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Figure 5
Existing Bicycle Facilities



Figure 6
Existing Transit Facilities

Light Rail Transit (LRT) Service

Light Rail Transit (LRT) service is provided in the project area by the VTA. The nearest LRT station (Baypointe LRT Station) is located along Tasman Drive at its intersection with Baypointe Parkway, approximately 1.7 miles south of the project site and serves the Mountain View-Alum Rock and the Santa Teresa-Baypointe LRT lines. The Mountain View-Alum Rock line operates from 5:30 AM to 12:30 AM with 30-minute headways and the Santa Teresa-Baypointe line operates from 5:00 AM to 1:00 AM with 20-minute headways during peak commute and midday hours. The Mountain View-Alum Rock line provides service between Mountain View and Alum Rock in east San Jose via Tasman Drive and Capitol Avenue. The Santa Teresa-Baypointe line provides service between the Santa Teresa station in south San Jose and North San Jose via N. 1st Street, SR 87, and SR 85.

Observed Existing Traffic Conditions

Due the current COVID-19 pandemic situation, traffic volumes are generally lower than during “normal” conditions. However, it is still valuable to observe traffic conditions in the field to identify any existing operational deficiencies. Accordingly, traffic conditions in the study area were observed during the weekday AM (7:00-9:00 AM) and PM (4:00-6:00 PM) peak traffic periods.

Based on the field observations, the study intersections operated adequately during both the weekday AM and PM peak hours of traffic, and no noteworthy operational issues were observed.

3. CEQA Analysis

This chapter describes the CEQA transportation analysis, including the VMT threshold of significance, the project-level VMT impact analysis results, mitigation measures to reduce a VMT impact, and the cumulative transportation impact analysis used to determine consistency with the City's General Plan.

Project Level VMT Analysis

An evaluation of VMT per the City of San Jose's guidelines for transportation impact analysis was completed using the City's VMT Evaluation Tool. Based on the project location, type of development, project description, and proposed trip reduction measures, the VMT tool calculates VMT. However, the City's VMT Evaluation Tool is limited to the evaluation of the general land use categories of residential, office, and industrial. Therefore, the use of the VMT tool for land uses that are not reflective of one of the three land use types, such as the data center, requires the conversion of the proposed land use to an equivalent number of residential units, office space, or industrial space.

For the purpose of VMT evaluation, the proposed new data center trips were converted to equivalent industrial space to provide an estimate of VMT as shown in Table 3. Data centers, such as the project, are most similar to industrial spaces in that they are essentially warehouses that store customer data and associated ancillary operations and have a small number of employees and visitors. Data Centers may also include maintenance areas and a small office component.

Table 3
Daily Trip Conversion from Data Center Trips to General Light Industrial Trips

Land Use	ITE Land Use Code	Size	Daily	
			Rate	Trip
Data Center	160	479,000 Square Feet	0.99	474
General Light Industrial	110	Equivalent Industrial Space¹ = 96,000 Square Feet	4.96	474

Source: ITE Trip Generation Manual, 10th Edition 2017

¹The VMT Evaluation Tool does not provide for the evaluation of VMT for a Data Center use. Therefore, the proposed project trips were converted to equivalent General Light Industrial space and evaluated as an Industrial land use in the tool.

As shown in Table 3 above, the equivalent industrial square footage for the proposed data center is 96,000 square feet. Based on the City's CEQA VMT Analysis screening criteria for development projects, the project would not meet the screening criteria for VMT analysis exemption because it is not 30,000 gross square feet or less and, thus, does not qualify as a small infill industrial project.

Project VMT Impact Analysis Results

Per the City's VMT Evaluation Tool, the existing Area VMT for employment uses is 17.30 VMT per employee, which is above the existing regional average threshold of 14.37 VMT per employee. The project VMT estimated by the Evaluation Tool is 17.24 VMT per employee, which also exceeds the industrial threshold of 14.37 VMT per employee. According to the *Transportation Analysis Handbook*, projects located in areas where the existing VMT is above the established threshold (such as the study area) are referred to as being in "high-VMT areas", and projects in high-VMT areas are required to include VMT reduction measures that would reduce the project VMT to the extent possible.

Project Impact

Since the VMT generated by the project would exceed the threshold of significance for industrial employment uses in the area, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact.

Project Mitigation

The following multi-modal infrastructure improvements (numbers 1 - 4 below), parking reduction measure (number 5 below), and Transportation Demand Management (TDM) measure (number 6 below) will be implemented to mitigate the significant VMT impact:

1. **Increase Roadway Network Connectivity** – The project would construct a new street (an extension of Nortech Parkway) that would extend east from Zanker Road and provide access to the project site. The new intersection created at Zanker Road/Nortech Parkway would be signalized and would be located approximately 400 feet north of the Zanker Road/Thomas Foon Chew Way intersection. Currently, Nortech Parkway is an east-west local public roadway that terminates approximately 0.8 miles west of Zanker Road near Fortran Drive. The City of San Jose has plans to extend Nortech Parkway east to Zanker Road, where the new traffic signal would be constructed by the project. Note that the project would not be responsible for constructing or contributing toward the construction of the segment of the Nortech Parkway extension west of Zanker Road. Building new street connections/intersections improves vehicular, pedestrian, and bicycle access. Furthermore, increasing the roadway network connectivity shortens vehicle trips, enhances walkability, and provides more opportunities for bicyclists. Accordingly, this multi-modal infrastructure improvement would reduce VMT.
2. **Traffic Calming Measures** – The project would construct a raised median island along Zanker Road between the new Nortech Parkway extension and the SR 237 westbound off-ramp. The raised median is part of the City's Plan Line design for Zanker Road. Raised median islands help to reduce vehicular speeds by narrowing the roadway, as well as provide a physical barrier for vehicles and a refuge for pedestrians. Providing traffic calming measures creates a safer environment and promotes walking and biking as alternatives to driving. Accordingly, this multi-modal infrastructure improvement would reduce drive-alone commute trips and thus VMT.
3. **Pedestrian Network Improvements** – The project would construct a Class I Bikeway Trail extension along the east side of Zanker Road, connecting the existing Coyote Creek Trail segment with the new Nortech Parkway extension. The future location of the trail falls within the City's right-of-way (ROW). This multi-modal infrastructure improvement would promote walking, thereby reducing drive-alone commute trips and VMT.
4. **Bike Access Improvements** – The project would construct a Class I Bikeway Trail extension along the east side of Zanker Road (within the City's ROW), connecting the existing trail segment with the new Nortech Parkway extension. This multi-modal infrastructure improvement would promote bicycling, thus reducing drive-alone commute trips. Providing new bicycle

facilities that close gaps in the existing bike network improves overall bike access and circulation and promotes bicycling as an alternative to driving, thereby reducing VMT.

