



# Memorandum

Date: October 21, 2020

Christy Cheung, City of San Jose To:

From: Robert Del Rio, T.E.

Subject: Block 8 Mixed-Use Development Local Transportation Analysis

Hexagon Transportation Consultants, Inc. has completed a Local Transportation Analysis (LTA) for the proposed Block 8 Mixed-Use development in Downtown San Jose. The proposed office project is located on one 1.485-acre parcel (282 South Market Street; APN 259-42-080) located at the northeast corner of the Market Street and San Carlos Street intersection. The project, as proposed, will consist of up to 627,207 square-feet (s.f.) of leasable office space and 16,372 s.f. of ground-floor commercial space. The proposed office building will replace a public surface parking lot accessible from Market Street and a separate surface parking lot accessible from First Street currently used by the Four Points by Sheraton Hotel located north of the project site. Parking for the proposed office project will be provided within six above-ground parking levels with access provided via a garage entrance along the western project frontage on Market Street. The project could include two levels of underground parking if the maximum amount of development identified is constructed. A second project driveway, located along the eastern project frontage on First Street, provides access to an existing drive aisle easement along the north project frontage and will be utilized to access the project's proposed loading docks and trash collection areas for both the office development and the Four Points Hotel. 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 improvements 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.



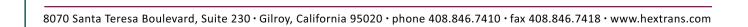










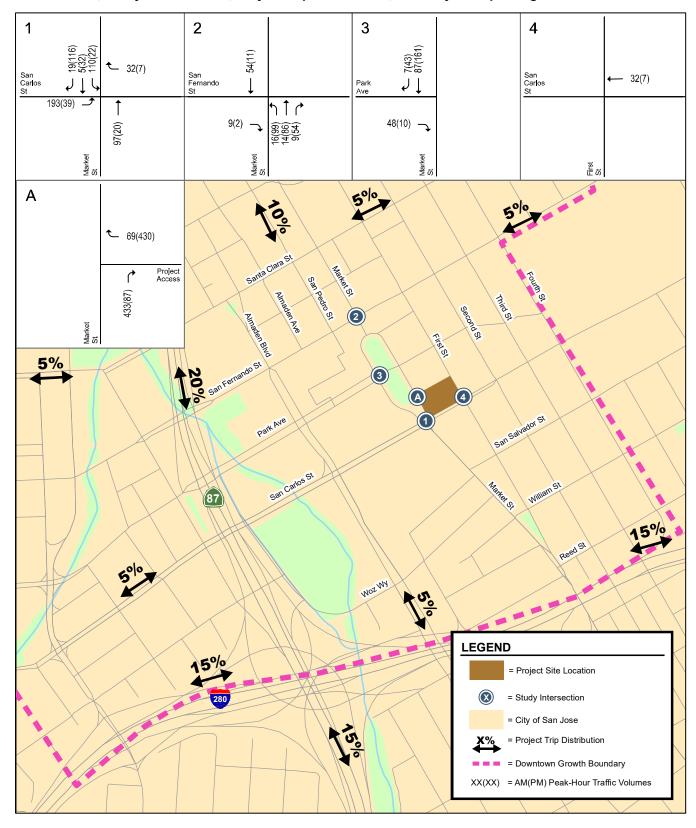








Figure 1
Site Location, Study Intersections, Project Trip Distribution, and Project Trip Assignment





#### **Existing Roadway Network**

Regional access to the project site is provided by State Route 87 and the Interstate 280/680 freeway. Local site access is provided by Market Street, San Carlos Street, First Street and San Fernando Street. The freeways and local roadways are described below.

**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). SR 87 provides access to I-280/I-680 and US-101.

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), Almaden Boulevard (ramps to west only), Vine Street (ramps from west), and Seventh Street (ramps from east).

**Market Street** is a north-south four-lane street located along the west project frontage. In the vicinity of the project site, the northbound and southbound lanes of Market Street are divided by Plaza de Cesar Chavez, between San Fernando Street and San Carlos Street. Market Street transitions into First Street at its intersection with Reed Street. Market Street provides direct access to and from the project parking garage via one right-in and right-out driveway.

**San Carlos Street** is an east-west four-lane street located along the south project frontage. 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 intersection with Market Street, at the southwest corner of the project site.

**First Street** is a two- to four-lane roadway that extends from Alma Avenue (where it transitions from Monterey Road) north to Alviso, where it terminates. Within the Downtown area, First Street is a two-lane northbound-only roadway that consists of one bus-only lane and one shared vehicular/bicycle lane. Northbound VTA light rail tracks run along the east side of the roadway between San Carlos Street and St. James Street. First Street runs along the east project frontage and provides access to the project's parking garage via San Carlos Street and Market Street.

**San Fernando Street** is an east-west two-lane street located north of the project site that extends through the heart of downtown between Autumn Street to the west and 17<sup>th</sup> Street to the east. San Fernando Street has sidewalks on both sides and buffered bike lanes in both directions. A striped median with two-way left-turn lanes are provided east of Almaden Boulevard. Access to the project site is provided via Market Street and First Street.

# **Existing Bicycle Facilities**

Class II bicycle facilities are provided along the following roadways within the project area:

• Almaden Boulevard, between Woz Way and Carlysle Street



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

The existing bicycle facilities are shown on Figure 2.

#### **Guadalupe River Park Trail**

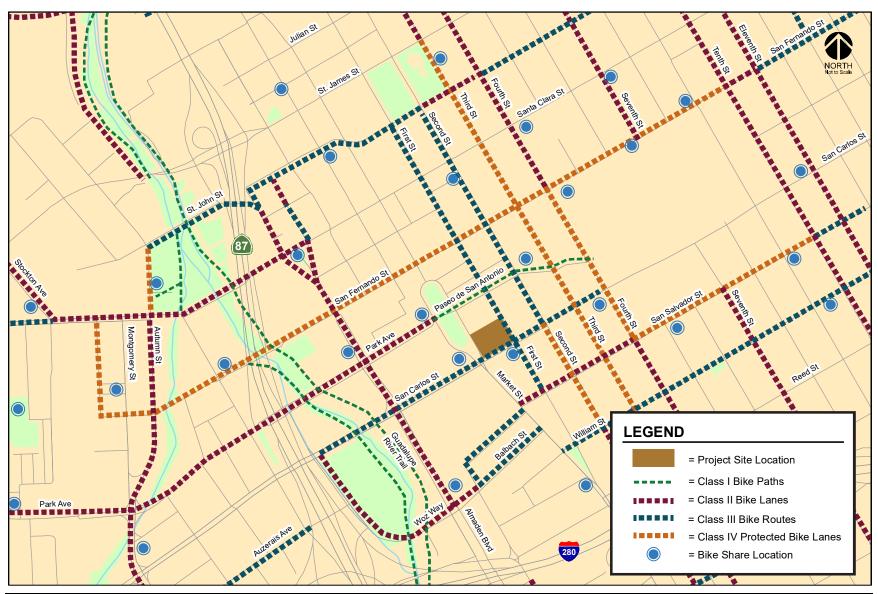
The Guadalupe River multi-use trail system runs through the City of San Jose along the Guadalupe River and is shared between pedestrians and bicyclists and separated from motor vehicle traffic. The Guadalupe River trail is an 11-mile Class I bikeway from Curtner Avenue to Willow Street, and between Virginia Street and Palm Street to Alviso. This trail system can be accessed just west of the Almaden Boulevard and San Carlos Street intersection, approximately 1,400 feet west of the project site.

#### **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



Figure 2
Existing Bicycle Facilities





the Downtown area. These services provide electric bicycles and scooters with GPS self-locking systems that allow for rental and drop-off anywhere. Two bike share stations are located within 100 feet of the project site: at the northwest corner of the Market Street/San Carlos Street intersection and at the southwest corner of the First Street/San Carlos Street intersection.

# **Existing Pedestrian Facilities**

Pedestrian facilities in the study area (shown in Figure 3) consist of sidewalks along all the surrounding streets, including the project frontages along Market Street, First Street, and San Carlos Street. Crosswalks and pedestrian signal heads are located at all signalized intersections within the project area. The majority of the crosswalks at signalized intersections in the vicinity of the project site consist of high visibility crosswalks and countdown signal heads that enhance pedestrian visibility and safety while crossing the intersections. Sidewalks in the project area are wide and provide an attractive and continuous pedestrian network.

A mid-block crossing across the northbound side of Market Street provides access between the Plaza de Cesar Chavez Park and the Paseo de San Antonio Walk. This paseo provides pedestrian-only access to shops and business along the Paseo de San Antonio Walk between Market Street and San Jose State University. Another mid-block crossing on San Carlos Street, approximately 400 feet west of the Market/San Carlos intersection, provides access to the Convention Center LRT station located within the median of San Carlos Street.

Overall, the existing sidewalks and paseos provide good pedestrian connectivity and safe routes to the surrounding pedestrian destinations, including nearby transit stops, the Convention Center and Plaza de Cesar Chavez Park, as well as various businesses and restaurants surrounding the project site.

#### **Existing Transit Services**

Existing transit services in the study area are provided by the Santa Clara Valley Transportation Authority VTA, Santa Cruz METRO, Monterey Salinas Transit MST, Caltrain, Altamont Commuter Express (ACE), and Amtrak. The project site is located approximately 350 feet south of the San Antonio Light Rail Station platforms on First Street and Second Street, and approximately one 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 4 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

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 southwest corner of the project site on San Carlos Street and along First Street and Second Street adjacent to the northbound and southbound platforms of the San Antonio LRT station.



Figure 3
Existing Pedestrian Facilities

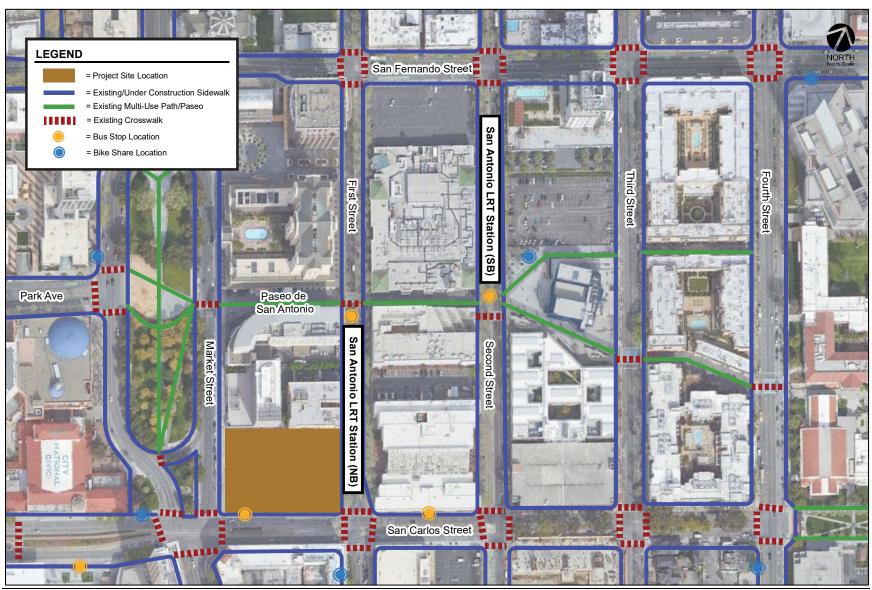




Figure 4
Existing Transit Facilities

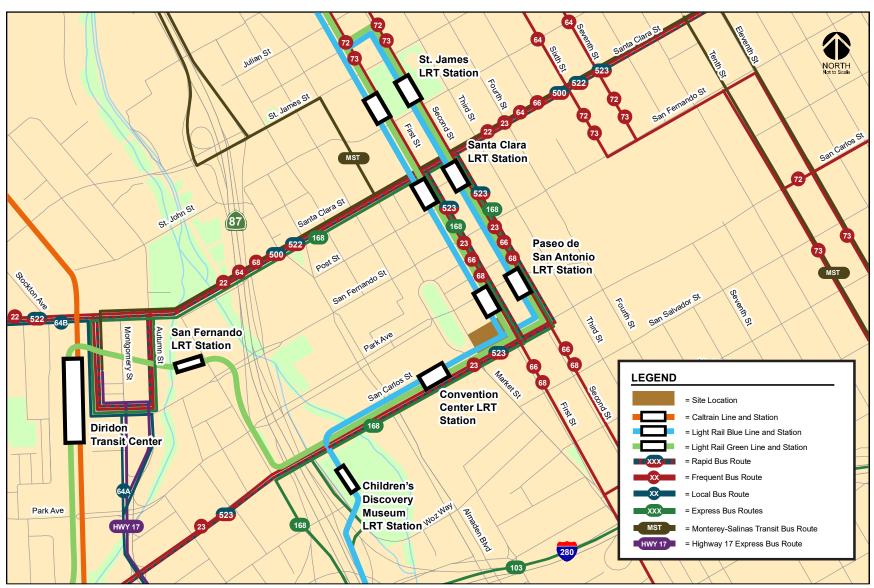




Table 1
Existing Bus Service Near the Project Site

Bus Route	Route Description	Nearest Stop	Headway <sup>1</sup>
Frequent Route 22	Palo Alto Transit Center to Eastridge Transit Center	Santa Clara/First	15 min
Frequent Route 23	DeAnza College to Alum Rock Transit Center via Stevens Creek	San Carlos/Market	12 - 15 min
Local Route 64A	McKee & White to Ohlone-Chynoweth Station	Santa Clara/First	30 min <sup>2</sup>
Local Route 64B	McKee & White to Almaden Expressway & Camden	Santa Clara/First	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	Santa Clara/Almaden	15 - 40 min
Rapid Route 500	San Jose Diridon Station to Downtown San Jose	Santa Clara/First	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	First/Paseo de San Antonio	15 - 20 min
Hwy 17 Express (Route 970)	Downtown Santa Cruz / Scotts Valley to Downtown San Jose	Diridon Transit Center	20 - 35 min
MST 55	Monterey – San Jose Express	Santa Clara/Almaden	N/A <sup>3</sup>
MST 86	King City – San Jose/SJ Airport	Santa Clara/Almaden	N/A <sup>4</sup>

#### Notes

#### 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 Green (Winchester-Old Ironsides) and Blue (Baypointe-Santa Teresa) LRT lines operate along San Carlos Street, San Fernando Street, and along First and Second Streets, north of San Carlos Street. The San Antonio LRT station platforms on First and Second Street are located less than 500 feet walking distance of the project site. The San Jose Diridon station is located along the Green 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 Bay Wheels 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.



