# HEXAGON TRANSPORTATION CONSULTANTS, INC.

# Memorandum

Date:	May 13, 2020
То:	Manjit Banwait
From:	Robert Del Rio, T.E.
Subject:	2833 South Almaden Boulevard Offices Development Local Transportation Analysis

Hexagon Transportation Consultants, Inc. has completed a Local Transportation Analysis (LTA) for the proposed 2833 South Almaden Boulevard Offices development in Downtown San Jose. The +/-3.57-acre project site is located at the northwest corner of the South Almaden Boulevard and Woz Way intersection. The project, as proposed, will consist of a commercial development with two towers over a multi-story podium with a combined 1,727,777 square feet (s.f.) of above-grade gross floor area (GFA) replacing an existing surface parking lot. Approximately 1,487,115 s.f. of leasable office space and 39,137 s.f. of ground-floor food and beverage service uses will be provided within the towers. A total of 1,343 valet-only parking spaces are proposed within three below-ground parking levels. Site access is proposed via a full-access driveway located at the north leg of the Locust Street/Woz Way intersection and via a two-way driveway that will serve as a new west leg at the existing signalized intersection of Almaden Boulevard/Convention Center Access. Figure 1 shows the project site location.

The project site is located within the Downtown Growth Area Boundary, for which an Environmental Impact Report (EIR), *Downtown San Jose Strategy Plan 2040 (DTS 2040)*, has been completed and approved. With adoption of DTS 2040, this project is covered under DTS 2040 and no CEQA transportation analysis is required. The project, however, must perform an LTA to identify operational issues.

# Scope of Study

The purpose of the LTA was to identify any potential operational issues that could occur as a result of the project and to recommend necessary adjustments or improvements to the site access to ensure adequate access to the site is provided. Based on the proposed project size, site-generated traffic was estimated. Vehicular site access was evaluated based on the proposed driveway locations. Truck access, including trash pickup and loading activities, was evaluated. Parking and on-site vehicular circulation also was analyzed. Lastly, bicycle and pedestrian access and safety were evaluated.

# **Existing Conditions**

This section describes the existing conditions for all of the major transportation facilities in the vicinity of the site, including the roadway network, transit service, and bicycle and pedestrian facilities.











#### Figure 1 Site Location, Study Intersections, and Project Trip Distribution



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#### Figure 2 Project Trip Assignment

# LEGEND:

XX(XX) = AM(PM) Peak-Hour Traffic Volumes



#### Existing Roadway Network

Regional access to the project site is provided by the Interstate 280/680 freeway and State Route 87. Local site access is provided by Woz Way/Balbach Street, S. Almaden Boulevard, and San Carlos Street. The freeways and local roadways are described below.

**Interstate 280** connects from US-101 in San Jose to I-80 in San Francisco. It is generally an eight-lane freeway in the vicinity of downtown San Jose. It also has auxiliary lanes between some interchanges. The section of I-280 just north of the Bascom Avenue overcrossing has six mixed-flow lanes and two high-occupancy-vehicle (HOV) lanes. Connections from I-280 to the project site are provided via partial interchanges at First Street (ramps to east only), Fourth Street (ramps to west only), Sixth Street (ramps from west), Seventh Street (ramps from east), Almaden Boulevard (ramps to west), and Vine Avenue (ramps from west).

**State Route 87** is primarily a six-lane freeway (four mixed-flow lanes and two HOV lanes) that is aligned in a north-south orientation within the project vicinity. SR 87 begins at its interchange with SR 85 and extends northward, terminating at its junction with US 101. Connections from SR-87 to the project site are provided via partial interchanges at Park Avenue (ramps to and from north), Auzerais Avenue (ramps to south only), and Woz Way (ramp from south only).

**Almaden Boulevard** is a north-south arterial with two lanes in each direction between Santa Clara Street and Grant Street and includes bike lanes on both sides of the roadway. North of Santa Clara Street, Almaden Boulevard is a one-lane, southbound-only street providing access from Julian Street. South of Grant Street, Almaden Boulevard transitions to Vine Street. Almaden Boulevard runs along the project's east frontage and provides direct access to the project site via one proposed right-in/right-out only driveway.

**San Carlos Street** is an east-west four-lane street located north of the project site. It extends as West San Carlos Street from 1<sup>st</sup> Street westward to Bascom Avenue where it transitions into Stevens Creek Boulevard. East of 1<sup>st</sup> Street, it extends eastward as East San Carlos Street with a break between 4<sup>th</sup> and 10<sup>th</sup> Streets (at San Jose State University) and terminating at 17<sup>th</sup> Street. In the vicinity of the project site, the VTA light rail tracks run along the middle of the street, separating the eastbound and westbound travel lanes. Access to the project site is provided via its intersections with Woz Way and Almaden Boulevard.

**Woz Way** is a two-lane roadway that runs between the SR-87 northbound on-ramps at Park Avenue and Almaden Boulevard. Bike lanes are present on both sides of the street between San Carlos Street and Almaden Boulevard. East of Almaden Boulevard, Woz Way continues as Balbach Street east to Market Street. Woz Way runs along the south project frontage. Direct access to the project site is provided via the Locust Street/Woz Way intersection.

#### **Existing Bicycle Facilities**

Class II bicycle facilities (striped buffered bike lanes) are provided along Almaden Boulevard (along the east project site frontage) and Woz Way (along the south project frontage). Additional Class II bicycle facilities are provided along the following roadways within the project area:

- Almaden Boulevard, between Woz Way and Carlysle Street (including along the east project frontage)
- Almaden Avenue, between Alma Avenue and Grant Street
- Vine Street, between Alma Avenue and Grant Street



- Woz Way, between San Carlos Street and Almaden Avenue (including along the south project frontage)
- Park Avenue, west of Market Street
- Santa Clara Street, west of Almaden Boulevard
- San Salvador Street, between Market Street and Fourth Street
- Second Street, south of Taylor Street
- Third Street, north of St. James Street
- Fourth Street, between Jackson Street and Santa Clara Street; between San Salvador Street and Reed Street

Designated Class III bike routes with "sharrow" or shared-lane pavement markings and signage are provided along the following roadways:

- San Carlos Street, between Woz Way and Fourth Street
- San Fernando Street, east of 10<sup>th</sup> Street
- Second Street, between San Carlos Street and Julian Street
- First Street, between San Salvador Street and St. John Street
- San Salvador Street, between Fourth Street and Tenth Street (eastbound)
- William Street, between First Street and McLaughlin Avenue

Class IV bicycle facilities (protected bike lanes) are currently being installed throughout the Downtown Area as part of the Better Bikeways project. Protected bike lanes have been implemented along the following roadways:

- San Fernando Street, between Cahill Street and Tenth Street
- Second Street, between San Carlos Street and William Street
- Third Street, between St. James Street and Reed Street
- Fourth Street, between Santa Clara Street and San Salvador Street
- San Salvador Street, between Fourth Street and Tenth Street (westbound)
- Cahill Street, between San Fernando Street and Santa Clara Street

The existing bicycle facilities are shown on Figure 3.

#### Guadalupe River Park Trail

The Guadalupe River multi-use trail system runs through the City of San Jose along the Guadalupe River and is shared between pedestrians and bicyclists and separated from motor vehicle traffic. The Guadalupe River trail is an 11-mile Class I bikeway from Curtner Avenue in the south to Alviso in the north. In the vicinity of the project site, the Guadalupe River Trail consists of trails along the west and east banks of the Guadalupe River. The east trail runs along the proposed project's entire west frontage and would be directly accessible from the project site. Additionally, a paseo along the north project frontage connects Almaden Boulevard with the east and west sides of the Guadalupe River Trail via a bridge.

#### **Bike and Scooter Share Services**

The Bay Wheels (formerly Ford Go Bike) bike share program allows users to rent and return bicycles at various locations. Bike share bikes can be rented and returned at designated docking stations throughout the Downtown area. In addition, dockless bike and scooter rentals are available throughout the Downtown area. These services provide electric bicycles and scooters with GPS self-locking systems that allow for rental and drop-off anywhere. A bike share station is located only 110 feet from the project frontage on Almaden Boulevard, at the northeast corner of the Almaden Boulevard/Woz Way intersection.



#### Figure 3 Existing Bicycle Facilities





#### **Existing Pedestrian Facilities**

Pedestrian facilities in the study area (shown in Figure 4) consist of sidewalks along all the surrounding streets, including the project frontages along Almaden Boulevard and Woz Way. Crosswalks and pedestrian signal heads are located at all signalized intersections within the project area, including the intersections of Almaden Boulevard/Woz Way, Almaden Boulevard/Convention Center, and Almaden Boulevard/San Carlos Street. At the signalized intersection of Almaden Boulevard and the Convention Center Parking driveway, a crosswalk along the north approach provides direct access between the project site's east frontage and the McEnery Convention Center.

ADA compliant ramps are located at all crosswalks at the intersection of Locust Street/Project Driveway and Woz Way. However, ADA compliant ramps are missing at the following locations in the project vicinity:

- Almaden Boulevard and Woz Way/Balbach Street northwest, northeast, and southwest corners
- Almaden Boulevard and Convention Center Garage Access northwest and northeast corners
- Almaden Boulevard and San Carlos Street all corners
- Woz Way and San Carlos Street all corners
- Woz Way and Auzerais Avenue all corners
- Woz Way and SR-87 Off-Ramp all corners

As mentioned previously, the east portion of the Guadalupe River Trail is located along the west project frontage and a paseo connecting the trail to Almaden Boulevard runs along the north project frontage. From the project site, pedestrians may use the Guadalupe River Trail as a cut-through route to San Carlos Street, Park Avenue, San Fernando Street, and Santa Clara Street to the north. A high-visibility crosswalk located along the west leg of the Locust Street/Woz Way intersection provides access to the Guadalupe River Trail south across Woz Way. The Children's Bridge, located north and west of the project site, connects the east and west sides of the Guadalupe River Trail.

Overall, the existing sidewalks and paseos provide good pedestrian connectivity and safe routes to the surrounding pedestrian destinations.

#### **Existing Transit Services**

Existing transit services in the study area are provided by the Santa Clara Valley Transportation Authority VTA, Caltrain, Altamont Commuter Express (ACE), and Amtrak. The project site is located approximately 1,000 feet south and west of the Convention Center Light Rail Transit (LRT) Station, 1,200 feet east of the Children's Discovery Museum LRT Station, and approximately 0.8-mile from the Diridon Transit Center located on Cahill Street. Connections between local and regional bus routes, light rail lines, and commuter rail lines are provided within the Diridon Transit Center. Figure 5 shows the existing transit facilities.

#### **Bus Service**

The downtown area is served by many VTA bus routes with high-frequency service. Rapid Bus services provide limited-stop service at frequent intervals (less than 15 minutes) during daytime. Within the Downtown area, Rapid Routes 522 and 523 run along Santa Clara Street and San Carlos Street, respectively. Additionally, Frequent Bus services provide local service with average headways of 12 to 15 minutes during peak commute hours. Express Bus services provide direct service to and from major employment centers during peak commute hours only.



#### Figure 4 Existing Pedestrian Facilities







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The bus lines that operate within ¼-mile walking distance of the project site are listed in Table 1, including their route descriptions and commute hour headways. The nearest bus stops are located at the San Carlos Street/Woz Way intersection (Route 23) and San Carlos Street/Convention Center intersection (Routes 23, 168, 523).

#### Table 1

#### **Existing Bus Service Near the Project Site**

Bus Route	Route Description	Nearest Stop	Headway <sup>1</sup>
Frequent Route 22	Palo Alto Transit Center to Eastridge Transit Center	Santa Clara/Almaden	15 min
Frequent Route 23	DeAnza College to Alum Rock Transit Center via Stevens Creek	San Carlos/Woz	12 - 15 min
Local Route 64A	McKee & White to Ohlone-Chynoweth Station	San Fernando/Almaden	30 min <sup>2</sup>
Local Route 64B	McKee & White to Almaden Expressway & Camden	San Fernando/Almaden	30 min <sup>2</sup>
Frequent Route 66	North Milpitas to Kaiser San Jose	First/Paseo de San Antonio	12 - 15 min
Frequent Route 68	San Jose Diridon Station to Gilroy Transit Center	First/Paseo de San Antonio	15 - 20 min
Frequent Route 72	Downtown San Jose to Senter & Monterey via McLaughlin	First/Santa Clara	5 - 20 min
Frequent Route 73	Downtown San Jose to Senter & Monterey via Senter	First/Santa Clara	10 - 15 min
Express Route 168	Gilroy/Morgan Hill to San Jose Diridon Station	San Carlos/Market	15 - 40 min
Express Route 181	San Jose Diridon Station to Warm Springs BART	First/Santa Clara	15 - 20 min
Rapid Route 500	San Jose Diridon Station to Downtown San Jose	Santa Clara/Almaden	15 - 20 min
Rapid Route 522	Palo Alto Transit Center to Eastridge Transit Center	Santa Clara/First	10 - 15 min
Rapid Route 523	Berryessa BART to Lockheed Martin via De Anza College	San Carlos/Market	15 - 20 min
Hwy 17 Express (Route 970)	Downtown Santa Cruz / Scotts Valley to Downtown San Jose	Santa Clara/Almaden	20 - 35 min

Notes:

<sup>1</sup> Approximate headways during peak commute periods.

<sup>2</sup> Local Routes 64A and 64B provide frequent service between San Jose Diridon Station and McKee/White, with approximately

15-minute headways during peak commute periods.

Regional bus services operated by other transit agencies are accessible from bus stops within Downtown San Jose. The Highway 17 Express, a weekday commuter service that runs between San Jose and Santa Cruz via SR-17, runs along Santa Clara Street. Bus routes between San Jose and Monterey County are operated by Monterey-Salinas Transit from the Diridon Transit Station.

#### VTA Light Rail Transit (LRT) Service

The Santa Clara Valley Transportation Authority (VTA) currently operates the 42.2-mile VTA light rail line system extending from south San Jose through downtown to the northern areas of San Jose, Santa Clara, Milpitas, Mountain View and Sunnyvale. The service operates nearly 24-hours a day with 15-minute headways during much of the day. The Mountain View–Winchester and Alum Rock–Santa Teresa LRT lines operate along San Carlos Street. The Convention Center LRT station platforms on San Carlos Street are located within walking distance, less than 700 feet, of the project site. The Children's Discovery Museum LRT station located south of the Woz Way/San Carlos Street intersection is served by the Alum Rock–Santa Teresa LRT line and is located less than 900 feet of the project site. The San Jose Diridon station is located along the Mountain View–Winchester LRT line and serves as a transfer point to Caltrain, ACE, and Amtrak services.

#### Caltrain Service

Commuter rail service between San Francisco and Gilroy is provided by Caltrain, which currently operates 92 weekday trains that carry approximately 47,000 riders on an average weekday. The project



site is located about 3/4-mile from the San Jose Diridon station. The Diridon station provides 581 parking spaces, as well as 16 bike racks, 48 bike lockers, and 27 Ford GoBike bike share docks. Trains stop frequently at the Diridon station between 4:28 AM and 10:30 PM in the northbound direction, and between 6:31 AM and 1:38 AM in the southbound direction. Caltrain provides passenger train service seven days a week and provides extended service to Morgan Hill and Gilroy during commute hours.

#### Altamont Commuter Express Service (ACE)

ACE provides commuter rail service between Stockton, Tracy, Pleasanton, and San Jose during commute hours, Monday through Friday. Service is limited to four westbound trips in the morning and four eastbound trips in the afternoon and evening with headways averaging 60 minutes. ACE trains stop at the Diridon Station between 6:32 AM and 9:17 AM in the westbound direction, and between 3:35 PM and 6:38 PM in the eastbound direction.

#### Amtrak Service

Amtrak provides daily commuter passenger train service along the 170-mile Capitol Corridor between the Sacramento region and the Bay Area, with stops in San Jose, Santa Clara, Fremont, Hayward, Oakland, Emeryville, Berkeley, Richmond, Martinez, Suisun City, Davis, Sacramento, Roseville, Rocklin, and Auburn. The Capitol Corridor trains stop at the San Jose Diridon Station eight times during the weekdays between approximately 7:38 AM and 11:55 PM in the westbound direction. In the eastbound direction, Amtrak stops at the Diridon Station seven times during the weekdays between 6:40 AM and 7:15 PM.

# **Project Trip Generation**

The trip generation analysis estimates the number of external vehicle-trips generated by the proposed project. Baseline (or gross) vehicle-trips were estimated by using average vehicle-trip rates from the *ITE Trip Generation Manual, 10th Edition* for the proposed office and beverage/retail services land uses. The baseline trip estimates were reduced to account for the predicted vehicle mode share of the project based on its location and surrounding transportation system and land uses.

#### **Internal Trip Reduction Adjustment**

A mixed-use development with complementary land uses such as office and commercial (food/beverage establishment), will result in a reduction of external site trips. Thus, the number of vehicle trips generated for each use may be reduced, since a portion of the trips would not require entering or exiting the site. Based on VTA's recommended mixed-use reduction, a maximum three percent trip reduction may be applied for the office and commercial uses, based on the office component. For the AM and PM peak-hours, however, a three percent reduction of office trips exceeds the total number of trips generated by the commercial use. Therefore, a 50 percent reduction of retail trips during the AM and PM peak-hours was applied.

#### **Location-Based Adjustment**

The location-based adjustment reflects the project's vehicle mode share based on the place type in which the project is located per the San Jose Travel Demand Model. The project's place type was obtained from the *San Jose VMT Evaluation Tool*. Based on the Tool, the project site is located within a designated urban high-transit area. Urban high-transit is characterized as an area with high density, good accessibility, high public transit access, low single-family homes, middle-aged and older housing stock. Within urban high-transit areas, office uses have a vehicle mode share of 69 percent and retail uses have a mode share of 83 percent. Thus, a 31 percent reduction was applied to trips generated by



the office component of the project and a 17 percent reduction was applied to trips generated by the commercial component of the project.

#### **Project Trip Generation**

Based on the trip generation rates and reductions, it is estimated that the proposed mixed-use office project would generate an additional 10,561 daily trips, with 1,192 trips (1,028 inbound and 164 outbound) occurring during the AM peak hour and 1,226 trips (208 inbound and 1,018 outbound) occurring during the PM peak hour. The trip generation estimates for the proposed project are shown in Table 2.

Project trips at the site access driveways were reduced further to align with the proposed reduction in off-street parking. As discussed below, the project proposes a 57.5 percent reduction of on-site parking spaces from the total spaces as required per the City code. Therefore, it is expected that vehicle trips accessing the project site would be 57.5 percent less than a development providing the required off-street parking. A portion of the trip reduction is already accounted for with the application of the 31 percent location-based adjustment. Therefore, the estimated trips were reduced an additional 26.5 percent to align the estimated trips at the site access points with the proposed off-street parking reduction. It is estimated that a total of 7,126 daily trips, with 865 trips (749 inbound and 116 outbound) occurring during the AM peak hour and 841 trips (136 inbound and 706 outbound) occurring during the PM peak hour would occur at the site access points.

The reduced trips are used for the purpose of evaluating operations at only the proposed site access driveways to reflect the significant reduction in proposed off-street parking since the standard on-site parking that is normally required will not be provided. The estimated trips, without the reductions to reflect the proposed reduction in off-street parking, are used for the purpose of evaluating intersection operations and transit delay at study intersections that do not provide direct access to site driveways. The non-reduced trips are used at intersections that do not provide access to the site to reflect drivers that may choose to utilize off-site parking elsewhere in the project area.

The proposed project will not provide replacement parking for the paid public parking spaces currently on-site. It is assumed that current users of the existing public parking lot will find alternative parking areas within the vicinity of the project site once the parking lot on-site is eliminated. Therefore, it can be assumed that these trips will continue to appear at Downtown area intersections in the vicinity of the project site. Counts at the existing parking lot driveway located at the intersection of Locust Avenue and Woz Way indicate that the lot generates 74 trips during the AM peak-hour (72 inbound and 2 outbound) and 86 trips during the PM peak-hour (11 inbound and 75 outbound). As a conservative measure, credit for existing trips into and out of the surface parking lot currently on-site was not used to calculate the project trip generation.

# **Project Trip Distribution and Trip Assignment**

The trip distribution pattern for the project was based on previous traffic studies prepared for similar projects in downtown San Jose. The project trips were assigned to the roadway network based on the proposed project driveway locations, existing travel patterns in the area, freeway access, and the relative locations of complementary land uses. The project trip distribution pattern and gross trip assignment for the proposed office development is shown on Figure 1 and Figure 2. As noted above, trips at driveway intersections (#4 and #11) reflect reductions due to align with the proposed off-street parking reductions, while trips at non-driveway intersections do not include the additional parking reductions.



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# Table 2Project Trip Generation Estimates

									AM Pe	ak Hour			PM Peak Hour					
	ITE Land		% of Vehicle	%		Da	ily	Pk-Hr Split Trip			Pk-Hr	Spl	lit		Trip			
Land Use	Use Code	Location	Mode Share	Reduction	Size	Rate Trip		Rate	In Out	In	Out	Total	Rate	ln -	Out	In	Out	Total
Proposed Land Use																		
General Office Building <sup>1</sup>	710				1,487,115 Square Feet	9.74	14,485	1.160	86% 14%	1,484	241	1,725	1.15	16%	84%	274	1,436	1,710
- Office - Retail Internal Re	eduction <sup>2</sup>			3%			-435			-7	-12	-19				-8	-43	-51
- Location Based Reduction	on <sup>3</sup> U	Irban High-Transit	69%	31%			-4,356			-458	-71	-529				-82	-432	-514
Shopping Center <sup>1</sup>	820				39,137 Square Feet	37.75	1,477	0.940	62% 38%	23	14	37	3.81	48%	52%	72	77	149
- Office - Retail Internal Re	eduction <sup>2</sup>						-435			-12	-7	-19				-43	-8	-51
- Location Based Reduction	on <sup>3</sup> U	Irban High-Transit	83%	17%			-177			-2	-1	-3				-5	-12	-17
Baseline Vehicle Trips	(Before Reduc	ctions)					15,962			1,507	255	1,762				346	1,513	1,859
Project Trips After Redu	uctions						10,561			1,028	164	1,192				208	1,018	1,226
Project Trips at Drivewa	ys (For Site A	ccess Analysis	Only)															
Subtotal: Office Trips							9,694			1,019	158	1,177				184	961	1,145
- Parking Reduction <sup>4</sup>				26.5%			-2,569			-270	-42	-312				-49	-255	-303
Total Project Trips at Dr	iveways After	Parking Reduc	ction				7,125			749	116	865				135	706	841

Notes:

<sup>1</sup> Source: ITE *Trip Generation Manual*, 10th Edition 2017, average trip generation rates.

<sup>2</sup> As prescribed by the Transportation Impact Analysis Guidelines from VTA (October 2014), the maximum trip reduction for a mixed-use development project with employment and employee-serving retail uses is equal to 3% off the office component. The maximum 3% reduction was applied to the PM peak-hour trip estimates. For the AM peak-hour trip estimates, a 50% reduction off the retail trips was applied.

<sup>3</sup> The project site is located within an urban high-transit area based on the City of San Jose VMT Evaluation Tool (February 28, 2019). The location-based vehicle mode shares are obtained from Table 6 of the City of San Jose Transportation Analysis Handbook (April 2018). The trip reductions are based on the percent of mode share for all of the other modes of travel besides vehicle.

<sup>4</sup> For the purpose of calculating trips at site access driveways, an additional parking reduction is calculated by reducing the total proposed parking reduction (57.5%) by the location-based ajustment (31%). This results in an additional 26.5% trip reduction.



# Vehicular Site Access

A review of the project site plan was performed to determine if adequate site access and on-site circulation is provided and to identify any access issues that should be improved. This review is based on site plans dated November 21, 2019 prepared by KPF Architects, and in accordance with generally accepted traffic engineering standards and City of San Jose requirements. The street level site plan is shown on Figure 6.

#### **Project Driveway Design**

Vehicular access to the project site parking levels is proposed via a full-access driveway located at the north leg of the Locust Street/Woz Way two-way stop-controlled intersection ("Driveway A") and a full-access driveway that will serve as a new west leg at the existing Almaden Boulevard/Convention Center Access signalized intersection ("Driveway B"). A right-in/right-out only driveway along Almaden Boulevard located at the northeast corner of the project site ("Driveway C") will be restricted to trucks only and would lead directly to loading docks located within the below-ground level B2 of the project site. The proposed driveways are shown on Figure 6.

The City of San Jose Downtown Streetscape Guidelines (as referenced in the City's Complete Street Standards and Guidelines) identify maximum driveway widths of 26 feet for two-lane two-way driveways. Wider driveway may be implemented where multiple lanes are needed. Based on the site plan, Driveway A and Driveway C are proposed to have one inbound lane and one outbound lane and will measure 26 feet wide. Driveway B is proposed to have one inbound lane and two outbound lanes and will measure 43 feet wide. The operations of each of the driveways are discussed below.

#### Sight Distance at the Driveways Serving the Project

Existing trees are located along the south project frontage on Woz Way, between Driveway A and Almaden Boulevard, and will remain in place per the site plan. The site plan indicates that trees will be planted along both the Almaden Boulevard and Woz Way frontages, adjacent to on-street drop-off areas. The project access points should be designed to be free and clear of any obstructions to provide adequate sight distance, thereby ensuring that exiting vehicles can see pedestrians and bicyclists on the sidewalk and other vehicles traveling on Almaden Boulevard and Woz Way. Any landscaping and signage should be located in such a way to ensure an unobstructed view for drivers exiting the site.

Adequate sight distance (sight distance triangles) should be provided at the project driveways in accordance with the *American Association of State Highway Transportation Officials* (AASHTO) standards. Sight distance triangles should be measured approximately 10 feet back from the traveled way. Providing the appropriate sight distance reduces the likelihood of a collision at a driveway or intersection and provides drivers with the ability to exit a driveway and locate sufficient gaps in traffic. The minimum acceptable sight distance is often considered the AASHTO stopping sight distance. Sight distance requirements vary depending on the roadway speeds. Woz Way and Almaden Boulevard have a posted speed limit of 25 miles per hour (mph) and 30 mph, respectively. The AASHTO stopping sight distance for a facility with a posted speed limit of 25 mph and 30 mph are 155 feet and 200 feet, respectively. Thus, a driver exiting Driveway A must be able to see 155 feet to the east and west along Woz Way in order to stop and avoid a collision. A driver exiting Driveway B must be able to see 200 feet to the north along southbound Almaden Boulevard in order to stop and avoid a collision.

Based on the project site plan and observations in the field, vehicles exiting Driveway A (currently a two-way stop-controlled intersection) would be able to see approaching traffic on westbound Woz Way as far away as 290 feet to the east at the intersection of Almaden Boulevard and Woz Way, and as far



#### Figure 6 Ground-Level Site Plan, On-Site Circulation, and Trips at Project Driveways



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away as 200 feet to the west where Woz Way turns northward. Therefore, it can be concluded that Driveway A would meet the AASHTO minimum stopping sight distance standards.

Turn movements from Driveway B would be controlled by the existing Almaden Boulevard/Convention center signalized intersection, therefore traffic flow along southbound Almaden Boulevard would be controlled and allow for protected outbound right-turns. Still, vehicles exiting Driveway B (i.e. a right-turn on red) would be able to see approaching traffic on southbound Almaden Boulevard as far away as 550 feet to the north at the intersection of Almaden Boulevard and San Carlos Street. Therefore, it can be concluded that Driveway B would meet the AASHTO minimum stopping sight distance standards.

At Driveway C, exiting trucks would be able to see approaching traffic on southbound Almaden Boulevard as far away as 300 feet to the north at the intersection of Almaden Boulevard and San Carlos Street. Therefore, it can be concluded that Driveway C also would meet the AASHTO minimum stopping sight distance standards.

#### **Project Driveway Operations**

The project trip assignment at the proposed project driveways is shown in Figure 6. Project driveways A and B provide access to below-ground parking levels. Based on the reduced project trips to reflect the proposed reduction in on-site parking, it is estimated that a maximum of 749 inbound trips (during the AM peak-hour) would enter the project site. Each project driveway is expected to serve approximately half of the inbound project trips, or 375 trips at each driveway. During the PM peak-hour, a maximum of 706 trips will exit the site. Each project driveway is expected to serve approximately half of the outbound project trips, or 353 trips at each driveway.

The flow rate at which vehicles enter the garage will depend primarily on the processing ability, or service rate, of entry gates. Based on the site plan, the entry gates consist of one inbound lane and one outbound lane at each driveway. The gates would need to process a minimum of 375 vehicles per hour (approximately six to seven vehicles per minute, on average) to avoid inbound queueing during the AM peak-hour. Based on provided parking design information, parking garage entry gates that utilize a transponder style device are capable of servicing between 600 to 800 vehicles per hour or up to 13 vehicles per minute. Standard card readers or ticket machines have service rates of much less at approximately 4 to 6 vehicles per minute, or 360 vehicles per hour. Therefore, queues could form at the Almaden Boulevard and Woz Way entrances should standard card readers be used. It is recommended that the more efficient transponder style operations be considered for implementation at each of the gates to reduce potential queuing back onto Almaden Boulevard and Woz Way.

The projected flow rate at each of the project driveways presumes an evenly distributed arrival rate. However, it is unlikely that inbound project traffic would be spread out evenly throughout the peak-hour. There would likely be instances where multiple vehicles (two to three vehicles for example) would arrive at the same time. Queuing space for approximately five and nine vehicles is provided on-site at Driveways A and B, respectively. As described below, a maximum queue of approximately nine vehicles is projected at the northbound left-turn movement at the Almaden Boulevard/Convention Center intersection. Therefore, if nine vehicles were to enter Driveway B, the queue at the garage gate could be accommodated without extending out of Driveway B and onto Almaden Boulevard. Inbound operations at Driveway A are further discussed below.

Appropriate visible and/or audible warning signs should be provided at Driveway A to alert pedestrians and bicyclists of vehicles exiting the garage.



#### **On-Street Passenger Loading Zones**

The site plan indicates passenger loading zones along the east and south project frontages on Almaden Boulevard and Woz Way would replace existing on-street parking spaces. One 120-foot duckout is proposed along Almaden Boulevard, between Driveway B and Driveway C. Another duckout along Almaden Boulevard would be located between Driveway B and Woz Way. A duckout also is proposed along Woz Way, between Driveway A and Almaden Boulevard. However, some on-street parking spaces would remain along the project frontages to serve the proposed ground-floor commercial uses of the project. The length of the proposed loading zones, as well as the number of onstreet parking spaces to remain, will be determined during the implementation phase of the project.

Protected bike lanes are planned along Almaden Boulevard and Woz Way as part of the City's Better Bikeways Improvements. The bike lane improvements would switch the position of the bike lane with on-street parking to create a barrier and increase the separation between the bike lane and vehicle travel lanes. However, the project proposes to provide a separated bike lane between the sidewalk and proposed on-street drop-off zones along the east and south project frontages on Almaden Boulevard and Woz Way. The bike lanes would be located at the same level as the sidewalk. The proposed layout would essentially create a loading zone island that would be physically separated from the main sidewalk and bike lanes along the project frontage. With the proposed location of the duckouts, pedestrians accessing the drop-off/pick-up zones will need to cross the proposed bike lane. Safety measures to prevent conflicts between pedestrians and bicyclists may be needed if it is observed that the passenger loading zones are heavily used. Possible measures could include the installation of a barrier between the bike lane and loading zone island and providing marked crossing points between the loading zone island and the sidewalk.

#### Locust Street/Driveway A and Woz Way Operations

#### Vehicle Operations

As shown on Table 3, the operations at the Driveway A intersection with Woz Way will be affected by PM peak-hour queues at the adjacent intersection of Almaden Boulevard and Woz Way/Balbach Street. As described within the intersection queueing analysis section below and shown in Figure 7, the eastbound through movement queue at the Almaden Boulevard and Woz Way/Balbach Street intersection currently extends back to Locust Street during the PM peak-hour and would worsen with the addition of approved project trips. The eastbound left-turn queue also is expected to exceed the existing left-turn pocket storage space with the addition of approved trips under background conditions and would spill out into the eastbound through lane, further contributing to the eastbound queue. As described in the queueing analysis below, there are no feasible improvements that would reduce the eastbound queue at the intersection of Almaden Boulevard and Woz Way/Balbach Street.

In addition, the eastbound left-turn queue into Driveway A is projected to extend approximately 50 feet back from the intersection during the AM peak-hour under project conditions, if the existing unsignalized control is maintained. This queue would exceed the existing turn pocket by only one vehicle during the AM peak-hour.

#### Signalized Access

Installing a traffic signal at the Locust Street/Woz Way (Driveway A) intersection would provide for protected movements from the project driveway along Woz Way. Signal warrant analysis indicates that the addition of project traffic would result in traffic volumes at Locust Street/Woz Way (Driveway A) intersection to meet the peak-hour volume traffic signal warrant thresholds during the PM peak-hour. Due to a signal being warranted in the PM peak hour under background plus project conditions and the driveway's proximity to the Woz/SR-87 Northbound off-ramp, the project will be conditioned to construct



# Table 3

#### Intersection Queueing Analysis at Project Driveways

	Drivew (Locust Unsigna	Driveway A (Locust)/Woz Unsignalized		Driveway A (Locust)/Woz Signalized							Almaden/ Convention Center (Driveway B)							
	EBL	EBL	EBL	EBL	EBT/R	EBT/R	WBT/R	WBT/R	NBL	NBL	EBL	EBL	EBT/R	EBT/R				
Measurement	AM	РМ	AM	РМ	AM	PM	AM	РM	AM	РМ	AM	РМ	AM	РМ				
Background Plus Project Conditions																		
Cycle/Delay <sup>1</sup> (sec)	9.5	7.8	140	140	140	140	140	140	140	140	140	140	140	140				
Lanes	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Volume (vph)	187	34	187	34	326	696	531	244	131	25	28	173	30	180				
Volume (vphpl)	187	34	187	34	326	696	531	244	131	25	28	173	30	180				
Avg. Queue (veh/In.)	0	0	7	1	13	27	21	9	5	1	1	7	1	7				
Avg. Queue <sup>2</sup> (ft./ln)	12	2	182	33	317	677	516	237	127	24	27	168	29	175				
95th %. Queue (veh/In.)	2	1	12	3	19	36	28	15	9	3	3	11	3	12				
95th %. Queue (ft./In)	50	25	300	75	475	900	700	375	225	75	75	275	75	300				
Storage (ft./ In.)	25	25	315	315	600	600	250	250	150	150	25	25	475	475				
Adequate (Y/N)	NO	YES	YES	YES	YES	NO	NO	NO	NO	YES	NO	NO	YES	YES				
<sup>1</sup> Vehicle queue calculatior <sup>2</sup> Assumes 25 feet per vehi	ns based on icle in the q	ı cycle len ueue.	igth for sig	nalized int	ersections	and contro	ol delay for	unsignalize	ed intersed	ctions.								

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, R = Right, T = Through, L = Left.



Figure 7 Existing Queue Lengths along Woz Way





or provide a fair-share contribution to the implementation of a new signal at Locust Street/Woz Way (Driveway A). However, the eastbound queue along Woz Way would continue to extend back from Almaden Boulevard and inhibit outbound left-turns from Driveway A. Given the close spacing, approximately 260 feet, between Locust Street and Almaden Boulevard, the new signal would need to be coordinated with the Almaden Boulevard/Woz Way intersection.

Signalizing the intersection of Locust Street and Woz Way also would result in an increase in the length of the queue into Driveway A (eastbound left-turn). As described above, the left-turn queue into Driveway A is projected to extend only 50 feet west of the north-south crosswalk on Woz Way during the AM peak-hour without a signal. The installation of a signal at Locust Street and Woz Way, and a presumed cycle length of 60 seconds, could extend the eastbound left-turn queue to 175 feet during the AM peak-hour. Furthermore, providing signal coordination between a new Locust Street/Woz Way signal and the Almaden Boulevard/Woz Way signal would require a longer cycle length during peak-hours, which could create an eastbound left-turn queue of 300 feet during the AM peak-hour. The City has developed a plan line for Woz Way between Almaden Boulevard and the Guadalupe Trail. The plan line, shown in Figure 8, provides for the extension of left-turn pockets, including the eastbound left-turn pocket at Driveway A as well as an improved trail connection across Woz Way. Based on the plan line, the eastbound left-turn pocket would be extended to a total length of 315 feet, which would provide adequate storage space for the estimated 300-foot queue during the AM peak-hour.

#### Pedestrian and Bicycle Access Evaluation

The intersection of Locust Street and Woz Way is a two-way stop-controlled intersection with stopcontrol on the north and south approaches. Pedestrian facilities at the intersection include an east-west crosswalk along the south approach and a sidewalk along the north approach (project driveway). Additionally, a north-south crosswalk along the west approach connects the Guadalupe River Trail north and south of Woz Way. The greatest usage of crosswalks at the intersection was observed on the north approach, with 11 pedestrian crossings during the AM peak-hour and 10 pedestrian crossings during the PM peak-hour. Four pedestrian crossings were observed during the AM peak-hour and five pedestrian crossings during the PM peak-hour on the west approach. Therefore, pedestrian volumes at the intersection indicate generally light usage during AM and PM peak-hours. Similarly, bicycle crossings at the west approach crosswalk were minimal, with no crossings observed during the AM peak-hour and a maximum of five crossings during the PM peak-hour. Although the proposed office project will contribute to an increase of pedestrian and bicycle activity at this intersection, outside of the trail, there are no walkable or bikeable destinations south of the project site, and any increase in pedestrian and bicycle demand could be accommodated by the existing crosswalks and sidewalks.

However, as described above, the City will require that the project implement signalized control at the Locust Street/Driveway A and Woz Way intersection. A new signal would provide a protected crossing phase for all approaches, including the existing north-south crosswalk on Woz Way that connects the Guadalupe River Trail north and south of Woz Way. Therefore, the improvement would increase the visibility of pedestrians and bicyclists and connectivity of the Guadalupe River Trail. Additional features planned to be installed as part of the City's improvements along Woz Way (shown on Figure 8) include:

- Curb extensions that would reduce the pedestrian crossing distance across Woz Way from 60 feet to approximately 45 feet
- Bike lane adjacent to the existing crosswalk across the west leg of the intersection
- Bike lanes protected landscaping/median islands along both sides of Woz Way
- A new north-south crosswalk across the east leg of the intersection

The project should work with the City to ensure that the proposed site plan (the southern frontage of the project site, including Driveway A) is consistent with planned improvements along Woz Way.



#### Figure 8 Proposed Woz Way Plan Line



#### Almaden Boulevard and Convention Center Access/Driveway B Operations

#### Northbound Left-Turn Queueing

The queuing analysis indicates that the 150-foot northbound left-turn pocket at the Almaden Boulevard and Convention Center Garage Driveway intersection (into Project Driveway B) would not have adequate queue storage capacity to serve the projected queue length during the AM peak-hour under project conditions. The queueing analysis shows that the inbound left-turn queue into Driveway B could extend up to 225 feet during the AM peak-hour. Therefore, the 150-foot turn pocket would need to be lengthened by a minimum of 75 feet. The northbound left-turn pocket can be extended by removing and reconstructing the landscape median along Almaden Boulevard.

#### Eastbound Queueing

Based on the project trip assignment, approximately 173 and 180 outbound trips would make left- and right-turns, respectively, from Driveway B during the PM peak-hour. The queueing analysis shows that the left-turn queue could extend up to 275 feet and the right-turn queue could extend up to 300 feet.

The eastbound approach is shown on the site plan to consist of a 25-foot left-turn pocket and a rightturn lane that extends directly into the project parking garage. With split-phased operations on the eastbound and westbound approaches, the short left-turn pocket would not be problematic since both left-turn and right-turn eastbound movements would proceed concurrently.

#### Signal Operations

The existing Convention Center Garage driveway (westbound approach of the intersection) consists of one inbound lane, one outbound lane, and one reversible which serves as an additional inbound lane during the AM peak-hour and an additional outbound lane during the PM peak-hour. Implementation of concurrent left-turns for the eastbound and westbound approaches would require that the project driveway be shifted approximately 10 feet north of its current proposed location. Additionally, protected phasing would require at least two lanes be provided at the westbound approach (left-turn lane and a shared through/right-turn lane). Operations of the reversible lane would need to be considered before implementation of concurrent left-turns. Based on the above, it is recommended that the eastbound and westbound approaches utilize split-phased operations.

It also should be noted that the westbound approach has priority during scheduled events to serve PM peak-hour egress movements from the Convention Center parking garage. The westbound approach would be given increased green time to clear the westbound queue, while other turning movements served by the signal, including the eastbound approach from the project site, would have reduced capacity to serve demand. The project should consider the implementation of signal modification and a License Plate Reader (LPR) system that notifies project traffic when significant outbound Convention Center egress movements will impact turn movements at the Driveway B intersection.

#### Pedestrian and Bicycle Access Evaluation

A crosswalk along the north approach of the intersection provides direct access between the project site's east frontage and the McEnery Convention Center. An additional east-west crosswalk along the south approach would be of limited benefit, since the existing north approach crosswalk is located only 50 feet north of the south approach and already provides an east-west route across Almaden Boulevard. However, the City will require the project to install a crosswalk along the south approach, as well as a crosswalk across the proposed west approach (Driveway B), as part of the required signal modifications at the intersection.