5. **Limit Parking Supply** – The project would provide 116 vehicle parking spaces, which is 66 fewer spaces than what the City of San Jose Municipal Code requires. The project would request a parking exception in order to qualify for the parking reduction. Decreasing a project's parking supply encourages employees to choose an alternative transportation mode for their commutes, thereby reducing VMT.
6. **Commute Trip Reduction Marketing and Education** – The project should implement a marketing campaign targeting all employees that encourages the use of shared rides and active modes of transportation. Marketing strategies may include new employee orientation on alternative commute options, event promotions, and publications. The project should provide information and encouragement to use transit, shared ride modes, and active modes to reduce drive-alone commute trips and, thus, VMT. It is assumed that 100% of the employees would be subject to the commute trip reduction education program.

Based on the City's VMT Evaluation Tool, implementing the recommended mitigation measures would lower the project VMT to 14.12 per employee (a reduction of about 18%), which would reduce the project impact to a less-than-significant level (below the threshold of 14.37 VMT per employee).

Figures 7A and 7B show the VMT summary reports generated by the City of San Jose's VMT Evaluation Tool without and with implementation of the recommended mitigation measures, respectively.

Cumulative VMT Impact Analysis

Projects must demonstrate consistency with the *Envision San Jose 2040 General Plan* to address cumulative impacts. Consistency with the City's General Plan is based on a consideration of all of its aspects, including the project's density, design, and ability to further the General Plan goals and policies and not obstruct their attainment. If a project is determined to be inconsistent with the General Plan, a cumulative impact analysis is required as part of the City's *Transportation Analysis Handbook*.

The proposed project would be consistent with the development type and intensity provided in the *Envision San Jose 2040 General Plan*, the cumulative effects of which were previously evaluated in the *Envision San Jose 2040 General Plan Environmental Impact Report* and *Supplemental Program Environmental Impact Report*.

The project is consistent with the General Plan goals and policies for the following reasons:

- The project's proposed use is consistent with the current zoning: *Light Industrial* (LI).
- While the project would increase the employment density in the project area, the proposed density would be consistent with the current General Plan Land Use Designation that applies to the project site.
- The project would provide improvements to pedestrian and bicycle connectivity and safety in the vicinity of the project site by constructing a Class I Bikeway Trail extension.
- The project would provide improvements to roadway network connectivity and safety near the project site by constructing a new intersection at Zanker Road/Nortech Parkway, extending Nortech Parkway east of Zanker Road, and constructing a raised median on Zanker Road.

Based on the project description, the proposed project would be consistent with the *Envision San Jose 2040 General Plan* and would not require a General Plan Amendment (GPA). The project including its proposed improvements would be considered part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