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

<sup>&</sup>lt;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.

<sup>&</sup>lt;sup>3</sup> Weekday operation consists of one northbound trip and one southbound trip during morning and afternoon/evening commute periods.

<sup>&</sup>lt;sup>4</sup> Weekday operation consists of one northbound trip during morning commute period and one southbound trip during afternoon/evening commute period.

#### <u>Altamont Commuter Express Service (ACE)</u>

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 that will be 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 office and shopping center 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, 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 peak-hour, however, a three percent reduction of inbound office trips (equating to approximately 18 inbound trips) exceeds the total number of outbound trips generated by the commercial use (estimated to be six outbound trips). The estimated six outbound retail trips are all assumed to be internalized with the office use (as inbound office trips) during the AM peak-hour.

# **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. Therefore, the baseline project trips were adjusted to reflect an urban high-transit mode share. 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. Office and retail uses within urban high-transit areas have a vehicle mode share of 69 percent and 83 percent, respectively. Thus, a 31 percent reduction and 17 percent reduction were applied to the baseline trips estimated to be generated by the office and retail portions of the proposed project, respectively.



**Table 2 Project Trip Generation Estimates** 

									A	M Peak	Hour	r			F	PM Peal	k Hou	r	
	ITE Land		% of Vehicle	%		Dai	ly	Pk-Hr	Spli	t		Trip		Pk-Hr	Spl	it		Trip	
Land Use	Use Code	Location	Mode Share	Reduction	Size	Rate	Trip	Rate	In (	Out	ln	Out	Total	Rate	In (	Out	ln	Out	Total
Proposed Land Uses																			
General Office Building <sup>1</sup>	710				627,207 Square Feet	9.740	6,109	1.160	86% 1	4%	626	102	728	1.150	16% 8	34%	115	606	721
- Employment - Retail Internal Re	eduction <sup>2</sup>			3%			-183				-6	-3	-9				-3	-18	-21
- Location Based Reduction <sup>3</sup>		Urban High-Transit	69%	31%			-1,837				-192	-30	-222				-35	-182	-217
Shopping Center <sup>1</sup>	820				16,372 Square Feet	37.750	618	0.940	62% 3	8%	9	6	15	3.810	48% 5	52%	30	32	62
- Employment - Retail Internal Re	eduction <sup>2</sup>						-183				-3	-6	-9				-18	-3	-21
- Location Based Reduction <sup>3</sup>		Urban High-Transit	83%	17%			-74				-1	0	-1				-2	-5	-7
Baseline Vehicle Trips (Befo	ore Reduction	ons)					6,727				635	108	743				145	638	783
Total Project Trips							4,450				433	69	502				87	430	517

#### Notes:



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

<sup>&</sup>lt;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 office and retail is equal to 3% off the office component. However, since the number of outbound trips produced by the retail component is less than 3% of the inbound trips into the office component during the AM peak hour, all outbound retail trips during the AM peak hour are assumed to be internalized with the office component.

<sup>&</sup>lt;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 29, 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.

# **Project Trip Generation**

Based on the trip generation rates and reduction, it is estimated that the proposed mixed-use project would generate an additional 4,450 daily trips, with 502 trips (433 inbound and 69 outbound) occurring during the AM peak hour and 517 trips (87 inbound and 430 outbound) occurring during the PM peak hour. The trip generation estimates for the proposed project are shown in Table 2.

The proposed project will not provide replacement parking for the two surface parking lots currently onsite (the first is a paid public parking lot accessible from Market Street and the second is utilized by the Four Points by Sheraton Hotel along First Street). It is assumed that current users of the existing onsite parking will find alternative parking areas within the vicinity of the project site. Therefore, it can be assumed that these trips will continue to appear at Downtown area intersections in the vicinity of the project site. As a conservative measure, credit for existing trips into and out of the surface parking lots 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 location, existing travel patterns in the area, freeway access, and the relative locations of complementary land uses. The project trip distribution pattern and trip assignment for the proposed project is shown on Figure 1.

# **Vehicular Site Access and Circulation**

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 August 20, 2020 prepared by Arquitectonica, and in accordance with generally accepted traffic engineering standards and City of San Jose requirements. The street level site plan is shown on Figure 5.

# **Project Driveway/Site Access Design**

One two-way driveway along Market Street, approximately 225 feet north of San Carlos Street, will provide ingress and egress for the proposed on-site parking garage. The driveway is located along the northbound side of Market Street, east of Cesar Chavez Plaza. Therefore, turn-movements at the driveway will be restricted to right-in/right-out only operations. The proposed driveway curb-cut should meet the City's minimum width of 32 feet for two-way commercial driveways.

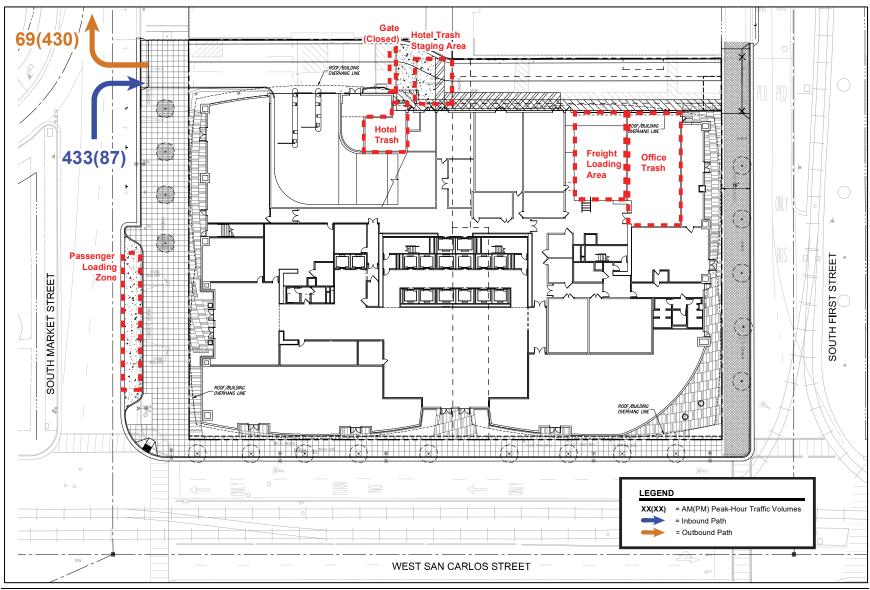
A second driveway, located 225 feet north of San Carlos Street along First Street, will primarily provide access to loading docks and trash collection facilities. The existing 16-foot wide driveway curb cut currently serving the Four Points Hotel parking lot will be extended to a width of approximately 38 feet with the proposed project, based on the site plan. Therefore, the proposed driveway would meet the City's 32-foot width requirement for two-way commercial driveways. It should be noted that providing a 38-foot width is necessary to accommodate exiting trucks, as shown in truck turning templates provided below.

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

There are no existing trees or visual obstructions along the project frontages that would obscure sight distance at the project driveways. 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



Figure 5
Ground-Level Site Plan and Trips at Project Driveway





pedestrians on the sidewalk and other vehicles traveling on Market Street and First Street. 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 driveway 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. Market Street has a posted speed limit of 25 miles per hour (mph), while First Street has a speed limit of 20 mph. The AASHTO stopping sight distance for a facility with a posted speed limit of 25 mph and 20 mph is 155 feet and 115 feet, respectively. Thus, a driver exiting the proposed Market Street driveway must be able to see 155 feet to the south along Market Street in order to stop and avoid a collision. Trucks exiting the First Street driveway must be able to see 115 feet to the south along First Street in order to stop and avoid a collision.

Based on the project site plan and observations in the field, vehicles exiting either of the project site driveways would be able to see approaching traffic on northbound Market Street and First Street as far away as 225 feet to the south at San Carlos Street. Therefore, it can be concluded that the project driveways 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 5. As mentioned previously, all vehicular project traffic would utilize the Market Street project driveway. Based on the estimated project trips, it is projected that a maximum of 433 inbound trips (during the AM peak-hour) would enter the parking garage. During the PM peak-hour, a maximum of 430 trips would exit the site onto Market Street. Inbound trips would arrive at an average rate of approximately 7 vehicles per minute during the AM peak-hour.

The flow rate at which vehicles enter the garage will depend primarily on the processing ability, or service rate, of the entry gates. Based on the site plan, the entry gates consist of one inbound lane, one outbound lane, and one reversible lane providing inbound access during the AM peak-hour and outbound access during the PM peak-hour. The gates must be able to process a minimum of 433 vehicles (approximately four vehicles per lane per minute, on average) to avoid inbound queueing during the AM peak-hour.

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. Storage for approximately three vehicles will be provided within the drive aisle between the inbound gates and the driveway on Market Street.

# **On-Street Passenger Loading Zone**

The site plan indicates a proposed passenger loading zone located along the west project frontage on Market Street, located approximately 35 feet north of San Carlos Street. The 80-foot long loading zone would provide space for three to four vehicles to park. The proposed loading zone may require the removal of one existing on-street parking space. There are currently no plans to install bike lanes along northbound Market Street along the west project frontage. Additionally, the total sidewalk width along the loading zone (measured between the loading zone curb to proposed building) would be at least 22 feet wide. Therefore, the proposed loading zone should not interfere with any bicycle or pedestrian facilities.



Additionally, the proposed loading zone would incorporate a half bulb-out at the northeast corner of the San Carlos Street/Market Street intersection and installation of an ADA-compliant curb ramp. The improvement would reduce the crossing distance of the crosswalk between the project site and Market Street island median. The improvement also will require signal modification and relocation of an existing signal pole at the intersection's northeast corner. The proposed passenger loading zone with bulb-out would be consistent with planned City improvements to install a curb extension, discussed within the pedestrian circulation discussion below.

# **Vehicular On-Site Circulation**

The parking garage will provide 90-degree uniform parking stalls (self-parking) and valet-assisted parking along drive aisles and tandem stalls within Levels 2 to 4. Mechanical lift parking spaces are proposed within Levels 5 to 7.

As discussed above, the garage entrance would need to process a minimum of 433 vehicles per hour (approximately four vehicles per lane 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 eight valet staff will be needed to serve the 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 parking levels, shown in Figure 6. In general, the layout of each parking level provides opportunities for circulating vehicles to loop around without requiring U-turns. A dead-end drive aisle located on Level 7 (Figure 7) 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 2 to 4, 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. 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 maintain an existing drive aisle easement that runs along the north project frontage between First Street and an existing trash enclosure utilized by the adjacent Four Points by Sheraton Hotel. The site plan indicates that the drive aisle easement would be approximately 29 feet wide and the First Street driveway would be widened from 16 feet to 38 feet. The existing hotel trash enclosure would be demolished to provide a direct connection between First Street and Market Street. However, passenger vehicles would only be allowed to utilize the Market Street driveway and trucks would only be allowed to utilize the First Street driveway is proposed to only allow truck traffic, there will be no conflicts with vehicular traffic due to truck activity on-site.