**Recommended Site Access Adjustments:** The following adjustments are recommended to reduce the site access issues identified above.



- Transponder style operations be considered for implementation at each of the parking garage gates.
- Appropriate visible and/or audible warning signs should be provided at Driveway A to alert pedestrians and bicyclists of vehicles exiting the garage.
- The project will be conditioned to construct or provide a fair-share contribution to the implementation of a new signal at the Locust Street/Driveway A and Woz Way intersection.
- Given the close spacing, approximately 260 feet, between Locust Street and Almaden Boulevard, the new signal at the Locust Street/Driveway A and Woz Way intersection would need to be coordinated with the Almaden Boulevard/Woz Way intersection.
- The project should work with the City to ensure that the proposed site plan (the southern frontage of the project site, including Driveway A) is consistent with planned improvements along Woz Way.
- The eastbound and westbound approaches at the Almaden Boulevard and Convention Center Access/Driveway B intersection will need to be operated with split-phasing. With split-phased operations on the eastbound and westbound approaches, the proposed eastbound left-turn pocket would not be problematic since both left-turn and right-turn eastbound movements would proceed concurrently.
- The 150-foot northbound left-turn pocket at the Almaden Boulevard and Convention Center Access/Driveway B intersection would need to be lengthened by a minimum of 75 feet. The northbound left-turn pocket can be extended by removing and reconstructing the landscape median along Almaden Boulevard.
- As part of the required signal modifications at the Almaden Boulevard and Convention Center Access/Driveway B intersection, the project will be required to install a crosswalk along the south and west approaches of the intersection.
- The westbound approach (Convention Center Driveway) at the Almaden Boulevard/Convention Center/Driveway B intersection has priority during scheduled events to serve PM peak-hour egress movements from the Convention Center parking garage. The project should consider the implementation of signal modification and a License Plate Reader (LPR) system that notifies project traffic when significant outbound Convention Center egress movements will impact turn movements at the Driveway B intersection.

# Vehicular On-Site Circulation

The proposed ground-floor plan is shown on Figure 6. Driveways A and B provide direct access to the Level B1 parking level and Driveway C leads directly to truck loading areas located on Level B2. There are no street level drive aisles proposed that would provide a connection between each of the site driveways. Circulation between the two vehicle parking garage entrances will be located entirely within the below-ground parking levels.

Mechanical lift parking spaces are proposed within Levels B1 and B2. Valet-assisted aisle-parking will be located along drive aisles within Levels B2 and B3. Tandem parking spaces will be operated by valets within Level B3.

#### Parking Garage Circulation/Valet Operations

Upon entry to the garage, drivers will be directed by valets to self-park at a designated parking space and will leave their keys with valet attendants. Valet staging areas will be located at each parking level to provide easy access to vehicle keys. Valets will be responsible for the operation of the parking stall lifts, retrieving and moving vehicles as needed, and collection and storage of vehicles keys. Since drivers will self-park, no inbound queueing is expected within the parking garage during the AM peakhour. Valets, however, will need to continuously ensure that lifts are elevated once a stall is occupied



so that another vehicle can park below. Once all stalls are occupied, valets will parallel-park vehicles along drive aisles. As discussed above, each garage entrance would need to process a minimum of 375 vehicles per hour (or approximately six to seven vehicles per minute, on average) during the AM peak-hour to avoid creating an inbound queue. Drivers will need to be directed to park as soon as they arrive, to prevent queueing back onto Almaden Boulevard. A minimum of seven valet staff will be needed to serve each garage entrance during the peak arrival/departure periods for the office use assuming that valets can assist with parking one vehicle each minute during the peak arrival period.

Continuous drive aisles run through the majority of the three below-ground parking levels, shown in Figure 9. In general, the layout of each parking level provides opportunities for circulating vehicles to loop around without requiring U-turns. Dead-end drive aisles located on Levels B1 and B2 should not be problematic, given that drivers will be guided by valets and will not be circulating the garage in search of available parking spaces.

All drive aisles within the parking garage are shown to provide two-way access to 90-degree parking stalls. The drive aisles will meet the City's minimum width of 26 feet for two-way drive aisles with 90-degree parking along both sides. However, within Levels B2 and B3, parallel parking spaces are proposed within the 26-foot drive aisles, thus creating an effective width of approximately 18 feet along most drive aisles when vehicles are parallel-parked. With aisle-parked vehicles, the drive aisles (including some dead-end drive aisles) will be valet-operated with one-way circulation. The aisle-parked vehicles will be moved by valet attendants as necessary to retrieve a vehicle from an adjacent 90-degree parking space. The project should work with City staff to ensure that specific requirements for the valet operations and mechanical lifts are met.

# **Truck Site Access**

The project proposes to locate two loading docks within Parking Level B2, with space for three trucks at each dock. One loading dock is located immediately south of the ramp leading to Driveway C, while the other dock is located approximately 350 feet south of the ramp via a drive aisle. The City of San Jose off-street loading standards within the Downtown Area and applicable to the project are listed below:

- Offices with one hundred thousand to one hundred seventy-five thousand square feet of total gross floor area shall provide one loading space. One additional loading space shall be included for each one hundred thousand square feet of total gross floor area in excess of one hundred seventy-five thousand square feet. (20.70.420)
- Retail and commercial stores and shops, restaurants, bars and drug stores greater than fifty thousand GFA shall provide two loading spaces plus one loading space for each twenty-five GFA over fifty thousand GFA. (20.70.430)

The proposed development will have office uses totaling 1,487,115 square feet and 39,137 s.f. of food and beverage-serving uses. Therefore, the City code requires the project to provide a total of 14 offstreet truck loading spaces (14 spaces for the office use and none required for the retail use). All loading spaces should be designed to be no less than 10 feet wide, 30 feet long, and 15 feet high per the City code (20.90.420). However, 14 loading spaces seems excessive for the proposed office buildings, particularly if they are to be occupied by a single tenant. Although the project will not meet the City's minimum requirement for the number of loading docks, the six proposed loading docks may be sufficient. The project should work with City staff to identify the required off-street loading spaces.

Waste disposal within the proposed office development will utilize trash compactors with roll-off containers that can be hauled away by trucks. The site plan indicates that two 35-foot trash compactors will be located adjacent to each loading dock, for a total of four trash collection bays. As shown on Figure 10, trucks will be provided sufficient clear space to maneuver for trash pick-up. This exhibit



#### Figure 9 Below-Ground Parking Levels Circulation



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#### Figure 10 Garbage Truck Turning Template



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assumes a collection vehicle with a wheel-base of 20.4 feet, a turning radius of 34.8 feet and an outside wheel radius of 41.8 feet. The project also will meet the minimum 46-foot turning radius required by the municipal waste collection agency (Republic Services) for roll-off trucks.

Fire trucks will access the proposed site via the Almaden Boulevard and Woz Way frontages. The west project frontage would be accessed by entering the Guadalupe River Trail at its intersection with Woz Way and utilizing the trail as a fire access path. Based on the turning template shown on Figure 11, trucks would be able to reverse onto ground-floor pedestrian walkways located between the office towers.

# Pedestrian and Bicycle Access and Circulation

#### Pedestrian and Bicycle Circulation

The Downtown Streetscape Master Plan (DSMP) provides design guidelines for existing and future development for the purpose of enhancing the pedestrian experience in the Greater Downtown Area. Per the DSMP and shown in Figure 12, Woz Way is a designated Downtown Pedestrian Network Streets (DPNS), which are intended to support a high level of pedestrian activity as well as retail and transit connections. The DPNS streets provide a seamless network throughout the downtown that is safe and comfortable for pedestrians and connects all major downtown destinations. Design features of a DPNS create an attractive and safe pedestrian environment to promote walking as the primary travel mode. The DSMP policies state that vehicles crossing the sidewalk are often a safety hazard for pedestrians and measures should be taken within the design for any new project to minimize the number of curb cuts and driveways.

Sidewalks are provided along the project frontages along Almaden Boulevard and Woz Way. Crosswalks and pedestrian signal heads are located at all signalized intersections within the project area, including the intersections of Almaden Boulevard/Woz Way, Almaden Boulevard/Convention Center, and Almaden Boulevard/San Carlos Street. At the signalized intersection of Almaden Boulevard and the Convention Center Parking driveway, a crosswalk along the north approach provides direct access between the project site's east frontage and the McEnery Convention Center. An additional east-west crosswalk along the south approach would be of limited benefit, since the existing north approach crosswalk is located only 50 feet north of the south approach and already provides an eastwest route across Almaden Boulevard. However, the City will require the project to install a crosswalk along the south approach, as well as a crosswalk across the proposed west approach (Driveway B), as part of the required signal modifications at the intersection.

The east portion of the Guadalupe River Trail is located along the west project frontage. The project proposes to provide a 30-foot wide buffer space between the Guadalupe River Trail and ground-floor food/beverage services, which would provide additional space for pedestrians and seating areas. A paseo connecting the Guadalupe River Trail to Almaden Boulevard also runs along the north project frontage. From the project site, pedestrians may use the Guadalupe River Trail as a cut-through route to San Carlos Street, Park Avenue, San Fernando Street, and Santa Clara Street to the north. A high-visibility crosswalk located along the west leg of the Locust Street/Woz Way intersection provides access to the Guadalupe River Trail south across Woz Way. The Children's Bridge, located north and west of the project site, connects the east and west sides of the Guadalupe River Trail.

Class II bicycle facilities (striped bike lanes) are provided along Almaden Boulevard (along the east project site frontage) and Woz Way (along the south project frontage). As described earlier, the existing bike lanes along Almaden Boulevard and Woz way are planned to be upgraded to a Class IV protected bike lane as part of Better Bikeways project. However, the project proposes to provide a separated bike



#### Figure 11 Fire Truck Turning Template



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#### Figure 12 Downtown Pedestrian Street Network





lane between the sidewalk and proposed on-street drop-off zones along the east and south project frontages on Almaden Boulevard and Woz Way. The bike lanes would be located at the same level as the sidewalk. The raised bike lanes will require signal modifications to implement a bikeway convergence at the northwest corner of the Almaden Boulevard and Woz Way intersection. As shown on Figure 8, the City is planning to provide curb extensions and bikeway convergences at all corners of the Almaden Boulevard/Woz Way intersection. Additional Class II bicycle facilities and Class III bike routes are already provided along most roadways within the project area.

As described above, the City will require that the project implement signalized control at the Locust Street/Driveway A and Woz Way intersection. A new signal would provide a protected crossing phase for all approaches, including the existing north-south crosswalk on Woz Way that connects the Guadalupe River Trail north and south of Woz Way. Therefore, the improvement would increase the visibility of pedestrians and bicyclists and connectivity of the Guadalupe River Trail. Additional features planned to be installed as part of the City's improvements along Woz Way (shown on Figure 8) include:

- Curb extensions that would reduce the pedestrian crossing distance across Woz Way from 60 feet to approximately 45 feet
- Bike lane adjacent to the existing crosswalk across the west leg of the intersection
- A new north-south crosswalk across the east leg of the intersection

The project should work with the City to ensure that the proposed site plan (the southern frontage of the project site, including Driveway A) is consistent with planned improvements along Woz Way.

The Bay Wheels (formerly Ford Go Bike) bike share program allows users to rent and return bicycles at various locations. Bike share bikes can be rented and returned at designated docking stations throughout the Downtown area. In addition, dockless bike and scooter rentals are available throughout the Downtown area. These services provide electric bicycles and scooters with GPS self-locking systems that allow for rental and drop-off anywhere. A bike share station is located only 110 feet from the project frontage on Almaden Boulevard, at the northeast corner of the Almaden Boulevard/Woz Way intersection.

# **Transit Facilities**

As shown in Figure 4, the project is in close proximity to major transit services that will provide the opportunity for multi-modal travel to and from the project site. The project site is located approximately 1,000 feet walking distance from the Convention Center Light Rail Transit (LRT) Station, 1,200 feet walking distance from the Children's Discovery Museum LRT Station, and approximately 0.8-mile from the Diridon Transit Center located on Cahill Street. Connections between local and regional bus routes, light rail lines, and commuter rail lines are provided within the Diridon Transit Center. The nearest bus stops are located at San Carlos Street/Woz Way (Route 23) and San Carlos Street/Convention Center (Routes 23, 168, 523). The pedestrian and bicycle facilities located adjacent to the project site provide access to major transit stations and provide for a balanced transportation system as outline in the Envision 2040 General Plan goals and policies.

#### Transit Delay Analysis

An evaluation of the effects of project traffic on transit vehicle delay also was completed. The analysis was completed for all transit routes that travel through the study intersections with focus on the San Carlos Street corridor, utilizing peak hour intersection level of service analysis.

Within the project vicinity, bus transit routes primarily travel along San Carlos Street in the immediate project vicinity. The analysis shows that the project traffic would result in a minor increase, less than 45



seconds or less, in delay of some transit vehicles and result in a decrease in delay for other transit vehicles (see Table 4). The decreases in delay are attributed to the fact that the addition of traffic can cause a reallocation of green time, which results in less delay for certain movements and more delay for others. The City does not currently have established policies or significance criteria related to transit vehicle delay. However, the City is currently reviewing potential policies that could require development projects to contribute towards the implementation of transit improvements along the Santa Clara Street and San Carlos Street corridors. Thus, this data is presented for informational purposes only.

#### Table 4 Transit Delay Analysis

			Transit Delay <sup>1</sup> (sec/veh)										
Bus			Backg	round	Backgrou Proj	und Plus ject	Cha	inge					
Route #	Study Area Street(s)	Direction	AM	РМ	AM	AM PM		РМ					
23/523	San Carlos Street	Eastbound	115.6	129.3	110.4	158.2	-5.2	+28.9					
20/020		Westbound	147.2	138.8	142.3	147.0	-4.9	+8.2					
169	San Carlos Street, Woz Way,	Northbound	108.4	136.0	100.1	150.1	-8.3	+14.1					
100	Delmas Avenue	Southbound	172.1	171.9	170.0	186.1	-2.1	+14.2					

Notes:

Represents the total movement delay each bus is projected to experience as it passes through all of the relevant study intersections. Delays were obtained from TRAFFIX.

# Parking

Projects in the downtown area are located in close proximity to residences, recreation, and retail services, allowing individuals to live and satisfy their daily needs near their place of employment. The availability of bicycle lanes and sidewalks throughout downtown and the project's close proximity to major transit services will provide for and encourage the use of multi-modal travel options (bicycling and walking) and reduce the use of single-occupant automobile travel and demand for on-site parking described below.

### Vehicle Parking

According to the City of San Jose Downtown Zoning Regulations (Table 20-140), the project is required to provide 2.5 off-street vehicle parking spaces per 1,000 square feet of office use. On-site parking spaces are not required for the commercial use. The project consists of 1,487,115 gross square feet (GSF) of office uses. Using a floor area ratio of 0.85, the office use is calculated to contain 1,264,048 square feet of floor area. Based on the City's off-street parking requirements, the office use would be required to provide a total of 3,161 off-street parking spaces. The project proposes to provide a total of 1,343 on-site parking spaces. This represents a 57.5 percent reduction from the required 3,161 off-street parking spaces, as shown on Table 5.

#### Reduction in Required Off-Street Parking Spaces

Based on City Code 20.90.220.A.1, the project may receive up to a 50 percent reduction in the required off-street parking spaces with a development permit or a development exception if no development permit is required. For an off-street parking reduction of up to 20 percent, the following provisions must be met:



# Table 5On-Site Vehicle Parking Requirement

Proposed	l Project	City of San Jose Parki	ng Code <sup>2</sup>	Baseline Required	Provided	Percent
Office Size	Floor Area <sup>1</sup>	Land Use	Parking Ratio	Parking <sup>3</sup>	Parking	Reduction
1,487,115 s.f.	1,264,048 s.f.	Offices, business and administrative	2.5/1000 s.f. of floor area	3,161	1,343	57.5%
Notes: <sup>1</sup> Assumes a 0.8 <sup>2</sup> City of San Jos <sup>3</sup> Required on-sit	5 floor area ratio. e Zoning Ordinan e parking spaces	ce: Parking Spaces Required by Land U before any exceptions allowed per the C	se Sity code.			

- 1. The structure or use is located within two thousand feet of a proposed or an existing rail station or bus rapid transit station, or an area designated as a neighborhood business district, or as an urban village, or as an area subject to an area development policy in the city's general plan or the use is listed in Section 20.90.220.G; and
- 2. The structure or use provides bicycle parking spaces in conformance with the requirements of Table 20-90.

The project site is located within the Downtown Core and is within 1,000 feet walking distance of the Convention Center LRT Station along the Santa Teresa-Alum Rock and Mountain View-Winchester lines. Assuming that the project will meet the City Bicycle Parking requirements per Table 20-90, the project will conform to Code 20.90.220.A.1 Subsections A and B and may be granted up to a 20 percent reduction in off-street parking spaces.

The project may pursue an additional 30% parking reduction to meet its total parking reduction by implementing a Transportation Demand Management (TDM) program that contains but is not limited to at least three of the measures described in Code 20.90.220.A.1 Subsections C and D. City Code 20.70.330.A also allows for an additional 15% reduction for mixed-use development projects within the Downtown area which implement a TDM program. Therefore, the project will be required to submit and have approved its TDM program. Overall, the TDM reductions will allow the project to reduce its required on-site parking spaces by up to 57.5 percent.

#### ADA Compliance

Per the 2016 California Building Code (CBC) Table 11B-208.2, projects providing more than 1,001 parking spaces are required to provide accessible parking spaces at a rate of 20 accessible spaces plus one accessible space for each 100 total spaces over 1,000 spaces. The proposed project will be required to provide a total of 23 accessible parking spaces. Of the required accessible parking spaces, 4 van accessible spaces are required.

The project proposes to provide a total of 23 accessible spaces, all located within the B1 parking garage level. Of the provided ADA accessible spaces, 4 spaces are shown to be designated van accessible. As proposed, the project will provide sufficient accessible spaces to meet accessible parking space requirements. Based on the site plan, the proposed accessible parking spaces are generally located within 200 feet walking distance of the Level B1 elevator lobby.

#### **Bicycle Parking**

Based on the project's downtown location, it is likely that employees of the proposed office use will be able to live in close proximity to the site or will be able to quickly access transit to reach their place of



residence. Therefore, the project is required to meet the City's Bicycle Parking requirements. The City Municipal Code (Table 20-190) requires one bicycle parking space per 4,000 square feet of office use. Bicycle parking spaces shall consist of at least eighty percent short-term and at most twenty percent long-term spaces. Per Code 20.70.485, uses which are not required to provide vehicle parking spaces (i.e. the ground-floor food/beverage use) are required to provide only two short-term bicycle parking spaces and one long-term bicycle parking spaces. Thus, the proposed office project is required to provide a total of 319 bicycle parking spaces: 255 short-term bicycle parking spaces and 64 long-term bicycle parking spaces to meet the City standards, as shown on Table 6.

The City's definition of short-term and long-term bicycle parking is described below.

#### City of San Jose Long-Term and Short-Term Bicycle Parking

Long-term bicycle parking facilities are secure bicycle storage facilities for tenants/employees of a building that fully enclose and protect bicycles and may include:

- A covered, access-controlled enclosure such as a fenced and gated area with short-term bicycle parking facilities,
- An access-controlled room with short-term bicycle parking facilities, and
- Individual bicycle lockers that securely enclose one bicycle per locker.

Short-term bicycle parking facilities are accessible and usable by visitors, guests, or business patrons and may include:

- Permanently anchored bicycle racks,
- Covered, lockable enclosures with permanently anchored racks for bicycles,
- Lockable bicycle rooms with permanently anchored racks, and
- Lockable, permanently anchored bicycle lockers.

The project is proposing space for the storage of 338 bicycles, which exceeds the number of bicycle parking spaces required. The site plan indicates that bicycle parking rooms will be provided at ground level and accessible from sidewalks and on-site exterior walkways. Bike racks with space for 6-10 bicycles each also will be placed along on-site walkways and the Guadalupe River Trail along the west project frontage.

#### Table 6

#### **On-site Bicycle Parking Requirement**

Propose	d Project	City of San Jose Parkin	g Code <sup>2</sup>	Required	Bicycle	Parking
Size	Floor Area <sup>1</sup>	Land Use	Bicycle Parking Ratio	Short- Term	Long- Term	Total
1,487,115 s.f.	1,264,048 s.f.	Offices, business and administrative	1/4000 s.f. of floor area	253 2	63 1	316 3
		r ooubeverage establishment	Total:	255	64	319

<sup>2</sup> City of San Jose Zoning Ordinance: Parking Spaces Required by Land Use



# Vehicular Queuing Analysis

A vehicle queuing analysis was completed for high-demand movements at the selected study intersections. The study locations were selected based on the number of projected project trips utilizing left-turning lanes at surrounding intersections. The vehicle queuing analysis was estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

 $P(x=n) = \frac{\lambda^n e^{-(\lambda)}}{\lambda^n e^{-(\lambda)}}$ 

n!

Where:

P (x=n) = probability of "n" vehicles in queue per lane n = number of vehicles in the queue per lane  $\lambda$  = average number of vehicles in the queue per lane (vehicles per hour per lane/signal cycles per hour)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95<sup>th</sup> percentile maximum number of queued vehicles per signal cycle for a particular movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement. The results of the queue analysis are summarized in Table 5.

The extension of turn-pockets to accommodate the projected queues at the described intersections below would require street widening along with narrowing of sidewalks and/or removal of bike lanes. The removal and/or alteration of improvements intended to encourage the use of multi-modal travel to accommodate vehicular demand is not consistent with General Plan goals. Therefore, the potential extension of turn-pockets at the intersections identified below should consider any adverse effects they may have on multi-modal travel. The project's close proximity to major transit services and pedestrian and bicycle facilities would provide for and encourage the use of multi-modal travel options and reduce the use of single-occupant automobile travel. It is expected that the auto trips ultimately generated by the project would be less than those estimated within this study and the identified operational deficiencies (queues at intersections) reduced as development and the planned enhancement of the multi-modal transportation system progresses within the Downtown area.

#### 1. Delmas Avenue and Auzerais Avenue

The queuing analysis indicates that the westbound left-turn pocket at the Delmas Avenue and Auzerais Avenue intersection is not projected to have adequate queue storage capacity to serve the projected queue lengths during the PM peak-hour under project conditions.

• The westbound queue is projected to extend back from the intersection approximately 275 feet during the PM peak-hour, thus exceeding the 250-foot left-turn lane.

**Recommendation:** The westbound left-turn pocket could be re-striped to extend the storage length by an additional 25 feet. However, this may require modifying an existing raised median island.

#### 2. Woz Way and Auzerais Avenue

The queuing analysis indicates that the northbound left-turn lane at the Woz Way and Auzerais Avenue intersection is not projected to have adequate queue storage capacity to serve the projected queue



# Table 5Intersection Queueing Analysis

	lmas/ erais	2. V Auz	Voz/ erais				6. Almaden/ San Carlos									
	WBL	WBL	NBL	NBL	EBL	EBL	EBT	EBT	NBL	NBL	SBL	SBL	NBL	NBL	WBL	WBL
Measurement	AM	PM	AM	PM	AM	PM	AM	РМ	AM	РМ	AM	PM	AM	PM	AM	PM
Existing Conditions																
Cycle/Delay <sup>1</sup> (sec)	120	120	89	89	140	140	140	140	140	140	140	140	140	140	140	140
Lanes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Volume (vph)	23	68	116	140	51	33	76	255	204	18	85	135	64	41	58	84
Volume (vphpl)	23	68	116	140	51	33	76	255	204	18	85	135	64	41	58	84
Avg. Queue (veh/ln.)	1	2	3	3	2	1	3	10	8	1	3	5	2	2	2	3
Avg. Queue <sup>2</sup> (ft./In)	19	57	72	87	50	32	74	248	198	18	83	131	62	40	56	82
95th %. Queue (veh/In.)	2	5	6	7	5	3	6	15	13	2	7	9	5	4	5	6
95th %. Queue (ft./In)	50	125	150	175	125	75	150	375	325	50	175	225	125	100	125	150
Storage (ft./ In.)	250	250	175	175	150	150	250	250	150	150	125	125	125	125	175	175
Adequate (Y/N)	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	NO	NO	YES	YES	YES	YES
Background Conditions																
Cycle/Delay <sup>1</sup> (sec)	120	120	89	89	140	140	140	140	140	140	140	140	140	140	140	140
Lanes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Volume (vph)	28	82	140	196	156	53	79	282	241	35	97	142	128	258	135	120
Volume (vphpl)	28	82	140	196	156	53	79	282	241	35	97	142	128	258	135	120
Avg. Queue (veh/ln.)	1	3	3	5	6	2	3	11	9	1	4	6	5	10	5	5
Avg. Queue <sup>2</sup> (ft./In)	23	68	87	121	152	52	77	274	234	34	94	138	124	251	131	117
95th %. Queue (veh/In.)	3	6	7	9	10	5	6	17	15	3	7	10	9	15	9	8
95th %. Queue (ft./In)	75	150	175	225	250	125	150	425	375	75	175	250	225	375	225	200
Storage (ft./ In.)	250	250	175	175	150	150	250	250	150	150	125	125	125	125	175	175
Adequate (Y/N)	YES	YES	YES	NO	NO	YES	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO
Background Plus Project Condition	IS															
Cycle/Delay <sup>1</sup> (sec)	120	120	89	89	140	140	140	140	140	140	140	140	140	140	140	140
Lanes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Volume (vph)	46	190	159	311	248	163	91	354	343	53	109	214	147	373	224	136
Volume (vphpl)	46	190	159	311	248	163	91	354	343	53	109	214	147	373	224	136
Avg. Queue (veh/ln.)	2	6	4	8	10	6	4	14	13	2	4	8	6	15	9	5
Avg. Queue <sup>2</sup> (ft./In)	38	158	98	192	241	158	88	344	333	52	106	208	143	363	218	132
95th %. Queue (veh/In.)	4	11	7	12	15	11	7	20	20	5	8	13	10	21	14	9
95th %. Queue (ft./In)	100	275	175	300	375	275	175	500	500	125	200	325	250	525	350	225
Storage (ft./ In.)	250	250	425	175	150	150	250	250	150	150	125	125	125	125	175	175
Adequate (Y/N)	YES	NO	YES	NO	NO	NO	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO

<sup>1</sup> Vehicle queue calculations based on cycle length for signalized intersections and control delay for unsignalized intersections.

<sup>2</sup> Assumes 25 feet per vehicle in the queue.

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, R = Right, T = Through, L = Left.

lengths during the PM peak-hour under background conditions and project conditions.

• The northbound queue is projected to extend back from the intersection approximately 300 feet during the PM peak-hour, thus exceeding the 175-foot left-turn lane storage capacity which extends to the upstream intersection of Woz Way and SR-87 NB Off-Ramps. The projected queue would therefore spill-over to the northbound approach of the Woz Way and SR-87 NB Ramps intersection. Because the approach consists of a single northbound travel lane, all northbound traffic would form a single queue.

**Recommendation:** An extension of the northbound left-turn lane at the Woz Way and Auzerais Avenue intersection could be constructed south of the Woz Way/SR-87 NB Off-Ramps intersection. This will require removal of a raised landscape median and the installation of signage to prevent vehicles from mistakenly making a left-turn onto the off-ramp approach.

#### 5. Almaden Boulevard and Woz Way/Balbach Street

The queuing analysis indicates that the northbound left-turn movement, southbound left-turn, and eastbound through movements at the Almaden Boulevard and Woz Way/Balbach Street intersection currently do not have adequate queue storage to serve existing queues. Additionally, the eastbound left-turn movement is not projected to have adequate queue storage capacity to serve the projected queue lengths during the peak hours with the addition of project traffic.

- The southbound left-turn queue is currently estimated to extend approximately 175 feet and 225 feet back from the intersection during the AM and PM peak-hours, respectively. The existing queues extend out of the 125-foot turn-pocket and spill-out into the inner southbound travel lane of Almaden Boulevard. With the addition of background and project traffic, the queues would extend approximately 200 feet and 325 feet back from the intersection during the AM and PM peak-hours, respectively.
- The existing northbound queue is currently estimated to extend approximately 325 feet back from the intersection during the AM peak-hour. The existing queue extends out of the 150-foot turn-pocket. With the addition of background and project traffic, the queue would extend approximately 500 feet back from the intersection during PM peak-hour.
- The eastbound through-movement queue is currently estimated to extend approximately 375 feet back from the intersection during the PM peak-hour. The existing queue extends past the upstream intersection of Locust Street/Woz Way. With the addition of background and project traffic, the queue would extend approximately 500 feet back from the intersection during PM peak-hour.
- The eastbound left-turn queue is projected to extend back from the intersection approximately 250 feet and 125 feet under background conditions during the AM and PM peak-hours, respectively. The projected queue during the AM peak-hour would extend out of the existing 150-foot turn-pocket. With the addition of project traffic, the queues would extend approximately 375 feet and 275 feet back from the intersection during AM and PM peak-hours. It should be noted that while the left-turn pocket is planned to be extended as part of the City's Woz Way plan line (Figure 8), the projected queues would still exceed the planned storage length of 185 feet.

**Recommendation:** The northbound and southbound turn-pockets may be extended to accommodate the projected 500-foot and 325-foot left turn queues, respectively. These improvements will require removal of the raised landscaped median, including trees.

The only improvement that would reduce the existing eastbound through-movement queue would be to provide a second eastbound through-lane along Woz Way. The addition of a second through lane


would require the widening of Balbach Street to accommodate a second receiving lane and possible removal of existing bike lanes along Woz Way and Balbach Street. However, such street widening and adverse effect on multi-modal facilities is not consistent with General Plan policies which seek to promote multi-modal travel. Therefore, there are no feasible improvements to reduce the eastbound through-movement queue.

The eastbound left-turn pocket cannot be extended due to an adjacent westbound left-turn pocket providing access to Locust Street from Woz Way. Alternatively, providing a second 150-foot eastbound left-turn lane could provide storage for the projected 300-foot queue during the PM peak-hour. However, this improvement will require narrowing existing travel lanes, parking lanes, and possibly bike lanes along Woz Way. Additionally, the queue formed by the eastbound through-movement would likely limit access to a potential second eastbound left-turn lane. Therefore, this improvement is not recommended.

Finally, the existing eastbound through-movement lane could be modified to provide shared left and through access. However, the existing and projected eastbound through-movement queues would continue to extend past Locust Street/Driveway A. Although feasible, this improvement would not significantly improve queue lengths along eastbound Woz Way and is not recommended.

## 6. Almaden Boulevard and San Carlos Street

The queuing analysis indicates that the northbound and westbound left-turn pockets are not projected to have adequate queue storage capacity to serve the projected queue lengths during the peak hours under background and project conditions.

- The northbound queue is projected to extend 225 feet and 375 feet back from the intersection under background conditions during the AM and PM peak-hours, respectively. The projected queues will extend out of the existing 125-foot turn-pocket. With the addition of project traffic, the queue would extend approximately 250 feet and 525 feet back from the intersection during the AM and PM peak-hours, respectively.
- The westbound queue is projected to extend 225 feet and 200 feet back from the intersection under background conditions during the AM and PM peak-hours, respectively. The projected queues will extend out of the existing 175-foot turn-pocket. With the addition of project traffic, the queue would extend approximately 350 feet and 225 feet back from the intersection during the AM and PM peak-hours, respectively.

**Recommendation:** The projected storage deficiencies could only be improved by lengthening the identified left-turn pockets. Due to the presence of light rail tracks within the center median of San Carlos Street, no improvements are feasible for the westbound left-turn pocket. The existing northbound left-turn pocket could be extended an additional 350 feet to a total storage length of 475 feet, however, the pocket would still be 50 feet short of the 525 feet required to serve the PM peak-hour queue. A second northbound left-turn pocket (up to 475 feet) could be installed to provide additional storage capacity. These improvements will require removal of a portion of the raised landscaped median, including trees.

## Conclusions

The project, as proposed, will consist of two towers with a combined 1,727,777 square feet (s.f.) of above-grade gross floor area (GFA) replacing an existing surface parking lot. Approximately 1,487,115 s.f. of office space and 39,137 s.f. of food and beverage serving uses will be provided within the towers. A total of 1,343 valet-only parking spaces are proposed within three below-ground parking levels. Site access is proposed via a full-access driveway located at the north leg of the Locust Street/Woz Way



intersection and via a two-way driveway at the existing signalized intersection of Almaden Boulevard/Convention Center Access.

The project site is located within the Downtown Growth Area Boundary, for which an Environmental Impact Report (EIR), *Downtown San Jose Strategy Plan 2040 (DTS 2040)*, has been completed and approved. With adoption of DTS 2040, this project is covered under DTS 2040 and no CEQA transportation analysis is required.

The availability of bicycle lanes and sidewalks throughout downtown and the project's proximity to major transit services will provide for and encourage the use of multi-modal travel options (bicycling and walking) and reduce the use of single-occupant automobile travel. Therefore, the estimates of trips to be generated by the proposed project as presented and evaluated within this study may represent an over-estimation of traffic and impacts associated with the proposed project. It is expected that the auto trips ultimately generated by the project would be less and the identified operational issues reduced with the use of the multi-modal transportation system within the Downtown area.

A summary of the site access and circulation review along with recommended adjustments is provided below.

## Recommendations

- The length of proposed passenger loading zones along Almaden Boulevard and Woz Way, as well as the number of on-street parking spaces to remain, will be determined during the implementation phase of the project.
- Transponder style operations be considered for implementation at each of the parking garage gates.
- Appropriate visible and/or audible warning signs should be provided at Driveway A to alert pedestrians and bicyclists of vehicles exiting the garage.
- Due to the a signal being warranted in the PM peak hour under background plus project conditions and the driveway's proximity to the Woz/SR-87 Northbound off-ramp, the project will be conditioned to construct or provide a fair-share contribution to the implementation of a new signal at Locust Street/Woz Way (Driveway A) and pedestrian/bicycle improvements at the signalized intersection. A new signal at the Locust Street/Driveway A and Woz Way intersection would provide a protected crossing phase for all approaches, including the existing north-south crosswalk on Woz Way that connects the Guadalupe River Trail north and south of Woz Way. Therefore, the improvement would increase the visibility of pedestrians and bicyclists and connectivity of the Guadalupe River Trail.
- The project should work with the City to ensure that the proposed site plan (the southern frontage of the project site, including Driveway A) is consistent with planned improvements along Woz Way.
- The project proposes to provide a separated bike lane between the sidewalk and proposed onstreet drop-off zones along the east and south project frontages on Almaden Boulevard and Woz Way. The bike lanes would be located at the same level as the sidewalk. The raised bike lanes will require signal modifications to implement a bikeway convergence at the northwest corner of the Almaden Boulevard and Woz Way intersection.
- The eastbound and westbound approaches at the Almaden Boulevard and Convention Center Access/Driveway B intersection will need to be operated with split-phasing. With split-phased operations on the eastbound and westbound approaches, the proposed eastbound left-turn pocket would not be problematic since both left-turn and right-turn eastbound movements would proceed concurrently.



- The 150-foot northbound left-turn pocket at the Almaden Boulevard and Convention Center Access/Driveway B intersection would need to be lengthened by a minimum of 75 feet. The northbound left-turn pocket can be extended by removing and reconstructing the landscape median along Almaden Boulevard.
- The City will require the project to install a crosswalk along the south approach of the Almaden Boulevard and Convention Center Access/Driveway B intersection, as well as a crosswalk across the proposed west approach (Driveway B).
- The westbound approach (Convention Center Driveway) at the Almaden Boulevard/Convention Center/Driveway B intersection has priority during scheduled events to serve PM peak-hour egress movements from the Convention Center parking garage. The project should consider the implementation of signal modification and a License Plate Reader (LPR) system that notifies project traffic when significant outbound Convention Center egress movements will impact turn movements at the Driveway B intersection.
- Drivers will need to be directed to park as soon as they arrive, to prevent queueing back onto Almaden Boulevard. A minimum of seven valet staff will be needed to serve each garage entrance during the peak arrival/departure periods for the office use assuming that valets can assist with parking one vehicle each minute during the peak arrival period. The project should work with City staff to ensure that specific requirements for the valet operations and mechanical lifts are met.
- Although the project will not meet the City's minimum requirement for the number of loading docks, the six proposed loading docks may be sufficient. The project should work with City staff to identify the required off-street loading spaces.
- The project will be required to submit and have approved its TDM program. Overall, the TDM reductions will allow the project to reduce its required on-site parking spaces by up to 57.5 percent.
- Based on the vehicular queueing analysis, the need for the following improvements will be determined by City staff:
  - 1. Delmas Avenue and Auzerais Avenue
    - The westbound left-turn pocket could be re-striped to extend the storage length by an additional 25 feet. However, this may require modifying an existing raised median island.
  - 2. Woz Way and Auzerais Avenue
    - An extension of the northbound left-turn lane at the Woz Way and Auzerais Avenue intersection could be constructed south of the Woz Way/SR-87 NB Off-Ramps intersection. This will require removal of a raised landscape median and the installation of signage to prevent vehicles from mistakenly making a left-turn onto the off-ramp approach.
  - 5. Almaden Boulevard and Woz Way/Balbach Street
    - The northbound and southbound turn-pockets may be extended to accommodate the projected 500-foot and 325-foot left turn queues, respectively. These improvements will require removal of the raised landscaped median, including trees.
  - 6. Almaden Boulevard and San Carlos Street
    - The projected storage deficiencies could only be improved by lengthening the identified left-turn pockets. Due to the presence of light rail tracks within the center median of San Carlos Street, no improvements are feasible for the westbound left-turn pocket. The existing northbound left-turn pocket could be extended an additional 350 feet to a total storage length of 475 feet, however, the pocket would still be 50 feet short of the 525 feet required to serve the PM peakhour queue. A second northbound left-turn pocket (up to 475 feet) could be



installed to provide additional storage capacity. These improvements will require removal of a portion of the raised landscaped median, including trees.

