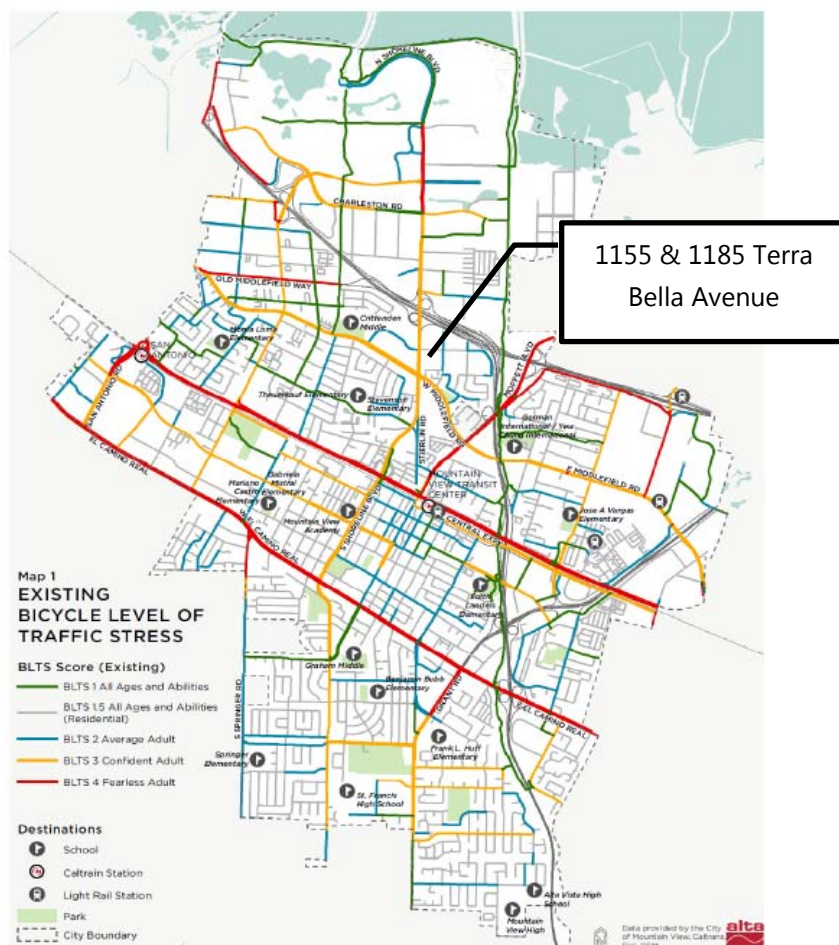
Bicycle access to and from the project site will be facilitated by nearby existing bicycle routes. According to the Valley Transportation Agency (VTA) Santa Clara Valley Bikeways Map and the City of Mountain View Interactive Bike Map (2020), there are a few designated bikeways in the vicinity of the project site.

- The Stevens Creek Trail is a Class I bicycle path that extends from the intersection of Heatherstone Way/Dale Avenue in the south to the Bay Trail network in the North Bayshore area north of US 101. The trail can be accessed from W Middlefield Road, Moffett Boulevard, and La Avenida Street, which are all about a one-mile biking distance from the project site.
- N Shoreline Boulevard has striped Class II bicycle lanes from El Camino Real in the south to Charleston Road in the north. N Shoreline Boulevard provides bicycle access from the project site to the Bailey Park Plaza Shopping Center and the North Bayshore area.
- W Middlefield Road has Class II bicycle lanes across the City of Mountain View, from Old Middlefield Way in the west to Bernardo Avenue in the east. W Middlefield Road provides bicycle access to the Stevens Creek Trail.
- La Avenida Street has Class II bicycle lanes from Inigo Way in the west to a cul-de-sac in the east that provides access to the Stevens Creek Trail. The VTA Bikeways Map and the City of Mountain View Bike Map show a Class III bicycle route on La Avenida Street between N Shoreline Boulevard and Inigo Way. However, there is no signage on the roadway to suggest that this segment is a bicycle route, but there is a 15 foot wide multi-use path for cyclists to share with pedestrians.
- Inigo Way has Class II bicycle lanes along its entirety from La Avenida Street to Pear Avenue.

Bicycle Level of Traffic Stress (BLTS) Map Evaluation

An evaluation of Bicycle Level of Traffic Stress (BLTS) is required. BLTS refers to the perceived comfort and safety of roads and bikeway facilities that scores facilities from 1 to 4, with LTS 1 and 2 being "low stress", LTS 3 being "medium stress", and LTS 4 being "high stress." Because the proposed project is not anticipated to drastically affect speed and motor vehicle traffic and the number of motor vehicle travel lanes, the Mountain View BLTS Map (2020) in Appendix G of the MTA Handbook was used to evaluate BLTS in the vicinity of the proposed project. Terra Bella Avenue adjacent to the project area has a BLTS score of 1.5, which corresponds to low bicycle level of traffic stress, which is suitable for all ages and abilities. No adverse conditions are anticipated related to an increase in vehicle trips.

Figure 19. Mountain View BLTS Maps (2020)



N Shoreline Boulevard directly adjacent to the proposed project site is at BLTS 3, which corresponds to a medium stress bikeway due to a high volume of fast moving traffic, which suggests only confident adult cyclists are likely to ride on this facility. Both Terra Bella Avenue further west and Linda Vista Avenue to the east of the proposed project site is at BLTS 2, which corresponds to a low stress bikeway.

Adverse Bicycle Effects

An impact to bicyclists occurs if the proposed project disrupts existing bicycle facilities, conflicts or creates inconsistencies with adopted bicycle system plans, guidelines, policies, or standards as per the City of Mountain View bicycle impact criteria. No adverse bicycle effects are anticipated from the project. The project's bicycle parking should enhance bicycle access in the project vicinity. The proposed project is expected to generate few additional bicycle trips on existing and planned bicycle facilities. The project does not conflict with existing and planned bicycle facilities; therefore, the impact on bicycle facilities is less than significant.

Needed Bicycle Improvements

No additional needed bicycle improvements are anticipated in the project vicinity.

6.3 Transit Operations

Existing Conditions

Transit services with route schedules are described in detail in the Existing Conditions section. The existing transit services and facilities in the study area include Santa Clara Valley Transportation Authority (VTA) and the Mountain View Transportation Management Association (MTMA). The bus and shuttle stops are within walking distance of the proposed project site.

Project Conditions

The project is accessible to transit, as there are two routes within 250 feet of the project and one within a third of a mile. These three routes each have a headway of 30 minutes and connect the project area with destinations throughout Mountain View such as the Mountain View Transit Center. They also serve destinations along N Shoreline Boulevard and W Middlefield Road.

The potential delay on transit operations is aligned with the delay on vehicular traffic at the study intersections. No adverse transit effects are anticipated from the project. The project density, diversity of uses, design and distance to transit stops are expected to increase transit ridership.

The proposed project will increase land use density and diversity in comparison to the existing building on the site which has been demolished. The proposed project is a three-story office building of approximately 20,000 sf size on the Terra Bella frontage, and associated surface parking lot adjacent to the new building. A plaza connecting Terra Bella Avenue with the new building entrance is proposed and the entire street frontage is designed to create a very pedestrian-friendly experience. Last-mile travel

between the project site and transit nodes can be completed on foot as pedestrian infrastructure is well-maintained.

Transit Travel Time (Transit Delay)

The potential delay on transit is aligned with the delay for vehicular traffic at the study intersection.

Adverse Transit Effects

No adverse transit effects are anticipated from the project. The project density, in-fill nature of the project, design and distance to transit stops are expected to increase transit ridership.

Proposed Improvements

No additional transit improvements are anticipated in the project vicinity.

6.4 Parking Analysis

This section discusses vehicle parking for the proposed project and includes an assessment of whether the proposed parking supply is adequate. The amount of parking needed for an office development is based on a number of factors including the employee density, the availability of transit services near the site, the existence of Transportation Demand Management (TDM) measures, and the location of the site relative to other uses and destinations.

As per the City of Mountain View Municipal Code section 36.32.50, office buildings are to provide one space per 300 square feet of gross floor area. Thus, the proposed 20,000 gross square foot office building requires 67 vehicle parking spaces. The Mountain View Municipal Code also requires bicycle parking where vehicle parking is provided. The number of bicycle parking spaces provided should be, at a minimum, five percent of the total number of required parking spaces. The project is required to provide a minimum of four bicycle parking stalls.

The proposed project provides a total of 75 vehicle parking spaces on site, including 3 accessible parking stalls, 10 regular electric vehicle (EV) parking stalls, 2 EV accessible parking stalls, 1 loading space parking stall, and 6 clean air vehicle parking stalls. The proposed project will provide 1 short-term bicycle rack and 4 long-term bicycle enclosures. The project meets the parking requirement.

7. TRANSPORTATION DEMAND MANAGEMENT (TDM) PEER REVIEW

This is to provide the results of TJKM's peer review of the 1155 & 1185 Terra Bella Avenue Transportation Demand Management Plan (TDM) dated March 26, 2021 prepared by Hexagon Transportation Consultants, Inc.

In general, we found the report to be detailed and well written. The goal of the proposed TDM plan is to achieve the three percent (3%) peak-hour vehicle trip reduction target established in the City's Greenhouse Gas Reduction Program (GGRP) for the portion of the City not located within a precise plan area. TDM programs encourage employees to take other modes of transportation through benefits and assistance in trip planning.

The project description does not describe if it is one tenant occupying the building or if it would be multiple offices leased.

Estimated TDM Reduction

The trip reduction that would be achieved with the TDM program was estimated using the URBEMIS model, which uses data supplied by the California Air Resource Board to calculate vehicle emissions. The model includes methods to calculate trip reduction based on various measures such as the mix of employment and housing the project vicinity, the presence of locally serving retail, existing transit service, and TDM measures recommended for the project. Based on the project's location, proximity to transit, surrounding land uses, and the project's TDM plan, the URBEMIS model estimates that the project can achieve an 11% trip reduction.

8. VEHICLE MILES TRAVELED (VMT)

TJKM conducted a VMT (Vehicle Miles Traveled) analysis for the proposed 1155 and 1185 Terra Bella Avenue office project. The project is located in the city of Mountain View near the N Shoreline Boulevard interchange of US 101 and consists of a single office building consisting of approximately 20,000 square feet of office space. The existing residential buildings in the area are planned to be demolished for this project. 75 vehicle parking spaces along with five bicycle parking spots will be provided.

For VMT forecasting, the Mountain View Multi-Modal Transportation Analysis Handbook was consulted. The City of Mountain View adopted a new transportation policy on June 30, 2020 (Resolution No. 18484, Series 2020) establishing Vehicle Miles Traveled (VMT) as the methodology for evaluating transportation impacts of new developments. This project is located in an area that requires a VMT analysis. In addition, the project is over the screening limit of 10,000 square feet for an office, so a detailed VMT analysis is needed.

The Handbook allows for the use of the Santa Clara Countywide VMT Evaluation Tool (VMT Evaluation Tool) to evaluate VMT impacts from residential, office, and industrial projects. Furthermore, for office uses, the regional average VMT per employee is used (85% of the regional average is the significance threshold). The regional threshold is 15.33 VMT per employee, so 85% of that value would be 13.03 VMT per employee. A project would have to produce less than 13.03 VMT per employee in order to be considered having insignificant VMT impacts.

The project is located in Traffic Analysis Zone (TAZ) #392 of the VTA Model. **Figure 1** shows the location of the project. The data version used was the VTA Countywide Model dated December 2019 and the analysis methodology was the Travel Analysis Zone (TAZ) method. The baseline year was set at 2015.

Without the project, the TAZ generates 17.05 VMT per employee. With the project and tier 1 through tier 3 VMT reductions (which include project and parking characteristics) the VMT per employee drops to 16.77. The project has a Transportation Demand Management Plan, dated March 2021⁷. The TDM plan characteristics were inputted into the VMT Evaluation Tool as two separate sets, as there is a maximum reduction percentage from the tool of 20% and all the components of the project's TDM plan supersedes the 20% VMT reduction cap.

Part 1 TDM reductions from the VMT Evaluation Tool included bike share programs, car share programs, commute trip reduction marketing/education programs, employee parking cash-out programs, transit

⁷ 1155 & 1185 Terra Bella Avenue Office Development Transportation Demand Management Plan, Hexagon Transportation Consultants, March 26, 2021

subsidy program, telecommuting/alternate work schedule programs, and ride sharing programs. Part 1 TDM reductions reduced the project VMT per employee from 16.77 to 13.64.

Part 2 TDM reductions from the VMT Evaluation Tool included vanpool incentive programs, and voluntary travel behavior change program. Part 2 TDM reductions reduced the project VMT per employee from 13.64 to 12.64.

With the mitigation measures from the TDM plan of the project, the Terra Bella Avenue project will have a project VMT of 12.64 VMT per employee, which is lower than the Mountain View Handbook VMT significance threshold of 13.03 VMT per employee. Thus, the Terra Bella Avenue project is found to have insignificant impacts on VMT once mitigation measures from the TDM are implemented.

Appendix E contains the output from the Santa Clara Countywide VMT Evaluation Tool for this project.

Proposed Improvements

- Bike share programs, car share programs, commute trip reduction marketing/education programs, employee parking cash-out programs, transit subsidy program, telecommuting/alternate work schedule programs, and ride sharing programs
- Vanpool incentive programs, and voluntary travel behavior change program

9. CONCLUSIONS

The potential impacts of the project were evaluated in accordance with the standards set forth in the MTA Handbook by the City of Mountain View. A California Environmental Quality Act Vehicle-Miles Traveled Analysis was performed and various recommendations resulted. These are described below.

- Bike share programs, car share programs, commute trip reduction marketing/education programs, employee parking cash-out programs, transit subsidy program, telecommuting/alternate work schedule programs, and ride sharing programs
- Vanpool incentive programs, and voluntary travel behavior change program

City Policy Conformance

The proposed project is located in Mountain View City Code Chapter 36. Zoning- Limited Industrial (ML) District and General Industrial (MM) District⁸. The requirements specific to the project site were and lot area, lot width, floor area ratio, setbacks, height limits, landscaping, parking, signs, and other development standards. The proposed project meets all requirements set forth in the Mountain View City Code Chapter 36. Zoning.

Multi-Modal Impacts

Motor Vehicle Intersection and Roadway Segment LOS

The study intersection operates at acceptable levels of service under all six scenarios.

Queuing Analysis for Left-Turn and Right-Turn Movements

The proposed project does not create significant impact by itself on the expected left-turn and right-turn queues at the study intersection under Existing and Existing plus Project Conditions.

Impact on Pedestrian and Bicycle Infrastructure and Operations

The proposed project does not disrupt existing pedestrian or bicycle facilities. There is no adverse pedestrian or bicycle effects anticipated from the proposed project. The proposed project will not result in any impact to or inconsistencies with existing or planned pedestrian or bicycle policies, guidelines, or standards in the immediate vicinity of the project.

Impact on Transit Operations

Transit operational delay was considered the same as motor vehicle operational delay at the study intersections. There is no adverse effect on transit operations under any of the scenarios.

⁸ Mountain View City Code Chapter 36. Zoning- Limited Industrial (ML) District and General Industrial (MM) District

Parking

The proposed project provides a total of 75 vehicle parking spaces on site, including 3 accessible parking stalls, 10 regular electric vehicle (EV) parking stalls, 2 EV accessible parking stalls, 1 loading space parking stall, and 6 clean air vehicles. The proposed project will also provide 1 short-term bicycle rack and 4 long-term bicycle enclosures.

Appendix A – Multi-Modal Transportation Analysis Requirement Checklist

Multimodal Transportation Analysis Requirement Checklist

Project Description (proposed square footage, unit, including any existing use): Development Review Permit to construct a 3-story, 20,000 square foot office building with a surface parking lot and a Heritage Tree Removal Permit to remove 15 Heritage trees on a vacant 1.3-acre project site; and no CEQA determination has been made.

Project Location: This project is located on the south side of Terra Bella Avenue between North Shoreline Boulevard and Linda Vista Avenue in the MM (General Industrial) and ML (Limited Industrial) districts.

Trip Generation Rates:

Project Description	ITE Code	Unit/ SF(Ksf)	AM TGR	AM PHT	PM TGR	PM PHT
Office Building	710	20K	1.16	23	1.15	23
				0		0
				0		0
Existing Uses				0		0
				0		0
Net New Trips				23		23

Estimated Project Trips: 23 AM and 23 PM Peak Hour Trips

Does the project propose:	Check all that apply
20 net new peak hour trips?	X
Medium, large projects that generate 50 or more peak hour trips?	
Change land use?	X
Special Circumstances? (As determined by PW director or designee)	
Located in the Downtown or Precise Plan area?	
Misc.	

MTA Determination: MTA Required

Minimum Transportation Components to be addressed in an MTA: Circle the selected size

Small 20 to~ 49 PHT	Medium 50 - 99 PHT	Large 100 - 399 PHT	Land Use Plan 400+ PHT
1. Existing Conditions	1. Existing Conditions	1. Existing Conditions	1. Existing Conditions
2. City Policy Conformance	2. City Policy Conformance	2. City Policy Conformance	2. City Policy Conformance
3. Intersection LOS	3. Intersection LOS	3. Intersection LOS	3. Intersection LOS
a. existing conditions	a. existing conditions	a. existing conditions	a. existing conditions
b. background conditions	b. background conditions	b. background conditions	b. background conditions
c. project conditions	c. project conditions	c. project conditions	c. project conditions
4.PQOS map evaluation	4.PQOS map evaluation	d. cumulative conditions	d. cumulative conditions
5.BLTS map evaluation	5.BLTS map evaluation	4. CMP Conformance	4. CMPT Conformance
6. Transit density	6. Transit density	5. PQOS evaluation	5. PQOS evaluation
7. Site Access and Circulation	7. Site Access and Circulation	6. BLTS evaluation and	6. BLTS evaluation and
8. Parking	8. Parking	7. Access to low BLTS streets	7. Access to low BLTS streets
9. Traffic calming	9. Traffic calming	8. Transit delay (travel time)	8. Transit delay (travel time)
		7. Site Access and Circulation	9. Site Access and Circulation
		10. Parking Study	10. Parking Study
		11. Traffic calming	11. Traffic calming

Comments:

Scope components

1. Existing conditions for all transportation modes
2. City Policy Conformance
3. Intersection LOS
 - Terra Bella/Shoreline
4. Intersection Operations – Terra Bella/Shoreline
 - Phasing along Terra Bella – split or shared? No protected left-turns
5. Site Access and Circulation
6. Parking
7. ~~Traffic Calming – any planned improvements?~~

Appendix B – Level of Service Methodology

APPENDIX C

LEVEL OF SERVICE

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

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

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

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

Table A-I

Level of Service Description

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

Source: *Highway Capacity Manual 2000*

Urban Streets

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Table A-II

Functional and Design Categories for Urban Streets

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

Source: *Highway Capacity Manual 2000*

Table A-III

Urban Street Class based on Function and Design Categories

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

Source: *Highway Capacity Manual 2000*

Table A-IV**Urban Street Levels of Service by Class**

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

Source: *Highway Capacity Manual 2000*

Interrupted Flow

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

Signalized Intersections

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

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

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

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

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

Table A-V

Description of Level of Service for Signalized Intersections

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

Source: *Highway Capacity Manual 2000*

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

Unsignalized Intersections

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

Two-Way Stop Controlled Intersections

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

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

Table A-VI

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

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

Source: *Highway Capacity Manual 2000*

Table IV.C-2: Qualitative Description of Level of Service

Level of Service	Driver's Perception
A/B	LOS A/B are characterized by light congestion. Motorists are generally able to maintain desired speeds on two and four lane roads and make lane changes on four lane roads. Motorists are still able to pass through traffic-controlled intersections in one green phase. Stop-controlled approach motorists begin to notice absence of available gaps.
C	LOS C represents moderate traffic congestion. Average vehicle speeds continue to be near the motorist's desired speed for two and four lane roads. Lane change maneuvers on four lane roads increase to maintain desired speed. Turning traffic and slow vehicles begin to have an adverse impact on traffic flows. Occasionally, motorists do not clear the intersection on the first green phase.
D	LOS D is characterized by congestion with average vehicle speeds decreasing below the motorist's desired level for two and four lane roads. Lane change maneuvers on four lane roads are difficult to make and adversely affect traffic flow like turning traffic and slow vehicles. Multiple cars must wait through more than one green phase at a traffic signal. Stop-controlled approach motorists experience queuing due to a reduction in available gaps.
E	LOS E is the lowest grade possible without stop-and-go operations. Driving speeds are substantially reduced and brief periods of stop-and-go conditions can occur on two and four lane roads and lane changes are minimal. At signalized intersections, long vehicle queues can form waiting to be served by the signal's green phase. Insufficient gaps on the major streets cause extensive queuing on the stop-controlled approaches.
F	LOS F represents stop-and-go conditions for two and four lane roads. Traffic flow is constrained and lane changes minimal. Drivers at signalized intersections may wait several green phases prior to being served. Motorists on stop-controlled approaches experience insufficient gaps of suitable size to cross safely through a major traffic stream.

Source: Fehr & Peers and Highway Capacity Manual, Transportation Research Board, 2000.

This LOS method does not consider the potential impact on walking, bicycling, and transit. Pedestrians, bicyclists, and transit riders are all users of the roadway system but may not be fully recognized in the traffic operations analysis and the calculation of LOS. Identifying the need for roadway improvements based on the resulting roadway LOS, while necessary at times, can also have unintended impacts to other modes, such as increasing the walking time for pedestrians. In evaluating the roadway system, a lower vehicle LOS may be desired when balanced against other community values related to resource protection, social equity, economic development, and consideration of pedestrians, bicyclists, and transit users.

The City of Mountain View has historically used LOS to evaluate morning and evening peak hour traffic operations for individual development projects. The City also uses LOS to help determine roadway infrastructure needs based on the defined level of service standard in the 1992 General Plan Circulation Element during peak periods.

(5) Daily Roadway and Freeway Segment Forecasts and Operations. Roadway segment forecasts were developed using guidelines published in National Cooperative Highway Research Program (NCHRP) Report 255³ for converting raw model results into forecasted volumes. The difference forecast method is based on existing counts and the difference between the model's

³ National Cooperative Highway Research Program (NCHRP). *Report 255: Highway Traffic Data for Urbanized Area Project Planning and Design*. Washington, D.C.: National Academy Press, 1982.

baseline and future volumes. This method normalizes the model projections based on the accuracy of the model validation and the existing roadway conditions.

Roadways were analyzed by comparing the daily volume to threshold volumes based on roadway type as presented in Table IV.C-3. Daily roadway capacity is an indicator used to evaluate roadway segment operations at the General Plan planning-level. This daily analysis approach is consistent with the level of planning detail addressed in a General Plan where specific development details and locations are not typically known. This approach helps to evaluate and determine the roadway cross-sections (e.g., two, four or six travel lanes) rather than detailed operational issues at the intersection level, which are dependent on the number of turn lanes, signal timing, adjacent driveway operations, and development details and locations that are not typically known at the time of a program level general plan analysis. In addition to being the most feasible level of analysis for program level general plan environmental evaluation, daily operations better indicate the use of a roadway over a longer period of time outside the traditional peak hours and account for the non-peak times when roadways are substantially underutilized.

It is important to note that daily volume thresholds are used for General Plan and traffic during peak periods may result in worse operations than illustrated by the daily LOS. Thus, the City of Mountain View has traditionally used peak hour intersection operations during the morning and evening peak hours to evaluate the effect individual projects have on the transportation system. Therefore, the daily volume thresholds are used for the General Plan, with the understanding that traffic during peak periods may result in worse operations than illustrated by the daily LOS. As specific development details and locations are known (e.g., precise plans or development projects) a project level analysis will evaluate the transportation system (e.g., vehicle, transit, bicycle, and pedestrian systems) including traffic operations along roadway segments to ensure that the roadway system is optimized for steady, safe, and orderly traffic flow operations, and balances the need of all users of the transportation system.

Currently, the City has adopted LOS D as the minimum overall performance measure for City-controlled roadways, except those roadways within the Downtown and San Antonio Center areas for which the adopted standard is LOS E. The City has also adopted LOS E as the minimum overall performance measure for Congestion Management Program (CMP) monitored roadways (e.g., Central Expressway, El Camino Real, and San Antonio Road).