As shown on Figure 5, the easement would serve the following loading and trash collection facilities onsite:

- Loading docks and central trash collection room for the proposed office development
- A trash collection room and staging area for the Four Points by Sheraton Hotel



Figure 6
Typical Parking Level Circulation

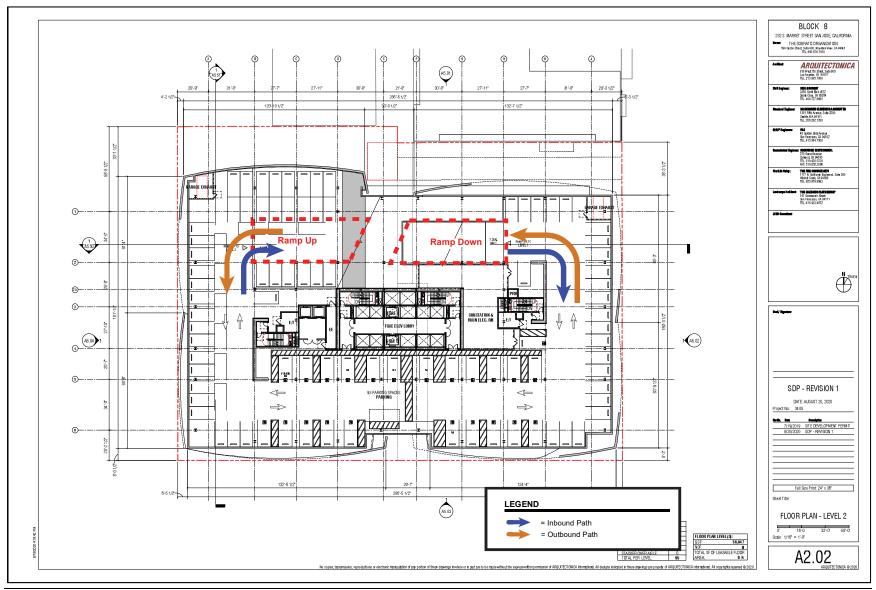
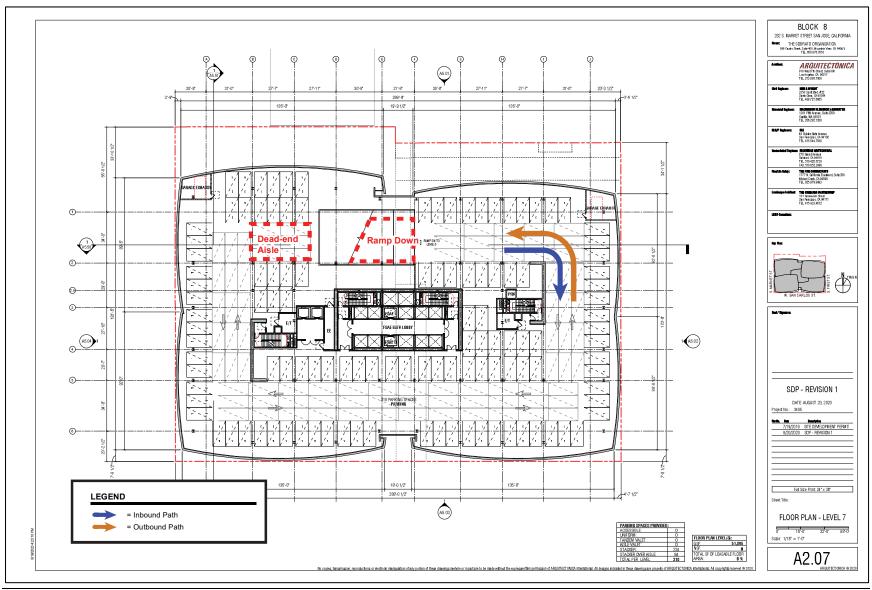




Figure 7
Level 7 Circulation





#### **Trash Collection**

A central trash collection area serving the proposed office development will contain trash compactors with roll-off containers. Figure 8 shows that 34-foot roll-off trucks will collect the roll-off containers and will be given sufficient space to reverse into the trash room. The proposed 38-foot wide First Street driveway would be sufficient to accommodate the trucks.

A separate trash room serving the Four Points Hotel will be located further west along the drive aisle easement. Collection vehicles will not enter the hotel trash room. During trash collection days, garbage containers will be moved using forklifts to a staging area located adjacent to the trash room and directly on the drive aisle easement. As shown on Figure 9, a front-load trash collection vehicle will enter from the First Street driveway and reverse out of the same driveway.

# **Freight Loading**

Truck turning template for the freight loading docks are shown on Figure 10. Based on the City of San Jose off-street loading standards within the Downtown Area (20.70.420), offices with 100,000 to 175,000 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 175,000 square feet. The proposed development will have office uses totaling up to 627,207 square feet. Therefore, the project is required to provide a total of six off-street loading spaces. Per section 20.70.450 of the Downtown Zoning Regulations, the Planning Director may authorize the reduction of two on-site loading spaces to one on-site loading space in connection with the issuance of a development permit if the Director finds that sufficient on-street loading space exists to accommodate circulation and manipulation of freight. 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).

Space for two WB-40 trucks is provided within the loading area. However, evaluation of the truck turning operations shows that a second truck cannot physically enter the loading area if another truck is present. Although the project will not meet the City's minimum requirement for the number of loading docks, providing two loading docks may be sufficient. The project should work with City staff to identify the required off-street loading spaces.

# **Alternative Site Access Scenario**

The Market Street project driveway would provide sole access to the project parking garage during most days of operation. Gates located between the parking garage entrance and the hotel trash staging area would be typically closed to prevent vehicles from utilizing the First Street driveway. However, traffic congestion along Market Street could inhibit exit from the Market Street driveway. In addition, traffic restrictions due to special events at Cesar Chavez Park or other nearby attractions also may inhibit the use of the Market Street driveway. Therefore, at the request of the applicant, a qualitative review of the use of the First Street driveway as an alternative access point is provided. Use of First Street as an ingress and egress point would be controlled by the building operator by opening gates east of the parking garage entrance. Figure 11 shows project driveway trips that are expected as a result of providing access through both the Market Street and First Street driveways. The use of the First Street driveway as an alternative access point will have minimal effect on intersection operations along surrounding streets.

As described above, the drive aisle easement would be approximately 29 feet wide and the First Street driveway would be widened from 16 feet to 38 feet. Therefore, the drive aisle and driveway would both meet the City's requirement of 26 feet for two-way driveways and drive aisles.



Figure 8
Truck Turning Template – Office Trash Collection

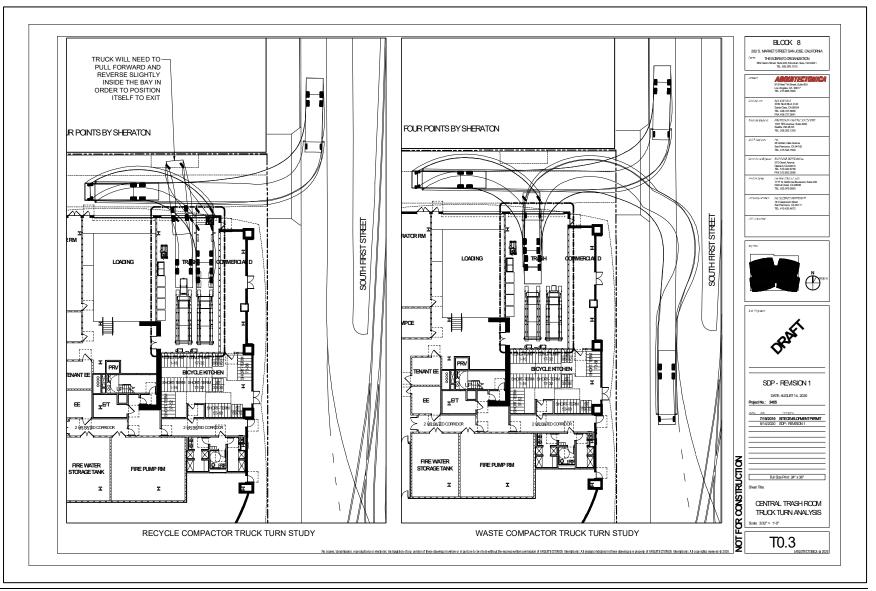




Figure 9
Truck Turning Template – Hotel Trash Collection

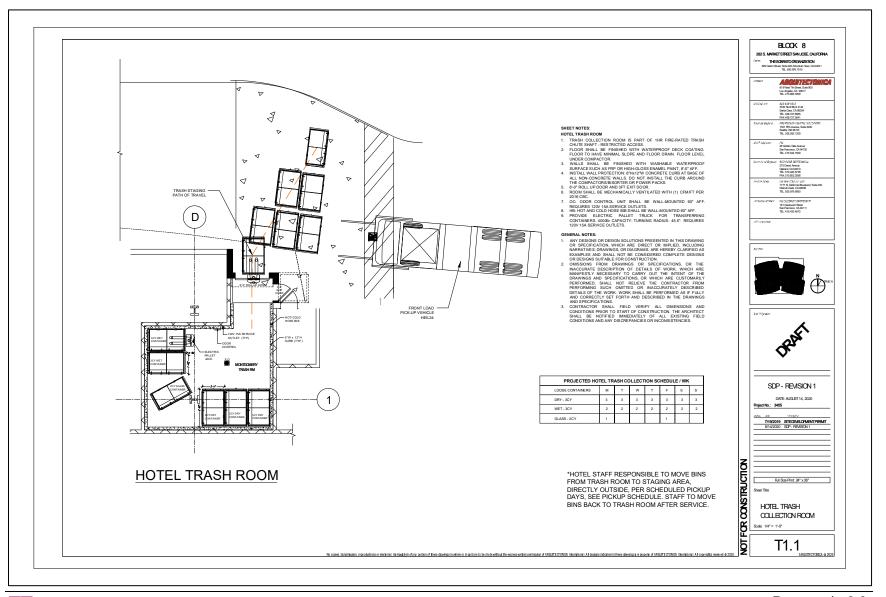




Figure 10
Truck Turning Template – Freight Loading Area

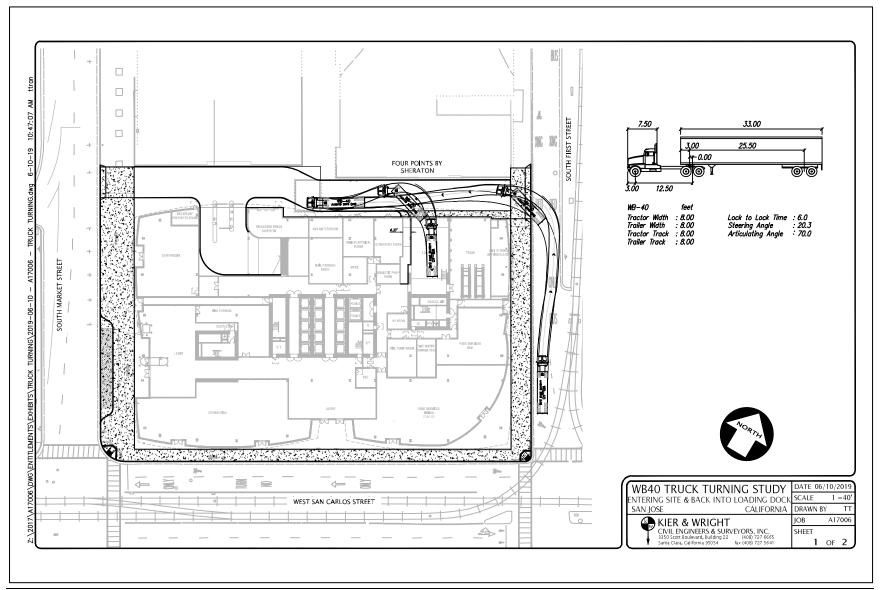
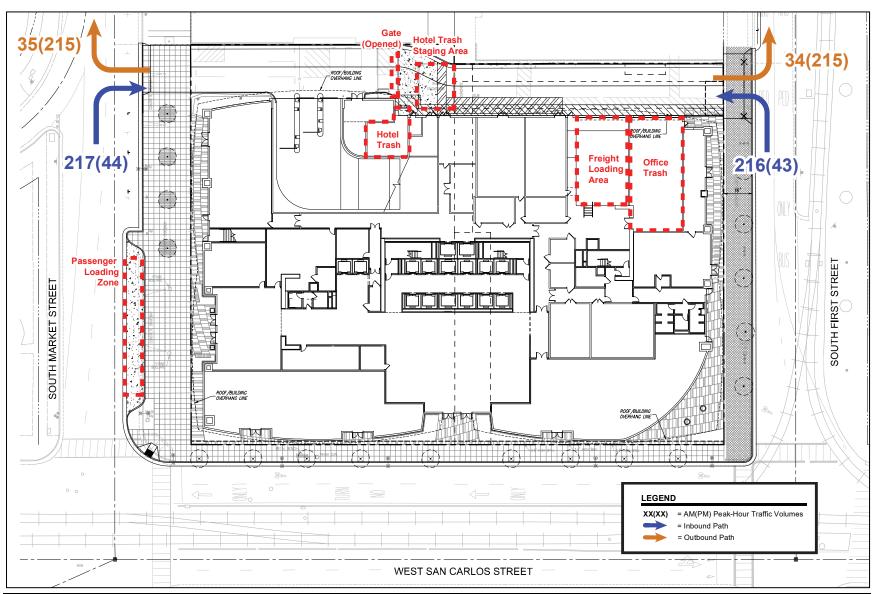




Figure 11
Project Driveway Trips – Site Access Alternative





The hotel trash staging area will be cleared and truck operations at the project loading docks will be managed in coordination with the opening of the gate to ensure a clear path of travel for vehicular traffic is provided.