2833 South Almaden Boulevard Offices Development LTA Technical Appendices

May 13, 2020

Appendix A

**Volumes Summary** 

Intersection Number:	1
Traffix Node Number:	3267
Intersection Name:	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
Peak Hour:	AM
Count Date:	2/6/19

						M	ovement	S						
		No	orth Appro	oach	Eas	East Approach			South Approach			West Approach		
Scenario:		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions		22	187	58	0	86	23	0	0	0	166	75	0	617
	ATI	31	41	39	0	33	5	0	0	0	28	42	0	219
Background Conditions		53	228	97	0	119	28	0	0	0	194	117	0	836
Proposed Project	t Trips	0	6	64	0	1	18	0	0	0	0	76	0	165
Background Plus Project Conditions		53	234	161	0	120	46	0	0	0	194	193	0	1001

2
3271
Woz Way and Auzerais Avenue
AM
2/6/19

Peak Hour: Count Date:	A 2	M 2/6/19																
	2	./0/10																
	_					M	ovemen	ts	uth Approach TH LT 328 116									
		No	rth Appro	oach	Eas	t Appro	bach	Sou	South Approach									
Scenario:		RT	TH	LT	RT	ŤĤ	LT	RT	TH	LT								
		_																
Existing Conditions		4	29	0	3	1	3	0	328	116								
	ATI	1	9	0	0	0	0	0	105	24								

Background Conditions	5	38	0	3	1	3	0	433	140	118	0	59	800
Proposed Project Trips	0	76	0	0	0	0	0	32	19	102	0	38	267
Background Plus Project Conditions	5	114	0	3	1	3	0	465	159	220	0	97	1067

3
3209
Woz Way and SR-87 NB Off-Ramp
AM
2/6/19

	Movements												
_	No	orth Appro	oach	Eas	East Approach			South Approach			West Approach		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	0	127	0	0	0	0	0	284	0	61	0	165	637
ATI	0	32	0	0	0	0	0	38	0	111	0	141	322
Background Conditions	0	159	0	0	0	0	0	322	0	172	0	306	959
Proposed Project Trips	0	178	0	0	0	0	0	51	0	153	0	0	382
Background Plus Project Conditions	0	337	0	0	0	0	0	373	0	325	0	306	1341

West Approach RT TH LT

0

0

33

26

Total

623

177

RT

106

12

Intersection Number:	4
Traffix Node Number:	3863
Intersection Name:	Almaden Boulevard and Convention Center
Peak Hour:	AM
Count Date:	2/6/19

					Μ	lovemen	ts						
		North App	roach	Eas	East Approach			South Approach			West Approach		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	0	236	56	4	0	3	128	1357	0	0	0	0	1784
A	ті о	33	1	0	0	0	2	709	0	0	0	0	745
Background Conditions	0	269	57	4	0	3	130	2066	0	0	0	0	2529
Proposed Project Tri	ps 243	84	0	0	0	0	0	12	131	30	0	28	528
Background Plus Project Conditions	243	353	57	4	0	3	130	2078	131	30	0	28	3057

Intersection Number:
Traffix Node Number:
Intersection Name:
Peak Hour:
Count Date:

5 3244 Almaden Boulevard and Woz Way/Balbach Street AM 2/6/19

					M	ovement	S						
_	North Approach East Approach South Approach West A							st Appro	bach				
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	42	109	85	86	86	33	288	1361	204	25	76	51	2446
ATI	4	41	12	5	11	2	12	794	37	2	3	105	1028
Background Conditions	46	150	97	91	97	35	300	2155	241	27	79	156	3474
Proposed Project Trips	128	15	12	0	38	0	0	102	102	15	12	92	516
Background Plus Project Conditions	174	165	109	91	135	35	300	2257	343	42	91	248	3990

Intersection Number:	6
Traffix Node Number:	3061
Intersection Name:	Almaden Boulevard and San Carlos Street *
Peak Hour:	AM
Count Date:	2/6/19

	Movements													
_	No	rth Appr	oach	Eas	East Approach			th Appro	oach	West Approach			_	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total	
Existing Conditions	33	217	158	75	288	58	193	1083	64	33	247	69	2518	
ATI	4	150	4	7	31	77	37	131	64	141	30	10	686	
Background Conditions	37	367	162	82	319	135	230	1214	128	174	277	79	3204	
Proposed Project Trips	0	242	0	0	0	89	8	28	19	115	0	4	505	
Background Plus Project Conditions	37	609	162	82	319	224	238	1242	147	289	277	83	3709	

Intersection Number: Traffix Node Number: Intersection Name:	7 3763 Woz Way and San Carlos Street
Peak Hour:	AM
Count Date:	2/6/19

		Movements												
		North Approach			Eas	East Approach			South Approach			West Approach		
Scenario:		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	ΤH	LT	Total
Existing Conditions		2	13	28	120	246	4	67	215	63	16	409	197	1380
Α	λTI	2	1	5	55	25	0	30	34	11	0	116	14	293
Background Conditions		4	14	33	175	271	4	97	249	74	16	525	211	1673
Proposed Project Tri	ips	0	51	0	8	11	0	42	24	4	25	76	0	241
Background Plus Project Conditions		4	65	33	183	282	4	139	273	78	41	601	211	1914

Intersection Number:
Traffix Node Number:
Intersection Name:
Peak Hour:
Count Date:

Delmas Avenue and San ( AM 2/6/19	Carlos Street
	Movements
North Approach	East Approach

8 3446

-	No	rth Appr	oach	East Approach			Sou	th Appr	oach	West Approach			-		
Scenario:	RT	TH	LT	RT	ŤĤ	LT	RT	TH	LT	RT	ΤΗ	LT	Total		
Existing Conditions	64	149	63	0	306	21	0	0	0	74	543	0	1220		
ATI	10	23	70	0	35	17	0	0	0	20	95	0	270		
Background Conditions	74	172	133	0	341	38	0	0	0	94	638	0	1490		
Proposed Project Trips	0	64	51	0	9	6	0	0	0	0	51	0	181		
Background Plus Project Conditions	74	236	184	0	350	44	0	0	0	94	689	0	1671		

Intersection Number	9
Traffix Node Number:	3731
Intersection Name:	Woz Way/SR-87 NB On-Ramp and Park Avenue
Peak Hour:	AM
Count Date:	2/6/19

Movements												
No	rth Appr	oach	Eas	East Approach			South Approach			West Approach		
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
0	0	0	97	63	18	78	231	31	168	613	164	1463
0	0	0	4	21	56	17	56	9	19	72	48	302
0	0	0	101	84	74	95	287	40	187	685	212	1765
0	0	0	0	0	0	0	32	0	51	64	0	147
0	0	0	101	84	74	95	319	40	238	749	212	1912
	No RT 0 0 0 0 0	North Appr   RT TH   0 0   0 0   0 0   0 0   0 0   0 0   0 0   0 0   0 0   0 0   0 0	North Approach   RT TH LT   0 0 0   0 0 0   0 0 0   0 0 0   0 0 0   0 0 0   0 0 0   0 0 0   0 0 0	North Approach Eas   RT TH LT RT   0 0 0 97   0 0 0 4   0 0 0 101   0 0 0 0   0 0 0 101   0 0 0 101	North Approach East Appro   RT TH LT East Appro   0 0 0 97 63   0 0 0 4 21   0 0 0 101 84   0 0 0 0 0 0   0 0 0 0 101 84	North Approach East Approach   RT TH LT East Approach   0 0 0 97 63 18   0 0 0 4 21 56   0 0 0 101 84 74   0 0 0 0 0 0 0   0 0 0 101 84 74	North Approach East Approach Sou   RT TH LT RT TH LT RT   0 0 0 97 63 18 78   0 0 0 4 21 56 17   0 0 0 101 84 74 95   0 0 0 101 84 74 95   0 0 0 101 84 74 95	North Approach East Approach South Approach   RT TH LT RT TH   0 0 0 97 63 18 78 231   0 0 0 4 21 56 17 56   0 0 0 101 84 74 95 287   0 0 0 101 84 74 95 319	North Approach East Approach South Approach   RT TH LT RT TH LT RT TH LT   0 0 0 97 63 18 78 231 31   0 0 0 4 21 56 17 56 9   0 0 0 101 84 74 95 287 40   0 0 0 101 84 74 95 319 40	North Approach East Approach South Approach Wes   RT TH LT RT TH LT RT	North Approach East Approach South Approach West Approach   RT TH LT RT TH TG <t< td=""><td>North Approach East Approach South Approach West Approach   RT TH LT TH LT RT TH LT RT TH LT TG <t< td=""></t<></td></t<>	North Approach East Approach South Approach West Approach   RT TH LT TH LT RT TH LT RT TH LT TG <t< td=""></t<>

Intersection Number:	10
Traffix Node Number:	3445
Intersection Name:	Delmas Avenue/SR-87 SB Off-Ramp and Park Avenue
Peak Hour:	AM
Count Date:	2/6/19

					М	ovemer	nts						
	No	North Approach			East Approach			South Approach			West Approach		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	6	61	15	0	79	14	532	141	80	58	354	0	1340
AT	9	8	1	0	26	2	132	18	13	13	103	0	325
Background Conditions	15	69	16	0	105	16	664	159	93	71	457	0	1665
Proposed Project Trips	. 0	115	115	0	0	0	0	0	0	0	0	0	230
Background Plus Project Conditions	15	184	131	0	105	16	664	159	93	71	457	0	1895

Intersection Number:	
Traffix Node Number:	
Intersection Name:	
Peak Hour:	
Count Date:	

11 100 Locust Street/Project Access and Woz Way AM 2/6/19

	Movements												
_	No	oach	Eas	East Approach			th Appr	oach	West Approach			_	
Scenario:		TH	LT	T RT	TH	TH LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	2	0	0	55	282	1	2	0	1	2	158	17	520
ATI	0	0	0	0	52	0	0	0	0	0	110	0	162
Background Conditions	2	0	0	55	334	1	2	0	1	2	268	17	682
Existing Reduction	-2	0	0	-55	0	0	0	0	0	0	0	-17	-74
Proposed Project Trips	27	0	31	187	10	0	0	0	0	0	56	187	498
Background Plus Project Conditions	27	0	31	187	344	1	2	0	1	2	324	187	1106

Intersection Number:	1
Traffix Node Number:	3267
Intersection Name:	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
Peak Hour:	PM
Count Date:	2/5/19

		Movements											
	N	North Approach			East Approach			South Approach			West Approach		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	31	519	95	0	127	68	0	0	0	205	194	0	1239
	-			-				-	-		-		
A	FI 21	190	46	0	36	14	0	0	0	15	26	0	348
Background Conditions	52	709	141	0	163	82	0	0	0	220	220	0	1587
Proposed Project Trip	os O	36	12	0	7	108	0	0	0	0	14	0	177
Background Plus Project Conditions	52	745	153	0	170	190	0	0	0	220	234	0	1764

Intersection Number:	2
Traffix Node Number:	3271
Intersection Name:	Woz Way and Auzerais Avenue
Peak Hour:	PM
Count Date:	2/5/19

	Movements												
_	North Approach			Eas	East Approach			South Approach			West Approach		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	47	127	0	0	7	4	0	182	140	244	0	48	799
ATI	17	42	0	1	2	0	0	63	56	41	0	21	243
Background Conditions	64	169	0	1	9	4	0	245	196	285	0	69	1042
Proposed Project Trips	0	14	0	0	0	0	0	192	115	18	0	7	346
Background Plus Project Conditions	64	183	0	1	9	4	0	437	311	303	0	76	1388

3
3209
Woz Way and SR-87 NB Off-Ramp
PM
2/5/19

	Movements												
_	No	North Approach			East Approach			South Approach			West Approach		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	ΤH	LT	Total
Existing Conditions	0	377	0	0	0	0	0	125	0	159	0	195	856
ATI	0	96	0	0	0	0	0	39	0	26	0	75	236
Background Conditions	0	473	0	0	0	0	0	164	0	185	0	270	1092
Proposed Project Trips	0	32	0	0	0	0	0	308	0	28	0	0	368
Background Plus Project Conditions	0	505	0	0	0	0	0	472	0	213	0	270	1460

Intersection Number:	4
Traffix Node Number:	3863
Intersection Name:	Almaden Boulevard and Convention Center
Peak Hour:	PM
Count Date:	2/5/19

		Movements												
				North Approach			East Approach			South Approach			bach	
Scenario:		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions		0	1325	42	30	0	66	5	261	1	0	0	0	1730
	ATI	0	509	5	1	0	5	6	111	0	0	0	0	637
Background Conditions		0	1834	47	31	0	71	11	372	1	0	0	0	2367
Proposed Proj	ect Trips	44	15	0	0	0	0	0	71	24	180	0	173	507
Background Plus Project Condition	s	44	1849	47	31	0	71	11	443	25	180	0	173	2874

Intersection Number:
Traffix Node Number:
Intersection Name:
Peak Hour:
Count Date:

5 3244 Almaden Boulevard and Woz Way/Balbach Street PM 2/5/19

					Μ	ovements	S						
	North Approach			Eas	East Approach			South Approach			West Approach		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	31	1273	135	48	50	189	74	147	18	287	255	33	2540
ATI	25	761	7	4	7	11	16	150	17	95	27	20	1140
Background Conditions	56	2034	142	52	57	200	90	297	35	382	282	53	3680
Proposed Project Trips	105	89	72	0	7	0	0	18	18	89	72	110	580
Background Plus Project Conditions	161	2123	214	52	64	200	90	315	53	471	354	163	4260

Intersection Number:	6
Traffix Node Number:	3061
Intersection Name:	Almaden Boulevard and San Carlos Street *
Peak Hour:	PM
Count Date:	12/11/18

Movements													
N	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total	
55	1132	181	52	213	84	81	153	41	194	530	85	2801	
22	217	24	10	71	36	249	91	217	71	104	12	1124	
77	1349	205	62	284	120	330	244	258	265	634	97	3925	
0	44	0	0	0	16	48	168	115	21	0	24	436	
77	1393	205	62	284	136	378	412	373	286	634	121	4361	
	Nr RT 55 22 77 0 77	North Appr   RT TH   55 1132   22 217   77 1349   0 44   77 1393	North Approach   RT TH LT   55 1132 181   22 217 24   77 1349 205   0 44 0   77 1393 205	North Approach East   RT TH LT RT   55 1132 181 52   22 217 24 10   77 1349 205 62   0 44 0 0   77 1393 205 62	North Approach RT East Appro RT East Appro RT   55 1132 181 52 213   22 217 24 10 71   77 1349 205 62 284   0 44 0 0 0   77 1393 205 62 284	North Approach East Approach   RT TH LT   55 1132 181 52 213 84   22 217 24 10 71 36   77 1349 205 62 284 120   0 44 0 0 0 16   77 1393 205 62 284 136	North Approach East Approach Sou   RT TH LT RT TH LT RT   55 1132 181 52 213 84 81   22 217 24 10 71 36 249   77 1349 205 62 284 120 330   0 44 0 0 0 16 48   77 1393 205 62 284 136 378	Movements   North Approach RT East Approach RT South Appr RT Approach RT South Appr RT Approach RT South Appr RT Approach RT South Appr RT TH   55 1132 181 52 213 84 81 153   22 217 24 10 71 36 249 91   77 1349 205 62 284 120 330 244   0 44 0 0 0 16 48 168   77 1393 205 62 284 136 378 412	Movements   North Approach RT East Approach LT South Approach RT South Approach RT South Approach RT TH LT   55 1132 181 52 213 84 81 153 41   22 217 24 10 71 36 249 91 217   77 1349 205 62 284 120 330 244 258   0 44 0 0 0 16 48 168 115   77 1393 205 62 284 136 378 412 373	Movements   North Approach East Approach South Approach Wee   RT TH LT RT TH LT RT RT TH LT RT RT TH LT RT RT TH LT RT RT RT TH LT RT RT TH LT RT RT RT LT RT TH LT RT RT I194 22 217 24 10 71 36 249 91 217 71   77 1349 205 62 284 120 330 244 258 265   0 44 0 0 0 16 48 168 115 21   77 1393 205 62 284 136	Movements   North Approach East Approach South Approach West Appro   RT TH LT RT RT<	Movements   North Approach East Approach South Approach West Approach   RT TH LT RT T1 104 12 12 12 12 12 12 12 12 12 12 <td< td=""></td<>	

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		Movements												
_	No	rth Appr	oach	Eas	East Approach			th Appr	oach	West Approach			-	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total	
Existing Conditions		112	48	92	295	18	74	95	68	45	553	83	1558	
A.T.I	20	45	77	05	170	4	7	7	4	0	40	10	440	
AII	28	15	11	60	179	I	/	1	4	0	40	13	442	
Background Conditions	103	127	125	157	474	19	81	102	72	45	599	96	2000	
Proposed Project Trips	0	9	0	48	67	0	31	144	24	5	14	0	342	
Background Plus Project Conditions	103	136	125	205	541	19	112	246	96	50	613	96	2342	

Intersection Number:
Traffix Node Number:
Intersection Name:
Peak Hour:
Count Date:

2/5/19	
8 3446 Delmas Avenue and San Carlos Street	

					111	overnerite	,							
_	No	rth Appro	bach	Eas	st Appro	bach	Sou	th Appr	oach	West Approach			_	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total	
Existing Conditions	104	462	32	0	382	63	0	0	0	126	633	0	1802	
ATI	3	52	26	0	89	153	0	0	0	39	68	0	430	
Background Conditions	107	514	58	0	471	216	0	0	0	165	701	0	2232	
Proposed Project Trips	0	12	9	0	55	36	0	0	0	0	9	0	121	
Background Plus Project Conditions	107	526	67	0	526	252	0	0	0	165	710	0	2353	

Intersection Number: Traffix Node Number:	9 3731
Intersection Name:	Woz Way/SR-87 NB On-Ramp and Park Avenue
Peak Hour:	PM
Count Date:	2/5/19

				М	ovement	s						
No	rth Appr	oach	Eas	st Appro	bach	Sou	th Appr	oach	West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
0	0	0	286	364	144	83	300	35	26	292	148	1678
0	0	0	20	99	47	26	117	17	19	86	36	467
0	0	0	306	463	191	109	417	52	45	378	184	2145
0	0	0	0	0	0	0	192	0	9	12	0	213
0	0	0	306	463	191	109	609	52	54	390	184	2358
	No RT 0 0 0 0 0	North Appr   RT TH   0 0   0 0   0 0   0 0   0 0   0 0   0 0   0 0   0 0   0 0   0 0	North Approach   RT TH LT   0 0 0   0 0 0   0 0 0   0 0 0   0 0 0   0 0 0   0 0 0   0 0 0   0 0 0	North Approach Eas   RT TH LT RT   0 0 0 286   0 0 0 20   0 0 0 306   0 0 0 0   0 0 0 0 306   0 0 0 306	North Approach East Appro   RT TH LT   0 0 0 286 364   0 0 0 20 99   0 0 0 306 463   0 0 0 0 0   0 0 0 306 463	North Approach East Approach   RT TH LT   0 0 0 286 364 144   0 0 0 20 99 47   0 0 0 306 463 191   0 0 0 0 0 0   0 0 0 306 463 191	North Approach East Approach Sou   RT TH LT RT TH LT RT   0 0 0 286 364 144 83   0 0 0 20 99 47 26   0 0 0 306 463 191 109   0 0 0 306 463 191 109	North Approach East Approach South Approach   RT TH LT RT TH LT RT TH   0 0 0 286 364 144 83 300   0 0 0 20 99 47 26 117   0 0 0 306 463 191 109 417   0 0 0 0 0 0 192   0 0 0 306 463 191 109 609	North Approach East Approach South Approach   RT TH RT RT TH LT RT RT RT RT RT RT RT TT TT TT TT RT RT RT RT TT TT TT TT TT TT	North Approach East Approach South Approach Wei   RT TH RT TH LT RT TH LT RT RT RT RT RT RT LT RT RT RT RT RT LT RT	North Approach East Approach South Approach West Approach   RT TH RT TH LT RT TH TH TH RT TH TH TH RT TH TH RT TH TH TH RT TH TG <t< td=""><td>North Approach East Approach South Approach West Approach   RT TH LT RT TH RT TH RT TH RT TH RT RT TH RT RT RT RT RT RT RT RT <t< td=""></t<></td></t<>	North Approach East Approach South Approach West Approach   RT TH LT RT TH RT TH RT TH RT TH RT RT TH RT RT RT RT RT RT RT RT <t< td=""></t<>

Intersection Number:	10
Traffix Node Number:	3445
Intersection Name:	Delmas Avenue/SR-87 SB Off-Ramp and Park Avenue
Peak Hour:	PM
Count Date:	2/5/19

					М	ovement	S						
_	No	North Approach		Eas	East Approach			th Appr	oach	West Approach			_
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	16	313	64	0	276	121	101	70	64	92	298	0	1415
ATI	13	27	5	2	71	7	98	30	24	8	47	0	332
Background Conditions		340	69	2	347	128	199	100	88	100	345	0	1747
Proposed Project Trips	0	21	21	0	0	0	0	0	0	0	0	0	42
Background Plus Project Conditions	29	361	90	2	347	128	199	100	88	100	345	0	1789

Intersection Number:	
Traffix Node Number:	
Intersection Name:	
Peak Hour:	
Count Date:	

11 100 Locust Street/Project Access and Woz Way PM 2/5/19

					M	ovement	S						
_	Noi	rth Appr	oach	Eas	East Approach			th Appr	oach	West Approach			_
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	30	0	45	3	99	3	1	0	2	3	541	8	735
ATI	0	0	0	0	49	0	0	0	0	0	142	0	191
Background Conditions	30	0	45	3	148	3	1	0	2	3	683	8	926
Existing Reduction	-30	0	-45	-3	0	0	0	0	0	0	0	-8	-86
Proposed Project Trips	164	0	189	34	62	0	0	0	0	0	10	34	493
Background Plus Project Conditions	164	0	189	34	210	3	1	0	2	3	693	34	1333

Appendix B

Intersection Vehicle Queue Analysis

WBL AM Existing Conditions Arg, Oucue Per Lane in Vehe Percentile = WBL AM 0.5 WBL AM Background Conditions Arg, Oucue Per Lane in Vehe 0.5 WBL Background Plus Piela Conditions Arg, Oucue Per Lane in Vehe 0.95 Here 0.95	1. Delmas/Auzera	iis		1. Delmas/Auzera	ais	1. Delmas/Auzerais									
AM AM AM AM   Vag. Gueue Per Lane in Vehs 0.8 Percentile = 0.95 4   Percentile = 0.95 2 Percentile = 0.95 4   Individual Cumulative Number of Queues Queues Number of Queues Queues Number of Queues Queues Number of Queues Queues Queues Number of Queues Queues Q	WBL			WBL			WBL								
Existing Conditions Background Conditions Background Conditions Background Conditions   Verg Queue Per Lane in Vehs 0.95 2 Percentile = 0.95 3 Percentile = 0.95 4   Individual Cumulative Number of Vehicles Number of Probability Number of Vehicles Number of Probability Number of Vehicles Number of Individual Number of Vehicles Number of Number of Probability Number of Probability Number of Vehicles Number of Number of Probability Number of Vehicles Number of Number o	AM			AM				AM							
Avg. Gueue Per Lane in Veh= 0.9 Avg. Gueue Per Lane in Veh= 0.9 Avg. Gueue Per Lane in Veh= 0.9   Individual Cumulative Number of Queued Queued Number of Queued	Existing Condition	าร		Background Cond	ditions			Background Plus	Project Conditic	ons					
Percentile = 0.95 2 Percentile = 0.95 3 Percentile = 0.95 4   Individual Probability 0.4646 Cumulative Vehicles Number of Vehicles Number of Vehic	Avg. Queue Per L	ane in Veh=	0.8	Avg. Queue Per L	ane in Veh=	0.9		Avg. Queue Per L	ane in Veh=	1.5					
Individual Probability Number of Queued Number of Queued Number of Queued Individual Probability Curulative Queued Number of Queued   0.4646 0.4646 0 0.3932 0.3932 0 0.2158 0.2158 0   0.3562 0.8207 1 0.3670 0.7603 1 0.3309 0.5467 1   0.0567 0.9888 4 0.0124 0.9973 4 0.0497 0.9798 4   0.0607 0.9888 4 0.0124 0.99973 4 0.0497 0.9798 4   0.0001 1.0000 6 0.0004 0.9999 6 0.0152 0.9951 5   0.0000 1.0000 7 0.0000 1.0000 8 0.0002 1.0000 8 0.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Percentile =	0.95	2	Percentile =	0.95	3		Percentile =	0.95	4					
Number of Individual Probability Number of Oueued Probability   0.4464 0 0.4562 0.4646 0 0.3309 0.5467 1   0.1365 0.9572 2 0.01713 0.93151 2 0.2537 0.8004 2   0.0067 0.99988 4 0.0123 0.9996 5 0.0023 0.9996 5 0.0033 0.9996 5 0.0000 1.0000 8 0.0000 1.0000 8 0.0000 1.0000 8 0.0000 1.0000 9 0.0000 1.0000 9 0.0000 1.00000 1.0000 1.00000 <td></td> <td>_</td>											_				
Individual Currulative Queued Individual Currulative Queued Venicles Probability   0.4646 0.4646 0.3332 0.3332 0 0.2158 0.2168 0.2057 0.3031 0.9448 1 0.2077 0.3001 0.3088 4 0.0124 0.9973 4 0.01497 0.9398 6 0.0152 0.9978 4 0.0003 0.9989 6 0.0003 0.9989 6 0.0003 0.9989 6 0.0003 0.9989 6 0.0002 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.00000 1.0000 1.0000			Number of			Number of				Number of	T				
Probability	Individual	Cumulative	Queued	Individual	Cumulative	Queued		Individual	Cumulative	Queued					
0.4646 0.4646 0 0.3332 0.3332 0 0.2158 0.2158 0   0.3355 0.8572 2 0.1713 0.9315 2 0.2537 0.8004 2   0.0349 0.9921 3 0.0124 0.9973 4 0.0497 0.9786 4   0.0011 0.9998 4 0.0124 0.9973 4 0.0497 0.9786 4   0.0011 0.9001 6 0.0004 0.9999 5 0.0123 0.99996 5 0.0123 0.99996 5 0.0126 0.99986 7   0.0000 1.0000 7 0.0000 1.0000 8 0.0002 1.0000 8   0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.	Probability	Probability	Vehicles	Probability	Probability	Vehicles		Probability	Probability	Vehicles					
0.3582 0.8207 1 0.3570 0.7603 1 0.3366 0.5467 1   0.1356 0.9572 2 0.1713 0.9315 2 0.2377 0.8004 2   0.0349 0.9921 3 0.0533 0.9948 3 0.1237 0.9301 3   0.0067 0.9989 5 0.0023 0.99975 4 0.0152 0.9996 5   0.0001 1.0000 7 0.0000 1.0000 7 0.0002 0.9998 6   0.0001 1.0000 8 0.0000 1.0000 8 0.0002 1.0000 8   0.0000 1.0000 9 0.0000 1.0000 10 0.0000 11   0.0000 1.0000 10 0.0000 1.0000 12 0.0000 1.0000 13   0.0000 1.0000 1.0000 1.0000 13 0.0000 13   0.0000 1.0000 1.00000 1.0000 13 <td>0 4646</td> <td>0 4646</td> <td>0</td> <td>0.3932</td> <td>0.3932</td> <td>0</td> <td></td> <td>0 2158</td> <td>0 2158</td> <td>0</td> <td></td>	0 4646	0 4646	0	0.3932	0.3932	0		0 2158	0 2158	0					
0.1365 0.9572 2 0.1713 0.1315 2 0.1237 0.8004 2   0.0367 0.9988 4 0.0124 0.9973 3 0.0497 0.9796 4   0.0067 0.9988 4 0.0124 0.99973 4 0.0497 0.9796 4   0.0001 1.0000 6 0.0024 0.9998 6 0.0138 0.9990 6   0.0000 1.0000 7 0.0000 1.0000 7 0.0000 1.0000 8 0.0000 1.0000 9 0.0000 1.0000 9 0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 11 0.0000 1.0000 11 0.0000 1.0000 12 0.0000 1.0000 13 0.0000 1.0000 14 0.0000 1.0000 14 0.0000 1.0000 16 0.0000 1.0000 16 0.00000 1.0000 16	0.3562	0.8207	1	0.3670	0.7603	1		0.3309	0.5467	1					
0.0349 0.9827 3 0.0533 0.9848 3 0.1287 0.8301 3   0.0067 0.9888 4 0.0124 0.9973 4 0.0497 0.9998 5   0.0001 1.0000 6 0.0004 0.9998 5 0.0152 0.9981 5   0.0000 1.0000 7 0.0000 1.0000 8 0.0000 1.0000 8   0.0000 1.0000 8 0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 12 0.0000 1.0000 12 0.0000 1.0000 13 0.0000 1.0000 13 0.0000 1.0000 14 0.0000 1.0000 16 0.0000 16 0.0000 16 0.0000 1.0000 16 0.0000 1.0000 17 0.0000 1.0000 17 0.0000 1.0000	0.1365	0.9572	2	0 1713	0.9315	2		0 2537	0.8004	2					
0.0067 0.9888 4 0.0124 0.9973 4 0.0467 0.9788 4   0.0011 0.9999 5 0.0152 0.9951 5   0.0001 1.0000 7 0.0004 0.9999 6 0.0039 0.9990 6   0.0000 1.0000 7 0.0000 1.0000 7 0.0002 1.0000 8   0.0000 1.0000 8 0.0000 1.2 0.0000 1.0000 1.2 0.0000 1.0000 1.2 0.0000 1.0000 1.2 0.0000 1.0000 1.2 0.0000 1.0000 1.2 0.0000 1.0000 1.2 0.00000 1.0000 1.4	0.1000	0.9921	3	0.0533	0.9848	3		0.1297	0.0004	3					
0.0010 0.9999 5 0.0023 0.9999 6 0.01152 0.9991 5   0.0001 1.0000 6 0.0000 1.0000 7 0.0009 0.99990 6   0.0000 1.0000 7 0.0000 1.0000 8 0.0000 1.0000 8   0.0000 1.0000 9 0.0000 1.0000 10 0.0000 1.0000 10   0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 10   0.0000 1.00	0.0043	0.9988	4	0.0000	0.9973	4		0.0497	0.0001	4					
0.0001 1.0000 6 0.0004 0.9999 6 0.0038 0.9999 7   0.0000 1.0000 7 0.0000 1.0000 8 0.0000 1.0000 8   0.0000 1.0000 9 0.0000 1.0000 8 0.0000 1.0000 9   0.0000 1.0000 10 0.0000 1.0000 9 0.0000 1.0000 9   0.0000 1.0000 11 0.0000 1.0000 10.000 12   0.0000 1.0000 12 0.0000 1.0000 12 0.0000 1.0000 12   0.0000 1.0000 13 0.0000 1.0000 13 0.0000 1.0000 14   0.0000 1.0000 15 0.0000 1.0000 17 0.0000 1.0000 17   0.0000 1.0000 17 0.0000 1.0000 10000 17   0.0000 1.0000 17 0.0000 1.0000	0.0007	0.9999	5	0.0023	0.9996	5		0.0152	0.9951	5					
0.0000 1.0000 7 0.0000 1.0000 8 0.0000 1.0000 8 0.0000 1.0000 8 0.0000 1.0000 8 0.0000 1.0000 8 0.0000 1.0000 9 0.0000 1.0000 9 0.0000 1.0000 9 0.0000 1.0000 9 0.0000 1.0000 9 0.0000 1.0000 9 0.0000 1.0000	0.0001	1 0000	6	0.0020	0.9999	6		0.0039	0.9990	6					
0.0000 1.0000<	0.0001	1.0000	7	0.0004	1 0000	7		0.0009	0.0000	7					
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	0.0000	1.0000	8	0.0000	1.0000	8		0.0002	1 0000	8					
0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 10 0.0000 1.0000 11 0.0000 1.0000 12 0.0000 1.0000 12   0.0000 1.0000 13 0.0000 1.0000 13 0.0000 1.0000 14   0.0000 1.0000 15 0.0000 1.0000 16 0.0000 1.0000 16   0.0000 1.0000 17 0.0000 1.0000 17 0.0000 1.0000 18   0.0000 1.0000 18 0.0000 1.0000 1.0000 18 0.0000 1.0000 19   0.0000 1.0000 21 0.0000 1.0000 22 0.0000 1.0000 23   0.0000 1.0000 2	0.0000	1.0000	9 9	0.0000	1.0000	g		0.0002	1.0000	9					
0.0000 1.0000 11 0.0000 1.0000	0.0000	1.0000	10	0.0000	1.0000	10		0.0000	1.0000	10					
0.0000 1.0000 11 0.0000 1.0000	0.0000	1.0000	10	0.0000	1.0000	10		0.0000	1,0000	10					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	12	0.0000	1.0000	12		0.0000	1.0000	12					
0.0000 1.0000 14 0.0000 1.0000 14 0.0000 1.0000 14   0.0000 1.0000 15 0.0000 1.0000 15 0.0000 1.0000 15   0.0000 1.0000 16 0.0000 1.0000 16 0.0000 1.0000 16   0.0000 1.0000 17 0.0000 1.0000 17 0.0000 1.0000 17   0.0000 1.0000 18 0.0000 1.0000 18 0.0000 1.0000 19   0.0000 1.0000 19 0.0000 1.0000 19 0.0000 1.0000 20   0.0000 1.0000 22 0.0000 1.0000 21 0.0000 1.0000 22   0.0000 1.0000 23 0.0000 1.0000 23 0.0000 1.0000 25   0.0000 1.0000 27 0.0000 1.0000 27 0.0000 1.0000 27   0.0000	0.0000	1.0000	12	0.0000	1.0000	12		0.0000	1,0000	12					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	14	0.0000	1.0000	14		0.0000	1,0000	14					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	14	0.0000	1.0000	15		0.0000	1,0000	15					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	16	0.0000	1.0000	16		0.0000	1,0000	16					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	10	0.0000	1.0000	10		0.0000	1,0000	10					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	17	0.0000	1.0000	17		0.0000	1,0000	17					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	10	0.0000	1.0000	10		0.0000	1,0000	10					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	20	0.0000	1.0000	20		0.0000	1,0000	20					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	20	0.0000	1.0000	20		0.0000	1,0000	20					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	21	0.0000	1.0000	21		0.0000	1,0000	21					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	22	0.0000	1.0000	22		0.0000	1.0000	22					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	20	0.0000	1.0000	23		0.0000	1.0000	20					
0.0000 1.0000 25 0.0000 1.0000 26 0.0000 1.0000 26   0.0000 1.0000 27 0.0000 1.0000 26 0.0000 1.0000 27   0.0000 1.0000 28 0.0000 1.0000 28 0.0000 1.0000 28   0.0000 1.0000 29 0.0000 1.0000 29 0.0000 1.0000 29   0.0000 1.0000 30 0.0000 1.0000 30 0.0000 1.0000 30   0.0000 1.0000 31 0.0000 1.0000 31 0.0000 1.0000 31   0.0000 1.0000 32 0.0000 1.0000 32 0.0000 33 0.0000 33 0.0000 33 0.0000 33 0.0000 33 0.0000 33 0.0000 33 0.0000 33 0.0000 33 0.0000 35 0.0000 35 0.0000 36 0.0000 <	0.0000	1.0000	24	0.0000	1.0000	24		0.0000	1.0000	24					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	20	0.0000	1.0000	25		0.0000	1.0000	25					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	20	0.0000	1.0000	20		0.0000	1.0000	20					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	27	0.0000	1.0000	27		0.0000	1.0000	21					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	20	0.0000	1.0000	20		0.0000	1.0000	20					
0.0000 1.0000 30 0.0000 1.0000 30 0.0000 1.0000 30 30 0.0000 1.0000 31 0.0000 1.0000 31 0.0000 1.0000 31 0.0000 1.0000 31 0.0000 1.0000 31 0.0000 1.0000 31 0.0000 1.0000 31 0.0000 1.0000 32 0.0000 1.0000 32 0.0000 1.0000 32 0.0000 1.0000 32   0.0000 1.0000 33 0.0000 1.0000 33 0.0000 1.0000 33 0.0000 1.0000 34 0.0000 1.0000 34 0.0000 1.0000 35 0.0000 1.0000 35 0.0000 1.0000 36 0.0000 1.0000 36 0.0000 1.0000 37 0.0000 1.0000 38 0.0000 1.0000 38 0.0000 1.0000 39 0.0000 1.0000 40 0.0000 1.0000 40 0.0000	0.0000	1.0000	29	0.0000	1.0000	29		0.0000	1.0000	29					
0.0000 1.0000 31 0.0000 1.0000 31 0.0000 1.0000 32   0.0000 1.0000 32 0.0000 1.0000 32 0.0000 33 0.0000 33   0.0000 1.0000 33 0.0000 1.0000 32 0.0000 33   0.0000 1.0000 34 0.0000 1.0000 34 0.0000 1.0000 34   0.0000 1.0000 35 0.0000 1.0000 34 0.0000 35 0.0000 36   0.0000 1.0000 36 0.0000 1.0000 37 0.0000 1.0000 36   0.0000 1.0000 37 0.0000 1.0000 37 0.0000 1.0000 38   0.0000 1.0000 38 0.0000 1.0000 38 0.0000 1.0000 39   0.0000 1.0000 40 0.0000 1.0000 41 0.0000 40   0.0000	0.0000	1.0000	31	0.0000	1.0000	31		0.0000	1,0000	31					
0.0000 1.0000 32 0.0000 1.0000 32 0.0000 1.0000 33   0.0000 1.0000 33 0.0000 1.0000 33 0.0000 1.0000 33   0.0000 1.0000 34 0.0000 1.0000 34 0.0000 1.0000 34   0.0000 1.0000 35 0.0000 1.0000 35 0.0000 1.0000 34   0.0000 1.0000 35 0.0000 1.0000 35 0.0000 1.0000 35   0.0000 1.0000 36 0.0000 1.0000 36 0.0000 1.0000 37   0.0000 1.0000 37 0.0000 1.0000 38 0.0000 1.0000 38   0.0000 1.0000 38 0.0000 1.0000 39 0.0000 1.0000 40   0.0000 1.0000 41 0.0000 1.0000 41 0.0000 41   0.0000 1.0000	0.0000	1.0000	32	0.0000	1.0000	32		0.0000	1.0000	32					
0.0000 1.0000 33 0.0000 1.0000 33 0.0000 1.0000 34 0.0000 1.0000 34   0.0000 1.0000 34 0.0000 1.0000 34 0.0000 1.0000 34   0.0000 1.0000 35 0.0000 1.0000 35 0.0000 35   0.0000 1.0000 36 0.0000 1.0000 36 0.0000 1.0000 36   0.0000 1.0000 37 0.0000 1.0000 37 0.0000 1.0000 37   0.0000 1.0000 38 0.0000 1.0000 38 0.0000 1.0000 38   0.0000 1.0000 39 0.0000 1.0000 39 0.0000 1.0000 40   0.0000 1.0000 41 0.0000 1.0000 41 0.0000 1.0000 41   0.0000 1.0000 43 0.0000 1.0000 43 0.0000 43	0.0000	1.0000	33	0.0000	1.0000	33		0.0000	1.0000	33					
0.0000 1.0000 34 0.0000 1.0000 35 0.0000 1.0000 35   0.0000 1.0000 35 0.0000 1.0000 35 0.0000 1.0000 35   0.0000 1.0000 36 0.0000 1.0000 36 0.0000 1.0000 36   0.0000 1.0000 37 0.0000 1.0000 37 0.0000 1.0000 37   0.0000 1.0000 38 0.0000 1.0000 38 0.0000 1.0000 38   0.0000 1.0000 39 0.0000 1.0000 39 0.0000 1.0000 39   0.0000 1.0000 40 0.0000 1.0000 40 0.0000 1.0000 40   0.0000 1.0000 41 0.0000 1.0000 41 0.0000 42   0.0000 1.0000 43 0.0000 1.0000 43 0.0000 1.0000 43   0.0000 1.0000	0.0000	1.0000	34	0.0000	1.0000	34		0.0000	1,0000	34					
0.0000 1.0000 33 0.0000 1.0000 33 0.0000 1.0000 33   0.0000 1.0000 36 0.0000 1.0000 36 0.0000 1.0000 36   0.0000 1.0000 37 0.0000 1.0000 37 0.0000 1.0000 37   0.0000 1.0000 38 0.0000 1.0000 38 0.0000 1.0000 38   0.0000 1.0000 39 0.0000 1.0000 39 0.0000 1.0000 39   0.0000 1.0000 41 0.0000 1.0000 41 0.0000 1.0000 41   0.0000 1.0000 43 0.0000 1.0000 43 0.0000 43   0.0000 1.0000 44 0.0000 1.0000 45 0.0000 1.0000 45	0.0000	1.0000	35	0.0000	1.0000	35		0.0000	1.0000	35					
0.0000 1.0000 30 0.0000 1.0000 30 0.0000 1.0000 30 0.0000 1.0000 37 0.0000 1.0000 37 0.0000 1.0000 37 0.0000 1.0000 37 0.0000 1.0000 37 0.0000 1.0000 37 0.0000 1.0000 37 0.0000 1.0000 37 0.0000 1.0000 37 0.0000 1.0000 37 0.0000 1.0000 38 0.0000 1.0000 38 0.0000 1.0000 38 0.0000 1.0000 38 0.0000 1.0000 38 0.0000 1.0000 39 0.0000 1.0000 39 0.0000 1.0000 40 0.0000 1.0000 40   0.0000 1.0000 41 0.0000 1.0000 41 0.0000 1.0000 42 0.0000 1.0000 42 0.0000 1.0000 43 0.0000 1.0000 43 0.0000 1.0000 44 0.00000 1.0000<	0.0000	1.0000	36	0.0000	1.0000	36		0.0000	1.0000	36					
0.0000 1.0000 37 0.0000 1.0000 37 0.0000 1.0000 37   0.0000 1.0000 38 0.0000 1.0000 38 0.0000 1.0000 38   0.0000 1.0000 39 0.0000 1.0000 39 0.0000 1.0000 39   0.0000 1.0000 40 0.0000 1.0000 40 0.0000 1.0000 40   0.0000 1.0000 41 0.0000 1.0000 41 0.0000 1.0000 41   0.0000 1.0000 42 0.0000 1.0000 42 0.0000 1.0000 42   0.0000 1.0000 43 0.0000 1.0000 43 0.0000 43   0.0000 1.0000 45 0.0000 1.0000 45 0.0000 1.0000 45	0.0000	1.0000	37	0.0000	1.0000	37		0.0000	1.0000	37					
0.0000 1.0000 30 0.0000 1.0000 30 0.0000 1.0000 38   0.0000 1.0000 39 0.0000 1.0000 39 0.0000 1.0000 39   0.0000 1.0000 40 0.0000 1.0000 40 0.0000 1.0000 40   0.0000 1.0000 41 0.0000 1.0000 41 0.0000 1.0000 41   0.0000 1.0000 42 0.0000 1.0000 42 0.0000 1.0000 42   0.0000 1.0000 43 0.0000 1.0000 43 0.0000 1.0000 43   0.0000 1.0000 45 0.0000 1.0000 44 0.0000 1.0000 45	0.0000	1.0000	32	0.0000	1.0000	32		0.0000	1,0000	38					
0.0000 1.0000 35 0.0000 1.0000 39 0.0000 1.0000 39   0.0000 1.0000 40 0.0000 1.0000 40 0.0000 1.0000 40   0.0000 1.0000 41 0.0000 1.0000 41 0.0000 41   0.0000 1.0000 42 0.0000 1.0000 42 0.0000 1.0000 42   0.0000 1.0000 43 0.0000 1.0000 43 0.0000 1.0000 43   0.0000 1.0000 45 0.0000 1.0000 45 0.0000 1.0000 45	0.0000	1.0000	30	0.0000	1.0000	30		0.0000	1,0000	30					
0.0000 1.0000 40 0.0000 1.0000 40 0.0000 1.0000 40   0.0000 1.0000 41 0.0000 1.0000 41 0.0000 1.0000 41   0.0000 1.0000 42 0.0000 1.0000 42 0.0000 1.0000 42   0.0000 1.0000 43 0.0000 1.0000 43 0.0000 1.0000 43   0.0000 1.0000 44 0.0000 1.0000 44 0.0000 1.0000 45	0.0000	1.0000	39	0.0000	1.0000	39		0.0000	1.0000	39					
0.0000 1.0000 41 0.0000 1.0000 41   0.0000 1.0000 42 0.0000 1.0000 42 0.0000 1.0000 42   0.0000 1.0000 43 0.0000 1.0000 43 0.0000 1.0000 43   0.0000 1.0000 44 0.0000 1.0000 44 0.0000 1.0000 44   0.0000 1.0000 45 0.0000 1.0000 45 0.0000 1.0000 45	0.0000	1.0000	40 A1	0.0000	1.0000	40 11		0.0000	1,0000	-+0 /_1					
0.0000 1.0000 42 0.0000 1.0000 42 0.0000 1.0000 42   0.0000 1.0000 43 0.0000 1.0000 43 0.0000 1.0000 43   0.0000 1.0000 44 0.0000 1.0000 44 0.0000 1.0000 44   0.0000 1.0000 45 0.0000 1.0000 45 0.0000 1.0000 45	0.0000	1.0000	41 10	0.0000	1.0000	41		0.0000	1.0000	41					
0.0000 1.0000 4.5 0.0000 1.0000 4.5 0.0000 1.0000 4.5   0.0000 1.0000 44 0.0000 1.0000 44 0.0000 44   0.0000 1.0000 45 0.0000 1.0000 45 0.0000 45	0.0000	1.0000	42 43	0.0000	1.0000	42 13		0.0000	1,0000	42					
	0.0000	1.0000	43	0.0000	1.0000	43		0.0000	1,0000	40					
	0,0000	1 0000	45	0,0000	1 0000	45		0,0000	1 0000	45					

