Appendix H

Long-Term Transportation Analysis

Hexagon Transportation Consultants, Inc.

Memorandum

Date: February 25, 2022

To: Christy Cheung, City of San Jose

From: Robert Del Rio, T.E., Luis Descanzo

Subject: Montgomery Plaza I and II Mixed-Use Development Local Transportation Analysis

Hexagon Transportation Consultants, Inc. has completed a Local Transportation Analysis (LTA) for the proposed Montgomery Plaza Phases I and II residential/retail development in Downtown San Jose. The project sites are located at 565 Lorraine Avenue (Phase I) and 543 Lorraine Avenue (Phase II). The Phase I site development is proposed to consist of 123 residential units (15% of units reserved as affordable units) and up to 1,922 sf of ground floor commercial space while the Phase II site development is proposed to consist of 264 residential studios (24% of units reserved as low-income units) and up to 2,209 s.f. of ground floor commercial space. The sites are divided by a vacant lot that is not part of the project. Vehicular access and on-site parking will not be provided within the Phase I site. At the Phase II site, one full-access driveway will provide access to 83 on-site parking spaces. Of the 83 parking spaces at the Phase II site, 26 spaces will be reserved for residents of the Phase I site. Figure 1 shows the project site locations.

The project sites are 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.

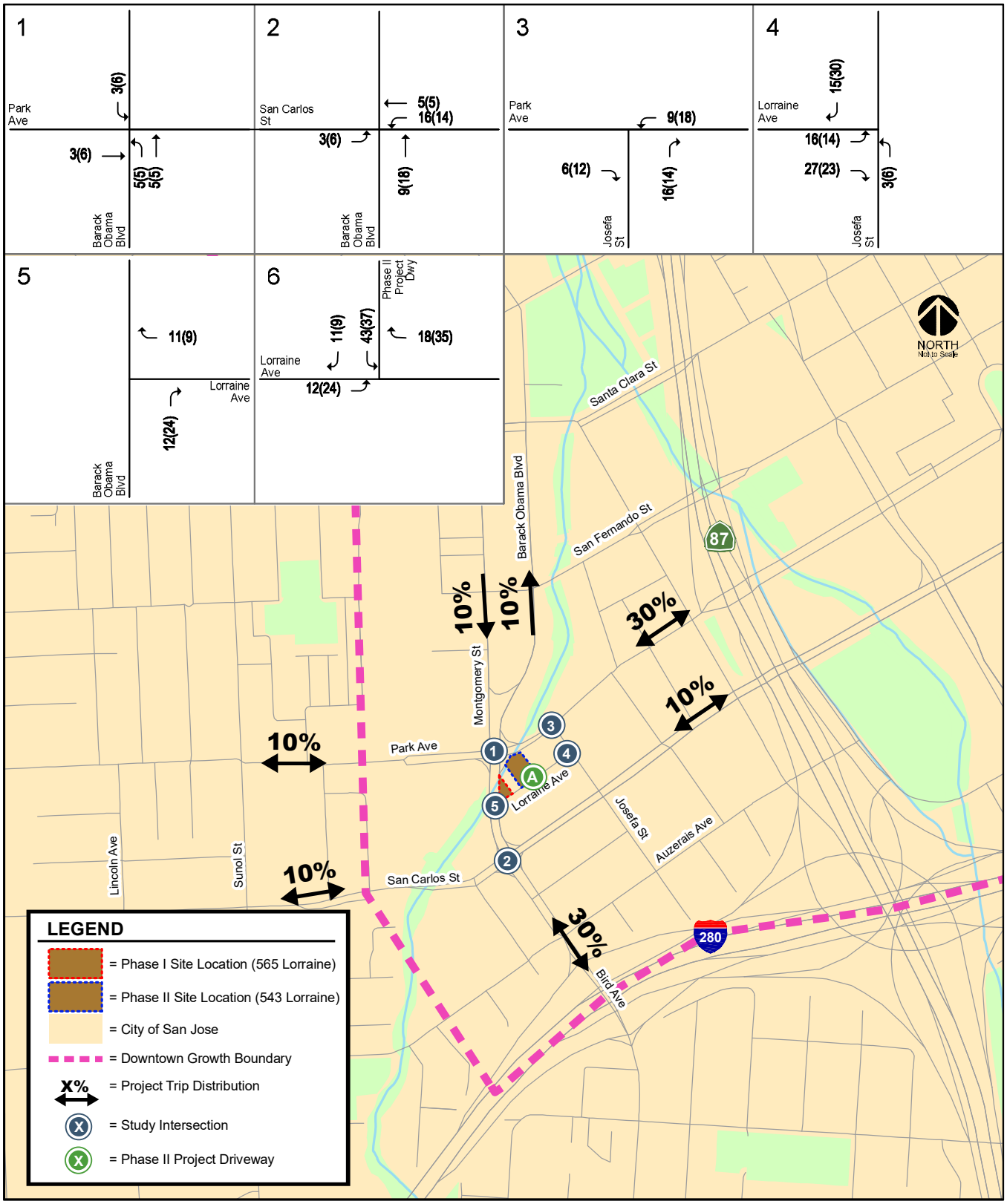
Existing Conditions

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.

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 Barack Obama Boulevard, Bird Avenue, Montgomery Street, San

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



Carlos Street, Park Avenue, Josefa Street, and Lorraine Avenue. 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 Phase II project site driveway are provided via its full interchange at Bird Avenue.

Barack Obama Boulevard is a north-south roadway, designated as a City Connector Street in the General Plan, that runs between Auzerais Avenue and St. John Street. South of Auzerais Avenue, Barack Obama Boulevard transitions to Bird Avenue while north of St. John Street, Barack Obama Boulevard transitions to Autumn Street. Between Auzerais Avenue and Park Avenue, Barack Obama Boulevard consists of two northbound travel lanes and three southbound travel lanes. Between Park Avenue and Santa Clara Street, Barack Obama Boulevard is a two-lane, one-way (northbound) roadway that works as a couplet with Montgomery Street. North of Santa Clara Street, Barack Obama Boulevard is a two-lane two-way roadway. Land uses located along Barack Obama Boulevard are generally commercial with parking provided on both sides of the street in most areas. Bike lanes are provided along the entire length of the roadway. Barack Obama Boulevard has a posted speed limit of 35 mph and would provide access to the Phase II project site driveway via Lorraine Avenue.

Bird Avenue is a four-lane north-south roadway, designated as a City Connector Street in the General Plan, that provides access to I-280 via a full interchange. Bird Avenue runs from the Willow Glen Area of San Jose to Auzerais Avenue, where it transitions into Barack Obama Boulevard. Land uses located along Bird Avenue are generally commercial north of the I-280 interchange and residential south of the interchange, with parking provided on both sides of the street in most areas. Bike lanes are provided along both sides of Bird Avenue. Bird Avenue has a posted speed limit of 35 mph and would provide access to the Phase II project site driveway via Barack Obama Boulevard and Lorraine Avenue.

Montgomery Street is a north-south roadway that extends between Santa Clara Street and Park Avenue. Montgomery Street is a two-lane, one-way (southbound), General Plan-designated Main Street that works as a couplet with Barack Obama Boulevard. Montgomery Street is lined with commercial and industrial land uses, it includes parking along both sides of the street in most areas, and has a posted speed limit of 35 mph. Access to the Phase II project site driveway from Montgomery Street would be provided via Barack Obama Boulevard and Lorraine Avenue.

San Carlos Street is a four-lane east-west roadway, designated as a Grand Boulevard in the General Plan, that runs from 4th Street westward to Bascom Avenue, just east of I-880, at which point it transitions into Stevens Creek Boulevard. Land uses located along San Carlos Street are generally commercial and industrial, although some high-density residential developments are planned or under construction. Parking is provided on both sides of the street in most areas. Within the study area, San Carlos Street has a posted speed limit of 35 mph, includes sidewalks along both sides of the street, and has a median island with left-turn pockets. San Carlos Street would provide access to the Phase II project site driveway via Barack Obama Boulevard, Josefa Street, and Lorraine Avenue.

Park Avenue is an east-west roadway that extends from Market Street in Downtown San Jose to Meridian Avenue. West of Meridian Avenue, Park Avenue proceeds in a northwest direction into Santa Clara, where it terminates at its intersection with Bellomy Street/The Alameda. Park Avenue is designated as an On-Street Primary Bicycle Facility in the General Plan, with bike lanes on both sides of the street throughout its entire extent. It is generally four lanes in the downtown area and transitions to two lanes west of Delmas Avenue. Park Avenue runs along the northern project frontages and provides access to the Phase II project site driveway, via its intersection with Josefa Street and Barack Obama Boulevard.

Josefa Street is a north-south roadway that extends from Park Avenue south to Auzerais Avenue. It consists of one lane in each direction with a posted speed limit of 25 mph in the vicinity of the project. Land uses along Josefa Street include both residential and commercial, with parking along both sides of the street in most areas and without on-street bicycle facilities. Josefa Street would provide access to the Phase II project site driveway via Lorraine Avenue.

Lorraine Avenue is a two-lane east-west roadway between Barack Obama Boulevard and Josefa Street. Lorraine Avenue runs along the southern project frontages and provides direct access to the Phase II project site driveway. Parking is provided along both sides of the street.

Existing Bicycle Facilities

Class II bicycle facilities (striped bike lanes) are provided along the following roadways within the project area:

- Park Avenue, east of Barack Obama Boulevard and west of Laurel Grove Lane
- Auzerais Avenue, between Sunol Street and the Los Gatos Creek Trail; between the Union Pacific Railroad tracks and Bird Avenue
- Barack Obama Boulevard, between Santa Clara Street and Auzerais Avenue
- Bird Avenue, between Auzerais Avenue and Viriginia Street
- The Alameda/Santa Clara Street, between Stockton Avenue and Almaden Boulevard

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

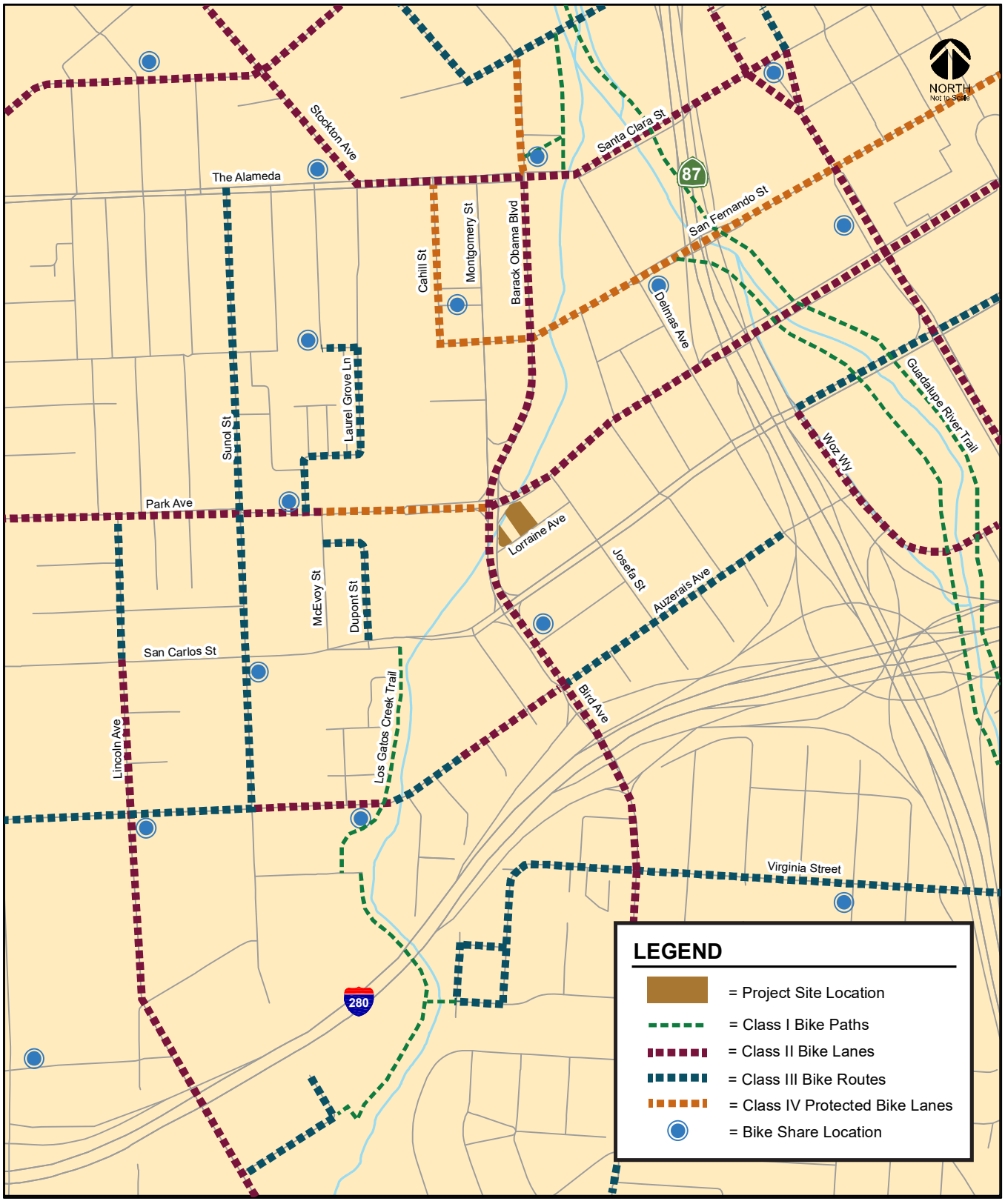
- Auzerais Avenue, all segments east of Race Street without striped bike lanes
- Dupont Street, north of San Carlos Street
- Laurel Grove Lane, between Park Avenue and Cahill Park
- Virginia Street, between Drake Street and 3rd Street

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

- San Fernando Street, between Cahill Street and Tenth Street
- Cahill Street, between San Fernando Street and Santa Clara Street
- Barack Obama Boulevard, between Santa Clara Street and St. John Street
- Park Avenue, between Barack Obama Boulevard and Laurel Grove Lane

The existing bicycle facilities are shown on Figure 2.

Figure 2
Existing Bicycle Facilities



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 mostly continuous Class I bikeway from Curtner Avenue in the south to Alviso in the north. This trail system can be accessed via trailheads along Park Avenue and San Carlos Street, located approximately ½ mile east of the project site.