The Congestion Management Program is discussed in greater detail later in the Regulatory Setting section, under the Valley Transportation Authority (VTA).

Table IV.C-3: Daily Roadway Capacity Summary

Roadway Type	Maximum Daily Volume ^{1,2} (both directions except freeway segments)				
	LOS A	LOS B	LOS C	LOS D	LOS E
2-Lane Freeway	13,320	24,120	34,560	42,840	48,120
3-Lane Freeway	20,400	36,960	52,800	64,920	72,720
4-Lane Freeway	27,840	50,400	71,400	87,360	97,680
5-Lane Freeway	39,360	64,440	90,600	110,040	122,760
2-Lane Undivided Arterial ³			10,920	20,040	21,240
2-Lane Divided Arterial ³			11,640	21,120	22,440
3-Lane Arterial (2 lanes in one direction) ³			15,720	24,720	26,040
4-Lane Undivided Arterial ³			21,000	32,880	34,680
4-Lane Divided Arterial ³			23,040	42,480	44,880
5-Lane Divided Arterial ³			27,120	53,160	56,040
6-Lane Divided Arterial ³			32,520	63,840	67,200
8-Lane Divided Arterial ³			44,640	85,320	89,640
2-Lane Collector ⁴	3,120	6,240	9,360	13,200	15,480

¹ The LOS capacity thresholds are based on HCM 2000 method and are generally appropriate for suburban communities.

² Based on available roadway counts, non-directional peak hour traffic volumes are 1/12th (~8%) of the daily traffic volume. All volumes are approximate and assume ideal roadway characteristics.

³ LOS A and B are not achievable for arterial roadways using the HCM 2000 methods.

⁴ For collector roadway segments, the capacity limitation is related to neighborhood quality of life rather than the physical carrying capacity of the road. This assumes a standard suburban neighborhood, 40-foot roadway width, and 25 mile per hour speed limit with normal speed violation rates.

Source: *Highway Capacity Manual*, Transportation Research Board, 2000.

Freeway Segments. Freeway segments were also evaluated using daily planning thresholds delineated in Table IV.C-3. Although freeway analysis is typically conducted using density, it is not possible to accurately project future travel speeds on freeway segments in 2030. Thus, planning volume thresholds were used to identify operations on freeway segments within the City of Mountain View. The Congestion Management Program (CMP) maintains an LOS E standard for CMP-monitored roadways, which include US 101, I-280, SR 237 and SR 85. Caltrans strives to maintain facilities at the LOS C/D cusp per its *Guide for the Preparation of Traffic Impact Studies* (December 2002).

Roadway Segments Outside the City. Operations of roadway segments outside the City of Mountain View boundaries and in adjacent jurisdictions were also reviewed to determine potential impacts of the Draft General Plan. A roadway segment within an adjacent jurisdiction is considered to be deficient if the future volume-to-capacity (V/C) ratio is 1.0 or greater during the AM and PM peak one-hour periods under existing and future conditions. Given the large population and employment projected to reside in the region, and the complex travel patterns, only a portion of trips on any roadway segment in adjacent jurisdictions are expected to have originated from a resident or job within the City of Mountain View. The adjacent jurisdiction roadway segment impact thresholds were selected because the thresholds are identical to the criteria developed and used by the City of San Jose recent General Plan update and therefore provides a consistent approach to evaluate adjacent jurisdiction analysis. The 25 percent threshold represents a level of increase that would be a noticeable change in traffic due to the proposed Mountain View General Plan land use changes.

Freeway facilities operated by Caltrans and expressways operated by the County of Santa Clara are regarded as adjacent jurisdictions. Operations of these facilities, which include facilities that are part of VTA's Congestion Management Program, are evaluated according to the adjacent jurisdiction impact criteria.

c. Existing Transportation Setting. The following section generally describes the transportation system in the area, including key facilities of the roadway, transit, bicycle, and pedestrian networks.

(1) Travel Characteristics. Transportation in Mountain View includes an array of components. These range from shared-use bicycle and pedestrian paths meandering along the Stevens Creek Trail to tree-lined streets in the Downtown neighborhood to Caltrain service and the VTA light rail lines extending from Castro Street to the cities of Campbell, San Jose and Milpitas. This section examines historical trends and current characteristics of travel in Mountain View.

Table IV.C-4 compares the commute characteristics of Mountain View residents to those of Santa Clara County, the State of California, and the United States (U.S.) as a whole based on 2000 Census data (or the data available at the time this Draft EIR was prepared as noted in the "source" of the information presented in a table). Approximately 87 percent of Mountain View residents commute by automobile, which is slightly lower compared to Santa Clara County (90 percent) but consistent with the State and national trends of 87 and 88 percent, respectively. Mountain View commuters tend to carpool less compared to the rest of the County, the State, and the nation as whole.

Table IV.C-4: Existing Conditions: Mountain View Residents Journey to Work Travel Characteristics

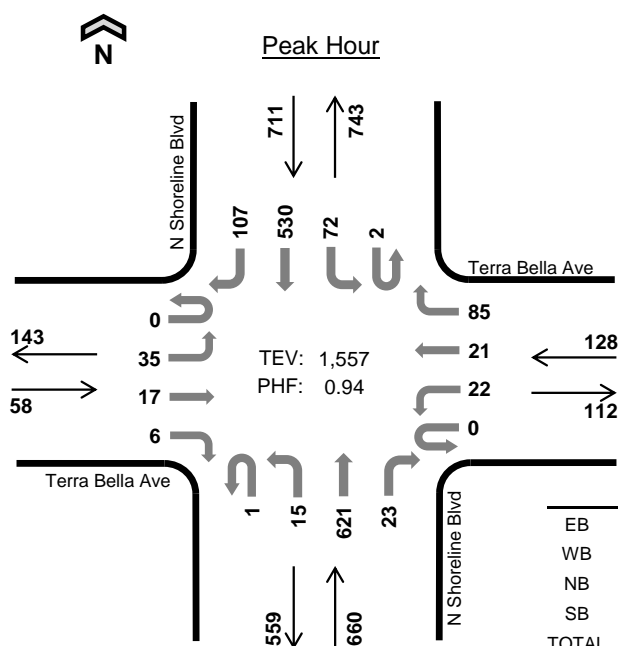
Travel Characteristics	Mountain View	Santa Clara County	California	United States
Commute Mode Choice				
Single-Occupant Automobile	78.3%	77.4%	71.9%	75.8%
Carpool	8.4%	12.3%	14.6%	12.2%
Commute by Automobile ¹	86.7%	89.7%	86.5%	88.0%
Public Transit	4.8%	3.6%	5.2%	4.7%
Bicycle	2.0%	1.2%	0.8%	0.4%
Walk	2.2%	1.8%	2.9%	2.9%
Other Means	0.9%	0.6%	0.8%	0.7%
Work at Home	3.4%	3.1%	3.8%	3.3%
Other Commute Related Data				
Percentage who work outside county of residence	18%	12%	17%	23%
Percentage who leave for work between midnight and 7:00 am	15%	25%	32%	31%
Percentage who leave for work between 7:00 am and 9:00 am	57%	50%	45%	47%
Average Travel Time to Work	23.4 minutes	28.1 minutes	29.3 minutes	27.0 minutes

¹ Commute by Automobile is subtotal including Single-Occupant Automobile and Carpool mode choice.

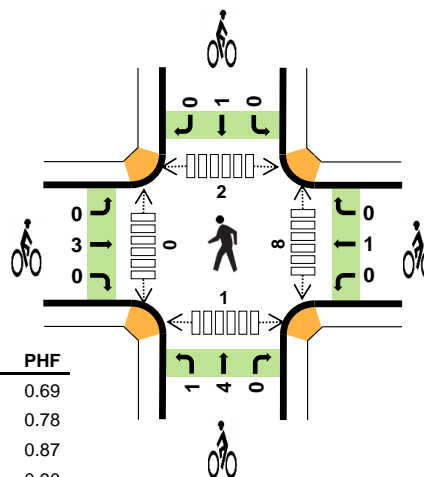
Source: Census 2000, Summary File 3. Based on available Census information as of September 2011.

Appendix C – Data Collection: Pedestrian, Bicycle, and Vehicle Volumes

N Shoreline Blvd Terra Bella Ave



Date: 10-14-2021
Count Period: 7:00 AM to 10:00 AM
Peak Hour: 7:45 AM to 8:45 AM



Three-Hour Count Summaries

Interval Start		Terra Bella Ave				Terra Bella Ave				N Shoreline Blvd				N Shoreline 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		
7:45 AM		0	6	3	0	0	5	0	23	0	5	156	3	0	15	157	26	399	0
8:00 AM		0	9	3	0	0	3	4	16	1	3	134	5	1	15	136	29	359	0
8:15 AM		0	12	6	3	0	5	11	25	0	3	179	7	0	15	116	31	413	0
8:30 AM		0	8	5	3	0	9	6	21	0	4	152	8	1	27	121	21	386	1,557
Peak Hour	All	0	35	17	6	0	22	21	85	1	15	621	23	2	72	530	107	1,557	0
	HV	0	0	1	1	0	2	1	6	0	0	40	2	0	5	29	2	89	0
	HV%	-	0%	6%	17%	-	9%	5%	7%	0%	0%	6%	9%	0%	7%	5%	2%	6%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:45 AM	1	3	8	8	20	0	0	0	0	0	2	0	1	0	3
8:00 AM	0	2	11	11	24	2	0	0	1	3	3	0	0	0	3
8:15 AM	1	1	10	5	17	1	0	2	0	3	2	0	1	1	4
8:30 AM	0	3	13	12	28	0	1	3	0	4	1	0	0	0	1
Peak Hour	2	9	42	36	89	3	1	5	1	10	8	0	2	1	11

Three-Hour Count Summaries																			
Interval Start		Terra Bella Ave				Terra Bella Ave				N Shoreline Blvd				N Shoreline 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	1	3	0	0	1	0	11	0	1	84	1	0	15	66	20		
7:15 AM		0	5	0	1	0	4	0	16	0	0	106	3	0	14	89	17		
7:30 AM		0	8	1	2	0	4	0	13	0	1	117	2	0	14	134	16		
7:45 AM		0	6	3	0	0	5	0	23	0	5	156	3	0	15	157	26		
8:00 AM		0	9	3	0	0	3	4	16	1	3	134	5	1	15	136	29		
8:15 AM		0	12	6	3	0	5	11	25	0	3	179	7	0	15	116	31		
8:30 AM		0	8	5	3	0	9	6	21	0	4	152	8	1	27	121	21		
8:45 AM		0	7	1	3	0	6	4	19	0	3	145	11	2	13	127	32		
9:00 AM		0	4	6	6	0	2	1	16	0	6	141	15	0	22	120	34		
9:15 AM		0	8	4	2	0	9	2	13	0	4	116	7	0	22	101	26		
9:30 AM		0	13	5	7	0	7	3	16	0	1	153	10	0	20	103	22		
9:45 AM		0	2	1	4	0	6	2	28	0	4	117	9	3	27	104	19		
Count Total		0	83	38	31	0	61	33	217	1	35	1,600	81	7	219	1,374	293		
Peak Hour	All	0	35	17	6	0	22	21	85	1	15	621	23	2	72	530	107		
	HV	0	0	1	1	0	2	1	6	0	0	40	2	0	5	29	2		
	HV%	-	0%	6%	17%	-	9%	5%	7%	0%	0%	6%	9%	0%	7%	5%	2%		
Note: Three-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	2	4	9	15	0	0	0	0	0	1	1	1	0	3			
7:15 AM		0	2	3	10	15	0	0	0	0	0	1	0	0	0	1			
7:30 AM		0	0	4	11	15	1	0	1	1	3	0	0	0	0	0			
7:45 AM		1	3	8	8	20	0	0	0	0	0	2	0	1	0	3			
8:00 AM		0	2	11	11	24	2	0	0	1	3	3	0	0	0	3			
8:15 AM		1	1	10	5	17	1	0	2	0	3	2	0	1	1	4			
8:30 AM		0	3	13	12	28	0	1	3	0	4	1	0	0	0	1			
8:45 AM		0	1	6	11	18	0	1	2	0	3	4	2	1	0	7			
9:00 AM		1	1	7	11	20	0	0	2	0	2	2	2	0	1	5			
9:15 AM		1	1	5	6	13	0	0	4	0	4	0	0	0	0	0			
9:30 AM		2	4	8	7	21	0	1	1	1	3	1	1	0	1	3			
9:45 AM		0	2	4	7	13	0	0	1	0	1	0	0	1	0	1			
Count Total		6	22	83	108	219	4	3	16	3	26	17	6	5	3	31			
Peak Hour		2	9	42	36	89	3	1	5	1	10	8	0	2	1	11			

Three-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Terra Bella Ave				Terra Bella Ave				N Shoreline Blvd				N Shoreline 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	0	0	0	0	0	2	0	0	4	0	0	1	8	0	15	0
7:15 AM	0	0	0	0	0	0	0	2	0	0	2	1	0	1	9	0	15	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	1	10	0	15	0
7:45 AM	0	0	1	0	0	0	0	3	0	0	7	1	0	1	6	1	20	65
8:00 AM	0	0	0	0	0	1	0	1	0	0	11	0	0	2	9	0	24	74
8:15 AM	0	0	0	1	0	0	1	0	0	0	10	0	0	0	5	0	17	76
8:30 AM	0	0	0	0	0	1	0	2	0	0	12	1	0	2	9	1	28	89
8:45 AM	0	0	0	0	0	0	0	1	0	0	5	1	0	0	11	0	18	87
9:00 AM	0	0	1	0	0	0	0	1	0	0	6	1	0	1	10	0	20	83
9:15 AM	0	1	0	0	0	1	0	0	0	0	5	0	0	1	4	1	13	79
9:30 AM	0	1	1	0	0	0	1	3	0	0	7	1	0	1	6	0	21	72
9:45 AM	0	0	0	0	0	0	0	2	0	0	3	1	0	1	5	1	13	67
Count Total	0	2	3	1	0	3	2	17	0	0	75	8	0	12	92	4	219	0
Peak Hour	0	0	1	1	0	2	1	6	0	0	40	2	0	5	29	2	89	0

Three-Hour Count Summaries - Bikes																	
Interval Start	Terra Bella Ave			Terra Bella Ave			N Shoreline Blvd			N Shoreline 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			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	1	0	0	0	0	0	0	1	0	1	0	3	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
8:00 AM	0	2	0	0	0	0	0	0	0	0	1	0	3	6			
8:15 AM	0	1	0	0	0	0	1	1	0	0	0	0	3	9			
8:30 AM	0	0	0	0	1	0	0	3	0	0	0	0	4	10			
8:45 AM	0	0	0	0	1	0	0	1	1	0	0	0	3	13			
9:00 AM	0	0	0	0	0	0	0	1	1	0	0	0	2	12			
9:15 AM	0	0	0	0	0	0	1	3	0	0	0	0	4	13			
9:30 AM	0	0	0	0	1	0	0	1	0	0	1	0	3	12			
9:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	10			
Count Total	0	4	0	0	3	0	3	10	3	0	3	0	26	0			
Peak Hour	0	3	0	0	1	0	1	4	0	0	1	0	10	0			

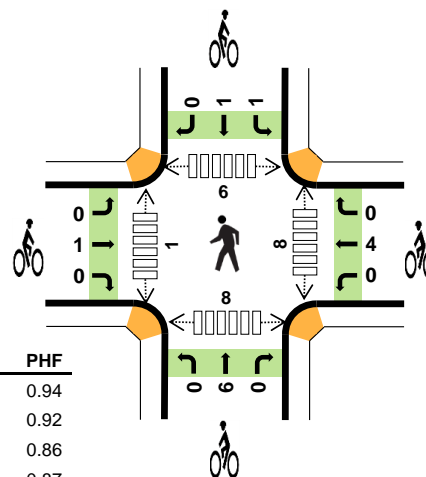
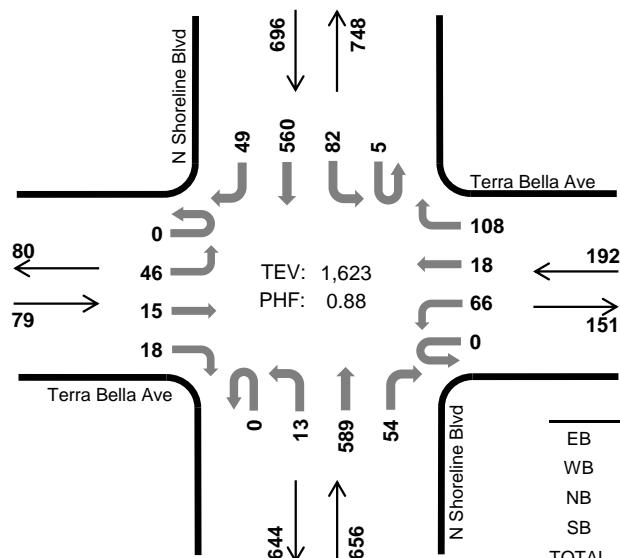
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

N Shoreline Blvd Terra Bella Ave



Peak Hour

Date: 10-14-2021
Count Period: 11:30 AM to 1:30 PM
Peak Hour: 11:45 AM to 12:45 PM



	HV %:	PHF
EB	3.8%	0.94
WB	4.2%	0.92
NB	3.4%	0.86
SB	2.2%	0.87
TOTAL	3.0%	0.88

Two-Hour Count Summaries

Interval Start		Terra Bella Ave				Terra Bella Ave				N Shoreline Blvd				N Shoreline 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		
11:30 AM		0	12	6	3	0	9	2	30	0	3	133	13	2	17	138	11	379	0
11:45 AM		0	14	2	5	0	12	4	27	0	1	125	10	2	14	157	16	389	0
12:00 PM		0	11	3	6	0	21	1	25	0	2	141	14	2	18	137	9	390	0
12:15 PM		0	12	2	5	0	19	6	27	0	5	171	14	0	27	160	12	460	1,618
12:30 PM		0	9	8	2	0	14	7	29	0	5	152	16	1	23	106	12	384	1,623
12:45 PM		0	9	0	1	0	14	2	32	0	4	155	7	1	17	129	5	376	1,610
1:00 PM		0	14	0	2	0	5	5	23	0	2	142	11	0	16	137	7	364	1,584
1:15 PM		0	14	1	3	0	15	2	18	0	1	129	8	1	19	144	6	361	1,485
Count Total		0	95	22	27	0	109	29	211	0	23	1,148	93	9	151	1,108	78	3,103	0
Peak Hour	All	0	46	15	18	0	66	18	108	0	13	589	54	5	82	560	49	1,623	0
	HV	0	2	1	0	0	2	1	5	0	0	18	4	0	1	12	2	48	0
	HV%	-	4%	7%	0%	-	3%	6%	5%	-	0%	3%	7%	0%	1%	2%	4%	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
11:30 AM	1	3	7	7	18	0	0	1	0	1	3	0	1	4	8
11:45 AM	1	3	3	6	13	0	1	2	0	3	0	0	0	1	1
12:00 PM	1	1	5	5	12	0	0	0	1	1	4	1	3	3	11
12:15 PM	1	2	6	2	11	1	2	1	0	4	4	0	2	0	6
12:30 PM	0	2	8	2	12	0	1	3	1	5	0	0	1	4	5
12:45 PM	0	2	5	3	10	0	0	0	0	0	0	1	1	3	5
1:00 PM	0	2	3	7	12	0	0	0	0	0	0	1	1	0	2
1:15 PM	0	0	5	7	12	0	1	0	0	1	0	0	1	2	3
Count Total	4	15	42	39	100	1	5	7	2	15	11	3	10	17	41
Peak Hour	3	8	22	15	48	1	4	6	2	13	8	1	6	8	23

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Terra Bella Ave				Terra Bella Ave				N Shoreline Blvd				N Shoreline 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		
11:30 AM	0	1	0	0	0	0	0	3	0	1	6	0	0	1	5	1	18	0
11:45 AM	0	1	0	0	0	0	1	2	0	0	2	1	0	0	5	1	13	0
12:00 PM	0	0	1	0	0	0	0	1	0	0	5	0	0	1	4	0	12	0
12:15 PM	0	1	0	0	0	1	0	1	0	0	4	2	0	0	2	0	11	54
12:30 PM	0	0	0	0	0	1	0	1	0	0	7	1	0	0	1	1	12	48
12:45 PM	0	0	0	0	0	0	0	2	0	0	5	0	0	0	3	0	10	45
1:00 PM	0	0	0	0	0	0	0	2	0	0	3	0	0	2	5	0	12	45
1:15 PM	0	0	0	0	0	0	0	0	0	0	4	1	0	2	5	0	12	46
Count Total	0	3	1	0	0	2	1	12	0	1	36	5	0	6	30	3	100	0
Peak Hour	0	2	1	0	0	2	1	5	0	0	18	4	0	1	12	2	48	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Terra Bella Ave			Terra Bella Ave			N Shoreline Blvd			N Shoreline Blvd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
11:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0			
11:45 AM	0	0	0	0	1	0	0	2	0	0	0	0	3	0			
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0			
12:15 PM	0	1	0	0	2	0	0	1	0	0	0	0	4	9			
12:30 PM	0	0	0	0	1	0	0	3	0	0	1	0	5	13			
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	10			
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	9			
1:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	1	6			
Count Total	0	1	0	1	4	0	0	7	0	1	1	0	15	0			
Peak Hour	0	1	0	0	4	0	0	6	0	1	1	0	13	0			

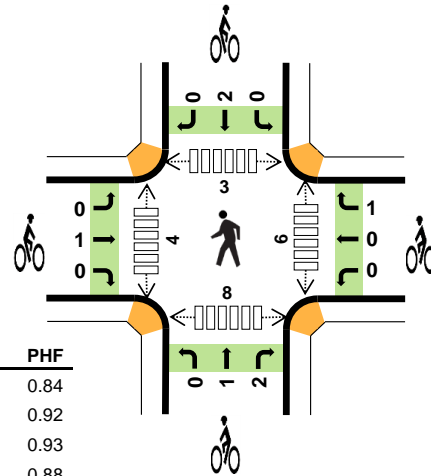
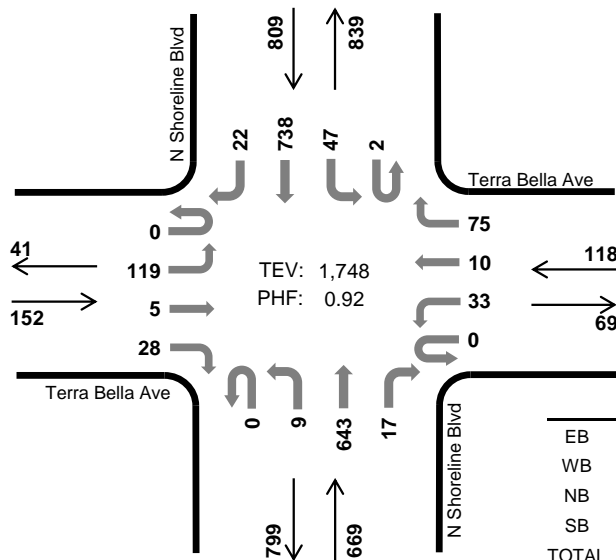
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

N Shoreline Blvd Terra Bella Ave



Peak Hour

Date: 10-14-2021
Count Period: 4:00 PM to 7:00 PM
Peak Hour: 5:15 PM to 6:15 PM



Three-Hour Count Summaries

Interval Start		Terra Bella Ave				Terra Bella Ave				N Shoreline Blvd				N Shoreline 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		
5:15 PM		0	33	0	4	0	6	2	23	0	1	159	3	0	11	172	3	417	0
5:30 PM		0	27	1	9	0	7	3	17	0	4	169	7	1	16	204	9	474	0
5:45 PM		0	34	3	8	0	10	2	20	0	3	147	4	1	8	158	5	403	0
6:00 PM		0	25	1	7	0	10	3	15	0	1	168	3	0	12	204	5	454	1,748
Peak Hour	All	0	119	5	28	0	33	10	75	0	9	643	17	2	47	738	22	1,748	0
	HV	0	0	0	0	0	0	0	1	0	0	9	2	0	0	12	1	25	0
	HV%	-	0%	0%	0%	-	0%	0%	1%	-	0%	1%	12%	0%	0%	2%	5%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:15 PM	0	0	3	2	5	0	0	0	0	0	0	1	1	1	3
5:30 PM	0	1	3	3	7	1	0	1	0	2	1	0	0	2	3
5:45 PM	0	0	4	6	10	0	0	1	2	3	1	3	1	1	6
6:00 PM	0	0	1	2	3	0	1	1	0	2	4	0	1	4	9
Peak Hour	0	1	11	13	25	1	1	3	2	7	6	4	3	8	21