1. Delmas/Auzera	iis		1. Delmas/Auzera	ais	1. Delmas/Auzerais						
WBL			WBL			WBL					
PM			PM				PM				
Existing Condition	IS		Background Conc	ditions			Background Plus	Project Conditio	ons		
Avg. Queue Per L	ane in Veh=	2.3	Avg. Queue Per L	ane in Veh=	2.7		Avg. Queue Per L	ane in Veh=	6.3		
Percentile =	0.95	5	Percentile =	0.95	6		Percentile =	0.95	11		
						_				_	
		Number of			Number of				Number of	Ĩ	
Individual	Cumulative	Queued	Individual	Cumulative	Queued		Individual	Cumulative	Queued		
Probability	Probability	Vehicles	Probability	Probability	Vehicles		Probability	Probability	Vehicles		
0 1037	0 1037	0	0.0650	0.0650	0		0.0018	0.0018	0		
0 2350	0.3386	1	0 1777	0 2427	1		0.0112	0.0130	1		
0.2663	0.6049	2	0 2428	0.4855	2		0.0356	0.0486	2		
0 2012	0.8061	3	0 2212	0 7067	3		0.0752	0 1238	3		
0 1140	0.9201	4	0 1512	0.8579	4		0 1191	0 2429	4		
0.0517	0.9718	5	0.0826	0.9406	5		0 1508	0.3937	5		
0.0195	0.9913	6	0.0376	0.9782	6		0 1592	0 5529	6		
0.0063	0.9976	7	0 0147	0.9929	7		0 1440	0.6970	7		
0.0018	0.9994	8	0.0050	0.9979	8		0 1140	0.8110	8		
0.0005	0.9999	9	0.0015	0.9994	9		0.0802	0.8912	9		
0.0001	1 0000	10	0.0004	0.9999	10		0.0508	0.9420	10		
0.0000	1.0000	11	0.0001	1 0000	11		0.0293	0.9713	11		
0.0000	1.0000	12	0.0000	1.0000	12		0.0154	0.9867	12		
0.0000	1.0000	13	0.0000	1.0000	13		0.0075	0.9943	13		
0.0000	1.0000	14	0.0000	1.0000	14		0.0034	0.9977	14		
0.0000	1.0000	15	0.0000	1.0000	15		0.0014	0.9991	15		
0.0000	1.0000	16	0.0000	1.0000	16		0.0006	0.0001	16		
0.0000	1.0000	10	0.0000	1.0000	17		0.0000	0.0007	10		
0.0000	1.0000	18	0.0000	1.0000	18		0.0002	1 0000	18		
0.0000	1.0000	19	0.0000	1.0000	19		0.0000	1.0000	19		
0.0000	1.0000	20	0.0000	1.0000	20		0.0000	1.0000	20		
0.0000	1.0000	20	0.0000	1.0000	20		0.0000	1.0000	20		
0.0000	1.0000	22	0.0000	1.0000	22		0.0000	1.0000	22		
0.0000	1.0000	23	0.0000	1.0000	23		0.0000	1.0000	23		
0.0000	1.0000	24	0.0000	1.0000	24		0.0000	1.0000	24		
0.0000	1.0000	25	0.0000	1.0000	25		0.0000	1.0000	25		
0.0000	1.0000	26	0.0000	1.0000	26		0.0000	1.0000	26		
0.0000	1.0000	27	0.0000	1.0000	27		0.0000	1.0000	27		
0.0000	1.0000	28	0.0000	1.0000	28		0.0000	1.0000	28		
0.0000	1.0000	20	0.0000	1.0000	20		0.0000	1.0000	20		
0.0000	1.0000	30	0.0000	1.0000	30		0.0000	1.0000	30		
0.0000	1.0000	31	0.0000	1.0000	31		0.0000	1.0000	31		
0,0000	1 0000	32	0 0000	1 0000	32		0,0000	1 0000	32		
0,0000	1 0000	33	0 0000	1 0000	33		0,0000	1 0000	33		
0,0000	1 0000	34	0 0000	1 0000	34		0,0000	1 0000	34		
0.0000	1.0000	35	0.0000	1.0000	35		0.0000	1.0000	35		
0.0000	1.0000	36	0.0000	1.0000	36		0.0000	1.0000	36		
0.0000	1.0000	37	0.0000	1.0000	37		0.0000	1.0000	37		
0,0000	1 0000	38	0,0000	1 0000	38		0,0000	1 0000	38		
0,0000	1 0000	39	0,0000	1 0000	39		0,0000	1 0000	39		
0,0000	1 0000	40	0,0000	1 0000	40		0,0000	1 0000	40		
0,0000	1 0000	41	0.0000	1 0000	41		0,0000	1 0000	41		
0,0000	1 0000	42	0,0000	1 0000	42		0,0000	1 0000	42		
0,0000	1 0000	43	0,0000	1 0000	43		0,0000	1 0000	43		
0,0000	1 0000	44	0,0000	1 0000	44		0,0000	1 0000	44		
0.0000	1.0000	45	0.0000	1.0000	45		0.0000	1.0000	45		

NBL			NBL				NBL			
AM			AM				AM			
Existing Condition	าร		Background Cond	ditions			Background Plus	Project Conditio	ns	
Avg. Queue Per L	_ane in Veh=	2.9	Avg. Queue Per L	_ane in Veh=	3.5		Avg. Queue Per L	ane in Veh=	3.9	
Percentile =	0.95	6	Percentile =	0.95	7		Percentile =	0.95	7	
		Number of			Number of	ſ			Number of	T
Individual	Cumulative	Queued	Individual	Cumulative	Queued		Individual	Cumulative	Queued	
Probability	Probability	Vehicles	Probability	Probability	Vehicles		Probability	Probability	Vehicles	
0.0568	0.0568	0	0.0314	0.0314	0		0.0106	0.0106	0	
0.0508	0.0308	0	0.0314	0.0314	0		0.0190	0.0190	0	
0.1030	0.2190	1	0.1007	0.1401	1		0.0772	0.0900	1	
0.2337	0.4333	2	0.1000	0.5201	2		0.1010	0.2404	2	
0.2234	0.0700	3	0.2109	0.3430	3		0.1907	0.4471	3	
0.1001	0.0370	4	0.1077	0.7320	4		0.1932	0.0423	4	
0.0319	0.9200	5	0.1233	0.0027	5		0.1006	0.7950	6	
0.0439	0.9727	7	0.0730	0.9377	7		0.0565	0.0504	7	
0.0100	0.9907	8	0.0371	0.9747	8		0.0303	0.9529	8	
0.0004	0.0002	9	0.0100	0.9900	0		0.0277	0.9000	0	
0.0021	0.9992	9 10	0.0002	0.9909	9 10		0.0121	0.9927	9 10	
0.0000	1 0000	10	0.0021	0.9991	10		0.0040	0.9975	10	
0.0002	1.0000	12	0.0007	0.9997	11		0.00077	0.9992	12	
0.0000	1.0000	12	0.0002	1 0000	12		0.0000	0.3330	12	
0.0000	1.0000	13	0.0001	1.0000	13		0.0002	0.9999	13	
0.0000	1.0000	14	0.0000	1.0000	14		0.0000	1.0000	14	
0.0000	1.0000	15	0.0000	1.0000	15		0.0000	1.0000	15	
0.0000	1.0000	10	0.0000	1.0000	10		0.0000	1.0000	10	
0.0000	1.0000	17	0.0000	1.0000	18		0.0000	1.0000	18	
0.0000	1.0000	10	0.0000	1.0000	10		0.0000	1.0000	10	
0.0000	1.0000	20	0.0000	1.0000	20		0.0000	1.0000	20	
0.0000	1.0000	20	0.0000	1.0000	20		0.0000	1.0000	20	
0.0000	1.0000	22	0.0000	1.0000	22		0.0000	1.0000	22	
0.0000	1 0000	23	0.0000	1 0000	23		0.0000	1.0000	23	
0.0000	1 0000	24	0.0000	1 0000	24		0.0000	1.0000	24	
0.0000	1 0000	25	0.0000	1 0000	25		0.0000	1.0000	25	
0.0000	1 0000	26	0.0000	1 0000	26		0.0000	1.0000	26	
0,0000	1 0000	27	0,0000	1 0000	27		0.0000	1 0000	27	
0,0000	1 0000	28	0,0000	1 0000	28		0.0000	1 0000	28	
0.0000	1.0000	29	0.0000	1.0000	29		0.0000	1.0000	29	
0.0000	1.0000	30	0.0000	1.0000	30		0.0000	1.0000	30	
0.0000	1.0000	31	0.0000	1.0000	31		0.0000	1.0000	31	
0.0000	1.0000	32	0.0000	1.0000	32		0.0000	1.0000	32	
0.0000	1.0000	33	0.0000	1.0000	33		0.0000	1.0000	33	
0.0000	1.0000	34	0.0000	1.0000	34		0.0000	1.0000	34	
0.0000	1.0000	35	0.0000	1.0000	35		0.0000	1.0000	35	
0.0000	1.0000	36	0.0000	1.0000	36		0.0000	1.0000	36	
0.0000	1.0000	37	0.0000	1.0000	37		0.0000	1.0000	37	
0.0000	1.0000	38	0.0000	1.0000	38		0.0000	1.0000	38	
0.0000	1.0000	39	0.0000	1.0000	39		0.0000	1.0000	39	
0.0000	1.0000	40	0.0000	1.0000	40		0.0000	1.0000	40	
0.0000	1.0000	41	0.0000	1.0000	41		0.0000	1.0000	41	
0.0000	1.0000	42	0.0000	1.0000	42		0.0000	1.0000	42	
0.0000	1.0000	43	0.0000	1.0000	43		0.0000	1.0000	43	
0.0000	1.0000	44	0.0000	1.0000	44		0.0000	1.0000	44	
0.0000	1.0000	45	0.0000	1.0000	45		0.0000	1.0000	45	l

2. Woz/Auzerais

2. Woz/Auzerais

Queuing 05.xls 4/29/2020 M5

2. Woz/Auzerais

2. Woz/Auzerais				2. Woz/Auzerais			2. Woz/Auzerais		
NBL				NBL			NBL		
PM				PM			PM		
Existing Conditior	าร			Background Cond	ditions		Background Plus	Project Conditio	ns
Avg. Queue Per L	_ane in Veh=	3.5		Avg. Queue Per L	ane in Veh=	4.8	Avg. Queue Per	Lane in Veh=	7.7
Percentile =	0.95	7		Percentile =	0.95	9	Percentile =	0.95	12
		Number of	ſ			Number of			Number of
Individual	Cumulativo			Individual	Cumulativo		Individual	Cumulativo	
Probability	Probability	Vehicles		Probability	Probability	Vehicles	Probability	Probability	Vehicles
0.0314	0.0314	0		0.0079	0.0079	0	0.0005	0.0005	0
0.1087	0.1401	1		0.0381	0.0460	1	0.0035	0.0040	1
0 1880	0.3281	2		0.0923	0 1383	2	0.0135	0.0175	2
0.2169	0.5450	3		0 1491	0.2874	3	0.0347	0.0522	3
0.1877	0.7328	4		0 1806	0.4680	4	0.0667	0 1189	4
0.1077	0.8627	- 5		0.1750	0.4000	- -	0.1026	0.2215	<del>7</del> 5
0.1255	0.0027	6		0.1/10	0.0430	6	0.1020	0.2210	6
0.0750	0.9317	7		0.0070	0.7044	7	0.1314	0.3323	7
0.0371	0.9747	0		0.0979	0.0023	0	0.1443	0.4972	0
0.0100	0.9908	0		0.0393	0.9413	0	0.1307	0.0359	0
0.0062	0.9969	9		0.0319	0.9734	9	0.1100	0.7544	9
0.0021	0.9991	10		0.0155	0.9889	10	0.0911	0.8455	10
0.0007	0.9997	11		0.0068	0.9957	11	0.0637	0.9092	11
0.0002	0.9999	12		0.0028	0.9985	12	0.0408	0.9500	12
0.0001	1.0000	13		0.0010	0.9995	13	0.0241	0.9742	13
0.0000	1.0000	14		0.0004	0.9998	14	0.0133	0.9874	14
0.0000	1.0000	15		0.0001	1.0000	15	0.0068	0.9942	15
0.0000	1.0000	16		0.0000	1.0000	16	0.0033	0.9975	16
0.0000	1.0000	17		0.0000	1.0000	17	0.0015	0.9990	17
0.0000	1.0000	18		0.0000	1.0000	18	0.0006	0.9996	18
0.0000	1.0000	19		0.0000	1.0000	19	0.0003	0.9998	19
0.0000	1.0000	20		0.0000	1.0000	20	0.0001	0.9999	20
0.0000	1.0000	21		0.0000	1.0000	21	0.0000	1.0000	21
0.0000	1.0000	22		0.0000	1.0000	22	0.0000	1.0000	22
0.0000	1.0000	23		0.0000	1.0000	23	0.0000	1.0000	23
0 0000	1 0000	24		0 0000	1 0000	24	0,0000	1 0000	24
0 0000	1 0000	25		0 0000	1 0000	25	0,0000	1 0000	25
0,0000	1 0000	26		0.0000	1 0000	26	0,0000	1 0000	26
0.0000	1.0000	27		0.0000	1,0000	27	0.0000	1.0000	27
0.0000	1.0000	28		0.0000	1.0000	28	0.0000	1.0000	28
0.0000	1.0000	20		0.0000	1.0000	20	0.0000	1.0000	20
0.0000	1.0000	29		0.0000	1.0000	29 30	0.0000	1.0000	29
0.0000	1.0000	30		0.0000	1.0000	30	0.0000	1.0000	30
0.0000	1.0000	20		0.0000	1.0000	20	0.0000	1.0000	20
0.0000	1.0000	ວ∠ ລວ		0.0000	1.0000	ວ∠ 20	0.0000	1.0000	s∠ 22
0.0000	1.0000	33		0.0000	1.0000	<b>33</b>	0.0000	1.0000	33
0.0000	1.0000	34		0.0000	1.0000	34 25	0.0000	1.0000	34 25
0.0000	1.0000	35		0.0000	1.0000	35	0.0000	1.0000	35
0.0000	1.0000	36		0.0000	1.0000	36	0.0000	1.0000	36
0.0000	1.0000	37		0.0000	1.0000	37	0.0000	1.0000	37
0.0000	1.0000	38		0.0000	1.0000	38	0.0000	1.0000	38
0.0000	1.0000	39		0.0000	1.0000	39	0.0000	1.0000	39
0.0000	1.0000	40		0.0000	1.0000	40	0.0000	1.0000	40
0.0000	1.0000	41		0.0000	1.0000	41	0.0000	1.0000	41
0.0000	1.0000	42		0.0000	1.0000	42	0.0000	1.0000	42
0.0000	1.0000	43		0.0000	1.0000	43	0.0000	1.0000	43
0.0000	1.0000	44		0.0000	1.0000	44	0.0000	1.0000	44
0.0000	1 0000	45		0.0000	1.0000	45	0.0000	1.0000	45

5. Almaden/Woz(	Balbach)			5. Almaden/Woz(	Balbach)	5. Almaden/Woz(Balbach)					
EBL				EBL			EBL				
λM				AM			1	AM			
Existing Condition	ns			Background Cond	litions		E	Background Plus	Project Condition	าร	
Avg. Queue Per I	Lane in Veh=	2.0		Avg. Queue Per L	ane in Veh=	6.1	/	Avg. Queue Per L	ane in Veh=	9.6	
'ercentile =	0.95	5		Percentile =	0.95	10	I	Percentile =	0.95	15	
		Number of				Number of	Г			Number of	
Individual	Cumulative	Queued		Individual	Cumulative	Queued		Individual	Cumulative	Queued	
Probability	Probability	Vehicles		Probability	Probability	Vehicles		Probability	Probability	Vehicles	
0 1376	0 1376	0		0.0023	0.0023	0		0.0001	0.0001	0	
0.2729	0.4105	1		0.0141	0.0164	1		0.0006	0.0007	1	
0.2707	0.6812	2		0.0427	0.0591	2		0.0030	0.0037	2	
0.1789	0.8601	3		0.0863	0.1454	3		0.0097	0.0134	3	
0.0887	0.9488	4		0.1309	0.2762	4		0.0234	0.0367	4	
0.0352	0.9840	5		0.1588	0.4350	5		0.0450	0.0818	5	
0.0116	0.9957	6		0.1606	0.5956	6		0.0724	0.1542	6	
0.0033	0.9990	7		0.1392	0.7348	7		0.0998	0.2540	7	
0.0008	0.9998	8		0.1055	0.8403	8		0.1203	0.3742	8	
0.0002	1.0000	9		0.0711	0.9114	9		0.1289	0.5031	9	
0.0000	1.0000	10		0.0432	0.9546	10		0.1243	0.6274	10	
0.0000	1.0000	11		0.0238	0.9784	11		0.1090	0.7364	11	
0.0000	1.0000	12		0.0120	0.9904	12		0.0876	0.8240	12	
0.0000	1.0000	13		0.0056	0.9960	13		0.0650	0.8890	13	
0.0000	1.0000	14		0.0024	0.9984	14		0.0448	0.9338	14	
0.0000	1.0000	15		0.0010	0.9994	15		0.0288	0.9625	15	
0.0000	1.0000	16		0.0004	0.9998	16		0.0173	0.9799	16	
0.0000	1.0000	17		0.0001	0.9999	17		0.0098	0.9897	17	
0.0000	1.0000	18		0.0000	1.0000	18		0.0053	0.9950	18	
0.0000	1.0000	19		0.0000	1.0000	19		0.0027	0.9977	19	
0.0000	1.0000	20		0.0000	1.0000	20		0.0013	0.9990	20	
0.0000	1.0000	21		0.0000	1.0000	21		0.0006	0.9996	21	
0.0000	1.0000	22		0.0000	1.0000	22		0.0003	0.9998	22	
0.0000	1.0000	23		0.0000	1.0000	23		0.0001	0.9999	23	
0.0000	1.0000	24		0.0000	1.0000	24		0.0000	1.0000	24	
0.0000	1.0000	25		0.0000	1.0000	25		0.0000	1.0000	25	
0.0000	1.0000	26		0.0000	1.0000	26		0.0000	1.0000	26	
0.0000	1.0000	27		0.0000	1.0000	27		0.0000	1.0000	27	
0.0000	1.0000	28		0.0000	1.0000	28		0.0000	1.0000	28	
0.0000	1.0000	29		0.0000	1.0000	29		0.0000	1.0000	29	
0.0000	1.0000	30		0.0000	1.0000	30		0.0000	1.0000	30	
0.0000	1.0000	31		0.0000	1.0000	31		0.0000	1.0000	31	
0.0000	1.0000	32		0.0000	1.0000	32		0.0000	1.0000	32	
0.0000	1.0000	33		0.0000	1.0000	33		0.0000	1.0000	33	
0.0000	1.0000	34		0.0000	1.0000	34		0.0000	1.0000	34	
0.0000	1.0000	35		0.0000	1.0000	35		0.0000	1.0000	35	
0.0000	1.0000	36		0.0000	1.0000	36		0.0000	1.0000	36	
0.0000	1.0000	37		0.0000	1.0000	37		0.0000	1.0000	37	
0.0000	1.0000	38		0.0000	1.0000	38		0.0000	1.0000	38	
0.0000	1.0000	39		0.0000	1.0000	39		0.0000	1.0000	39	
0.0000	1.0000	40		0.0000	1.0000	40		0.0000	1.0000	40	
0.0000	1.0000	41		0.0000	1.0000	41		0.0000	1.0000	41	
0.0000	1.0000	42		0.0000	1.0000	42		0.0000	1.0000	42	
0.0000	1.0000	43		0.0000	1.0000	43		0.0000	1.0000	43	
0.0000	1.0000	44		0.0000	1.0000	44		0.0000	1.0000	44	
0.0000	1.0000	45		0.0000	1.0000	45		0.0000	1.0000	45	

5. Almaden/Woz(	Balbach)		5. Almaden/Woz(I	Balbach)		5. Almaden/Woz(Balbach)				
EBL			EBL				EBL			
PM			PM				PM			
Existing Condition	IS		Background Conc	litions			Background Plus	Project Condition	ons	
Avg. Queue Per L	ane in Veh=	1.3	Avg. Queue Per L	ane in Veh=	2.1		Avg. Queue Per L	ane in Veh=	6.3	
Percentile =	0.95	3	Percentile =	0.95	5		Percentile =	0.95	11	
		Number of			Number of				Number of	
Individual	Cumulative	Queued	Individual	Cumulative	Queued		Individual	Cumulative	Queued	
Probability	Probability	Vehicles	Probability	Probability	Vehicles		Probability	Probability	Vehicles	
0.2771	0.2771	0	0.1273	0.1273	0		0.0018	0.0018	0	
0.3556	0.6327	1	0.2624	0.3897	1		0.0112	0.0130	1	
0.2282	0.8609	2	0.2704	0.6601	2		0.0355	0.0484	2	
0.0976	0.9585	3	0.1858	0.8459	3		0.0750	0.1234	3	
0.0313	0.9899	4	0.0957	0.9417	4		0.1188	0.2422	4	
0.0080	0.9979	5	0.0395	0.9811	5		0.1506	0.3929	5	
0.0017	0.9996	6	0.0136	0.9947	6		0.1591	0.5520	6	
0.0003	0.9999	7	0.0040	0.9987	7		0.1441	0.6962	7	
0.0001	1.0000	8	0.0010	0.9997	8		0.1142	0.8103	8	
0.0000	1.0000	9	0.0002	0.9999	9		0.0804	0.8908	9	
0.0000	1.0000	10	0.0000	1.0000	10		0.0510	0.9418	10	
0.0000	1.0000	11	0.0000	1.0000	11		0.0294	0.9711	11	
0.0000	1.0000	12	0.0000	1.0000	12		0.0155	0.9867	12	
0.0000	1.0000	13	0.0000	1.0000	13		0.0076	0.9942	13	
0.0000	1.0000	14	0.0000	1.0000	14		0.0034	0.9977	14	
0.0000	1.0000	15	0.0000	1.0000	15		0.0014	0.9991	15	
0.0000	1.0000	16	0.0000	1.0000	16		0.0006	0.9997	16	
0.0000	1.0000	17	0.0000	1.0000	17		0.0002	0.9999	17	
0.0000	1.0000	18	0.0000	1.0000	18		0.0001	1.0000	18	
0.0000	1.0000	19	0.0000	1.0000	19		0.0000	1.0000	19	
0.0000	1.0000	20	0.0000	1.0000	20		0.0000	1.0000	20	
0.0000	1.0000	21	0.0000	1.0000	21		0.0000	1.0000	21	
0.0000	1.0000	22	0.0000	1.0000	22		0.0000	1.0000	22	
0.0000	1.0000	23	0.0000	1.0000	23		0.0000	1.0000	23	
0.0000	1.0000	24	0.0000	1.0000	24		0.0000	1.0000	24	
0.0000	1.0000	25	0.0000	1.0000	25		0.0000	1.0000	25	
0.0000	1.0000	26	0.0000	1.0000	26		0.0000	1.0000	26	
0.0000	1.0000	27	0.0000	1.0000	27		0.0000	1.0000	27	
0.0000	1.0000	28	0.0000	1.0000	28		0.0000	1.0000	28	
0.0000	1.0000	29	0.0000	1.0000	29		0.0000	1.0000	29	
0.0000	1.0000	30	0.0000	1.0000	30		0.0000	1.0000	30	
0.0000	1.0000	31	0.0000	1.0000	31		0.0000	1.0000	31	
0.0000	1.0000	32	0.0000	1.0000	32		0.0000	1.0000	32	
0.0000	1.0000	33	0.0000	1.0000	33		0.0000	1.0000	33	
0.0000	1.0000	34	0.0000	1.0000	34		0.0000	1.0000	34	
0.0000	1.0000	35	0.0000	1.0000	35		0.0000	1.0000	35	
0.0000	1.0000	36	0.0000	1.0000	36		0.0000	1.0000	36	
0.0000	1.0000	37	0.0000	1.0000	37		0.0000	1.0000	37	
0.0000	1.0000	38	0.0000	1.0000	38		0.0000	1.0000	38	
0.0000	1.0000	39	0.0000	1.0000	39		0.0000	1.0000	39	
0.0000	1.0000	40	0.0000	1.0000	40		0.0000	1.0000	40	
0.0000	1.0000	41	0.0000	1.0000	41		0.0000	1.0000	41	
0.0000	1.0000	42	0.0000	1.0000	42		0.0000	1.0000	42	
0.0000	1.0000	43	0.0000	1.0000	43		0.0000	1.0000	43	
0.0000	1.0000	44	0.0000	1.0000	44		0.0000	1.0000	44	
0.0000	1.0000	45	0.0000	1.0000	45		0.0000	1.0000	45	

5. Almaden/Woz(Balbach) EBT AM Existing Conditions Avg. Queue Per Lane in Veh= 3.0 Percentile = 0.95 6				5. Almaden/Woz( EBT AM Existing Plus Proj	/////	5. Almaden/Woz(Balbach) EBT AM Background Conditions #N/A Avg. Queue Per Lane in Veh= 3.1					
Avg. Queue Per L Percentile =	ane in ven= 0.95	3.0 6		Avg. Queue Per L Percentile =	ane in ven= 0.95	#N/A 1		A P	vg. Queue Per L ercentile =	ane in ven= 0.95	3.1 6
			1	-			r	-			
المربطة بالماريم ا	Our letters	Number of		las alta stala and	Quantitations	Number of			المرائد بالماريم ا	Quantitations	Number of
Brobability	Drobability	Vohiclos		Probability	Drobability	Vohiclos			Brobability	Brobability	Vehicles
Fibbability	FIODADIIILY	Venicies		FIODADIIIty	FIODADIIILY	venicies			FIODADIIILY	FIODADIIILY	Venicies
0.0520	0.0520	0		#N/A	#N/A	0			0.0463	0.0463	0
0.1538	0.2059	1		#N/A	#N/A	1			0.1423	0.1886	1
0.2273	0.4332	2		#N/A	#N/A	2			0.2186	0.4072	2
0.2240	0.6572	3		#N/A	#N/A	3			0.2239	0.6311	3
0.1655	0.8227	4		#N/A	#N/A	4			0.1719	0.8030	4
0.0978	0.9205	5		#N/A	#N/A	5			0.1056	0.9086	5
0.0482	0.9687	6		#N/A	#N/A	6			0.0541	0.9627	6
0.0203	0.9890	7		#N/A	#N/A	/			0.0237	0.9865	/
0.0075	0.9965	8		#N/A	#N/A	8			0.0091	0.9956	8
0.0025	0.9990	9		#N/A	#N/A	9 10			0.0031	0.9987	9
0.0007	0.9997	10		#N/A	#N/A	10			0.0010	0.9996	10
0.0002	0.9999	11		#N/A	#N/A	11			0.0003	0.9999	11
0.0000	1.0000	12		#N/A	#N/A	12			0.0001	1.0000	12
0.0000	1.0000	13		#N/A	#N/A	13			0.0000	1.0000	13
0.0000	1.0000	14		#N/A	#N/A	14			0.0000	1.0000	14
0.0000	1.0000	15		#N/A	#N/A	15			0.0000	1.0000	15
0.0000	1.0000	16		#N/A	#N/A	16			0.0000	1.0000	16
0.0000	1.0000	17		#N/A	#N/A	17			0.0000	1.0000	1/
0.0000	1.0000	18		#N/A	#N/A	18			0.0000	1.0000	18
0.0000	1.0000	19		#N/A	#N/A	19			0.0000	1.0000	19
0.0000	1.0000	20		#N/A	#N/A	20			0.0000	1.0000	20
0.0000	1.0000	21		#N/A	#N/A	21			0.0000	1.0000	21
0.0000	1.0000	22		#N/A	#N/A	22			0.0000	1.0000	22
0.0000	1.0000	23		#N/A	#N/A	23			0.0000	1.0000	23
0.0000	1.0000	24		#N/A	#N/A	24			0.0000	1.0000	24
0.0000	1.0000	25		#N/A	#N/A	25			0.0000	1.0000	25
0.0000	1.0000	26		#N/A	#N/A	26			0.0000	1.0000	26
0.0000	1.0000	27		#N/A	#N/A	27			0.0000	1.0000	27
0.0000	1.0000	28		#N/A	#N/A	28			0.0000	1.0000	28
0.0000	1.0000	29		#N/A	#N/A	29			0.0000	1.0000	29
0.0000	1.0000	30		#N/A	#N/A	30			0.0000	1.0000	30
0.0000	1.0000	31		#N/A	#N/A	31			0.0000	1.0000	31
0.0000	1.0000	32		#N/A	#N/A	32			0.0000	1.0000	32
0.0000	1.0000	33		#N/A	#N/A	33			0.0000	1.0000	33
0.0000	1.0000	34		#N/A	#N/A	34			0.0000	1.0000	34
0.0000	1.0000	35		#N/A	#N/A	35			0.0000	1.0000	35
0.0000	1.0000	36		#N/A	#N/A	36			0.0000	1.0000	36
0.0000	1.0000	37		#N/A	#N/A	37			0.0000	1.0000	37
0.0000	1.0000	38		#N/A	#N/A	38			0.0000	1.0000	38
0.0000	1.0000	39		#N/A	#N/A	39			0.0000	1.0000	39
0.0000	1.0000	40		#N/A	#N/A	40			0.0000	1.0000	40
0.0000	1.0000	41		#N/A	#N/A	41			0.0000	1.0000	41
0.0000	1.0000	42		#N/A	#N/A	42			0.0000	1.0000	42
0.0000	1.0000	43		#N/A	#N/A	43			0.0000	1.0000	43
0.0000	1.0000	44		#N/A	#N/A	44			0.0000	1.0000	44
0.0000	1.0000	45		#N/A	#N/A	45			0.0000	1.0000	45

5. Almaden/Woz( EBT PM Existing Conditior Avg. Queue Per L Percentile =	Balbach) ns .ane in Veh= 0.95	9.9 15	5. Almaden/Woz( EBT PM Existing Plus Proj Avg. Queue Per L Percentile =	Balbach) ect Conditions .ane in Veh= 0.95	#N/A 1	5. Almaden/Woz( EBT PM Background Cond Avg. Queue Per I Percentile =	Balbach) ditions _ane in Veh= 0.95	11.0 17	5. Almaden/Woz( EBT PM Background Plus Avg. Queue Per L Percentile =	Balbach) Project Conditic Lane in Veh= 0.95	ons 13.8 20
Individual Probability	Cumulative Probability	Number of Queued Vehicles	Individual Probability	Cumulative Probability	Number of Queued Vehicles	Individual Probability	Cumulative Probability	Number of Queued Vehicles	Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0000	0.0000	0	#NI/A	#NI/A	0	0.0000	0.0000	0	0.0000	0.0000	0
0.0000	0.0000	1	#N/A #N/A	#N/A #N/A	1	0.0000	0.0000	1	0.0000	0.0000	1
0.0024	0.0030	2	#N/A	#N/A	2	0.0002	0.0002	2	0.0001	0.0000	2
0.0080	0.0110	3	#N/A	#N/A	3	0.0038	0.0050	3	0.0005	0.0006	3
0.0199	0.0309	4	#N/A	#N/A	4	0.0104	0.0154	4	0.0016	0.0021	4
0.0394	0.0703	5	#N/A	#N/A	5	0.0228	0.0383	5	0.0043	0.0065	5
0.0652	0.1355	6	#N/A	#N/A	6	0.0417	0.0800	6	0.0099	0.0164	6
0.0923	0.2278	7	#N/A	#N/A	7	0.0654	0.1454	7	0.0195	0.0359	7
0.1145	0.3423	8	#N/A	#N/A	8	0.0896	0.2350	8	0.0336	0.0695	8
0.1261	0.4684	9	#N/A	#N/A	9	0.1092	0.3441	9	0.0514	0.1209	9
0.1251	0.5935	10	#N/A	#N/A	10	0.1197	0.4639	10	0.0708	0.1917	10
0.1127	0.7062	11	#N/A	#N/A	11	0.1194	0.5832	11	0.0885	0.2802	11
0.0932	0.7994	12	#N/A	#N/A	12	0.1091	0.6923	12	0.1016	0.3818	12
0.0711	0.8705	13	#N/A #N/A	#N/A #N/A	13	0.0920	0.7844	13	0.1076	0.4894	13
0.0503	0.9208	14	#IN/A #NI/A	#N/A #N/A	14	0.0721	0.0000	14	0.1056	0.0902	14
0.0333	0.9341	15	#Ν/Α #Ν/Δ	#Ν/Α #Ν/Δ	15	0.0327	0.9092	15	0.0971	0.0922	15
0.0200	0.9868	10	#N/A #N/A	#N/A #N/A	10	0.0233	0.9686	10	0.0035	0.8434	10
0.0066	0.9934	18	#N/A	#N/A	18	0.0142	0.9828	18	0.0517	0.8951	18
0.0035	0.9968	19	#N/A	#N/A	19	0.0082	0.9910	19	0.0375	0.9326	19
0.0017	0.9986	20	#N/A	#N/A	20	0.0045	0.9955	20	0.0258	0.9584	20
0.0008	0.9994	21	#N/A	#N/A	21	0.0023	0.9978	21	0.0169	0.9754	21
0.0004	0.9997	22	#N/A	#N/A	22	0.0012	0.9990	22	0.0106	0.9859	22
0.0002	0.9999	23	#N/A	#N/A	23	0.0006	0.9996	23	0.0063	0.9923	23
0.0001	1.0000	24	#N/A	#N/A	24	0.0003	0.9998	24	0.0036	0.9959	24
0.0000	1.0000	25	#N/A	#N/A	25	0.0001	0.9999	25	0.0020	0.9979	25
0.0000	1.0000	26	#N/A	#N/A	26	0.0000	1.0000	26	0.0011	0.9990	26
0.0000	1.0000	27	#N/A	#N/A	27	0.0000	1.0000	27	0.0005	0.9995	27
0.0000	1.0000	28	#N/A	#N/A	28	0.0000	1.0000	28	0.0003	0.9998	28
0.0000	1.0000	29	#N/A #N/A	#N/A #N/A	29	0.0000	1.0000	29	0.0001	0.9999	29
0.0000	1.0000	30	#IN/A #NI/A	#N/A #N/A	30	0.0000	1.0000	30	0.0001	1.0000	30
0.0000	1.0000	32	#Ν/Α #Ν/Δ	#Ν/Α #Ν/Δ	32	0.0000	1.0000	32	0.0000	1.0000	32
0.0000	1.0000	33	#N/A #N/A	#N/A #N/A	33	0.0000	1.0000	33	0.0000	1.0000	33
0.0000	1.0000	34	#N/A	#N/A	34	0.0000	1.0000	34	0.0000	1.0000	34
0.0000	1.0000	35	#N/A	#N/A	35	0.0000	1.0000	35	0.0000	1.0000	35
0.0000	1.0000	36	#N/A	#N/A	36	0.0000	1.0000	36	0.0000	1.0000	36
0.0000	1.0000	37	#N/A	#N/A	37	0.0000	1.0000	37	0.0000	1.0000	37
0.0000	1.0000	38	#N/A	#N/A	38	0.0000	1.0000	38	0.0000	1.0000	38
0.0000	1.0000	39	#N/A	#N/A	39	0.0000	1.0000	39	0.0000	1.0000	39
0.0000	1.0000	40	#N/A	#N/A	40	0.0000	1.0000	40	0.0000	1.0000	40
0.0000	1.0000	41	#N/A	#N/A	41	0.0000	1.0000	41	0.0000	1.0000	41
0.0000	1.0000	42	#N/A	#N/A	42	0.0000	1.0000	42	0.0000	1.0000	42
0.0000	1.0000	43	#N/A	#N/A	43	0.0000	1.0000	43	0.0000	1.0000	43
0.0000	1.0000	44	#N/A	#N/A	44	0.0000	1.0000	44	0.0000	1.0000	44
0.0000	1.0000	45	#N/A	#N/A	45	0.0000	1.0000	45	0.0000	1.0000	45

5. Almaden/Woz(B NBL AM	Balbach)		5. Almaden/Woz(Balbach) NBL AM Background Conditions					5. Almaden/Woz(Balbach) NBL AM Background Plus Project Conditions				
Existing Condition	1S	7.0		Background Cond		0.4		Background Plus				
Avg. Queue Per L	ane in ven=	7.9		Avg. Queue Per L	ane in ven=	9.4		Avg. Queue Per L	ane in ven=	13.3		
Fercentile -	0.95	15		Percentile -	0.95	15		Percentile -	0.95	20		
		Number of				Number of				Number of		
Individual	Cumulative	Queued		Individual	Cumulative	Queued		Individual	Cumulative	Queued		
Probability	Probability	Vehicles		Probability	Probability	Vehicles		Probability	Probability	Vehicles		
0.0004	0.0004	0		0.0001	0.0001	0		0.0000	0.0000	0		
0.0004	0.0004	1		0.0001	0.0001	0		0.0000	0.0000	1		
0.0020	0.0032	2		0.0000	0.0009	2		0.0000	0.0000	2		
0.0113	0.0143	2		0.0037	0.0040	2		0.0006	0.0002	2		
0.0290	0.0445	3		0.0117	0.0105	3		0.0000	0.0000	3		
0.0332	0.1033	4 5		0.0273	0.0430	4 5		0.0021	0.0029	5		
0.0000	0.3216	6		0.0313	0.0343	6		0.0007	0.0000	6		
0.1242	0.3210	7		0.0001	0.2821	7		0.0120	0.0212	7		
0.1407	0.4025	8		0.1072	0.2021	8		0.0240	0.0452	8		
0.1395	0.0019	0		0.1230	0.4077	0		0.0400	0.0032	0		
0.1230	0.7243	9 10		0.1300	0.5505	10		0.0393	0.2237	9 10		
0.0370	0.8028	10		0.1220	0.7655	10		0.0791	0.2257	10		
0.0765	0.0320	12		0.1044	0.7033	12		0.0900	0.3137	12		
0.0403	0.9594	12		0.0010	0.0470	12		0.1007	0.4204	12		
0.0204	0.9070	13		0.0300	0.9050	13		0.1033	0.5550	14		
0.0101	0.9030	14		0.0394	0.9452	14		0.1043	0.0401	14		
0.0003	0.9924	15		0.0240	0.9090	15		0.0927	0.7329	15		
0.0042	0.9900	10		0.0144	0.9042	10		0.0773	0.8700	10		
0.0020	0.9905	17		0.0079	0.9921	17		0.0007	0.0709	17		
0.0003	0.9994	10		0.0041	0.9903	10		0.0430	0.9130	10		
0.0004	0.9990	20		0.0020	0.9903	20		0.0310	0.9474	20		
0.0001	1 0000	20		0.0010	0.9995	20		0.0211	0.9004	20		
0.0001	1.0000	21		0.0004	0.9997	21		0.0134	0.9010	21		
0.0000	1.0000	22		0.0002	0.9999	22		0.0081	0.9099	22		
0.0000	1.0000	23		0.0001	1.0000	23		0.0047	0.9940	23		
0.0000	1.0000	24		0.0000	1.0000	24		0.0020	0.9972	24		
0.0000	1.0000	20		0.0000	1.0000	20		0.0014	0.9900	25		
0.0000	1.0000	20		0.0000	1.0000	20		0.0007	0.9995	20		
0.0000	1.0000	27		0.0000	1.0000	21		0.0004	0.9997	21		
0.0000	1.0000	20		0.0000	1.0000	20		0.0002	0.0000	20		
0.0000	1.0000	30		0.0000	1.0000	30		0.0001	1 0000	30		
0.0000	1.0000	31		0.0000	1.0000	31		0.0000	1.0000	31		
0.0000	1,0000	32		0.0000	1 0000	32		0.0000	1 0000	32		
0 0000	1 0000	33		0,0000	1 0000	33		0,0000	1 0000	33		
0 0000	1 0000	34		0.0000	1 0000	34		0.0000	1 0000	34		
0.0000	1,0000	35		0.0000	1 0000	35		0.0000	1 0000	35		
0.0000	1,0000	36		0.0000	1 0000	36		0.0000	1 0000	36		
0.0000	1,0000	37		0.0000	1 0000	37		0.0000	1 0000	37		
0.0000	1.0000	38		0.0000	1.0000	38		0.0000	1.0000	38		
0,0000	1 0000	39		0.0000	1 0000	39		0.0000	1 0000	39		
0,0000	1 0000	40		0,0000	1 0000	40		0,0000	1 0000	40		
0,0000	1 0000	41		0,0000	1 0000	41		0,0000	1 0000	41		
0,0000	1 0000	42		0,0000	1 0000	42		0,0000	1 0000	42		
0.0000	1.0000	43		0.0000	1.0000	43		0.0000	1.0000	43		
0.0000	1.0000	44		0.0000	1.0000	44		0.0000	1.0000	44		
0.0000	1.0000	45		0.0000	1.0000	45		0.0000	1.0000	45		