Los Gatos Creek Trail

The Los Gatos Creek Trail begins at Vasona Lake County Park in the south and continues to West San Carlos Street in the north, all alongside Los Gatos Creek. The nearest access point to the Los Gatos Creek Trail is provided via a trailhead at the south end of Dupont Street, south of San Carlos Street, approximately 1/2-mile west of the project site.

Bike and Scooter Share Services

The Bay Wheels 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. The nearest bike share stations are located less than 1/3-mile from the project site at the intersection of Barack Obama Boulevard/Columbia Avenue and Park Avenue/Laurel Grove Lane. In addition, dock-less bike and scooter rentals managed by other micro-mobility services are available throughout the Downtown area. These services provide electric bicycles and scooters with GPS self-locking systems that allow for rental and drop-off anywhere.

Existing Pedestrian Facilities

Pedestrian facilities in the study area (shown in Figure 3) consist of sidewalks along all the surrounding streets, including all project frontages. 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. There are also high visibility crosswalks located at unsignalized intersections, such as the intersections of Josefa Street with San Carlos Street and Park Avenue. Sidewalks in the project area are wide and provide an attractive and continuous pedestrian network. It should be noted that a portion of sidewalk along the south side of Park Avenue is missing between Barack Obama Boulevard and Josefa Street.

ADA compliant ramps are located at most crosswalks in the vicinity of the project site. However, ADA compliant ramps are missing at the following locations in the project vicinity:

- Josefa Street and Park Avenue – southwest and southeast corners
- Josefa Street and San Carlos Street – northeast and southeast corners

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

Existing Transit Services

Existing transit services in the study area are provided by the Santa Clara Valley Transportation Authority VTA, Caltrain, Altamont Commuter Express (ACE), and Amtrak. The project site is located less than 1/2-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.

Figure 3
Existing Pedestrian Facilities

Figure 4
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 500, 522, and 568 run along Santa Clara Street while Rapid Route 523 runs along San Carlos Street. Additionally, Frequent Bus services provide local service with average headways of 12 to 15 minutes during peak commute hours.

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 northeast corner of the Barack Obama Boulevard/San Carlos Street intersection and southwest corner of the Barack Obama Boulevard/Park Avenue intersection, less than 400 feet walking distance from the project site. Both stops are served by Frequent Bus Route 64A. Access to the Rapid Route 523 service is provided at bus stops located along San Carlos Street, east of Barack Obama Boulevard, less than 500 feet walking distance from the project site.

Table 1
Existing Bus Service Near the Project Site

Bus Route	Route Description	Nearest Stop	Headway [1]
Frequent Route 22	Palo Alto Transit Center to Eastridge Transit Center	Santa Clara/Cahill	15 min
Frequent Route 23	DeAnza College to Alum Rock Transit Center via Stevens Creek	San Carlos/Barack Obama	12 - 15 min
Local Route 64A	McKee & White to Ohlone-Chynoweth Station	Barack Obama/Park	30 min [2]
Local Route 64B	McKee & White to Almaden Expressway & Camden	Diridon Transit Center	30 min [2]
Frequent Route 68	San Jose Diridon Station to Gilroy Transit Center	Diridon Transit Center	15 - 20 min
Rapid Route 500	San Jose Diridon Station to Downtown San Jose	Diridon Transit Center	15 - 20 min
Rapid Route 522	Palo Alto Transit Center to Eastridge Transit Center	Santa Clara/Cahill	10 - 15 min
Rapid Route 523	Berryessa BART to Lockheed Martin via De Anza College	San Carlos/Barack Obama	15 - 20 min
Rapid Route 568	Gilroy/Morgan Hill to San Jose Diridon Station	Diridon Transit Center	15 - 40 min
Hwy 17 Express (Route 970)	Downtown Santa Cruz / Scotts Valley to Downtown San Jose	Barack Obama/Park	20 - 35 min

Notes:
[1] Approximate headways during peak commute periods.
[2] 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.

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 San Jose Diridon station is located along the Green LRT line (Winchester-Old Ironsides) 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.

Altamont Commuter Express Service (ACE)

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

Amtrak Service

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

Project Trip Generation

The trip generation analysis estimates the number of external vehicle-trips 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, 11th Edition* for the Multifamily Housing-High Rise (Land Use 222) and Strip Retail Plaza (<40k) land uses. Although the project site is within ½-mile of rail transit (Diridon Transit Center), trip generation rates for the "Not Close to Rail Transit" land use subcategory were selected since multimodal trip reductions are already accounted for a part of the location-based adjustment, as described below. 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

A mixed-use development with complementary land uses such as residential and retail, 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. Therefore, based on VTA's recommended mixed-use reduction, a 15 percent trip reduction is applied for the housing/retail mixed use, based on the smaller retail component. The reduction is applied to the smaller of the two complimentary trip generators and the same number of trips is then subtracted from the larger trip generator.

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 VMT 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. Residential and retail developments within urban high-transit areas have a vehicle mode share of

78 percent and 83 percent, respectively. Thus, a 22 percent and 17 percent reduction were applied to the baseline trips estimated to be generated by the proposed residential and retail uses of the project, respectively.

VMT Reduction

Based on the San Jose VMT Evaluation Tool, the Phase I portion of the project is anticipated to generate 7.12 VMT per-capita in an area that currently generates approximately 7.47 VMT per-capita. It is assumed that every percent reduction from the existing per-capita VMT is equivalent to one percent reduction in peak-hour vehicle trips. Thus, the project trip estimates were reduced by 4.7 percent to reflect the reduction in peak hour trips.

Based on the San Jose VMT Evaluation Tool, the Phase II portion of the project is anticipated to generate 6.80 VMT per-capita in an area that currently generates approximately 7.46 VMT per-capita. Thus, the project trip estimates were reduced by 8.9 percent to reflect the reduction in peak hour trips.

Project Trip Generation

Based on the trip generation rates and reductions, it is estimated that the proposed Phase I of the project would generate 477 daily trips, with 29 trips (11 inbound and 18 outbound) occurring during the AM peak hour and 35 trips (20 inbound and 15 outbound) occurring during the PM peak hour. The proposed Phase II of the project would generate 927 daily trips, with 55 trips (19 inbound and 36 outbound) occurring during the AM peak hour and 70 trips (39 inbound and 31 outbound) occurring during the PM peak hour.

At buildout, it is estimated that the proposed project would generate a total of 1,404 daily trips, with 84trips (30 inbound and 54 outbound) occurring during the AM peak hour and 105 trips (59 inbound and 46 outbound) occurring during the PM peak hour.

The trip generation estimates for the proposed project are shown in Table 2.

Project Trip Distribution and Trip Assignment

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 project trip assignment are shown on Figure 1.

Vehicular Site Access and Circulation

A review of the Phase II 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 the Phase II site plan dated June 7, 2021 prepared by Anderson Architects, and in accordance with generally accepted traffic engineering standards and City of San Jose design standards. The street level site plan is shown on Figure 5. The Phase I site (shown on Figure 6) will not provide on-site vehicle parking facilities.

Project Driveway/Site Access Design

Parking Garage Access

One two-way driveway on Lorraine Avenue will provide access to a ground-floor parking level. The site plan indicates a project driveway width of 20 feet, which will be adequate given that access is restricted

Table 2
Project Trip Generation Estimates

Land Use	Reduction %	Place Type	VMT Existing	VMT Project	Size	Daily Rate	Daily Trip	AM Peak Hour Rate	AM Split In	AM Split Out	AM Trip In	AM Trip Out	AM Trip Total	PM Peak Hour Rate	PM Split In	PM Split Out	PM Trip In	PM Trip Out	PM Trip Total
Montgomery I Proposed Land Uses																			
#222 - Multifamily Housing (High-Rise)					**123** Dwelling Units	4.540	558	0.270	34%	66%	11	22	33	0.320	56%	44%	22	17	39
Residential & Retail Reduction[3]	*15%*						*-16*				*0*	*0*	*0*				*-1*	*-1*	*-2*
Location-Based Reduction[1]	*22%*	Urban High-Transit					*-119*				*-2*	*-5*	*-7*				*-5*	*-4*	*-9*
VMT-Based Reduction[2]	*4.69%*		7.47	7.12			*-20*				*0*	*-1*	*-1*				*-1*	*-1*	*-2*
#822 - Strip Retail Plaza (<40k)					**1,922** Square Feet	54.450	105	2.360	60%	40%	3	2	5	6.590	50%	50%	7	6	13
Residential & Retail Reduction[3]	*15%*						*-16*				*0*	*0*	*0*				*-1*	*-1*	*-2*
Location-Based Reduction[1]	*17%*	Urban High-Transit					*-15*				*-1*	*0*	*-1*				*-1*	*-1*	*-2*
Baseline Vehicle Trips (Before Reductions)							*663*				*14*	*24*	*38*				*29*	*23*	*52*
Project Trips After Reductions							**477**				**11**	**18**	**29**				**20**	**15**	**35**
Montgomery II Proposed Land Uses																			
#222 - Multifamily Housing (High-Rise)					**264** Dwelling Units	4.540	1,199	0.270	34%	66%	24	47	71	0.320	56%	44%	47	37	84
Residential & Retail Reduction[3]	*15%*						*-16*				*0*	*0*	*0*				*-1*	*-1*	*-2*
Location-Based Reduction[1]	*22%*	Urban High-Transit					*-260*				*-5*	*-10*	*-15*				*-10*	*-8*	*-18*
VMT-Based Reduction[2]	*8.04%*		7.46	6.86			*-74*				*-2*	*-3*	*-5*				*-3*	*-2*	*-5*
#822 - Strip Retail Plaza (<40k)					**2,209** Square Feet	54.450	120	2.360	60%	40%	3	2	5	6.590	50%	50%	8	7	15
Residential & Retail Reduction[3]	*15%*						*-16*				*0*	*0*	*0*				*-1*	*-1*	*-2*
Location-Based Reduction[1]	*17%*	Urban High-Transit					*-18*				*-1*	*0*	*-1*				*-1*	*-1*	*-2*
Baseline Vehicle Trips (Before Reductions)							*1,319*				*27*	*49*	*76*				*55*	*44*	*99*
Project Trips After Reductions							**935**				**19**	**36**	**55**				**39**	**31**	**70**
Total Project Trips (Montgomery I and II)							**1,412**				**30**	**54**	**84**				**59**	**46**	**105**

Source: ITE Trip Generation Manual, 11th Edition 2021.

[1] The place type for the project site is obtained from 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 2020). The trip reductions are based on the percent of mode share for all of the other modes of travel beside vehicle.

[2] Existing and project VMTs were estimated using the City of San Jose VMT Evaluation Tool. It is assumed that every percent reduction in VMT per-employee is equivalent to one percent reduction in peak-hour vehicle trips.

[3] The following trip reductions are prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014).
Mixed-Used Development Project
with residential and retail components - 15% off the smaller trip generator