Three-Hour Count Summaries																			
Interval Start		Terra Bella Ave				Terra Bella Ave				N Shoreline Blvd				N Shoreline 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	37	2	7	0	7	0	33	0	2	161	5	1	15	136	4	410	0
4:15 PM		0	25	3	2	0	11	1	16	1	1	152	3	0	14	145	9	383	0
4:30 PM		0	33	5	2	0	14	3	27	0	2	129	4	0	12	151	4	386	0
4:45 PM		0	37	3	2	0	12	5	24	0	0	139	7	2	10	153	4	398	1,577
5:00 PM		0	36	0	5	0	12	4	21	1	1	173	6	0	5	182	2	448	1,615
5:15 PM		0	33	0	4	0	6	2	23	0	1	159	3	0	11	172	3	417	1,649
5:30 PM		0	27	1	9	0	7	3	17	0	4	169	7	1	16	204	9	474	1,737
5:45 PM		0	34	3	8	0	10	2	20	0	3	147	4	1	8	158	5	403	1,742
6:00 PM		0	25	1	7	0	10	3	15	0	1	168	3	0	12	204	5	454	1,748
6:15 PM		0	27	2	6	0	6	1	24	0	2	130	4	0	11	154	5	372	1,703
6:30 PM		0	19	0	1	0	4	2	15	0	0	126	3	0	12	162	5	349	1,578
6:45 PM		0	20	1	1	0	4	2	12	0	1	131	1	1	6	161	9	350	1,525
Count Total		0	353	21	54	0	103	28	247	2	18	1,784	50	6	132	1,982	64	4,844	0
Peak Hour	All	0	119	5	28	0	33	10	75	0	9	643	17	2	47	738	22	1,748	0
	HV	0	0	0	0	0	0	0	1	0	0	9	2	0	0	12	1	25	0
	HV%	-	0%	0%	0%	-	0%	0%	1%	-	0%	1%	12%	0%	0%	2%	5%	1%	0
Note: Three-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	1	7	5	13	0	1	0	0	1	0	0	0	2	2			
4:15 PM		1	1	3	9	14	0	0	0	0	0	1	0	0	0	1			
4:30 PM		2	0	5	8	15	0	0	0	0	0	0	0	0	2	2			
4:45 PM		1	1	5	4	11	0	0	0	0	0	0	0	0	0	0			
5:00 PM		0	0	4	3	7	1	0	0	1	2	0	0	0	1	1			
5:15 PM		0	0	3	2	5	0	0	0	0	0	0	1	1	1	3			
5:30 PM		0	1	3	3	7	1	0	1	0	2	1	0	0	2	3			
5:45 PM		0	0	4	6	10	0	0	1	2	3	1	3	1	1	6			
6:00 PM		0	0	1	2	3	0	1	1	0	2	4	0	1	4	9			
6:15 PM		1	0	5	2	8	0	2	0	1	3	2	1	1	0	4			
6:30 PM		0	1	3	4	8	1	2	1	3	7	2	0	2	2	6			
6:45 PM		0	0	1	2	3	0	1	2	2	5	4	7	1	0	12			
Count Total		5	5	44	50	104	3	7	6	9	25	15	12	7	15	49			
Peak Hour		0	1	11	13	25	1	1	3	2	7	6	4	3	8	21			

Three-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Terra Bella Ave				Terra Bella Ave				N Shoreline Blvd				N Shoreline 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	0	0	0	0	0	0	1	0	0	5	2	0	0	5	0	13	0
4:15 PM	0	1	0	0	0	0	0	1	0	0	3	0	0	0	7	2	14	0
4:30 PM	0	1	1	0	0	0	0	0	0	0	5	0	0	1	6	1	15	0
4:45 PM	0	1	0	0	0	0	0	1	0	0	4	1	0	0	4	0	11	53
5:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	7	47
5:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	38
5:30 PM	0	0	0	0	0	0	0	1	0	0	2	1	0	0	3	0	7	30
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	6	0	10	29
6:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	3	25
6:15 PM	0	1	0	0	0	0	0	0	0	0	4	1	0	0	2	0	8	28
6:30 PM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	4	0	8	29
6:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	22
Count Total	0	4	1	0	0	0	0	5	0	0	38	6	0	1	45	4	104	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	9	2	0	0	12	1	25	0

Three-Hour Count Summaries - Bikes																		
Interval Start	Terra Bella Ave			Terra Bella Ave			N Shoreline Blvd			N Shoreline 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	0	0	1	0	0	0	0	0	0	0	1	0				
4:15 PM	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				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	2	2				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:30 PM	0	1	0	0	0	0	0	0	1	0	0	0	2	4				
5:45 PM	0	0	0	0	0	0	0	0	1	0	2	0	3	7				
6:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	2	7				
6:15 PM	0	0	0	1	1	0	0	0	0	0	1	0	3	10				
6:30 PM	0	1	0	2	0	0	0	1	0	0	3	0	7	15				
6:45 PM	0	0	0	1	0	0	0	2	0	0	2	0	5	17				
Count Total	0	3	0	4	2	1	0	4	2	0	9	0	25	0				
Peak Hour	0	1	0	0	0	1	0	1	2	0	2	0	7	0				

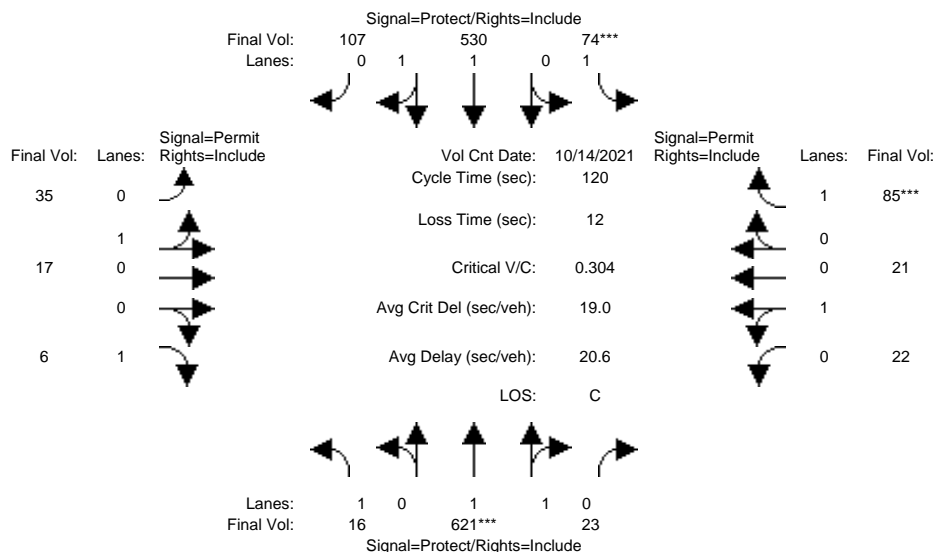
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Appendix E – Level of Service Worksheets

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Existing AM

Intersection #1: Shoreline Boulevard/Terra Bella Avenue



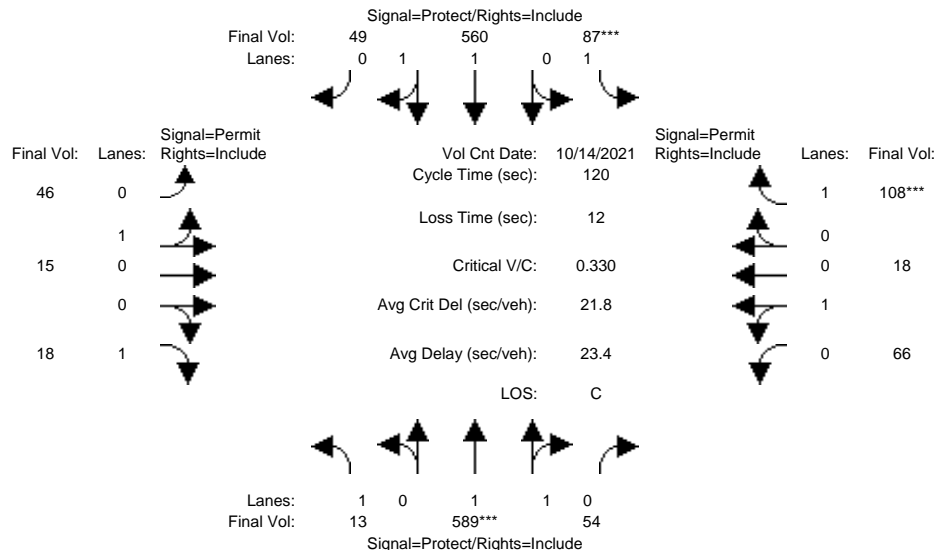
Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6
Volume Module: >> Count Date:	14 Oct 2021 << 7:00-10:00 AM											
Base Vol:	16	621	23	74	530	107	35	17	6	22	21	85
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	621	23	74	530	107	35	17	6	22	21	85
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	621	23	74	530	107	35	17	6	22	21	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	621	23	74	530	107	35	17	6	22	21	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	16	621	23	74	530	107	35	17	6	22	21	85
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.94	0.95	0.93	0.92	0.80	0.80	0.84	0.86	0.86	0.84
Lanes:	1.00	1.93	0.07	1.00	1.66	0.34	0.67	0.33	1.00	0.51	0.49	1.00
Final Sat.:	1805	3464	128	1805	2927	591	1027	499	1587	837	799	1588
Capacity Analysis Module:												
Vol/Sat:	0.01	0.18	0.18	0.04	0.18	0.18	0.03	0.03	0.00	0.03	0.03	0.05
Crit Moves:	****			****						****		
Green/Cycle:	0.23	0.59	0.59	0.13	0.50	0.50	0.18	0.18	0.18	0.18	0.18	0.18
Volume/Cap:	0.04	0.30	0.30	0.30	0.37	0.37	0.19	0.19	0.02	0.15	0.15	0.30
Delay/Veh:	36.1	12.4	12.4	47.5	18.8	18.8	42.5	42.5	40.9	42.1	42.1	43.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.1	12.4	12.4	47.5	18.8	18.8	42.5	42.5	40.9	42.1	42.1	43.7
LOS by Move:	D	B	B	D	B	B	D	D	D	D	D	D
HCM2kAvgQ:	11	152	152	66	186	186	43	43	5	35	35	72

Note: Queue reported is the distance per lane in feet.

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Existing Midday

Intersection #1: Shoreline Boulevard/Terra Bella Avenue

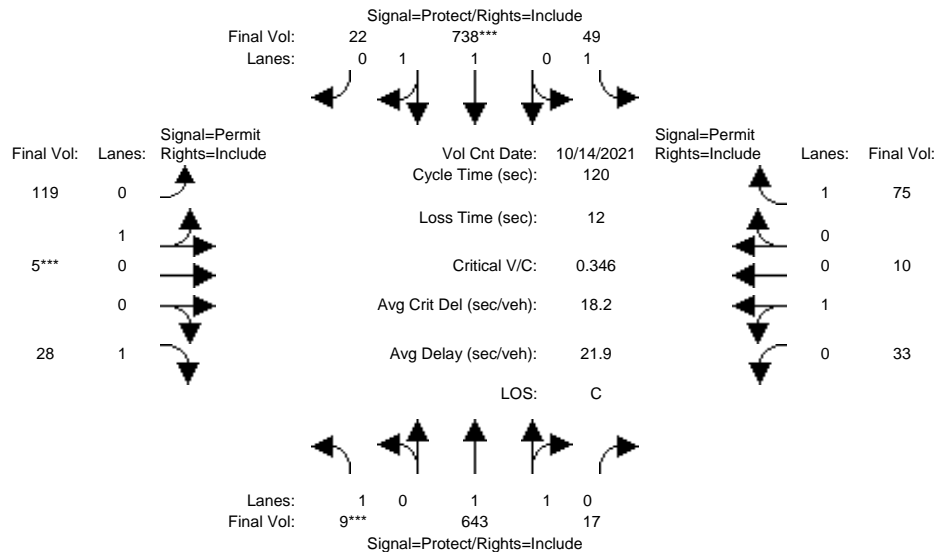


Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6
Volume Module: >> Count Date:	14 Oct 2021 << 11:30 AM - 1:30 PM											
Base Vol:	13	589	54	87	560	49	46	15	18	66	18	108
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	589	54	87	560	49	46	15	18	66	18	108
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	13	589	54	87	560	49	46	15	18	66	18	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	589	54	87	560	49	46	15	18	66	18	108
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	13	589	54	87	560	49	46	15	18	66	18	108
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.94	0.94	0.75	0.76	0.83	0.73	0.73	0.83
Lanes:	1.00	1.83	0.17	1.00	1.84	0.16	0.76	0.24	1.00	0.79	0.21	1.00
Final Sat.:	1805	3263	299	1805	3279	287	1077	351	1576	1087	296	1575
Capacity Analysis Module:												
Vol/Sat:	0.01	0.18	0.18	0.05	0.17	0.17	0.04	0.04	0.01	0.06	0.06	0.07
Crit Moves:	****			****						****		
Green/Cycle:	0.23	0.55	0.55	0.15	0.47	0.47	0.21	0.21	0.21	0.21	0.21	0.21
Volume/Cap:	0.03	0.33	0.33	0.33	0.37	0.37	0.21	0.21	0.06	0.29	0.29	0.33
Uniform Del:	36.1	15.1	15.1	46.0	20.7	20.7	39.4	39.4	38.1	40.1	40.1	40.4
IncrementDel:	0.0	0.1	0.1	0.7	0.1	0.1	0.3	0.3	0.1	0.6	0.6	0.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	36.1	15.2	15.2	46.7	20.8	20.8	39.7	39.7	38.2	40.7	40.7	41.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.1	15.2	15.2	46.7	20.8	20.8	39.7	39.7	38.2	40.7	40.7	41.0
LOS by Move:	D	B	B	D	C	C	D	D	D	D	D	D
HCM2kAvgQ:	9	168	168	77	187	186	48	49	13	69	70	89
Note: Queue reported is the distance per lane in feet.												

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Existing PM

Intersection #1: Shoreline Boulevard/Terra Bella Avenue

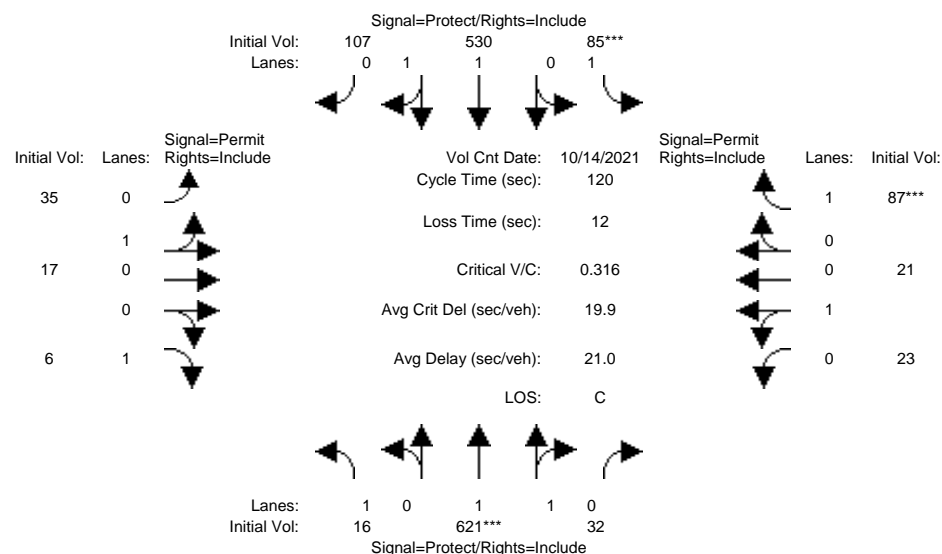


Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6
Volume Module: >> Count Date:	14 Oct 2021 << 4:00 PM - 7:00 PM											
Base Vol:	9	643	17	49	738	22	119	5	28	33	10	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	643	17	49	738	22	119	5	28	33	10	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	643	17	49	738	22	119	5	28	33	10	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	643	17	49	738	22	119	5	28	33	10	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	9	643	17	49	738	22	119	5	28	33	10	75
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	0.95	0.95	0.69	0.69	0.83	0.76	0.77	0.85
Lanes:	1.00	1.95	0.05	1.00	1.94	0.06	0.96	0.04	1.00	0.77	0.23	1.00
Final Sat.:	1805	3503	93	1805	3491	104	1258	53	1579	1113	337	1609
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.18	0.03	0.21	0.21	0.09	0.09	0.02	0.03	0.03	0.05
Crit Moves:	****				****		****					
Green/Cycle:	0.08	0.45	0.45	0.20	0.56	0.56	0.25	0.25	0.25	0.25	0.25	0.25
Volume/Cap:	0.06	0.41	0.41	0.13	0.37	0.37	0.37	0.37	0.07	0.12	0.12	0.18
Uniform Del:	50.7	22.6	22.6	39.3	14.5	14.5	37.0	37.0	34.1	34.5	34.5	35.2
IncrementDel:	0.2	0.2	0.2	0.2	0.1	0.1	0.7	0.7	0.1	0.1	0.1	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	50.8	22.8	22.8	39.4	14.6	14.6	37.7	37.7	34.2	34.7	34.7	35.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.8	22.8	22.8	39.4	14.6	14.6	37.7	37.7	34.2	34.7	34.7	35.4
LOS by Move:	D	C	C	D	B	B	D	D	C	C	C	D
HCM2kAvgQ:	8	214	214	37	199	199	100	100	20	31	31	55
Note: Queue reported is the distance per lane in feet.												

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project AM

Intersection #1: Shoreline Boulevard/Terra Bella Avenue

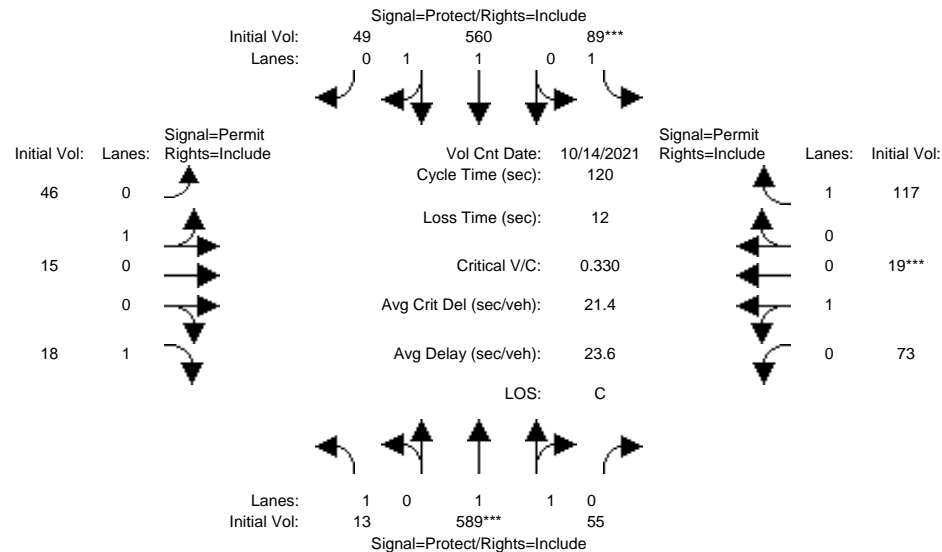


Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6
Volume Module: >> Count Date: 14 Oct 2021 << 7:00-10:00 AM												
Base Vol:	16	621	23	74	530	107	35	17	6	22	21	85
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	621	23	74	530	107	35	17	6	22	21	85
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	0	0	9	11	0	0	0	0	0	1	0	2
Initial Fut:	16	621	32	85	530	107	35	17	6	23	21	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	621	32	85	530	107	35	17	6	23	21	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	621	32	85	530	107	35	17	6	23	21	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	16	621	32	85	530	107	35	17	6	23	21	87
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.93	0.92	0.80	0.80	0.84	0.86	0.86	0.84
Lanes:	1.00	1.90	0.10	1.00	1.66	0.34	0.67	0.33	1.00	0.52	0.48	1.00
Final Sat.:	1805	3409	176	1805	2927	591	1025	498	1587	850	776	1588
Capacity Analysis Module:												
Vol/Sat:	0.01	0.18	0.18	0.05	0.18	0.18	0.03	0.03	0.00	0.03	0.03	0.05
Crit Moves:	****			****								****
Green/Cycle:	0.23	0.58	0.58	0.15	0.50	0.50	0.17	0.17	0.17	0.17	0.17	0.17
Volume/Cap:	0.04	0.32	0.32	0.32	0.36	0.36	0.20	0.20	0.02	0.16	0.16	0.32
Uniform Del:	36.0	13.1	13.1	45.6	18.5	18.5	42.4	42.4	41.1	42.1	42.1	43.4
IncrementDel:	0.0	0.1	0.1	0.7	0.1	0.1	0.4	0.4	0.0	0.3	0.3	0.7
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	36.0	13.2	13.2	46.3	18.6	18.6	42.8	42.8	41.2	42.4	42.4	44.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.0	13.2	13.2	46.3	18.6	18.6	42.8	42.8	41.2	42.4	42.4	44.0
LOS by Move:	D	B	B	D	B	B	D	D	D	D	D	D
HCM2kAvgQ:	11	160	159	75	186	185	43	43	5	36	36	75
Note: Queue reported is the distance per lane in feet.												

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project Midday

Intersection #1: Shoreline Boulevard/Terra Bella Avenue

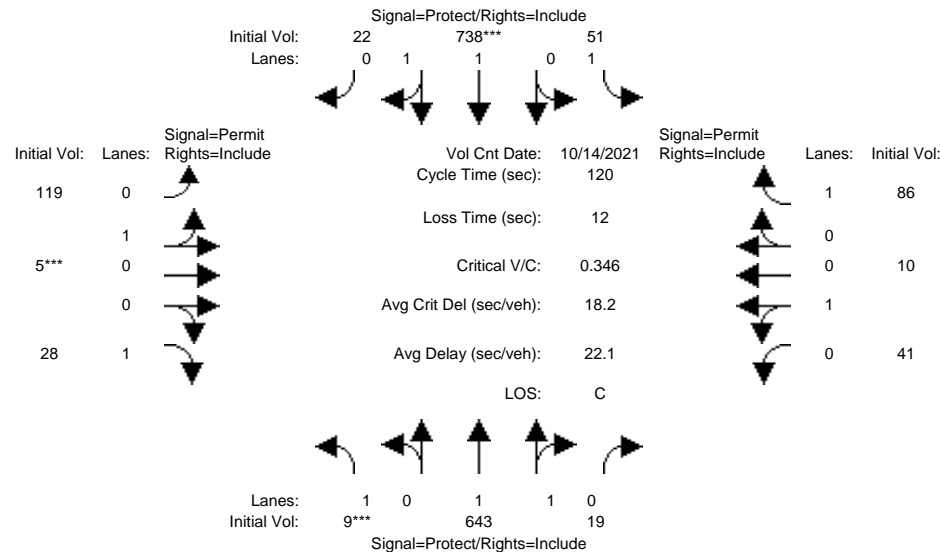


Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6
Volume Module: >> Count Date:	14 Oct 2021 << 11:30 AM - 1:30 PM											
Base Vol:	13	589	54	87	560	49	46	15	18	66	18	108
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	589	54	87	560	49	46	15	18	66	18	108
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	0	0	1	2	0	0	0	0	0	7	1	9
Initial Fut:	13	589	55	89	560	49	46	15	18	73	19	117
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	13	589	55	89	560	49	46	15	18	73	19	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	589	55	89	560	49	46	15	18	73	19	117
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	13	589	55	89	560	49	46	15	18	73	19	117
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.94	0.94	0.75	0.75	0.83	0.72	0.73	0.83
Lanes:	1.00	1.83	0.17	1.00	1.84	0.16	0.76	0.24	1.00	0.79	0.21	1.00
Final Sat.:	1805	3258	304	1805	3279	287	1070	349	1575	1087	283	1575
Capacity Analysis Module:												
Vol/Sat:	0.01	0.18	0.18	0.05	0.17	0.17	0.04	0.04	0.01	0.07	0.07	0.07
Crit Moves:	****			****						****		
Green/Cycle:	0.23	0.55	0.55	0.15	0.47	0.47	0.20	0.20	0.20	0.20	0.20	0.20
Volume/Cap:	0.03	0.33	0.33	0.33	0.36	0.36	0.21	0.21	0.06	0.33	0.33	0.37
Uniform Del:	36.0	15.0	15.0	45.7	20.5	20.5	39.8	39.8	38.5	40.8	40.8	41.1
IncrementDel:	0.0	0.1	0.1	0.7	0.1	0.1	0.4	0.4	0.1	0.7	0.7	0.7
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	36.0	15.1	15.1	46.4	20.6	20.6	40.2	40.2	38.6	41.5	41.5	41.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.0	15.1	15.1	46.4	20.6	20.6	40.2	40.2	38.6	41.5	41.5	41.8
LOS by Move:	D	B	B	D	C	C	D	D	D	D	D	D
HCM2kAvgQ:	9	168	168	78	186	185	49	49	14	77	78	98
Note:	Queue reported is the distance per lane in feet.											