NBL			I	NBL				NBL			
PM				PM				PM			
Existing Condition	ns	0.7	I	Background Cond	ditions			Background Plus	Project Conditio	ns	
Avg. Queue Per I	Lane in ven=	0.7		Avg. Queue Per L	_ane in ven=	1.4		Avg. Queue Per L	ane in ven=	2.1	
Percentile =	0.95	2	I	Percentile =	0.95	3		Percentile =	0.95	5	
		Number of	Г			Number of	ſ			Number of	ſ
Individual	Cumulative	Queued		Individual	Cumulative	Queued		Individual	Cumulative	Queued	
Probability	Probability	Vehicles		Probability	Probability	Vehicles		Probability	Probability	Vehicles	
		Vernoles		0.0504	0.0504	Vennoies		1 100ability	1 105d5mity	venioles	
0.4966	0.4966	0		0.2564	0.2564	0		0.1273	0.1273	0	
0.3476	0.8442	1		0.3490	0.6053	1		0.2624	0.3897	1	
0.1217	0.9659	2		0.2375	0.8428	2		0.2704	0.6601	2	
0.0284	0.9942	3		0.1077	0.9506	3		0.1858	0.8459	3	
0.0050	0.9992	4		0.0367	0.9872	4		0.0957	0.9417	4	
0.0007	0.9999	5		0.0100	0.9972	5		0.0395	0.9811	5	
0.0001	1.0000	6		0.0023	0.9995	6		0.0136	0.9947	6	
0.0000	1.0000	7		0.0004	0.9999	7		0.0040	0.9987	7	
0.0000	1.0000	8		0.0001	1.0000	8		0.0010	0.9997	8	
0.0000	1.0000	9		0.0000	1.0000	9		0.0002	0.9999	9	
0.0000	1.0000	10		0.0000	1.0000	10		0.0000	1.0000	10	
0.0000	1.0000	11		0.0000	1.0000	11		0.0000	1.0000	11	
0.0000	1.0000	12		0.0000	1.0000	12		0.0000	1.0000	12	
0.0000	1.0000	13		0.0000	1.0000	13		0.0000	1.0000	13	
0.0000	1.0000	14		0.0000	1.0000	14		0.0000	1.0000	14	
0.0000	1.0000	15		0.0000	1.0000	15		0.0000	1.0000	15	
0.0000	1.0000	16		0.0000	1.0000	16		0.0000	1.0000	16	
0.0000	1.0000	17		0.0000	1.0000	17		0.0000	1.0000	17	
0.0000	1.0000	18		0.0000	1.0000	18		0.0000	1.0000	18	
0.0000	1.0000	19		0.0000	1.0000	19		0.0000	1.0000	19	
0.0000	1.0000	20		0.0000	1.0000	20		0.0000	1.0000	20	
0.0000	1.0000	21		0.0000	1.0000	21		0.0000	1.0000	21	
0.0000	1.0000	22		0.0000	1.0000	22		0.0000	1.0000	22	
0.0000	1.0000	23		0.0000	1.0000	23		0.0000	1.0000	23	
0.0000	1.0000	24		0.0000	1.0000	24		0.0000	1.0000	24	
0.0000	1.0000	25		0.0000	1.0000	25		0.0000	1.0000	25	
0.0000	1.0000	26		0.0000	1.0000	26		0.0000	1.0000	26	
0.0000	1.0000	27		0.0000	1.0000	27		0.0000	1.0000	27	
0.0000	1.0000	28		0.0000	1.0000	28		0.0000	1.0000	28	
0.0000	1.0000	29		0.0000	1.0000	29		0.0000	1.0000	29	
0.0000	1.0000	30		0.0000	1.0000	30		0.0000	1.0000	30	
0.0000	1.0000	31		0.0000	1.0000	31		0.0000	1.0000	31	
0.0000	1.0000	32		0.0000	1.0000	32		0.0000	1.0000	32	
0.0000	1.0000	33		0.0000	1.0000	33		0.0000	1.0000	33	
0.0000	1.0000	34		0.0000	1.0000	34		0.0000	1.0000	34	
0.0000	1.0000	35		0.0000	1.0000	35		0.0000	1.0000	35	
0.0000	1.0000	36	1	0.0000	1.0000	36		0.0000	1.0000	36	1
0.0000	1.0000	37	1	0.0000	1.0000	37		0.0000	1.0000	37	1
0.0000	1.0000	38		0.0000	1.0000	38		0.0000	1.0000	38	
0.0000	1.0000	39		0.0000	1.0000	39		0.0000	1.0000	39	
0.0000	1.0000	40		0.0000	1.0000	40		0.0000	1.0000	40	
0.0000	1.0000	41		0.0000	1.0000	41		0.0000	1.0000	41	
0.0000	1.0000	42		0.0000	1.0000	42		0.0000	1.0000	42	
0.0000	1.0000	43	1	0.0000	1.0000	43		0.0000	1.0000	43	1
0.0000	1.0000	44		0.0000	1.0000	44		0.0000	1.0000	44	1

45

0.0000

1.0000

0.0000

5. Almaden/Woz(Balbach)

5. Almaden/Woz(Balbach)

Queuing 05.xls 4/29/2020 M12

0.0000

45

1.0000

45

1.0000

5. Almaden/Woz(Balbach)

5. Almaden/Woz(I SBL	Balbach)		5. Almaden/Woz(Balbach) SBL AM					5. Almaden/Woz(Balbach) SBL			
AM				AM				AM			
Existing Condition		0.0		Background Conc		2.0		Background Plus		ons	
Avg. Queue Per L	ane in ven=	3.3		Avg. Queue Per L	ane in ven=	3.8		Avg. Queue Per L	ane in ven=	4.2	
Percentile =	0.95	1		Percentile =	0.95	1		Percentile =	0.95	0	
		Number of	1			Number of				Number of	ľ
Individual	Cumulative	Queued		Individual	Cumulative	Queued		Individual	Cumulative	Queued	
Probability	Probability	Vehicles		Probability	Probability	Vehicles		Probability	Probability	Vehicles	
0.0367	0.0367	0		0.0230	0.0230	0		0.0144	0.0144	0	
0.0307	0.0507	1		0.0250	0.0230	1		0.0611	0.0756	1	
0.1212	0.3583	2		0.1636	0.1000	2		0.1296	0.2051	2	
0.2004	0.5701	3		0.2058	0.2704	3		0.1200	0.3882	2	
0.1825	0.7616	4		0.1041	0.4732	4		0.1001	0.5823	4	
0.1206	0.8822	5		0 1464	0.8196	5		0.1645	0.7468	5	
0.0665	0.0022	6		0.0920	0.0100	6		0.1040	0.8630	6	
0.0000	0.9800	7		0.0020	0.0117	7		0.0704	0.0000	7	
0.0314	0.0000	8		0.0430	0.3013	8		0.0704	0.9304	8	
0.0130	0.0078	0		0.0204	0.0047	0		0.0373	0.0700	9	
0.0040	0.000/	10		0.0037	0.0040	10		0.0170	0.0056	10	
0.0010	0.0008	10		0.0007	0.0002	10		0.0074	0.0085	10	
0.0003	1 0000	12		0.0013	0.3334	12		0.0029	0.9905	12	
0.0001	1.0000	12		0.0004	1,0000	12		0.0010	0.9995	12	
0.0000	1.0000	14		0.0001	1.0000	10		0.0003	1 0000	14	
0.0000	1.0000	14		0.0000	1.0000	14		0.0001	1.0000	14	
0.0000	1.0000	15		0.0000	1.0000	15		0.0000	1.0000	15	
0.0000	1.0000	17		0.0000	1.0000	10		0.0000	1.0000	10	
0.0000	1.0000	12		0.0000	1.0000	17		0.0000	1.0000	10	
0.0000	1.0000	10		0.0000	1.0000	10		0.0000	1.0000	10	
0.0000	1.0000	20		0.0000	1.0000	20		0.0000	1.0000	20	
0.0000	1.0000	20		0.0000	1.0000	20		0.0000	1.0000	20	
0.0000	1.0000	21		0.0000	1.0000	21		0.0000	1.0000	21	
0.0000	1.0000	22		0.0000	1.0000	22		0.0000	1.0000	22	
0.0000	1.0000	23		0.0000	1.0000	23		0.0000	1.0000	23	
0.0000	1.0000	24		0.0000	1.0000	24		0.0000	1.0000	24	
0.0000	1.0000	25		0.0000	1.0000	25		0.0000	1.0000	25	
0.0000	1.0000	20		0.0000	1.0000	20		0.0000	1.0000	20	
0.0000	1.0000	21		0.0000	1.0000	21		0.0000	1.0000	21	
0.0000	1.0000	20		0.0000	1.0000	20		0.0000	1.0000	20	
0.0000	1.0000	29		0.0000	1.0000	29		0.0000	1.0000	29	
0.0000	1.0000	31		0.0000	1.0000	31		0.0000	1.0000	30	
0.0000	1.0000	32		0.0000	1.0000	32		0.0000	1.0000	32	
0.0000	1.0000	33		0.0000	1.0000	33		0.0000	1.0000	33	
0.0000	1.0000	34		0.0000	1.0000	34		0.0000	1.0000	34	
0.0000	1.0000	35		0.0000	1.0000	35		0.0000	1.0000	35	
0.0000	1.0000	30		0.0000	1.0000	30		0.0000	1.0000	36	
0.0000	1.0000	37		0.0000	1.0000	37		0.0000	1.0000	37	
0,0000	1 0000	38		0.0000	1 0000	38		0,0000	1 0000	38	
0.0000	1.0000	30		0.0000	1.0000	30		0.0000	1.0000	30	
0.0000	1.0000	39		0.0000	1.0000	3 <del>3</del>		0.0000	1.0000	39	
0.0000	1.0000	40		0.0000	1.0000	40		0.0000	1.0000	40	
0.0000	1.0000	41		0.0000	1.0000	41		0.0000	1.0000	41	
0.0000	1.0000	42		0.0000	1.0000	42 13		0.0000	1.0000	42 13	
0.0000	1.0000	43		0.0000	1.0000	40		0.0000	1.0000	43	
0.0000	1.0000	44		0.0000	1.0000	44		0.0000	1.0000	44 45	
0.0000	1.0000	- <del></del>		0.0000	1.0000	70			1.0000	70	

5. Almaden/Woz(B	Balbach)			5. Almaden/Woz(B	Balbach)		5. Almaden/Woz(Balbach) SBI				
DM				DM				DM			
Evicting Condition	10			Fivi Background Conc	litions			F IVI Background Plus	Project Conditio	ne	
	ane in Veh=	53			ane in Veh=	55			ane in Veh=	83	
Percentile =		0.5 Q		Percentile =		10		Percentile =		13	
	0.00	5			0.00	10			0.00	10	
		Number of	1			Number of				Number of	ī
Individual	Cumulative	Queued		Individual	Cumulative	Queued		Individual	Cumulative	Queued	
Probability	Probability	Vehicles		Probability	Probability	Vehicles		Probability	Probability	Vehicles	
0.0052	0.0052	0		0.0040	0.0040	0		0.0002	0.0002	0	
0.0032	0.0032	0		0.0040	0.0040	1		0.0002	0.0002	1	
0.0273	0.0520	2		0.0221	0.0201	2		0.0020	0.0023	2	
0.0725	0.2317	2		0.1122	0.0070	2		0.0004	0.0107	2	
0.1200	0.2017	3		0.1122	0.1992	3		0.0233	0.0340	3	
0.1001	0.5570	- - 5		0.1710	0.5341	5		0.0400	0.0020	5	
0.1526	0.7248	6		0 1574	0.6825	6		0.0000	0.1000	6	
0.1020	0.8392	0 7		0.1242	0.8067	7		0.1122	0.2700	7	
0.0751	0.9144	8		0.0857	0.8925	8		0.1387	0.5477	8	
0.0438	0.9582	9		0.0526	0.9451	9		0.1283	0.6759	9	
0.0230	0.9812	10		0.0290	0.0401	10		0.1200	0.7827	10	
0.0200	0.9922	10		0.0146	0.9887	10		0.0808	0.8634	10	
0.0048	0.9970	12		0.0067	0.9954	12		0.0560	0.9194	12	
0.0019	0.9989	13		0.0029	0.9983	13		0.0359	0.9553	13	
0.0007	0.9996	14		0.0011	0 9994	14		0.0213	0.9766	14	
0.0003	0.9999	15		0.0004	0.9998	15		0.0118	0.9884	15	
0.0001	1 0000	16		0.0001	0.9999	16		0.0062	0.9946	16	
0 0000	1 0000	17		0 0000	1 0000	17		0.0030	0.9976	17	
0.0000	1 0000	18		0.0000	1 0000	18		0.0014	0.9990	18	
0.0000	1.0000	19		0.0000	1.0000	19		0.0006	0.9996	19	
0.0000	1.0000	20		0.0000	1.0000	20		0.0003	0.9998	20	
0.0000	1.0000	21		0.0000	1.0000	21		0.0001	0.9999	21	
0.0000	1.0000	22		0.0000	1.0000	22		0.0000	1.0000	22	
0.0000	1.0000	23		0.0000	1.0000	23		0.0000	1.0000	23	
0.0000	1.0000	24		0.0000	1.0000	24		0.0000	1.0000	24	
0.0000	1.0000	25		0.0000	1.0000	25		0.0000	1.0000	25	
0.0000	1.0000	26		0.0000	1.0000	26		0.0000	1.0000	26	
0.0000	1.0000	27		0.0000	1.0000	27		0.0000	1.0000	27	
0.0000	1.0000	28		0.0000	1.0000	28		0.0000	1.0000	28	
0.0000	1.0000	29		0.0000	1.0000	29		0.0000	1.0000	29	
0.0000	1.0000	30		0.0000	1.0000	30		0.0000	1.0000	30	
0.0000	1.0000	31		0.0000	1.0000	31		0.0000	1.0000	31	
0.0000	1.0000	32		0.0000	1.0000	32		0.0000	1.0000	32	
0.0000	1.0000	33		0.0000	1.0000	33		0.0000	1.0000	33	
0.0000	1.0000	34		0.0000	1.0000	34		0.0000	1.0000	34	
0.0000	1.0000	35		0.0000	1.0000	35		0.0000	1.0000	35	
0.0000	1.0000	36		0.0000	1.0000	36		0.0000	1.0000	36	
0.0000	1.0000	37		0.0000	1.0000	37		0.0000	1.0000	37	
0.0000	1.0000	38		0.0000	1.0000	38		0.0000	1.0000	38	
0.0000	1.0000	39		0.0000	1.0000	39		0.0000	1.0000	39	
0.0000	1.0000	40		0.0000	1.0000	40		0.0000	1.0000	40	
0.0000	1.0000	41		0.0000	1.0000	41		0.0000	1.0000	41	
0.0000	1.0000	42		0.0000	1.0000	42		0.0000	1.0000	42	
0.0000	1.0000	43		0.0000	1.0000	43		0.0000	1.0000	43	
0.0000	1.0000	44		0.0000	1.0000	44		0.0000	1.0000	44	
0.0000	1.0000	45		0.0000	1.0000	45		0.0000	1.0000	45	

6. Almaden/	/San Carlos			6. Almaden/San C	Carlos		6. Almaden/San Carlos				
NBL				NBL			NBL				
AM				AM				AM			
Existing Cor	nditions			Background Conc	ditions			Background Plus	Project Condition	ons	
Avg. Queue	Per Lane in Veh=	2.5		Avg. Queue Per L	ane in Veh=	5.0		Avg. Queue Per L	ane in Veh=	5.7	
Percentile =	0.95	5		Percentile =	0.95	9		Percentile =	0.95	10	
			i i								
		Number of				Number of				Number of	
Individu	ual Cumulative	Queued		Individual	Cumulative	Queued		Individual	Cumulative	Queued	
Probabi	lity Probability	Vehicles		Probability	Probability	Vehicles		Probability	Probability	Vehicles	
0.0830	0 0.0830	0		0.0069	0.0069	0		0.0033	0.0033	0	
0.2066	6 0.2896	1		0.0343	0.0412	1		0.0188	0.0221	1	
0.257 <sup>.</sup>	1 0.5467	2		0.0854	0.1265	2		0.0538	0.0759	2	
0.213	3 0.7599	3		0.1416	0.2682	3		0.1025	0.1783	3	
0.132	7 0.8927	4		0.1762	0.4444	4		0.1464	0.3248	4	
0.066	1 0.9587	5		0.1755	0.6199	5		0.1674	0.4922	5	
0.0274	4 0.9861	6		0 1456	0 7654	6		0 1595	0.6517	6	
0.009	7 0.9959	7		0 1035	0.8689	7		0 1303	0 7820	7	
0.0030	0 0 9989	8		0.0644	0.9333	8		0.0931	0.8751	8	
0.000	8 0.0007	g		0.0356	0.9690	q		0.0501	0.0701	Ğ	
0.0000	2 0.0000	10		0.0330	0.0000	10		0.0338	0.0042	10	
0.0002	0.3333	10		0.0177	0.9007	10		0.0330	0.9000	10	
0.0000	0 1.0000	12		0.0080	0.9947	12		0.0170	0.9030	12	
0.0000	0 1.0000	12		0.0033	0.9901	12		0.0004	0.9939	12	
0.0000	0 1.0000	13		0.0013	0.9993	13		0.0037	0.9970	13	
0.0000	0 1.0000	14		0.0005	0.9998	14		0.0015	0.9991	14	
0.0000	0 1.0000	15		0.0002	0.9999	15		0.0006	0.9997	15	
0.0000	0 1.0000	16		0.0000	1.0000	16		0.0002	0.9999	16	
0.0000	0 1.0000	1/		0.0000	1.0000	17		0.0001	1.0000	17	
0.0000	0 1.0000	18		0.0000	1.0000	18		0.0000	1.0000	18	
0.0000	0 1.0000	19		0.0000	1.0000	19		0.0000	1.0000	19	
0.0000	0 1.0000	20		0.0000	1.0000	20		0.0000	1.0000	20	
0.0000	0 1.0000	21		0.0000	1.0000	21		0.0000	1.0000	21	
0.0000	0 1.0000	22		0.0000	1.0000	22		0.0000	1.0000	22	
0.0000	0 1.0000	23		0.0000	1.0000	23		0.0000	1.0000	23	
0.0000	0 1.0000	24		0.0000	1.0000	24		0.0000	1.0000	24	
0.0000	0 1.0000	25		0.0000	1.0000	25		0.0000	1.0000	25	
0.0000	0 1.0000	26		0.0000	1.0000	26		0.0000	1.0000	26	
0.0000	0 1.0000	27		0.0000	1.0000	27		0.0000	1.0000	27	
0.0000	0 1.0000	28		0.0000	1.0000	28		0.0000	1.0000	28	
0.0000	0 1.0000	29		0.0000	1.0000	29		0.0000	1.0000	29	
0.0000	0 1.0000	30		0.0000	1.0000	30		0.0000	1.0000	30	
0.0000	0 1.0000	31		0.0000	1.0000	31		0.0000	1.0000	31	
0.0000	0 1.0000	32		0.0000	1.0000	32		0.0000	1.0000	32	
0.0000	0 1.0000	33		0.0000	1.0000	33		0.0000	1.0000	33	
0.0000	0 1.0000	34		0.0000	1.0000	34		0.0000	1.0000	34	
0.0000	0 1.0000	35		0.0000	1.0000	35		0.0000	1.0000	35	
0.000	0 1.0000	36		0.0000	1.0000	36		0.0000	1.0000	36	
0.000	0 1.0000	37		0.0000	1.0000	37		0.0000	1.0000	37	
0.000	0 1.0000	38		0.0000	1.0000	38		0.0000	1.0000	38	
0.000	0 1.0000	39		0.0000	1.0000	39		0.0000	1.0000	39	
0.000	0 1.0000	40		0.0000	1.0000	40		0.0000	1.0000	40	
0 000	0 1 0000	41		0.0000	1.0000	41		0.0000	1.0000	41	
0.000	0 1 0000	42		0,0000	1 0000	42		0,0000	1 0000	42	
0.000	0 1 0000	43		0,0000	1 0000	43		0,0000	1 0000	43	
0.000	0 1 0000	44		0,0000	1 0000	44		0,0000	1 0000	44	
0.000(	0 1.0000	45		0.0000	1.0000	45		0.0000	1.0000	45	

6. Almaden/San C NBL PM Existing Condition	Carlos NS ane in Veh=	16	6. Almaden/San C NBL PM Background Conc	Carlos litions ane in Veh=	10.0		6. Almaden/San C NBL PM Background Plus	Carlos Project Conditic ane in Veh=	ons 14 5	
Percentile =	0.95	4	Percentile =	0.95	15		Percentile =	0.95	21	
		Number of			Number of				Number of	1
Individual	Cumulative	Queued	Individual	Cumulative	Queued		Individual	Cumulative	Queued	
Probability	Probability	Vehicles	Probability	Probability	Vehicles		Probability	Probability	Vehicles	
0.2030	0.2030	0	0.0000	0.0000	0		0.0000	0.0000	0	
0.3237	0.5267	1	0.0004	0.0005	1		0.0000	0.0000	1	
0.2581	0.7848	2	0.0022	0.0027	2		0.0001	0.0001	2	
0.1372	0.9220	3	0.0074	0.0101	3		0.0003	0.0003	3	
0.0547	0.9766	4	0.0185	0.0286	4		0.0009	0.0012	4	
0.0174	0.9941	5	0.0372	0.0658	5		0.0027	0.0039	5	
0.0046	0.9987	6	0.0622	0.1281	6		0.0065	0.0104	6	
0.0011	0.9997	7	0.0892	0.2172	7		0.0134	0.0239	7	
0.0002	1.0000	8	0.1118	0.3291	8		0.0244	0.0482	8	
0.0000	1.0000	9	0.1247	0.4538	9		0.0393	0.0875	9	
0.0000	1.0000	10	0.1251	0.5789	10		0.0570	0.1445	10	
0.0000	1.0000	11	0.1141	0.6930	11		0.0752	0.2197	11	
0.0000	1.0000	12	0.0954	0.7884	12		0.0909	0.3106	12	
0.0000	1.0000	13	0.0736	0.8620	13		0.1014	0.4120	13	
0.0000	1.0000	14	0.0528	0.9148	14		0.1050	0.5170	14	
0.0000	1.0000	15	0.0353	0.9501	15		0.1016	0.6186	15	
0.0000	1.0000	16	0.0221	0.9722	16		0.0921	0.7107	16	
0.0000	1.0000	17	0.0131	0.9853	17		0.0786	0.7893	17	
0.0000	1.0000	18	0.0073	0.9926	18		0.0633	0.8526	18	
0.0000	1.0000	19	0.0038	0.9964	19		0.0483	0.9010	19	
0.0000	1.0000	20	0.0019	0.9983	20		0.0351	0.9360	20	
0.0000	1.0000	21	0.0009	0.9993	21		0.0242	0.9602	21	
0.0000	1.0000	22	0.0004	0.9997	22		0.0160	0.9762	22	
0.0000	1.0000	23	0.0002	0.9999	23		0.0101	0.9863	23	
0.0000	1.0000	24	0.0001	1.0000	24		0.0061	0.9924	24	
0.0000	1.0000	25	0.0000	1.0000	25		0.0035	0.9959	25	
0.0000	1.0000	26	0.0000	1.0000	26		0.0020	0.9979	26	
0.0000	1.0000	27	0.0000	1.0000	27		0.0011	0.9989	27	
0.0000	1.0000	28	0.0000	1.0000	28		0.0005	0.9995	28	
0.0000	1.0000	29	0.0000	1.0000	29		0.0003	0.9998	29	
0.0000	1.0000	30	0.0000	1.0000	30		0.0001	0.9999	30	
0.0000	1.0000	31	0.0000	1.0000	31		0.0001	1.0000	31	
0.0000	1.0000	32	0.0000	1.0000	32		0.0000	1.0000	32	
0.0000	1.0000	34	0.0000	1.0000	34		0.0000	1.0000	34	
0.0000	1.0000	35	0.0000	1.0000	35		0.0000	1.0000	35	
0.0000	1.0000	36	0.0000	1.0000	36		0.0000	1.0000	36	
0.0000	1.0000	37	0.0000	1.0000	37		0.0000	1.0000	37	
0.0000	1.0000	38	0.0000	1,0000	38		0.0000	1 0000	38	
0.0000	1 0000	30	0.0000	1,0000	30		0.0000	1 0000	30	
0.0000	1 0000	40	0.0000	1,0000	40		0.0000	1 0000	40	
0.0000	1 0000	40 41	0.0000	1,0000	-τ0 Δ1		0.0000	1 0000	40 Δ1	
0.0000	1 0000	42	0.0000	1,0000	بہ 42		0.0000	1 0000	42	
0,0000	1 0000	43	0,0000	1,0000	43		0,0000	1 0000	43	
0,0000	1 0000	44	0,0000	1 0000	44		0,0000	1 0000	44	
0.0000	1.0000	45	0.0000	1.0000	45		0.0000	1.0000	45	

6. Almaden/San 0 WBL AM	Carlos		6. Almaden/San C WBL AM	Carlos			6. Almaden/San C WBL AM	Carlos		
Existing Condition	าร		Background Conc	ditions			Background Plus	Project Conditio	ons	
Avg. Queue Per L	_ane in Veh=	2.3	Avg. Queue Per L	ane in Veh=	5.3		Avg. Queue Per L	ane in Veh=	8.7	
Percentile =	0.95	5	Percentile =	0.95	9		Percentile =	0.95	14	
		Number of			Number of	1			Number of	T
Individual	Cumulativa		Individual	Cumulativa			Individual	Cumulativo		
Brobability	Drobability	Vohiclos	Brobability	Drobability	Vobielos		Brobability	Drobability	Vohiclos	
FIODADIIIty	FIODADIIILY	Venicles	FIODADIIILY	FIODADIIIty	venicies		FIODADIIILY	FIODADIIILY	Venicles	
0.1048	0.1048	0	0.0052	0.0052	0		0.0002	0.0002	0	
0.2364	0.3412	1	0.0275	0.0328	1		0.0014	0.0016	1	
0.2666	0.6079	2	0.0723	0.1051	2		0.0063	0.0079	2	
0.2005	0.8083	3	0.1266	0.2317	3		0.0182	0.0260	3	
0.1130	0.9214	4	0.1661	0.3978	4		0.0395	0.0655	4	
0.0510	0.9724	5	0.1744	0.5722	5		0.0689	0.1344	5	
0.0192	0.9915	6	0.1526	0.7248	6		0.1000	0.2344	6	
0.0062	0.9977	1	0.1145	0.8392	/		0.1244	0.3588	/	
0.0017	0.9994	8	0.0751	0.9144	8		0.1355	0.4943	8	
0.0004	0.9999	9	0.0438	0.9582	9		0.1311	0.6254	9	
0.0001	1.0000	10	0.0230	0.9812	10		0.1142	0.7396	10	
0.0000	1.0000	11	0.0110	0.9922	11		0.0905	0.8301	11	
0.0000	1.0000	12	0.0048	0.9970	12		0.0657	0.8958	12	
0.0000	1.0000	13	0.0019	0.9989	13		0.0440	0.9398	13	
0.0000	1.0000	14	0.0007	0.9996	14		0.0274	0.9672	14	
0.0000	1.0000	15	0.0003	0.9999	15		0.0159	0.9831	15	
0.0000	1.0000	16	0.0001	1.0000	16		0.0087	0.9917	16	
0.0000	1.0000	17	0.0000	1.0000	17		0.0044	0.9962	17	
0.0000	1.0000	18	0.0000	1.0000	18		0.0021	0.9983	18	
0.0000	1.0000	19	0.0000	1.0000	19		0.0010	0.9993	19	
0.0000	1.0000	20	0.0000	1.0000	20		0.0004	0.9997	20	
0.0000	1.0000	21	0.0000	1.0000	21		0.0002	0.9999	21	
0.0000	1.0000	22	0.0000	1.0000	22		0.0001	1.0000	22	
0.0000	1.0000	23	0.0000	1.0000	23		0.0000	1.0000	23	
0.0000	1.0000	24	0.0000	1.0000	24		0.0000	1.0000	24	
0.0000	1.0000	25	0.0000	1.0000	25		0.0000	1.0000	25	
0.0000	1.0000	26	0.0000	1.0000	26		0.0000	1.0000	26	
0.0000	1.0000	27	0.0000	1.0000	27		0.0000	1.0000	27	
0.0000	1.0000	28	0.0000	1.0000	28		0.0000	1.0000	28	
0.0000	1.0000	29	0.0000	1.0000	29		0.0000	1.0000	29	
0.0000	1.0000	30	0.0000	1.0000	30		0.0000	1.0000	30	
0.0000	1.0000	31	0.0000	1.0000	31		0.0000	1.0000	31	
0.0000	1.0000	32	0.0000	1.0000	32		0.0000	1.0000	32	
0.0000	1.0000	33	0.0000	1.0000	33		0.0000	1.0000	33	
0.0000	1.0000	34	0.0000	1.0000	34		0.0000	1.0000	34	
0.0000	1.0000	35	0.0000	1.0000	35		0.0000	1.0000	35	
0.0000	1.0000	30	0.0000	1.0000	30		0.0000	1.0000	30	
0.0000	1.0000	37	0.0000	1.0000	37		0.0000	1.0000	37	
0.0000	1.0000	38	0.0000	1.0000	38 20		0.0000	1.0000	38	
0.0000	1.0000	39	0.0000	1.0000	39		0.0000	1.0000	39	
0.0000	1.0000	40	0.0000	1.0000	40 44		0.0000	1.0000	40	
0.0000	1.0000	41	0.0000	1.0000	41		0.0000	1.0000	41	
0.0000	1.0000	42	0.0000	1.0000	4Z 42		0.0000	1.0000	42	
0.0000	1.0000	43	0.0000	1.0000	43		0.0000	1.0000	43	
0.0000	1.0000	44	0.0000	1.0000	44 45		0.0000	1.0000	44 45	

6. Almaden/San ( WBL	Carlos		6. Almaden/San ( WBL PM	Carlos		6. Almaden/San C WBL	Carlos		
Evisting Condition	26		Background Cone	litions		Background Plus	Project Conditio	ne	
	ano in Voh-	2.2	Ava Quouo Por L	ano in Voh-	47		ano in Voh-	52	
Avy. Queue Fei L		5.5	Rvy. Queue Fei L		4.7	Rvy. Queue Fei L		0.5	
	0.95	0	reicentile -	0.95	0		0.95	9	
		Number of			Number of			Number of	T
Individual	Cumulative	Queued	Individual	Cumulative	Queued	Individual	Cumulative	Queued	
Probability	Probability	Vehicles	Probability	Probability	Vehicles	Probability	Probability	Vehicles	
0.0004	0.0001	0	0.0004	0.0004	v or noi oc	0.0050	0.0050	venielee	
0.0381	0.0381	0	0.0094	0.0094	0	0.0050	0.0050	0	
0.1240	0.1027		0.0439	0.0533	1	0.0207	0.0317	1	
0.2035	0.3002	2	0.1024	0.1557	2	0.0706	0.1023	2	
0.2215	0.3077	3	0.1093	0.5150	3	0.1245	0.2200	3	
0.1009	0.7000	4	0.1000	0.5008	4	0.1040	0.5915	4	
0.1102	0.0009	5	0.1734	0.0742	5	0.1741	0.3034	5	
0.0044	0.9312	7	0.1349	0.8001	7	0.1354	0.8348	7	
0.0300	0.9012	8	0.0525	0.0531	8	0.1139	0.0340	8	
0.0125	0.9935	0	0.0323	0.9313	0	0.0700	0.9114	0	
0.0045	0.9900		0.0272	0.9707	10	0.0430	0.9304	10	
0.0013	0.0004	10	0.0054	0.0014	10	0.0230	0.0000	10	
0.0004	1 0000	12	0.0034	0.0000	12	0.0110	0.0017	12	
0.0001	1.0000	12	0.00021	0.9996	13	0.0000	0.9988	13	
0.0000	1.0000	14	0.0003	0.9999	10	0.0021	0.9996	10	
0.0000	1.0000	15	0.0000	1 0000	15	0.0003	0.0000	15	
0.0000	1.0000	16	0.000	1.0000	16	0.0000	1 0000	16	
0.0000	1.0000	17	0.0000	1,0000	17	0.0000	1.0000	17	
0.0000	1 0000	18	0.0000	1 0000	18	0.0000	1 0000	18	
0.0000	1.0000	19	0.0000	1.0000	19	0.0000	1.0000	19	
0.0000	1.0000	20	0.0000	1.0000	20	0.0000	1.0000	20	
0.0000	1.0000	21	0.0000	1.0000	21	0.0000	1.0000	21	
0.0000	1.0000	22	0.0000	1.0000	22	0.0000	1.0000	22	
0.0000	1.0000	23	0.0000	1.0000	23	0.0000	1.0000	23	
0.0000	1.0000	24	0.0000	1.0000	24	0.0000	1.0000	24	
0.0000	1.0000	25	0.0000	1.0000	25	0.0000	1.0000	25	
0.0000	1.0000	26	0.0000	1.0000	26	0.0000	1.0000	26	
0.0000	1.0000	27	0.0000	1.0000	27	0.0000	1.0000	27	
0.0000	1.0000	28	0.0000	1.0000	28	0.0000	1.0000	28	
0.0000	1.0000	29	0.0000	1.0000	29	0.0000	1.0000	29	
0.0000	1.0000	30	0.0000	1.0000	30	0.0000	1.0000	30	
0.0000	1.0000	31	0.0000	1.0000	31	0.0000	1.0000	31	
0.0000	1.0000	32	0.0000	1.0000	32	0.0000	1.0000	32	
0.0000	1.0000	33	0.0000	1.0000	33	0.0000	1.0000	33	
0.0000	1.0000	34	0.0000	1.0000	34	0.0000	1.0000	34	
0.0000	1.0000	35	0.0000	1.0000	35	0.0000	1.0000	35	
0.0000	1.0000	36	0.0000	1.0000	36	0.0000	1.0000	36	
0.0000	1.0000	37	0.0000	1.0000	37	0.0000	1.0000	37	1
0.0000	1.0000	38	0.0000	1.0000	38	0.0000	1.0000	38	1
0.0000	1.0000	39	0.0000	1.0000	39	0.0000	1.0000	39	1
0.0000	1.0000	40	0.0000	1.0000	40	0.0000	1.0000	40	1
0.0000	1.0000	41	0.0000	1.0000	41	0.0000	1.0000	41	
0.0000	1.0000	42	0.0000	1.0000	42	0.0000	1.0000	42	1
0.0000	1.0000	43	0.0000	1.0000	43	0.0000	1.0000	43	1
0.0000	1.0000	44 15	0.0000	1.0000	44	0.0000	1.0000	44	1
	1 (/////			1 (//////	-+.)				-

Driveway A(Locust)/WozUnsignalized EBL AM Background Plus Project Conditions Avg. Queue Per Lane in Veh= 0.5 Percentile = 0.95 2

		Number of
Individual	Cumulative	Queued
Probability	Probability	Vehicles
0.6105	0.6105	0
0.3013	0.9118	1
0.0743	0.9861	2
0.0122	0.9983	3
0.0015	0.9998	4
0.0001	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45

Driveway A(Locust)/WozUnsignalized EBL PM Background Plus Project Conditions Avg. Queue Per Lane in Veh= 0.1 Percentile = 0.95 1

		Number of
Individual	Cumulative	Queued
Probability	Probability	Vehicles
0.9290	0.9290	0
0.0684	0.9974	1
0.0025	0.9999	2
0.0001	1.0000	3
0.0000	1.0000	4
0.0000	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	20
0.0000	1.0000	27
0.0000	1.0000	20
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1 0000	35
0.0000	1 0000	36
0.0000	1 0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45

Driveway A(Locust)/WozSignalized EBL AM Background Plus Project Conditions Avg. Queue Per Lane in Veh= 7.3 Percentile = 0.95 12

		Number of
Individual	Cumulative	Queued
Probability	Probability	Vehicles
0.0007	0.0007	0
0.0051	0.0057	1
0.0184	0.0241	2
0.0445	0.0686	3
0.0809	0.1496	4
0.1177	0.2673	5
0.1427	0.4100	6
0.1482	0.5582	7
0.1348	0.6930	8
0.1089	0.8019	9
0.0792	0.8810	10
0.0523	0.9334	11
0.0317	0.9651	12
0.0177	0.9829	13
0.0092	0.9921	14
0.0045	0.9965	15
0.0020	0.9986	16
0.0009	0.9994	17
0.0004	0.9998	18
0.0001	0.9999	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45

Driveway A(Locust)/WozSignalized EBL PM Background Plus Project Conditions Avg. Queue Per Lane in Veh= 1.3 Percentile = 0.95 3

		Number of
Individual	Cumulative	Queued
Probability	Probability	Vehicles
0.2665	0.2665	0
0.3524	0.6190	1
0.2330	0.8520	2
0.1027	0.9547	3
0.0339	0.9886	4
0.0090	0.9976	5
0.0020	0.9996	6
0.0004	0.9999	7
0.0001	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45

Driveway A(Locust)/WozSignalized EBT/R AM Background Plus Project Conditions Avg. Queue Per Lane in Veh= 12.7 Percentile = 0.95 19

		Number of
Individual	Cumulative	Queued
Probability	Probability	Vehicles
0.0000	0.0000	0
0.0000	0.0000	1
0.0003	0.0003	2
0.0011	0.0014	3
0.0034	0.0047	4
0.0085	0.0132	5
0.0180	0.0312	6
0.0326	0.0638	7
0.0516	0.1154	8
0.0727	0.1882	9
0.0922	0.2804	10
0.1063	0.3867	11
0.1123	0.4989	12
0.1095	0.6084	13
0.0992	0.7076	14
0.0838	0.7914	15
0.0664	0.8578	16
0.0495	0.9073	17
0.0349	0.9422	18
0.0233	0.9654	19
0.0148	0.9802	20
0.0089	0.9891	21
0.0051	0.9942	22
0.0028	0.9971	23
0.0015	0.9986	24
0.0008	0.9993	25
0.0004	0.9997	26
0.0002	0.9999	27
0.0001	0.9999	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	24
0.0000	1.0000	34
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	30
0.0000	1.0000	40
0.0000	1 0000	- <del>1</del> 0 41
0.0000	1 0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
Driveway A(Locust)/WozSignalized EBT/R PM Background Plus Project Conditions Avg. Queue Per Lane in Veh= 27.1 Percentile = 0.95 36

		Number of
Individual	Cumulative	Queued
Probability	Probability	Vehicles
0.0000	0.0000	0
0.0000	0.0000	1
0.0000	0.0000	2
0.0000	0.0000	3
0.0000	0.0000	4
0.0000	0.0000	5
0.0000	0.0000	6
0.0000	0.0000	7
0.0000	0.0000	8
0.0000	0.0001	9
0.0001	0.0002	10
0.0003	0.0004	11
0.0006	0.0010	12
0.0012	0.0022	13
0.0023	0.0044	14
0.0041	0.0086	15
0.0070	0.0155	16
0.0111	0.0266	17
0.0167	0.0433	18
0.0238	0.0671	19
0.0322	0.0993	20
0.0415	0.1408	21
0.0510	0.1918	22
0.0601	0.2519	23
0.0677	0.3196	24
0.0733	0.3930	25
0.0763	0.4693	26
0.0765	0.5458	27
0.0740	0.6198	28
0.0691	0.6889	29
0.0623	0.7512	30
0.0544	0.8056	31
0.0460	0.8516	32
0.0377	0.8893	33
0.0300	0.9194	34
0.0232	0.9426	35
0.0175	0.9601	36
0.0128	0.9728	37
0.0091	0.9819	38
0.0063	0.9882	39
0.0043	0.9925	40
0.0028	0.9953	41
0.0018	0.9972	42
0.0011	0.9983	43
0.0007	0.9990	44
0.0004	0.9994	45

Driveway A(Locust)/WozSignalized WBT/R AM Background Plus Project Conditions Avg. Queue Per Lane in Veh= 20.7 Percentile = 0.95 28