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

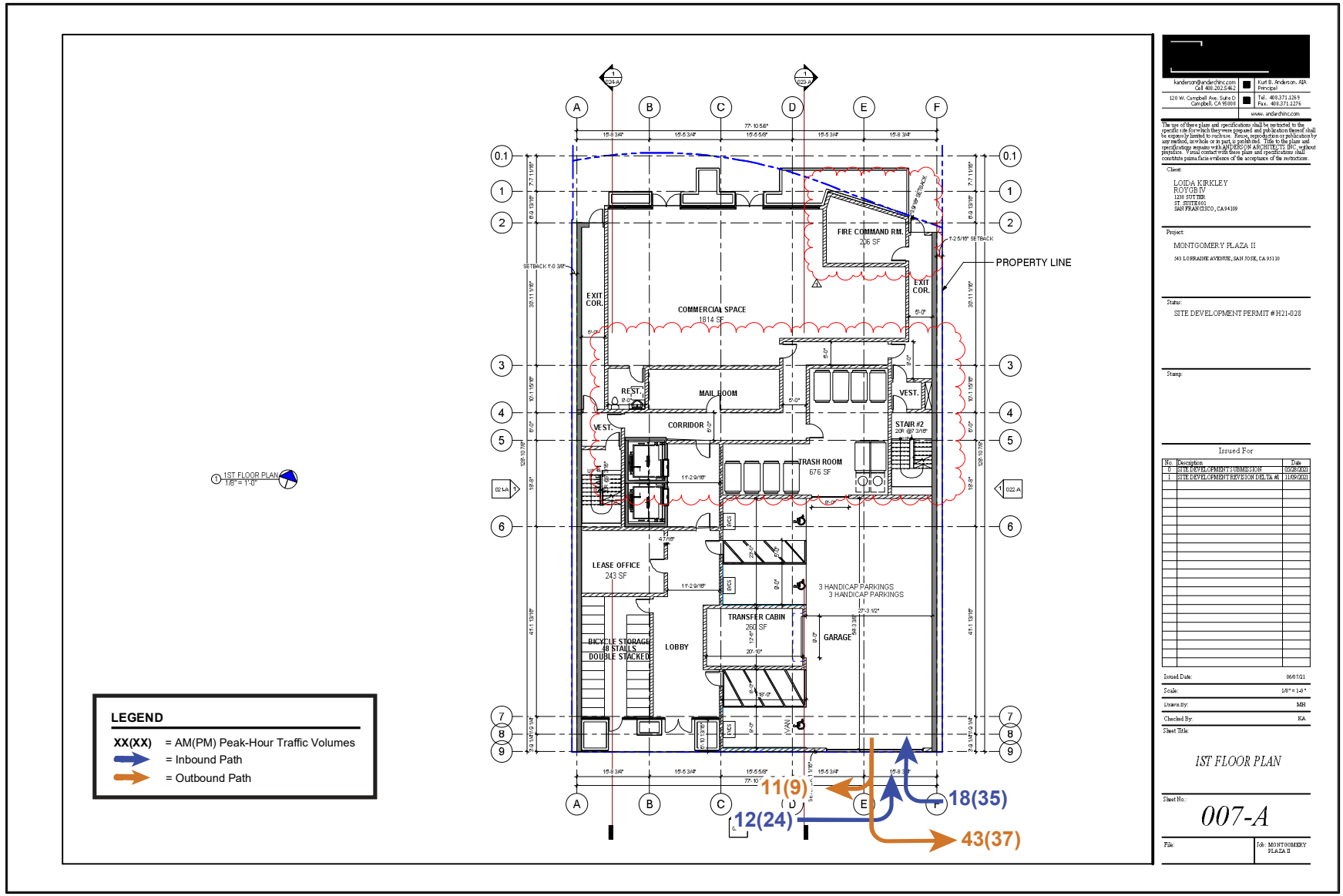
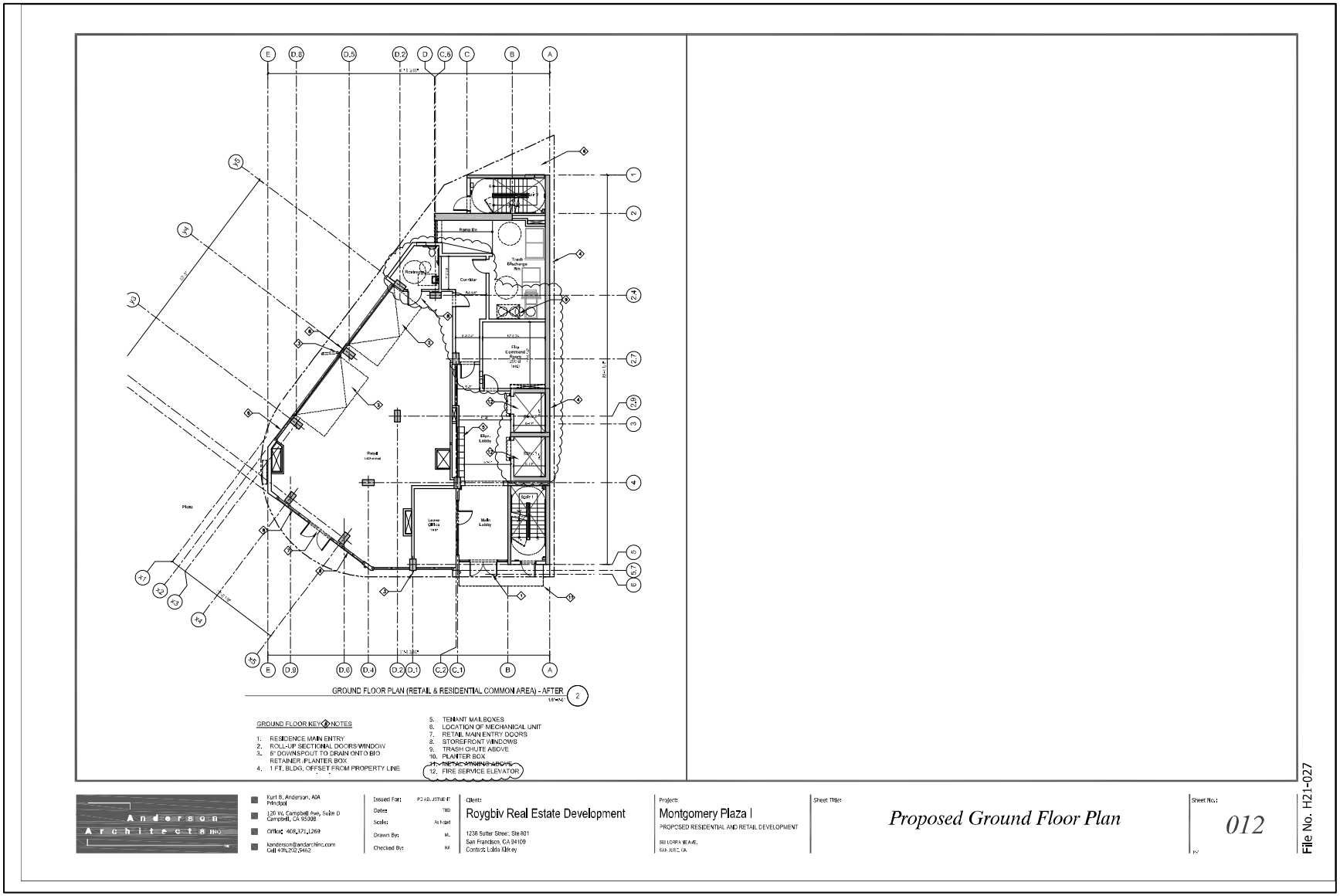


Figure 6
Phase I Ground-Level Site Plan



to passenger vehicles only. The proposed driveway will meet the City's maximum width of 26 feet for two-way driveways.

The City also typically requires parking entrances to be located at least 50 feet from the back of the sidewalk in order to provide adequate stacking space for at least two inbound vehicles. This requirement, however, may not always be achievable in the downtown area due to the zero setback requirements for buildings located in downtown. Should gates be provided at the project driveway, it is recommended they be placed a minimum of 25 feet within the entrance to accommodate one entering vehicle without blocking the sidewalk.

Sight Distance at the Driveway Serving the Project

The project access points should be designed to be free and clear of any obstructions to provide adequate sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and other vehicles traveling on Lorraine Avenue. Any landscaping and signage should be located in such a way to ensure an unobstructed view for drivers exiting the site. The project driveway should be constructed at-grade to allow exiting vehicles to see pedestrians and bicycles crossing the driveway.

There are no existing trees or visual obstructions along the project frontage that would obscure sight distance at the project driveway. Existing street parking is present on Lorraine Avenue along the project frontage. It is recommended that new red curb be installed equal to a car length east and west of the project driveway to ensure exiting vehicles will have clear vision of oncoming traffic on Lorraine Avenue.

Adequate sight distance (sight distance triangles) should be provided at the project driveways in accordance with the *American Association of State Highway Transportation Officials* (AASHTO) standards. Sight distance triangles should be measured approximately 10 feet back from the traveled way. Providing the appropriate sight distance reduces the likelihood of a collision at a driveway or intersection and provides drivers with the ability to exit a driveway and locate sufficient gaps in traffic. The minimum acceptable sight distance is often considered the AASHTO stopping sight distance. Sight distance requirements vary depending on the roadway speeds. Lorraine Avenue has a posted speed limit of 25 miles per hour (mph). The AASHTO stopping sight distance for facilities with a posted speed limit of 25 mph is 155 feet. Thus, drivers exiting the project driveway must be able to see 155 feet to the east and west along Lorraine Avenue.

Based on the project site plan and observations in the field, vehicles exiting the proposed project site driveway would be able to see approaching eastbound and westbound traffic at least 200 feet from the project driveway. There is no roadway curve on Lorraine Avenue that would obstruct the vision of drivers exiting the project driveway. Therefore, it can be concluded that the project driveway would meet the AASHTO minimum stopping sight distance standards, and sight distance would be adequate at the project driveway.

Recommendation: Red curb equal to a minimum of one car length east and west of the proposed project garage driveway should be implemented to provide adequate sight distance.

Project Driveway Operations

Based on the project trip generation and trip assignment, it is estimated that a maximum of 59 inbound trips (during the PM peak hour) and 54 outbound trips (during the AM peak hour) would enter and exit the site at the project driveway. The estimated project trips at the project driveway is shown on Figure 5.

As shown on Figure 5, a maximum of 12 and 24 inbound vehicles are projected to make a left-turn from eastbound Lorraine Avenue during the AM and PM peak hours, respectively, or approximately one vehicle every two to five minutes. Conflicting peak hour traffic flow along westbound Lorraine Avenue at the project driveway is fairly light, with 5 trips during the AM peak hour (23 trips total with the addition of right-turning project trips) and 5 trips during the PM peak hour (40 trips total with the addition of right-turning project trips). Given the projected arrival rate of vehicles and minimal conflicting westbound traffic volumes on Lorraine Avenue, the eastbound left-turn queue into the project driveway is expected to be minimal.

Vehicular On-Site Circulation

As proposed, vehicles will enter the Phase II site project driveway to access a vehicle lift located on the left-hand side approximately 25 feet from the garage entrance. Tenants would park their vehicle on the vehicle lift; the vehicle lift will automatically park the vehicle below-ground and retrieve vehicles when requested. In addition to the parking lift, there are three 90-degree handicapped parking stalls at the ground-floor level.

Adequate space will be needed to allow vehicles accessing either the vehicle lift or parking spaces to reverse out of the lift/parking spaces. The drive aisle, shown to be 27 feet wide on the site plan, will exceed the City's minimum 26-foot width for two-way drive aisles. The entrance aisle terminates as a dead-end. Dead-end aisles are undesirable because vehicles must park at a parking space or perform a U-turn to exit the parking structure. However, the dead-end aisles should not be problematic, given that the aisle is short and would only serve residents. Therefore, drivers will be familiar with the layout of the parking level and will not be circulating the garage searching for available spaces.

The efficiency of the vehicle lift will be dependent on the user's ability to exit from or retrieve their vehicle in a timely manner. The proposed location of the vehicle lift, approximately 25 feet from the garage entrance, could result in vehicles spilling out onto the sidewalk and possibly onto Lorraine Avenue should two or more vehicles arrive simultaneously or within a minute or two of each other. If feasible, a second lift would further reduce the potential of vehicles queueing out to Lorraine Avenue.

The below-ground parking level is entirely automated. Vehicles are parked and retrieved mechanically via the proposed vehicle shelving system. Therefore, no drivers or valets will enter the below-ground parking level.

Recommendation: Parking and loading should not be permitted along the ground-floor drive aisle to keep the drive aisle clear at all times.

Recommendation: The project should work with the City to determine if additional requirements are needed to accommodate ingress and egress from the proposed automated parking system. If feasible, a second lift would further reduce the potential of vehicles queueing out to Lorraine Avenue.

Truck Site Access

Based on the City of San Jose off-street loading standards within the Downtown Area (20.70.430 and 20.70.435), residential uses of greater than two hundred units and less than five hundred units are required to provide at least two off-street loading spaces. Retail and commercial stores and shops less than 10,000 gross floor area (GFA) are not required to provide an off-street loading space.

The mixed-use project is proposing a total of 387 residential units and 4,131 square feet of retail space at buildout. Therefore, the project is required to provide two off-street loading spaces for the residential use. Off-street loading is not required for the proposed retail space. The project site plan does not indicate a designated off-street loading area. On-street parking in the vicinity of the project site,

including the frontage along Lorraine Avenue, is restricted to local residents only by a Delmas Park Residential Parking Permit (RPP) Zone. It is recommended that the project applicant work with City staff to determine the feasibility of providing a loading zone along the project's frontage on Lorraine Avenue in lieu of the required off-street loading space. Based on information provided by the City of San Jose, the project must be removed from the RPP Zone via council action to allow for an on-street loading area along the project frontage.

Recommendation: The project should work with the City to determine if a new on-street freight loading zone is needed.

The site plan of the Phase II site indicates a trash enclosure will be located on the ground level north of the drive aisle. Garbage trucks will not enter the building. Therefore, waste bins will be wheeled out to Lorraine Avenue for garbage truck pickup.

At the Phase I site, a trash discharge room is shown to have direct outside access to the western frontage along Barack Obama Boulevard. Due to high traffic volumes along Barack Obama Boulevard and Park Avenue, it is recommended that all waste bins be wheeled out to Lorraine Avenue for pick-up.

Emergency vehicles will not have access to the interior of the Phase II site parking level. Therefore, emergency vehicle access will be limited to the frontages along Lorraine Avenue and Park Avenue. An exit corridor at the northeast corner of the site along the Park Avenue frontage provides access to the on-site fire command center.

At the Phase I site, emergency vehicle access also will be limited to frontages along Lorraine Avenue, Barack Obama Boulevard, and Park Avenue. Access to the on-site fire command center is provided via internal walkways from the main lobby along Lorraine Avenue or from the trash discharge access point along Barack Obama Boulevard.

Pedestrian and Bicycle Access and Circulation

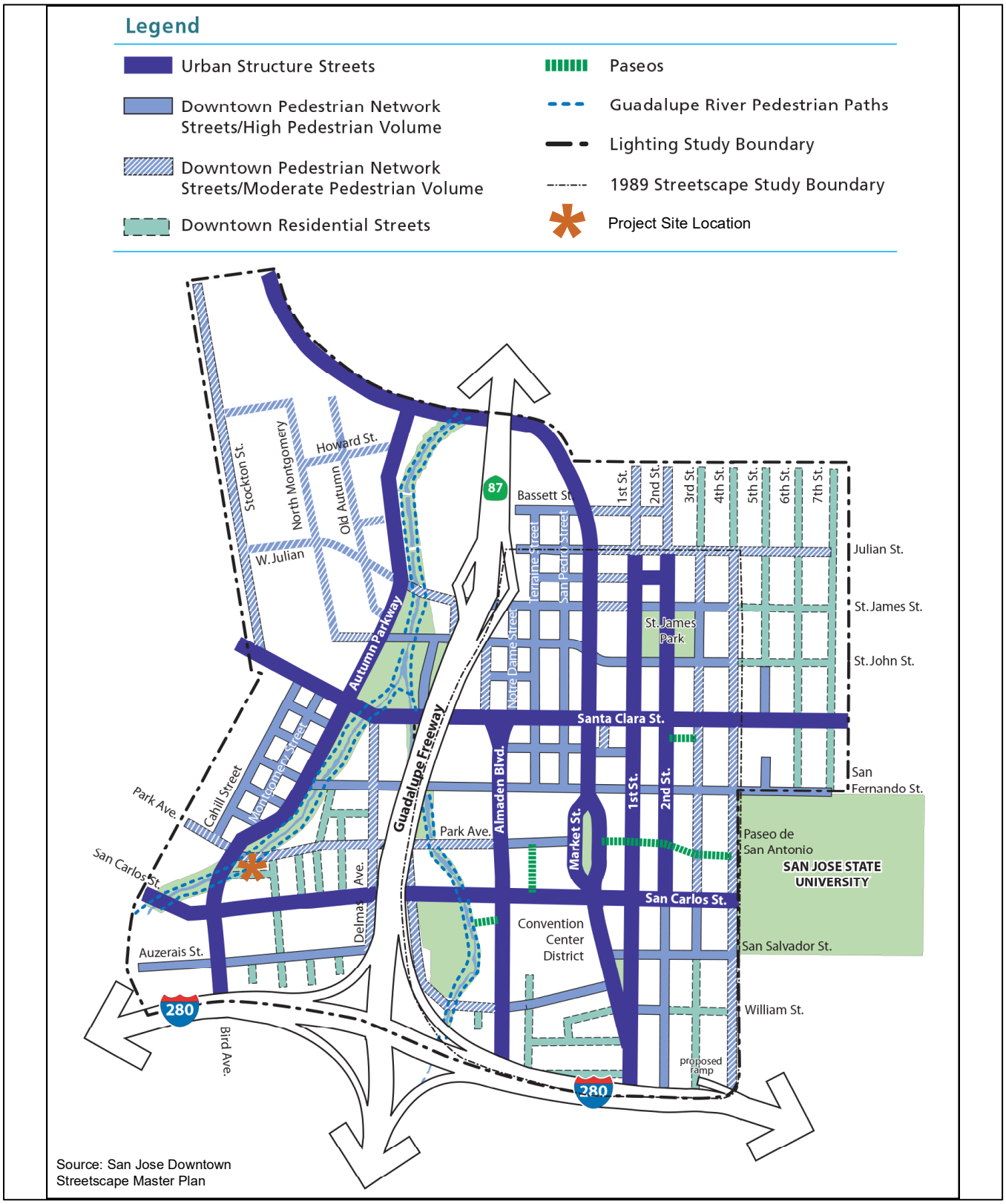
All new development projects in San Jose should encourage multi-modal travel, consistent with the goals of the City's General Plan. It is the goal of the General Plan that all development projects accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility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

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 7, there are many designated Downtown Pedestrian Network Streets (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.