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project PM

Intersection #1: Shoreline Boulevard/Terra Bella Avenue

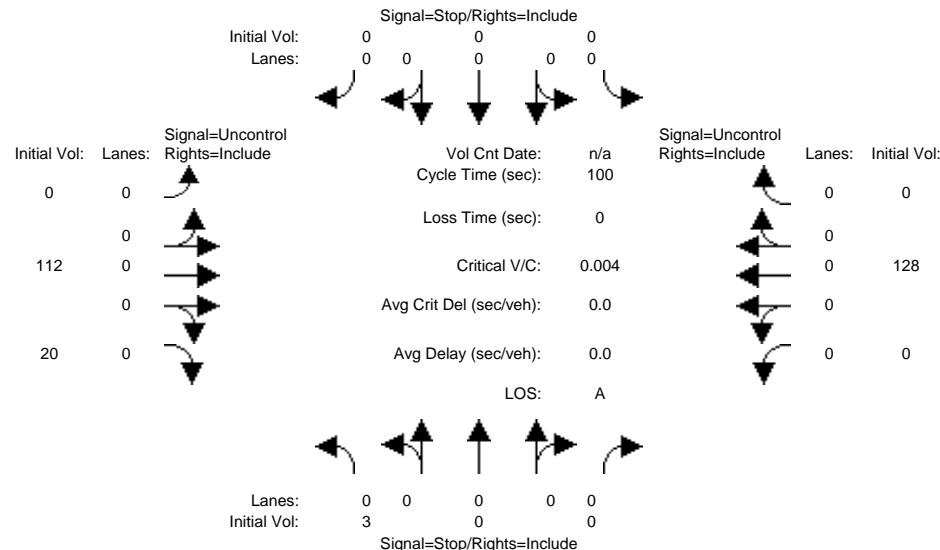


Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6
Volume Module: >> Count Date:	14 Oct 2021 << 4:00 PM - 7:00 PM											
Base Vol:	9	643	17	49	738	22	119	5	28	33	10	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	643	17	49	738	22	119	5	28	33	10	75
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	0	0	2	2	0	0	0	0	0	8	0	11
Initial Fut:	9	643	19	51	738	22	119	5	28	41	10	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	643	19	51	738	22	119	5	28	41	10	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	643	19	51	738	22	119	5	28	41	10	86
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	9	643	19	51	738	22	119	5	28	41	10	86
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	0.95	0.95	0.68	0.69	0.83	0.74	0.74	0.85
Lanes:	1.00	1.94	0.06	1.00	1.94	0.06	0.96	0.04	1.00	0.80	0.20	1.00
Final Sat.:	1805	3492	103	1805	3491	104	1247	52	1579	1129	275	1609
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.18	0.03	0.21	0.21	0.10	0.10	0.02	0.04	0.04	0.05
Crit Moves:	***			***			***					
Green/Cycle:	0.08	0.44	0.44	0.20	0.56	0.56	0.25	0.25	0.25	0.25	0.25	0.25
Volume/Cap:	0.06	0.41	0.41	0.14	0.38	0.38	0.38	0.38	0.07	0.14	0.14	0.21
Uniform Del:	50.7	22.7	22.7	39.4	14.6	14.6	36.9	36.9	34.0	34.6	34.6	35.3
IncrementDel:	0.2	0.2	0.2	0.2	0.1	0.1	0.7	0.7	0.1	0.2	0.2	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	50.8	22.9	22.9	39.6	14.7	14.7	37.6	37.6	34.1	34.8	34.8	35.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.8	22.9	22.9	39.6	14.7	14.7	37.6	37.6	34.1	34.8	34.8	35.5
LOS by Move:	D	C	C	D	B	B	D	D	C	C	C	D
HCM2kAvgQ:	8	215	215	39	200	200	100	100	20	37	37	63
Note: Queue reported is the distance per lane in feet.												

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing plus Project AM

Intersection #2: Terra Bella Avenue/Project Driveway



Street Name:	Project Driveway						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: 7:00 AM-10:00 AM												
Base Vol:	0	0	0	0	0	0	0	112	0	0	128	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	112	0	0	128	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	3	0	0	0	0	0	0	0	20	0	0	0
Initial Fut:	3	0	0	0	0	0	0	112	20	0	128	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	0	0	0	0	0	0	112	20	0	128	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	3	0	0	0	0	0	0	112	20	0	128	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflct Vol:	250	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Potent Cap.:	743	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Move Cap.:	743	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	3 0 0 0	0 0 0 0	0 112 20	0 128 0
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=OVERFLOW]

SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=3]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=263]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	3 0 0 0	0 0 0 0	0 112 20	0 128 0

Major Street Volume: 260

Minor Approach Volume: 3

Minor Approach Volume Threshold: 579

SIGNAL WARRANT DISCLAIMER

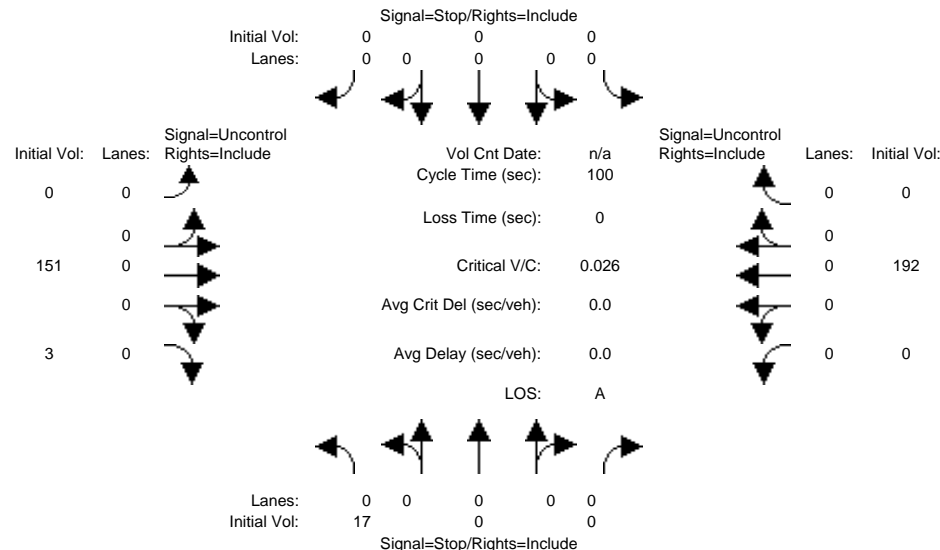
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing plus Project MIDDAY

Intersection #2: Terra Bella Avenue/Project Driveway



Street Name:	Project Driveway						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: 11:30 AM- 1:30 PM												
Base Vol:	0	0	0	0	0	0	0	151	0	0	192	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	151	0	0	192	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	17	0	0	0	0	0	0	0	3	0	0	0
Initial Fut:	17	0	0	0	0	0	0	151	3	0	192	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	0	0	0	0	0	0	151	3	0	192	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	17	0	0	0	0	0	0	151	3	0	192	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflct Vol:	345	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Potent Cap.:	656	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Move Cap.:	656	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxxx			xxxxxxx			xxxxxxx			xxxxxxx		
ApproachLOS:	*			*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	17 0 0 0	0 0 0 0	0 151 3	0 192 0
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=OVERFLOW]

SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=17]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=363]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	17 0 0 0	0 0 0 0	0 151 3	0 192 0

Major Street Volume: 346

Minor Approach Volume: 17

Minor Approach Volume Threshold: 502

SIGNAL WARRANT DISCLAIMER

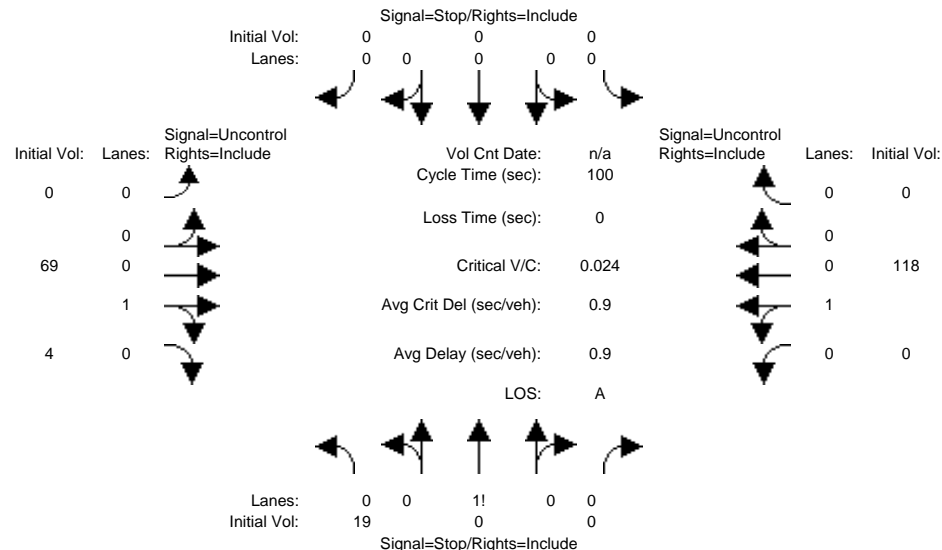
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing plus Project PM

Intersection #2: Terra Bella Avenue/Project Driveway



Street Name:	Project Driveway						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: 4:00 PM - 7:00 PM												
Base Vol:	0	0	0	0	0	0	0	69	0	0	118	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	69	0	0	118	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	19	0	0	0	0	0	0	0	4	0	0	0
Initial Fut:	19	0	0	0	0	0	0	69	4	0	118	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	0	0	0	0	0	0	69	4	0	118	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	19	0	0	0	0	0	0	69	4	0	118	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflct Vol:	189	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Potent Cap.:	805	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Move Cap.:	805	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Volume/Cap:	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	1.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Control Del:	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	9.6											
ApproachLOS:	A											

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	1 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	19 0 0 0	0 0 0 0	0 69 4	0 118 0
ApproachDel:	9.6	xxxxxx	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=19]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=210]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	1 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	19 0 0 0	0 0 0 0	0 69 4	0 118 0

Major Street Volume: 191

Minor Approach Volume: 19

Minor Approach Volume Threshold: 661

SIGNAL WARRANT DISCLAIMER

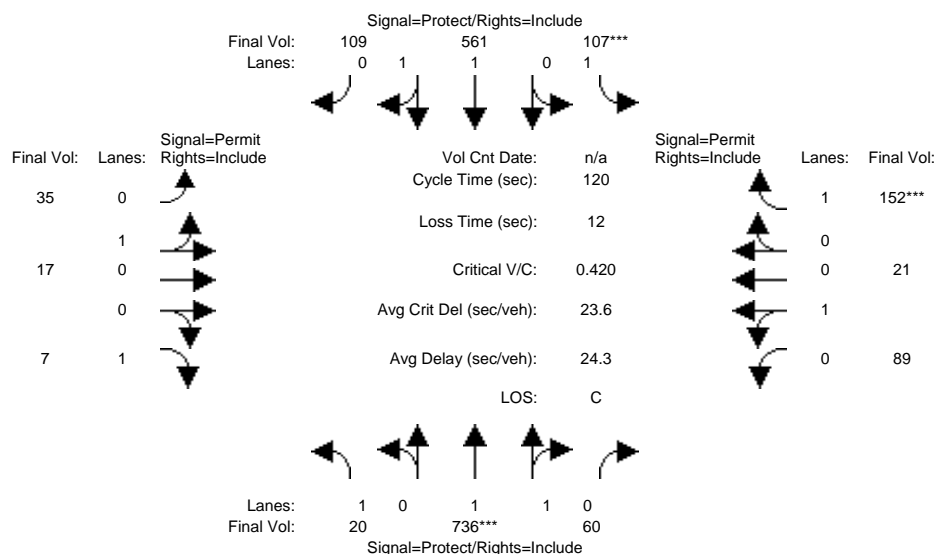
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Background AM

Intersection #1: Shoreline Boulevard/Terra Bella Avenue

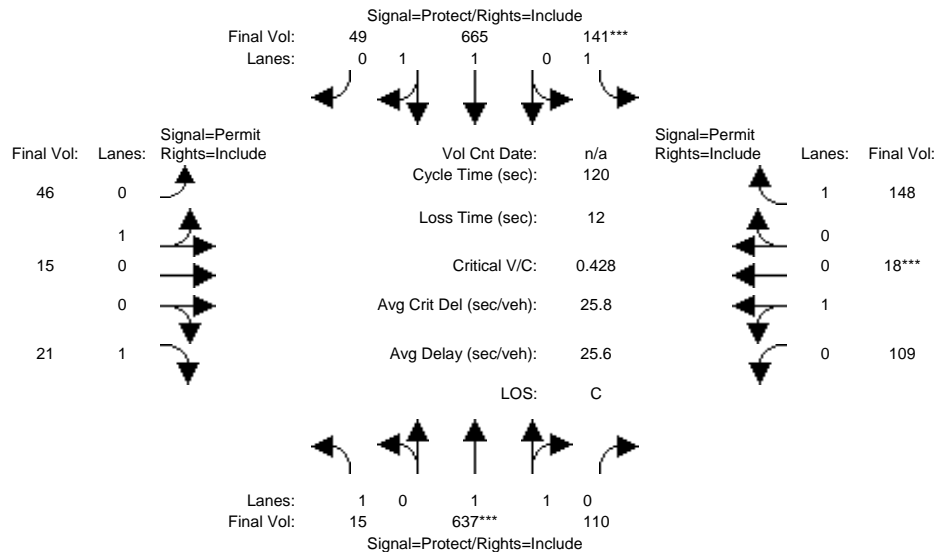


Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6
Volume Module: 7:00-10:00 AM												
Base Vol:	20	736	60	107	561	109	35	17	7	89	21	152
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	736	60	107	561	109	35	17	7	89	21	152
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	736	60	107	561	109	35	17	7	89	21	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	736	60	107	561	109	35	17	7	89	21	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	20	736	60	107	561	109	35	17	7	89	21	152
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.93	0.92	0.78	0.79	0.84	0.72	0.72	0.84
Lanes:	1.00	1.85	0.15	1.00	1.67	0.33	0.67	0.33	1.00	0.81	0.19	1.00
Final Sat.:	1805	3301	269	1805	2949	573	1004	488	1589	1107	261	1590
Capacity Analysis Module:												
Vol/Sat:	0.01	0.22	0.22	0.06	0.19	0.19	0.03	0.03	0.00	0.08	0.08	0.10
Crit Moves:	****			****						****		
Green/Cycle:	0.20	0.53	0.53	0.14	0.47	0.47	0.23	0.23	0.23	0.23	0.23	0.23
Volume/Cap:	0.05	0.42	0.42	0.42	0.41	0.41	0.15	0.15	0.02	0.35	0.35	0.42
Uniform Del:	38.4	17.0	17.0	47.0	21.0	21.0	37.1	37.1	35.9	38.9	38.9	39.6
IncrementDel:	0.1	0.2	0.2	1.1	0.2	0.2	0.2	0.2	0.0	0.7	0.7	0.8
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	38.4	17.1	17.1	48.2	21.2	21.2	37.3	37.3	36.0	39.6	39.6	40.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.4	17.1	17.1	48.2	21.2	21.2	37.3	37.3	36.0	39.6	39.6	40.4
LOS by Move:	D	B	B	D	C	C	D	D	D	D	D	D
HCM2kAvgQ:	15	229	228	99	210	210	39	39	5	90	90	126
Note: Queue reported is the distance per lane in feet.												

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Background MIDDAY

Intersection #1: Shoreline Boulevard/Terra Bella Avenue

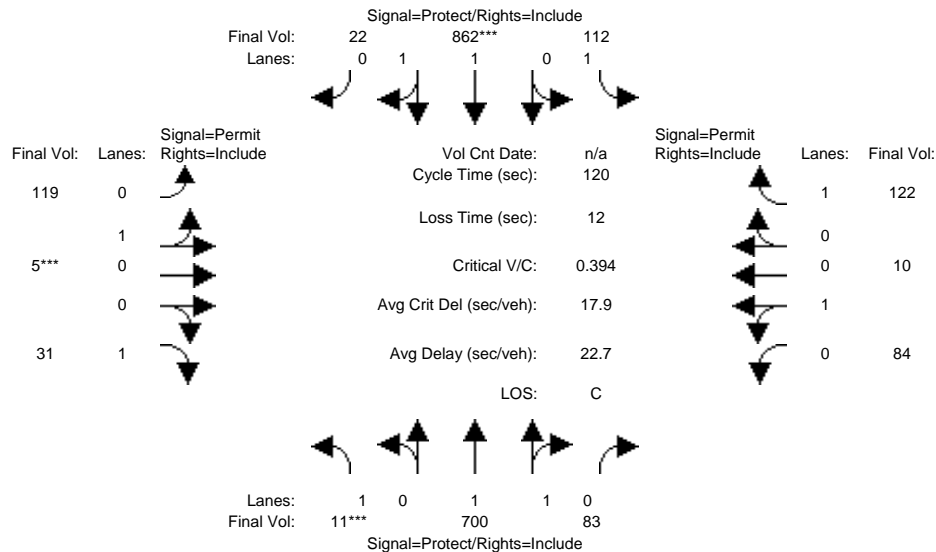


Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6
Volume Module: 11:30 AM-1:30 PM												
Base Vol:	15	637	110	141	665	49	46	15	21	109	18	148
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	637	110	141	665	49	46	15	21	109	18	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	15	637	110	141	665	49	46	15	21	109	18	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	637	110	141	665	49	46	15	21	109	18	148
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	15	637	110	141	665	49	46	15	21	109	18	148
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.92	0.95	0.94	0.94	0.73	0.74	0.83	0.70	0.70	0.83
Lanes:	1.00	1.70	0.30	1.00	1.86	0.14	0.75	0.25	1.00	0.86	0.14	1.00
Final Sat.:	1805	3009	520	1805	3328	245	1054	344	1577	1138	188	1577
Capacity Analysis Module:												
Vol/Sat:	0.01	0.21	0.21	0.08	0.20	0.20	0.04	0.04	0.01	0.10	0.10	0.09
Crit Moves:	****			****						****		
Green/Cycle:	0.20	0.49	0.49	0.18	0.48	0.48	0.22	0.22	0.22	0.22	0.22	0.22
Volume/Cap:	0.04	0.43	0.43	0.43	0.42	0.42	0.20	0.20	0.06	0.43	0.43	0.42
Uniform Del:	38.8	19.5	19.5	43.5	20.5	20.5	37.8	37.8	36.7	40.0	40.0	39.9
Incremental Del:	0.0	0.2	0.2	0.9	0.2	0.2	0.3	0.3	0.1	1.0	1.0	0.8
Init Queue Del:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	38.9	19.6	19.6	44.4	20.6	20.6	38.1	38.1	36.7	41.0	41.0	40.7
User Del Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Del/Veh:	38.9	19.6	19.6	44.4	20.6	20.6	38.1	38.1	36.7	41.0	41.0	40.7
LOS by Move:	D	B	B	D	C	C	D	D	D	D	D	D
HCM2kAvgQ:	11	229	228	122	222	222	47	47	15	109	110	123
Note: Queue reported is the distance per lane in feet.												

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Background PM

Intersection #1: Shoreline Boulevard/Terra Bella Avenue

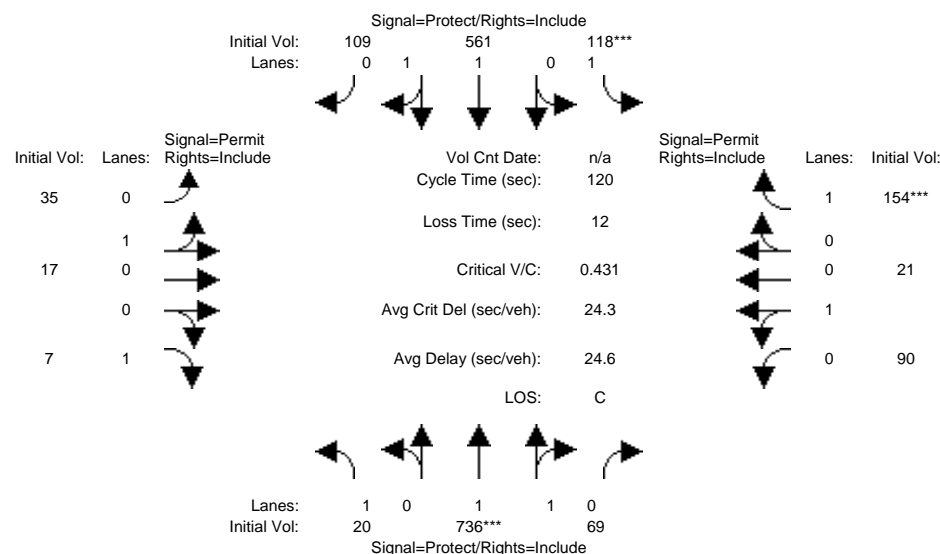


Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6
Volume Module: 4:00-7:00 PM												
Base Vol:	11	700	83	112	862	22	119	5	31	84	10	122
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	700	83	112	862	22	119	5	31	84	10	122
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	700	83	112	862	22	119	5	31	84	10	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	700	83	112	862	22	119	5	31	84	10	122
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	11	700	83	112	862	22	119	5	31	84	10	122
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.95	0.95	0.63	0.64	0.83	0.61	0.61	0.85
Lanes:	1.00	1.79	0.21	1.00	1.95	0.05	0.96	0.04	1.00	0.89	0.11	1.00
Final Sat.:	1805	3175	376	1805	3506	89	1154	49	1578	1032	123	1609
Capacity Analysis Module:												
Vol/Sat:	0.01	0.22	0.22	0.06	0.25	0.25	0.10	0.10	0.02	0.08	0.08	0.08
Crit Moves:	****			****			****					
Green/Cycle:	0.08	0.48	0.48	0.18	0.58	0.58	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.07	0.46	0.46	0.34	0.43	0.43	0.43	0.43	0.08	0.34	0.34	0.31
Uniform Del:	50.7	21.0	21.0	42.9	14.3	14.3	38.5	38.5	35.2	37.6	37.6	37.4
IncrementDel:	0.2	0.2	0.2	0.6	0.1	0.1	1.0	1.0	0.1	0.7	0.7	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	50.9	21.2	21.2	43.6	14.5	14.5	39.5	39.5	35.3	38.3	38.3	37.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.9	21.2	21.2	43.6	14.5	14.5	39.5	39.5	35.3	38.3	38.3	37.8
LOS by Move:	D	C	C	D	B	B	D	D	D	D	D	D
HCM2kAvgQ:	10	251	250	94	237	237	105	106	22	77	78	95
Note: Queue reported is the distance per lane in feet.												