#### Recommendations:

- The building operator should ensure that trash bins are cleared from the hotel staging area before allowing access through the First Street driveway.
- To prevent conflicts between trucks and passenger vehicles, truck access into or out of the freight loading docks should be restricted when parking garage access is allowed through the First Street driveway.
- The building operator should not allow access through the First Street driveway if a 26-foot wide path cannot be fully provided between the driveway and parking garage entrance due to trash or freight loading operations.
- Permanent signage should be installed at the First Street driveway to indicate that no inbound access is allowed. During days when access is allowed, the signage should be temporarily covered. Temporary signage should be placed at the First Street driveway and at the intersections of First Street/San Carlos Street and Market Street/San Carlos Street to provide directions to motorists when alternative access is allowed.

# **Pedestrian and Bicycle Access and Circulation**

#### **Pedestrian 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, there are many designated Downtown Pedestrian Network Street (DPNS) in the vicinity of the project site, 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.

Existing pedestrian and bicycle facilities throughout downtown provide connections to surrounding downtown destinations. Wide sidewalks are provided along all project frontages on Market Street, San Carlos Street, and First Street. Crosswalks are available at all signalized intersections.

A mid-block crossing across the northbound side of Market Street provides access between the Plaza de Cesar Chavez Park and the Paseo de San Antonio Walk. This paseo provides pedestrian-only access to shops and business along the Paseo de San Antonio Walk between Market Street and San Jose State University. Another mid-block crossing on San Carlos Street, approximately 400 feet west of the Market/San Carlos intersection, provides access to the Convention Center LRT station located within the median of San Carlos Street.

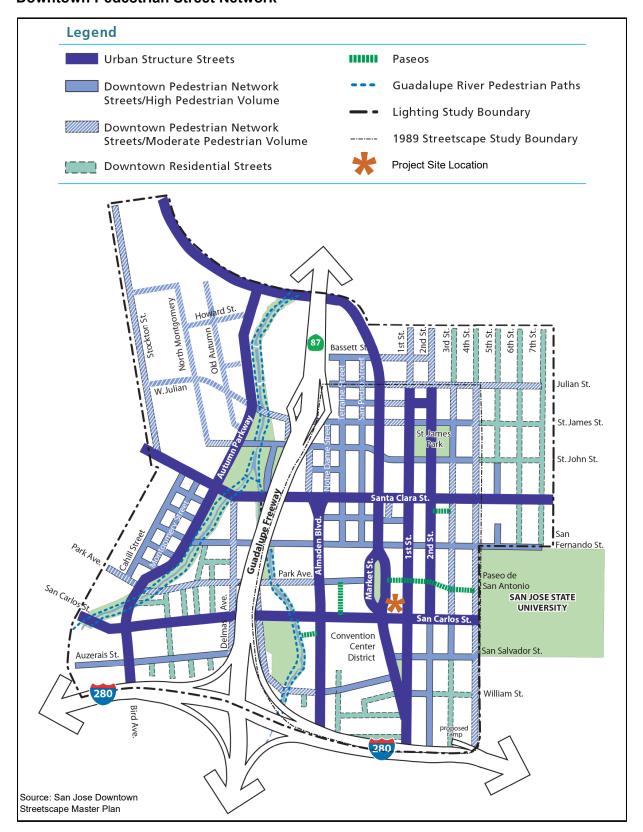
Overall, the existing sidewalks and paseos provide good pedestrian connectivity and safe routes to the surrounding pedestrian destinations, including nearby transit stops, the Convention Center and Plaza de Cesar Chavez Park, as well as various businesses and restaurants surrounding the project site.

# **Bicycle Circulation**

Class II bicycle facilities (striped bike lanes) are not provided along any of the project frontages. However, bike lanes are provided along several roadways within the project area and are listed in the



Figure 12 Downtown Pedestrian Street Network





Existing Bicycle Facilities section. Class III bicycle routes (shared bike lanes) are provided along the San Carlos Street and First Street frontages of the project.

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 to Willow Street, and between Virginia Street and Palm Street to Alviso. This trail system can be accessed just west of the Almaden Boulevard and San Carlos Street intersection, approximately 1,400 feet west of the project site.

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. Two bike share stations are located within 100 feet of the project site: at the northwest corner of the Market Street/San Carlos Street intersection and at the southwest corner of the First Street/San Carlos Street intersection.

# **Proposed Park Avenue Paseo**

The City is proposing a reduction in width of Park Avenue between Market Street and Almaden Boulevard. The proposed improvements include narrowing Park Avenue to one travel lane in each direction and removal of the existing median island. The improvements would allow sidewalks to be widened, providing additional space for pedestrians and bicyclists. Crossing distances at crosswalks across Park Avenue also would be shortened.

Proposed intersection improvements at the Almaden Boulevard/Park Avenue and Market Street/Park Avenue intersections include a reduction of curb radii and installation of bulb-outs which typically increase visibility of pedestrians at crosswalks and encourage drivers to slow down before making a right-turn. Although the proposed improvements will result in a reduction of vehicular capacity along Park Avenue, they also are expected to improve safety and connectivity of pedestrian and bicycle networks within the vicinity of the proposed office development.

# **Proposed Bulb-out at Market Street/San Carlos Street**

The City is proposing to install a half bulb-out at the northeast corner of the Market Street/San Carlos Street intersection, as shown on Figure 13. The proposed curb extension would reduce the crossing distance of the crosswalk between the project site and Market Street island median. The improvement also would include upgrading existing curb ramps to be ADA-compliant. The proposed improvement would alter the curb radius of the northeast corner of the intersection. An SU-30 design vehicle (i.e. light trucks) would still be able to turn from San Carlos Street onto Market Street, provided that the vehicle turn onto the inner lane of Market Street.

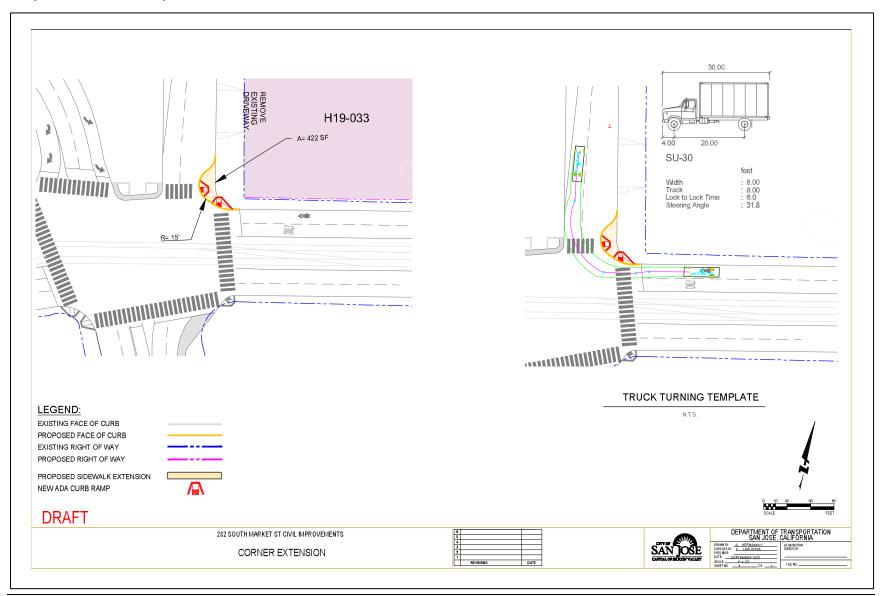
The improvement also will require signal modification and relocation of an existing signal pole at the intersection's northeast corner. The project should work with the City to ensure that any frontage improvements proposed by the project along Market Street (including the proposed passenger loading zone) would be compatible with proposed Market Street/San Carlos Street intersection improvements. The project may be required to construct the proposed Market Street/San Carlos Street intersection improvements (sidewalk extension, ADA compliant ramps, signal modification, and signal pole relocation) or pay a fair-share contribution towards their construction.

# **Transit Facilities**

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 350 feet south of the San Antonio Light Rail Station platforms along First Street and Second Street. VTA bus stops are also located adjacent to the light rail platforms.



Figure 13
Proposed Bulb-out Improvement at Market/San Carlos





In addition, the San Jose Diridon Station is located along the Green LRT line and is served by Caltrain, ACE, and Amtrak. 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.

# **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**

Parking for the proposed office project will be provided within six above-ground parking levels with access provided via a garage entrance along the western project frontage on Market Street. The project could include two levels of underground parking if the maximum amount of development identified is constructed.

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. The project could consist of up to 627,207 square feet of office space. The site plan dated August 20, 2020 indicates, however, that only 481,307 s.f. of net office space is currently proposed. Based on the City's off-street parking requirements, the office use would be required to provide a total of 1,204 off-street parking spaces. No additional parking spaces are required for the commercial/retail use. The project proposes to provide the minimum the number of off-street parking spaces as required by City. Therefore, the project will not be required to submit a TDM program.

# **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 commercial use) are required to provide only two short-term bicycle parking spaces and one long-term bicycle parking spaces. Thus, the proposed mixed-use project (481,307 s.f. of net office space) is required to provide a total of 124 bicycle parking spaces: 99 short-term bicycle parking spaces and 25 long-term bicycle parking spaces to meet the City standards. 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 111 short-term parking spaces and 31 long-term parking spaces. The project would therefore meet the City's bicycle parking requirement. The site plan indicates that bicycle parking will be located within a dedicated storage room at ground level and will be easily accessible from sidewalks along the First Street project frontage. From the bicycle storage room, internal walkways provide access to the San Carlos Street and Market Street lobbies.

# **Vehicular Queuing Analysis**

A vehicle queuing analysis was completed for high-demand movements at the study intersections. The study locations were selected based on the number of projected project trips at 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:

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

Where:

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

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 3.

The queuing analysis shows that the eastbound left-turn movement at the Market Street and San Carlos Street intersection currently experiences vehicular queue lengths that exceed the existing storage capacity during both AM and PM peak hours and would continue to do so under background conditions. The addition of project traffic is projected to lengthen the queue during both peak hours. The projected storage deficiencies could only be improved by lengthening the left-turn pocket. However, due to the presence of light rail tracks within the center median of San Carlos Street, no improvements are feasible for the eastbound left-turn pocket.

It is also important to note that the project's close proximity to major transit services and bicycle facilities will 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



**Table 3 Intersection Queueing Analysis Summary** 

		1. Mar San Ca				rket/ rnando
Measurement	EBL AM	EBL PM	SBL AM	SBL PM	NBL AM	NBL PM
Existing Conditions						
Cycle/Delay <sup>1</sup> (sec)	128	128	128	128	100	100
Lanes	1	1	1	1	1	1
Volume (vph)	56	130	24	149	75	25
Volume (vphpl )	56	130	24	149	75	25
Avg. Queue (veh/ln.)	2	5	1	5	2	1
Avg. Queue <sup>2</sup> (ft./ln)	50	116	21	132	52	17
95th %. Queue (veh/ln.)	5	8	3	9	5	2
95th %. Queue (ft./ln)	125	200	75	225	125	50
Storage (ft./ ln.)	100	100	550	550	300	300
Adequate (Y/N)	NO	NO	YES	YES	YES	YES
Background Conditions						
Cycle/Delay <sup>1</sup> (sec)	128	128	128	128	100	100
Lanes	1	1	1	1	1	1
Volume (vph)	71	160	28	159	87	27
Volume (vphpl )	71	160	28	159	87	27
Avg. Queue (veh/ln.)	3	6	1	6	2	1
Avg. Queue <sup>2</sup> (ft./ln)	63	142	25	141	60	19
95th %. Queue (veh/ln.)	5	10	3	10	5	2
95th %. Queue (ft./In)	125	250	75	250	125	50
Storage (ft./ ln.)	100	100	550	550	300	300
Adequate (Y/N)	NO	NO	YES	YES	YES	YES
Background Plus Project Conditions						
Cycle/Delay <sup>1</sup> (sec)	128	128	128	128	100	100
Lanes	1	1	1	1	1	1
Volume (vph)	264	199	138	181	103	126
Volume (vphpl )	264	199	138	181	103	126
Avg. Queue (veh/ln.)	9	7	5	6	3	4
Avg. Queue <sup>2</sup> (ft./ln)	235	177	123	161	72	88
95th %. Queue (veh/ln.)	15	12	9	11	6	7
95th %. Queue (ft./ln)	375	300	225	275	150	175
Storage (ft./ ln.)	100	100	550	550	300	300
Adequate (Y/N)	NO	NO	YES	YES	YES	YES

<sup>&</sup>lt;sup>1</sup> Vehicle queue calculations based on cycle length for signalized intersections.



<sup>&</sup>lt;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.

at intersections) reduced as development and the planned enhancement of the multi-modal transportation system progresses within the downtown area.