Pedestrian facilities in the study area consist mostly of sidewalks along all of the surrounding streets, including the project frontages along Park Avenue, Barack Obama Boulevard, and Lorraine Avenue.

Figure 7
Downtown Pedestrian Street Network



Source: San Jose Downtown Streetscape Master Plan

However, a portion of sidewalk is missing along the south side of Park Avenue approximately 75 feet east of the Phase II project frontage. Crosswalks, ADA ramps, and pedestrian signal heads are available on all four approaches at the intersections of Barack Obama Boulevard with Park Avenue and San Carlos Street. Crosswalks are also available at unsignalized intersections in the project vicinity, including the Josefa Street/Park Avenue intersection along the south leg and at the Josefa Street/San Carlos Street intersection along the west, north, and south legs. However, ADA ramps are not installed along the northeast and southeast corners of the Josefa Street/San Carlos Street intersection and at the southwest and southeast corners of the Josefa Street/Park Avenue intersection. Although ADA ramps are present along the north and south sides of Lorraine Avenue at its intersection with Barack Obama Boulevard, there is no crosswalk installed across Lorraine Avenue.

Bicycle Circulation

The project is located adjacent to existing Class II bicycle facilities (striped bike lanes) along Barack Obama Boulevard and Park Avenue. Many additional bicycle facilities are located along surrounding roadways in the vicinity of the project site. Although most of the residential streets near the project site do not provide bike lanes or are designated as bike routes, due to their low traffic volumes, many of them are conducive to bicycle usage.

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 mostly continuous Class I bikeway from Curtner Avenue in the south to Alviso in the north. This trail system can be accessed via trailheads along Park Avenue and San Carlos Street, located approximately ½ mile east of the project site.

The Los Gatos Creek Trail begins at Vasona Lake County Park in the south and continues to West San Carlos Street in the north, all alongside Los Gatos Creek. The nearest access point to the Los Gatos Creek Trail is provided via a trailhead at the south end of Dupont Street, south of San Carlos Street, approximately 1/2-mile west of the project site.

The Bay Wheels 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. The nearest bike share stations are located less than 1/3-mile from the project site at the intersection of Barack Obama Boulevard/Columbia Avenue and Park Avenue/Laurel Grove Lane. In addition, dock-less bike and scooter rentals managed by other micro-mobility services are available throughout the Downtown area. These services provide electric bicycles and scooters with GPS self-locking systems that allow for rental and drop-off anywhere.

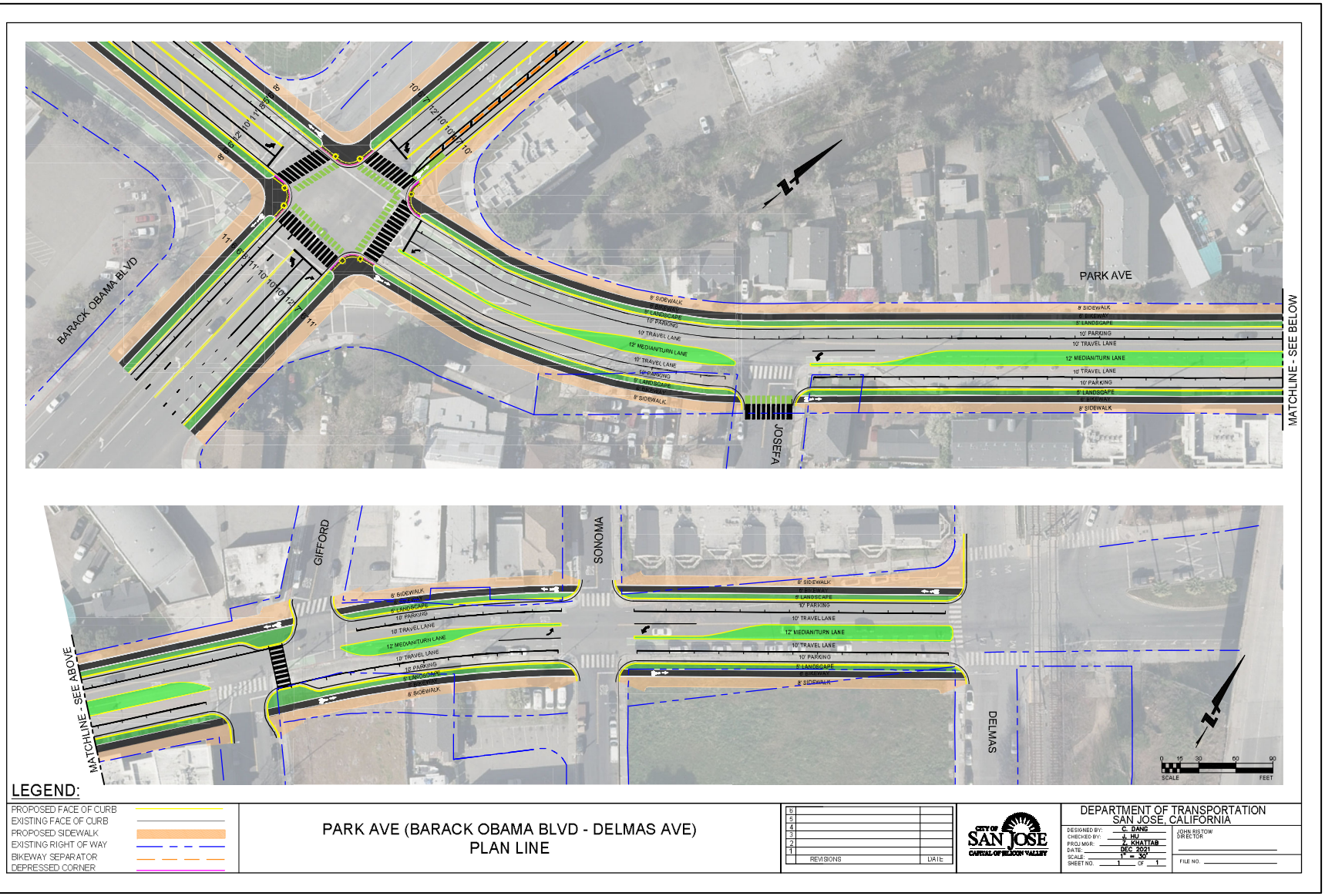
Proposed Multi-Modal Improvements

Park Avenue

Multi-modal improvements are proposed along the Park Avenue frontage of the Phase I and II sites, as part of the Downtown West plan. The proposed plan line for the portion of roadway in the vicinity of the project sites is shown on Figure 8. The following improvements are proposed along Park Avenue and at the intersection of Barack Obama Boulevard and Park Avenue:

- Installation of Class IV raised bikeway facility along both sides of the roadways and protected intersection elements at all corners of the intersection. The proposed features will require traffic signal modification.
- Removal of right-turn slip lanes and pedestrian refuge islands at all corners.
- Narrowing the right of way of all approaches and reduction of travel lanes. The southbound, westbound, and eastbound approaches would consist of one left-turn pocket and one shared

Figure 8
Proposed Park Avenue Plan Line



through and right-turn lane. The northbound approach would consist of one left-turn pocket, one through movement lane, and one right-turn lane.

The project will be required to complete the following improvements at the southeast corner of the Barack Obama Boulevard/Park Avenue intersection:

- extension of the Park Avenue curbline for the implementation of a raised Class IV protected bike lane and protected intersection elements
- removal of right-turn slip lane and pedestrian refuge island
- installation of an ADA-compliant R-11 Handicap Ramp with crosswalk
- traffic signal modification

Barack Obama Boulevard

Multi-modal improvements are also proposed along the Barack Obama Boulevard frontage of the Phase I site, as part of the Downtown West plan. A Tentative Vesting Tract Map dated October 7, 2020 shows three possible alternative cross-sections for the portion of roadway adjacent to the project site. All three options would narrow the right of way from approximately 128 feet to 108 feet with a 61-foot curb-to-curb distance consisting of two vehicle travel lanes in each direction, a median turn lane, and a dynamic lane. The three alternatives differ with regards to the placement and width of a proposed raised bikeway and sidewalks (shown on Figure 9).

- Alternative 1 proposes to install 5 to 6-foot wide raised bikeways along both sides of the roadway. Sidewalks would be 10 to 13.5 feet wide.
- Alternative 2 proposes to install a 10 to 12-foot wide raised bikeway along the western side of the roadway. The western sidewalk would measure 10 to 14.5 feet wide, while the eastern sidewalk would measure 16 feet wide.
- Alternative 3 proposes to install a 10 to 12-foot wide raised bikeway along the eastern side of the roadway. The eastern sidewalk would measure 10 to 14.5 feet wide, while the western sidewalk would measure 16 feet wide.

It should be noted that the Park Avenue plan line dated December 2021 (Figure 8) shows bikeways on both sides of Barack Obama Boulevard and lane widths that are consistent with Alternative 1.

Proposed Project Frontage Sidewalks

Planned improvements along Park Avenue (discussed above) will result in an extension of the curbline. New sidewalks along Park Avenue are proposed to be 8 feet wide per the Park Avenue plan line. The City's *Complete Streets Design Standards and Guidelines* recommends a width of 15 feet for Main Street and City Connector roadways in the Downtown area.

However, the project site plan shows new sidewalks measuring 9 feet wide, as shown on Figure 10. It should be noted that a landscaped plaza will be provided between the new sidewalk and the façade of the proposed Phase II building (roughly along the existing property line).

Planned improvements along Barack Obama Boulevard (discussed above) will result in an extension of the curbline. New sidewalks along Barack Obama Boulevard are proposed to be 11 feet wide per the Park Avenue plan line. The City's *Complete Streets Design Standards and Guidelines* recommends a width of 15 feet for City Connector roadways in the Downtown area.

However, the project site plan shows new sidewalks measuring 10 feet wide, as shown on Figure 11. Based on the site plan, the façade of the proposed Phase I building (roughly along the existing property line) will be setback by approximately 15 feet from the new sidewalk, widening to more than 25 feet at