Figure 7A
San Jose VMT Evaluation Tool Summary Report – No Mitigation

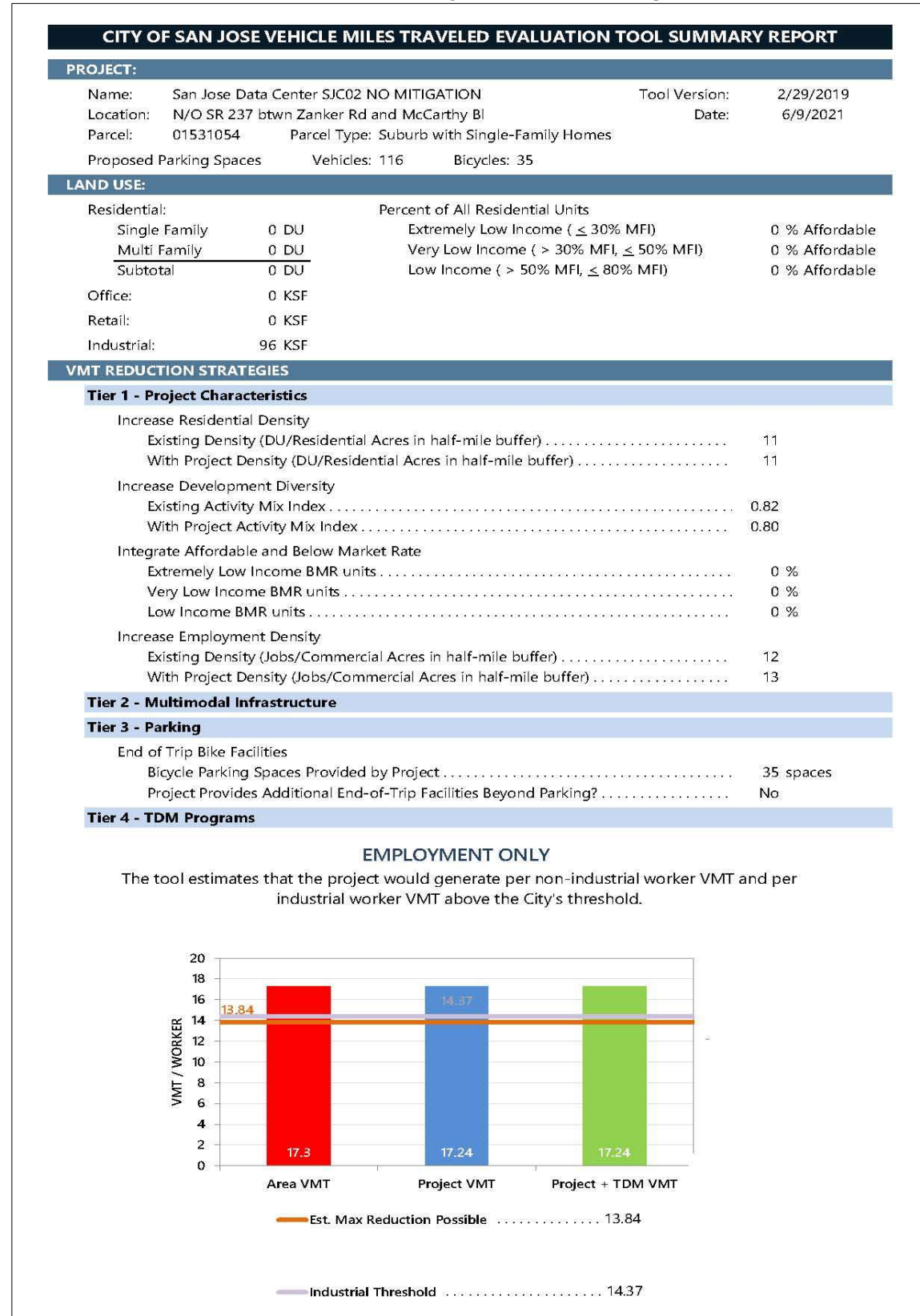


Figure 7B
San Jose VMT Evaluation Tool Summary Report – With Mitigation

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT			
PROJECT:			
Name:	San Jose Data Center SJC02 MITIGATED	Tool Version:	2/29/2019
Location:	N/O SR 237 btwn Zanker Rd and McCarthy Bl	Date:	6/9/2021
Parcel:	01531054	Parcel Type:	Suburb with Single-Family Homes
Proposed Parking Spaces	Vehicles: 116	Bicycles:	35
LAND USE:			
Residential:		Percent of All Residential Units	
Single Family	0 DU	Extremely Low Income ($\leq$ 30% MFI)	0 % Affordable
Multi Family	0 DU	Very Low Income ($>$ 30% MFI, $\leq$ 50% MFI)	0 % Affordable
Subtotal	0 DU	Low Income ($>$ 50% MFI, $\leq$ 80% MFI)	0 % Affordable
Office:	0 KSF		
Retail:	0 KSF		
Industrial:	96 KSF		
VMT REDUCTION STRATEGIES			
Tier 1 - Project Characteristics			
Increase Residential Density			
Existing Density (DU/Residential Acres in half-mile buffer)			11
With Project Density (DU/Residential Acres in half-mile buffer)			11
Increase Development Diversity			
Existing Activity Mix Index			0.82
With Project Activity Mix Index			0.80
Integrate Affordable and Below Market Rate			
Extremely Low Income BMR units			0 %
Very Low Income BMR units			0 %
Low Income BMR units			0 %
Increase Employment Density			
Existing Density (Jobs/Commercial Acres in half-mile buffer)			12
With Project Density (Jobs/Commercial Acres in half-mile buffer)			13
Tier 2 - Multimodal Infrastructure			
Bike Access Improvements <i>(In Coordination with SJ)</i>			
Distance to Nearest Existing Bicycle Facility			900 feet
Distance to Nearest Bicycle Facility With Project			0 feet
Increase Network Connectivity <i>(In Coordination with SJ)</i>			
Intersection Density			20 int/sqmi
Intersection Density with Project			21 int/sqmi
Traffic Calming Measures <i>(In Coordination with SJ)</i>			
Are improvements provided beyond the development frontage?			Yes
Pedestrian Network Improvements <i>(In Coordination with SJ)</i>			
Are pedestrian improvements provided beyond the development frontage?			Yes

Figure 7B (Continued)
San Jose VMT Evaluation Tool Summary Report – With Mitigation

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

Tier 3 - Parking

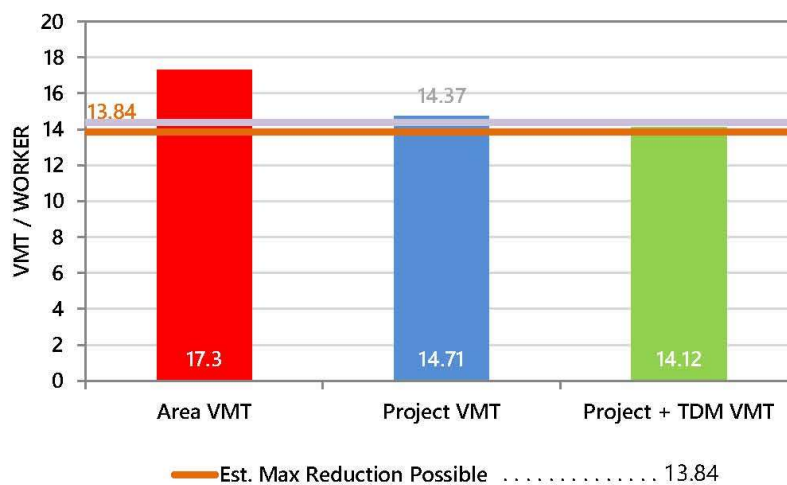
Limit Parking Supply	
Minimum Parking Required by Municipal Code	182 spaces
Total Parking Spaces Available to Employees	116 spaces
Does the surrounding street parking have RPP, meters, or time limits?	Yes
End of Trip Bike Facilities	
Bicycle Parking Spaces Provided by Project	35 spaces
Project Provides Additional End-of-Trip Facilities Beyond Parking?	No

Tier 4 - TDM Programs

Commute Trip Reduction Marketing/ Education	
Percent of Eligible Employees	100 %

EMPLOYMENT ONLY

The tool estimates that the project would generate per non-industrial worker VMT below the City's threshold. There are selected strategies that require coordination with the City of San Jose to implement.



4.

Local Transportation Analysis

This chapter describes the non-CEQA local transportation analysis (LTA) including existing traffic conditions, the method by which project traffic is estimated, intersection operations analysis for existing, background and background plus project scenarios, any adverse effects to intersection level of service caused by the project, intersection queuing analysis, site access and on-site circulation review, effects on bicycle, pedestrian and transit facilities, and parking supply.

Intersection Operations Analysis

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

Project Trip Estimates

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

Trip Generation

Through empirical research, data have been collected that quantify the amount of traffic produced by many types of land uses. This research is compiled in the *Trip Generation Manual, 10th Edition* (2017) published by the Institute of Transportation Engineers (ITE). The magnitude of traffic added to the roadway system by a particular development is estimated by multiplying the applicable trip generation rate(s) by the size of the development. Trips that would be generated by the proposed project were estimated using the ITE trip rates for Data Center (ITE Land Use 160) located in a general urban/suburban setting. As defined by the ITE, a "data center" is a free-standing warehouse type of facility that is primarily used for off-site storage of computer systems and associated components and may include maintenance areas and a small office.