		Number of			
Individual	Cumulative	Queued			
Probability	Probability	Vehicles			
0.0000	0.0000	0			
0.0000	0.0000	1			
0.0000	0.0000	2			
0.0000	0.0000	3			
0.0000	0.0000	4			
0.0000	0.0000	5			
0.0001	0.0002	6			
0.0003	0.0005	7			
0.0009	0.0014	8			
0.0020	0.0034	9			
0.0042	0.0076	10			
0.0078	0.0154	11			
0.0135	0.0289	12			
0.0215	0.0504	13			
0.0316	0.0820	14			
0.0436	0.1256	15			
0.0562	0.1818	16			
0.0683	0.2501	17			
0.0783	0.3285	18			
0.0852	0.4136	19			
0.0879	0.5015	20			
0.0865	0.5880	21			
0.0812	0.6692	22			
0.0729	0.7420	23			
0.0627	0.8047	24			
0.0518	0.8565	25			
0.0411	0.8976	26			
0.0315	0.9291	27			
0.0232	0.9523	28			
0.0165	0.9688	29			
0.0114	0.9802	30			
0.0076	0.9877	31			
0.0049	0.9926	32			
0.0031	0.9957	33			
0.0019	0.9975	34			
0.0011	0.9986	35			
0.0006	0.9993	36			
0.0004	0.9996	37			
0.0002	0.9998	38			
0.0001	0.9999	39			
0.0001	0.9999	40			
0.0000	1.0000	41			
0.0000	1.0000	42			
0.0000	1.0000	43			
0.0000	1.0000	44			
0.0000	1.0000	45			

Driveway A(Locust)/WozSignalized WBT/R PM Background Plus Project Conditions Avg. Queue Per Lane in Veh= 9.5 Percentile = 0.95 15

Taumbo	r or
Individual Cumulative Queue	ed
Probability Probability Vehicl	es
0.0001 0.0001 0	
0.0007 0.0008 1	
0.0034 0.0042 2	
0.0108 0.0150 3	
0.0256 0.0405 4	
0.0485 0.0891 5	
0.0767 0.1658 6	
0.1040 0.2698 7	
0.1234 0.3932 8	
0.1301 0.5233 9	
0.1234 0.6467 10	
0.1065 0.7532 11	
0.0842 0.8374 12	
0.0615 0.8988 13	
0.0417 0.9405 14	
0.0263 0.9668 15	
0.0156 0.9824 16	
0.0087 0.9912 17	
0.0046 0.9958 18	
0.0023 0.9981 19	
0.0011 0.9992 20	
0.0005 0.9996 21	
0.0002 0.9999 22	
0.0001 0.9999 23	
0.0000 1.0000 24	
0.0000 1.0000 25	
0.0000 1.0000 26	
0.0000 1.0000 27	
0.0000 1.0000 28	
0.0000 1.0000 29	
0.0000 1.0000 30	
0.0000 1.0000 31	
0.0000 1.0000 32	
0.0000 1.0000 33	
0.0000 1.0000 34	
0.0000 1.0000 35	
0.0000 1.0000 30	
0.0000 1.0000 37	
0.0000 1.0000 30	
0.0000 1.0000 40	
0.0000 1.0000 40	
0 0000 1 0000 47	
0 0000 1 0000 43	
0.0000 1.0000 44	
0.0000 1.0000 45	

Almaden/Convention Center (Driveway B) NBL AM Background Conditions Avg. Queue Per Lane in Veh= 0.0 Percentile = 0.95 171

		Number of
Individual	Cumulative	Queued
Probability	Probability	Vehicles
#NUM!	#NUM!	0
0.0000	#NUM!	1
0.0000	#NUM!	2
0.0000	#NUM!	3
0.0000	#NUM!	4
0.0000	#NUM!	5
0.0000	#NUM!	6
0.0000	#NUM!	7
0.0000	#NUM!	8
0.0000	#NUM!	9
0.0000	#NUM!	10
0.0000	#NUM!	11
0.0000	#NUM!	12
0.0000	#NUM!	13
0.0000	#NUM!	14
0.0000	#NUM!	15
0.0000	#NUM!	16
0.0000	#NUM!	17
0.0000	#NUM!	18
0.0000	#NUM!	19
0.0000	#NUM!	20
0.0000	#NUM!	21
0.0000	#NUM!	22
0.0000	#NUM!	23
0.0000	#NUM!	24
0.0000	#NUM!	25
0.0000	#NUM!	20
0.0000	#INUIVI!	27
0.0000	#INUIVI!	20
0.0000	#INUIVI!	29
0.0000	#NUIMI	31
0.0000	#NUIMI	32
0.0000	#NI IMI	33
0.0000	#NI IMI	34
0.0000	#NUM!	35
0.0000	#NUM!	36
0.0000	#NUM!	37
0.0000	#NUM!	38
0.0000	#NUM!	39
0.0000	#NUM!	40
0.0000	#NUM!	41
0.0000	#NUM!	42
0.0000	#NUM!	43
0.0000	#NUM!	44
0.0000	#NUM!	45

Almaden/Convention Center (Driveway B) NBL PM Background Plus Project Conditions Avg. Queue Per Lane in Veh= 1.0 Percentile = 0.95 3

		Number of			
Individual	Cumulative	Queued			
Probability	Probability	Vehicles			
0.3782	0.3782	0			
0.3677	0.7460	1			
0.1788	0.9247	2			
0.0579	0.9827	3			
0.0141	0.9967	4			
0.0027	0.9995	5			
0.0004	0.9999	6			
0.0001	1.0000	7			
0.0000	1.0000	8			
0.0000	1.0000	9			
0.0000	1.0000	10			
0.0000	1.0000	11			
0.0000	1.0000	12			
0.0000	1.0000	13			
0.0000	1.0000	14			
0.0000	1.0000	15			
0.0000	1.0000	16			
0.0000	1.0000	17			
0.0000	1.0000	18			
0.0000	1.0000	19			
0.0000	1.0000	20			
0.0000	1.0000	21			
0.0000	1.0000	22			
0.0000	1.0000	23			
0.0000	1.0000	24			
0.0000	1.0000	25			
0.0000	1.0000	26			
0.0000	1.0000	27			
0.0000	1.0000	28			
0.0000	1.0000	29			
0.0000	1.0000	30			
0.0000	1.0000	31			
0.0000	1.0000	32			
0.0000	1.0000	33			
0.0000	1.0000	34			
0.0000	1.0000	35			
0.0000	1.0000	36			
0.0000	1.0000	37			
0.0000	1.0000	38			
0.0000	1.0000	39			
0.0000	1.0000	40			
0.0000	1.0000	41			
0.0000	1.0000	42			
0.0000	1.0000	43			
0.0000	1.0000	44			
0.0000	1.0000	45			

Almaden/Convention Center (Driveway B) EBL AM Background Plus Project Conditions Avg. Queue Per Lane in Veh= 1.1 Percentile = 0.95 3

		Number of			
Individual	Cumulative	Queued			
Probability	Probability	Vehicles			
0.3366	0.3366	0			
0.3665	0.7031	1			
0.1995	0.9026	2			
0.0724	0.9751	3			
0.0197	0.9948	4			
0.0043	0.9991	5			
0.0008	0.9999	6			
0.0001	1.0000	7			
0.0000	1.0000	8			
0.0000	1.0000	9			
0.0000	1.0000	10			
0.0000	1.0000	11			
0.0000	1.0000	12			
0.0000	1.0000	13			
0.0000	1.0000	14			
0.0000	1.0000	15			
0.0000	1.0000	16			
0.0000	1.0000	17			
0.0000	1.0000	18			
0.0000	1.0000	19			
0.0000	1.0000	20			
0.0000	1.0000	21			
0.0000	1.0000	22			
0.0000	1.0000	23			
0.0000	1.0000	24			
0.0000	1.0000	25			
0.0000	1.0000	26			
0.0000	1.0000	27			
0.0000	1.0000	28			
0.0000	1.0000	29			
0.0000	1.0000	30			
0.0000	1.0000	31			
0.0000	1.0000	32			
0.0000	1.0000	33			
0.0000	1.0000	34			
0.0000	1.0000	35			
0.0000	1.0000	36			
0.0000	1.0000	37			
0.0000	1.0000	38			
0.0000	1.0000	39			
0.0000	1.0000	40			
0.0000	1.0000	41			
0.0000	1.0000	42			
0.0000	1.0000	43			
0.0000	1.0000	44			
0.0000	1.0000	45			

Almaden/Convention Center (Driveway B) EBL PM Background Plus Project Conditions Avg. Queue Per Lane in Veh= 6.7 Percentile = 0.95 11

		Number of
Individual	Cumulative	Queued
Probability	Probability	Vehicles
0.0012	0.0012	0
0.0081	0.0093	1
0.0271	0.0363	2
0.0608	0.0971	3
0.1022	0.1993	4
0.1375	0.3368	5
0.1542	0.4910	6
0.1482	0.6392	7
0.1246	0.7638	8
0.0932	0.8570	9
0.0627	0.9197	10
0.0383	0.9580	11
0.0215	0.9795	12
0.0111	0.9906	13
0.0053	0.9960	14
0.0024	0.9984	15
0.0010	0.9994	16
0.0004	0.9998	17
0.0001	0.9999	18
0.0001	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45

Almaden/Convention Center (Driveway B) EBT/R AM Background Plus Project Conditions Avg. Queue Per Lane in Veh= 1.2 Percentile = 0.95 3

		Number of			
Individual	Cumulative	Queued			
Probability	Probability	Vehicles			
0.3114	0.3114	0			
0.3633	0.6747	1			
0.2119	0.8866	2			
0.0824	0.9691	3			
0.0240	0.9931	4			
0.0056	0.9987	5			
0.0011	0.9998	6			
0.0002	1.0000	7			
0.0000	1.0000	8			
0.0000	1.0000	9			
0.0000	1.0000	10			
0.0000	1.0000	11			
0.0000	1.0000	12			
0.0000	1.0000	13			
0.0000	1.0000	14			
0.0000	1.0000	15			
0.0000	1.0000	16			
0.0000	1.0000	17			
0.0000	1.0000	18			
0.0000	1.0000	19			
0.0000	1.0000	20			
0.0000	1.0000	21			
0.0000	1.0000	22			
0.0000	1.0000	23			
0.0000	1.0000	24			
0.0000	1.0000	25			
0.0000	1.0000	26			
0.0000	1.0000	27			
0.0000	1.0000	28			
0.0000	1.0000	29			
0.0000	1.0000	30			
0.0000	1.0000	31			
0.0000	1.0000	32			
0.0000	1.0000	33			
0.0000	1.0000	34			
0.0000	1.0000	35			
0.0000	1.0000	36			
0.0000	1.0000	37			
0.0000	1.0000	38			
0.0000	1.0000	39			
0.0000	1.0000	40			
0.0000	1.0000	41			
0.0000	1.0000	42			
0.0000	1.0000	43			
0.0000	1.0000	44			
0.0000	1.0000	45			

Almaden/Convention Center (Driveway B) EBT/R PM Background Plus Project Conditions Avg. Queue Per Lane in Veh= 7.0 Percentile = 0.95 12

		Number of
Individual	Cumulative	Queued
Probability	Probability	Vehicles
0.0009	0.0009	0
0.0064	0.0073	1
0.0223	0.0296	2
0.0521	0.0818	3
0.0912	0.1730	4
0.1277	0.3007	5
0.1490	0.4497	6
0.1490	0.5987	7
0.1304	0.7291	8
0.1014	0.8305	9
0.0710	0.9015	10
0.0452	0.9467	11
0.0263	0.9730	12
0.0142	0.9872	13
0.0071	0.9943	14
0.0033	0.9976	15
0.0014	0.9990	16
0.0006	0.9996	17
0.0002	0.9999	18
0.0001	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	24
0.0000	1.0000	34
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1 0000	41
0.0000	1 0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45

Appendix C

Signal Warrant Analysis

## 2833 S. Almaden Boulevard Offices Development

## 11 . Locust Street/Project Access & Woz Way



Source: Figure 4C-3 of the Manual on Unifrom Traffic Control and Devices (MUTCD) from California Department of Transportation (Caltrans). \* 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes

and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

				AM	Peak H	lour
		Exi App La One	sting roach nes 2 or More	Existing AM	Background AM	Background Plus Project AM
Major Street - Both Approaches	Woz Way	Х		515	677	1045
Minor Street - Highest Approach	Locust Street/Project Access	Х		3	3	58
Maximum warrant threshold for minor street volu			414	334	194	
Difference between warrant threshold & minor str			411	331	136	
		Warra	nt Met?	No	No	No

				PM	Peak H	lour
		Exi App La One	sting roach nes 2 or More	Existing PM	Background PM	Background Plus Project PM
Major Street - Both Approaches	Woz Way	Х		657	848	977
Minor Street - Highest Approach	Locust Street/Project Access	Х		75	75	353
Maximum warrant threshold for minor street volur			343	262	215	
Difference between warrant threshold & minor str			268	187	138	
		Warra	nt Met?	No	No	Yes

Appendix D

Transit Delay Analysis

Background Conditions AM Delays														
	Node	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Intersection
3267	3267	0	0	0	25.4	28.8	28.8	0	25.8	25.8	44.5	47.5	0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
3271	3271	16.4	10.4	0	0	35.3	35.3	19.3	0	20.1	18.7	18.7	18.7	Woz Way and Auzerais Avenue
3209	3209	0	5.6	0	0	5	0	11.5	0	11.7	0	0	0	Woz Way and SR-87 NB Off-Ramp
3061	3061	40.9	27.8	12.3	68.6	31.8	21.7	73.4	56.7	66.8	73	55.3	55.3	Almaden Boulevard and San Carlos Street *
3763	3763	24.7	29.8	29.8	54.3	53.3	53.3	35.9	36.8	36.8	49.3	49.3	41.7	Woz Way and San Carlos Street
3446	3446	0	0	0	39.4	39.4	39.4	0	22.1	22.1	38.7	42.6	0	Delmas Avenue and San Carlos Street

	Node	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Intersection
	EB	23												
3267	3267	0	0	0	0	0	0	0	0	0	0	0	0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
3271	3271	0	0	0	0	0	0	0	0	0	0	0	0	Woz Way and Auzerais Avenue
3209	3209	0	0	0	0	0	0	0	0	0	0	0	0	Woz Way and SR-87 NB Off-Ramp
3061	3061	0	0	0	0	0	0	0	23	0	0	0	0	Almaden Boulevard and San Carlos Street *
3763	3763	0	0	0	0	0	0	0	23	0	0	0	0	Woz Way and San Carlos Street
3446	3446	0	0	0	0	0	0	0	23	0	0	0	0	

	EB 23 Dela	ay											
3267	3267	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3271	3271	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3209	3209	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3061	3061	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.7	0.0	0.0	0.0	0.0
3763	3763	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	0.0	0.0	0.0	0.0
3446	3446	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.1	0.0	0.0	0.0	0.0

	Node	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Intersection
	WB	23												
3267	3267	0	0	0	0	0	0	0	0	0	0	0	0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
3271	3271	0	0	0	0	0	0	0	0	0	0	0	0	Woz Way and Auzerais Avenue
3209	3209	0	0	0	0	0	0	0	0	0	0	0	0	Woz Way and SR-87 NB Off-Ramp
3061	3061	0	0	0	0	0	0	0	0	0	0	23	0	Almaden Boulevard and San Carlos Street *
3763	3763	0	0	0	0	0	0	0	0	0	0	23	0	Woz Way and San Carlos Street
3446	3446	0	0	0	0	0	0	0	0	0	0	23	0	Delmas Avenue and San Carlos Street

	WB 23 Del	ay											
3267	3267	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3271	3271	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3209	3209	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3061	3061	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.3	0.0
3763	3763	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.3	0.0
3446	3446	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.6	0.0

	Node	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Intersection
	NB	168												
3267	3267	0	0	0	0	0	0	0	0	0	0	0	0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
3271	3271	0	168	0	0	0	0	0	0	0	0	0	0	Woz Way and Auzerais Avenue
3209	3209	0	0	0	0	0	0	168	0	0	0	0	0	Woz Way and SR-87 NB Off-Ramp
3061	3061	0	0	0	0	0	0	0	168	0	0	0	0	Almaden Boulevard and San Carlos Street *
3763	3763	0	0	168	0	0	0	0	0	0	0	0	0	Woz Way and San Carlos Street
3446	3446	0	0	0	0	0	0	0	0	0	0	0	0	Delmas Avenue and San Carlos Street



	Node	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Intersection
	SB	168												
3267	3267	0	0	0	0	168	0	0	0	0	0	0	0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
3271	3271	0	0	0	0	0	0	0	0	0	0	0	0	Woz Way and Auzerais Avenue
3209	3209	0	0	0	0	0	0	0	0	0	0	0	0	Woz Way and SR-87 NB Off-Ramp
3061	3061	0	0	0	0	0	0	0	0	0	0	168	0	Almaden Boulevard and San Carlos Street *
3763	3763	0	0	0	0	0	0	0	0	0	0	168	0	Woz Way and San Carlos Street
3446	3446	0	0	0	0	0	0	0	0	0	168	0	0	



168SB

	Backgroui	nd Conditi	ons PM De	elays										
	Node	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Intersection
3267	3267	0	0	0	15.2	29.6	29.6	0	48.1	48.1	52.1	74.4	0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
3271	3271	29	10.2	0	0	26.6	26.6	18.9	0	22.1	18.3	18.3	18.3	Woz Way and Auzerais Avenue
3209	3209	0	14.9	0	12.4	4.2	0	14.7	0	15.6	0	0	0	Woz Way and SR-87 NB Off-Ramp
3061	3061	88.2	38.4	36.8	43.9	47.5	16.4	61.8	60.6	60.6	116.6	48.6	48.6	Almaden Boulevard and San Carlos Street *
3763	3763	44.8	50.5	50.5	41.7	46.3	46.3	33	38.4	38.4	44.2	44.2	21.5	Woz Way and San Carlos Street
3446	3446	0	0	0	36.5	36.5	36.5	0	30.3	30.3	49.5	46	0	Delmas Avenue and San Carlos Street

3267 3271 3209 3061 3763 3446	EB 3267 3271 3209 3061 3763 3446	23 0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0	0 0 23 23 23 23	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue Woz Way and Auzerais Avenue Woz Way and SR-87 NB Off-Ramp Almaden Boulevard and San Carlos Street * Woz Way and San Carlos Street
3267	EB 23 Delay 3267 3271	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3209 3061 3763 3446	3209 3061 3763 3446	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 60.6 38.4 30.3	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	

3267 3271 3209 3061 3763 3446	WB 2867   32271 3271   3209 3061   3763 3446	23 0 0 0 0 0 0		0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0		0 0 0 0 0	0 0 0 0 0		0 0 23 23 23 23	0 0 0 0 0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue Woz Way and Auzerais Avenue Woz Way and SR-87 NB Off-Ramp Almaden Boulevard and San Carlos Street * Woz Way and San Carlos Street Delmas Avenue and San Carlos Street
3267 3271 3209 3061 3763 3446	WB 23 Dela 3267 3271 3209 3061 3763 3446	y 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 48.6 44.2 46.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0									

	NB	168												
3267	3267	0	0	0	0	0	0	0	0	0	0	0	0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
3271	3271	0	168	0	0	0	0	0	0	0	0	0	0	Woz Way and Auzerais Avenue
3209	3209	0	0	0	0	0	0	168	0	0	0	0	0	Woz Way and SR-87 NB Off-Ramp
3061	3061	0	0	0	0	0	0	0	168	0	0	0	0	Almaden Boulevard and San Carlos Street *
3763	3763	0	0	168	0	0	0	0	0	0	0	0	0	Woz Way and San Carlos Street
3446	3446	0	0	0	0	0	0	0	0	0	0	0	0	Delmas Avenue and San Carlos Street

	NB 168 De	lay											
3267	3267	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3271	3271	0.0	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3209	3209	0.0	0.0	0.0	0.0	0.0	0.0	14.7	0.0	0.0	0.0	0.0	0.0
3061	3061	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.6	0.0	0.0	0.0	0.0
3763	3763	0.0	0.0	50.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3446	3446	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	SB	168												
3267	3267	0	0	0	0	168	0	0	0	0	0	0	0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
3271	3271	0	0	0	0	0	0	0	0	0	0	0	0	Woz Way and Auzerais Avenue
3209	3209	0	0	0	0	0	0	0	0	0	0	0	0	Woz Way and SR-87 NB Off-Ramp
3061	3061	0	0	0	0	0	0	0	0	0	0	168	0	Almaden Boulevard and San Carlos Street *
3763	3763	0	0	0	0	0	0	0	0	0	0	168	0	Woz Way and San Carlos Street
3446	3446	0	0	0	0	0	0	0	0	0	168	0	0	

	SB 168 De	lay											
3267	3267	0.0	0.0	0.0	0.0	29.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3271	3271	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3209	3209	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3061	3061	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.6	0.0
3763	3763	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.2	0.0
3446	3446	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.5	0.0	0.0

	Project Co	onditions /	AM Delays											
	Node	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Intersection
3267	3267	0	0	0	29.3	32	32	0	23.2	23.2	46.7	49.5	0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
3271	3271	25.1	12.8	0	0	30.2	30.2	17.1	0	18.6	16.1	16.1	16.1	Woz Way and Auzerais Avenue
3209	3209	0	8.8	0	0	8.6	0	8.3	0	9.5	0	0	0	Woz Way and SR-87 NB Off-Ramp
3061	3061	55.3	38.9	14.6	84.4	36	20.1	62.7	48.1	67	74.7	44.7	44.7	Almaden Boulevard and San Carlos Street *
3763	3763	24	30.9	30.9	54.3	56.9	56.9	35.3	37.8	37.8	52.4	52.4	43.9	Woz Way and San Carlos Street
3446	3446	0	0	0	36.8	36.8	36.8	0	24.5	24.5	40.9	45.2	0	Delmas Avenue and San Carlos Street

3267 3271 3209 3061 3763 3446	EB 3267 3271 3209 3061 3763 3446	23 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0	0 0 23 23 23 23	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue Woz Way and Auzerais Avenue Woz Way and SR-87 NB Off-Ramp Almaden Boulevard and San Carlos Street * Woz Way and San Carlos Street
3267 3271	EB 23 Delay 3267 3271	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3209 3061 3763 3446	3209 3061 3763 3446	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 48.1 37.8 24.5	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	

3267 3271 3209 3061 3763 3446	WB 23267   32271 3209   3061 3763   3446 3446	23 0 0 0 0 0 0	0 0 0 0 0	0 0 23 23 23 23	0 0 0 0 0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue Woz Way and Auzerais Avenue Woz Way and SR-87 NB Off-Ramp Almaden Boulevard and San Carlos Street * Woz Way and San Carlos Street Delmas Avenue and San Carlos Street								
3267 3271 3209 3061 3763 3446	WB 23 Dela 3267 3271 3209 3061 3763 3446	y 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 44.7 52.4 45.2	0.0 0.0 0.0 0.0 0.0 0.0 0.0									

	NB	168												
3267	3267	0	0	0	0	0	0	0	0	0	0	0	0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
3271	3271	0	168	0	0	0	0	0	0	0	0	0	0	Woz Way and Auzerais Avenue
3209	3209	0	0	0	0	0	0	168	0	0	0	0	0	Woz Way and SR-87 NB Off-Ramp
3061	3061	0	0	0	0	0	0	0	168	0	0	0	0	Almaden Boulevard and San Carlos Street *
3763	3763	0	0	168	0	0	0	0	0	0	0	0	0	Woz Way and San Carlos Street
3446	3446	0	0	0	0	0	0	0	0	0	0	0	0	Delmas Avenue and San Carlos Street

	NB 168 De	lay											
3267	3267	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3271	3271	0.0	12.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3209	3209	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0
3061	3061	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.1	0.0	0.0	0.0	0.0
3763	3763	0.0	0.0	30.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3446	3446	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	SB	168												
3267	3267	0	0	0	0	168	0	0	0	0	0	0	0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
3271	3271	0	0	0	0	0	0	0	0	0	0	0	0	Woz Way and Auzerais Avenue
3209	3209	0	0	0	0	0	0	0	0	0	0	0	0	Woz Way and SR-87 NB Off-Ramp
3061	3061	0	0	0	0	0	0	0	0	0	0	168	0	Almaden Boulevard and San Carlos Street *
3763	3763	0	0	0	0	0	0	0	0	0	0	168	0	Woz Way and San Carlos Street
3446	3446	0	0	0	0	0	0	0	0	0	168	0	0	

	SB 168 De	lay											
3267	3267	0.0	0.0	0.0	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3271	3271	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3209	3209	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3061	3061	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.7	0.0
3763	3763	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.4	0.0
3446	3446	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.9	0.0	0.0

	Project Co	onditions F	PM Delays											
	Node	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Intersection
3267	3267	0	0	0	15.9	34.8	34.8	0	54.9	54.9	80.4	60.4	0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
3271	3271	25.6	8.9	0	0	30.2	30.2	21.7	0	26.1	20.8	20.8	20.8	Woz Way and Auzerais Avenue
3209	3209	0	24.6	0	23	4.3	0	14.7	0	16.3	0	0	0	Woz Way and SR-87 NB Off-Ramp
3061	3061	99	37.1	34.2	45.4	65.8	17.8	62.6	79.7	79.7	138.9	53.2	53.2	Almaden Boulevard and San Carlos Street *
3763	3763	35	46.8	46.8	45.6	56.3	56.3	37.7	46.3	46.3	49.7	49.7	26.6	Woz Way and San Carlos Street
3446	3446	0	0	0	37.8	37.8	37.8	0	32.2	32.2	48.4	44.1	0	Delmas Avenue and San Carlos Street

3267 3271 3209 3061 3763 3446	EB 3267 3271 3209 3061 3763 3446	23 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0	0 0 23 23 23 23	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue Woz Way and Auzerais Avenue Woz Way and SR-87 NB Off-Ramp Almaden Boulevard and San Carlos Street * Woz Way and San Carlos Street
3267	EB 23 Delay 3267 3271	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3209 3061 3763 3446	3209 3061 3763 3446	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 79.7 46.3 32.2	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	

3267 3271 3209 3061 3763 3446	WB 23267   32271 32271   32003 32003   30613 37633   3446 3446	23 0 0 0 0 0 0 0				0 0 0 0 0	0 0 0 0 0			0 0 0 0 0		0 0 23 23 23 23	0 0 0 0 0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue Woz Way and Auzerais Avenue Woz Way and SR-87 NB Off-Ramp Almaden Boulevard and San Carlos Street * Woz Way and San Carlos Street Delmas Avenue and San Carlos Street
3267 3271 3209 3061 3763 3446	WB 23 Dela 3267 3271 3209 3061 3763 3346	<b>y</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 53.2 49.7 44.1	0.0 0.0 0.0 0.0 0.0 0.0 0.0									

	NB	168												
3267	3267	0	0	0	0	0	0	0	0	0	0	0	0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
3271	3271	0	168	0	0	0	0	0	0	0	0	0	0	Woz Way and Auzerais Avenue
3209	3209	0	0	0	0	0	0	168	0	0	0	0	0	Woz Way and SR-87 NB Off-Ramp
3061	3061	0	0	0	0	0	0	0	168	0	0	0	0	Almaden Boulevard and San Carlos Street *
3763	3763	0	0	168	0	0	0	0	0	0	0	0	0	Woz Way and San Carlos Street
3446	3446	0	0	0	0	0	0	0	0	0	0	0	0	Delmas Avenue and San Carlos Street

	NB 168 Delay													
3267	3267	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3271	3271	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3209	3209	0.0	0.0	0.0	0.0	0.0	0.0	14.7	0.0	0.0	0.0	0.0	0.0	
3061	3061	0.0	0.0	0.0	0.0	0.0	0.0	0.0	79.7	0.0	0.0	0.0	0.0	
3763	3763	0.0	0.0	46.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3446	3446	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

	SB	168												
3267	3267	0	0	0	0	168	0	0	0	0	0	0	0	Delmas Avenue/SR-87 SB On-Ramp and Auzerais Avenue
3271	3271	0	0	0	0	0	0	0	0	0	0	0	0	Woz Way and Auzerais Avenue
3209	3209	0	0	0	0	0	0	0	0	0	0	0	0	Woz Way and SR-87 NB Off-Ramp
3061	3061	0	0	0	0	0	0	0	0	0	0	168	0	Almaden Boulevard and San Carlos Street *
3763	3763	0	0	0	0	0	0	0	0	0	0	168	0	Woz Way and San Carlos Street
3446	3446	0	0	0	0	0	0	0	0	0	168	0	0	

	SB 168 De	lay											
3267	3267	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3271	3271	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3209	3209	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3061	3061	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.2	0.0
3763	3763	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.7	0.0
3446	3446	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.4	0.0	0.0

## S Almaden Office Development San Jose

Hexagon Transportation Consultants, Inc.

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

### Intersection #3061: ALMADEN/SAN CARLOS



Approach: Movement:	No: L	rth Bou - T -	und - R	Sou L -	uth Bo - T	und - R	Ea L -	ast Bo - T	ound - R	West Bound L - T - R		
Min. Green:	 7	10	 10	 7	 10	 10	 7	 10	 10	7	 10	 10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Feb	o 2019	<< 8:	00-9:0	DOAM				
Base Vol:	64	1083	193	158	217	33	69	247	33	58	288	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:	64	1083	193	158	217	33	69	247	33	58	288	75
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	64	131	37	4	150	4	10	30	141	77	31	7
Initial Fut:	128	1214	230	162	367	37	79	277	174	135	319	82
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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:	128	1214	230	162	367	37	79	277	174	135	319	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	128	1214	230	162	367	37	79	277	174	135	319	82
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	128	1214	230	162	367	37	79	277	174	135	319	82
Saturation F	Low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.98	0.95
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.58	0.42
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	3800	1750	1750	2943	756
Capacity Anal	lysis	Module	∋:									
Vol/Sat:	0.07	0.32	0.13	0.09	0.10	0.02	0.05	0.07	0.10	0.08	0.11	0.11
Crit Moves:		* * * *		* * * *					* * * *	* * * *		
Green Time:	38.6	69.5	86.2	20.1	51.0	63.1	12.1	21.6	21.6	16.8	26.3	26.3
Volume/Cap:	0.27	0.64	0.21	0.64	0.27	0.05	0.52	0.47	0.64	0.64	0.58	0.58
Delay/Veh:	40.9	27.8	12.3	68.6	31.8	21.7	73.4	56.7	66.8	73.0	55.3	55.3
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:	40.9	27.8	12.3	68.6	31.8	21.7	73.4	56.7	66.8	73.0	55.3	55.3
LOS by Move:	D	С	В	Ε	С	С	Ε	Ε	E	E	E	E
HCM2kAvgQ:	5	19	5	8	5	1	4	6	9	6	8	8
Note: Queue	report	ted is	the n	umber	of ca	rs per	lane					

#### S Almaden Office Development San Jose

Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Background + P (AM)

Intersection #3061: ALMADEN/SAN CARLOS



Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - R L - T - RMovement: 7 10 10 7 10 10 7 10 7 10 10 10 Min. Green: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Y+R: 4.0 4.0 4.0 4.0 Volume Module: >> Count Date: 6 Feb 2019 << 8:00-9:00AM 33 33 58 288 75 Base Vol: 64 1083 193 158 217 69 247 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 158 217 Initial Bse: 64 1083 193 33 69 247 33 58 288 75 19 28 0 242 8 0 4 0 0 0 Added Vol: 115 89 64 131 37 4 150 4 10 30 141 77 31 7 ATI: Initial Fut: 147 1242 238 162 609 37 83 277 224 319 289 82 User Adj: PHF Adj: 1.00 1.00 1.00 1.00 37 83 277 PHF Volume: 147 1242 162 609 224 319 238 289 82 0 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 0 162 609 Reduced Vol: 147 1242 37 83 277 289 238 224 319 82 1.00 1.00 1.00 1.00 PCE Adi: 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 FinalVolume: 147 1242 238 162 609 37 83 277 289 224 319 82 -----||-----||------||-------|| Saturation Flow Module: Adjustment: 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 0.98 0.95 Lanes: Final Sat.: 1750 3800 1750 1750 3800 1750 1750 3800 1750 1750 2943 756 Capacity Analysis Module: Vol/Sat: 0.08 0.33 0.14 0.09 0.16 0.02 0.05 0.07 0.17 0.13 0.11 0.11 \* \* \* \* \* \* \* \* \*\*\*\* Crit Moves: \* \* \* \* Green Time: 25.9 58.7 81.7 16.6 49.4 66.1 16.6 29.7 29.7 23.0 36.0 36.0 Volume/Cap: 0.45 0.78 0.23 0.78 0.45 0.04 0.40 0.34 0.78 0.78 0.42 0.42 Delav/Veh: 55.3 38.9 14.6 84.4 36.0 20.1 62.7 48.1 67.0 74.7 44.7 44.7 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: 55.3 38.9 14.6 84.4 36.0 20.1 62.7 48.1 67.0 74.7 44.7 44.7 LOS by Move: E D В F D С E D E E D D 24 9 10 HCM2kAvqQ: 6 5 1 4 5 14 11 7 7

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

# S Almaden Office Development

San Jose Hexagon Transportation Consultants, Inc.

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

Intersection #3061: ALMADEN/SAN CARLOS



Approach:	Noi	rth Bou	und	Soi	ith Bo	und	Εa	ast Bo	ound	West Bound		
Movement:	L ·	- т -	- R	L -	- т	– R	L -	- T	– R	L -	- T	- R
Min. Green:	/	10	10	/	10	TO	/	10	10	/	10	TO
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	· · ·	Count	Dato.	ן 11 שמ	201	8 < < 5	• 0 0 - 6					
Base Vol.	2. // 41	153	81 81	1.81	1132	55	.00 0.	530	194	84	213	52
Growth Adi.	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	41	153	81	181	1132		00	530	194	84	213	52
Added Vol:	0	0	0	101	1102	0	0	0	0	0	0	0
ATT:	217	91	249	24	217	22	12	104	71	36	71	10
Initial Fut:	2.5.8	244	330	205	1349	77	97	634	265	120	284	62
User Adi:	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 Adi:	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:	258	244	330	205	1349	77	97	634	265	120	284	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	258	244	330	205	1349	77	97	634	265	120	284	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	258	244	330	205	1349	77	97	634	265	120	284	62
Saturation F	Low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.39	0.61	1.00	1.63	0.37
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	2609	1090	1750	3036	663
Capacity Ana.	Lysis	Module	e:									
Vol/Sat:	0.15	0.06	0.19	0.12	0.36	0.04	0.06	0.24	0.24	0.07	0.09	0.09
Crit Moves:	****		F 0 0	~ ~ ~	****		10.0	****		****		
Green Time:	23.2	40.0	50.8	39.0	55.8	74.1	18.2	38.2	38.2	10.8	30.8	30.8
Volume/Cap:	0.89	0.22	0.52	0.42	0.89	0.08	0.43	0.89	0.89	0.89	0.43	0.43
Delay/Veh:	88.2	38.4	36.8	43.9	4/.5	16.4	b⊥.8	60.6	60.6	116.6	48.6	48.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1100	1.00	1.00
AajDel/Veh:	88.2	38.4	36.8	43.9	4/.5	16.4	61.8 -	60.6	60.6	116.6	48.6	48.6
LUS by Move:	F	D	D	D	D	В	E	E	E	F	D	D
HCMZKAVGQ:	15	4	12	8	30	2	4	22	22	/	/	/
NOLE: UUEDE 1	eport	.ea ⊥s	une n	umper	UL CA	is per	Tane.					

## S Almaden Office Development San Jose Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + P (PM)

Intersection #3061: ALMADEN/SAN CARLOS



Signal=Protect/Rights=Overlap

Approach:	No:	rth Boi	und	Soi	ith Bo	ound	East Bound			West Bound		
Movement:	L ·	- T ·	- R	L ·	- T	- R	L -	- T	- R	L -	- T	- R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Modul	le: >>	Count	Date:	11 De	ec 201	L8 << 5	:00-6	:00PM				
Base Vol:	41	153	81	181	1132	55	85	530	194	84	213	52
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:	41	153	81	181	1132	55	85	530	194	84	213	52
Added Vol:	115	168	48	0	43	0	24	0	21	16	0	0
ATI:	217	91	249	24	217	22	12	104	71	36	71	10
Initial Fut:	: 373	412	378	205	1392	77	121	634	286	136	284	62
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:	373	412	378	205	1392	77	121	634	286	136	284	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	: 373	412	378	205	1392	77	121	634	286	136	284	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	: 373	412	378	205	1392	77	121	634	286	136	284	62
	-											
Saturation H	flow M	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.98	0.95
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.36	0.64	1.00	1.63	0.37
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	2549	1150	1750	3036	663
	-											
Capacity Ana	alysis	Module	e:	0 1 0	0 27	0 0 1	0 07	0 05	0 05	0 00	0 00	0 00
VOI/Sal:	U.ZI	0.11	0.22	0.12	0.3/	0.04	0.07	U.25	0.25	0.08	0.09	0.09
Crit Moves:	20 1	11 2	EE 2	27 F	E1 0	71 4	10 0		2 5 1	11 0	OC F	OC F
Green Time:	30.1	44.3	33.3 0 EE	37.5	51.8	/1.4	19.0	33.1	33.1	11.0	20.5	20.5
Volume/Cap:	0.99	0.34	0.55	0.44	0.99	17 0	0.49	0.99	0.99	120 0	0.49	0.49 52 2
Deray/ven:	99.0	3/.I 1 00	34.Z	40.4	1 00	1 00	02.0	19.1	19.1	1 00	1 00	1 00
JdiDal (Mah.	00 0	27 1	24 2	1.00	1.00	17 0	1.00	70 7	70 7	120 0	1.00 52 2	1.00 52 2
IOS by Morro	ອອ.0 - E	J / • T	J4.Z	4J.4 n	0J.0 F	1/.0 P	UZ.0 F	יש. / ד	/ ン・/ 다	100.9 T	JJ.Z	JJ.Z
UCM2kAwaO.	. r วว	ע ר	12	ں ہ	3 E	2	Б С	_ 2 6	26	г 0	ע ר	ע ר
Note: Ououo	2J	tod in	the r	o	of	re nor	0 lanc	20	20	0	/	/
noce. Queue	TCHOT	LEU ID		unnet	OT CC	TP her	Tane	•				
San Jose Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Background (AM)

Intersection #3209: 87/WOZ



Approach:	Noi	rth Bou	ınd	Soi	ith Bo	und	Εā	ast Bc	ound	We	est Bc	und
Movement:	L -	- т -	- R	L -	- т	– R	L -	- Т	– R	L -	- т	– R
Min. Green:	0	10	10	0	10	0	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Feb	o 2019	<< 7:4	45-8:4	15AM				
Base Vol:	0	284	0	0	127	0	165	0	61	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	284	0	0	127	0	165	0	61	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	38	0	0	32	0	141	0	111	0	0	0
Initial Fut:	0	322	0	0	159	0	306	0	172	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	322	0	0	159	0	306	0	172	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	322	0	0	159	0	306	0	172	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	322	0	0	159	0	306	0	172	0	0	0
Saturation F	low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	1.00	0.00	0.00	1.00	0.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	1900	0	0	1900	0	3150	0	1750	0	0	0
Capacity Ana	lysis	Module	∋:									
Vol/Sat:	0.00	0.17	0.00	0.00	0.08	0.00	0.10	0.00	0.10	0.00	0.00	0.00
Crit Moves:		* * * *		* * * *			****					
Green Time:	0.0	24.1	0.0	0.0	24.1	0.0	13.9	0.0	13.9	0.0	0.0	0.0
Volume/Cap:	0.00	0.31	0.00	0.00	0.15	0.00	0.31	0.00	0.31	0.00	0.00	0.00
Delay/Veh:	0.0	5.6	0.0	0.0	5.0	0.0	11.5	0.0	11.7	0.0	0.0	0.0
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:	0.0	5.6	0.0	0.0	5.0	0.0	11.5	0.0	11.7	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	В	A	В	A	A	A
HCM2kAvqQ:	0	3	0	0	1	0	2	0	2	0	0	0
Note: Queue	report	ted is	the n	umber	of ca	rs per	lane					

San Jose Hexagon Transportation Consultants, Inc.

# Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + P (AM)

Intersection #3209: 87/WOZ



Approach:	Noi	rth Bou	und	Sou	ith Boi	und	Εā	ast Bo	ound	We	est Bo	und
Movement:	L -	- т -	- R	L -	- т -	- R	L -	- Т	– R	L -	- Т	– R
Min. Green:	0	10	10	0	10	0	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Feb	2019	<< 7:	45-8:4	15AM				
Base Vol:	0	284	0	0	127	0	165	0	61	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	284	0	0	127	0	165	0	61	0	0	0
Added Vol:	0	51	0	0	178	0	0	0	153	0	0	0
ATI:	0	38	0	0	32	0	141	0	111	0	0	0
Initial Fut:	0	373	0	0	337	0	306	0	325	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	373	0	0	337	0	306	0	325	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	373	0	0	337	0	306	0	325	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	373	0	0	337	0	306	0	325	0	0	0
Saturation Fl	Low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	1.00	0.00	0.00	1.00	0.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	1900	0	0	1900	0	3150	0	1750	0	0	0
Capacity Anal	Lysis	Module	∋:									
Vol/Sat:	0.00	0.20	0.00	0.00	0.18	0.00	0.10	0.00	0.19	0.00	0.00	0.00
Crit Moves:		* * * *		****			****					
Green Time:	0.0	19.5	0.0	0.0	19.5	0.0	18.5	0.0	18.5	0.0	0.0	0.0
Volume/Cap:	0.00	0.44	0.00	0.00	0.40	0.00	0.23	0.00	0.44	0.00	0.00	0.00
Delay/Veh:	0.0	8.8	0.0	0.0	8.6	0.0	8.3	0.0	9.5	0.0	0.0	0.0
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:	0.0	8.8	0.0	0.0	8.6	0.0	8.3	0.0	9.5	0.0	0.0	0.0
LOS by Move:	A	А	A	A	A	A	A	A	А	A	A	A
HCM2kAvgQ:	0	4	0	0	3	0	2	0	4	0	0	0
Note: Queue 1	report	ted is	the n	umber	of ca:	rs per	lane					

San Jose Hexagon Transportation Consultants, Inc.