Figure 9
Proposed Barack Obama Boulevard Cross-Section Alternatives

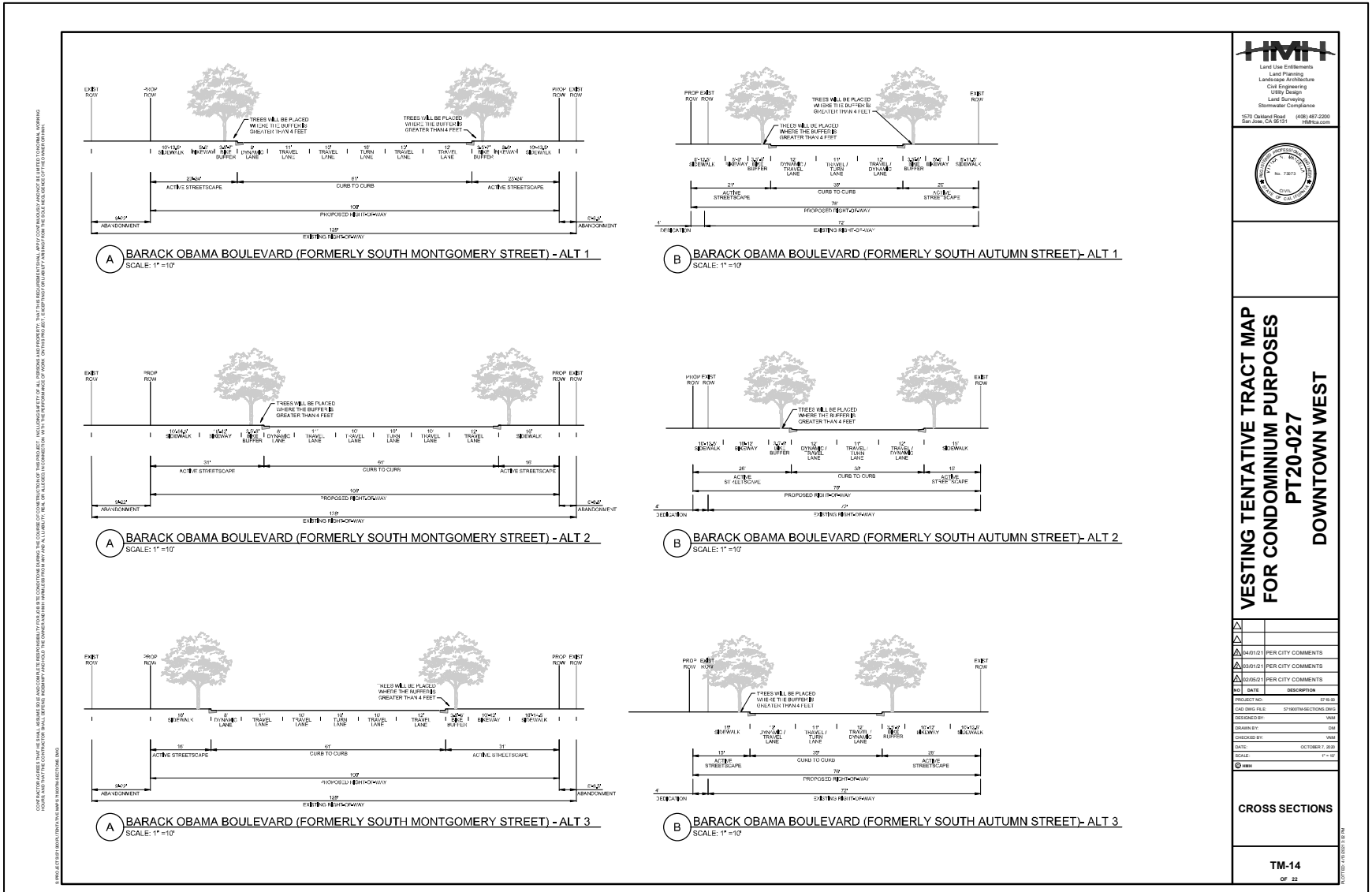


Figure 10
Phase II Site Landscape Plan

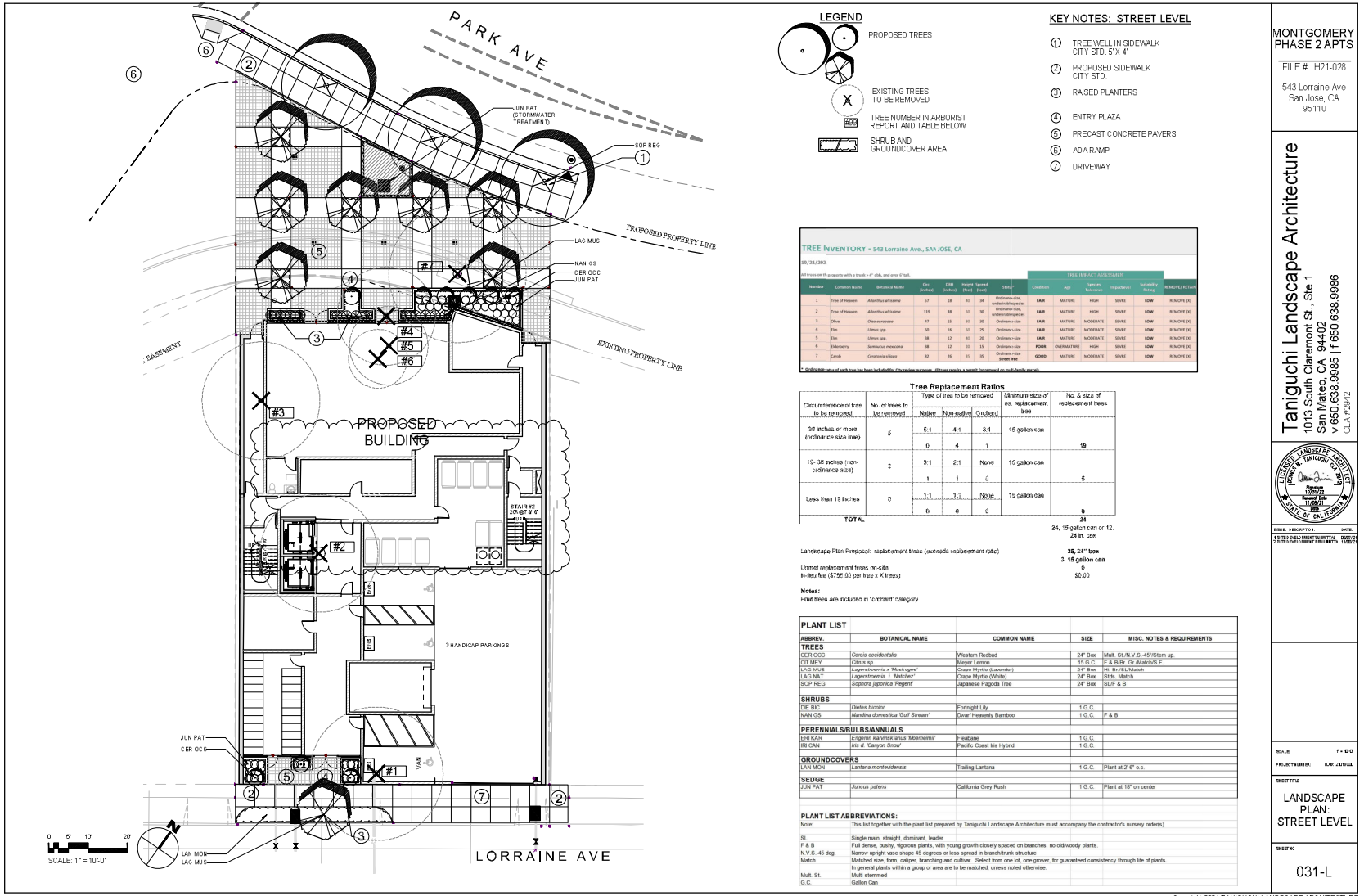
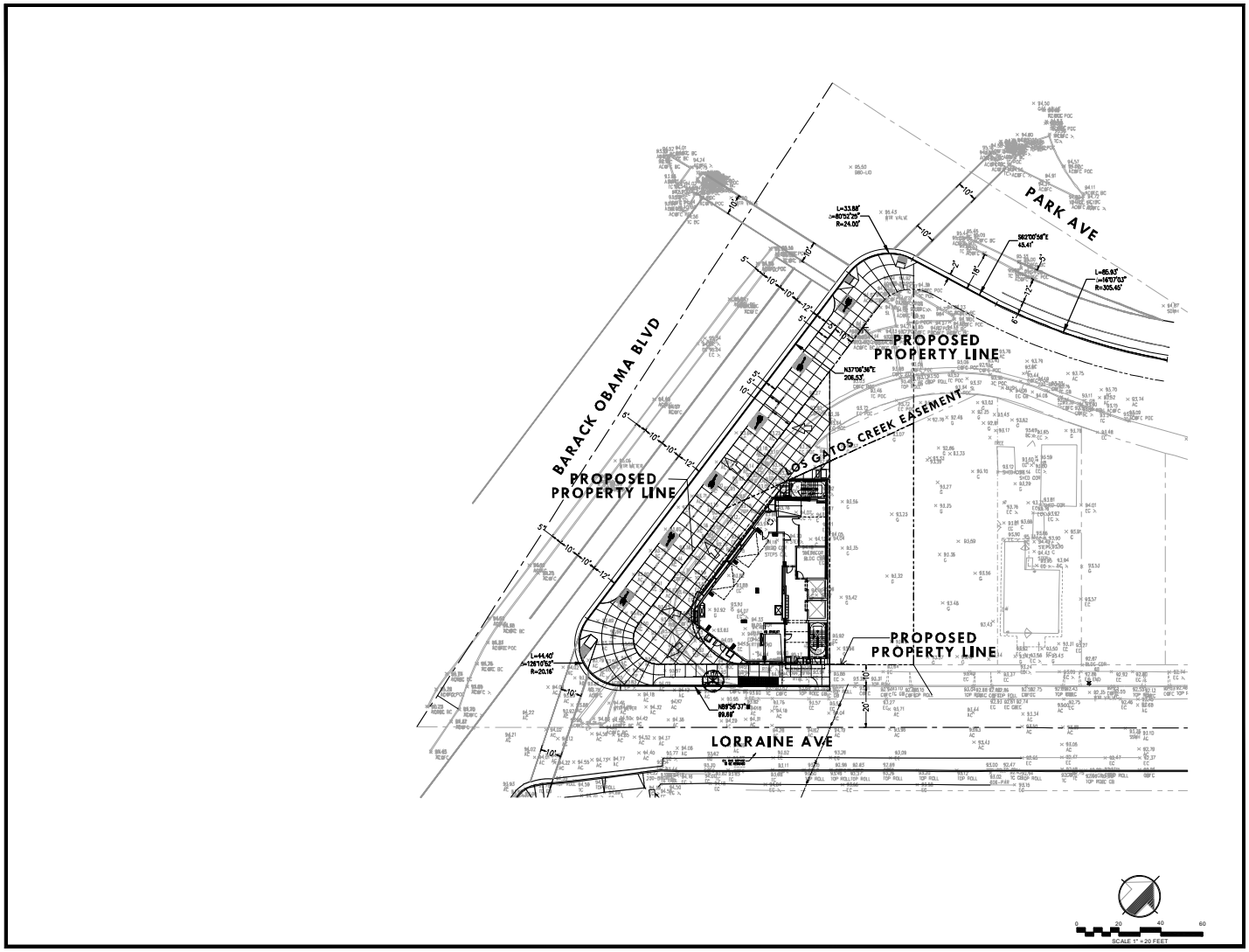


Figure 11
Phase I Site Landscape Plan



the southwest corner of the site near Lorraine Avenue. It should be noted that the Park Avenue plan line proposes to construct Barack Obama Boulevard at a slightly more easterly alignment compared to what is shown on the project site plan. The back of the sidewalk would be directly adjacent to the proposed building façade, therefore no setback would be provided along the project's Barack Obama frontage.

Along Lorraine Avenue, the sidewalk is proposed to be approximately 10 feet wide along both project site frontages (includes landscaping which occupies approximately 4 feet of width between the curb and sidewalk). The City's *Complete Streets Design Standards and Guidelines* recommends a width of 10 feet for local streets in the Downtown area.

Recommendation: The project will need to work with the City to ensure that the proposed site frontage improvements will be compatible with planned improvements along Park Avenue and Barack Obama Boulevard. In addition, the project will be required to complete the following improvements at the southeast corner of the Barack Obama Boulevard/Park Avenue intersection:

- extension of the Park Avenue curbline for the implementation of a raised Class IV protected bike lane and protected intersection elements
- removal of right-turn slip lane and pedestrian refuge island
- installation of an ADA-compliant R-11 Handicap Ramp with crosswalk
- traffic signal modification

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 less than 1/2-mile from the Diridon Transit Center located on Cahill Street. Connections between local and regional bus routes, the Mountain View–Winchester LRT line, and commuter rail lines (Caltrain, ACE, and Amtrak services) are provided within the Diridon Transit Center.

The nearest bus stops are located at the northeast corner of the Barack Obama Boulevard/San Carlos Street intersection and southwest corner of the Barack Obama Boulevard/Park Avenue intersection, less than 400 feet walking distance from the project site. Both stops are served by Frequent Bus Route 64A. Access to the Rapid Route 523 service is provided at bus stops located along San Carlos Street, east of Barack Obama Boulevard, less than 500 feet walking distance from the project site.

Transit Delay Analysis

An evaluation of the effects of project traffic on transit vehicle delay also was completed. The analysis was completed for all transit routes that travel through the study intersections with focus on the San Carlos Street corridor, utilizing peak hour intersection level of service analysis. The analysis shows that the project traffic would result in a minor increase, less than one second, in delay of some transit vehicles (see Table 3). The City does not currently have established policies or significance criteria related to transit vehicle delay. Thus, this data is presented for informational purposes only.

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

Table 3
Transit Delay Analysis

Bus Route #	Study Area Street(s)	Direction	Transit Delay[1] (sec/veh)					
			Background		Background Plus Project		Change	
			AM	PM	AM	PM	AM	PM
23, 523	San Carlos Street	Eastbound	48.7	36.6	48.6	37.0	-0.1	+0.4
		Westbound	55.3	31.3	55.4	31.3	+0.1	0
64	Bird Avenue/Montgomery Street	Northbound	36.4	74.2	36.3	73.6	-0.1	-0.6
		Southbound	84.5	66.1	84.8	66.4	+0.3	+0.3

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

walking) and reduce the use of single-occupant automobile travel and demand for on-site parking described below.

Vehicle Parking

According to the City of San Jose Downtown Zoning Regulations (Table 20-140), the project is required to provide one off-street vehicle parking space per unit. The project is not required to provide additional off-street parking for the retail component of the project. Based on the City's off-street parking requirements, the project at buildout would be required to provide a total of 387 off-street parking spaces.

The project is eligible for a 50% reduction in required off-street parking per the State Housing Density Bonuses and Incentives Law (Government Code Section 65915(p)(2)(A)) due to its proximity to transit services and providing affordable residential units. Therefore, the total number of required off-street parking spaces is reduced to 193 spaces. The proposed 83 on-site parking spaces equate to an approximately 57.0% reduction from the reduced 193 required vehicle parking spaces.

Of the 83 parking spaces at the Phase II site, 26 spaces will be reserved for residents of the Phase I site. No on-site parking spaces are proposed at the Phase I site.

Reduction in Required Off-Street Parking Spaces

Downtown Core Parking Reduction (20.70.330)

Due to the project site being located within the DC Downtown Primary Commercial Zoning District, an additional 15% reduction is allowed under Code 20.70.330. Therefore, the total number of required off-street parking spaces would be further reduced to 164 spaces.

Reduction Due to Location near Transit and Bicycle Parking (20.90.220.A.1)

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

1. The structure or use is located within two thousand feet of a proposed or an existing rail station or bus rapid transit station, or an area designated as a neighborhood business district, or as an

urban village, or as an area subject to an area development policy in the city's general plan or the use is listed in Section 20.90.220.G; and

2. The structure or use provides bicycle parking spaces in conformance with the requirements of Table 20-90.

The project site is located within the Downtown Core and is located less than 2,000 feet from the Diridon Transit Center. Additionally, as described later in the Bicycle Parking section, bicycle parking as proposed by the project will meet City Bicycle Parking requirements per Table 20-90. Therefore, the project will conform to Code 20.90.220.A.1 Subsections A and B and will be granted a 20 percent parking reduction in required off-street parking.

The project may pursue an additional 30 percent parking reduction with implementation of a Transportation Demand Management (TDM) program that contains but is not limited to at least three of the measures described in Code 20.90.220.A.1 Subsections C and D, to obtain the maximum 50% reduction allowed under Code 20.90.220.A.

Reduced Vehicle Parking Requirement

With the applicable reductions per the City's code and implementation of an approved TDM plan, the project's required parking would be reduced by 57.5 percent to 82 parking spaces (see Table 4). Therefore, the proposed 83 on-site spaces would meet the reduced off-street parking requirements for the project sites.

Recommendation: The project will be required to submit and have approved its TDM program.

ADA Compliance

Per the 2016 California Building Code (CBC) Table 11B-208.2, four ADA accessible spaces are required for projects providing 76 to 100 parking spaces. Of the required accessible parking spaces, one van-accessible space is required. The site plan indicates two standard ADA accessible spaces and one van accessible space all located at the ground-floor level, adjacent to the garage entrance and with direct access to the lobby. The proposed project will be required to provide an additional ADA accessible space to meet the minimum requirements.