# **Conclusions**

The proposed office building will consist of up to 627,207 square-feet (s.f.) of leasable office space and 16,372 s.f. of ground-floor commercial space. The proposed office building will replace a public surface parking lot accessible from Market Street and a separate surface parking lot accessible from First Street currently used by the Four Points by Sheraton Hotel located north of the project site. Parking for the proposed office project will be provided within six above-ground parking levels with access provided via a garage entrance along the western project frontage on Market Street. The project could include two levels of underground parking if the maximum amount of development identified is constructed. A second project driveway, located along the eastern project frontage on First Street, provides access to an existing drive aisle easement along the north project frontage and will be utilized to access the project's proposed loading dock and trash collection areas for both the office development and the Four Points Hotel.

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

- A minimum of eight valet staff will be needed to serve the 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.
- The project is required to provide a total of six off-street loading spaces per the City code.
  Although the project will not meet the City's minimum requirement for the number of loading
  docks, providing two loading docks may be sufficient. The project should work with City staff to
  identify the required off-street loading spaces.
- Alternative Site Access Recommendations:
  - The building operator should ensure that trash bins are cleared from the hotel staging area before allowing access through the First Street driveway.
  - To prevent conflicts between trucks and passenger vehicles, truck access into or out of the freight loading docks should be restricted when parking garage access is allowed through the First Street driveway.



- The building operator should not allow access through the First Street driveway if a 26foot wide path cannot be fully provided between the driveway and parking garage entrance due to trash or freight loading operations.
- Permanent signage should be installed at the First Street driveway to indicate that no inbound access is allowed. During days when access is allowed, the signage should be temporarily covered. Temporary signage should be placed at the First Street driveway and at the intersections of First Street/San Carlos Street and Market Street/San Carlos Street to provide directions to motorists when alternative access is allowed.
- The project should work with the City to ensure that any frontage improvements proposed by the project along Market Street (including the proposed passenger loading zone) would be compatible with proposed Market Street/San Carlos intersection improvements. The project may be required to construct the proposed Market Street/San Carlos Street intersection improvements (sidewalk extension, ADA compliant ramps, signal modification, and signal pole relocation) or pay a fair-share contribution towards their construction.



# Block 8 Office Development LTA Technical Appendices

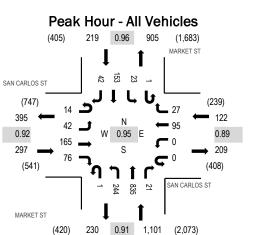
# Appendix A Turning Movement Counts



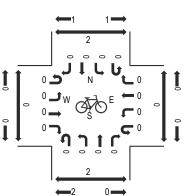
(303) 216-2439 www.alltrafficdata.net Location: 5 MARKET ST & SAN CARLOS ST AM

**Date:** Wednesday, May 22, 2019 **Peak Hour:** 07:30 AM - 08:30 AM

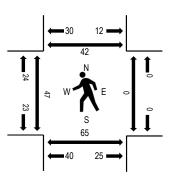
Peak 15-Minutes: 08:00 AM - 08:15 AM



# Peak Hour - Bicycles



# Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

# **Traffic Counts**

	SA	SAN CARLOS ST Eastbound				N CAR	LOS ST			MARKE	TST			MARKI	ET ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			Southb	ound			Rolling	Ped	lestriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	5	20	14	0	0	15	7	0	53	158	4	0	12	23	8	319	1,591	9	0	17	2
7:15 AM	3	9	26	13	0	0	26	1	0	55	197	8	0	2	27	9	376	1,728	9	0	15	5
7:30 AM	1	5	37	15	0	0	25	4	0	70	241	3	0	4	36	13	454	1,739	14	0	15	8
7:45 AM	5	15	35	26	0	0	21	9	0	72	199	4	1	6	40	9	442	1,713	11	0	14	12
8:00 AM	3	13	45	16	0	0	20	6	1	60	228	7	0	5	45	7	456	1,667	13	0	13	12
8:15 AM	5	9	48	19	0	0	29	8	0	42	167	7	0	8	32	13	387		9	0	23	10
8:30 AM	4	7	40	18	0	1	21	10	0	61	203	14	0	8	35	6	428		8	0	17	11
8:45 AM	5	9	51	20	0	0	30	6	0	47	166	6	0	8	39	9	396		9	0	17	31

# **Peak Rolling Hour Flow Rates**

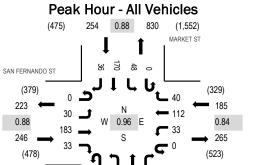
		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	14	42	142	74	0	0	68	26	0	239	825	19	1	23	141	40	1,654
Mediums	0	0	23	2	0	0	27	1	1	5	9	2	0	0	11	2	83
Total	14	42	165	76	0	0	95	27	1	244	835	21	1	23	153	42	1,739



(303) 216-2439 www.alltrafficdata.net Location: 2 MARKET ST & SAN FERNANDO ST AM

**Date:** Wednesday, May 22, 2019 **Peak Hour:** 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM



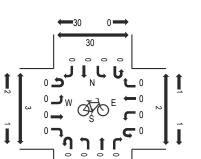
34 760 75

869

SAN FERNANDO ST

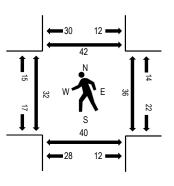
(1,627)

# Peak Hour - Bicycles



0=

# Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

0.92

236

#### **Traffic Counts**

(455)

MARKET ST

	SAN FERNANDO ST SAN FERNAND  Eastbound Westbound							ST		MARKE	ET ST			MARK	ET ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	destriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	9	24	8	0	7	15	4	0	9	155	8	0	7	35	2	283	1,399	7	8	7	7
7:15 AM	0	7	42	6	0	6	19	10	1	7	189	5	1	5	27	4	329	1,517	1	16	4	10
7:30 AM	0	4	40	11	0	7	27	5	0	21	199	1	0	12	46	8	381	1,554	11	7	10	6
7:45 AM	0	7	43	7	0	6	33	10	0	15	213	8	0	13	41	10	406	1,519	8	12	8	16
8:00 AM	0	10	53	8	0	4	24	14	0	22	178	14	0	12	50	12	401	1,510	5	16	19	9
8:15 AM	0	9	47	7	0	16	28	11	0	17	170	11	0	11	33	6	366		8	1	3	11
8:30 AM	0	2	48	9	0	7	28	4	0	14	156	13	0	20	38	7	346		4	12	14	5
8:45 AM	0	5	62	10	0	8	26	10	0	19	170	12	0	12	57	6	397		4	8	9	9

# **Peak Rolling Hour Flow Rates**

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	30	161	32	0	31	97	38	0	75	752	33	0	48	155	33	1,485
Mediums	0	0	22	1	0	2	15	2	0	0	8	1	0	0	14	3	68
Total	0	30	183	33	0	33	112	40	0	75	760	34	0	48	170	36	1 554

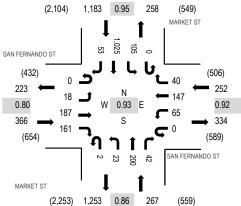


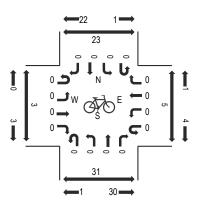
(303) 216-2439 www.alltrafficdata.net Location: 2 MARKET ST & SAN FERNANDO ST PM

**Date:** Wednesday, May 22, 2019 **Peak Hour:** 05:00 PM - 06:00 PM

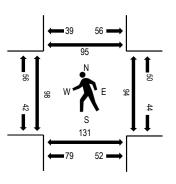
Peak 15-Minutes: 05:15 PM - 05:30 PM







# Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

# **Traffic Counts**

	SAN	I FERN	IANDO	ST	SAN	FERN/	ANDO S	ST		MARKE	ET ST			MARK	ET ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestriar	n Crossi	ings
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
4:00 PM	0	1	47	31	0	19	42	11	0	5	61	11	0	23	173	9	433	1,755	13	27	18	16
4:15 PM	0	2	26	28	0	14	26	10	0	5	61	7	0	16	195	10	400	1,853	14	17	9	19
4:30 PM	0	7	31	34	0	16	44	8	0	10	65	10	0	17	226	6	474	2,010	21	6	22	7
4:45 PM	0	6	47	28	0	11	41	12	0	3	47	7	0	13	225	8	448	2,050	19	27	15	17
5:00 PM	0	3	44	41	0	16	50	6	2	8	49	10	0	24	263	15	531	2,068	42	14	24	11
5:15 PM	0	3	57	55	0	18	30	14	0	6	51	11	0	26	271	15	557		14	22	23	22
5:30 PM	0	7	43	30	0	21	36	11	0	4	55	11	0	19	266	11	514		21	28	22	39
5:45 PM	0	5	43	35	0	10	31	9	0	5	45	10	0	36	225	12	466		21	30	62	23

# **Peak Rolling Hour Flow Rates**

		East	bound			Westb	ound			Northb	ound			Sout	hbound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	18	169	160	0	65	133	40	2	23	197	42	0	105	1,019	51	2,024
Mediums	0	0	18	1	0	0	14	0	0	0	2	0	0	0	5	2	42
Total	0	18	187	161	0	65	147	40	2	23	200	42	0	105	1,025	53	2,068

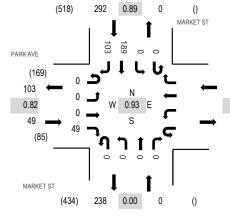


Location: 2 MARKET ST & PARK AVE AM

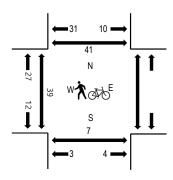
**Date:** Tuesday, October 30, 2018 **Peak Hour:** 07:45 AM - 08:45 AM

**Peak 15-Minutes:** 08:00 AM - 08:15 AM

### Peak Hour - All Vehicles



# Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

### **Traffic Counts**

		PARK	(AVE					MARKE	ET ST			MARK	ET ST							
Interval		Eastb	ound		Westb	ound		Northb	ound			South	oound			Rolling	Ped	lestriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn Left	Thru Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	0	0	9			0	0	0	0	0	0	26	17	52	266	1		5	0
7:15 AM	0	0	0	4			0	0	0	0	0	0	41	12	57	306	5		0	9
7:30 AM	0	0	0	11			0	0	0	0	0	0	43	18	72	331	5		3	9
7:45 AM	0	0	0	15			0	0	0	0	0	0	45	25	85	341	7		2	5
8:00 AM	0	0	0	10			0	0	0	0	0	0	54	28	92	337	15		1	11
8:15 AM	0	0	0	10			0	0	0	0	0	0	41	31	82		7		2	10
8:30 AM	0	0	0	14			0	0	0	0	0	0	49	19	82		9		2	9
8:45 AM	0	0	0	12			0	0	0	0	0	0	50	19	81		4		5	13

		East	bound			West	bound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0					0	0	0	0	0	0	0	0	0
Lights	0	0	0	46					0	0	0	0	0	0	179	100	325
Mediums	0	0	0	3					0	0	0	0	0	0	10	3	16
Total	0	0	0	49					0	0	0	0	0	0	189	103	341

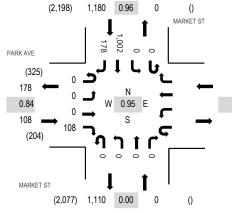


Location: 2 MARKET ST & PARK AVE PM

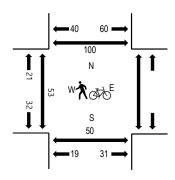
**Date:** Tuesday, October 30, 2018 **Peak Hour:** 05:00 PM - 06:00 PM

**Peak 15-Minutes:** 05:30 PM - 05:45 PM

### Peak Hour - All Vehicles



### Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

### **Traffic Counts**

		PARK	( AVE					MARKE	ET ST			MARK	ET ST							
Interval		Eastb	ound		Westb	oound		Northb	ound			Southl	ound			Rolling	Ped	destria	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn Left	Thru Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
4:00 PM	0	0	0	18			0	0	0	0	0	0	210	28	256	1,114	13		7	14
4:15 PM	0	0	0	28			0	0	0	0	0	0	195	42	265	1,150	9		18	15
4:30 PM	0	0	0	21			0	0	0	0	0	0	239	37	297	1,221	8		7	11
4:45 PM	0	0	0	29			0	0	0	0	0	0	227	40	296	1,263	12		15	6
5:00 PM	0	0	0	20			0	0	0	0	0	0	219	53	292	1,288	12		17	19
5:15 PM	0	0	0	34			0	0	0	0	0	0	264	38	336		7		11	17
5:30 PM	0	0	0	31			0	0	0	0	0	0	269	39	339		13		16	26
5:45 PM	0	0	0	23			0	0	0	0	0	0	250	48	321		14		5	27

		East	bound		Wes	tbound			North	ound			South	nbound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0				0	0	0	0	0	0	1	0	1
Lights	0	0	0	107				0	0	0	0	0	0	996	178	1,281
Mediums	0	0	0	1				0	0	0	0	0	0	5	0	6
Total	0	0	0	108				0	0	0	0	0	0	1,002	178	1,288