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background plus Project AM

Intersection #1: Shoreline Boulevard/Terra Bella Avenue

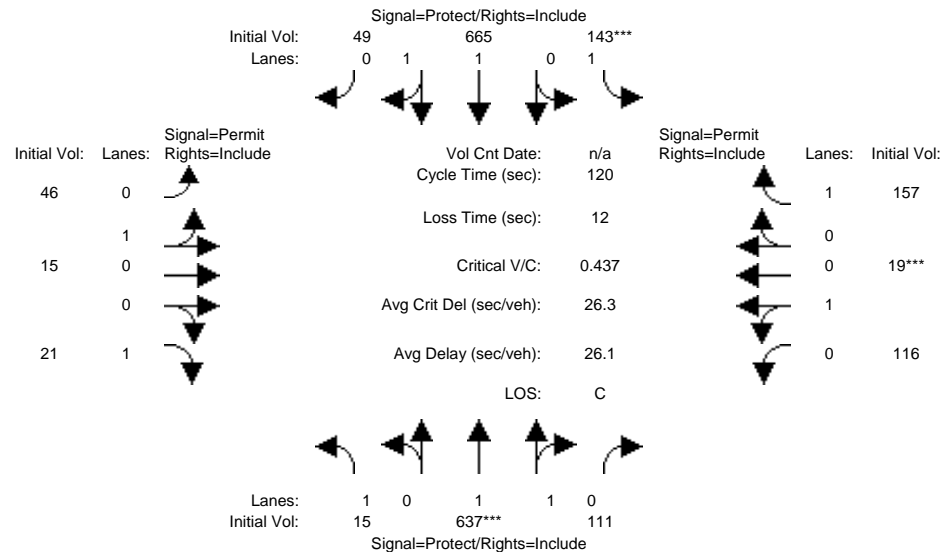


Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6
Volume Module: 7:00-10:00 AM												
Base Vol:	20	736	60	107	561	109	35	17	7	89	21	152
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	736	60	107	561	109	35	17	7	89	21	152
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	0	0	9	11	0	0	0	0	0	1	0	2
Initial Fut:	20	736	69	118	561	109	35	17	7	90	21	154
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	736	69	118	561	109	35	17	7	90	21	154
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	736	69	118	561	109	35	17	7	90	21	154
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	20	736	69	118	561	109	35	17	7	90	21	154
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.93	0.92	0.78	0.78	0.84	0.72	0.72	0.84
Lanes:	1.00	1.83	0.17	1.00	1.67	0.33	0.67	0.33	1.00	0.81	0.19	1.00
Final Sat.:	1805	3257	305	1805	2949	573	1002	486	1589	1110	259	1590
Capacity Analysis Module:												
Vol/Sat:	0.01	0.23	0.23	0.07	0.19	0.19	0.03	0.03	0.00	0.08	0.08	0.10
Crit Moves:	****			****						****		
Green/Cycle:	0.21	0.52	0.52	0.15	0.47	0.47	0.22	0.22	0.22	0.22	0.22	0.22
Volume/Cap:	0.05	0.43	0.43	0.43	0.41	0.41	0.16	0.16	0.02	0.36	0.36	0.43
Uniform Del:	38.3	17.6	17.6	46.2	20.8	20.8	37.4	37.4	36.2	39.3	39.3	39.9
IncrementDel:	0.1	0.2	0.2	1.1	0.2	0.2	0.2	0.2	0.0	0.7	0.7	0.8
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	38.3	17.7	17.7	47.3	21.0	21.0	37.6	37.6	36.3	40.0	40.0	40.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.3	17.7	17.7	47.3	21.0	21.0	37.6	37.6	36.3	40.0	40.0	40.8
LOS by Move:	D	B	B	D	C	C	D	D	D	D	D	D
HCM2kAvgQ:	15	236	235	108	209	209	39	39	5	92	92	129
Note: Queue reported is the distance per lane in feet.												

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background plus Project Midday

Intersection #1: Shoreline Boulevard/Terra Bella Avenue



Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6

Volume Module: 11:30 AM-1:30 PM

Base Vol:	15	637	110	141	665	49	46	15	21	109	18	148
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	637	110	141	665	49	46	15	21	109	18	148
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	0	0	1	2	0	0	0	0	0	7	1	9
Initial Fut:	15	637	111	143	665	49	46	15	21	116	19	157
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	15	637	111	143	665	49	46	15	21	116	19	157
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	637	111	143	665	49	46	15	21	116	19	157
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	15	637	111	143	665	49	46	15	21	116	19	157

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.92	0.95	0.94	0.94	0.73	0.74	0.83	0.70	0.70	0.83
Lanes:	1.00	1.70	0.30	1.00	1.86	0.14	0.75	0.25	1.00	0.86	0.14	1.00
Final Sat.:	1805	3004	524	1805	3328	245	1051	343	1578	1140	187	1577

Capacity Analysis Module:

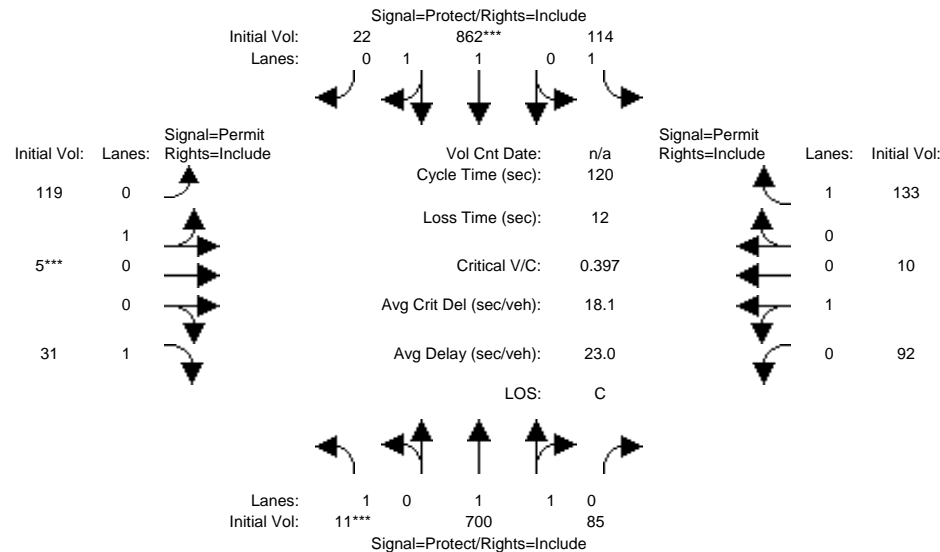
Vol/Sat:	0.01	0.21	0.21	0.08	0.20	0.20	0.04	0.04	0.01	0.10	0.10	0.10
Crit Moves:	****			****			****			****		
Green/Cycle:	0.20	0.49	0.49	0.18	0.47	0.47	0.23	0.23	0.23	0.23	0.23	0.23
Volume/Cap:	0.04	0.44	0.44	0.44	0.42	0.42	0.19	0.19	0.06	0.44	0.44	0.43
Uniform Del:	39.1	20.2	20.2	43.7	21.0	21.0	36.9	36.9	35.8	39.3	39.3	39.2
IncrementDel:	0.0	0.2	0.2	0.9	0.2	0.2	0.3	0.3	0.1	1.0	1.0	0.8
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	39.1	20.3	20.3	44.6	21.2	21.2	37.2	37.2	35.8	40.3	40.3	40.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.1	20.3	20.3	44.6	21.2	21.2	37.2	37.2	35.8	40.3	40.3	40.0
LOS by Move:	D	C	C	D	C	C	D	D	D	D	D	D
HCM2kAvgQ:	11	234	232	125	225	225	46	47	15	115	115	130

Note: Queue reported is the distance per lane in feet.

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background plus Project PM

Intersection #1: Shoreline Boulevard/Terra Bella Avenue



Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6

Volume Module: 4:00-7:00 PM

Base Vol:	11	700	83	112	862	22	119	5	31	84	10	122
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	700	83	112	862	22	119	5	31	84	10	122
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	0	0	2	2	0	0	0	0	0	8	0	11
Initial Fut:	11	700	85	114	862	22	119	5	31	92	10	133
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	700	85	114	862	22	119	5	31	92	10	133
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	700	85	114	862	22	119	5	31	92	10	133
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	11	700	85	114	862	22	119	5	31	92	10	133

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.95	0.95	0.62	0.62	0.83	0.59	0.60	0.85
Lanes:	1.00	1.78	0.22	1.00	1.95	0.05	0.96	0.04	1.00	0.90	0.10	1.00
Final Sat.:	1805	3167	385	1805	3506	89	1129	47	1579	1013	110	1609

Capacity Analysis Module:

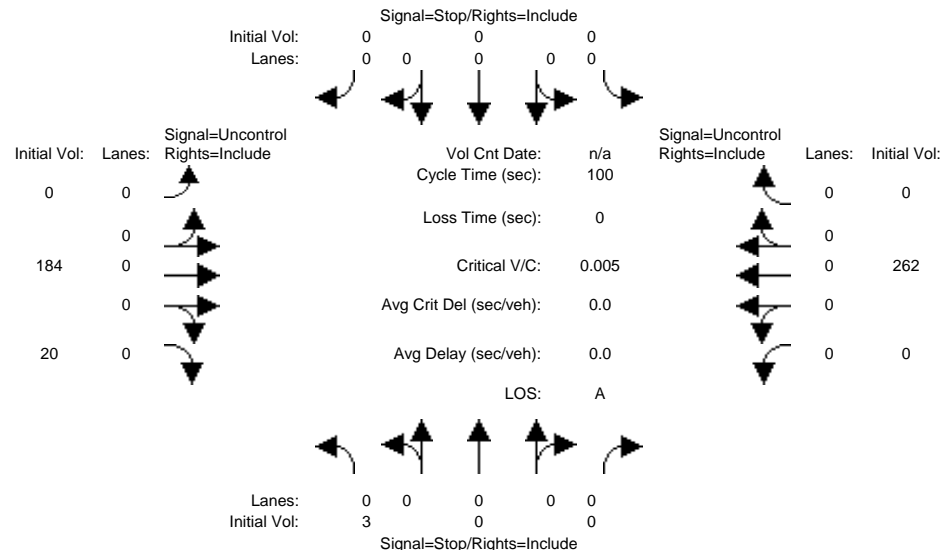
Vol/Sat:	0.01	0.22	0.22	0.06	0.25	0.25	0.11	0.11	0.02	0.09	0.09	0.08
Crit Moves:	***			***			***					
Green/Cycle:	0.08	0.48	0.48	0.18	0.57	0.57	0.25	0.25	0.25	0.25	0.25	0.25
Volume/Cap:	0.07	0.46	0.46	0.35	0.43	0.43	0.43	0.43	0.08	0.37	0.37	0.34
Uniform Del:	50.7	21.2	21.2	43.1	14.6	14.6	38.2	38.2	34.9	37.6	37.6	37.3
IncrementDel:	0.2	0.2	0.2	0.7	0.1	0.1	1.0	1.0	0.1	0.8	0.8	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	50.9	21.4	21.4	43.8	14.7	14.7	39.3	39.3	35.0	38.5	38.5	37.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.9	21.4	21.4	43.8	14.7	14.7	39.3	39.3	35.0	38.5	38.5	37.8
LOS by Move:	D	C	C	D	B	B	D	D	C	D	D	D
HCM2kAvgQ:	10	253	253	97	239	239	105	106	22	85	85	104

Note: Queue reported is the distance per lane in feet.

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background plus Project AM

Intersection #2: Terra Bella Avenue/Project Driveway



Street Name:				Project Driveway				Terra Bella Avenue															
Approach:				North Bound				South Bound				East Bound				West Bound							
Movement:				L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
-----				-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Volume Module:7:00-10:00 AM																							
Base Vol:				0		0		0	0		0		0	0	184		0	0	262		0		0
Growth Adj:				1.00		1.00		1.00	1.00		1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00		1.00
Initial Bse:				0		0		0	0		0		0	184		0	0	262		0		0	
Added Vol:				0		0		0	0		0		0	0		0	0	0		0		0	
Project:				3		0		0	0		0		0	0		20		0	0		0		0
Initial Fut:				3		0		0	0		0		0	184		20		0	262		0		0
User Adj:				1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00		1.00		1.00	
PHF Adj:				1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00		1.00		1.00	
PHF Volume:				3		0		0	0		0		0	184		20		0	262		0		0
Reduct Vol:				0		0		0	0		0		0	0		0	0	0		0		0	
FinalVolume:				3		0		0	0		0		0	184		20		0	262		0		0
-----				-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Critical Gap Module:																							
Critical Gp:				6.4	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
FollowUpTim:				3.5	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
-----				-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Capacity Module:																							
Cnflict Vol:				456	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Potent Cap.:				566	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Move Cap.:				566	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Volume/Cap:				0.01	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
-----				-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Level Of Service Module:																							
2Way95thQ:				xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Control Del:				xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
LOS by Move:				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Movement:				LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:				xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
SharedQueue:				xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shrd ConDel:				xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shared LOS:				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:				xxxxxxx					xxxxxxx					xxxxxxx				xxxxxxx					
ApproachLOS:				*					*				*				*				*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	3 0 0 0	0 0 0 0	0 184 20	0 262 0
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=OVERFLOW]

SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=3]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=469]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	3 0 0 0	0 0 0 0	0 184 20	0 262 0

Major Street Volume: 466

Minor Approach Volume: 3

Minor Approach Volume Threshold: 423

SIGNAL WARRANT DISCLAIMER

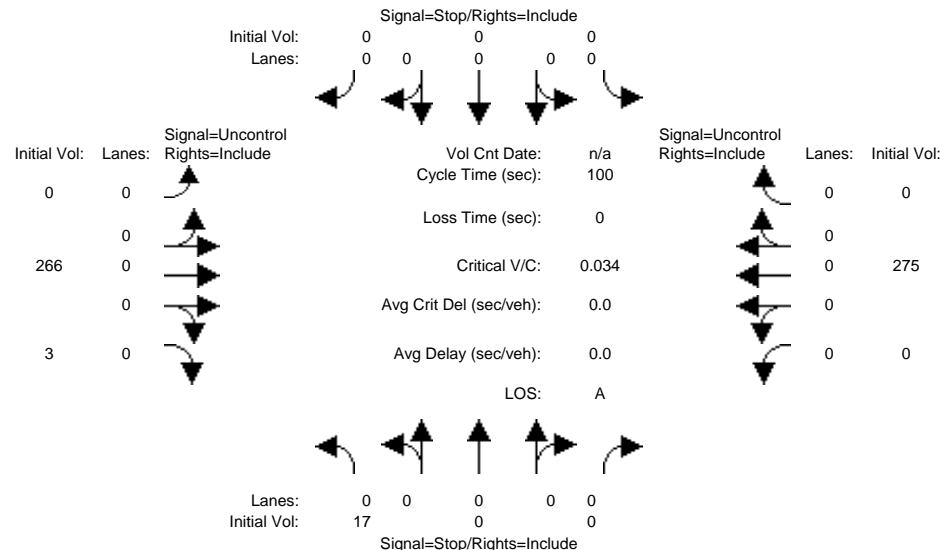
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background plus Project Midday

Intersection #2: Terra Bella Avenue/Project Driveway



Street Name:	Project Driveway						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: 11:30 AM-1:30 PM												
Base Vol:	0	0	0	0	0	0	0	266	0	0	275	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	266	0	0	275	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	17	0	0	0	0	0	0	0	3	0	0	0
Initial Fut:	17	0	0	0	0	0	0	266	3	0	275	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	0	0	0	0	0	0	266	3	0	275	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	17	0	0	0	0	0	0	266	3	0	275	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflct Vol:	543	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Potent Cap.:	505	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Move Cap.:	505	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxxx			xxxxxxx			xxxxxxx			xxxxxxx		
ApproachLOS:	*			*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	17 0 0 0	0 0 0 0	0 266 3	0 275 0
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=OVERFLOW]

SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=17]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=561]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	17 0 0 0	0 0 0 0	0 266 3	0 275 0

Major Street Volume: 544

Minor Approach Volume: 17

Minor Approach Volume Threshold: 382

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background plus Project PM

[illegible]

Street Name:	Project Driveway						Terra Bella Avenue								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Volume Module:4:00-7:00 PM															
Base Vol:	0		0		0	0	0	0	200	0	0	216	0		
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	0		0		0	0	0	0	200	0	0	216	0		
Added Vol:	0		0		0	0	0	0	0	0	0	0	0		
Project:	19		0		0	0	0	0	0	4	0	0	0		
Initial Fut:	19		0		0	0	0	0	200	4	0	216	0		
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	19		0		0	0	0	0	200	4	0	216	0		
Reduct Vol:	0		0		0	0	0	0	0	0	0	0	0		
FinalVolume:	19		0		0	0	0	0	200	4	0	216	0		

Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTIm:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Cnflct Vol:	418	xxxx	xxxxx	xxxx	xxx	xxxxx	xxxx	xxx	xxxxx	xxxx	xxx	xxxxx
Potent Cap.:	595	xxxx	xxxxx	xxxx	xxx	xxxxx	xxxx	xxx	xxxxx	xxxx	xxx	xxxxx
Move Cap.:	595	xxxx	xxxxx	xxxx	xxx	xxxxx	xxxx	xxx	xxxxx	xxxx	xxx	xxxxx
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxx	x	xxxx	xxx	xxxx	xxxx	xxx	xxxx

2Way95thQ:	2.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	11.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR	- RT	LT - LTR	- RT	LT - LTR	- RT	LT - LTR	- RT	LT - LTR	- RT	LT - LTR	- RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	11.2			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

Peak Hour Delay Signal Warrant Report

Licensed to TJKM, PLEASANTON, CA

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	1 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	19 0 0 0	0 0 0 0	0 200 4	0 216 0
ApproachDel:	11.2	xxxxxx	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=19]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=439]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	1 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	19 0 0 0	0 0 0 0	0 200 4	0 216 0

Major Street Volume: 420

Minor Approach Volume: 19

Minor Approach Volume Threshold: 451

SIGNAL WARRANT DISCLAIMER

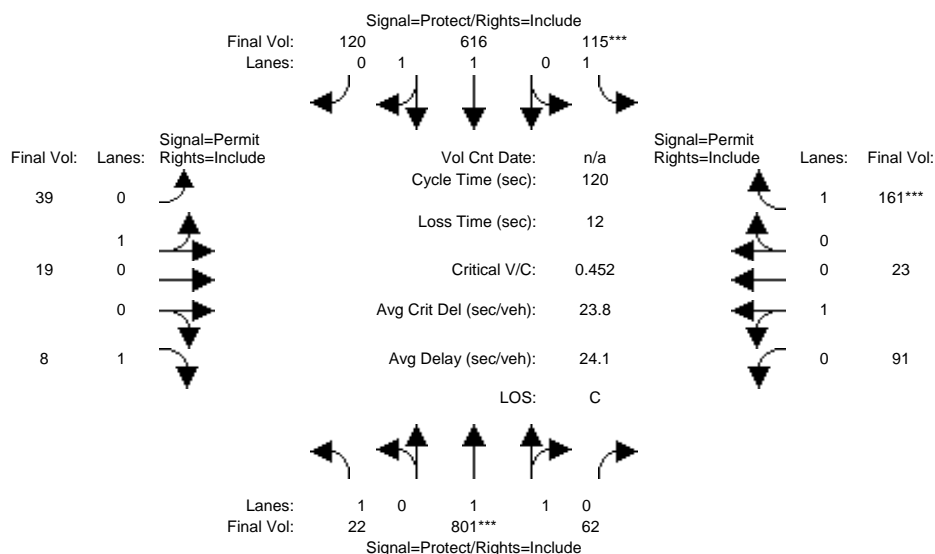
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Cumulative AM

Intersection #1: Shoreline Boulevard/Terra Bella Avenue

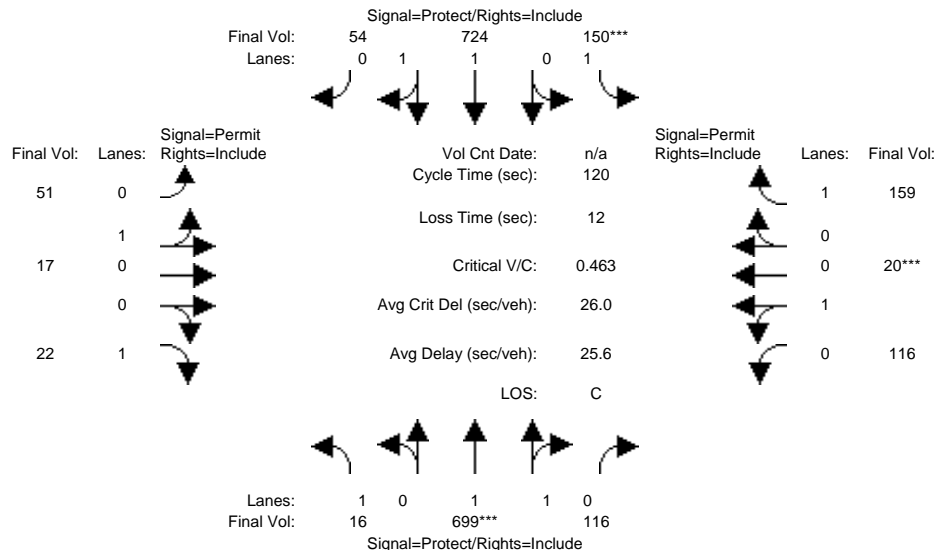


Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6
Volume Module: 7:00-10:00 AM												
Base Vol:	22	801	62	115	616	120	39	19	8	91	23	161
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	801	62	115	616	120	39	19	8	91	23	161
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	22	801	62	115	616	120	39	19	8	91	23	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	801	62	115	616	120	39	19	8	91	23	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	22	801	62	115	616	120	39	19	8	91	23	161
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.93	0.92	0.77	0.78	0.84	0.72	0.72	0.84
Lanes:	1.00	1.86	0.14	1.00	1.67	0.33	0.67	0.33	1.00	0.80	0.20	1.00
Final Sat.:	1805	3313	256	1805	2947	574	989	482	1589	1091	276	1590
Capacity Analysis Module:												
Vol/Sat:	0.01	0.24	0.24	0.06	0.21	0.21	0.04	0.04	0.01	0.08	0.08	0.10
Crit Moves:	****			****			****			****		
Green/Cycle:	0.19	0.53	0.53	0.14	0.48	0.48	0.22	0.22	0.22	0.22	0.22	0.22
Volume/Cap:	0.06	0.45	0.45	0.45	0.43	0.43	0.18	0.18	0.02	0.37	0.37	0.45
Uniform Del:	39.6	17.1	17.1	47.3	20.3	20.3	37.6	37.6	36.3	39.4	39.4	40.2
IncrementDel:	0.1	0.2	0.2	1.3	0.2	0.2	0.3	0.3	0.0	0.8	0.8	0.9
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	39.7	17.3	17.3	48.6	20.4	20.4	37.9	37.9	36.3	40.2	40.2	41.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.7	17.3	17.3	48.6	20.4	20.4	37.9	37.9	36.3	40.2	40.2	41.1
LOS by Move:	D	B	B	D	C	C	D	D	D	D	D	D
HCM2kAvgQ:	17	253	252	108	230	229	44	44	6	95	95	136
Note: Queue reported is the distance per lane in feet.												