Recommendation: The proposed project will be required to provide an additional ADA accessible space to meet the minimum requirements.

On-Street Parking

As discussed previously, on-street parking in the vicinity of the project site, including the frontage along Lorraine Avenue, is restricted to local residents only by the Delmas Park Residential Parking Permit (RPP) Zone.

Bicycle Parking

The City Municipal Code (Table 20-190) requires one bicycle parking space per four living units. Bicycle parking spaces shall consist of at least sixty percent long-term and at most forty percent short-term spaces. The retail component is not required to provide any off-street parking for motorized vehicles and will thus be required to provide only two short-term bicycle parking spaces and one long-term parking space. Thus, the proposed project is required to provide a total of 103 bicycle parking spaces: 61 long-term bicycle parking spaces and 42 short-term bicycle parking spaces to meet the city standards (shown on Table 5).

Table 4
Vehicle Parking Summary

	Parking Requirement/Reductions	565 Lorraine Phase I	543 Lorraine Phase II	Total Required Parkinig	
Project Size		123 Units	264 Units	**387**	Units
City Required Parking (Standard Downtown) [1]	1.0 space per unit	123 spaces	264 spaces	**387**	spaces
Reductions					
State Density Bonus[2]	0.5 space per unit	62 spaces	132 spaces	**194**	spaces
Downtown Core Parking Reduction[3]	15% reduction	52 spaces	112 spaces	**164**	spaces
Allowable Off-Street Parking Reduction with TDM[4]	50% reduction	26 spaces	56 spaces	**82**	spaces
Total Spaces Required with State Density Bonus and TDM Reductions: 82 Spaces					
(78.8% reduction compared to Baseline)					
(57.3% reduction compared to State Density Bonus)					
Total Spaces Proposed at Phase II Site: 83 Spaces					
(78.6% reduction compared to Baseline)					
(57.0% reduction compared to State Density Bonus)					

Notes:
[1]City of San Jose Zoning Ordinance (20.90.060, Table 20-210)
[2]Per the State Housing Density Bonuses and Incentives Law (Government Code Section 65915(p)(3)(A))
[3]Includes 15% allowable reduction of parking requirement in Downtown Core (20.70.330)
[4]Includes 50% allowable reduction of parking requirement (20.90.220)

Table 5
Bicycle Parking Summary

Proposed Project		City of San Jose Parking Code[1]		Required Parking		
Land Use	Size	Land Use	Parking Ratio	Short Term	Long Term	Total
Phase I						
Residential	123 units	Multiple dwelling residential	1.00 space per 4 residential units	12	19	31
Retail	1,922 s.f.	Retail sales, goods and merchandise	1.00 space per 3,000 s.f. of floor area[2]	2	1	3
Sub-Total				**14**	**20**	**34**
Phase II						
Residential	264 units	Multiple dwelling residential	1.00 space per 4 residential units	26	40	66
Retail	2,209 s.f.	Retail sales, goods and merchandise	1.00 space per 3,000 s.f. of floor area[2]	2	1	3
Sub-Total				**28**	**41**	**69**
Total Required Bicycle Parking				**42**	**61**	**103**

Notes:
[1]City of San Jose Zoning Ordinance: Parking Spaces Required by Land Use
[2]City code requires a minimum of two short-term bicycle parking spaces and one long-term bicycle parking space

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 long-term bicycle parking facilities,
- An access-controlled room with long-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 Phase I site plan indicates that each residential unit would include one bike rack for a total of 123 bicycle parking spaces on-site. The number of bicycle parking spaces provided for Phase 1 exceeds the required parking for the residential use. However, the project will need to provide at least 2 short-term and 1 long-term bicycle parking space for the retail use.

The Phase II site plan indicates that a bicycle storage room with 48 spaces will be located at the ground-floor level with direct access provided to Lorraine Avenue. Access to the Park Avenue frontage requires users to navigate several interior corridors. An additional 52 spaces will be provided within the residential units for a total of 100 bicycle parking spaces provided on-site. Therefore, the proposed on-site bicycle parking for the Phase II site will exceed the required parking and encourage the use of non-auto modes of travel and minimize the demand for on-site parking described above.

Recommendation: The project will need to provide at least 2 short-term and 1 long-term bicycle parking space for the retail use.

Vehicular Queuing Analysis

A vehicle queuing analysis was completed for high-demand movements at the study intersections, shown on Table 4. 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
λ = average number of vehicles in the queue per lane (vehicles per hour per lane/signal cycles per hour)

Table 6
Intersection Queueing Analysis Summary

Measurement	Barack Obama/ Park				Josefa/ Park			
	NBL AM	NBL PM	WBL AM	WBL PM	WBL/T/R AM	WBL/T/R PM	NBL/T/R AM	NBL/T/R PM
Existing Conditions								
Cycle/Delay[1] (sec)	130	116	130	116	8.0	7.9	10.4	11.8
Lanes	1	1	1	1	1	1	1	1
Volume (vph)	393	157	51	251	190	436	40	42
Volume (vphpl)	393	157	51	251	190	436	40	42
Avg. Queue (veh/ln.)	14	5	2	8	0	1	0	0
Avg. Queue[2] (ft./ln)	355	126	46	202	11	24	3	3
95th %. Queue (veh/ln.)	21	9	4	13	2	3	1	1
95th %. Queue (ft./ln)	525	225	100	325	50	75	25	25
Storage (ft./ ln.)	225	225	125	125	100	100	150	150
Adequate (Y/N)	**NO**	YES	YES	**NO**	YES	YES	YES	YES
Background Conditions								
Cycle/Delay[1] (sec)	130	116	130	116	8.0	7.9	10.4	11.8
Lanes	1	1	1	1	1	1	1	1
Volume (vph)	447	222	55	300	243	586	40	42
Volume (vphpl)	447	222	55	300	243	586	40	42
Avg. Queue (veh/ln.)	16	7	2	10	1	1	0	0
Avg. Queue[2] (ft./ln)	404	179	50	242	14	32	3	3
95th %. Queue (veh/ln.)	23	12	5	15	2	3	1	1
95th %. Queue (ft./ln)	575	300	125	375	50	75	25	25
Storage (ft./ ln.)	225	225	125	125	100	100	150	150
Adequate (Y/N)	**NO**	**NO**	YES	**NO**	YES	YES	YES	YES
Background Plus Project Conditions								
Cycle/Delay[1] (sec)	130	116	130	116	8.0	8.0	10.3	11.7
Lanes	1	1	1	1	1	1	1	1
Volume (vph)	452	227	55	300	252	604	56	56
Volume (vphpl)	452	227	55	300	252	604	56	56
Avg. Queue (veh/ln.)	16	7	2	10	1	1	0	0
Avg. Queue[2] (ft./ln)	408	183	50	242	14	34	4	5
95th %. Queue (veh/ln.)	23	12	5	15	2	3	1	1
95th %. Queue (ft./ln)	575	300	125	375	50	75	25	25
Storage (ft./ ln.)	225	225	125	125	100	100	150	150
Adequate (Y/N)	**NO**	**NO**	YES	**NO**	YES	YES	YES	YES

[1] Vehicle queue calculations based on cycle length for signalized intersections and control delay for unsignalized intersections.
[2] Assumes 25 feet per vehicle in the queue.
NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, R = Right, T = Through, L = Left.

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th 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 6.

The queuing analysis shows that the northbound left-turn movement at the Barack Obama Boulevard and Park Avenue intersection already exceeds the existing storage capacity during the AM peak hour and would continue to do so under background conditions. The projected queue during the PM peak hour would also exceed the existing storage capacity under background conditions. However, the addition of project traffic is not projected to lengthen the queue during the AM and PM peak hours. The queuing analysis also shows that the westbound left-turn movement at the Barack Obama Boulevard and Park Avenue intersection currently experiences vehicular queue lengths that exceed the existing storage capacity during the PM peak hour and would continue to do so under background conditions. However, the addition of project traffic is not projected to lengthen the queue during the PM peak hour.

The proposed project is not required to improve the identified projected deficiencies at the Barack Obama Boulevard and Park Avenue intersection since it would not create nor lengthen the projected queues.

Construction Activities

It is anticipated that both project sites will be constructed concurrently. However, in the event that concurrent construction is not possible, the Phase II project will be constructed before the Phase I project to provide the required on-site parking for Phase I.

Typical activities related to the construction of any development could include lane narrowing and/or lane closures and sidewalk closures. In the event of any type of street closure, clear signage (e.g., closure and detour signs) must be provided to ensure vehicles, pedestrians and bicyclists are able to adequately reach their intended destinations safely. The project would be required to submit a construction management plan for City approval that addresses schedule, closures/detours, staging, parking, and truck routes.

Conclusions

The Phase I site development is proposed to consist of 123 residential units (15% of units reserved as affordable units) and up to 1,922 sf of ground floor commercial space while the Phase II site development is proposed to consist of 264 residential studios (24% of units reserved as low-income units) and up to 2,209 s.f. of ground floor commercial space. The sites are divided by a vacant lot that is not part of the project. Vehicular access and on-site parking will not be provided within the Phase I site. At the Phase II site, one full-access driveway will provide access to 83 on-site parking spaces. Of the 83 parking spaces at the Phase II site, 26 spaces will be reserved for residents of the Phase I site. 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

- Red curb equal to a minimum of one car length east and west of the proposed project garage driveway should be implemented to provide adequate sight distance.
- Parking and loading should not be permitted along the ground-floor drive aisle to keep the drive aisle clear at all times.
- The project should work with the City to determine if additional requirements are needed to accommodate ingress and egress from the proposed automated parking system. If feasible, a second lift would further reduce the potential of vehicles queueing out to Lorraine Avenue.
- The project should work with the City to determine if a new on-street freight loading zone is needed.
- The project will need to work with the City to ensure that the proposed site frontage improvements will be compatible with planned improvements along Park Avenue and Barack Obama Boulevard. In addition, the project will be required to complete the following improvements at the southeast corner of the Barack Obama Boulevard/Park Avenue intersection:
    - extension of the Park Avenue curbline for the implementation of a raised Class IV protected bike lane and protected intersection elements
    - removal of right-turn slip lane and pedestrian refuge island
    - installation of an ADA-compliant R-11 Handicap Ramp with crosswalk
    - traffic signal modification
- The project will be required to submit and have approved its TDM program.
- The proposed project will be required to provide an additional ADA accessible space to meet the minimum requirements.
- The project will need to provide at least 2 short-term and 1 long-term bicycle parking space for the retail use.

Montgomery I and II Mixed-Use Development LTA

Technical Appendices

February 25, 2022

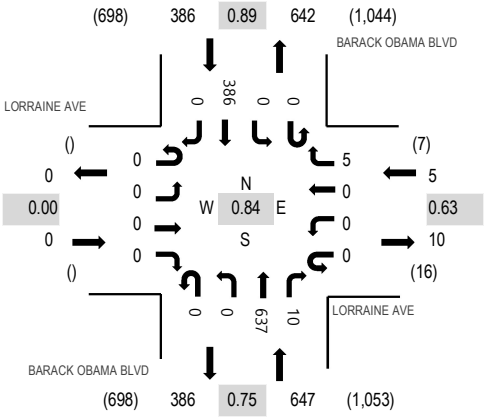
Appendix A

Turning Movement Counts

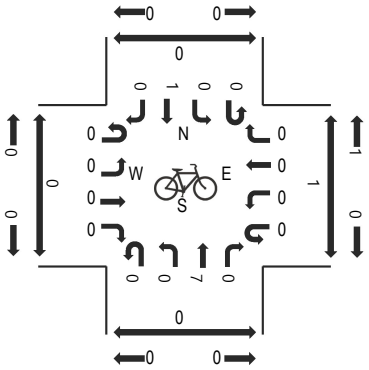
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 BARACK OBAMA BLVD & LORRAINE AVE AM
Date: Monday, September 27, 2021
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

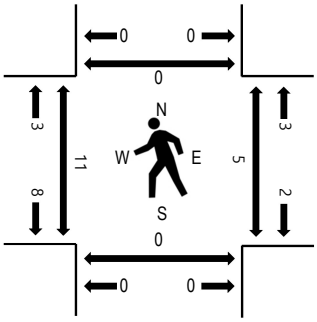
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	LORRAINE AVE Eastbound				LORRAINE AVE Westbound				BARACK OBAMA BLVD Northbound				BARACK OBAMA BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	0	0	0	0	0	87	1	0	0	59	0	147	844	3	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	90	2	0	0	78	0	171	994	5	1	0	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	126	4	0	0	87	0	218	1,038	3	3	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	214	3	0	0	91	0	308	1,012	6	1	0	0
8:00 AM	0	0	0	0	0	0	0	2	0	0	184	2	0	0	109	0	297	914	1	1	0	0
8:15 AM	0	0	0	0	0	0	0	2	0	0	113	1	0	0	99	0	215		1	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	103	1	0	0	88	0	192		1	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	0	0	120	2	0	0	87	0	210		3	0	0	0

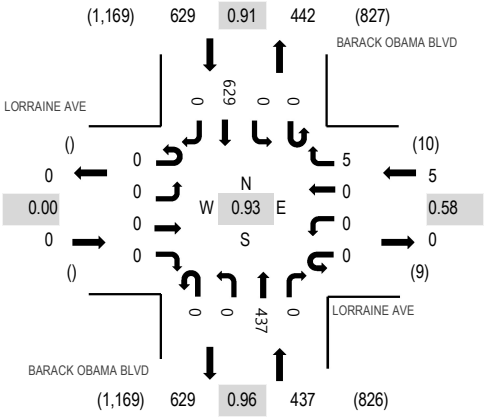
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Lights	0	0	0	0	0	0	0	5	0	0	626	8	0	0	374	0	1,013
Mediums	0	0	0	0	0	0	0	0	0	0	10	2	0	0	12	0	24
Total	0	0	0	0	0	0	0	5	0	0	637	10	0	0	386	0	1,038