Trip Adjustments and Reductions

In accordance with San Jose's *Transportation Analysis Handbook* (April 2018, Section 4.8, "Intersection Operations Analysis"), the project is eligible for adjustments and reductions from the baseline trip generation. Based on the 2018 San Jose guidelines, the project qualifies for a 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 Evaluation Tool, the project site is located within a *Suburban with Single-Family Homes* place type. Therefore, the baseline project trips were adjusted to reflect the mode share associated with this place type.

Industrial developments located within areas designated *Suburban with Single-Family Homes* have a vehicle mode share of 95 percent (according to Table 6 of the City's *Transportation Analysis Handbook*). Thus, a 5 percent reduction was applied to the project trip generation estimates based on the location-based vehicle mode share outputs produced from the San Jose Travel Demand Model.

In addition, to address the significant VMT impact as described in Chapter 3, the project would implement multi-modal infrastructure improvements, parking reduction measures, and a commute trip reduction education program to lower the project VMT and reduce the project impact to a less-than-significant level. Accordingly, an 18 percent reduction was applied based on the corresponding external trip adjustment obtained from the VMT Evaluation Tool. The reduction was applied to the adjusted project trips (with location-based adjustment).

Net Project Trips

After applying the ITE trip rates to the proposed project and applying the appropriate trip adjustments and reductions, it is estimated that the project would generate 369 net new daily trips, with 41 net new trips (22 inbound and 19 outbound) occurring during the AM peak hour and 34 net new trips (10 inbound and 24 outbound) occurring during the PM peak hour (See Table 4).

Table 4
Project Trip Generation Estimates

ITE Land Use	% of Vehicle Mode Share	Reduction %	Size	Daily		AM Peak Hour				PM Peak Hour			
				Rate	Trips	Pk-Hr Rate	Trips			Pk-Hr Rate	Trips		
						Rate	In	Out	Total	Rate	In	Out	Total
Data Center ¹			479,000 SF	0.99	474	0.11	29	24	53	0.09	13	30	43
Location-Based Vehicle Mode Share Reduction ²	95%	5%			(24)		(2)	(1)	(3)		(1)	(1)	(2)
Project-Specific Trip Reduction ³		18%			(81)		(5)	(4)	(9)		(2)	(5)	(7)
Net Project Trips					369		22	19	41		10	24	34

Notes:

¹ The project trip generation estimates are based on average rates contained in the *ITE Trip Generation Manual*, 10th Edition, for Data Center (Land Use 160) located in a General Urban/Suburban setting. Rates are expressed in trips per 1,000 SF.

² The project site is located within the place type Suburban with Single-Family Homes based on the City of San Jose VMT Evaluation Tool (February 29, 2019). The location-based vehicle mode share percentage outputs are obtained from Table 6 of the City of San Jose *Transportation Analysis Handbook* (April 2018). The 5% trip reduction is based on the percent of mode share for other modes of travel besides vehicles.

³ An 18% trip reduction was applied based on the external trip adjustments obtained from the City's VMT Evaluation Tool. This trip reduction reflects the multi-modal infrastructure improvements, parking reduction measures, and commute trip reduction education program being proposed by the project to reduce the project VMT impact to a less-than-significant level. It is assumed that every percent reduction in VMT per worker is equivalent to one percent reduction in peak-hour vehicle trips.

Trip Distribution and Assignment

The trip distribution pattern for the project was estimated based on existing travel patterns on the surrounding roadway system and the locations of complementary land uses. The peak-hour vehicle trips associated with the project were added to the roadway network in accordance with the trip distribution pattern, the roadway network connections, and the location of the project driveway. The project trip distribution pattern and trip assignment are shown on Figure 8.

Microsoft Data Center (SJC02)

1 Tasman Dr Zanker Rd	2 SR 237 EB Ramps Zanker Rd	3 SR 237 WB Ramps Zanker Rd	4 Nortech Pkwy (Future) Zanker Rd
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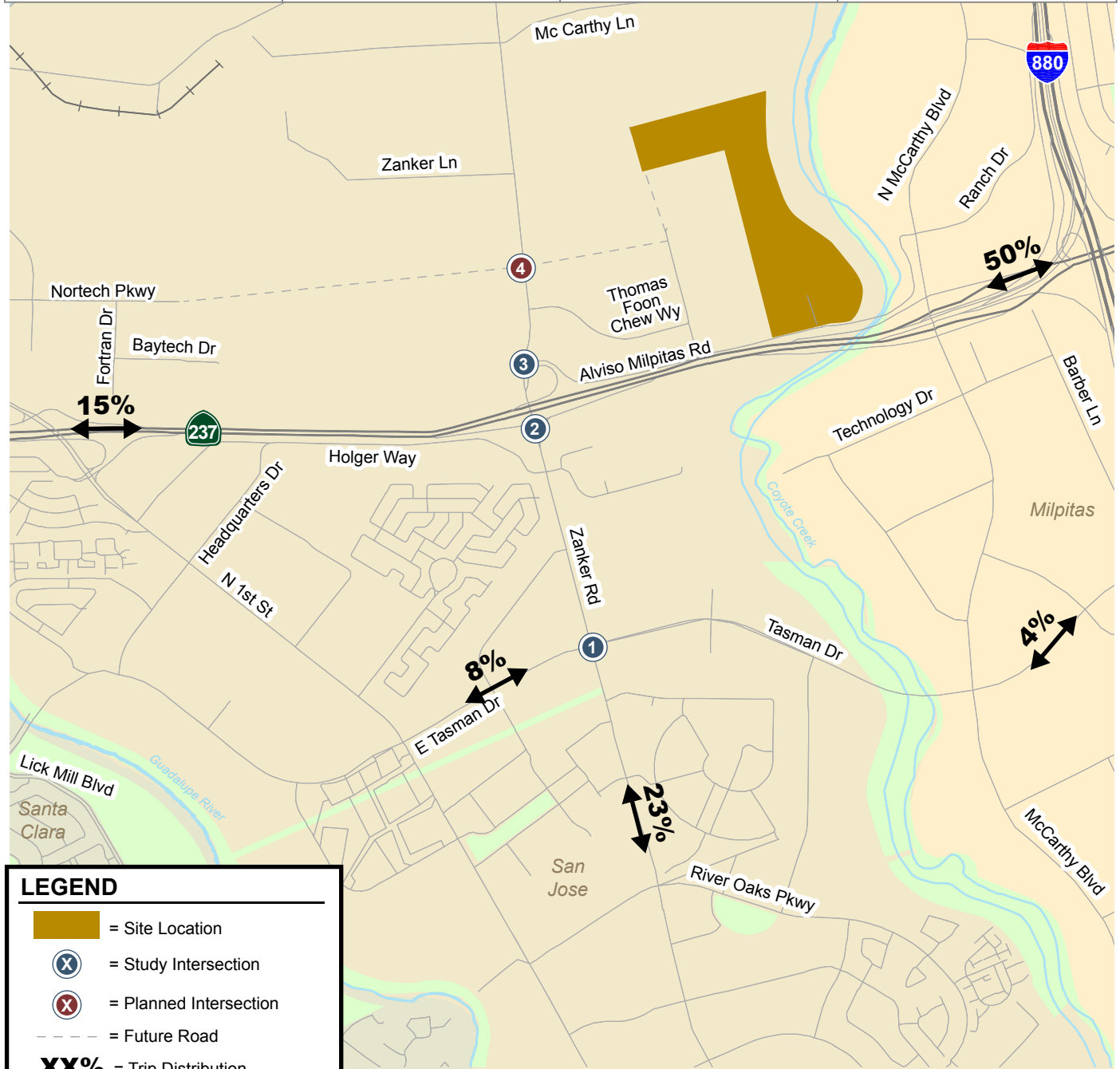