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Cumulative Midday

Intersection #1: Shoreline Boulevard/Terra Bella Avenue

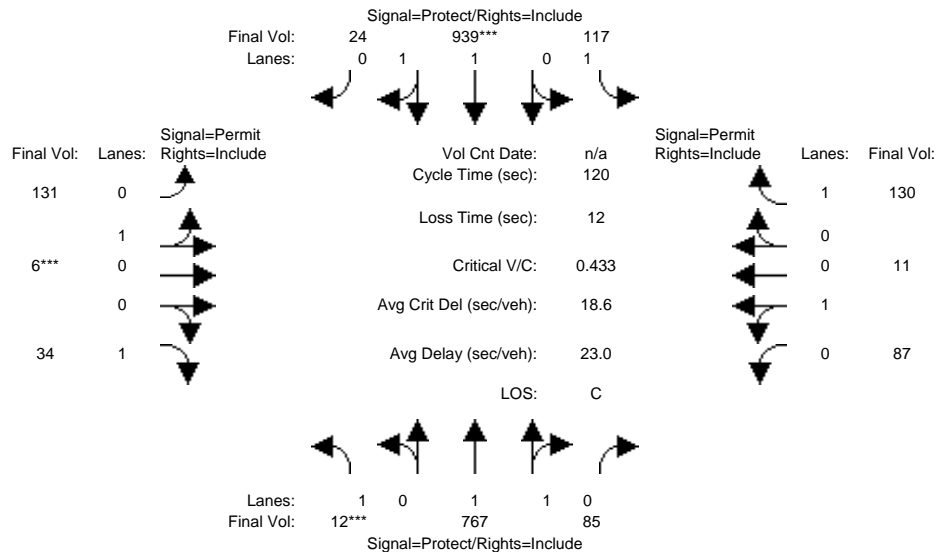


Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6
Volume Module: 11:30 AM-1:30 PM												
Base Vol:	16	699	116	150	724	54	51	17	22	116	20	159
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	699	116	150	724	54	51	17	22	116	20	159
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	699	116	150	724	54	51	17	22	116	20	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	699	116	150	724	54	51	17	22	116	20	159
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	16	699	116	150	724	54	51	17	22	116	20	159
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.94	0.94	0.71	0.71	0.83	0.69	0.70	0.83
Lanes:	1.00	1.71	0.29	1.00	1.86	0.14	0.75	0.25	1.00	0.85	0.15	1.00
Final Sat.:	1805	3029	503	1805	3325	248	1013	338	1575	1127	194	1574
Capacity Analysis Module:												
Vol/Sat:	0.01	0.23	0.23	0.08	0.22	0.22	0.05	0.05	0.01	0.10	0.10	0.10
Crit Moves:	****			****						****		
Green/Cycle:	0.19	0.50	0.50	0.18	0.49	0.49	0.22	0.22	0.22	0.22	0.22	0.22
Volume/Cap:	0.05	0.46	0.46	0.46	0.44	0.44	0.23	0.23	0.06	0.46	0.46	0.45
Uniform Del:	40.0	19.6	19.6	44.1	19.9	19.9	38.2	38.2	36.8	40.5	40.5	40.4
IncrementDel:	0.1	0.2	0.2	1.1	0.2	0.2	0.4	0.4	0.1	1.2	1.2	0.9
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	40.0	19.8	19.8	45.1	20.1	20.1	38.6	38.6	36.9	41.6	41.6	41.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.0	19.8	19.8	45.1	20.1	20.1	38.6	38.6	36.9	41.6	41.6	41.3
LOS by Move:	D	B	B	D	C	C	D	D	D	D	D	D
HCM2kAvgQ:	12	255	253	133	242	242	54	54	16	119	120	135
Note: Queue reported is the distance per lane in feet.												

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Cumulative PM

Intersection #1: Shoreline Boulevard/Terra Bella Avenue

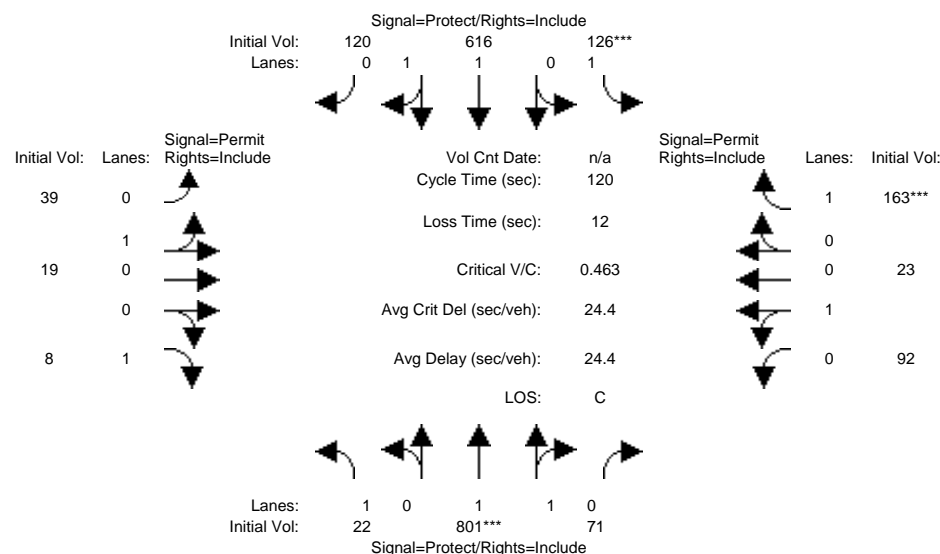


Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6
Volume Module: 4:00-7:00 PM												
Base Vol:	12	767	85	117	939	24	131	6	34	87	11	130
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	767	85	117	939	24	131	6	34	87	11	130
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	767	85	117	939	24	131	6	34	87	11	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	767	85	117	939	24	131	6	34	87	11	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	12	767	85	117	939	24	131	6	34	87	11	130
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.93	0.95	0.95	0.95	0.63	0.63	0.83	0.58	0.59	0.85
Lanes:	1.00	1.80	0.20	1.00	1.95	0.05	0.96	0.04	1.00	0.89	0.11	1.00
Final Sat.:	1805	3200	355	1805	3506	90	1139	52	1577	980	124	1609
Capacity Analysis Module:												
Vol/Sat:	0.01	0.24	0.24	0.06	0.27	0.27	0.11	0.11	0.02	0.09	0.09	0.08
Crit Moves:	****			****			****					
Green/Cycle:	0.08	0.49	0.49	0.17	0.57	0.57	0.25	0.25	0.25	0.25	0.25	0.25
Volume/Cap:	0.08	0.49	0.49	0.38	0.47	0.47	0.47	0.47	0.09	0.36	0.36	0.33
Uniform Del:	50.8	20.9	20.9	44.3	15.1	15.1	38.6	38.6	34.9	37.5	37.5	37.2
Increment Del:	0.2	0.2	0.2	0.8	0.2	0.2	1.2	1.2	0.1	0.8	0.8	0.5
Init Queue Del:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	51.0	21.1	21.1	45.1	15.2	15.2	39.8	39.8	35.0	38.3	38.3	37.7
User Del Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Del/Veh:	51.0	21.1	21.1	45.1	15.2	15.2	39.8	39.8	35.0	38.3	38.3	37.7
LOS by Move:	D	C	C	D	B	B	D	D	D	D	D	D
HCM2kAvgQ:	11	277	276	102	269	269	118	119	24	81	82	101
Note: Queue reported is the distance per lane in feet.												

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative plus Project AM

Intersection #1: Shoreline Boulevard/Terra Bella Avenue

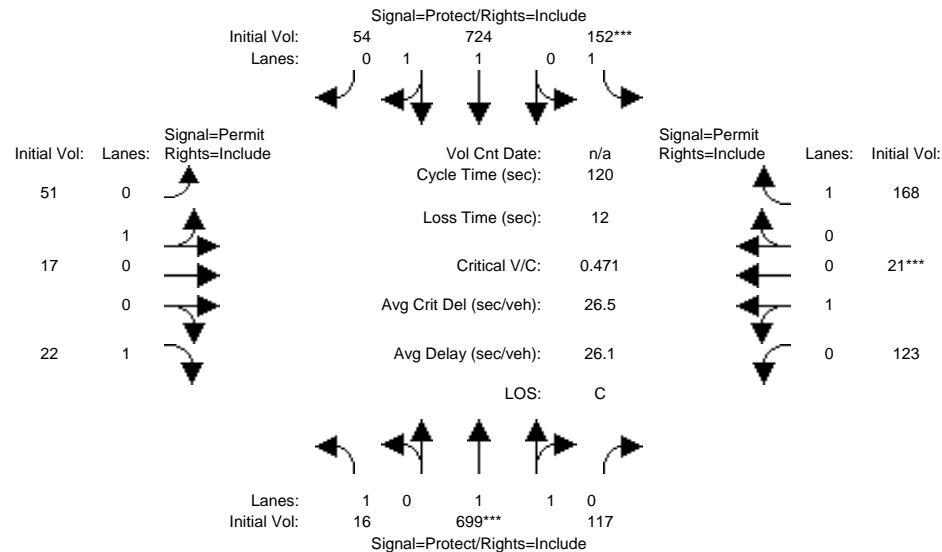


Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6
Volume Module: 7:00-10:00 AM												
Base Vol:	22	801	62	115	616	120	39	19	8	91	23	161
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	801	62	115	616	120	39	19	8	91	23	161
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	0	0	9	11	0	0	0	0	0	1	0	2
Initial Fut:	22	801	71	126	616	120	39	19	8	92	23	163
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	22	801	71	126	616	120	39	19	8	92	23	163
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	801	71	126	616	120	39	19	8	92	23	163
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	22	801	71	126	616	120	39	19	8	92	23	163
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.93	0.92	0.77	0.77	0.84	0.72	0.72	0.84
Lanes:	1.00	1.84	0.16	1.00	1.67	0.33	0.67	0.33	1.00	0.80	0.20	1.00
Final Sat.:	1805	3276	290	1805	2947	574	988	481	1589	1094	273	1590
Capacity Analysis Module:												
Vol/Sat:	0.01	0.24	0.24	0.07	0.21	0.21	0.04	0.04	0.01	0.08	0.08	0.10
Crit Moves:	****			****						****		
Green/Cycle:	0.19	0.53	0.53	0.15	0.49	0.49	0.22	0.22	0.22	0.22	0.22	0.22
Volume/Cap:	0.06	0.46	0.46	0.46	0.43	0.43	0.18	0.18	0.02	0.38	0.38	0.46
Uniform Del:	39.5	17.7	17.7	46.5	20.1	20.1	37.9	37.9	36.6	39.7	39.7	40.5
IncrementDel:	0.1	0.2	0.2	1.2	0.2	0.2	0.3	0.3	0.0	0.8	0.8	1.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	39.6	17.9	17.9	47.8	20.3	20.3	38.1	38.1	36.6	40.5	40.5	41.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.6	17.9	17.9	47.8	20.3	20.3	38.1	38.1	36.6	40.5	40.5	41.5
LOS by Move:	D	B	B	D	C	C	D	D	D	D	D	D
HCM2kAvgQ:	17	260	260	117	229	228	45	45	6	96	96	139
Note: Queue reported is the distance per lane in feet.												

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative plus Project Midday

Intersection #1: Shoreline Boulevard/Terra Bella Avenue



Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6

Volume Module: 11:30 AM-1:30 PM

Base Vol:	16	699	116	150	724	54	51	17	22	116	20	159
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	699	116	150	724	54	51	17	22	116	20	159
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	0	0	1	2	0	0	0	0	0	7	1	9
Initial Fut:	16	699	117	152	724	54	51	17	22	123	21	168
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	699	117	152	724	54	51	17	22	123	21	168
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	699	117	152	724	54	51	17	22	123	21	168
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	16	699	117	152	724	54	51	17	22	123	21	168

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.94	0.94	0.71	0.71	0.83	0.69	0.70	0.83
Lanes:	1.00	1.71	0.29	1.00	1.86	0.14	0.75	0.25	1.00	0.86	0.14	1.00
Final Sat.:	1805	3025	506	1805	3325	248	1008	336	1576	1129	193	1575

Capacity Analysis Module:

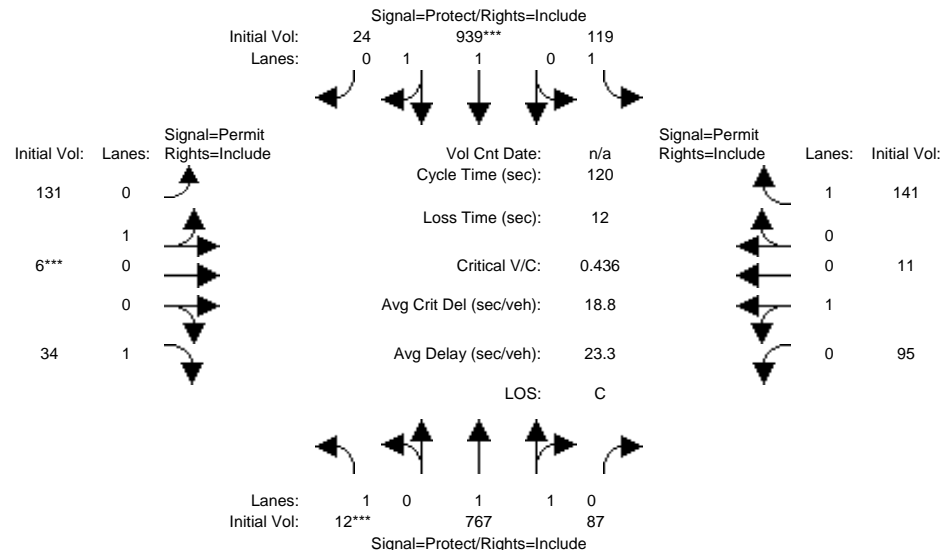
Vol/Sat:	0.01	0.23	0.23	0.08	0.22	0.22	0.05	0.05	0.01	0.11	0.11	0.11
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.19	0.49	0.49	0.18	0.48	0.48	0.23	0.23	0.23	0.23	0.23	0.23
Volume/Cap:	0.05	0.47	0.47	0.47	0.45	0.45	0.22	0.22	0.06	0.47	0.47	0.46
Uniform Del:	40.2	20.3	20.3	44.2	20.4	20.4	37.4	37.4	36.0	39.8	39.8	39.7
IncrementDel:	0.1	0.2	0.2	1.1	0.2	0.2	0.4	0.4	0.1	1.2	1.2	0.9
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	40.3	20.5	20.5	45.3	20.6	20.6	37.7	37.7	36.0	41.0	41.0	40.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.3	20.5	20.5	45.3	20.6	20.6	37.7	37.7	36.0	41.0	41.0	40.6
LOS by Move:	D	C	C	D	C	C	D	D	D	D	D	D
HCM2kAvgQ:	12	259	258	135	245	245	53	53	16	125	126	141

Note: Queue reported is the distance per lane in feet.

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative plus Project PM

Intersection #1: Shoreline Boulevard/Terra Bella Avenue



Street Name:	Shoreline Boulevard						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	5.1	5.1	4.0	5.1	5.1	4.6	4.6	4.6	4.6	4.6	4.6

Volume Module: 4:00-7:00 PM

Base Vol:	12	767	85	117	939	24	131	6	34	87	11	130
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	767	85	117	939	24	131	6	34	87	11	130
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	0	0	2	2	0	0	0	0	0	8	0	11
Initial Fut:	12	767	87	119	939	24	131	6	34	95	11	141
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	767	87	119	939	24	131	6	34	95	11	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	767	87	119	939	24	131	6	34	95	11	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	12	767	87	119	939	24	131	6	34	95	11	141

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.93	0.95	0.95	0.95	0.61	0.62	0.83	0.57	0.57	0.85
Lanes:	1.00	1.80	0.20	1.00	1.95	0.05	0.96	0.04	1.00	0.90	0.10	1.00
Final Sat.:	1805	3193	362	1805	3506	90	1114	51	1577	969	112	1609

Capacity Analysis Module:

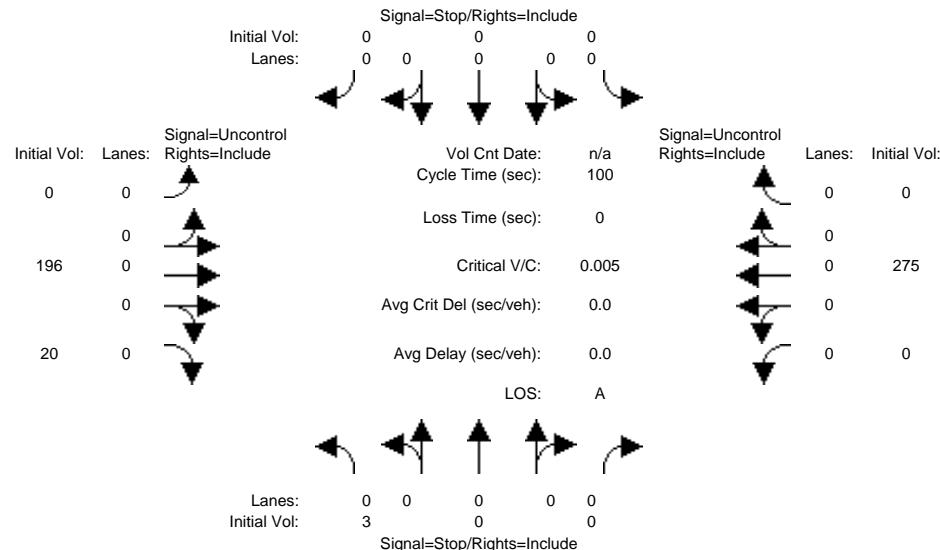
Vol/Sat:	0.01	0.24	0.24	0.07	0.27	0.27	0.12	0.12	0.02	0.10	0.10	0.09
Crit Moves:	***			***			***					
Green/Cycle:	0.08	0.48	0.48	0.17	0.57	0.57	0.25	0.25	0.25	0.25	0.25	0.25
Volume/Cap:	0.08	0.50	0.50	0.39	0.47	0.47	0.47	0.47	0.09	0.39	0.39	0.35
Uniform Del:	50.8	21.1	21.1	44.5	15.3	15.3	38.3	38.3	34.6	37.5	37.5	37.1
IncrementDel:	0.2	0.2	0.2	0.8	0.2	0.2	1.2	1.2	0.1	1.0	1.0	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	51.0	21.3	21.3	45.4	15.5	15.5	39.5	39.5	34.7	38.5	38.5	37.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.0	21.3	21.3	45.4	15.5	15.5	39.5	39.5	34.7	38.5	38.5	37.6
LOS by Move:	D	C	C	D	B	B	D	D	C	D	D	D
HCM2kAvgQ:	11	279	278	104	272	271	119	119	24	89	90	110

Note: Queue reported is the distance per lane in feet.

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative plus Project AM

Intersection #2: Terra Bella Avenue/Project Driveway



Street Name:				Project Driveway				Terra Bella Avenue															
Approach:				North Bound				South Bound				East Bound				West Bound							
Movement:				L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
----- -----				-----				-----				-----				-----							
Volume Module:7:00-10:00 AM																							
Base Vol:				0		0		0	0		0		0	0	196		0	0	275		0		0
Growth Adj:				1.00		1.00		1.00	1.00		1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00		1.00
Initial Bse:				0		0		0	0		0		0	0	196		0	0	275		0		0
Added Vol:				0		0		0	0		0		0	0	0		0	0	0		0		0
Project:				3		0		0	0		0		0	0	0		20	0	0		0		0
Initial Fut:				3		0		0	0		0		0	0	196		20	0	275		0		0
User Adj:				1.00		1.00		1.00	1.00		1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00		1.00
PHF Adj:				1.00		1.00		1.00	1.00		1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00		1.00
PHF Volume:				3		0		0	0		0		0	0	196		20	0	275		0		0
Reduct Vol:				0		0		0	0		0		0	0	0		0	0	0		0		0
FinalVolume:				3		0		0	0		0		0	0	196		20	0	275		0		0
----- -----				-----				-----				-----				-----							
Critical Gap Module:																							
Critical Gp:				6.4	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
FollowUpTim:				3.5	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
----- -----				-----				-----				-----				-----							
Capacity Module:																							
Cnflict Vol:				481	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Potent Cap.:				548	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Move Cap.:				548	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Volume/Cap:				0.01	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
----- -----				-----				-----				-----				-----							
Level Of Service Module:																							
2Way95thQ:				xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Control Del:				xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
LOS by Move:				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Movement:				LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:				xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
SharedQueue:				xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shrd ConDel:				xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shared LOS:				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:				xxxxxx					xxxxxx					xxxxxx				xxxxxx					
ApproachLOS:				*					*				*				*				*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	3 0 0 0	0 0 0 0	0 196 20	0 275 0
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=OVERFLOW]

SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=3]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=494]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	3 0 0 0	0 0 0 0	0 196 20	0 275 0

Major Street Volume: 491

Minor Approach Volume: 3

Minor Approach Volume Threshold: 409

SIGNAL WARRANT DISCLAIMER

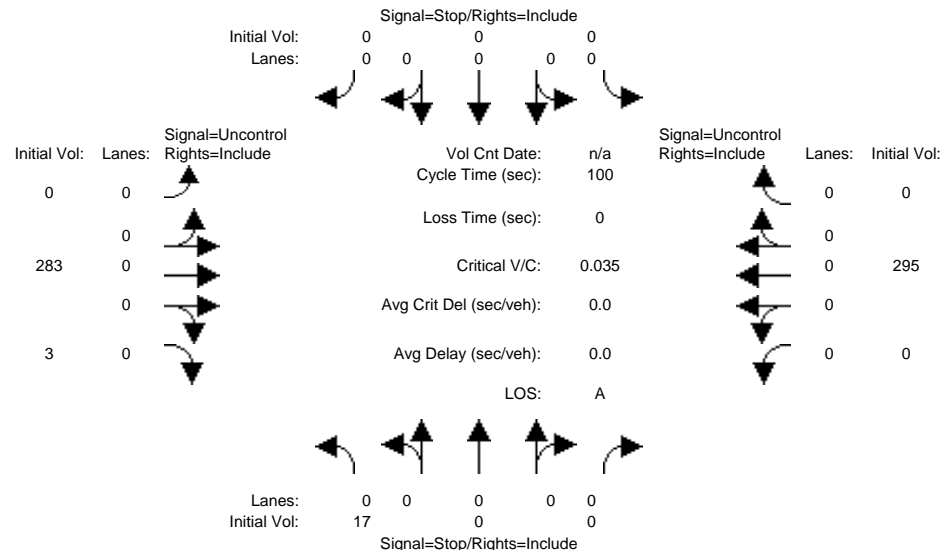
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative plus Project Midday

Intersection #2: Terra Bella Avenue/Project Driveway



Street Name:	Project Driveway						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: 11:30 AM-1:30 PM												
Base Vol:	0	0	0	0	0	0	0	283	0	0	295	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	283	0	0	295	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	17	0	0	0	0	0	0	0	3	0	0	0
Initial Fut:	17	0	0	0	0	0	0	283	3	0	295	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	0	0	0	0	0	0	283	3	0	295	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	17	0	0	0	0	0	0	283	3	0	295	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	580	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Potent Cap.:	480	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Move Cap.:	480	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Volume/Cap:	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxxx			xxxxxxx			xxxxxxx			xxxxxxx		
ApproachLOS:	*			*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	17 0 0 0	0 0 0 0	0 283 3	0 295 0
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=OVERFLOW]

SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=17]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=598]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	17 0 0 0	0 0 0 0	0 283 3	0 295 0

Major Street Volume: 581

Minor Approach Volume: 17

Minor Approach Volume Threshold: 364

SIGNAL WARRANT DISCLAIMER

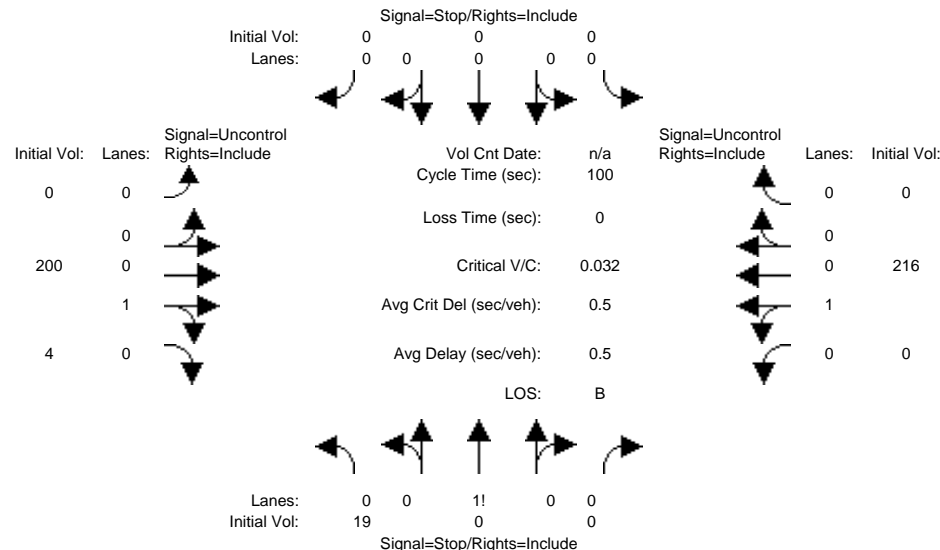
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1155-1185 Terra Bella Avenue MTA Analysis
City of Mountain View, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative plus Project PM