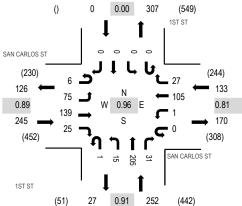
Location: 1 1ST ST & SAN CARLOS ST AM

Date: Wednesday, October 23, 2019

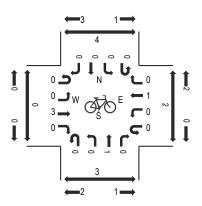
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

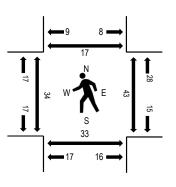




# Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

#### **Traffic Counts - Motorized Vehicles**

	SA	N CAF	RLOS S	ST	SAI	N CAR	LOS ST			1ST	ST			1ST	ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	ound			Rolling	Ped	lestriar	n Crossir	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru R	light	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	1	12	24	4	0	1	17	7	0	1	28	3	0	0	0	0	98	516	6	4	1	2
7:15 AM	2	14	21	7	0	0	21	5	0	1	29	6	0	0	0	0	106	582	5	12	10	4
7:30 AM	2	17	39	4	0	1	34	6	0	4	44	5	0	0	0	0	156	630	6	11	8	4
7:45 AM	2	17	43	7	0	0	26	6	0	4	43	8	0	0	0	0	156	619	11	7	7	5
8:00 AM	2	23	26	6	0	0	28	6	1	4	58	10	0	0	0	0	164	622	9	15	10	2
8:15 AM	0	18	31	8	0	0	17	9	0	3	60	8	0	0	0	0	154		8	10	8	6
8:30 AM	3	18	35	5	0	0	24	5	0	4	42	9	0	0	0	0	145		16	12	12	12
8:45 AM	2	19	33	7	0	0	23	8	0	5	55	7	0	0	0	0	159		7	6	6	6

		East	bound			Westk	ound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Lights	6	55	138	22	0	1	78	26	1	14	188	30	0	0	0	0	559
Mediums	0	20	1	3	0	0	27	1	0	0	17	1	0	0	0	0	70
Total	6	75	139	25	0	1	105	27	1	15	205	31	0	0	0	0	630



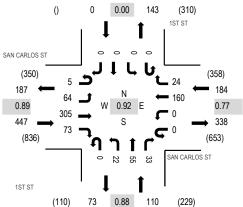
Location: 1 1ST ST & SAN CARLOS ST PM

Date: Wednesday, October 23, 2019

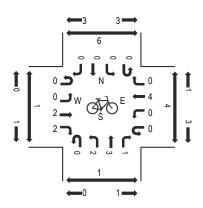
**Peak Hour:** 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:30 PM - 05:45 PM

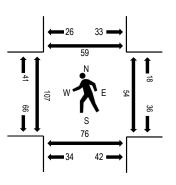




### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

#### **Traffic Counts - Motorized Vehicles**

	SA	N CAF	RLOS S	ST	SA	N CAR	RLOS S	Т		1ST	ST			1ST	ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestriar	n Cross	ings
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
4:00 PM	0	17	68	7	0	0	31	10	0	2	21	9	0	0	0	0	165	682	25	13	18	18
4:15 PM	0	17	82	8	0	0	31	4	0	4	19	4	0	0	0	0	169	680	13	7	5	11
4:30 PM	1	19	71	11	0	0	45	8	0	8	19	7	0	0	0	0	189	695	24	6	14	20
4:45 PM	0	13	64	11	0	0	37	8	0	4	12	10	0	0	0	0	159	708	14	10	9	5
5:00 PM	1	17	67	11	0	0	34	6	0	7	13	7	0	0	0	0	163	741	30	17	23	6
5:15 PM	1	16	78	17	0	0	39	5	0	6	16	6	0	0	0	0	184		33	19	26	13
5:30 PM	1	11	79	22	0	0	53	9	0	4	15	8	0	0	0	0	202		21	7	16	16
5:45 PM	2	20	81	23	0	0	34	4	0	5	11	12	0	0	0	0	192		23	11	11	24

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	5	47	304	73	0	0	135	23	0	22	43	32	0	0	0	0	684
Mediums	0	17	1	0	0	0	25	1	0	0	12	1	0	0	0	0	57
Total	5	64	305	73	0	0	160	24	0	22	55	33	0	0	0	0	741

Appendix B
Volumes Summary

Block 8 Office AM Peak-Hour

Intersection Number: 1 3107 Traffix Node Number:

Intersection Name: Market Street and San Carlos Street \*

Peak Hour: Count Date: 5/22/19

					M	ovement	S						
_	No	rth Appr	oach	Eas	st Appro	ach	Sou	ıth Appr	oach	Wes	st Appre	oach	
Scenario:	RT	TH	LT	RT	ŤĤ	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	42	153	24	27	95	0	21	835	245	76	165	56	1739
ATI	33	14	4	5	58	0	4	92	25	20	38	15	308
Background Conditions	75	167	28	32	153	0	25	927	270	96	203	71	2047
Proposed Project Trips	19	5	110	32	0	0	0	97	0	0	0	193	456
Background Plus Project Conditions	94	172	138	64	153	0	25	1024	270	96	203	264	2503

2 3667 Intersection Number: Traffix Node Number: Intersection Name:

Market Street and San Fernando Street

Peak Hour: AM Count Date: 5/22/19

					M	ovement	s						
_	No	rth Appr	oach	Eas	st Appro	ach	Sou	ıth Appr	oach	We	st Appro	oach	
Scenario:	RT	TH	LT	RT	ŤĤ	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	36	170	48	40	112	33	34	760	75	33	183	30	1554
ATI	4	40	3	2	7	2	5	78	12	2	15	3	173
Background Conditions	40	210	51	42	119	35	39	838	87	35	198	33	1727
Proposed Project Trips	0	54	0	0	0	0	9	14	16	9	0	0	102
Background Plus Project Conditions	40	264	51	42	119	35	48	852	103	44	198	33	1829

Block 8 Office AM Peak-Hour

Intersection Number: Traffix Node Number:

3 3668 Market Street and Park Street Intersection Name:

Peak Hour: Count Date: 10/30/18

					М	ovement	:S						
_	No	rth Appro	oach	Eas	t Appro	ach	Sou	th Appr	oach	Wes	t Appro	oach	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	103	189	0	0	0	0	0	0	0	49	0	0	341
ATI	14	28	0	0	0	0	0	0	0	6	0	0	48
Background Conditions	117	217	0	0	0	0	0	0	0	55	0	0	389
Proposed Project Trips	7	87	0	0	0	0	0	0	0	48	0	0	142
Background Plus Project Conditions	124	304	0	0	0	0	0	0	0	103	0	0	531

Intersection Number: 4 3510 Traffix Node Number:

Intersection Name: First Street and San Carlos Street

Peak Hour: AM 10/23/19 Count Date:

					M	ovement	s						
_	No	rth Appr	oach	Eas	st Appro	ach	Sou	ıth Appr	oach	We	st Appro	oach	
Scenario:	RT	TH	LT	RT	ŤĤ	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	0	0	0	27	105	0	31	205	16	25	139	81	629
ATI	0	0	0	1	13	0	11	54	47	1	16	3	146
Background Conditions	0	0	0	28	118	0	42	259	63	26	155	84	775
Proposed Project Trips	0	0	0	0	32	0	0	0	0	0	0	0	32
Background Plus Project Conditions	0	0	0	28	150	0	42	259	63	26	155	84	807

Block 8 Office PM Peak-Hour

Intersection Number: 1 3107 Traffix Node Number:

Market Street and San Carlos Street \* Intersection Name:

Peak Hour: 12/11/18 Count Date:

					Mo	ovement	S						
_	No	rth Appr	oach	Eas	st Appro	ach	Sou	th Appr	oach	Wes	st Appro	oach	
Scenario:	RT	TH	LT	RT	ŤĤ	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	63	744	149	75	158	0	88	304	86	319	384	130	2500
ATI	12	73	10	1	18	0	1	10	7	219	18	30	399
Background Conditions	75	817	159	76	176	0	89	314	93	538	402	160	2899
Proposed Project Trips	116	32	22	7	0	0	0	20	0	0	0	39	236
Background Plus Project Conditions	191	849	181	83	176	0	89	334	93	538	402	199	3135

2 3667 Intersection Number: Traffix Node Number: Intersection Name:

Market Street and San Fernando Street

Peak Hour: PM Count Date: 5/22/19

					M	ovement	s						
_	No	orth Appro	oach	Eas	st Appro	ach	Sou	ıth Appr	oach	Wes	st Appro	ach	
Scenario:	RT	TH	LT	RT	TH LT	RT	TH	LT	RT	TH	LT	Total	
Existing Conditions	53	1025	105	40	147	65	42	200	25	161	187	18	2068
ATI	10	98	8	3	17	5	3	36	2	8	13	2	205
Background Conditions	63	1123	113	43	164	70	45	236	27	169	200	20	2273
Proposed Project Trips	0	11	0	0	0	0	54	86	99	2	0	0	252
Background Plus Project Conditions	63	1134	113	43	164	70	99	322	126	171	200	20	2525

Block 8 Office PM Peak-Hour

Intersection Number: Traffix Node Number:

3 3668 Market Street and Park Street Intersection Name:

Peak Hour: Count Date: 10/30/18

					M	ovement	s						
_	No	rth Appro	oach	Eas	t Appro	ach	Sou	th Appr	oach	Wes	t Appr	oach	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	178	1002	0	0	0	0	0	0	0	108	0	0	1288
ATI	6	39	0	0	0	0	0	0	0	3	0	0	48
Background Conditions	184	1041	0	0	0	0	0	0	0	111	0	0	1336
Proposed Project Trips	43	161	0	0	0	0	0	0	0	10	0	0	214
Background Plus Project Conditions	227	1202	0	0	0	0	0	0	0	121	0	0	1550

Intersection Number: 4 3510 Traffix Node Number:

Intersection Name: First Street and San Carlos Street

Peak Hour: РМ 10/23/19 Count Date:

					M	ovement	S						
_	No	rth Appr	oach	Eas	st Appro	ach	Sou	th Appr	oach	We	st Appro	ach	
Scenario:	RT	TH	LT	RT	ŤĤ	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	0	0	0	24	160	0	33	55	22	73	305	69	741
ATI	0	0	0	1	9	0	1	5	5	2	12	1	36
Background Conditions	0	0	0	25	169	0	34	60	27	75	317	70	777
Proposed Project Trips	0	0	0	0	7	0	0	0	0	0	0	0	7
Background Plus Project Conditions	0	0	0	25	176	0	34	60	27	75	317	70	784