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

Intersection #3209: 87/WOZ



Approach:	Noi	rth Bou	und	Sou	ith Bou	und	Εā	ast Bc	und	We	est Bo	und
Movement:	L -	- т -	- R	L -	- т -	– R	L -	- т	– R	L -	- Т	– R
Min. Green:	0	10	10	0	10	0	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Feb	2019	<< 5:0	00-6:0	00pm				
Base Vol:	0	125	0	2	377	0	195	0	159	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	125	0	2	377	0	195	0	159	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	39	0	0	96	0	75	0	26	0	0	0
Initial Fut:	0	164	0	2	473	0	270	0	185	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	164	0	2	473	0	270	0	185	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	164	0	2	473	0	270	0	185	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	164	0	2	473	0	270	0	185	0	0	0
Saturation Fl	Low Mo	dule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.95	0.95	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	1.00	0.00	0.01	0.99	0.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	1900	0	8	1792	0	3150	0	1750	0	0	0
Capacity Anal	Lysis	Module	∋:									
Vol/Sat:	0.00	0.09	0.00	0.26	0.26	0.00	0.09	0.00	0.11	0.00	0.00	0.00
Crit Moves:		* * * *		****			****					
Green Time:	0.0	10.0	0.0	18.0	28.0	0.0	10.0	0.0	10.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.38	0.00	0.65	0.41	0.00	0.38	0.00	0.47	0.00	0.00	0.00
Delay/Veh:	0.0	14.9	0.0	12.4	4.2	0.0	14.7	0.0	15.6	0.0	0.0	0.0
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:	0.0	14.9	0.0	12.4	4.2	0.0	14.7	0.0	15.6	0.0	0.0	0.0
LOS by Move:	A	В	A	В	A	A	В	A	В	A	A	A
HCM2kAvqQ:	0	2	0	6	3	0	2	0	3	0	0	0
Note: Oueue 1	report	ted is	the n	umber	of car	rs per	lane	_				

San Jose Hexagon Transportation Consultants, Inc.

# Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + P (PM)





Approach:	Noi	rth Bou	und	Sou	ith Boi	und	Εā	ast Bc	und	We	est Bo	und
Movement:	L -	- т -	- R	L -	- т -	- R	L -	- т	– R	L -	- Т	– R
Min. Green:	0	10	10	0	10	0	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Feb	2019	<< 5:	00-6:0	0 O PM				
Base Vol:	0	125	0	2	377	0	195	0	159	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	125	0	2	377	0	195	0	159	0	0	0
Added Vol:	0	308	0	0	32	0	0	0	27	0	0	0
ATI:	0	39	0	0	96	0	75	0	26	0	0	0
Initial Fut:	0	472	0	2	505	0	270	0	212	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	472	0	2	505	0	270	0	212	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	472	0	2	505	0	270	0	212	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	472	0	2	505	0	270	0	212	0	0	0
Saturation Fl	Low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.95	0.95	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	1.00	0.00	0.01	0.99	0.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	1900	0	7	1793	0	3150	0	1750	0	0	0
Capacity Anal	Lysis	Module	e:									
Vol/Sat:	0.00	0.25	0.00	0.28	0.28	0.00	0.09	0.00	0.12	0.00	0.00	0.00
Crit Moves:		* * * *		****			****					
Green Time:	0.0	13.1	0.0	14.9	28.0	0.0	10.0	0.0	10.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.83	0.00	0.83	0.44	0.00	0.38	0.00	0.53	0.00	0.00	0.00
Delay/Veh:	0.0	24.6	0.0	23.0	4.3	0.0	14.7	0.0	16.3	0.0	0.0	0.0
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:	0.0	24.6	0.0	23.0	4.3	0.0	14.7	0.0	16.3	0.0	0.0	0.0
LOS by Move:	A	С	A	С	A	A	В	A	В	A	A	A
HCM2kAvgQ:	0	9	0	7	4	0	2	0	4	0	0	0
Note: Oueue a	report	ted is	the n	umber	of car	rs per	lane	_				

San Jose Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Background (AM)



Approach:	North Bound			Soi	ith Bo	und	Εa	ast Bc	ound	We	est Bo	und
Movement:	L -	- т -	- R	L -	- T ·	– R	L -	- T	– R	L -	- Т	– R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Feb	2019	<< 7:4	45-8:4	15AM				
Base Vol:	0	0	0	58	187	22	0	75	166	23	86	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	58	187	22	0	75	166	23	86	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	39	41	31	0	42	28	5	33	0
Initial Fut:	0	0	0	97	228	53	0	117	194	28	119	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	97	228	53	0	117	194	28	119	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	97	228	53	0	117	194	28	119	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	97	228	53	0	117	194	28	119	0
Saturation F	low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.81	0.19	0.00	0.38	0.62	1.00	1.00	0.00
Final Sat.:	0	0	0	1750	1460	340	0	677	1123	1750	1900	0
Capacity Ana	lysis	Module	∋:									
Vol/Sat:	0.00	0.00	0.00	0.06	0.16	0.16	0.00	0.17	0.17	0.02	0.06	0.00
Crit Moves:					* * * *				* * * *		* * * *	
Green Time:	0.0	0.0	0.0	44.3	44.3	44.3	0.0	49.0	49.0	17.8	17.8	0.0
Volume/Cap:	0.00	0.00	0.00	0.15	0.42	0.42	0.00	0.42	0.42	0.11	0.42	0.00
Delay/Veh:	0.0	0.0	0.0	25.4	28.8	28.8	0.0	25.8	25.8	44.5	47.5	0.0
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:	0.0	0.0	0.0	25.4	28.8	28.8	0.0	25.8	25.8	44.5	47.5	0.0
LOS by Move:	A	A	A	С	С	С	A	С	С	D	D	A
HCM2kAvqQ:	0	0	0	2	8	8	0	9	9	1	4	0
Note: Oueue :	report	ted is	the n	umber	of ca	rs per	lane					

San Jose Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + P (AM)



Approach:	Noi	rth Bou	ınd	Soi	ith Boi	und	Εa	ast Bc	und	We	est Bo	und
Movement:	L -	- T -	- R	L -	- T ·	- R	L -	- T	– R	L -	- Т	– R
Min. Green:	0	0	0	10	10	10	0	10	10		10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volumo Modulo		Count	Doto!	6 Eok			15_0.	 1 Б Л М				
Base Vol.	z. //	COUIIC 0	Date.	5 g	197	22	40-0.0	+ JAM 75	166	23	86	0
Crowth Adi.	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 Beor	1.00	1.00	1.00	5.00	197	22	1.00	75	166	1.00	1.00	1.00
Addod Vol:	0	0	0	50 64	107	22	0	75	100	19	1	0
Added VOL.	0	0	0	30	/1	31	0	12	28	10	33 T	0
Tritial Fut.	0	0	0	161	231	53	0	103	197	16	120	0
Hear Adi.	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00
DHE Adi.	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.	1.00	1.00	1.00	161	234	1.00 53	1.00	193	194	46	120	1.00
Reduct Vol:	0	0	0	101	201	0	0	195	1 2 1	10	120	0
Reduced Vol:	0	0	0	161	234	53	0	193	194	46	120	0
PCE Adi.	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 Adi:	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00
FinalVolume:	00.11	0	0	161	234	53	00.11	193	194	46	120	0
Saturation Fl	Low Mo	odule:	1	1		1	1		1	1		1
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.82	0.18	0.00	0.50	0.50	1.00	1.00	0.00
Final Sat.:	0	0	0	1750	1468	332	0	898	902	1750	1900	0
Capacity Anal	Lysis	Module	∋:									
Vol/Sat:	0.00	0.00	0.00	0.09	0.16	0.16	0.00	0.22	0.22	0.03	0.06	0.00
Crit Moves:						* * * *			* * * *		* * * *	
Green Time:	0.0	0.0	0.0	40.4	40.4	40.4	0.0	54.5	54.5	16.0	16.0	0.0
Volume/Cap:	0.00	0.00	0.00	0.27	0.47	0.47	0.00	0.47	0.47	0.20	0.47	0.00
Delay/Veh:	0.0	0.0	0.0	29.3	32.0	32.0	0.0	23.2	23.2	46.7	49.5	0.0
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:	0.0	0.0	0.0	29.3	32.0	32.0	0.0	23.2	23.2	46.7	49.5	0.0
LOS by Move:	A	A	A	С	С	С	A	С	С	D	D	A
HCM2kAvgQ:	0	0	0	4	8	8	0	10	10	2	4	0
Note: Oueue n	ceport	ted is	the n	umber	of ca:	rs per	lane					

San Jose Hexagon Transportation Consultants, Inc.

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



Approach:	Noi	rth Bou	und	Soi	ith Bo	und	Εā	ast Bo	ound	We	est Bo	und
Movement:	L -	- т -	- R	L -	- T ·	– R	L -	- т	– R	L -	- т	– R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Feb	2019	<< 5:0	00-6:0	0 PM				
Base Vol:	0	0	0	95	519	31	0	194	205	68	127	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	95	519	31	0	194	205	68	127	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	46	190	21	0	26	15	14	36	0
Initial Fut:	0	0	0	141	709	52	0	220	220	82	163	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	141	709	52	0	220	220	82	163	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	141	709	52	0	220	220	82	163	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	141	709	52	0	220	220	82	163	0
Saturation F	low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.93	0.07	0.00	0.50	0.50	1.00	1.00	0.00
Final Sat.:	0	0	0	1750	1677	123	0	900	900	1750	1900	0
Capacity Anal	lysis	Module	∋:									
Vol/Sat:	0.00	0.00	0.00	0.08	0.42	0.42	0.00	0.24	0.24	0.05	0.09	0.00
Crit Moves:						* * * *		****			* * * *	
Green Time:	0.0	0.0	0.0	62.3	62.3	62.3	0.0	36.0	36.0	12.6	12.6	0.0
Volume/Cap:	0.00	0.00	0.00	0.16	0.81	0.81	0.00	0.81	0.81	0.44	0.81	0.00
Delay/Veh:	0.0	0.0	0.0	15.2	29.6	29.6	0.0	48.1	48.1	52.1	74.4	0.0
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:	0.0	0.0	0.0	15.2	29.6	29.6	0.0	48.1	48.1	52.1	74.4	0.0
LOS by Move:	A	A	A	В	С	С	A	D	D	D	E	A
HCM2kAvgQ:	0	0	0	3	25	25	0	18	18	3	6	0
Note: Queue 1	report	ted is	the n	umber	of car	rs per	lane					

San Jose Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + P (PM)



Approach:	Noi	rth Bou	und	Sou	ith Bo	und	Εā	ast Bc	und	We	est Bo	und
Movement:	L -	- т -	- R	L -	- T ·	– R	L -	- Т	– R	L -	- Т	– R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Feb	o 2019	<< 5:0	00-6:0	DOPM				
Base Vol:	0	0	0	95	519	31	0	194	205	68	127	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	95	519	31	0	194	205	68	127	0
Added Vol:	0	0	0	11	36	0	0	14	0	108	7	0
ATI:	0	0	0	46	190	21	0	26	15	14	36	0
Initial Fut:	0	0	0	152	745	52	0	234	220	190	170	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	152	745	52	0	234	220	190	170	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	152	745	52	0	234	220	190	170	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	152	745	52	0	234	220	190	170	0
Saturation F	Low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.93	0.07	0.00	0.52	0.48	1.00	1.00	0.00
Final Sat.:	0	0	0	1750	1683	117	0	928	872	1750	1900	0
Capacity Anal	Lysis	Module	∋:									
Vol/Sat:	0.00	0.00	0.00	0.09	0.44	0.44	0.00	0.25	0.25	0.11	0.09	0.00
Crit Moves:					* * * *			* * * *		* * * *		
Green Time:	0.0	0.0	0.0	61.2	61.2	61.2	0.0	34.8	34.8	15.0	15.0	0.0
Volume/Cap:	0.00	0.00	0.00	0.17	0.87	0.87	0.00	0.87	0.87	0.87	0.72	0.00
Delay/Veh:	0.0	0.0	0.0	15.9	34.8	34.8	0.0	54.9	54.9	80.4	60.4	0.0
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:	0.0	0.0	0.0	15.9	34.8	34.8	0.0	54.9	54.9	80.4	60.4	0.0
LOS by Move:	A	A	A	В	С	С	A	D	D	F	E	A
HCM2kAvgQ:	0	0	0	3	28	28	0	20	20	8	6	0
Note: Oueue i	report	ted is	the n	umber	of car	rs per	lane	_				

San Jose Hexagon Transportation Consultants, Inc.

# Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Background (AM)



Approach:	Noi	rth Bou	und	Sou	ith Bo	und	Εā	ast Bo	ound	We	est Bc	und
Movement:	L -	- т -	- R	L -	- T	– R	L -	- Т	– R	L -	- т	– R
Min. Green:	7	10	0	0	10	10	10	0	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Feb	> 2019	<< 8:	00-9:(	DOAM		_		_
Base Vol:	116	328	0	0	29	4	33	0	106	3	1	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	116	328	0	0	29	4	33	0	106	3	1	3
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	24	105	0	0	9	1	26	0	12	0	0	0
Initial Fut:	140	433	0	0	38	5	59	0	118	3	1	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	140	433	0	0	38	5	59	0	118	3	1	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	433	0	0	38	5	59	0	118	3	1	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	140	433	0	0	38	5	59	0	118	3	1	3
Saturation F	low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	0.00	0.00	0.88	0.12	1.00	0.00	1.00	0.43	0.14	0.43
Final Sat.:	1750	3800	0	0	1591	209	1750	0	1750	750	250	750
Capacity Ana	lysis	Module	e:									
Vol/Sat:	0.08	0.11	0.00	0.00	0.02	0.02	0.03	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****				* * * *				* * * *			
Green Time:	37.4	48.5	0.0	0.0	11.2	11.2	31.5	0.0	31.5	31.5	31.5	31.5
Volume/Cap:	0.19	0.21	0.00	0.00	0.19	0.19	0.10	0.00	0.19	0.01	0.01	0.01
Delay/Veh:	16.4	10.4	0.0	0.0	35.3	35.3	19.3	0.0	20.1	18.7	18.7	18.7
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:	16.4	10.4	0.0	0.0	35.3	35.3	19.3	0.0	20.1	18.7	18.7	18.7
LOS by Move:	В	В	A	A	D	D	В	A	С	В	В	В
HCM2kAvqQ:	3	3	0	0	1	1	1	0	2	0	0	0
Note: Queue 1	report	ted is	the n	umber	of ca	rs per	lane					

San Jose Hexagon Transportation Consultants, Inc.

# Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + P (AM)



Approach:	Noi	rth Bou	und	Soi	uth Bo	und	Εa	ast Bo	ound	We	est Bo	ound
Movement:	_ L -	- T -	- R	_ L -	- T	– R	L ·	- T	- R	_ L -	- T	- R
Min Green:		10	 0	0	 10	10	10	0	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Modul	e: >>	Count	Date:	6 Feb	o 2019	<< 8:0	00-9:0	DOAM				
Base Vol:	116	328	0	0	29	4	33	0	106	3	1	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	116	328	0	0	29	4	33	0	106	3	1	3
Added Vol:	19	32	0	0	76	0	38	0	102	0	0	0
ATI:	24	105	0	0	9	1	26	0	12	0	0	0
Initial Fut:	159	465	0	0	114	5	97	0	220	3	1	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	159	465	0	0	114	5	97	0	220	3	1	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	159	465	0	0	114	5	97	0	220	3	1	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	159	465	0	0	114	5	97	0	220	3	1	3
Saturation F	low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	0.00	0.00	0.96	0.04	1.00	0.00	1.00	0.43	0.14	0.43
Final Sat.:	1750	3800	0	0	1724	76	1750	0	1750	750	250	750
Capacity Ana	lysis	Module	e:									
Vol/Sat:	0.09	0.12	0.00	0.00	0.07	0.07	0.06	0.00	0.13	0.00	0.00	0.00
Crit Moves:	* * * *				****				****			
Green Time:	25.7	44.4	0.0	0.0	18.7	18.7	35.6	0.0	35.6	35.6	35.6	35.6
Volume/Cap:	0.31	0.25	0.00	0.00	0.31	0.31	0.14	0.00	0.31	0.01	0.01	0.01
Delay/Veh:	25.1	12.8	0.0	0.0	30.2	30.2	17.1	0.0	18.6	16.1	16.1	16.1
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:	25.1	12.8	0.0	0.0	30.2	30.2	17.1	0.0	18.6	16.1	16.1	16.1
LOS by Move:	С	В	A	A	С	С	В	A	В	В	В	В
HCM2kAvgQ:	4	3	0	0	3	3	2	0	4	0	0	0
Note: Oueue	report	ted is	the n	umber	of ca	rs per	lane					

San Jose Hexagon Transportation Consultants, Inc.

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



Approach:	Noi	rth Bou	ınd	Soi	ith Bo	und	Εā	ast Bo	ound	We	est Bo	und
Movement:	L -	- т -	- R	L -	- T	– R	L -	- т	– R	L -	- т	– R
Min. Green:	7	10	0	0	10	10	10	0	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Feb	o 2019	<< 5:	00-6:(	)0PM				
Base Vol:	140	182	0	0	127	47	48	0	244	4	7	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:	140	182	0	0	127	47	48	0	244	4	7	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	56	63	0	0	42	17	21	0	41	0	2	1
Initial Fut:	196	245	0	0	169	64	69	0	285	4	9	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	196	245	0	0	169	64	69	0	285	4	9	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	196	245	0	0	169	64	69	0	285	4	9	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	196	245	0	0	169	64	69	0	285	4	9	1
Saturation F	low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	0.00	0.00	0.73	0.27	1.00	0.00	1.00	0.29	0.64	0.07
Final Sat.:	1750	3800	0	0	1306	494	1750	0	1750	500	1125	125
Capacity Ana	lysis	Module	∋:									
Vol/Sat:	0.11	0.06	0.00	0.00	0.13	0.13	0.04	0.00	0.16	0.01	0.01	0.01
Crit Moves:	****				* * * *				* * * *			
Green Time:	22.2	47.8	0.0	0.0	25.6	25.6	32.2	0.0	32.2	32.2	32.2	32.2
Volume/Cap:	0.45	0.12	0.00	0.00	0.45	0.45	0.11	0.00	0.45	0.02	0.02	0.02
Delay/Veh:	29.0	10.2	0.0	0.0	26.6	26.6	18.9	0.0	22.1	18.3	18.3	18.3
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:	29.0	10.2	0.0	0.0	26.6	26.6	18.9	0.0	22.1	18.3	18.3	18.3
LOS by Move:	С	В	A	A	С	С	В	A	С	В	В	В
HCM2kAvgQ:	5	2	0	0	5	5	1	0	6	0	0	0
Note: Queue :	report	ted is	the n	umber	of ca	rs per	lane					

San Jose Hexagon Transportation Consultants, Inc.

# Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + P (PM)



Approach:	Noi	rth Bou	ınd	Soi	ith Bo	und	Εā	ast Bc	und	We	est Bo	und
Movement:	L -	- т -	- R	L -	- T	– R	L -	- Т	– R	L -	- Т	– R
Min. Green:	7	10	0	0	10	10	10	0	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Modul	e: >>	Count	Date:	6 Feb	2019	<< 5:0	00-6:0	DOPM				
Base Vol:	140	182	0	0	127	47	48	0	244	4	7	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:	140	182	0	0	127	47	48	0	244	4	7	0
Added Vol:	115	192	0	0	14	0	7	0	18	0	0	0
ATI:	56	63	0	0	42	17	21	0	41	0	2	1
Initial Fut:	311	437	0	0	183	64	76	0	303	4	9	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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:	311	437	0	0	183	64	76	0	303	4	9	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	311	437	0	0	183	64	76	0	303	4	9	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	311	437	0	0	183	64	76	0	303	4	9	1
Saturation F	low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	0.00	0.00	0.74	0.26	1.00	0.00	1.00	0.29	0.64	0.07
Final Sat.:	1750	3800	0	0	1334	466	1750	0	1750	500	1125	125
Capacity Ana	lysis	Module	∋:									
Vol/Sat:	0.18	0.12	0.00	0.00	0.14	0.14	0.04	0.00	0.17	0.01	0.01	0.01
Crit Moves:	* * * *				****				* * * *			
Green Time:	29.1	51.6	0.0	0.0	22.5	22.5	28.4	0.0	28.4	28.4	28.4	28.4
Volume/Cap:	0.54	0.20	0.00	0.00	0.54	0.54	0.14	0.00	0.54	0.03	0.03	0.03
Delay/Veh:	25.6	8.9	0.0	0.0	30.2	30.2	21.7	0.0	26.1	20.8	20.8	20.8
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:	25.6	8.9	0.0	0.0	30.2	30.2	21.7	0.0	26.1	20.8	20.8	20.8
LOS by Move:	С	A	A	A	С	С	С	A	С	С	С	С
HCM2kAvgQ:	7	3	0	0	6	6	1	0	7	0	0	0
Note: Queue	report	ted is	the n	umber	of ca	rs per	lane					

San Jose Hexagon Transportation Consultants, Inc.

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



Approach:	Noi	rth Bou	ınd	Soi	ith Boi	und	Εa	ast Bo	ound	West Bound		
Movement:	L -	- т -	- R	L -	- T ·	- R	L -	- Т	– R	L -	- т	– R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Fer	2019	<< 8:0	00-0:0	JUAM	7.4	0.1	200	0
Base Vol:	0	0	0	63	149	64	0	543	/4	21	306	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	63	149	64	0	543	74	21	306	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	70	23	10	0	95	20	17	35	0
Initial Fut:	0	0	0	133	172	74	0	638	94	38	341	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	133	172	74	0	638	94	38	341	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	133	172	74	0	638	94	38	341	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	133	172	74	0	638	94	38	341	0
Saturation Fl	Low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.95	0.95	0.95	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.70	0.91	0.39	0.00	1.74	0.26	1.00	2.00	0.00
Final Sat.:	0	0	0	1263	1634	703	0	3225	475	1750	3800	0
Capacity Anal	Lysis	Module	∋:									
Vol/Sat:	0.00	0.00	0.00	0.11	0.11	0.11	0.00	0.20	0.20	0.02	0.09	0.00
Crit Moves:						* * * *		****			****	
Green Time:	0.0	0.0	0.0	29.7	29.7	29.7	0.0	55.9	55.9	25.4	25.4	0.0
Volume/Cap:	0.00	0.00	0.00	0.42	0.42	0.42	0.00	0.42	0.42	0.10	0.42	0.00
Delay/Veh:	0.0	0.0	0.0	39.4	39.4	39.4	0.0	22.1	22.1	38.7	42.6	0.0
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:	0.0	0.0	0.0	39.4	39.4	39.4	0.0	22.1	22.1	38.7	42.6	0.0
LOS by Move:	A	A	A	D	D	D	A	С	С	D	D	A
HCM2kAvgQ:	0	0	0	6	6	6	0	9	9	1	5	0
Note: Oueue	report	ted is	the n	umber	of ca:	rs per	lane					

San Jose Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + P (AM)