Figure 8
Project Trip Distribution and Assignment

Traffic Volumes Under All Scenarios

Existing Traffic Volumes

Due to the current COVID-19 pandemic situation, some businesses and schools are closed, and people are working at home to the extent possible. As a result, existing traffic volume is lower than what it was prior to the virus outbreak. It is not known when traffic levels will return to pre-virus conditions. Even though many businesses and schools have reopened, most are operating well below capacity. Thus, traffic volume is expected to remain reduced for an indefinite amount of time. For this reason, the City of San Jose is requiring that all new traffic counts for study intersections be put on hold until further notice. Instead of conducting new turning movement counts, City staff are requesting that an annual growth factor of 1% be applied to historical count data. Accordingly, a 1% annual growth factor was applied to the turning movement counts provided by City staff for this project. This approach allows transportation studies such as this to move forward without waiting for conditions to return to “normal”.

Existing AM and PM peak hour traffic volumes for the three existing study intersections were obtained from the CMP Traffic count database and from counts provided by City of San Jose staff. The counts used were conducted in 2016 and 2018. An annual growth factor of 1% was applied to estimate existing traffic conditions. The existing AM and PM peak-hour intersection volumes are shown on Figure 9.

Background Traffic Volumes

Background AM and PM peak hour traffic volumes were estimated by adding to existing traffic volumes the trips generated by nearby approved but not yet completed or occupied projects (see Figure 10). The vehicular trips associated with the approved projects in the area are listed in the City of San Jose’s Approved Trips Inventory (ATI) contained in Appendix B.

Background Plus Project Traffic Volumes

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

Intersection Traffic Operations

Intersection levels of service were evaluated against the standards of the City of San Jose. The results of the analysis show that the signalized study intersections are currently operating at acceptable levels of service (LOS D or better) during the AM and PM peak hours of traffic and would continue to operate acceptably under background and background plus project conditions (see Table 5).

As previously discussed, the project would construct a new signalized intersection where the Nortech Parkway extension would intersect Zanker Road. The east leg of the intersection would provide access to the project site. This future signalized intersection is analyzed under background plus project conditions. The future geometry for the new signalized intersection is shown previously on Figure 5.

The detailed signalized intersection level of service calculations are contained in Appendix C.

Microsoft Data Center (SJC02)