Appendix C
Intersection Vehicle
Queue Analysis

1. Market/San Carlos EBL AM Existing Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.98

2.0 5 0.95

1. Market/San Carlos EBL AM

Background Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.95 2.5 5 0.95

1. Market/San Carlos EBL AM

Background Plus Project Conditions Avg. Queue Per Lane in Veh=

9.4 Percentile = 15 0.95

Individual Probability   Probability Probability   Proba	Percentile =	0.95	5
Individual Probability         Cumulative Probability         Queued Vehicles           0.1365         0.1365         0           0.2719         0.4084         1           0.2707         0.6791         2           0.1796         0.8587         3           0.0894         0.9481         4           0.0356         0.9838         5           0.0118         0.9956         6           0.0034         0.9989         7           0.0008         0.9998         8           0.0002         1.0000         9           0.0000         1.0000         10           0.0000         1.0000         12           0.0000         1.0000         12           0.0000         1.0000         13           0.0000         1.0000         15           0.0000         1.0000         15           0.0000         1.0000         17           0.0000         1.0000         18           0.0000         1.0000         21           0.0000         1.0000         22           0.0000         1.0000         24           0.0000         1.0000         25			Number of
Probability         Probability         Vehicles           0.1365         0.1365         0           0.2719         0.4084         1           0.2707         0.6791         2           0.1796         0.8587         3           0.0894         0.9481         4           0.0356         0.9838         5           0.0118         0.9956         6           0.0034         0.9989         7           0.0008         0.9998         8           0.0002         1.0000         9           0.0000         1.0000         10           0.0000         1.0000         12           0.0000         1.0000         12           0.0000         1.0000         13           0.0000         1.0000         15           0.0000         1.0000         15           0.0000         1.0000         17           0.0000         1.0000         18           0.0000         1.0000         21           0.0000         1.0000         22           0.0000         1.0000         24           0.0000         1.0000         25           0.0000	Individual	Cumulative	
0.1365         0.1365         0           0.2719         0.4084         1           0.2707         0.6791         2           0.1796         0.8587         3           0.0894         0.9481         4           0.0356         0.9838         5           0.0118         0.9956         6           0.0034         0.9989         7           0.0008         0.9998         8           0.0002         1.0000         9           0.0000         1.0000         10           0.0000         1.0000         12           0.0000         1.0000         12           0.0000         1.0000         13           0.0000         1.0000         15           0.0000         1.0000         15           0.0000         1.0000         17           0.0000         1.0000         18           0.0000         1.0000         19           0.0000         1.0000         22           0.0000         1.0000         23           0.0000         1.0000         24           0.0000         1.0000         25           0.0000         1.0000 </td <td>Probability</td> <td>Probability</td> <td></td>	Probability	Probability	
0.2719         0.4084         1           0.2707         0.6791         2           0.1796         0.8587         3           0.0894         0.9481         4           0.0356         0.9838         5           0.0118         0.9956         6           0.0034         0.9989         7           0.0008         0.9998         8           0.0002         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         19           0.0000         1.0000         20           0.0000         1.0000         21           0.0000         1.0000         23           0.0000         1.0000         24           0.0000         1.0000         25           0.0000         1.0000<	•	,	0
0.2707         0.6791         2           0.1796         0.8587         3           0.0894         0.9481         4           0.0356         0.9838         5           0.0118         0.9956         6           0.0034         0.9989         7           0.0008         0.9998         8           0.0002         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         15           0.0000         1.0000         15           0.0000         1.0000         17           0.0000         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         24           0.0000         1.0000         25           0.0000         1.0000         27           0.0000         1.0000			
0.1796         0.8587         3           0.0894         0.9481         4           0.0356         0.9838         5           0.0118         0.9956         6           0.0034         0.9989         7           0.0008         0.9998         8           0.0002         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         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         27           0.0000         1.000			
0.0894         0.9481         4           0.0356         0.9838         5           0.0118         0.9956         6           0.0034         0.9989         7           0.0008         0.9998         8           0.0002         1.0000         9           0.0000         1.0000         10           0.0000         1.0000         12           0.0000         1.0000         13           0.0000         1.0000         15           0.0000         1.0000         15           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         27           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.00			
0.0356         0.9838         5           0.0118         0.9956         6           0.0034         0.9989         7           0.0008         0.9998         8           0.0002         1.0000         9           0.0000         1.0000         10           0.0000         1.0000         12           0.0000         1.0000         13           0.0000         1.0000         15           0.0000         1.0000         15           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         27           0.0000         1.0000         28           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.0			
0.0118         0.9956         6           0.0034         0.9989         7           0.0008         0.9998         8           0.0002         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         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         27           0.0000         1.0000         29           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.			·
0.0034         0.9989         7           0.0008         0.9998         8           0.0002         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         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         30           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1			
0.0008         0.9998         8           0.0002         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         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         28           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.0000         34           0.0000			
0.0002         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         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         28           0.0000         1.0000         28           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.0000         34           0.0000 <td< td=""><td></td><td></td><td>-</td></td<>			-
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         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         30           0.0000         1.0000         31           0.0000         1.0000         32           0.0000         1.0000         33           0.0000         1.0000         35           0.0000 <t< td=""><td></td><td></td><td></td></t<>			
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         23           0.0000         1.0000         24           0.0000         1.0000         25           0.0000         1.0000         26           0.0000         1.0000         28           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.0000         34           0.0000         1.0000         35           0.0000         1.0000         36           0.0000         1.0000         36           0.0000 <t< td=""><td></td><td></td><td>-</td></t<>			-
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         23           0.0000         1.0000         24           0.0000         1.0000         25           0.0000         1.0000         26           0.0000         1.0000         28           0.0000         1.0000         29           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.0000         34           0.0000         1.0000         35           0.0000         1.0000         36           0.0000         1.0000         36           0.0000 <t< td=""><td></td><td></td><td></td></t<>			
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         23           0.0000         1.0000         24           0.0000         1.0000         25           0.0000         1.0000         26           0.0000         1.0000         28           0.0000         1.0000         29           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.0000         34           0.0000         1.0000         35           0.0000         1.0000         36           0.0000         1.0000         38           0.0000         1.0000         38			
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         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         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         36           0.0000         1.0000         36           0.0000         1.0000         38           0.0000         1.0000         39			
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         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         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         36           0.0000         1.0000         36           0.0000         1.0000         38           0.0000         1.0000         39			
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         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         36           0.0000         1.0000         36           0.0000         1.0000         38           0.0000         1.0000         39			
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         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         38           0.0000         1.0000         38           0.0000         1.0000         39			
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         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         38           0.0000         1.0000         38           0.0000         1.0000         39			
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         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         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         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         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         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         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         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         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         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         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         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         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     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     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     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     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     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			33
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			34
0.0000     1.0000     36       0.0000     1.0000     37       0.0000     1.0000     38       0.0000     1.0000     39			35
0.0000       1.0000       38         0.0000       1.0000       39			
0.0000       1.0000       38         0.0000       1.0000       39	0.0000	1.0000	37
0.0000 1.0000 39	0.0000		38
	0.0000		
0.0000 1.0000 40	0.0000		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	0.0000	1.0000	44
0.0000 1.0000 45	0.0000	1.0000	45

		Number of			Number of
Individual	Cumulative	Queued	Individual	Cumulative	Queued
Probability	Probability	Vehicles	Probability	Probability	Vehicles
0.0801	0.0801	0	0.0001	0.0001	0
0.2022	0.2823	1	0.0008	0.0009	1
0.2552	0.5376	2	0.0037	0.0046	2
0.2148	0.7523	3	0.0116	0.0161	3
0.1356	0.8879	4	0.0271	0.0432	4
0.0684	0.9563	5	0.0509	0.0941	5
0.0288	0.9851	6	0.0796	0.1738	6
0.0104	0.9955	7	0.1068	0.2806	7
0.0033	0.9988	8	0.1253	0.4059	8
0.0009	0.9997	9	0.1307	0.5366	9
0.0002	0.9999	10	0.1227	0.6593	10
0.0001	1.0000	11	0.1047	0.7640	11
0.0000	1.0000	12	0.0819	0.8459	12
0.0000	1.0000	13	0.0591	0.9050	13
0.0000	1.0000	14	0.0396	0.9446	14
0.0000	1.0000	15	0.0248	0.9694	15
0.0000	1.0000	16	0.0146	0.9840	16
0.0000	1.0000	17	0.0080	0.9920	17
0.0000	1.0000	18	0.0042	0.9962	18
0.0000	1.0000	19	0.0021	0.9983	19
0.0000	1.0000	20	0.0010	0.9993	20
0.0000	1.0000	21	0.0004	0.9997	21
0.0000	1.0000	22	0.0002	0.9999	22
0.0000	1.0000	23	0.0001	1.0000	23
0.0000	1.0000	24	0.0000	1.0000	24
0.0000	1.0000	25	0.0000	1.0000	25
0.0000	1.0000	26	0.0000	1.0000	26
0.0000	1.0000	27	0.0000	1.0000	27
0.0000	1.0000	28	0.0000	1.0000	28
0.0000	1.0000	29	0.0000	1.0000	29
0.0000	1.0000	30	0.0000	1.0000	30
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	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	37
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	0.0000	1.0000	44
0.0000	1.0000	45	0.0000	1.0000	45

Market/San Carlos
 EBL
 PM
 Existing Conditions

Existing Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.95 8

1. Market/San Carlos EBL PM

Background Conditions
Avg. Queue Per Lane in Veh= 5.7
Percentile = 0.95 10

1. Market/San Carlos EBL PM

Background Plus Project Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.95 12

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		Number of
Individual	Cumulative	Queued
Probability	Probability	Vehicles
0.0098	0.0098	0
0.0454	0.0553	1
0.1050	0.1603	2
0.1618	0.3221	3
0.1870	0.5091	4
0.1728	0.6819	5
0.1332	0.8151	6
0.0879	0.9030	7
0.0508	0.9538	8
0.0261	0.9799	9
0.0121	0.9920	10
0.0051	0.9970	11
0.0020	0.9990	12
0.0007	0.9997	13
0.0002	0.9999	14
0.0001	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 0.0000	1.0000 1.0000	30 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

1 Groomano	0.00	10		1 010011110	0.00	12
		Number of				Number of
Individual	Cumulative	Queued		Individual	Cumulative	Queued
Probability	Probability	Vehicles		Probability	Probability	Vehicles
0.0034	0.0034	0		0.0008	0.0008	0
0.0034	0.0226	1		0.0060	0.0068	1
0.0192	0.0220	2		0.0000	0.0280	2
0.1038	0.1812	3		0.0212	0.0280	3
0.1036	0.3289	4		0.0499	0.0779	3 4
0.1477	0.4969	5		0.0663	0.1002	5
0.1593	0.6561	6		0.1230	0.4385	6
0.1395	0.7856	7		0.1474	0.5875	7
0.0921	0.7836	8		0.1469	0.7192	8
		9				9
0.0582	0.9358	9 10		0.1036 0.0733	0.8228 0.8960	9 10
0.0331	0.9689					
0.0171	0.9861	11		0.0471	0.9432	11
0.0081	0.9942	12		0.0278	0.9710	12
0.0036	0.9977	13		0.0151	0.9861	13
0.0014	0.9992	14		0.0076	0.9937	14
0.0005	0.9997	15		0.0036	0.9973	15
0.0002	0.9999	16		0.0016	0.9989	16
0.0001	1.0000	17		0.0007	0.9996	17
0.0000	1.0000	18		0.0003	0.9999	18
0.0000	1.0000	19		0.0001	0.9999	19
0.0000	1.0000	20		0.0000	1.0000	20
0.0000	1.0000	21		0.0000	1.0000	21
0.0000	1.0000	22		0.0000	1.0000	22
0.0000	1.0000	23		0.0000	1.0000	23
0.0000	1.0000	24		0.0000	1.0000	24
0.0000	1.0000	25		0.0000	1.0000	25
0.0000	1.0000	26		0.0000	1.0000	26
0.0000	1.0000	27		0.0000	1.0000	27
0.0000	1.0000	28		0.0000	1.0000	28
0.0000	1.0000	29		0.0000	1.0000	29
0.0000	1.0000	30		0.0000	1.0000	30
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	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	37
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		0.0000	1.0000	44
0.0000	1.0000	45		0.0000	1.0000	45
		. 05   0/47	,,,,	20.1440	,	

Market/San Carlos
 SBL
 AM
 Existing Conditions
 Average Park and in Vehre

Existing Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.95 3

Market/San Carlos
 SBL
 AM
 Background Conditions

Background Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.95 3

Market/San Carlos
 SBL
 AM
 Reckground Plus Proi

Background Plus Project Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.95 9

		Number of
Individual	Cumulative	Queued
Probability	Probability	Vehicles
0.4260	0.4260	0
0.3635	0.7895	1
0.1551	0.9446	2
0.0441	0.9887	3
0.0094	0.9981	4
0.0016	0.9997	5
0.0002	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

1 010011110	0.00	Ü		1 Oroontilo	0.00	Ü
		Number of				Number of
Individual	Cumulative	Queued		Individual	Cumulative	Queued
Probability	Probability	Vehicles		Probability	Probability	Vehicles
0.3695	0.3695	0		0.0074	0.0074	0
0.3679	0.7374	1		0.0363	0.0437	1
0.1831	0.9205	2		0.0890	0.1327	2
0.0608	0.9813	3		0.1456	0.2784	3
0.0151	0.9964	4		0.1786	0.4570	4
0.0030	0.9994	5		0.1753	0.6323	5
0.0005	0.9999	6		0.1434	0.7757	6
0.0001	1.0000	7		0.1005	0.8762	7
0.0000	1.0000	8		0.0616	0.9378	8
0.0000	1.0000	9		0.0336	0.9714	9
0.0000	1.0000	10		0.0165	0.9879	10
0.0000	1.0000	11		0.0074	0.9953	11
0.0000	1.0000	12		0.0030	0.9983	12
0.0000	1.0000	13		0.0011	0.9994	13
0.0000	1.0000	14		0.0004	0.9998	14
0.0000	1.0000	15		0.0001	0.9999	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	19		0.0000	1.0000	19
0.0000	1.0000	20		0.0000	1.0000	20
0.0000	1.0000	21		0.0000	1.0000	21
0.0000	1.0000	22		0.0000	1.0000	22
0.0000	1.0000	23		0.0000	1.0000	23
0.0000	1.0000	24		0.0000	1.0000	24
0.0000	1.0000	25		0.0000	1.0000	25
0.0000	1.0000	26		0.0000	1.0000	26
0.0000	1.0000	27		0.0000	1.0000	27
0.0000	1.0000	28		0.0000	1.0000	28
0.0000	1.0000	29		0.0000	1.0000	29
0.0000	1.0000	30		0.0000	1.0000	30
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	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	37
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		0.0000	1.0000	44
0.0000	1.0000	45		0.0000	1.0000	45
			100			

1. Market/San Carlos 1. Market/San Carlos 1. Market/San Carlos SBL SBL SBL PM РМ PM Existing Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.98 Background Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.95 Background Plus Project Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.95 5.7 5.3 9 10 0.95 0.95