Approach:	Noi	rth Bou	und	Soi	South Bound			ast Bo	ound	West Bound		
Movement:	L -	- T -	- R	L -	- T ·	- R	L -	- T	- R	L -	- Т	- R
Min Green:	0	 0		10	10	10	0	10	10		10	0
V+R·	4 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0
Volume Module	: >>	Count	Date:	6 Feb	2019	<< 8:	, 00-0:(	MAOC	1	1		I
Base Vol:	0	0	0	63	149	64	0	543	74	21	306	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	63	149	64	0	543	74	21	306	0
Added Vol:	0	0	0	51	64	0	0	51	0	6	9	0
ATI:	0	0	0	70	23	10	0	95	20	17	35	0
Initial Fut:	0	0	0	184	236	74	0	689	94	44	350	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	184	236	74	0	689	94	44	350	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	184	236	74	0	689	94	44	350	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	184	236	74	0	689	94	44	350	0
Saturation F	low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.95	0.95	0.95	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.74	0.96	0.30	0.00	1.75	0.25	1.00	2.00	0.00
Final Sat.:	. 0	0	0	1341	1720	539	. 0	3255	444	1750	3800	0
~~~~~												
Capacity Ana.	Lysis	Module	∋:	0 1 4	0 1 4	0 1 4	0 00	0 01	0 01	0 0 0	0 00	0 0 0
Vol/Sat:	0.00	0.00	0.00	0.14	0.14	0.14	0.00	7.7T	0.21	0.03	0.03	0.00
Crit Moves:	0 0	0 0	0 0		24 5	24 5	0 0		F 2 2	00.0	~ ~ ~ ~	0 0
Green Time:	0.0	0.0	0.0	34.5	34.5	34.5	0.0	53.3	53.3	23.2	23.2	0.0
Volume/Cap:	0.00	0.00	0.00	0.48	0.48	0.48	0.00	0.48	0.48	0.13	0.48	0.00
Delay/ven:	1 0.0	1 0 0	0.0	36.8	36.8 1 00	36.8	1 00	24.5	24.3	40.9	43.2	0.0
user DelAdj:	1.00	T.00	T.00	1.00	1.UU	1.UU	T.00	1.UU	1.00 24 F	10.00	15 0	T.00
AUJDEL/VEN:	0.0	0.0	0.0	30.8	0.0C	30.0 7	0.0	24.0	24.3	40.9	43.2	0.0
LOS DY MOVE:	A	A	A	D	ں ہ	D 0	A	10	10	D 1	D C	A
Noto: Ououo	U	U - od i o	tho r	8 mbor	ð of cor	ð ra nar	lana	ΤŪ	ΤŪ	T	ю	U
note, Queue I	rehoti	LEU IS	LIIE II	unnet	UL Cd.	ra het	тапе.	•				

San Jose Hexagon Transportation Consultants, Inc.

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



Approach:	Noi	rth Bou	ınd	Soi	ith Bo	und	Εā	ast Bc	ound	West Bound		
Movement:	L -	- т -	- R	L -	- T ·	– R	L -	- T	– R	L -	- т	– R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Feb	2019	<< 5:	00-6:0	00pm				
Base Vol:	0	0	0	32	462	104	0	633	126	63	382	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	32	462	104	0	633	126	63	382	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	26	52	3	0	68	39	153	89	0
Initial Fut:	0	0	0	58	514	107	0	701	165	216	471	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	58	514	107	0	701	165	216	471	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	58	514	107	0	701	165	216	471	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	58	514	107	0	701	165	216	471	0
Saturation F	Low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.95	0.95	0.95	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.17	1.51	0.32	0.00	1.61	0.39	1.00	2.00	0.00
Final Sat.:	0	0	0	308	2725	567	0	2995	705	1750	3800	0
Capacity Anal	Lysis	Module	∋:									
Vol/Sat:	0.00	0.00	0.00	0.19	0.19	0.19	0.00	0.23	0.23	0.12	0.12	0.00
Crit Moves:					* * * *			* * * *			* * * *	
Green Time:	0.0	0.0	0.0	38.3	38.3	38.3	0.0	47.5	47.5	25.2	25.2	0.0
Volume/Cap:	0.00	0.00	0.00	0.59	0.59	0.59	0.00	0.59	0.59	0.59	0.59	0.00
Delay/Veh:	0.0	0.0	0.0	36.5	36.5	36.5	0.0	30.3	30.3	49.5	46.0	0.0
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:	0.0	0.0	0.0	36.5	36.5	36.5	0.0	30.3	30.3	49.5	46.0	0.0
LOS by Move:	A	A	A	D	D	D	A	С	С	D	D	A
HCM2kAvgQ:	0	0	0	11	11	11	0	13	13	8	8	0
Note: Queue 1	report	ted is	the n	umber	of ca	rs per	lane					

#### S Almaden Office Development San Jose Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + P (PM)



Approach:	Noi	rth Bou	ınd	Soi	ith Bo	und	Εa	ast Bc	ound	West Bound		
Movement:	L -	- т -	- R	L -	- T ·	– R	L ·	- T	– R	L -	- Т	– R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Feb	2019	<< 5:	00-6:0	00pm				
Base Vol:	0	0	0	32	462	104	0	633	126	63	382	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	32	462	104	0	633	126	63	382	0
Added Vol:	0	0	0	9	11	0	0	9	0	36	55	0
ATI:	0	0	0	26	52	3	0	68	39	153	89	0
Initial Fut:	0	0	0	67	525	107	0	710	165	252	526	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	67	525	107	0	710	165	252	526	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	67	525	107	0	710	165	252	526	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	67	525	107	0	710	165	252	526	0
Saturation Fl	Low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.95	0.95	0.95	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.19	1.50	0.31	0.00	1.61	0.39	1.00	2.00	0.00
Final Sat.:	0	0	0	345	2704	551	0	3002	698	1750	3800	0
Capacity Anal	Lysis	Module	∋:									
Vol/Sat:	0.00	0.00	0.00	0.19	0.19	0.19	0.00	0.24	0.24	0.14	0.14	0.00
Crit Moves:				****					* * * *	****		
Green Time:	0.0	0.0	0.0	37.5	37.5	37.5	0.0	45.7	45.7	27.8	27.8	0.0
Volume/Cap:	0.00	0.00	0.00	0.62	0.62	0.62	0.00	0.62	0.62	0.62	0.60	0.00
Delay/Veh:	0.0	0.0	0.0	37.8	37.8	37.8	0.0	32.2	32.2	48.4	44.1	0.0
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:	0.0	0.0	0.0	37.8	37.8	37.8	0.0	32.2	32.2	48.4	44.1	0.0
LOS by Move:	A	A	A	D	D	D	A	С	С	D	D	A
HCM2kAvgQ:	0	0	0	12	12	12	0	14	14	9	9	0
Note: Queue 1	ceport	ted is	the n	umber	of ca	rs per	lane					

San Jose Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Background (AM)



Approach:	Noi	rth Bou	Bound South Bound East Bound			West Bound						
Movement:	L -	- т -	- R	L -	- т -	- R	L -	- Т	– R	L -	- т	– R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Feb	o 2019	<< 8:	00-9:(	DOAM				
Base Vol:	63	215	67	28	13	2	197	409	16	4	246	120
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:	63	215	67	28	13	2	197	409	16	4	246	120
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	11	34	30	5	1	2	14	116	0	0	25	55
Initial Fut:	74	249	97	33	14	4	211	525	16	4	271	175
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:	74	249	97	33	14	4	211	525	16	4	271	175
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	74	249	97	33	14	4	211	525	16	4	271	175
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	74	249	97	33	14	4	211	525	16	4	271	175
Saturation Fl	Low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.97	0.95	0.95	0.97	0.92
Lanes:	1.00	0.72	0.28	1.00	0.78	0.22	1.00	1.94	0.06	0.03	1.97	1.00
Final Sat.:	1750	1295	505	1750	1400	400	1750	3590	109	54	3646	1750
Capacity Anal	Lysis	Module	e:									
Vol/Sat:	0.04	0.19	0.19	0.02	0.01	0.01	0.12	0.15	0.15	0.07	0.07	0.10
Crit Moves:			* * * *	* * * *					* * * *	* * * *		
Green Time:	47.5	47.5	47.5	10.0	10.0	10.0	36.1	36.1	36.1	18.4	18.4	28.4
Volume/Cap:	0.11	0.50	0.50	0.23	0.12	0.12	0.41	0.50	0.50	0.50	0.50	0.44
Delay/Veh:	24.7	29.8	29.8	54.3	53.3	53.3	35.9	36.8	36.8	49.3	49.3	41.7
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:	24.7	29.8	29.8	54.3	53.3	53.3	35.9	36.8	36.8	49.3	49.3	41.7
LOS by Move:	С	С	С	D	D	D	D	D	D	D	D	D
HCM2kAvgQ:	2	10	10	1	1	1	7	8	8	5	5	6
Note: Queue 1	report	ted is	the n	umber	of ca:	rs per	lane					

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Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + P (AM)



Approach:	Noi	orth Bound South Bound East Bound					ound	West Bound				
Movement:	L -	- т -	- R	L -	- T	– R	L ·	- Т	– R	L ·	- T	– R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	6 Feb	2019	<< 8:0	00-9:0	DOAM				
Base Vol:	63	215	67	28	13	2	197	409	16	4	246	120
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:	63	215	67	28	13	2	197	409	16	4	246	120
Added Vol:	4	24	42	0	51	0	0	76	25	0	11	8
ATI:	11	34	30	5	1	2	14	116	0	0	25	55
Initial Fut:	78	273	139	33	65	4	211	601	41	4	282	183
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:	78	273	139	33	65	4	211	601	41	4	282	183
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	273	139	33	65	4	211	601	41	4	282	183
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	78	273	139	33	65	4	211	601	41	4	282	183
Saturation Fl	Low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.98	0.95	0.95	0.97	0.92
Lanes:	1.00	0.66	0.34	1.00	0.94	0.06	1.00	1.87	0.13	0.03	1.97	1.00
Final Sat.:	1750	1193	607	1750	1696	104	1750	3464	236	52	3648	1750
Capacity Anal	Lysis	Module	∋:									
Vol/Sat:	0.04	0.23	0.23	0.02	0.04	0.04	0.12	0.17	0.17	0.08	0.08	0.10
Crit Moves:			* * * *		****				* * * *		* * * *	
Green Time:	48.7	48.7	48.7	10.0	10.0	10.0	36.9	36.9	36.9	16.4	16.4	26.4
Volume/Cap:	0.11	0.58	0.58	0.23	0.48	0.48	0.41	0.58	0.58	0.58	0.58	0.49
Delay/Veh:	24.0	30.9	30.9	54.3	56.9	56.9	35.3	37.8	37.8	52.4	52.4	43.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.0	30.9	30.9	54.3	56.9	56.9	35.3	37.8	37.8	52.4	52.4	43.9
LOS by Move:	С	С	С	D	E	E	D	D	D	D	D	D
HCM2kAvgQ:	2	13	13	1	3	3	7	10	10	6	6	7
Note: Queue 1	report	ted is	the n	umber	of ca	rs per	lane					

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



Approach:	Noi	North Bound South Bound East Bound					ound	West Bound				
Movement:	L ·	- т -	- R	L -	- T ·	– R	L ·	- T	– R	L -	- т	– R
	10	1.0		10	1.0		10	1.0	1.0	10	1.0	1.0
Min. Green:	10	10	TU	10	10	TO	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	 -• >>	Count	Date:	6 Foi		 << 5•(	00-6.0					
Base Vol·	68	95	74	48	112	75	83	553	45	18	295	92
Growth Adi.	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:	- 68	9.5	74	48	112	7.5	83	553	4.5	18	295	92
Added Vol:	0	0	0	0	0	0	0	0	0	-0	0	0
ATI:	4	7	7	77	15	28	13	46	0	1	179	65
Initial Fut:	72	102	81	125	127	103	96	599	45	19	474	157
User Adi:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	72	102	81	125	127	103	96	599	45	19	474	157
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	102	81	125	127	103	96	599	45	19	474	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
FinalVolume:	72	102	81	125	127	103	96	599	45	19	474	157
Saturation F	low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.98	0.95	0.95	0.97	0.92
Lanes:	1.00	0.56	0.44	1.00	0.55	0.45	1.00	1.86	0.14	0.08	1.92	1.00
Final Sat.:	1750	1003	797	1750	994	806	1750	3441	259	143	3557	1750
Capacity Anal	lysis	Module	∋:									
Vol/Sat:	0.04	0.10	0.10	0.07	0.13	0.13	0.05	0.17	0.17	0.13	0.13	0.09
Crit Moves:		* * * *			****			****		****		
Green Time:	21.2	21.2	21.2	26.7	26.7	26.7	36.3	36.3	36.3	27.8	27.8	54.5
Volume/Cap:	0.24	0.59	0.59	0.33	0.59	0.59	0.19	0.59	0.59	0.59	0.59	0.20
Delay/Veh:	44.8	50.5	50.5	41.7	46.3	46.3	33.0	38.4	38.4	44.2	44.2	21.5
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:	44.8	50.5	50.5	41.7	46.3	46.3	33.0	38.4	38.4	44.2	44.2	21.5
LOS by Move:	D	D	D	D	D	D	С	D	D	D	D	С
HCM2kAvgQ:	2	7	7	. 4	8	8	- 3	10	10	9	9	4
Note: Oueue i	report	ted is	the n	umber	ot ca	rs per	Lane					

San Jose Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + P (PM)



Approach:	North Bound			South Bound			Εa	ast Bc	und	West Bound			
Movement:	L -	- т -	- R	L -	- T	– R	L -	- Т	– R	L -	- т	– R	
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module	e: >>	Count	Date:	6 Feb	o 2019	<< 5:0	00-6:0	00pm					
Base Vol:	68	95	74	48	112	75	83	553	45	18	295	92	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	68	95	74	48	112	75	83	553	45	18	295	92	
Added Vol:	24	144	31	0	9	0	0	14	5	0	67	48	
ATI:	4	7	7	77	15	28	13	46	0	1	179	65	
Initial Fut:	96	246	112	125	136	103	96	613	50	19	541	205	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	96	246	112	125	136	103	96	613	50	19	541	205	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	96	246	112	125	136	103	96	613	50	19	541	205	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	96	246	112	125	136	103	96	613	50	19	541	205	
Saturation F	low Mo	odule:											
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.98	0.95	0.95	0.97	0.92	
Lanes:	1.00	0.69	0.31	1.00	0.57	0.43	1.00	1.84	0.16	0.07	1.93	1.00	
Final Sat.:	1750	1237	563	1750	1024	776	1750	3421	279	126	3574	1750	
Capacity Anal	lysis	Module	∋:										
Vol/Sat:	0.05	0.20	0.20	0.07	0.13	0.13	0.05	0.18	0.18	0.15	0.15	0.12	
Crit Moves:			* * * *			* * * *			* * * *	* * * *			
Green Time:	33.6	33.6	33.6	22.5	22.5	22.5	30.3	30.3	30.3	25.6	25.6	48.1	
Volume/Cap:	0.20	0.73	0.73	0.39	0.73	0.73	0.22	0.73	0.73	0.73	0.73	0.30	
Delay/Veh:	35.0	46.8	46.8	45.6	56.3	56.3	37.7	46.3	46.3	49.7	49.7	26.6	
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:	35.0	46.8	46.8	45.6	56.3	56.3	37.7	46.3	46.3	49.7	49.7	26.6	
LOS by Move:	D	D	D	D	Е	Е	D	D	D	D	D	С	
HCM2kAvqQ:	3	13	13	4	9	9	3	12	12	12	12	6	
Note: Oueue 1	report	ted is	the n	umber	of ca	rs per	lane	_					





# South Almaden Office Towers Development

**Transportation Demand Management (TDM) Plan** 

Prepared for: Boston Properties



January 23, 2020



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### Hexagon Transportation Consultants, Inc.

Hexagon Office: 8070 Santa Teresa Boulevard, Suite 230 Gilroy, CA 95020 Hexagon Job Number: 18RD27 Phone: 408.846.7410



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Areawide Circulation Plans Corridor Studies Pavement Delineation Plans Traffic Handling Plans Impact Fees Interchange Analysis Parking Transportation Planning Traffic Calming Traffic Control Plans Traffic Simulation Traffic Impact Analysis Traffic Signal Design Travel Demand Forecasting

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# 1. Introduction

Transportation Demand Management (TDM) is a combination of services, incentives, facilities, and actions that reduce single–occupant vehicle (SOV) trips to help relieve traffic congestion, parking demand, and air pollution problems. The purposes of TDM are to (1) reduce the amount of traffic generated by new development; (2) promote more efficient utilization of existing transportation facilities and ensure that new developments are designed to maximize the potential for alternative transportation usage; (3) reduce the parking demand generated by new development and allow for a reduction in parking supply; and (4) establish an ongoing monitoring and enforcement program to guarantee the desired trip and parking reductions are achieved.

This TDM Plan has been prepared for the proposed South Almaden Office Towers Development in San Jose, California, in order to propose effective and appropriate TDM measures based on the project's size, location and land use. The main purpose of the proposed TDM plan is to satisfy the parking reduction requirements outlined in Sections 20.70.330 and 20.90.220 of the San Jose Code of Ordinances, and to qualify for a proposed 57.5 percent reduction in required off-street parking.

# **Project Description**

The +/-3.57-acre project site is located at the northwest corner of the South Almaden Boulevard and Woz Way intersection (see Figure 1). The project, as proposed, will consist of 1,487,115 gross square feet (s.f.) of office space within two towers with 39,137 s.f. of ground-floor commercial space replacing an existing surface parking lot. On-site parking will be provided within three below-ground parking levels containing a total of 1,343 parking spaces.

Access to the parking levels is proposed via a full-access driveway that would serve as a new west leg of the South Almaden Boulevard/Convention Center intersection, a full-access driveway located at the north leg of the Locust Street/Woz Way intersection, and a right-in/right-out only driveway located at the northeast corner of the project site along Almaden Boulevard (see Figure 2).



Figure 1 Project Site Location



#### Figure 2 Project Site Plan



### **Downtown Location and Proximity to Transit**

The location of a project within or adjacent to a central business district promotes pedestrian and bicycle travel in a high-density area of complementary land uses. The project site is located in the downtown core and is a short walk or bicycle ride from numerous complementary land uses and transit services. The project location effectively renders it part of a large-scale mixed-use development in a pedestrian- and bike-friendly environment with a significant share of trips internal to the downtown area. The project site is located approximately 1,000 feet southwest of the Convention Center Light Rail Transit (LRT) Station, 1,200 feet east of the Children's Discovery Museum LRT Station, and approximately 0.8-mile from the Diridon Transit Center located on Cahill Street. The Diridon Station provides Caltrain, LRT, ACE, and Amtrak rail services. This project clearly could benefit from the nearby rail services. The project site also is located a short walk or bike ride from the Guadalupe River multi-use trail system.

### **Parking Requirements**

Based on the City's parking requirements, the project would be required to provide a total of 3,186 parking spaces, before any reductions. The project site plan indicates a total of 1,343 on-site parking spaces. This equates to an approximately 57.5% reduction from the baseline required number of off-street parking spaces.

Due to the project site being located within 2,000 feet of an existing rail station and providing the minimum required number of bicycle parking spaces per City code, the project conforms to Subsections 20.90.220.A.1.a and b of the City Code and will be granted a parking reduction of 20 percent. Since the project is requesting a reduction in required parking of greater than 20%, the project is required to implement a minimum of three TDM measures as described under Code 20.90.220.A.1, Subsections c and d, to obtain the maximum 50% reduction allowed under Code 20.90.220.A. Per the Downtown parking requirements and Code 20.70.330.A, an additional 15% reduction in required parking may be granted if the project submits a TDM plan and can ensure that the TDM plan would be maintained for the life of the project.

### **Proposed TDM Measures**

The proposed TDM Plan includes the following measures, however additional measures could be implemented by a prospective office tenant:

- 1. Transit Use Incentive Program (20.90.220.A.1.c.ii)
- 2. On-Site Support Services (20.90.220.A.1.d.xi)
- 3. On-Site Showers and Lockers (20.90.220.A.1.d.xii)

## **Report Organization**

The remainder of this report is divided into three chapters. Chapter 2 describes the existing and future transportation facilities and services in the vicinity of the project site. Chapter 3 describes the TDM measures that will be implemented for the proposed project. Chapter 4 describes the program for implementing and monitoring the TDM plan.

# 2. Transportation Facilities and Services

Transportation facilities and services that support sustainable modes of transportation include commuter rail, buses and shuttle buses, bicycle facilities, and pedestrian facilities. This chapter describes the existing and future transit services, as well as bicycle and pedestrian facilities, in the vicinity of the project site.

## **Existing Bicycle and Pedestrian Facilities**

All new development projects in San Jose should encourage multi-modal travel, consistent with the goals of the City's General Plan. It is the goal of the General Plan that all development projects accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled. In addition, the adopted City Bike Master Plan establishes goals, policies and actions to make bicycling a daily part of life in San Jose. The Master Plan includes designated bike lanes along many City streets, including designated bike corridors. In order to further the goals of the City, pedestrian and bicycle facilities should be encouraged with new development projects.

Note that the City's General Plan identifies both walk and bicycle commute mode split targets as 15 percent or more for the year 2040. This level of pedestrian and bicycle mode share is a reasonable goal for the project, particularly if Caltrain, LRT, and bus services (including BRT) are utilized in combination with bicycle commuting.

### **Existing Pedestrian Facilities**

Pedestrian facilities in the study area consist of sidewalks along all the surrounding streets, including the project frontages along Almaden Boulevard and Woz Way. Crosswalks and pedestrian signal heads are located at all signalized intersections within the project area, including the intersections of Almaden Boulevard/Woz Way, Almaden Boulevard/Convention Center, and Almaden Boulevard/San Carlos Street. At the signalized intersection of Almaden Boulevard and the Convention Center Parking driveway, a crosswalk along the north side of the intersection provides direct access between the project site's east frontage and the McEnery Convention Center.

The east portion of the Guadalupe River Trail runs along the west project frontage and a paseo connecting the trail to Almaden Boulevard runs along the north project frontage. From the project site, pedestrians may use the Guadalupe River Trail as a cut-through route to San Carlos Street, Park Avenue, San Fernando Street, and Santa Clara Street to the north. A high-visibility crosswalk located



along the west leg of the Locust Street/Woz Way intersection provides access to the Guadalupe River Trail south across Woz Way. The Children's Bridge, located north and west of the project site, connects the east and west sides of the Guadalupe River Trail. Overall, the existing sidewalks and paseos provide good pedestrian connectivity and safe routes to the surrounding pedestrian destinations.

### **Existing Bicycle Facilities**

Class II bicycle facilities (striped bike lanes) are provided along Almaden Boulevard (along the east project site frontage) and Woz Way (along the south project frontage). Additional Class II bicycle facilities are provided along the following roadways within the project area:

- Almaden Boulevard, between Woz Way and Carlysle Street
- San Fernando Street, between Almaden Boulevard and Cahill Street
- Woz Way, between San Carlos Street and Almaden Avenue
- Park Avenue, west of Market Street
- Santa Clara Street, west of Almaden Boulevard
- San Salvador Street, between Market Street and Seventh Street
- Second Street, south of William Taylor Street
- Third Street, north of St. James Street
- Fourth Street, between Jackson Street and Reed Street

Designated Class III bike routes with "sharrow" or shared-lane pavement markings and signage are provided along the following roadways:

- San Carlos Street, between Woz Way and Fourth Street
- San Fernando Street, east of 10<sup>th</sup> Street
- Second Street, between San Carlos Street and Julian Street
- First Street, between San Salvador Street and St. John Street

Class IV bicycle facilities (protected bike lanes) are currently being installed throughout the Downtown Area as part of the Better Bikeways project. Protected bike lanes have been implemented along the following roadways:

- San Fernando Street, between Almaden Boulevard and Tenth Street
- Second Street, between San Carlos Street and William Street
- Third Street, between St. James Street and Reed Street

The existing bicycle facilities are shown on Figure 3.

The project site is located adjacent to the Guadalupe River multi-use trail (Class I bikeway). The trail runs through the City of San Jose along the Guadalupe River and is shared between pedestrians and bicyclists and separated from motor vehicle traffic. The trail system offers many connections to other streets with bicycle facilities, both inside and outside the downtown area. The Guadalupe River trail is an 11-mile continuous Class I bikeway from Curtner Avenue in the south to Alviso in the north. The east trail runs along the proposed project's entire west frontage. Additionally, a paseo along the north project frontage connects Almaden







**Existing Bicycle Facilities** 



Park Ave

Boulevard with the east and west sides of the Guadalupe River Trail via a bridge.

The availability of bicycle facilities in the study area will provide the project site with viable connections to transit services and will provide for a balanced transportation system as outlined in the Envision 2040 General Plan Goals and Policies. Figure 3 shows the existing bicycle facilities near the project site.

### **Existing Commute Programs**



The City of San Jose participates in the Ford GoBike bike share program, which allows users to rent and return unique commuter-style bicycles at various self-service locations around the downtown area. The idea behind bike sharing is to make bikes available to transit users for the short journey between a transit station and the workplace. They also are available to transit users and carpoolers in the same way as car sharing vehicles for making a personal trip during the day. The nearest bike share is located only 110 feet from the project frontage on Almaden Boulevard, at the northeast corner of the Almaden Boulevard/Woz Way intersection.

## **Existing Transit Service**

The project's close proximity to existing and planned transit services will provide the opportunity for multi-modal travel to and from the project site. Thus, it is reasonable to assume that future workers of the proposed project would utilize the transit services in the area. The City's General Plan identifies the transit commute mode split target as 20 percent or more for the year 2040. This level of transit mode share is attainable for a downtown office development such as this, and is a reasonable goal for the project. Existing and future transit services near the project site are described below.

### **Existing Transit Services**

Existing transit services in the project vicinity are provided by the Santa Clara Valley Transportation Authority (VTA), Caltrain, Altamont Commuter Express (ACE), and Amtrak and are described below. The transit stations and local VTA bus lines near the project site are described below.

### VTA Bus Service

The downtown area is served directly by many local buses. The bus lines that operate within ¼-mile walking distance of the project site are listed in Table 1, including their route descriptions and commute hour headways. The nearest bus stops are located 600 feet east and 550 feet west of the Almaden Boulevard/San Carlos Street intersection.

### Alum Rock-Santa Clara Bus Rapid Transit (BRT)



Alum Rock-Santa Clara BRT (Route 522) vehicles travel east to the Eastridge Transit Center along the Santa Clara-Alum Rock corridor. The BRT route includes a combination of dedicated bus lanes with median platforms along Alum Rock Avenue, shared bus lanes with curbside platform bulb outs along



# Table 1Existing VTA Bus Service

	Nearest Stop	Headway '
Palo Alto Transit Center to Eastridge Transit Center via El Camino	Santa Clara/Almaden	12 - 15 min
DeAnza College to Alum Rock Transit Center via Stevens Creek	San Carlos/Woz	10 - 15 min
Almaden Expwy. & Camden to San Jose State University	San Fernando/Almaden	30 min
Almaden LRT Station to McKee & White via Downtown San Jose	San Fernando/Almaden	15 - 17 min
Kooser & Blossom Hill to 13th & Hedding	San Fernando/Almaden	45 - 50 min
Kaiser San Jose Medical Center to Dixon Landing Road (Milpitas)	First/San Salvador	15 min
Gilroy Transit Center to San Jose Diridon Station	First/San Salvador	15 - 20 min
Senter & Monterey to Downtown San Jose	First/San Fernando	12 - 15 min
Snell/Capitol to Downtown San Jose	First/San Fernando	15 min
San Jose State University-Moffett Field/Ames Center	San Carlos/Woz	25 - 30 min
Westgate to Downtown San Jose	First/San Salvador	30 min
Gilroy Transit Center to San Jose Diridon Station	San Carlos/Market	15 - 30 min
Fremont BART Station to San Jose Diridon Station	San Fernando/Almaden	15 min
Santa Teresa LRT Station to Sunnyvale Transit Center	First/San Salvador	30 - 50 min
Downtown San Jose to De Anza College	San Carlos/Market	15 min
Palo Alto Transit Center to Eastridge Transit Center	Santa Clara/First	10 - 12 min
Downtown Santa Cruz / Scotts Valley to Downtown San Jose	Santa Clara/Almaden	20 - 35 min
Downtown Area Shuttle	San Carlos/Market	5 - 10 min
	Palo Alto Transit Center to Eastridge Transit Center via El Camino DeAnza College to Alum Rock Transit Center via Stevens Creek Imaden Expwy. & Camden to San Jose State University Imaden LRT Station to McKee & White via Downtown San Jose Cooser & Blossom Hill to 13th & Hedding Caiser San Jose Medical Center to Dixon Landing Road (Milpitas) Bilroy Transit Center to San Jose Diridon Station Senter & Monterey to Downtown San Jose San Jose State University-Moffett Field/Ames Center Vestgate to Downtown San Jose Bilroy Transit Center to San Jose Diridon Station Fremont BART Station to San Jose Diridon Station Santa Teresa LRT Station to Sunnyvale Transit Center Downtown San Jose to De Anza College Palo Alto Transit Center to Eastridge Transit Center Downtown Santa Cruz / Scotts Valley to Downtown San Jose Downtown Area Shuttle	Palo Alto Transit Center to Eastridge Transit Center via El CaminoSanta Clara/AlmadenDeAnza College to Alum Rock Transit Center via Stevens CreekSan Carlos/WozJImaden Expwy. & Camden to San Jose State UniversitySan Fernando/AlmadenVimaden LRT Station to McKee & White via Downtown San JoseSan Fernando/AlmadenCooser & Blossom Hill to 13th & HeddingSan Fernando/AlmadenCaiser San Jose Medical Center to Dixon Landing Road (Milpitas)First/San SalvadorSenter & Monterey to Downtown San JoseFirst/San FernandoSenter & Monterey to Downtown San JoseFirst/San FernandoSan Jose State University-Moffett Field/Ames CenterSan Carlos/WozVestgate to Downtown San JoseFirst/San SalvadorSilroy Transit Center to San Jose Diridon StationSan Carlos/MarketSan Jose State University-Moffett Field/Ames CenterSan Carlos/WozVestgate to Downtown San JoseFirst/San SalvadorSilroy Transit Center to San Jose Diridon StationSan Carlos/MarketStata Teresa LRT Station to San Jose Diridon StationSan Fernando/AlmadenSanta Teresa LRT Station to Sunnyvale Transit CenterFirst/San SalvadorDowntown San Jose to De Anza CollegeSan Carlos/MarketPalo Alto Transit Center to Eastridge Transit CenterSanta Clara/FirstDowntown Santa Cruz / Scotts Valley to Downtown San JoseSanta Clara/AlmadenDowntown Area ShuttleSan Carlos/Market

Notes

<sup>1</sup> Approximate headways during peak commute periods.

Santa Clara Street, and transit signal priority at all intersections within the system. A BRT stop is located within walking distance (0.7-mile) of the project site on Santa Clara Street at N. First Street. Route 522 provides service at each stop every 12 minutes during the weekday peak traffic periods.

### VTA Light Rail Transit (LRT) Service



The VTA currently operates the 42.2-mile VTA light rail line system extending from south San Jose through downtown to the northern areas of San Jose, Santa Clara, Milpitas, Mountain View and Sunnyvale. The service operates nearly 24-hours a day with 15-minute headways during much of the day.

The Mountain View–Winchester and Alum Rock–Santa Teresa LRT lines operate along San Carlos Street. The Convention Center LRT station platforms on San Carlos Street are located within walking distance, less than 1,000 feet, of the project site. The Children's Discovery Museum LRT station located south of the Woz Way/San Carlos Street intersection is served by the

Alum Rock–Santa Teresa LRT line and is located less than 1,200 feet of the project site.

The local VTA bus lines and LRT service that operate near the project site are shown on Figure 4.



Figure 4 Existing Transit Services



### San Jose Diridon Station

The San Jose Diridon Station, located approximately 0.8-mile west of the project site, is situated along the Mountain View-Winchester LRT line and is served by Caltrain, ACE and Amtrak. The Diridon Station provides 16 bike racks and 48 bike lockers, as well as a Bay Area Bike Share station. The Diridon Station can be accessed from the project site by taking Santa Clara Street and Cahill Street.

### **Caltrain Service**

Commuter rail service between San Francisco and Gilroy is provided by Caltrain, which currently operates 92 weekday trains that carry approximately 58,500 riders on an average weekday. Trains stop frequently at the Diridon Station between 4:28 AM and 10:30 PM in the northbound direction, and between 6:31AM and 1:38 AM in the southbound direction. Caltrain provides passenger train service seven days a week, and provides extended service to Morgan Hill and Gilroy during the weekday commute hours.

### Altamont Commuter Express (ACE) Service

The Altamont Commuter Express (ACE) provides commuter passenger train service across the Altamont between Stockton and San Jose during the weekdays. ACE stops at the San Jose Diridon Station during both the morning and evening weekday commute hours. ACE trains stop at the Diridon Station four times between 6:32 AM and 9:17 AM in the westbound direction, and four times between 3:35 PM and 6:38 PM in the eastbound direction.





### Amtrak Service



Amtrak provides daily commuter passenger train service along the 170-mile Capitol Corridor between the Sacramento region and the Bay Area, with stops in San Jose, Santa Clara, Fremont, Hayward, Oakland, Emeryville, Berkeley, Richmond, Martinez, Suisun City, Davis, Sacramento, Roseville, Rocklin, and Auburn. On weekdays, the Capitol Corridor trains stop at the San Jose Diridon Station seven times between 7:38 AM and

9:13 PM in the westbound direction, and seven times between 6:40 AM and 7:15 PM in the eastbound direction.

## Future Transit Services

Future transit services in the project vicinity will be provided by the VTA and BART. The future transit services are described below.

### Stevens Creek Bus Rapid Transit (BRT)

The Stevens Creek BRT project will upgrade the Limited 323 service that currently travels along Stevens Creek Boulevard and San Carlos Street between De Anza College in Cupertino and the Downtown San Jose Transit Mall. From Downtown San Jose, the BRT line will utilize existing BRT stations along Santa Clara Street (as part of the Rapid 522 route) and ultimately will terminate at the Berryessa BART station.



#### Bay Area Rapid Transit (BART) Phase II Project

Phase II of VTA's BART Silicon Valley Extension project will include a 6-mile-long subway tunnel through downtown San Jose and will extend the BART system from the Berryessa Extension terminus (Phase I). The Phase II project includes the addition of four BART stations including the Alum Rock, Downtown San Jose, Diridon, and Santa Clara stations. The BART extension will travel through downtown beneath Santa Clara Street, and terminate at grade in the City of Santa Clara near the Santa Clara Caltrain Station. Passenger service for the Phase II Project is planned to begin in 2025.

The Downtown San Jose BART station would be located underground beneath Santa Clara Street, between Market Street and Third Street, approximately 0.6-mile from the project site. Access would be provided via a station entrance located near the northeast corner of the intersection of Market Street and Santa Clara Street.

The Diridon BART Station would be located in the area of the Diridon Caltrain Station, 0.8-mile west of the project site. The Diridon BART Station would be located underground between Los Gatos Creek (to the east) and the Diridon Caltrain Station (to the west) and south of/parallel to West Santa Clara Street. The existing VTA bus transit center at the Diridon Station would be reconfigured for better access and circulation to accommodate projected bus and shuttle transfers to and from the BART station. A kiss-and-ride facility would be located at the Diridon Station along Cahill Street.



Access to the Diridon BART Station would be provided from W. Santa Clara Street at Cahill and Autumn Streets from the north. Access from the south would be provided via W. San Fernando Street. Street-level station entrance portals would provide pedestrian linkages to the Diridon Caltrain Station and SAP Center.

# 3. Compliance with the City Parking Code

This chapter describes the City of San Jose's parking requirements and allowable parking reductions as outlined in Section 20.90.220 and 20.70.330 of the San Jose Code of Ordinances. The proposed parking supply and the project's conformance with the City Parking Code are also described.

# City of San Jose Parking Code

According to Section 20.90.220.A.1 of the San Jose Parking Code, a reduction in the required off-street vehicle parking spaces of up to 50 percent may be authorized if the project conforms to the transit and bicycle requirements specified in Subsections a and b and implements at least three TDM measures specified in Subsections c and d. Section 20.90.220.A.1 of the San Jose Parking Code is outlined below.

### Section 20.90.220.A.1 – Reduction in Required Off-street Parking Spaces

#### A. Alternative transportation.

- 1. A reduction in the required off-street vehicle parking spaces of up to fifty percent may be authorized with a development permit or a development exception if no development permit is required, for structures or uses that conform to all the following and implement a total of at least three transportation demand management (TDM) measures as specified in the following provisions:
  - a. The structure or use is located within two thousand feet of a proposed or an existing rail station or bus rapid transit station, or an area designated as a Neighborhood Business District, or as an Urban Village, or as an area subject to an area development policy in the city's general plan or the use is listed in Section 20.90.220G.; and
  - b. The structure or use provides bicycle parking spaces in conformance with the requirements of Table 20-90.
  - c. For any reduction in the required off-street parking spaces that is more than twenty percent, the project shall be required to implement a transportation demand management (TDM) program that contains but is not limited to at least one of the following measures:
    - *i.* Implement a carpool/vanpool or car-share program, e.g., carpool ridematching for employees, assistance with vanpool formation, provision of

vanpool or car-share vehicles, etc. and assign car pool, van pool and carshare parking at the most desirable onsite locations at the ratio set forth in the development permit or development exception considering type of use; or

- *ii.* Develop a transit use incentive program for employees and tenants, such as on-site distribution of passes or subsidized transit passes for local transit system (participation in the region-wide Clipper Card or VTA EcoPass system will satisfy this requirement).
- d. In addition to the requirements above in Section 20.90.220.A.1.c. for any reduction in the required off-street parking spaces that is more than twenty percent, the project shall be required to implement a transportation demand management (TDM) program that contains but is not limited to at least two of the following measures:
  - *i.* Implement a carpool/vanpool or car-share program, e.g., carpool ridematching for employees, assistance with vanpool formation, provision of vanpool or car-share vehicles, etc. and assign car pool, van pool and carshare parking at the most desirable on-site locations; or
  - *ii.* Develop a transit use incentive program for employees, such as on-site distribution of passes or subsidized transit passes for local transit system (participation in the regionwide Clipper Card or VTA EcoPass system will satisfy this requirement); or
  - *iii. Provide preferential parking with charging facility for electric or alternativelyfueled vehicles; or*
  - iv. Provide a guaranteed ride home program; or
  - v. Implement telecommuting and flexible work schedules; or
  - vi. Implement parking cash-out program for employees (non-driving employees receive transportation allowance equivalent to the value of subsidized parking); or
  - vii. Implement public information elements such as designation of an on-site TDM manager and education of employees regarding alternative transportation options; or
  - viii. Make available transportation during the day for emergency use by employees who commute on alternate transportation. (This service may be provided by access to company vehicles for private errands during the workday and/or combined with contractual or pre-paid use of taxicabs, shuttles, or other privately provided transportation); or
  - ix. Provide shuttle access to Caltrain stations; or
  - x. Provide or contract for on-site or nearby child-care services; or
  - xi. Incorporate on-site support services (food service, ATM, drycleaner, gymnasium, etc. where permitted in zoning districts); or
  - xii. Provide on-site showers and lockers; or
  - xiii. Provide a bicycle-share program or free use of bicycles on-site that is available to all tenants of the site; or
  - xiv. Unbundled parking; and
- e. For any project that requires a TDM program:
- i. The decision maker for the project application shall first find in addition to other required findings that the project applicant has demonstrated that it can maintain the TDM program for the life of the project, and it is reasonably certain that the parking shall continue to be provided and maintained at the same location for the services of the building or use for which such parking is required, during the life of the building or use; and
- *ii.* The decision maker for the project application also shall first find that the project applicant will provide replacement parking either on-site or off-site within reasonable walking distance for the parking required if the project fails to maintain a TDM program.

Further reductions in the required off-street parking spaces may be granted to development projects located within the Downtown area, as described under Section 20.70.330 of the City code:

## Section 20.70.330 – Reduction of Requirement (Downtown)

In addition to exceptions provided for under Section 20.90.200 and Section 20.90.220, the following reductions in parking requirements may be made by the director:

- A. The director may grant up to a fifteen percent reduction in the number of spaces required as part of the issuance of a development permit where the reduced number of spaces will be adequate to meet the parking demand generated by the project when the following findings are made:
  - 1. The project has developed a travel demand management (TDM) program that provides evidence that a TDM program will reduce parking demand and identifies the percentage of parking demand that will be reduced through the TDM program. The TDM program will incorporate one or more elements of TDM including, but not limited to measures such as Smartpass, parking cash-out, alternate work schedules, ride sharing, transit support, carpool/vanpools, shared parking, or any other reasonable measures; and
  - 2. The project demonstrates that it can maintain the TDM program for the life of the project and it is reasonably certain that the parking shall continue to be provided and maintained at the same location for the services of the building or use for which such parking is required, during the life of the building or use.
- B. For mixed-use projects, the director may reduce the required parking spaces by up to fifty percent, including any other exceptions or reductions as allowed under Title 20, upon making the following findings:
  - 1. That the reduction in parking will not adversely affect surrounding projects;
  - 2. That the reduction in parking will not be dependent upon public parking supply; or reduce the surrounding public parking supply; and
  - 3. The project demonstrates that it can maintain the TDM program for the life of the project and it is reasonably certain that the parking shall continue to be provided and maintained at the same location for the services of the building or use for which such parking is required, during the life of the building or use.
- C. The total parking required for a project may be reduced by up to one hundred percent as part of a development permit where public parking is provided on-site as part of a public or private development project. Public parking spaces may be applied toward the parking requirements for the use, applying no more than a one-for-one standard. The finding shall be made in the development

permit by the director and be based on an alternate peak use, shared parking or parking demand analysis.

D. The project will provide replacement parking either on site, off-site within reasonable walking distance or pay the current in-lieu fee for the parking required if the project fails to maintain a TDM program.

# **Compliance with the City Parking Code**

The project, as proposed, will consist of 1,487,115 gross square feet (s.f.) of office space within two towers with 39,137 s.f. of ground-floor commercial space. The required parking based on the City of San Jose off-street parking requirements is summarized in Table 2 below. According to the City of San Jose Downtown Zoning Regulations (Chapter 20.70, Table 20-140), the project is required to provide 2.5 off-street parking spaces per 1,000 s.f. of office space. The project is not required to provide additional off-street parking spaces for the amenity/food and beverage component of the project. Based on the City's standard parking requirements, the project would be required to provide a total of 3,161 parking spaces, before any reductions.

### Evaluation of Proposed Parking

The project site plan indicates a total of 1,343 on-site parking spaces. This equates to an approximately 57.5% reduction from the baseline required number of parking spaces.

# Table 2Required and Proposed Vehicle Parking

Proposed Project		City of San Jose Parking Code <sup>2</sup>			Provided	Percent	
Office Size	Floor Area <sup>1</sup>	Land Use	Parking Ratio	Parking <sup>3</sup>	Parking	Reduction	
1,487,115 s.f.	1,264,048 s.f.	Offices, business and administrative	2.5/1000 s.f. of floor area	3,161	1,343	57.5%	
Notes: <sup>1</sup> Assumes a 0.85 floor area ratio. <sup>2</sup> City of San Jose Zoning Ordinance: Parking Spaces Required by Land Use <sup>3</sup> Required on-site parking spaces before any exceptions allowed per the City code.							

# Reduction due to Location near Transit and Bicycle Parking

As stated under Section 20.90.220.A.1, Subsections a and b, a 20 percent reduction in required offstreet vehicle parking spaces is allowed for projects that meet the City's bicycle parking requirements and are located within 2,000 feet of an existing rail station. The project will meet these requirements as described below:

## Proximity to Transit

The project site is located within the Downtown Core and is located less than 2,000 feet from the Convention Center and Children's Discovery Museum LRT Stations for the Santa Teresa-Alum Rock and Mountain View-Winchester lines. The project also is located an approximately 0.8-mile walking distance from the existing Diridon Caltrain Station and future BART Station. The proposed Downtown San Jose BART Station also is planned along Santa Clara Street within walking distance of the project site. Therefore, the project will conform to Subsection 20.90.220.A.1.a.



## **Bicycle Parking Requirement**

In accordance with the City's Bicycle Parking Standards (Chapter 20.90, Table 20-190), the project is required to provide one bicycle parking space per 4,000 square feet of office use. Bicycle parking spaces shall consist of at least eighty percent short-term and at most twenty percent long-term spaces. Per Code 20.70.485, uses which are not required to provide vehicle parking spaces (i.e. the ground-floor food/beverage use) are required to provide only two short-term bicycle parking spaces and one long-term bicycle parking spaces.

The proposed project is required to provide a total of 320 bicycle parking spaces: a minimum of 256 short-term bicycle parking spaces and at most 64 long-term bicycle parking spaces to meet the City standards. The City of San Jose bicycle parking requirements for the project are summarized in Table 3. The project is proposing a total of 358 bicycle parking spaces consisting of 286 short-term parking spaces and 72 long-term parking spaces. Therefore, the proposed bicycle parking will meet the City's on-site bicycle parking requirements.

## Table 3

## City of San Jose Bicycle Parking Requirements

Proposed Project		City of San Jose Parking Code <sup>2</sup>			Required Bicycle Parking		
Size	Floor Area <sup>1</sup>	Land Use	Bicycle Parking Ratio	Short- Term	Long- Term	Total	
1,487,115 s.f.	1,264,048 s.f.	Offices, business and administrative Food/beverage establishment	1/4000 s.f. of floor area N/A	254 2	63 1	317 3	
			Total:	256	64	320	
Notes: <sup>1</sup> Assumes a 0.8	85 floor area ratio.						

<sup>2</sup> City of San Jose Zoning Ordinance: Parking Spaces Required by Land Use

Due to the project site being located within 2,000 feet of an existing rail station and providing the minimum required number of bicycle parking spaces, the project conforms to Subsections 20.90.220.A.1.a and b and will be granted a parking reduction of 20 percent. Since the project is requesting a reduction in required parking of greater than 20%, the project is required to implement a minimum of three TDM measures as described under Code 20.90.220.A.1, Subsections c and d, to obtain the maximum 50% reduction allowed under Code 20.90.220.A. The project's proposed TDM measures are described in the following section.

# **Downtown Parking Reduction**

In addition to the 50% parking reduction allowed per Code 20.90.220.A, an additional 15% parking reduction may be granted per the City's Downtown Parking Code 20.70.330.A if the project submits a TDM plan and can ensure that the TDM plan would be maintained for the life of the project.

# 4. Recommended TDM Measures

This chapter describes TDM measures recommended for the proposed project, including services that promote sustainable modes of transportation. The recommended TDM measures are intended to encourage future employees of the project to utilize alternative transportation modes available in the area to reduce single-occupancy vehicle (SOV) trips and parking demand generated by the project. The specific TDM measures recommended for the project are described below and are based on the measures specified in Subsections 20.90.220.A.1.c and d and Section 20.70.330.A.1 of the San Jose Code of Ordinances, which will achieve a 57.5 percent parking reduction with implementation of a comprehensive TDM plan. Additionally, the project must include specific measures to ensure that the TDM plan would be maintained for the life of the project, which complies with Subsections 20.90.220.A.1.e and Section 20.70.330.A.2.

However, it should be noted that Boston Properties is a long-term real estate holder and will work with the City to communicate and maintain additional TDM measures deemed appropriate for the proposed project. The tenant(s) occupying the office space (to be determined later) could propose and maintain additional TDM measures.

# **Proposed TDM Measures**

# Transit Use Incentive Program (20.90.220.A.1.c.ii)

The future office tenant(s) will develop a transit use incentive program for employees. Transit subsidies are an extremely effective means of encouraging workers to use transit rather than drive. There are a number of ways to structure a financial incentive for transit usage. Employers can cover a portion or the total monthly cost of transit for those employees who take transit through a pre-tax benefit, or purchase transit passes themselves and distribute them to employees, or offer a universal transit pass program.

Universal transit pass programs are different from financial incentives in that an employer purchases a pass for all employees, regardless of whether they currently ride transit or not. These passes typically provide unlimited transit rides on local or regional transit providers for a low monthly fee; a fee that is lower than the individual cost to purchase a pass as a bulk discount is given. Such programs are a more cost-effective option for employers with regards to reducing vehicle trips and parking demand as compared to purchasing individual passes.



One option that can be pursued for this project is providing one free annual VTA SmartPass per employee. SmartPasses will give employees unlimited rides on VTA Bus, LRT and Express Bus service seven days a week. The VTA SmartPass is deeply discounted below the standard fares, making it an attractive low-cost benefit to employers.

# On-Site Support Services (Subsection 20.90.220.A.1.d.xi)

The project proposes to provide ground-floor food/beverage-serving uses and other amenities for the benefit of office workers. On-site amenities can be beneficial in reducing vehicle trips and emissions by offering common needs on-site, such as food services and fitness centers. This approach will reduce the number of trips generated between the site and office-serving uses elsewhere in the city.

## On-Site Showers and Lockers (Subsection 20.90.220.A.1.d.xii)

The project will include on-site shower facilities with lockers to serve all employees. Showers and changing facilities can encourage employees to move more and incorporate fitness into their daily routines. Providing showers enables active commuters to arrive early and prepare for the day without hygienic concerns. This approach is consistent with the goals of the City's General Plan, which aim to encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled.



# **Trip Reduction Estimates**

The trip reductions associated with each proposed TDM measure were estimated using the City's VMT Evaluation Tool and are shown in Table 4. The Evaluation Tool provides an estimate of per-employee VMT. It is assumed that every percent reduction in per-employee VMT is equivalent to one percent reduction in peak-hour vehicle trips and parking demand generated by the project. Based on the VMT Evaluation Tool, the proposed TDM measures would result in a total trip and parking demand reduction of at least 8 percent. Therefore, the proposed TDM measures would achieve the necessary 7.5 percent parking demand reduction per 20.70.330.A.1.

# Table 4

## **Estimated Trip Reductions**

TDM Measure	Trip Reduction (%)	Notes			
Transit Use Incentive Program	5%	VTA SmartPass Program requires 100% subsidy for all employees			
On-Site Showers and Lockers	3%				
On-Site Support Services	-				
Total Reduction	8%				
Source: City of San Jose VMT Evaluation Tool (February 29, 2019)					

# **Summary of TDM Measures**

The specific TDM measures recommended for the project are summarized below and are based on the measures specified in Subsections 20.90.220.A.1.c and d of the San Jose Code of Ordinances, which will achieve a 57.5 percent parking reduction that can be granted by the City with implementation of a comprehensive TDM Plan. The proposed TDM Plan includes the following measures, however additional measures could be implemented by a prospective office tenant:

- 1. Transit Use Incentive Program (20.90.220.A.1.c.ii)
- 2. On-Site Support Services (20.90.220.A.1.d.xi)
- 3. On-Site Showers and Lockers (20.90.220.A.1.d.xii)

# 5. TDM Implementation and Monitoring

The primary purpose of the TDM plan is to reduce the project parking demand by up to 57.5 percent. Per Sections 20.70.330 and 20.90.220 of the San Jose Code of Ordinances, monitoring will be necessary to ensure that the TDM measures are effective and continue to be successfully implemented.

# Implementation

The project applicant needs to submit this TDM Plan to the City of San Jose and would be responsible for ensuring that the TDM elements are incorporated into the project. After the development is constructed and occupied, the project applicant needs to identify a TDM coordinator. It is assumed that the property manager for the project would be responsible for implementing the ongoing TDM measures. If the TDM coordinator changes for any reason, the City and tenants should be notified of the name and contact information of the new designated TDM coordinator.

# Monitoring and Reporting

The TDM Plan will need to be re-evaluated annually for the life of the project. If it is determined that the parking reduction is not being achieved (i.e., the on-site parking garage reaches full capacity), additional TDM measures, or the parking management measure described below, would need to be introduced to ensure that the parking is being addressed by the project without the burden being placed on outside entities.

The designated TDM coordinator will consult with City staff to ensure the monitoring and reporting meets the City's expectations. Monitoring will include the following components:

- Annual Vehicle Parking Counts
- Annual Mode Share Survey
- Annual Monitoring Report

# **Annual Vehicle Parking Counts**

Annual parking counts should be conducted by a third party on a typical weekday (Tuesday, Wednesday, or Thursday). Counts of the number of parked vehicles and vacant spaces should be conducted between 10:00 AM and 3:00 PM. The goal of the TDM Plan is to avoid parking spillover.



Thus, if the counts show that parking spaces are less than fully occupied (i.e., counts show one or more vacant spaces), it can be assumed that all parking demand is being accommodated on site, and the TDM Plan is effective. If parking spaces are 100 percent occupied, then spillover is likely occurring and the TDM Plan may need to be enhanced.

## Annual Mode Share Survey

The annual survey would provide qualitative data regarding employee perceptions of the alternative transportation programs and perceptions of the obstacles to using an alternative mode of transportation. The annual survey would also provide quantitative data regarding the number of employees who utilize alternative modes of transportation (e.g., bike-to-work) to commute to work, including the frequency of use. The mode share survey results would measure the relative effectiveness of individual program components and facilitate the design of possible program enhancements.

## **Annual Monitoring Report**

The property manager should submit annual reports to the City of San Jose for three years, and then upon request of the Zoning Administrator for the life of the project with the following information:

- Findings of the vehicle parking counts and mode share surveys, including the reduction in parking demand.
- Effectiveness of individual program components from the annual mode share survey.
- A description of the TDM programs and services that were offered to tenants in the preceding year, with an explanation of any changes or new programs offered or planned.

# Hexagon Transportation Consultants, Inc.

## Robert Del Rio, T.E. Vice President & Principal Associate

#### Education

Bachelor of Science in Civil Engineering, San Jose State University, San Jose, California

### **Professional Associations**

## Member of the Institute of Transportation Engineers Registered Professional Traffic Engineer in the State of California (TR 2641)

#### Experience

Since September 1996, Mr. Del Rio has participated and managed a variety of traffic engineering and transportation planning projects for both the public and private sectors. These projects included the preparation of scopes of work, site traffic analyses, general plan amendment studies, traffic simulation & operations studies, detour plans, parking studies, parking designs, and surveys.

#### **Representative Projects**

### • Transportation Planning

**Site Traffic Analyses/EIRs/LTA Studies** for various office, retail, residential, manufacturing, and mixed-use developments throughout Northern and Central California. These studies included the estimation of proposed project impacts on the surrounding transportation system under existing and future traffic conditions, recommending mitigation measures, site-plan and circulation review, and parking layout review. Representative projects include: Santana Row Office Development, Santana Row West, Winchester Reserve Mixed-Use, Retail developments; Valley Fair Mall Expansion and Santana Row Redevelopment.

**General Plan Amendments** and Four-Year Review of the City of San Jose General Plan. Using the City's traffic model, projections were made to determine the effects of the amendments on the supporting transportation system. Using the City of San Jose/VTA TDF model the effects of all proposed General Plan Amendments (2015-2019). The evaluation included projections of trips, VMT and mode-choice.

**Area-Wide Traffic Impact Analyses** for the City of San Jose North San Jose Development Policy, Diridon Station Area Plan, and Downtown Strategy Plan. The studies included an analysis of the effects of large area-wide development on transportation facilities not only within the development area, but also facilities located throughout Santa Clara County. Management of the update of the Downtown Strategy Plan (DTS 2040).

### • Operations and Parking

**Traffic Simulation/Operations Studies** to evaluate operations of existing and future transportation systems for both existing and future growth conditions. These studies included the use of the NETSIM animation software to conduct qualitative as well as the quantitative analysis produced using CORSIM. Representative projects include: Santana Row, Valley Fair Mall, Downtown San Jose Traffic Operations, and the Winchester Corridor near Netflix.

**Traffic Analysis for PSR/NEPA Environmental Assessment for the** US 101/Bailey Interchange Operations, Autumn Street Extension in San Jose, and Charcot Avenue extensions over I-880. The traffic analysis for these projects typically included an evaluation of traffic operations for several improvement alternatives.

 Transportation Development Policy (TDP) traffic analysis and nexus study for the purpose of managing traffic congestion along travel corridors serving the I-880/Stevens Creek and I-280/Winchester interchanges as well as provide additional traffic capacity to accommodate future development such as in the planned Urban Villages at Valley Fair/Santana Row, Winchester Boulevard, and Stevens Creek Boulevard.













# Hexagon Transportation Consultants, Inc.

## Luis Descanzo, Engineer

### Education

Bachelor of Science - Civil Engineering, California Polytechnic State University, San Luis Obispo

### **Professional Associations**

Member, Institute of Transportation Engineers

### Experience

Since joining Hexagon in 2017, Mr. Descanzo has participated in a variety of traffic engineering and transportation planning projects throughout the Bay Area. These projects include Transportation Impact Analysis (TIA) for environmental impact reports, site traffic analyses, transportation demand management (TDM) plans, and parking studies.

Mr. Descanzo has experience with Synchro/Simtraffic, AutoCAD, and TRAFFIX. Mr. Descanzo primarily utilizes the Highway Capacity Manual (HCM) methodology, California Manual on Uniform Traffic Control (CA MUTCD), and California Highway Design Manual (HDM) to evaluate traffic operations, project impacts, and roadway improvements. Mr. Descanzo also is proficient with Excel and Word.

## **Representative Projects**

- **Traffic Impact Analyses** for offices, hotels, residential subdivisions, apartments, retail centers, restaurants, and multiple-use developments in San Jose, Santa Clara, Gilroy, and Morgan Hill, California. These analyses include part or all of the following: project trip generation and assignment, intersection level of service calculations using Traffix, freeway segment level of service analysis, CAD drawings, site access and circulation review, signal warrant analysis, and intersection operational analysis, and recommendations for mitigation measures. Representative projects include:
  - Voices School TIA Morgan Hill, CA
  - Solar4America Hockey Facility Expansion TA San Jose, CA
  - Kelton Commercial Development TIA Gilroy, CA
  - Muslim Community Association School TIA Santa Clara, CA
- **Transportation Demand Management (TDM) Plans** for residential, hotel, office, and multiple-use projects. TDM plans incorporate services, incentives, facilities, and actions that help reduce single-occupant vehicle (SOV) trips to help relieve traffic congestion, parking demand, and air pollution problems based the project's size and location. Representative projects include:
  - 615 Stockton Avenue Hotel Development San Jose, CA
  - 3625 Peterson Way Office Development Santa Clara, CA
  - Little Portugal Mixed-Use Development San Jose, CA
- **Operations Analyses using Synchro and Simtraffic** to solve a variety of traffic problems. These included the evaluation of bicycle and pedestrian improvements to intersections within Downtown Hollister in Hollister, California.
- Site Access Studies for the Zip-Thru Car Wash in Morgan Hill, California and Camino Arroyo Commercial Development in Gilroy, California. The studies included identifying existing and future access problems and developing several feasible design alternatives.
- **Parking Studies** for the Kelton Commercial Development in Gilroy, CA. These studies included surveys of existing parking demand and calculations of required parking supply for the proposed projects.