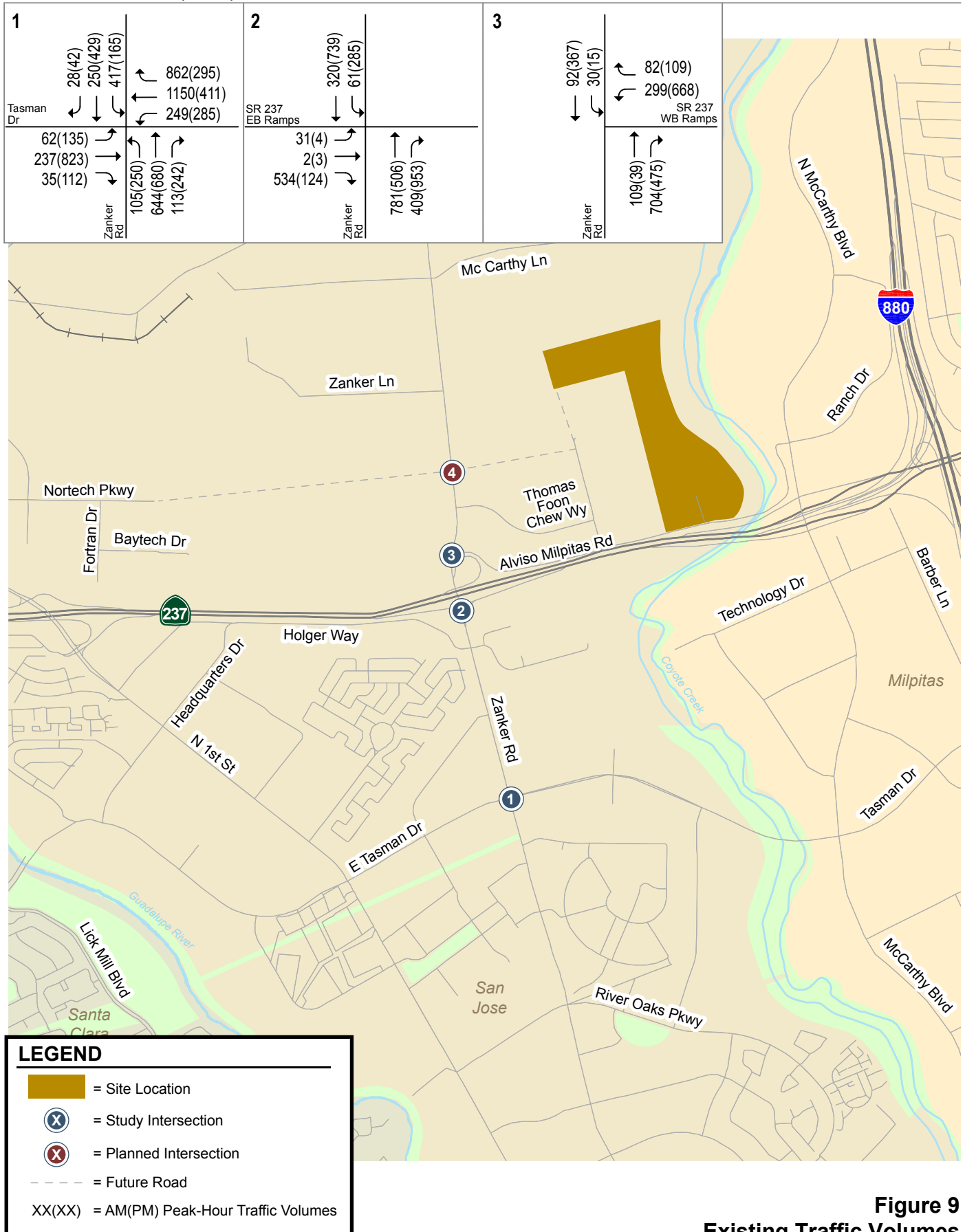


Figure 9
Existing Traffic Volumes

LEGEND

- = Site Location
- (X) = Study Intersection
- (X) = Planned Intersection
- = Future Road
- XX(X) = AM(PM) Peak-Hour Traffic Volumes

Background Traffic Volumes

Location / Intersection	Direction	AM Peak-Hour Volume	PM Peak-Hour Volume
Tasman Dr	Westbound	40	49
	Eastbound	322	504
	Left Turn	476	258
	Right Turn	928	341
Zanker Rd	Westbound	79	148
	Eastbound	343	990
	Left Turn	47	133
	Right Turn	161	290
Zanker Rd	Westbound	750	807
	Eastbound	135	271
	Left Turn	32	4
	Right Turn	2	8
Zanker Rd	Westbound	612	147
	Eastbound	904	611
	Left Turn	424	1009
	Right Turn	118	485
Zanker Rd	Westbound	30	15
	Eastbound	164	133
	Left Turn	393	752
	Right Turn	159	47
Zanker Rd	Westbound	713	611
	Eastbound	159	47
	Left Turn	393	752
	Right Turn	118	485



HEXAGON



Microsoft Data Center (SJC02)

1 Tasman Dr 42(51) 326(510) 477(259) 929(341) 1269(520) 264(311) 81(149) 343(990) 47(133) Zanker Rd 161(290) 755(809) 135(271)	2 SR 237 EB Ramps 433(865) 90(399) 35(6) 2(8) 612(147) Zanker Rd 912(615) 424(1009)	3 134(505) 33(19) 175(138) 393(752) SR 237 WB Ramps 170(52) 713(511) Zanker Rd	4 151(508) Nortech Pkwy 19(24) 328(183) 22(10) Zanker Rd
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Figure 11
Background Plus Project Traffic Volumes

Table 5
Intersection Levels of Service

#	Signalized Intersection	Peak Hour	Count Date ¹	Existing		Background		Background + Project			
				Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C
1	Zanker Rd & Tasman Dr	AM	3/6/2018	35.0	D	37.9	D	38.0	D	0.1	0.002
		PM	3/6/2018	39.8	D	41.4	D	41.4	D	0.0	0.001
2	Zanker Rd & SR 237 EB Ramps *	AM	10/12/2016	14.9	B	15.3	B	15.4	B	0.1	0.008
		PM	11/1/2018	10.6	B	11.3	B	11.4	B	0.1	0.010
3	Zanker Rd & SR 237 WB Ramps *	AM	10/12/2016	11.6	B	11.4	B	11.7	B	0.3	0.005
		PM	11/1/2018	11.1	B	13.5	B	14.3	B	0.1	0.004
4	Zanker Rd & Nortech Pkwy (Future)	AM	--	--	--	--	--	3.9	A	--	--
		PM	--	--	--	--	--	3.7	A	--	--
<u>Notes:</u>											
* Denotes CMP intersection											
¹ An annual growth factor of 1% was applied to the historical count date to estimate "normal" (i.e., pre-COVID-19) traffic conditions.											

North San Jose Traffic Impact Fees

The project site is located immediately north of the North San Jose Area Development Policy (NSJADP) boundary. The NSJADP guides the ongoing growth and development of the North San Jose area as an important employment center for San Jose. Its key goals include proactively planning for growth to allow more industrial development in a way that benefits current San Jose residents. In order to support this employment growth, it also aims to develop pedestrian infrastructure, encourage use of the transit system, and provide local and regional transportation improvements. The Policy identifies specific transportation improvements necessary to support new development and establishes an equitable funding mechanism for new development to share the cost of those improvements through a Traffic Impact Fee (TIF). The TIF is used to fund various improvements needed to address current and future traffic conditions resulting from implementation of the NSJADP. The initial NSJADP TIF established back in 2005 for industrial/office/R&D development was \$10.44 per square foot (s.f.). Based on a 3.3% annual fee escalation that was established as part of the NSJADP, the 2020 TIF is \$16.99 per s.f. of industrial, office and R&D development. The next fee increase is anticipated to take place on July 1, 2021.

Although the project site is not actually located within the NSJADP boundaries, the project would contribute toward traffic growth within the NSJADP area since it would add vehicle trips to intersections located within the Policy area boundaries. Therefore, the project would be required to pay the applicable NSJADP TIF based on the amount of industrial space being proposed.

For the purpose of calculating the NSJADP fee amount, the size of the proposed data center would need to be converted to equivalent industrial space square footage since data center is not a land use listed in the NSJADP. As previously described, Data Centers are similar to industrial spaces in that they are essentially warehouses that store customer data and associated ancillary operations and have a small number of employees and visitors. Data centers may also include maintenance areas and a small office component.

Vehicle Queuing Analysis

The analysis of intersection levels of service was supplemented with a vehicle queuing analysis for left turn movements where the project would add a noteworthy number of trips to the left-turn movements

of signalized intersections. This analysis provides a basis for estimating future storage requirements at the intersections under background plus project conditions. Vehicle queues were estimated using Poisson probability distribution, as described in Chapter 1. Vehicle queuing was analyzed for the southbound left-turn pocket at the intersection of Zanker Road and the SR 237 eastbound ramps and the westbound left-turn pocket at the future intersection of Zanker Road and Nortech Parkway. As shown in Table 6, both intersections would provide adequate left-turn pocket vehicle storage under background plus project conditions.