	_	Number of			Number of			Number of
Individual	Cumulative	Queued	Individual	Cumulative	Queued	Individual	Cumulative	Queued
Probability	Probability	Vehicles	Probability	Probability	Vehicles	Probability	Probability	Vehicles
0.0050	0.0050	0	0.0035	0.0035	0	0.0016	0.0016	0
0.0265	0.0315	1	0.0198	0.0233	1	0.0103	0.0119	1
0.0702	0.1017	2	0.0560	0.0793	2	0.0332	0.0451	2
0.1240	0.2257	3	0.1056	0.1849	3	0.0712	0.1164	3
0.1642	0.3899	4	0.1492	0.3341	4	0.1146	0.2310	4
0.1740	0.5639	5	0.1687	0.5028	5	0.1475	0.3785	5
0.1536	0.7175	6	0.1590	0.6618	6	0.1582	0.5367	6
0.1163	0.8337	7	0.1284	0.7902	7	0.1455	0.6822	7
0.0770	0.9107	8	0.0907	0.8809	8	0.1170	0.7992	8
0.0453	0.9560	9	0.0570	0.9379	9	0.0837	0.8828	9
0.0240	0.9801	10	0.0322	0.9701	10	0.0538	0.9367	10
0.0116	0.9916	11	0.0166	0.9867	11	0.0315	0.9682	11
0.0051	0.9967	12	0.0078	0.9945	12	0.0169	0.9851	12
0.0021	0.9988	13	0.0034	0.9978	13	0.0084	0.9935	13
0.0008	0.9996	14	0.0014	0.9992	14	0.0038	0.9973	14
0.0003	0.9999	15	0.0005	0.9997	15	0.0016	0.9990	15
0.0001	1.0000	16	0.0002	0.9999	16	0.0007	0.9996	16
0.0000	1.0000	17	0.0001	1.0000	17	0.0003	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

Queuing 05.xls 8/17/2020 M14

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11

2. Market/San Fernando NBL AM Existing Conditions

Existing Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.95 5

2. Market/San Fernando NBL AM

Background Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.95 5

2. Market/San Fernando NBL AM

Background Plus Project Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.95 6

Percentile =	0.95	3
		Number of
Individual	Cumulative	Queued
Probability	Probability	Vehicles
0.1245	0.1245	0
0.2594	0.3839	1
0.2702	0.6541	2
0.1876	0.8418	3
0.0977	0.9395	4
0.0407	0.9802	5
0.0141	0.9944	6
0.0042	0.9986	7
0.0011	0.9997	8
0.0003	0.9999	9
0.0001	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

		Number of			Number of
Individual	Cumulative	Queued	Individual	Cumulative	Queued
Probability	Probability	Vehicles	Probability	Probability	Vehicles
0.0892	0.0892	0	0.0572	0.0572	0
0.2156	0.3048	1	0.1637	0.2209	1
0.2605	0.5654	2	0.2341	0.4550	2
0.2099	0.7752	3	0.2233	0.6783	3
0.1268	0.9020	4	0.1597	0.8380	4
0.0613	0.9633	5	0.0914	0.9294	5
0.0247	0.9880	6	0.0436	0.9730	6
0.0085	0.9965	7	0.0178	0.9908	7
0.0026	0.9991	8	0.0064	0.9972	8
0.0007	0.9998	9	0.0020	0.9992	9
0.0002	1.0000	10	0.0006	0.9998	10
0.0000	1.0000	11	0.0002	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	14
0.0000	1.0000	15	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	19	0.0000	1.0000	19
0.0000	1.0000	20	0.0000	1.0000	20
0.0000	1.0000	21	0.0000	1.0000	21
0.0000	1.0000	22	0.0000	1.0000	22
0.0000	1.0000	23	0.0000	1.0000	23
0.0000	1.0000	24	0.0000	1.0000	24
0.0000	1.0000	25	0.0000	1.0000	25
0.0000	1.0000	26	0.0000	1.0000	26
0.0000	1.0000	27	0.0000	1.0000	27
0.0000	1.0000	28	0.0000	1.0000	28
0.0000	1.0000	29	0.0000	1.0000	29
0.0000	1.0000	30	0.0000	1.0000	30
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	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	37
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	0.0000	1.0000	44
0.0000	1.0000	45	0.0000	1.0000	45

2. Market/San Fernando NBL PM Existing Conditions

Existing Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.95 2

2. Market/San Fernando NBL PM

Background Conditions
Avg. Queue Per Lane in Veh=
Percentile = 0.95 2

2. Market/San Fernando NBL PM

Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 3.5
Percentile = 0.95 7

Individual Probability			
Probability         Probability         Vehicles           0.4994         0.4994         0           0.3468         0.8461         1           0.1204         0.9665         2           0.0279         0.9944         3           0.0007         0.9999         5           0.0001         1.0000         6           0.0000         1.0000         7           0.0000         1.0000         10           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         18           0.0000         1.0000         20           0.0000         1.0000         21           0.0000         1.0000         22           0.0000         1.0000         23           0.0000			Number of
0.4994         0.4994         0           0.3468         0.8461         1           0.1204         0.9665         2           0.0279         0.9944         3           0.0007         0.9999         5           0.0001         1.0000         6           0.0000         1.0000         7           0.0000         1.0000         8           0.0000         1.0000         10           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         15           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	Individual	Cumulative	Queued
0.3468         0.8461         1           0.1204         0.9665         2           0.0279         0.9944         3           0.0007         0.9999         5           0.0001         1.0000         6           0.0000         1.0000         7           0.0000         1.0000         9           0.0000         1.0000         10           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         17           0.0000         1.0000         18           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         1.000	Probability	Probability	Vehicles
0.3468         0.8461         1           0.1204         0.9665         2           0.0279         0.9944         3           0.0007         0.9999         5           0.0001         1.0000         6           0.0000         1.0000         7           0.0000         1.0000         9           0.0000         1.0000         10           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         17           0.0000         1.0000         18           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         1.000	0 4994	0 4994	0
0.1204         0.9665         2           0.0279         0.9944         3           0.0007         0.9999         5           0.0001         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         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         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         24           0.0000         1.0000         25           0.0000         1.0000         27           0.0000         1.000			
0.0279         0.9944         3           0.0048         0.9992         4           0.0007         0.9999         5           0.0001         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         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         18           0.0000         1.0000         20           0.0000         1.0000         21           0.0000         1.0000         23           0.0000         1.0000         24           0.0000         1.0000         25           0.0000         1.0000         27           0.0000         1.0000         29           0.0000         1.000			
0.0048         0.9992         4           0.0007         0.9999         5           0.0001         1.0000         6           0.0000         1.0000         7           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         15           0.0000         1.0000         16           0.0000         1.0000         17           0.0000         1.0000         18           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         25           0.0000         1.0000         27           0.0000         1.0000         29           0.0000         1.0000         32           0.0000         1.0			
0.0007         0.9999         5           0.0001         1.0000         6           0.0000         1.0000         7           0.0000         1.0000         8           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         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         27           0.0000         1.0000         28           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.			
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         27           0.0000         1.0000         28           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1	0.0007	0.9999	5
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         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         28           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.0000         33           0.0000	0.0001	1.0000	6
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         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         28           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.0000         33           0.0000         1.0000         34           0.0000 <td< td=""><td>0.0000</td><td>1.0000</td><td>7</td></td<>	0.0000	1.0000	7
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         23           0.0000         1.0000         24           0.0000         1.0000         25           0.0000         1.0000         26           0.0000         1.0000         28           0.0000         1.0000         28           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.0000         33           0.0000         1.0000         35           0.0000 <t< td=""><td>0.0000</td><td>1.0000</td><td>8</td></t<>	0.0000	1.0000	8
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         23           0.0000         1.0000         24           0.0000         1.0000         25           0.0000         1.0000         26           0.0000         1.0000         28           0.0000         1.0000         29           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.0000         34           0.0000         1.0000         35           0.0000         1.0000         36           0.0000         1.0000         36           0.0000 <t< td=""><td>0.0000</td><td>1.0000</td><td>9</td></t<>	0.0000	1.0000	9
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         28           0.0000         1.0000         29           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.0000         34           0.0000         1.0000         35           0.0000         1.0000         36           0.0000 <t< td=""><td>0.0000</td><td>1.0000</td><td>10</td></t<>	0.0000	1.0000	10
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         28           0.0000         1.0000         29           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.0000         34           0.0000         1.0000         35           0.0000         1.0000         36           0.0000         1.0000         39           0.0000 <t< td=""><td></td><td></td><td></td></t<>			
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         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         28           0.0000         1.0000         29           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.0000         33           0.0000         1.0000         34           0.0000         1.0000         36           0.0000         1.0000         36           0.0000         1.0000         39           0.0000         1.0000         39           0.0000 <t< td=""><td></td><td></td><td></td></t<>			
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         27           0.0000         1.0000         28           0.0000         1.0000         29           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.0000         33           0.0000         1.0000         34           0.0000         1.0000         36           0.0000         1.0000         37           0.0000         1.0000         39           0.0000         1.0000         40           0.0000 <t< td=""><td></td><td></td><td></td></t<>			
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         27           0.0000         1.0000         28           0.0000         1.0000         29           0.0000         1.0000         30           0.0000         1.0000         32           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         39           0.0000         1.0000         40           0.0000         1.0000         42           0.0000 <t< td=""><td></td><td></td><td></td></t<>			
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         28           0.0000         1.0000         29           0.0000         1.0000         30           0.0000         1.0000         32           0.0000         1.0000         32           0.0000         1.0000         33           0.0000         1.0000         34           0.0000         1.0000         36           0.0000         1.0000         37           0.0000         1.0000         39           0.0000         1.0000         40           0.0000         1.0000         42           0.0000         1.0000         42           0.0000 <t< td=""><td></td><td></td><td></td></t<>			
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         27           0.0000         1.0000         28           0.0000         1.0000         29           0.0000         1.0000         30           0.0000         1.0000         32           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         39           0.0000         1.0000         40           0.0000         1.0000         42           0.0000         1.0000         42           0.0000         1.0000         43           0.0000 <t< td=""><td></td><td></td><td>-</td></t<>			-
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         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         38           0.0000         1.0000         39           0.0000         1.0000         40           0.0000         1.0000         42           0.0000         1.0000         43           0.0000         1.0000         43           0.0000 <t< td=""><td></td><td></td><td></td></t<>			
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         30           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         38           0.0000         1.0000         39           0.0000         1.0000         40           0.0000         1.0000         42           0.0000         1.0000         43           0.0000         1.0000         43           0.0000 <t< td=""><td></td><td></td><td>_</td></t<>			_
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         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         42           0.0000         1.0000         43           0.0000         1.0000         44			_
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         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         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         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         43           0.0000         1.0000         44			
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         43           0.0000         1.0000         44			
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         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         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         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         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         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         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       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       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       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     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	32
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	33
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	34
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	35
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	36
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		37
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     41       0.0000     1.0000     42       0.0000     1.0000     43       0.0000     1.0000     44			
0.0000       1.0000       42         0.0000       1.0000       43         0.0000       1.0000       44			-
0.0000       1.0000       43         0.0000       1.0000       44			
0.0000 1.0000 44			
0.0000 1.0000 45			
	0.0000	1.0000	45

		Number of			Number of
Individual	Cumulative	Queued	Individual	Cumulative	Queued
Probability	Probability	Vehicles	Probability	Probability	Vehicles
0.4724	0.4724	0	0.0302	0.0302	0
0.3543	0.8266	1	0.1057	0.1359	1
0.1329	0.9595	2	0.1850	0.3208	2
0.0332	0.9927	3	0.2158	0.5366	3
0.0062	0.9989	4	0.1888	0.7254	4
0.0009	0.9999	5	0.1322	0.8576	5
0.0001	1.0000	6	0.0771	0.9347	6
0.0000	1.0000	7	0.0385	0.9733	7
0.0000	1.0000	8	0.0169	0.9901	8
0.0000	1.0000	9	0.0066	0.9967	9
0.0000	1.0000	10	0.0023	0.9990	10
0.0000	1.0000	11	0.0007	0.9997	11
0.0000	1.0000	12	0.0002	0.9999	12
0.0000	1.0000	13	0.0001	1.0000	13
0.0000	1.0000	14	0.0000	1.0000	14
0.0000	1.0000	15	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	19	0.0000	1.0000	19
0.0000	1.0000	20	0.0000	1.0000	20
0.0000	1.0000	21	0.0000	1.0000	21
0.0000	1.0000	22	0.0000	1.0000	22
0.0000	1.0000	23	0.0000	1.0000	23
0.0000	1.0000	24	0.0000	1.0000	24
0.0000	1.0000	25	0.0000	1.0000	25
0.0000	1.0000	26	0.0000	1.0000	26
0.0000	1.0000	27	0.0000	1.0000	27
0.0000	1.0000	28	0.0000	1.0000	28
0.0000	1.0000	29	0.0000	1.0000	29
0.0000	1.0000	30	0.0000	1.0000	30
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	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	37
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	0.0000	1.0000	44
0.0000	1.0000	45	0.0000	1.0000	45