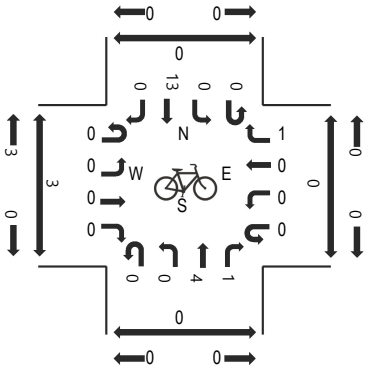
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 BARACK OBAMA BLVD & LORRAINE AVE PM
Date: Monday, September 27, 2021
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

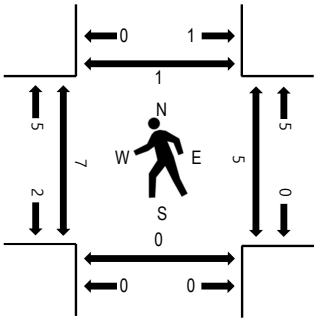
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	LORRAINE AVE Eastbound				LORRAINE AVE Westbound				BARACK OBAMA BLVD Northbound				BARACK OBAMA BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	0	0	1	0	0	91	3	0	0	126	0	221	951	0	3	0	0
4:15 PM	0	0	0	0	0	0	0	2	0	0	85	3	0	0	126	0	216	1,017	2	1	0	1
4:30 PM	0	0	0	0	0	0	0	2	0	0	92	2	0	0	153	0	249	1,064	2	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	100	0	0	0	165	0	265	1,071	2	1	0	0
5:00 PM	0	0	0	0	0	0	0	3	0	0	106	0	0	0	178	0	287	1,054	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	114	0	0	0	149	0	263		3	3	0	1
5:30 PM	0	0	0	0	0	0	0	2	0	0	117	0	0	0	137	0	256		2	1	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	112	1	0	0	135	0	248		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	0	0	0	0	0	0	5	0	0	432	0	0	0	624	0	1,061
Mediums	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	10
Total	0	0	0	0	0	0	0	5	0	0	437	0	0	0	629	0	1,071

Appendix B

Volumes Summary

Intersection Number: 1
Traffix Node Number: 3709
Intersection Name: Barack Obama Boulevard and Park Avenue
Peak Hour: AM
Count Date: 1/28/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**31**	**218**	**24**	**41**	**109**	**51**	**191**	**786**	**393**	**230**	**128**	**44**	**2246**
Approved Trips	**2**	**30**	**3**	**6**	**43**	**4**	**13**	**114**	**54**	**61**	**58**	**36**	**424**
Background Conditions	**33**	**248**	**27**	**47**	**152**	**55**	**204**	**900**	**447**	**291**	**186**	**80**	**2670**
Project Trips	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**5**	**5**	**0**	**3**	**0**	**16**
Background Plus Conditions	**33**	**248**	**30**	**47**	**152**	**55**	**204**	**905**	**452**	**291**	**189**	**80**	**2686**

Intersection Number: 2
Traffix Node Number: 3077
Intersection Name: Barack Obama Boulevard and San Carlos Street*
Peak Hour: AM
Count Date: 11/7/19

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**77**	**421**	**45**	**53**	**258**	**69**	**287**	**1207**	**274**	**156**	**248**	**157**	**3252**
Approved Trips	**17**	**56**	**8**	**5**	**65**	**6**	**28**	**68**	**33**	**36**	**102**	**11**	**435**
Background Conditions	**94**	**477**	**53**	**58**	**323**	**75**	**315**	**1275**	**307**	**192**	**350**	**168**	**3687**
Project Trips	**0**	**0**	**0**	**0**	**5**	**16**	**0**	**9**	**0**	**0**	**0**	**3**	**33**
Background Plus Conditions	**94**	**477**	**53**	**58**	**328**	**91**	**315**	**1284**	**307**	**192**	**350**	**171**	**3720**

Intersection Number: 3
Traffix Node Number: 3710
Intersection Name: Josefa Street and Park Avenue (unsignalized)
Peak Hour: AM
Count Date: 2/5/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**0**	**0**	**0**	**1**	**186**	**3**	**26**	**0**	**14**	**2**	**350**	**0**	**582**
Approved Trips	**0**	**0**	**0**	**0**	**53**	**0**	**0**	**0**	**0**	**0**	**74**	**0**	**127**
Background Conditions	**0**	**0**	**0**	**1**	**239**	**3**	**26**	**0**	**14**	**2**	**424**	**0**	**709**
Project Trips	**0**	**0**	**0**	**0**	**0**	**9**	**16**	**0**	**0**	**6**	**0**	**0**	**31**
Background Plus Conditions	**0**	**0**	**0**	**1**	**239**	**12**	**42**	**0**	**14**	**8**	**424**	**0**	**740**

Intersection Number: 4
Traffix Node Number: 902
Intersection Name: Josefa Street and Lorraine Avenue (unsignalized)
Peak Hour: AM
Count Date: 2/5/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**1**	**11**	**0**	**0**	**0**	**0**	**0**	**38**	**4**	**9**	**0**	**1**	**64**
Approved Trips	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Background Conditions	**1**	**11**	**0**	**0**	**0**	**0**	**0**	**38**	**4**	**9**	**0**	**1**	**64**
Project Trips	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**27**	**0**	**16**	**61**
Background Plus Conditions	**16**	**11**	**0**	**0**	**0**	**0**	**0**	**38**	**7**	**36**	**0**	**17**	**125**

Intersection Number: 5
Traffix Node Number: 900
Intersection Name: Barack Obama Boulevard and Lorraine Avenue (unsignalized)
Peak Hour: AM
Count Date: 9/27/21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**0**	**386**	**0**	**5**	**0**	**0**	**10**	**637**	**0**	**0**	**0**	**0**	**1038**
Approved Trips	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**181**	**0**	**0**	**0**	**0**	**181**
Background Conditions	**0**	**386**	**0**	**5**	**0**	**0**	**10**	**818**	**0**	**0**	**0**	**0**	**1219**
Project Trips	**0**	**0**	**0**	**11**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**23**
Background Plus Conditions	**0**	**386**	**0**	**16**	**0**	**0**	**22**	**818**	**0**	**0**	**0**	**0**	**1242**

Intersection Number: 1
Traffix Node Number: 3709
Intersection Name: Barack Obama Boulevard and Park Avenue
Peak Hour: PM
Count Date: 1/28/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**103**	**637**	**59**	**37**	**164**	**251**	**83**	**211**	**157**	**322**	**242**	**57**	**2323**
Approved Trips	**6**	**136**	**6**	**6**	**95**	**49**	**8**	**48**	**65**	**56**	**52**	**9**	**536**
Background Conditions	**109**	**773**	**65**	**43**	**259**	**300**	**91**	**259**	**222**	**378**	**294**	**66**	**2859**
Project Trips	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**5**	**5**	**0**	**6**	**0**	**22**
Background Plus Conditions	**109**	**773**	**71**	**43**	**259**	**300**	**91**	**264**	**227**	**378**	**300**	**66**	**2881**

Intersection Number: 2
Traffix Node Number: 3077
Intersection Name: Barack Obama Boulevard and San Carlos Street*
Peak Hour: PM
Count Date: 12/11/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**71**	**1034**	**109**	**30**	**212**	**213**	**127**	**328**	**132**	**345**	**702**	**92**	**3395**
Approved Trips	**12**	**107**	**9**	**7**	**94**	**43**	**8**	**60**	**18**	**50**	**111**	**20**	**539**
Background Conditions	**83**	**1141**	**118**	**37**	**306**	**256**	**135**	**388**	**150**	**395**	**813**	**112**	**3934**
Project Trips	**0**	**0**	**0**	**0**	**5**	**14**	**0**	**18**	**0**	**0**	**0**	**6**	**43**
Background Plus Conditions	**83**	**1141**	**118**	**37**	**311**	**270**	**135**	**406**	**150**	**395**	**813**	**118**	**3977**

Intersection Number: 3
Traffix Node Number: 3710
Intersection Name: Josefa Street and Park Avenue (unsignalized)
Peak Hour: PM
Count Date: 2/5/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**1**	**0**	**0**	**0**	**405**	**31**	**22**	**0**	**20**	**17**	**281**	**0**	**777**
Approved Trips	**0**	**0**	**0**	**0**	**150**	**0**	**0**	**0**	**0**	**0**	**66**	**0**	**216**
Background Conditions	**1**	**0**	**0**	**0**	**555**	**31**	**22**	**0**	**20**	**17**	**347**	**0**	**993**
Project Trips	**0**	**0**	**0**	**0**	**0**	**18**	**14**	**0**	**0**	**12**	**0**	**0**	**44**
Background Plus Conditions	**1**	**0**	**0**	**0**	**555**	**49**	**36**	**0**	**20**	**29**	**347**	**0**	**1037**

Intersection Number: 4
Traffix Node Number: 902
Intersection Name: Josefa Street and Lorraine Avenue (unsignalized)
Peak Hour: PM
Count Date: 2/5/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**2**	**44**	**0**	**0**	**0**	**0**	**0**	**40**	**8**	**3**	**0**	**5**	**102**
Approved Trips	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Background Conditions	**2**	**44**	**0**	**0**	**0**	**0**	**0**	**40**	**8**	**3**	**0**	**5**	**102**
Project Trips	**30**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**23**	**0**	**14**	**73**
Background Plus Conditions	**32**	**44**	**0**	**0**	**0**	**0**	**0**	**40**	**14**	**26**	**0**	**19**	**175**

Intersection Number: 5
Traffix Node Number: 900
Intersection Name: Barack Obama Boulevard and Lorraine Avenue (unsignalized)
Peak Hour: PM
Count Date: 9/27/21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**0**	**629**	**0**	**5**	**0**	**0**	**0**	**437**	**0**	**0**	**0**	**0**	**1071**
Approved Trips	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**121**	**0**	**0**	**0**	**0**	**121**
Background Conditions	**0**	**629**	**0**	**5**	**0**	**0**	**0**	**558**	**0**	**0**	**0**	**0**	**1192**
Project Trips	**0**	**0**	**0**	**9**	**0**	**0**	**24**	**0**	**0**	**0**	**0**	**0**	**33**
Background Plus Conditions	**0**	**629**	**0**	**14**	**0**	**0**	**24**	**558**	**0**	**0**	**0**	**0**	**1225**

Appendix C

Intersection Vehicle Queue Analysis

Barack Obama/Park
NBL
AM
Existing Conditions
Avg. Queue Per Lane in Veh= 14.2
Percentile = 0.95 21

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0000	0.0000	0
0.0000	0.0000	1
0.0001	0.0001	2
0.0003	0.0004	3
0.0012	0.0016	4
0.0033	0.0049	5
0.0078	0.0126	6
0.0158	0.0284	7
0.0280	0.0565	8
0.0442	0.1006	9
0.0627	0.1633	10
0.0809	0.2442	11
0.0957	0.3399	12
0.1044	0.4443	13
0.1059	0.5501	14
0.1001	0.6503	15
0.0888	0.7391	16
0.0742	0.8133	17
0.0585	0.8717	18
0.0437	0.9154	19
0.0310	0.9464	20
0.0209	0.9673	21
0.0135	0.9808	22
0.0083	0.9892	23
0.0049	0.9941	24
0.0028	0.9969	25
0.0015	0.9984	26
0.0008	0.9992	27
0.0004	0.9996	28
0.0002	0.9998	29
0.0001	0.9999	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

Barack Obama/Park
NBL
AM
Background Conditions
Avg. Queue Per Lane in Veh= 16.1
Percentile = 0.95 23

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0000	0.0000	0
0.0000	0.0000	1
0.0000	0.0000	2
0.0001	0.0001	3
0.0003	0.0004	4
0.0009	0.0013	5
0.0024	0.0037	6
0.0055	0.0092	7
0.0112	0.0203	8
0.0200	0.0404	9
0.0323	0.0727	10
0.0474	0.1201	11
0.0638	0.1839	12
0.0792	0.2631	13
0.0913	0.3545	14
0.0983	0.4528	15
0.0992	0.5519	16
0.0941	0.6461	17
0.0844	0.7305	18
0.0717	0.8022	19
0.0579	0.8601	20
0.0445	0.9046	21
0.0326	0.9373	22
0.0229	0.9602	23
0.0154	0.9756	24
0.0100	0.9855	25
0.0062	0.9917	26
0.0037	0.9954	27
0.0021	0.9975	28
0.0012	0.9987	29
0.0006	0.9993	30
0.0003	0.9997	31
0.0002	0.9998	32
0.0001	0.9999	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

Barack Obama/Park
NBL
AM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 16.3
Percentile = 0.95 23

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0000	0.0000	0
0.0000	0.0000	1
0.0000	0.0000	2
0.0001	0.0001	3
0.0002	0.0003	4
0.0008	0.0011	5
0.0021	0.0032	6
0.0050	0.0082	7
0.0102	0.0184	8
0.0185	0.0369	9
0.0302	0.0671	10
0.0447	0.1118	11
0.0609	0.1727	12
0.0764	0.2491	13
0.0891	0.3382	14
0.0969	0.4351	15
0.0989	0.5340	16
0.0950	0.6290	17
0.0861	0.7151	18
0.0740	0.7891	19
0.0604	0.8494	20
0.0469	0.8964	21
0.0348	0.9312	22
0.0247	0.9559	23
0.0168	0.9727	24
0.0110	0.9836	25
0.0069	0.9905	26
0.0042	0.9947	27
0.0024	0.9971	28
0.0014	0.9985	29
0.0007	0.9992	30
0.0004	0.9996	31
0.0002	0.9998	32
0.0001	0.9999	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

Barack Obama/Park
NBL
PM
Existing Conditions
Avg. Queue Per Lane in Veh= 5.1
Percentile = 0.95 9

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0064	0.0064	0
0.0321	0.0385	1
0.0813	0.1198	2
0.1371	0.2569	3
0.1734	0.4302	4
0.1754	0.6056	5
0.1479	0.7535	6
0.1069	0.8604	7
0.0676	0.9280	8
0.0380	0.9660	9
0.0192	0.9852	10
0.0088	0.9940	11
0.0037	0.9978	12
0.0015	0.9992	13
0.0005	0.9997	14
0.0002	0.9999	15
0.0001	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

Barack Obama/Park
NBL
PM
Background Conditions
Avg. Queue Per Lane in Veh= 7.2
Percentile = 0.95 12