Table 6
Intersection Vehicle Queuing Analysis Results

Measurement	Zanker Rd & SR 237 Eastbound Ramps		Zanker Rd & Nortech Pkwy (Future)	
	SBL		WBL	
	AM	PM	AM	PM
Existing				
Cycle/Delay ¹ (sec)	65	53	--	--
Volume (vphpl)	61	285	--	--
Total 95th %. Queue (veh.)	3	8	--	--
Total 95th %. Queue (ft.) ²	75	200	--	--
Total Storage	300	300	--	--
Adequate (Y/N)	Y	Y	--	--
Background				
Cycle/Delay ¹ (sec)	65	53	--	--
Volume (vphpl)	80	387	--	--
Total 95th %. Queue (veh.)	4	10	--	--
Total 95th %. Queue (ft.) ²	100	250	--	--
Total Storage	300	300	--	--
Adequate (Y/N)	Y	Y	--	--
Background Plus Project				
Cycle/Delay ¹ (sec)	65	53	100	100
Volume (vphpl)	90	399	19	24
Total 95th %. Queue (veh.)	4	10	2	2
Total 95th %. Queue (ft.) ²	100	250	50	50
Total Storage	300	300	100	100
Adequate (Y/N)	Y	Y	Y	Y
Notes: SBL = southbound left-turn movement; WBL = westbound left-turn movement ¹ Vehicle queue calculations are based on cycle length for signalized intersections. ² Assumes 25 Feet Per Vehicle Queued.				

Zanker Road and Nortech Parkway

Based on available project information, it is assumed that the east leg (i.e., westbound approach) of the new Zanker Road and Nortech Parkway intersection, which would provide access to the project site, would consist of one left-turn lane, one through lane, and one right-turn lane. It is also assumed that the westbound left-turn pocket would provide at least 100 feet of vehicle storage, which would be adequate to serve the estimated westbound left-turn vehicle queues that would occur under background plus project conditions.

Vehicular Access and Circulation

The site access and circulation evaluation is based on the July 26, 2019 site plan prepared by Jacobs. Site access and on-site vehicular circulation were reviewed in accordance with generally accepted traffic engineering standards.

Site Access and Circulation

The project generated traffic would access the site via a signalized intersection at Zanker Road and the new Nortech Parkway extension. The westbound leg would be a two-lane road with one inbound lane and one outbound lane and would provide direct access to the project site (see Figure 12). The entrance to the project site would be gated, with the gates open during regular hours of operation. East of the project entrance, the road would widen to two inbound lanes and one outbound lane before narrowing again to one inbound lane and one outbound lane. The widened portion of the roadway would have barrier arms and kiosks. One inbound lane would allow for free passage for employees with badges. The other inbound lane would be for visitors and deliveries requiring permission to enter the project site. Although not currently shown on the site plan, it is our understanding that the project intends to provide a sidewalk along the project driveway from the Nortech Parkway extension to the data center site.

Between the driveway entrance at Nortech Parkway and the barrier arms, there would be a short angled paved roadway for vehicles denied entry at the barrier arms to turn around and exit. There would also be an east-west paved roadway connecting the driveway entrance to the project site. This roadway would be a gated entrance to be used only by maintenance vehicles to access the substation.

Further east, at the northern portion of the project site, on each side of the first building, the internal roadway would widen to accommodate a center median and more barrier arms which would provide additional restrictions to on-site circulation.

As shown on Figure 12, the project site is a long and narrow, inverted L-shaped site with two buildings. The northern 241,705 square-foot building is an elongated building in line with the southern 237,268 square-foot elongated building. The southern building is L-shaped with an internal connection between the separated portion of the building. The buildings would each have a parking lot and a loading dock. The internal roadway network would provide access to the parking lots on the east side of each building and to the loading docks on the west side of each building. The internal roadway would loop around building two. The on-site internal roadway network is shown to be 26 feet wide, which meets the City's design guideline for minimum drive aisle width.

Sight Distance at Project Driveway

The project driveway should be free and clear of any obstructions to optimize sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and other vehicles traveling on the Nortech Parkway extension. Any landscaping and signage should be located in such a way as to ensure an unobstructed view for drivers entering and exiting the site. Adequate sight distance reduces the likelihood of a collision at a driveway or intersection and provides drivers with the ability to locate sufficient gaps in traffic to exit a driveway. According to the site plan, the project proposes no tall vegetation or objects that could affect sight distance at the project driveway.

Since only project traffic would utilize the Nortech Parkway extension (east of Zanker Road), adequate sight distance would be provided, and project traffic would be low (see Figure 12), vehicles are not expected to experience any operational issues entering or exiting the driveway.