Intersection #2: Terra Bella Avenue/Project Driveway



Street Name:	Project Driveway						Terra Bella Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
----- ----- ----- -----												
Volume Module:4:00-7:00 PM												
Base Vol:	0	0	0	0	0	0	0	200	0	0	216	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	200	0	0	216	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Project:	19	0	0	0	0	0	0	0	4	0	0	0
Initial Fut:	19	0	0	0	0	0	0	200	4	0	216	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	0	0	0	0	0	0	200	4	0	216	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	19	0	0	0	0	0	0	200	4	0	216	0
----- ----- ----- -----												
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
----- ----- ----- -----												
Capacity Module:												
Cnflct Vol:	418	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Potent Cap.:	595	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Move Cap.:	595	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Volume/Cap:	0.03	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
----- ----- ----- -----												
Level Of Service Module:												
2Way95thQ:	2.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Control Del:	11.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	11.2	xxxxxxx			xxxxxxx			xxxxxxx			xxxxxxx	
ApproachLOS:	B	*			*			*			*	

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	1 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	19 0 0 0	0 0 0 0	0 200 4	0 216 0
ApproachDel:	11.2	xxxxxx	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=19]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=439]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Terra Bella Avenue/Project Driveway

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	1 0 0 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0
Initial Vol:	19 0 0 0	0 0 0 0	0 200 4	0 216 0

Major Street Volume: 420

Minor Approach Volume: 19

Minor Approach Volume Threshold: 451

SIGNAL WARRANT DISCLAIMER

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Queues

1: N Shoreline Blvd & Terra Bella Ave

Existing Conditions

Timing Plan: A.M. Peak

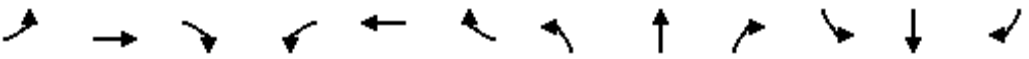
								
Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	52	6	43	85	16	644	74	637
v/c Ratio	0.13	0.01	0.11	0.20	0.05	0.45	0.22	0.33
Control Delay	28.5	0.0	28.5	7.8	36.4	24.8	34.8	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	0.0	28.5	7.8	36.4	24.8	34.8	16.8
Queue Length 50th (ft)	18	0	14	0	5	121	25	78
Queue Length 95th (ft)	64	0	56	35	34	297	102	282
Internal Link Dist (ft)	205		635			687		669
Turn Bay Length (ft)		30		30	75		150	
Base Capacity (vph)	1030	930	1038	931	534	1986	534	1966
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.01	0.04	0.09	0.03	0.32	0.14	0.32
Intersection Summary								

HCM Signalized Intersection Capacity Analysis

1: N Shoreline Blvd & Terra Bella Ave

Existing Conditions

Timing Plan: A.M. Peak









												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔	↔	↔		↔	↔	
Traffic Volume (vph)	35	17	6	22	21	85	16	621	23	74	530	107
Future Volume (vph)	35	17	6	22	21	85	16	621	23	74	530	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.98		1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected		0.97	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1802	1553		1816	1560	1770	3516		1770	3438	
Flt Permitted		0.97	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1802	1553		1816	1560	1770	3516		1770	3438	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	35	17	6	22	21	85	16	621	23	74	530	107
RTOR Reduction (vph)	0	0	5	0	0	73	0	2	0	0	9	0
Lane Group Flow (vph)	0	52	1	0	43	12	16	642	0	74	628	0
Confl. Peds. (#/hr)			1			2			8			
Confl. Bikes (#/hr)			3			1			4			1
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		7.1	7.1		9.8	9.8	1.1	26.6		8.1	33.6	
Effective Green, g (s)		7.1	7.1		9.8	9.8	1.1	26.6		8.1	33.6	
Actuated g/C Ratio		0.10	0.10		0.14	0.14	0.02	0.38		0.12	0.48	
Clearance Time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Vehicle Extension (s)		1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lane Grp Cap (vph)		183	157		254	218	27	1337		205	1652	
v/s Ratio Prot		c0.03			c0.02		0.01	c0.18		c0.04	0.18	
v/s Ratio Perm			0.00			0.01						
v/c Ratio		0.28	0.00		0.17	0.05	0.59	0.48		0.36	0.38	
Uniform Delay, d1		29.0	28.2		26.5	26.0	34.2	16.4		28.5	11.5	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.3	0.0		0.1	0.0	21.0	0.1		0.4	0.1	
Delay (s)		29.4	28.2		26.6	26.1	55.2	16.5		28.9	11.6	
Level of Service		C	C		C	C	E	B		C	B	
Approach Delay (s)		29.2			26.2			17.4			13.4	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			16.8									
HCM 2000 Volume to Capacity ratio			0.38									
Actuated Cycle Length (s)			69.9									
Intersection Capacity Utilization			48.7%									
Analysis Period (min)			15									
c Critical Lane Group												

Queues

1: N Shoreline Blvd & Terra Bella Ave

Existing Conditions

Timing Plan: Midday Peak

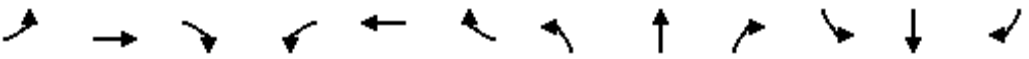
								
Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	61	18	84	108	13	643	87	609
v/c Ratio	0.18	0.05	0.25	0.28	0.05	0.61	0.30	0.40
Control Delay	29.8	0.3	30.6	9.1	36.9	28.4	36.4	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.8	0.3	30.6	9.1	36.9	28.4	36.4	18.6
Queue Length 50th (ft)	21	0	29	0	4	120	30	75
Queue Length 95th (ft)	74	0	95	46	30	301	116	271
Internal Link Dist (ft)	205		635			687		669
Turn Bay Length (ft)		30		30	75		150	
Base Capacity (vph)	868	795	866	802	450	1657	450	1691
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.02	0.10	0.13	0.03	0.39	0.19	0.36
Intersection Summary								

HCM Signalized Intersection Capacity Analysis

1: N Shoreline Blvd & Terra Bella Ave

Existing Conditions

Timing Plan: Midday Peak









												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↱	↰↱		↱	↰↱	
Traffic Volume (vph)	46	15	18	66	18	108	13	589	54	87	560	49
Future Volume (vph)	46	15	18	66	18	108	13	589	54	87	560	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.98		1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected		0.96	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1795	1552		1792	1549	1770	3483		1770	3490	
Flt Permitted		0.96	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1795	1552		1792	1549	1770	3483		1770	3490	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	46	15	18	66	18	108	13	589	54	87	560	49
RTOR Reduction (vph)	0	0	16	0	0	88	0	5	0	0	4	0
Lane Group Flow (vph)	0	61	2	0	84	20	13	638	0	87	605	0
Confl. Peds. (#/hr)			8			6			8			1
Confl. Bikes (#/hr)			1			4			6			1
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		10.0	10.0		13.3	13.3	1.2	23.7		8.2	30.7	
Effective Green, g (s)		10.0	10.0		13.3	13.3	1.2	23.7		8.2	30.7	
Actuated g/C Ratio		0.14	0.14		0.18	0.18	0.02	0.32		0.11	0.42	
Clearance Time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Vehicle Extension (s)		1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lane Grp Cap (vph)		244	211		324	280	28	1123		197	1457	
v/s Ratio Prot		c0.03			c0.05		0.01	c0.18		c0.05	0.17	
v/s Ratio Perm			0.00			0.01						
v/c Ratio		0.25	0.01		0.26	0.07	0.46	0.57		0.44	0.42	
Uniform Delay, d1		28.4	27.5		25.9	25.0	35.8	20.7		30.5	15.1	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2	0.0		0.2	0.0	4.4	0.4		0.6	0.1	
Delay (s)		28.6	27.5		26.0	25.0	40.2	21.1		31.1	15.1	
Level of Service		C	C		C	C	D	C		C	B	
Approach Delay (s)		28.3			25.5			21.4			17.1	
Approach LOS		C			C			C			B	
Intersection Summary												
HCM 2000 Control Delay			20.4									
HCM 2000 Volume to Capacity ratio			0.42									
Actuated Cycle Length (s)			73.5									
Intersection Capacity Utilization			53.5%									
Analysis Period (min)			15									
c Critical Lane Group												

Queues

1: N Shoreline Blvd & Terra Bella Ave

Existing Conditions

Timing Plan: P.M. Peak


								
Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	124	28	43	75	9	660	49	760
v/c Ratio	0.32	0.07	0.11	0.18	0.03	0.46	0.15	0.43
Control Delay	30.3	0.3	28.3	6.2	36.3	24.6	35.2	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	0.3	28.3	6.2	36.3	24.6	35.2	19.9
Queue Length 50th (ft)	44	0	15	0	3	125	17	100
Queue Length 95th (ft)	128	0	55	27	23	298	75	352
Internal Link Dist (ft)	205		635			687		669
Turn Bay Length (ft)		30		30	75		150	
Base Capacity (vph)	1008	917	1018	924	530	1974	530	1990
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.03	0.04	0.08	0.02	0.33	0.09	0.38
Intersection Summary								

HCM Signalized Intersection Capacity Analysis

1: N Shoreline Blvd & Terra Bella Ave

Existing Conditions

Timing Plan: P.M. Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶	↷		↶	↷	↷	↶↷		↷	↶↷	
Traffic Volume (vph)	119	5	28	33	10	75	9	643	17	49	738	22
Future Volume (vph)	119	5	28	33	10	75	9	643	17	49	738	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.98		1.00	0.99	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		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		1.00	1.00	
Flt Protected		0.95	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1777	1553		1794	1561	1770	3523		1770	3521	
Flt Permitted		0.95	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1777	1553		1794	1561	1770	3523		1770	3521	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	119	5	28	33	10	75	9	643	17	49	738	22
RTOR Reduction (vph)	0	0	24	0	0	64	0	1	0	0	1	0
Lane Group Flow (vph)	0	124	4	0	43	11	9	659	0	49	759	0
Confl. Peds. (#/hr)			8			3			6			4
Confl. Bikes (#/hr)			1						1			2
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		9.8	9.8		9.8	9.8	1.1	25.8		5.1	29.8	
Effective Green, g (s)		9.8	9.8		9.8	9.8	1.1	25.8		5.1	29.8	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.02	0.38		0.07	0.43	
Clearance Time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Vehicle Extension (s)		1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lane Grp Cap (vph)		253	221		255	222	28	1321		131	1525	
v/s Ratio Prot		c0.07			c0.02		0.01	0.19		c0.03	c0.22	
v/s Ratio Perm			0.00			0.01						
v/c Ratio		0.49	0.02		0.17	0.05	0.32	0.50		0.37	0.50	
Uniform Delay, d1		27.2	25.4		25.9	25.5	33.5	16.5		30.3	14.1	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5	0.0		0.1	0.0	2.4	0.1		0.7	0.1	
Delay (s)		27.7	25.4		26.0	25.5	35.9	16.6		31.0	14.2	
Level of Service		C	C		C	C	D	B		C	B	
Approach Delay (s)		27.3			25.7			16.9			15.2	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			17.6									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.44									
Actuated Cycle Length (s)			68.8									Sum of lost time (s) 18.3
Intersection Capacity Utilization			56.7%									ICU Level of Service B
Analysis Period (min)			15									









c Critical Lane Group

Queues

1: N Shoreline Blvd & Terra Bella Ave

Existing plus Project Conditions

Timing Plan: A.M. Peak





















								
Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	52	6	44	87	16	653	85	637
v/c Ratio	0.13	0.01	0.11	0.21	0.05	0.46	0.25	0.33
Control Delay	28.8	0.0	28.8	8.1	36.6	25.0	34.9	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.8	0.0	28.8	8.1	36.6	25.0	34.9	16.6
Queue Length 50th (ft)	18	0	15	0	5	123	29	78
Queue Length 95th (ft)	65	0	57	37	34	305	113	281
Internal Link Dist (ft)	205		635			687		669
Turn Bay Length (ft)		30		30	75		150	
Base Capacity (vph)	1026	928	1035	928	533	1974	533	1970
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.01	0.04	0.09	0.03	0.33	0.16	0.32
Intersection Summary								

HCM Signalized Intersection Capacity Analysis

1: N Shoreline Blvd & Terra Bella Ave

Existing plus Project Conditions

Timing Plan: A.M. Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	17	6	23	21	87	16	621	32	85	530	107
Future Volume (vph)	35	17	6	23	21	87	16	621	32	85	530	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.98		1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected		0.97	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1802	1553		1815	1559	1770	3507		1770	3438	
Flt Permitted		0.97	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1802	1553		1815	1559	1770	3507		1770	3438	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	35	17	6	23	21	87	16	621	32	85	530	107
RTOR Reduction (vph)	0	0	5	0	0	75	0	2	0	0	9	0
Lane Group Flow (vph)	0	52	1	0	44	12	16	651	0	85	628	0
Confl. Peds. (#/hr)			1			2			8			
Confl. Bikes (#/hr)			3			1			4			1
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		7.1	7.1		9.8	9.8	1.1	26.8		8.2	33.9	
Effective Green, g (s)		7.1	7.1		9.8	9.8	1.1	26.8		8.2	33.9	
Actuated g/C Ratio		0.10	0.10		0.14	0.14	0.02	0.38		0.12	0.48	
Clearance Time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Vehicle Extension (s)		1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lane Grp Cap (vph)		182	157		253	217	27	1338		206	1660	
v/s Ratio Prot		c0.03			c0.02		0.01	c0.19		c0.05	0.18	
v/s Ratio Perm			0.00			0.01						
v/c Ratio		0.29	0.00		0.17	0.06	0.59	0.49		0.41	0.38	
Uniform Delay, d1		29.2	28.4		26.6	26.2	34.3	16.5		28.8	11.5	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.3	0.0		0.1	0.0	21.0	0.1		0.5	0.1	
Delay (s)		29.5	28.4		26.8	26.2	55.4	16.6		29.3	11.5	
Level of Service		C	C		C	C	E	B		C	B	
Approach Delay (s)		29.4			26.4			17.5			13.6	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			16.9		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.39									
Actuated Cycle Length (s)			70.2		Sum of lost time (s)					18.3		
Intersection Capacity Utilization			48.9%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												









c Critical Lane Group

Queues

1: N Shoreline Blvd & Terra Bella Ave

Existing plus Project Conditions

Timing Plan: Midday Peak























								
Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	61	18	92	117	13	644	89	609
v/c Ratio	0.18	0.05	0.27	0.30	0.05	0.63	0.30	0.40
Control Delay	29.8	0.2	30.9	10.8	37.0	28.8	36.4	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.8	0.2	30.9	10.8	37.0	28.8	36.4	18.6
Queue Length 50th (ft)	21	0	32	4	4	121	31	75
Queue Length 95th (ft)	74	0	103	54	30	302	118	270
Internal Link Dist (ft)	205		635			687		669
Turn Bay Length (ft)		30		30	75		150	
Base Capacity (vph)	889	812	887	819	461	1698	461	1735
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.02	0.10	0.14	0.03	0.38	0.19	0.35
Intersection Summary								

HCM Signalized Intersection Capacity Analysis

1: N Shoreline Blvd & Terra Bella Ave

Existing plus Project Conditions

Timing Plan: Midday Peak









												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	15	18	73	19	117	13	589	55	89	560	49
Future Volume (vph)	46	15	18	73	19	117	13	589	55	89	560	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.98		1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected		0.96	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1795	1552		1792	1550	1770	3482		1770	3490	
Flt Permitted		0.96	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1795	1552		1792	1550	1770	3482		1770	3490	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	46	15	18	73	19	117	13	589	55	89	560	49
RTOR Reduction (vph)	0	0	16	0	0	86	0	5	0	0	4	0
Lane Group Flow (vph)	0	61	2	0	92	31	13	639	0	89	605	0
Confl. Peds. (#/hr)			8			6			8			1
Confl. Bikes (#/hr)			1			4			6			1
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		9.9	9.9		13.4	13.4	1.2	22.9		8.2	29.9	
Effective Green, g (s)		9.9	9.9		13.4	13.4	1.2	22.9		8.2	29.9	
Actuated g/C Ratio		0.14	0.14		0.18	0.18	0.02	0.31		0.11	0.41	
Clearance Time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Vehicle Extension (s)		1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lane Grp Cap (vph)		244	211		330	285	29	1096		199	1435	
v/s Ratio Prot		c0.03			c0.05		0.01	c0.18		c0.05	0.17	
v/s Ratio Perm			0.00			0.02						
v/c Ratio		0.25	0.01		0.28	0.11	0.45	0.58		0.45	0.42	
Uniform Delay, d1		28.1	27.2		25.5	24.7	35.4	20.9		30.1	15.2	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2	0.0		0.2	0.1	4.0	0.5		0.6	0.1	
Delay (s)		28.3	27.2		25.7	24.7	39.4	21.4		30.7	15.3	
Level of Service		C	C		C	C	D	C		C	B	
Approach Delay (s)		28.0			25.1			21.8			17.3	
Approach LOS		C			C			C			B	
Intersection Summary												
HCM 2000 Control Delay			20.6		HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio			0.43									
Actuated Cycle Length (s)			72.7		Sum of lost time (s)					18.3		
Intersection Capacity Utilization			53.6%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

Queues

1: N Shoreline Blvd & Terra Bella Ave

Existing plus Project Conditions

Timing Plan: P.M. Peak


								
Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	124	28	51	86	9	662	51	760
v/c Ratio	0.32	0.07	0.13	0.21	0.03	0.46	0.15	0.43
Control Delay	30.3	0.3	28.4	7.9	36.3	24.6	35.2	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	0.3	28.4	7.9	36.3	24.6	35.2	19.9
Queue Length 50th (ft)	44	0	17	0	3	125	17	100
Queue Length 95th (ft)	128	0	62	36	23	300	76	352
Internal Link Dist (ft)	205		635			687		669
Turn Bay Length (ft)		30		30	75		150	
Base Capacity (vph)	1008	917	1015	924	530	1973	530	1990
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.03	0.05	0.09	0.02	0.34	0.10	0.38
Intersection Summary								

HCM Signalized Intersection Capacity Analysis

1: N Shoreline Blvd & Terra Bella Ave

Existing plus Project Conditions

Timing Plan: P.M. Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶	↷		↶	↷	↶	↶↷		↶	↶↷	
Traffic Volume (vph)	119	5	28	41	10	86	9	643	19	51	738	22
Future Volume (vph)	119	5	28	41	10	86	9	643	19	51	738	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.98		1.00	0.99	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		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		1.00	1.00	
Flt Protected		0.95	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1777	1553		1791	1561	1770	3521		1770	3521	
Flt Permitted		0.95	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1777	1553		1791	1561	1770	3521		1770	3521	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	119	5	28	41	10	86	9	643	19	51	738	22
RTOR Reduction (vph)	0	0	24	0	0	74	0	1	0	0	1	0
Lane Group Flow (vph)	0	124	4	0	51	12	9	661	0	51	759	0
Confl. Peds. (#/hr)			8			3			6			4
Confl. Bikes (#/hr)			1						1			2
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		9.8	9.8		9.8	9.8	1.1	25.8		5.1	29.8	
Effective Green, g (s)		9.8	9.8		9.8	9.8	1.1	25.8		5.1	29.8	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.02	0.38		0.07	0.43	
Clearance Time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Vehicle Extension (s)		1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lane Grp Cap (vph)		253	221		255	222	28	1320		131	1525	
v/s Ratio Prot		c0.07			c0.03		0.01	0.19		c0.03	c0.22	
v/s Ratio Perm			0.00			0.01						
v/c Ratio		0.49	0.02		0.20	0.06	0.32	0.50		0.39	0.50	
Uniform Delay, d1		27.2	25.4		26.0	25.5	33.5	16.5		30.4	14.1	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5	0.0		0.1	0.0	2.4	0.1		0.7	0.1	
Delay (s)		27.7	25.4		26.2	25.5	35.9	16.7		31.1	14.2	
Level of Service		C	C		C	C	D	B		C	B	
Approach Delay (s)		27.3			25.8			16.9			15.2	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			17.7									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.45									
Actuated Cycle Length (s)			68.8									Sum of lost time (s) 18.3
Intersection Capacity Utilization			56.7%									ICU Level of Service B
Analysis Period (min)			15									

c Critical Lane Group

Queues

1: N Shoreline Blvd & Terra Bella Ave

Cumulative Conditions

Timing Plan: A.M. Peak



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	58	8	114	161	22	863	115	736
v/c Ratio	0.19	0.02	0.37	0.44	0.09	0.65	0.43	0.46
Control Delay	34.1	0.1	37.2	16.0	40.2	28.0	42.7	20.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.1	0.1	37.2	16.0	40.2	28.0	42.7	20.1
Queue Length 50th (ft)	25	0	50	18	9	176	50	94
Queue Length 95th (ft)	73	0	126	87	43	#491	146	332
Internal Link Dist (ft)	205		635			687		669
Turn Bay Length (ft)		30		30	75		150	
Base Capacity (vph)	769	718	765	733	397	1468	397	1683
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.01	0.15	0.22	0.06	0.59	0.29	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.


Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

1: N Shoreline Blvd & Terra Bella Ave

Cumulative Conditions

Timing Plan: A.M. Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↱	↰↱		↱	↰↱	
Traffic Volume (vph)	39	19	8	91	23	161	22	801	62	115	616	120
Future Volume (vph)	39	19	8	91	23	161	22	801	62	115	616	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.98		1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.98	
Flt Protected		0.97	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1802	1554		1791	1559	1770	3491		1770	3441	
Flt Permitted		0.97	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1802	1554		1791	1559	1770	3491		1770	3441	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	39	19	8	91	23	161	22	801	62	115	616	120
RTOR Reduction (vph)	0	0	7	0	0	99	0	4	0	0	9	0
Lane Group Flow (vph)	0	58	1	0	114	62	22	859	0	115	727	0
Confl. Peds. (#/hr)			1			2			9			
Confl. Bikes (#/hr)			3			1			4			1
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		9.9	9.9		13.3	13.3	3.4	31.3		8.3	36.2	
Effective Green, g (s)		9.9	9.9		13.3	13.3	3.4	31.3		8.3	36.2	
Actuated g/C Ratio		0.12	0.12		0.16	0.16	0.04	0.39		0.10	0.45	
Clearance Time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Vehicle Extension (s)		1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lane Grp Cap (vph)		219	189		293	255	74	1347		181	1535	
v/s Ratio Prot		c0.03			c0.06		0.01	c0.25		c0.06	0.21	
v/s Ratio Perm			0.00			0.04						
v/c Ratio		0.26	0.01		0.39	0.24	0.30	0.64		0.64	0.47	
Uniform Delay, d1		32.3	31.3		30.3	29.5	37.7	20.3		34.9	15.8	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2	0.0		0.3	0.2	0.8	0.7		5.3	0.1	
Delay (s)		32.5	31.3		30.6	29.7	38.5	21.0		40.2	15.8	
Level of Service		C	C		C	C	D	C		D	B	
Approach Delay (s)		32.4			30.1			21.5			19.1	
Approach LOS		C			C			C			B	
Intersection Summary												
HCM 2000 Control Delay			22.0									
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			81.1									
Intersection Capacity Utilization			57.5%									
Analysis Period (min)			15									
c Critical Lane Group												

Queues

1: N Shoreline Blvd & Terra Bella Ave

Cumulative Conditions

Timing Plan: Midday Peak



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	68	22	136	159	16	815	150	778
v/c Ratio	0.23	0.07	0.45	0.46	0.07	0.74	0.55	0.44
Control Delay	34.7	0.4	38.2	19.6	40.9	31.4	45.1	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.7	0.4	38.2	19.6	40.9	31.4	45.1	18.2
Queue Length 50th (ft)	28	0	58	25	6	163	65	102
Queue Length 95th (ft)	82	0	148	101	35	#448	184	357
Internal Link Dist (ft)	205		635			687		669
Turn Bay Length (ft)		30		30	75		150	
Base Capacity (vph)	748	697	744	700	388	1417	388	1755
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.03	0.18	0.23	0.04	0.58	0.39	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.


Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

1: N Shoreline Blvd & Terra Bella Ave

Cumulative Conditions

Timing Plan: Midday Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶	↷		↶	↷	↷	↶↷		↷	↶↷	
Traffic Volume (vph)	51	17	22	116	20	159	16	699	116	150	724	54
Future Volume (vph)	51	17	22	116	20	159	16	699	116	150	724	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.98		1.00	0.98	1.00	0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.98		1.00	0.99	
Flt Protected		0.96	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1795	1549		1787	1546	1770	3443		1770	3497	
Flt Permitted		0.96	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1795	1549		1787	1546	1770	3443		1770	3497	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	17	22	116	20	159	16	699	116	150	724	54
RTOR Reduction (vph)	0	0	19	0	0	82	0	9	0	0	3	0
Lane Group Flow (vph)	0	68	3	0	136	77	16	806	0	150	775	0
Confl. Peds. (#/hr)			9			7			9			1
Confl. Bikes (#/hr)			1			4			7			1
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		10.0	10.0		13.5	13.5	1.3	28.7		12.1	39.5	
Effective Green, g (s)		10.0	10.0		13.5	13.5	1.3	28.7		12.1	39.5	
Actuated g/C Ratio		0.12	0.12		0.16	0.16	0.02	0.35		0.15	0.48	
Clearance Time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Vehicle Extension (s)		1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lane Grp Cap (vph)		217	187		292	252	27	1196		259	1672	
v/s Ratio Prot		c0.04			c0.08		0.01	c0.23		c0.08	0.22	
v/s Ratio Perm			0.00			0.05						
v/c Ratio		0.31	0.01		0.47	0.31	0.59	0.67		0.58	0.46	
Uniform Delay, d1		33.2	32.0		31.3	30.4	40.4	23.0		32.9	14.4	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.3	0.0		0.4	0.3	21.0	1.2		2.0	0.1	
Delay (s)		33.5	32.0		31.7	30.7	61.4	24.2		34.8	14.5	
Level of Service		C	C		C	C	E	C		C	B	
Approach Delay (s)		33.1			31.2			24.9			17.8	
Approach LOS		C			C			C			B	
Intersection Summary												
HCM 2000 Control Delay			23.0									
HCM 2000 Volume to Capacity ratio			0.56									
Actuated Cycle Length (s)			82.6									
Intersection Capacity Utilization			60.5%									
Analysis Period (min)			15									
c Critical Lane Group												

Queues

1: N Shoreline Blvd & Terra Bella Ave

Cumulative Conditions

Timing Plan: P.M. Peak

	→	↘	←	↖	↙	↑	↗	↓
Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	137	34	98	130	12	852	117	963
v/c Ratio	0.49	0.11	0.36	0.39	0.06	0.74	0.50	0.56
Control Delay	39.8	0.7	37.1	13.2	41.0	31.3	44.7	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.8	0.7	37.1	13.2	41.0	31.3	44.7	20.3
Queue Length 50th (ft)	60	0	42	8	5	172	51	136
Queue Length 95th (ft)	149	0	111	63	29	#482	148	#502
Internal Link Dist (ft)	205		635			687		669
Turn Bay Length (ft)		30		30	75		150	
Base Capacity (vph)	664	635	666	652	348	1283	348	1731
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.05	0.15	0.20	0.03	0.66	0.34	0.56

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

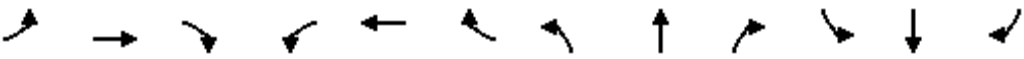
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

1: N Shoreline Blvd & Terra Bella Ave

Cumulative Conditions

Timing Plan: P.M. Peak









												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗	↘		↗	↘	↘	↗↘		↘	↗↘	
Traffic Volume (vph)	131	6	34	87	11	130	12	767	85	117	939	24
Future Volume (vph)	131	6	34	87	11	130	12	767	85	117	939	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.98		1.00	0.99	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.95	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1778	1549		1784	1560	1770	3475		1770	3523	
Flt Permitted		0.95	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1778	1549		1784	1560	1770	3475		1770	3523	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	131	6	34	87	11	130	12	767	85	117	939	24
RTOR Reduction (vph)	0	0	29	0	0	95	0	6	0	0	1	0
Lane Group Flow (vph)	0	137	5	0	98	35	12	846	0	117	962	0
Confl. Peds. (#/hr)			9			3			7			4
Confl. Bikes (#/hr)			1						1			2
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		13.2	13.2		12.9	12.9	1.4	31.5		11.3	41.4	
Effective Green, g (s)		13.2	13.2		12.9	12.9	1.4	31.5		11.3	41.4	
Actuated g/C Ratio		0.15	0.15		0.15	0.15	0.02	0.36		0.13	0.47	
Clearance Time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Vehicle Extension (s)		1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lane Grp Cap (vph)		269	234		263	230	28	1255		229	1672	
v/s Ratio Prot		c0.08			c0.05		0.01	c0.24		c0.07	0.27	
v/s Ratio Perm			0.00			0.02						
v/c Ratio		0.51	0.02		0.37	0.15	0.43	0.67		0.51	0.58	
Uniform Delay, d1		34.0	31.5		33.5	32.4	42.5	23.5		35.4	16.5	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.6	0.0		0.3	0.1	3.8	1.1		0.8	0.3	
Delay (s)		34.6	31.5		33.8	32.5	46.3	24.7		36.2	16.8	
Level of Service		C	C		C	C	D	C		D	B	
Approach Delay (s)		34.0			33.1			25.0			18.9	
Approach LOS		C			C			C			B	
Intersection Summary												
HCM 2000 Control Delay			23.6				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.56									
Actuated Cycle Length (s)			87.2				Sum of lost time (s)			18.3		
Intersection Capacity Utilization			63.1%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

Queues

1: N Shoreline Blvd & Terra Bella Ave

Cumulative plus Project Conditions

Timing Plan: A.M. Peak

								
Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	58	8	115	163	22	872	126	736
v/c Ratio	0.20	0.02	0.41	0.47	0.10	0.70	0.51	0.43
Control Delay	34.7	0.1	38.2	16.5	40.7	29.3	45.1	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.7	0.1	38.2	16.5	40.7	29.3	45.1	19.5
Queue Length 50th (ft)	25	0	51	19	9	178	56	94
Queue Length 95th (ft)	73	0	128	88	43	#499	157	332
Internal Link Dist (ft)	205		635			687		669
Turn Bay Length (ft)		30		30	75		150	
Base Capacity (vph)	701	663	698	679	363	1338	363	1696
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.01	0.16	0.24	0.06	0.65	0.35	0.43

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.


Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

1: N Shoreline Blvd & Terra Bella Ave

Cumulative plus Project Conditions

Timing Plan: A.M. Peak









												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔	↔	↔		↔	↔	
Traffic Volume (vph)	39	19	8	92	23	163	22	801	71	126	616	120
Future Volume (vph)	39	19	8	92	23	163	22	801	71	126	616	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.98		1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.98	
Flt Protected		0.97	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1802	1554		1791	1559	1770	3485		1770	3441	
Flt Permitted		0.97	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1802	1554		1791	1559	1770	3485		1770	3441	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	39	19	8	92	23	163	22	801	71	126	616	120
RTOR Reduction (vph)	0	0	7	0	0	101	0	4	0	0	9	0
Lane Group Flow (vph)	0	58	1	0	115	62	22	868	0	126	727	0
Confl. Peds. (#/hr)			1			2			9			
Confl. Bikes (#/hr)			3			1			4			1
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		10.3	10.3		13.0	13.0	3.5	32.1		11.5	40.1	
Effective Green, g (s)		10.3	10.3		13.0	13.0	3.5	32.1		11.5	40.1	
Actuated g/C Ratio		0.12	0.12		0.15	0.15	0.04	0.38		0.13	0.47	
Clearance Time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Vehicle Extension (s)		1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lane Grp Cap (vph)		217	187		273	237	72	1313		238	1619	
v/s Ratio Prot		c0.03			c0.06		0.01	c0.25		c0.07	0.21	
v/s Ratio Perm			0.00			0.04						
v/c Ratio		0.27	0.01		0.42	0.26	0.31	0.66		0.53	0.45	
Uniform Delay, d1		34.0	32.9		32.7	31.9	39.7	22.0		34.3	15.1	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2	0.0		0.4	0.2	0.9	1.0		1.0	0.1	
Delay (s)		34.3	32.9		33.1	32.1	40.5	23.0		35.3	15.2	
Level of Service		C	C		C	C	D	C		D	B	
Approach Delay (s)		34.1			32.5			23.4			18.1	
Approach LOS		C			C			C			B	
Intersection Summary												
HCM 2000 Control Delay			22.8									
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			85.2									
Intersection Capacity Utilization			57.9%									
Analysis Period (min)			15									
c Critical Lane Group												

Queues

1: N Shoreline Blvd & Terra Bella Ave

Cumulative plus Project Conditions

Timing Plan: Midday Peak

								
Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	68	22	144	168	16	816	152	778
v/c Ratio	0.23	0.07	0.47	0.49	0.07	0.74	0.56	0.44
Control Delay	35.0	0.4	38.8	20.9	41.1	31.3	45.4	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	0.4	38.8	20.9	41.1	31.3	45.4	18.2
Queue Length 50th (ft)	28	0	63	29	6	164	66	102
Queue Length 95th (ft)	82	0	156	109	35	#450	#188	357
Internal Link Dist (ft)	205		635			687		669
Turn Bay Length (ft)		30		30	75		150	
Base Capacity (vph)	743	693	738	696	385	1406	385	1761
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.03	0.20	0.24	0.04	0.58	0.39	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.


Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

1: N Shoreline Blvd & Terra Bella Ave

Cumulative plus Project Conditions

Timing Plan: Midday Peak









												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩	↩		↩	↩	↩	↩↩		↩	↩↩	
Traffic Volume (vph)	51	17	22	123	21	168	16	699	117	152	724	54
Future Volume (vph)	51	17	22	123	21	168	16	699	117	152	724	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.98		1.00	0.98	1.00	0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.98		1.00	0.99	
Flt Protected		0.96	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1795	1549		1786	1546	1770	3442		1770	3497	
Flt Permitted		0.96	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1795	1549		1786	1546	1770	3442		1770	3497	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	17	22	123	21	168	16	699	117	152	724	54
RTOR Reduction (vph)	0	0	19	0	0	82	0	9	0	0	3	0
Lane Group Flow (vph)	0	68	3	0	144	86	16	807	0	152	775	0
Confl. Peds. (#/hr)			9			7			9			1
Confl. Bikes (#/hr)			1			4			7			1
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		10.0	10.0		13.5	13.5	1.3	28.9		12.2	39.8	
Effective Green, g (s)		10.0	10.0		13.5	13.5	1.3	28.9		12.2	39.8	
Actuated g/C Ratio		0.12	0.12		0.16	0.16	0.02	0.35		0.15	0.48	
Clearance Time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Vehicle Extension (s)		1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lane Grp Cap (vph)		216	186		290	251	27	1199		260	1678	
v/s Ratio Prot		c0.04			c0.08		0.01	c0.23		c0.09	0.22	
v/s Ratio Perm			0.00			0.06						
v/c Ratio		0.31	0.01		0.50	0.34	0.59	0.67		0.58	0.46	
Uniform Delay, d1		33.3	32.1		31.6	30.8	40.5	23.0		33.0	14.4	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.3	0.0		0.5	0.3	21.0	1.2		2.2	0.1	
Delay (s)		33.6	32.1		32.1	31.1	61.6	24.2		35.1	14.5	
Level of Service		C	C		C	C	E	C		D	B	
Approach Delay (s)		33.3			31.5			24.9			17.8	
Approach LOS		C			C			C			B	
Intersection Summary												
HCM 2000 Control Delay			23.2									HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio			0.56									
Actuated Cycle Length (s)			82.9									Sum of lost time (s) 18.3
Intersection Capacity Utilization			61.0%									ICU Level of Service B
Analysis Period (min)			15									
c Critical Lane Group												

Queues

1: N Shoreline Blvd & Terra Bella Ave

Cumulative plus Project Conditions

Timing Plan: P.M. Peak

								
Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	137	34	106	141	12	854	119	963
v/c Ratio	0.49	0.11	0.39	0.43	0.06	0.73	0.50	0.55
Control Delay	40.0	0.7	37.9	14.9	41.2	31.3	45.1	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	0.7	37.9	14.9	41.2	31.3	45.1	20.3
Queue Length 50th (ft)	60	0	46	12	5	173	52	136
Queue Length 95th (ft)	149	0	119	73	29	#483	150	#502
Internal Link Dist (ft)	205		635			687		669
Turn Bay Length (ft)		30		30	75		150	
Base Capacity (vph)	661	633	663	649	346	1277	346	1737
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.05	0.16	0.22	0.03	0.67	0.34	0.55

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.


Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

1: N Shoreline Blvd & Terra Bella Ave

Cumulative plus Project Conditions

Timing Plan: P.M. Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↱	↰↱		↱	↰↱	
Traffic Volume (vph)	131	6	34	95	11	141	12	767	87	119	939	24
Future Volume (vph)	131	6	34	95	11	141	12	767	87	119	939	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.98		1.00	0.99	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected		0.95	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1778	1549		1783	1560	1770	3473		1770	3523	
Flt Permitted		0.95	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1778	1549		1783	1560	1770	3473		1770	3523	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	131	6	34	95	11	141	12	767	87	119	939	24
RTOR Reduction (vph)	0	0	29	0	0	95	0	6	0	0	1	0
Lane Group Flow (vph)	0	137	5	0	106	46	12	848	0	119	962	0
Confl. Peds. (#/hr)			9			3			7			4
Confl. Bikes (#/hr)			1						1			2
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		13.2	13.2		12.9	12.9	1.4	31.8		11.3	41.7	
Effective Green, g (s)		13.2	13.2		12.9	12.9	1.4	31.8		11.3	41.7	
Actuated g/C Ratio		0.15	0.15		0.15	0.15	0.02	0.36		0.13	0.48	
Clearance Time (s)		4.6	4.6		4.6	4.6	4.0	5.1		4.0	5.1	
Vehicle Extension (s)		1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lane Grp Cap (vph)		268	233		262	229	28	1262		228	1678	
v/s Ratio Prot		c0.08			c0.06		0.01	c0.24		c0.07	0.27	
v/s Ratio Perm			0.00			0.03						
v/c Ratio		0.51	0.02		0.40	0.20	0.43	0.67		0.52	0.57	
Uniform Delay, d1		34.2	31.7		33.8	32.8	42.7	23.5		35.6	16.5	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.7	0.0		0.4	0.2	3.8	1.1		1.0	0.3	
Delay (s)		34.9	31.7		34.2	32.9	46.5	24.6		36.6	16.8	
Level of Service		C	C		C	C	D	C		D	B	
Approach Delay (s)		34.2			33.5			24.9			19.0	
Approach LOS		C			C			C			B	
Intersection Summary												
HCM 2000 Control Delay			23.7									
HCM 2000 Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			87.5									
Intersection Capacity Utilization			63.1%									
Analysis Period (min)			15									
c Critical Lane Group												

Appendix E – Santa Clara Countywide VMT Evaluation Tool Outputs

Project Details

Timestamp of Analysis January 06, 2022, 08:45:48 AM

Project Name 1155 & 1185 Terra Bella Avenue Project

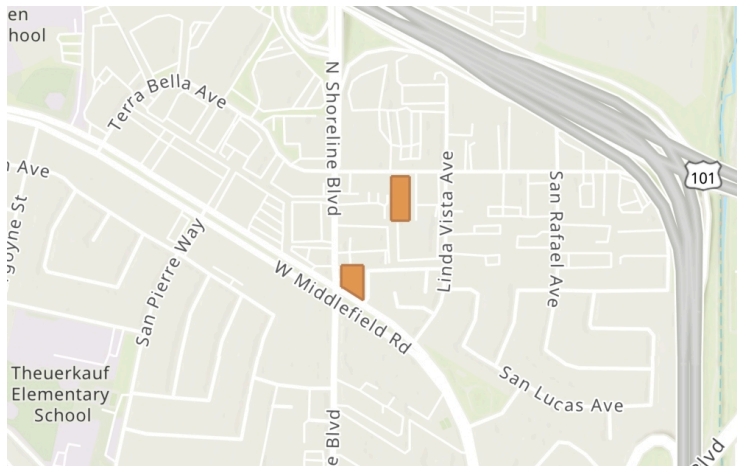
Project Description A single office building consisting of 19,958 square feet of office space.

Project Location Map

Jurisdiction:

Mountain View

APN	TAZ
15316001	392
15316012	392



Analysis Details

Data Version VTA Countywide Model December 2019

Analysis TAZ

Methodology

Baseline Year 2015

Project Land Use

Residential:

Single Family DU:

Multifamily DU:

Total DUs:	0
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Non-Residential:

Office KSF:	20
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Local Serving Retail KSF:

Industrial KSF:

Residential Affordability (percent of all units):

Extremely Low Income:	0 %
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Very Low Income:	0 %
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Low Income:	0 %
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Parking:

Motor Vehicle Parking:	75
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Bicycle Parking:	5
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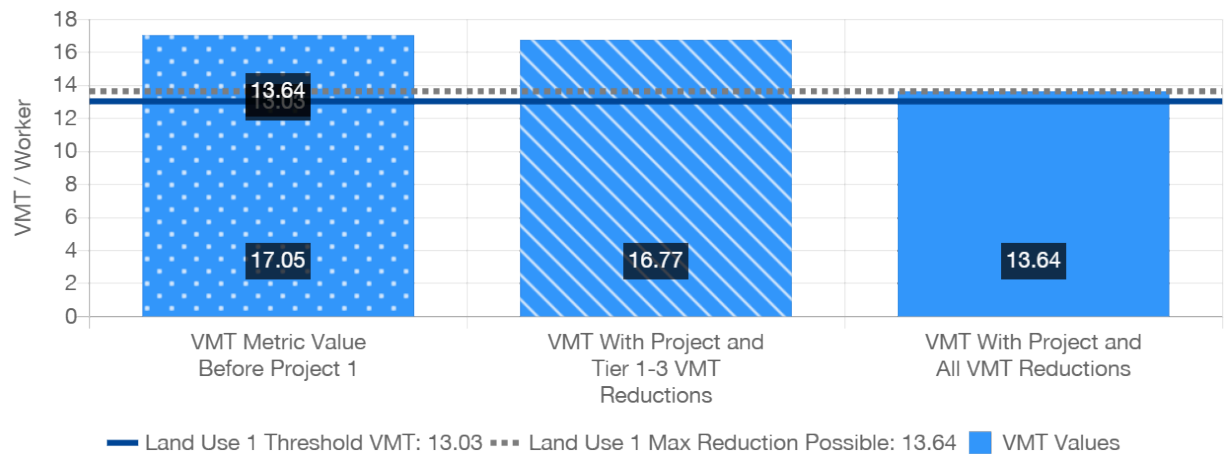
Proximity to Transit Screening

Inside a transit priority area?	No (Fail)
---------------------------------	-----------

Office Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 1:	Office
VMT Metric 1:	Home-based Work VMT per Worker
VMT Baseline Description 1:	Bay Area Regional Average
VMT Baseline Value 1:	15.33
VMT Threshold Description 1 / Threshold Value 1:	-15% / 13.03
Land Use 1 has been Pre-Screened by the Local Jurisdiction:	N/A

	Without Project	With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	17.05	16.77	13.64
Low VMT Screening Analysis	No (Fail)	No (Fail)	No (Fail)



Tier 1 Project Characteristics

PC04 Increase Employment Density

Existing Employment Density:	46.71
With Project Employment Density:	48.39

Tier 3 Parking

PK02 Provide Bike Facilities

Bicycle Parking:	5
Project End-of-trip Bike Facilities:	Yes

Tier 4 TDM Programs

TP02 Bike Share Programs

Percent Change in Bike Trips:	6%
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TP03 Car Share Programs

Car Share Program Percent of Eligible Residents/Employees:	100 %
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TP04 CTR Marketing and Education

CTR Marketing/Education Percent Expected Participants:	100 %
--	-------

TP06 Employee Parking Cash-Out

Employee Parking Cash-Out Percent Eligible Employees:	100 %
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TP07 Subsidized Transit Program

Percent of Transit Subsidy:	100 %
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TP08 Telecommuting and Alternative Work Schedules

Telecommuting and Alternative Work Schedule Type:	Telecommute 1.5 days/ week
Alternative Work Schedule Percent Participants:	100 %

TP13 Ride-Sharing Programs

Expected Percent of Ride-Sharing Participants:	100 %
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Project Details

Timestamp of Analysis January 06, 2022, 08:48:07 AM

Project Name 1155 & 1185 Terra Bella Avenue Project

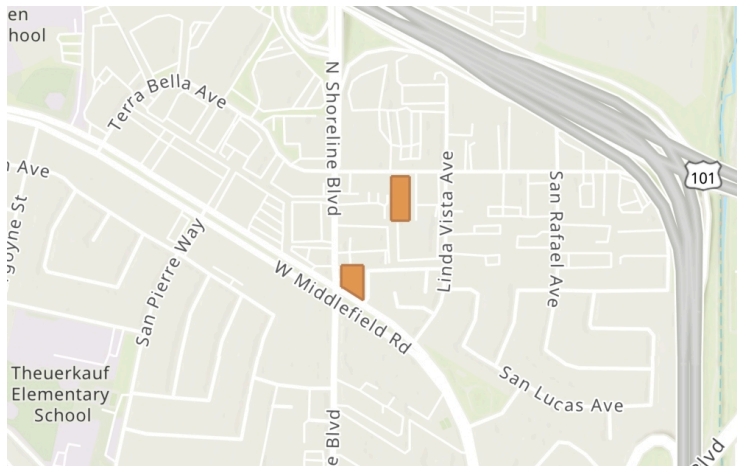
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Mountain View

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Analysis Details

Data Version VTA Countywide Model December 2019

Analysis TAZ

Methodology

Baseline Year 2015

Project Land Use

Residential:

Single Family DU:

Multifamily DU:

Total DUs: 0

Non-Residential:

Office KSF: 20

Local Serving Retail KSF:

Industrial KSF:

Residential Affordability (percent of all units):

Extremely Low Income: 0 %

Very Low Income: 0 %

Low Income: 0 %

Parking:

Motor Vehicle Parking: 75

Bicycle Parking: 5

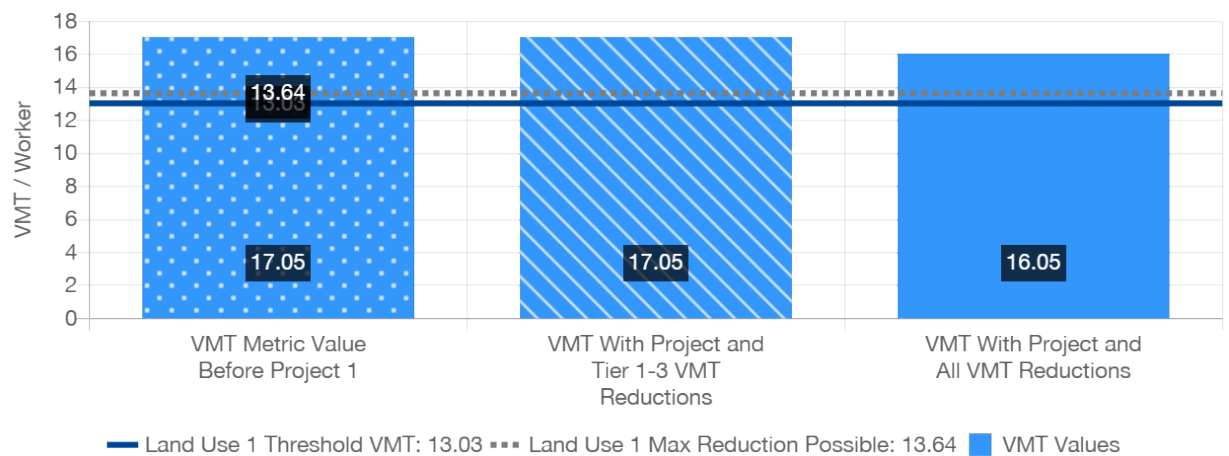
Proximity to Transit Screening

Inside a transit priority area? No (Fail)

Office Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 1:	Office
VMT Metric 1:	Home-based Work VMT per Worker
VMT Baseline Description 1:	Bay Area Regional Average
VMT Baseline Value 1:	15.33
VMT Threshold Description 1 / Threshold Value 1:	-15% / 13.03
Land Use 1 has been Pre-Screened by the Local Jurisdiction:	N/A

	Without Project	With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	17.05	17.05	16.05
Low VMT Screening Analysis	No (Fail)	No (Fail)	No (Fail)



Tier 4 TDM Programs

TP17 Vanpool Incentives

Percent of Vanpool Cost that is Subsidized:	100 %
Percent of Vanpool Participants:	10 %

TP18 Voluntary Travel Behavior Change Program

Percent of Behavior Program Participants :	10 %
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