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0008	0.0008	0
0.0056	0.0064	1
0.0200	0.0264	2
0.0477	0.0741	3
0.0853	0.1595	4
0.1221	0.2816	5
0.1456	0.4271	6
0.1488	0.5759	7
0.1330	0.7089	8
0.1057	0.8146	9
0.0756	0.8902	10
0.0492	0.9394	11
0.0293	0.9687	12
0.0161	0.9849	13
0.0082	0.9931	14
0.0039	0.9970	15
0.0018	0.9988	16
0.0007	0.9995	17
0.0003	0.9998	18
0.0001	0.9999	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45

Barack Obama/Park
NBL
PM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 7.3
Percentile = 0.95 12

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0007	0.0007	0
0.0049	0.0055	1
0.0178	0.0233	2
0.0434	0.0668	3
0.0794	0.1462	4
0.1162	0.2624	5
0.1416	0.4040	6
0.1480	0.5520	7
0.1353	0.6873	8
0.1100	0.7972	9
0.0804	0.8777	10
0.0535	0.9311	11
0.0326	0.9637	12
0.0183	0.9821	13
0.0096	0.9917	14
0.0047	0.9963	15
0.0021	0.9985	16
0.0009	0.9994	17
0.0004	0.9998	18
0.0001	0.9999	19
0.0001	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

Barack Obama/Park
WBL
AM
Existing Conditions
Avg. Queue Per Lane in Veh= 1.8
Percentile = 0.95 4

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.1586	0.1586	0
0.2920	0.4506	1
0.2689	0.7194	2
0.1651	0.8845	3
0.0760	0.9605	4
0.0280	0.9885	5
0.0086	0.9971	6
0.0023	0.9993	7
0.0005	0.9999	8
0.0001	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

Barack Obama/Park
WBL
AM
Background Conditions
Avg. Queue Per Lane in Veh= 2.0
Percentile = 0.95 5

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.1372	0.1372	0
0.2726	0.4098	1
0.2707	0.6804	2
0.1792	0.8596	3
0.0890	0.9486	4
0.0353	0.9839	5
0.0117	0.9956	6
0.0033	0.9990	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	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

Barack Obama/Park
WBL
AM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 2.0
Percentile = 0.95 5

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.1372	0.1372	0
0.2726	0.4098	1
0.2707	0.6804	2
0.1792	0.8596	3
0.0890	0.9486	4
0.0353	0.9839	5
0.0117	0.9956	6
0.0033	0.9990	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	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

Barack Obama/Park
WBL
PM
Existing Conditions
Avg. Queue Per Lane in Veh= 8.1
Percentile = 0.95 13

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0003	0.0003	0
0.0025	0.0028	1
0.0100	0.0128	2
0.0271	0.0399	3
0.0548	0.0947	4
0.0886	0.1833	5
0.1194	0.3028	6
0.1380	0.4408	7
0.1395	0.5803	8
0.1254	0.7057	9
0.1014	0.8071	10
0.0746	0.8816	11
0.0503	0.9319	12
0.0313	0.9631	13
0.0181	0.9812	14
0.0097	0.9909	15
0.0049	0.9959	16
0.0023	0.9982	17
0.0011	0.9993	18
0.0004	0.9997	19
0.0002	0.9999	20
0.0001	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

Barack Obama/Park
WBL
PM
Background Conditions
Avg. Queue Per Lane in Veh= 9.7
Percentile = 0.95 15

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0001	0.0001	0
0.0006	0.0007	1
0.0030	0.0036	2
0.0095	0.0132	3
0.0231	0.0362	4
0.0446	0.0808	5
0.0718	0.1526	6
0.0992	0.2518	7
0.1198	0.3716	8
0.1287	0.5003	9
0.1244	0.6247	10
0.1093	0.7340	11
0.0881	0.8221	12
0.0655	0.8875	13
0.0452	0.9328	14
0.0291	0.9619	15
0.0176	0.9795	16
0.0100	0.9895	17
0.0054	0.9949	18
0.0027	0.9976	19
0.0013	0.9989	20
0.0006	0.9995	21
0.0003	0.9998	22
0.0001	0.9999	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	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

Barack Obama/Park
WBL
PM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 9.7
Percentile = 0.95 15

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0001	0.0001	0
0.0006	0.0007	1
0.0030	0.0036	2
0.0095	0.0132	3
0.0231	0.0362	4
0.0446	0.0808	5
0.0718	0.1526	6
0.0992	0.2518	7
0.1198	0.3716	8
0.1287	0.5003	9
0.1244	0.6247	10
0.1093	0.7340	11
0.0881	0.8221	12
0.0655	0.8875	13
0.0452	0.9328	14
0.0291	0.9619	15
0.0176	0.9795	16
0.0100	0.9895	17
0.0054	0.9949	18
0.0027	0.9976	19
0.0013	0.9989	20
0.0006	0.9995	21
0.0003	0.9998	22
0.0001	0.9999	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	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

Josefa/Park
WBL/T/R
AM
Existing Conditions
Avg. Queue Per Lane in Veh= 0.4
Percentile = 0.95 2

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.6556	0.6556	0
0.2768	0.9324	1
0.0584	0.9908	2
0.0082	0.9991	3
0.0009	0.9999	4
0.0001	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45

Josefa/Park
WBL/T/R
AM
Background Conditions
Avg. Queue Per Lane in Veh= 0.5
Percentile = 0.95 2

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.5827	0.5827	0
0.3147	0.8974	1
0.0850	0.9824	2
0.0153	0.9977	3
0.0021	0.9998	4
0.0002	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45

Josefa/Park
WBL/T/R
AM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 0.6
Percentile = 0.95 2

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.5712	0.5712	0
0.3199	0.8911	1
0.0896	0.9807	2
0.0167	0.9974	3
0.0023	0.9997	4
0.0003	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
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0.0000	1.0000	19
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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

Josefa/Park
WBL/T/R
PM
Existing Conditions
Avg. Queue Per Lane in Veh= 1.0
Percentile = 0.95 3

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.3841	0.3841	0
0.3675	0.7517	1
0.1758	0.9275	2
0.0561	0.9835	3
0.0134	0.9970	4
0.0026	0.9995	5
0.0004	0.9999	6
0.0001	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45

Josefa/Park
WBL/T/R
PM
Background Conditions
Avg. Queue Per Lane in Veh= 1.3
Percentile = 0.95 3

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.2764	0.2764	0
0.3554	0.6318	1
0.2285	0.8603	2
0.0980	0.9583	3
0.0315	0.9898	4
0.0081	0.9979	5
0.0017	0.9996	6
0.0003	0.9999	7
0.0001	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
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0.0000	1.0000	29
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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

Josefa/Park
WBL/T/R
PM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 1.3
Percentile = 0.95 3

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.2613	0.2613	0
0.3507	0.6119	1
0.2353	0.8473	2
0.1053	0.9526	3
0.0353	0.9879	4
0.0095	0.9974	5
0.0021	0.9995	6
0.0004	0.9999	7
0.0001	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45

Josefa/Park
NBL/T/R
AM
Existing Conditions
Avg. Queue Per Lane in Veh= 0.1
Percentile = 0.95 1

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.8909	0.8909	0
0.1029	0.9938	1
0.0059	0.9998	2
0.0002	1.0000	3
0.0000	1.0000	4
0.0000	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
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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

Josefa/Park
NBL/T/R
AM
Background Conditions
Avg. Queue Per Lane in Veh= 0.1
Percentile = 0.95 1

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.8909	0.8909	0
0.1029	0.9938	1
0.0059	0.9998	2
0.0002	1.0000	3
0.0000	1.0000	4
0.0000	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
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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
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0.0000	1.0000	28
0.0000	1.0000	29
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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

Josefa/Park
NBL/T/R
AM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 0.2
Percentile = 0.95 1

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.8520	0.8520	0
0.1365	0.9885	1
0.0109	0.9994	2
0.0006	1.0000	3
0.0000	1.0000	4
0.0000	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
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0.0000	1.0000	24
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0.0000	1.0000	27
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0.0000	1.0000	29
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0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
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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

Josefa/Park
NBL/T/R
PM
Existing Conditions
Avg. Queue Per Lane in Veh= 0.1
Percentile = 0.95 1

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.8714	0.8714	0
0.1200	0.9914	1
0.0083	0.9996	2
0.0004	1.0000	3
0.0000	1.0000	4
0.0000	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
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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

Josefa/Park
NBL/T/R
PM
Background Conditions
Avg. Queue Per Lane in Veh= 0.1
Percentile = 0.95 1

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.8714	0.8714	0
0.1200	0.9914	1
0.0083	0.9996	2
0.0004	1.0000	3
0.0000	1.0000	4
0.0000	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
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0.0000	1.0000	20
0.0000	1.0000	21
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0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
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0.0000	1.0000	29
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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

Josefa/Park
NBL/T/R
PM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 0.2
Percentile = 0.95 1

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.8336	0.8336	0
0.1517	0.9853	1
0.0138	0.9991	2
0.0008	1.0000	3
0.0000	1.0000	4
0.0000	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
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0.0000	1.0000	14
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0.0000	1.0000	18
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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
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0.0000	1.0000	29
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0.0000	1.0000	31
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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

Appendix D

VMT Evaluation

Tool Output

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

PROJECT:

Name: Montgomery I Mixed-Use Development
Location: 545 Lorraine Avenue, San Jose, CA
Parcel: 25947068 Parcel Type: Urban High Transit

Tool Version: 2/29/2019
Date: 2/1/2022

Proposed Parking Spaces Vehicles: 0 Bicycles: 123

LAND USE:

Residential:		
Single Family	0	DU
Multi Family	123	DU
Subtotal	123	DU
Office:	0	KSF
Retail:	1.92	KSF
Industrial:	0	KSF

Percent of All Residential Units

Extremely Low Income (≤ 30% MFI)	0	% Affordable
Very Low Income (> 30% MFI, ≤ 50% MFI)	0	% Affordable
Low Income (> 50% MFI, ≤ 80% MFI)	15	% Affordable

VMT REDUCTION STRATEGIES

Tier 1 - Project Characteristics

Increase Residential Density

Existing Density (DU/Residential Acres in half-mile buffer)	10
With Project Density (DU/Residential Acres in half-mile buffer)	11

Increase Development Diversity

Existing Activity Mix Index	0.86
With Project Activity Mix Index	0.85

Integrate Affordable and Below Market Rate

Extremely Low Income BMR units	0 %
Very Low Income BMR units	0 %
Low Income BMR units	15 %

Increase Employment Density

Existing Density (Jobs/Commercial Acres in half-mile buffer)	29
With Project Density (Jobs/Commercial Acres in half-mile buffer)	29

Tier 2 - Multimodal Infrastructure

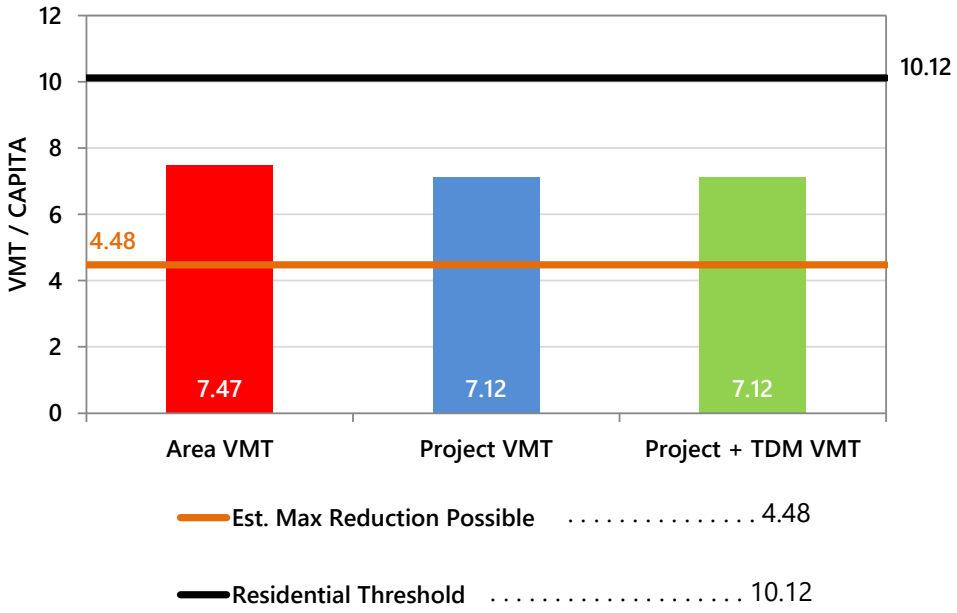
Tier 3 - Parking

Tier 4 - TDM Programs

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

RESIDENTIAL ONLY

The tool estimates that the project would generate per capita VMT below the City's threshold.



CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

PROJECT:

Name: Montgomery II Mixed-Use Development
Location: 543 Lorraine Avenue, San Jose, CA
Parcel: 25947070 Parcel Type: Urban High Transit
Tool Version: 2/29/2019
Date: 2/1/2022

Proposed Parking Spaces Vehicles: 83 Bicycles: 100

LAND USE:

Residential:		
Single Family	0	DU
Multi Family	264	DU
Subtotal	264	DU
Office:	0	KSF
Retail:	2.21	KSF
Industrial:	0	KSF

Percent of All Residential Units

Extremely Low Income (≤ 30% MFI)	0	% Affordable
Very Low Income (> 30% MFI, ≤ 50% MFI)	0	% Affordable
Low Income (> 50% MFI, ≤ 80% MFI)	24	% Affordable

VMT REDUCTION STRATEGIES

Tier 1 - Project Characteristics

Increase Residential Density
- Existing Density (DU/Residential Acres in half-mile buffer) 10
- With Project Density (DU/Residential Acres in half-mile buffer) 11

Increase Development Diversity
- Existing Activity Mix Index 0.86
- With Project Activity Mix Index 0.84

Integrate Affordable and Below Market Rate
- Extremely Low Income BMR units . . . . . 0 %
- Very Low Income BMR units . . . . . 0 %
- Low Income BMR units . . . . . 24 %

Increase Employment Density
- Existing Density (Jobs/Commercial Acres in half-mile buffer) 31
- With Project Density (Jobs/Commercial Acres in half-mile buffer) 31

Tier 2 - Multimodal Infrastructure

Tier 3 - Parking

Tier 4 - TDM Programs

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

RESIDENTIAL ONLY

The tool estimates that the project would generate per capita VMT below the City's threshold.