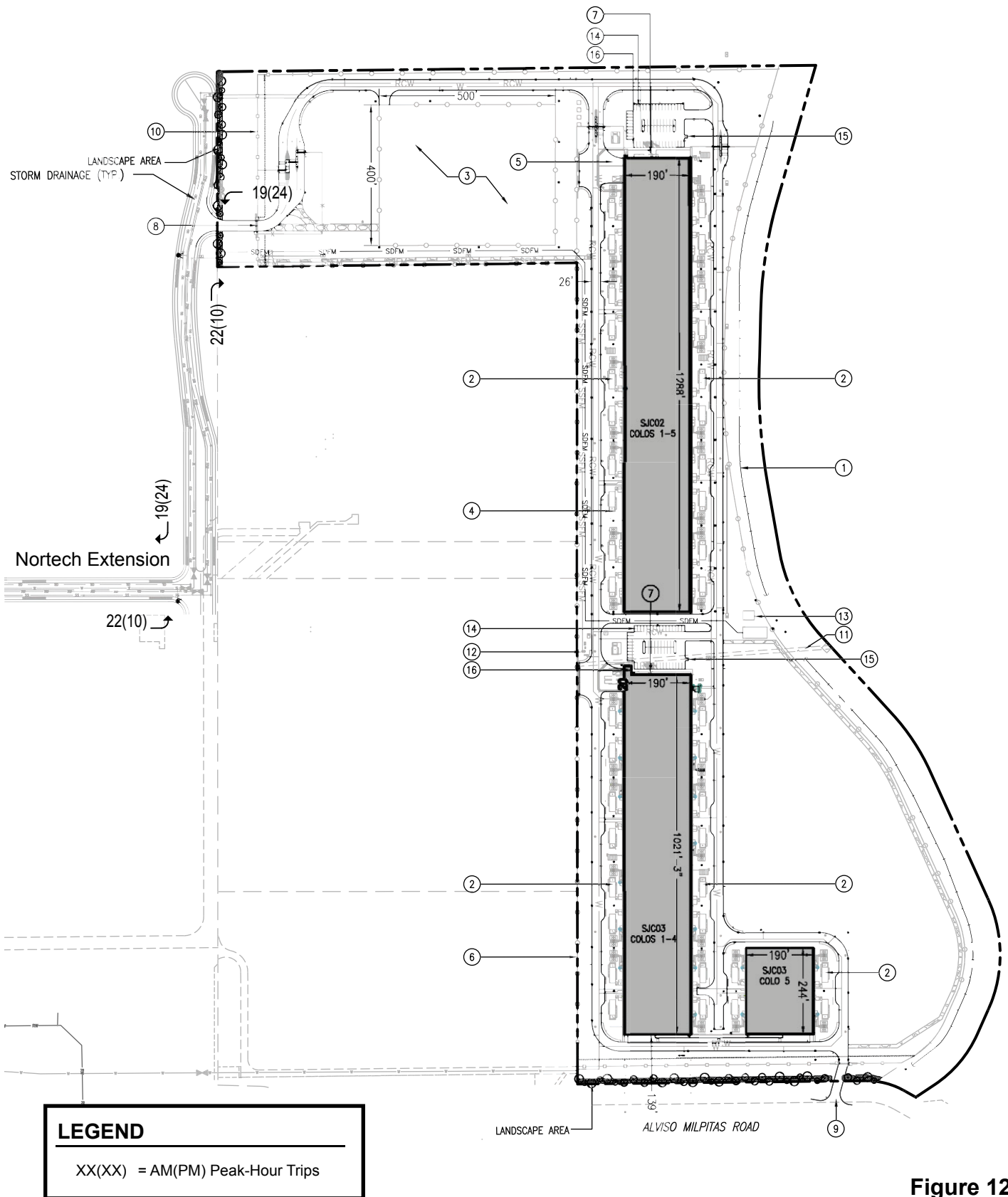


Figure 12 Driveway Trips

Surface Parking Circulation Review

The project proposes two parking lots, each with one driveway entrance measuring 26 feet wide. Each parking lot would have 90-degree parking spaces. The City's standard minimum width for two-way drive aisles is 26 feet wide where 90-degree parking is provided. This allows sufficient room for vehicles to back out of the parking spaces. According to the site plan, the drive aisles throughout the parking measure 26 feet wide. Thus, adequate access to all parking stalls would be provided throughout the site.

Parking Stall Dimensions

The City of San Jose Off-Street Parking Design Standards require that standard 90-degree parking stall be a minimum of 8.5 feet wide by 17 feet long and full-size parking stalls be 9 feet wide by 18 feet long. The site plan shows the standard parking stalls would be 8.5 feet wide and 17 feet long and the ADA and van accessible parking spaces would be between 9 feet and 12 feet wide to 18 feet long, which would meet the City of San Jose's applicable requirements for parking stall dimensions.

Truck Access and Circulation

The project site plan was reviewed for truck access using truck turning-movement templates for a SU-30 truck type (single-unit truck), which represents standard garbage trucks, various single-unit delivery trucks, and single-unit emergency vehicles. Based on the site plan configuration adequate access would be provided for SU-30 type trucks.

General Loading Operations

Each building would have an associated loading zone with three loading docks each and a trash compactor, which would be accessed from the west side of the buildings. Two loading docks would be for active deliveries. Per the City's Zoning Code 20.90.420, each off-street freight loading space must be no less than 10 feet wide by 30 feet long and provide at least 15 feet of vertical clearance, exclusive of driveways for ingress and egress and maneuvering areas. The proposed loading zones measure more than 10 feet wide and are approximately 55 feet long. Since the loading zones are located outside the buildings with no height limitations, they would meet the City's requirements for loading zone dimensions.

Emergency Vehicle Access

Emergency vehicles can access the site via the primary entrance off Nortech Parkway extension as well as a secondary entrance from Alviso Milpitas Road located on the south end of the site. The secondary entrance would be used for emergency vehicle access (EVA) only. Furthermore, the internal roadways would have duckout areas at regular intervals for emergency vehicles. Overall, emergency vehicle access at the project site would be adequate.

Garbage Collection

The site plan shows a 15-foot by 15-foot covered refuse area adjacent to each of the two loading dock locations. Garbage trucks could easily access these outside areas on collection days. Adequate clearance would be provided for garbage trucks to empty the bins over the truck.

Zanker Road Plan Line Improvements

Plans documenting the planned improvements along Zanker Road in the immediate vicinity of the project site, including a new raised median, are attached in Appendix D. As shown in the Plan Line improvements, a short median would be built north of the Nortech Parkway extension and Zanker Road

intersection. South of the intersection, the median would extend to the SR 273 westbound ramps. Currently, the Zanker Road and Thomas Foon Chew Way intersection is unsignalized with left-turn access provided. With the median, vehicles exiting Thomas Foon Chew Way and intending to travel south would have to turn-right from Thomas Foon Chew Way onto Zanker Road and make a U-turn at the new Zanker Road/Nortech Parkway intersection. Similarly, for southbound vehicles on Zanker Road turning left onto Thomas Foon Chew Way would have to make a U-turn at the Zanker Road/Holger Way intersection since U-turns are restricted on Zanker Road at the SR 237 ramps. However, Thomas Foon Chew Way is a private service road that provides access to the Los Esteros Substation, and is expected to continue to generate very few trips.

Construction Activities

The applicant will commence construction of the project after the existing structures have been demolished and any agriculture-related soil contamination is remediated consistent with requirements to be provided by the local lead agency. Possible remediation may include excavation for off-site disposal or capping in place. No off-site staging or laydown areas are proposed, as construction staging will occur on the project site or within the 75-foot construction corridor for linear features.

Demolition of the existing structures and soil excavation and removal work is expected to take approximately one month to complete. Once demolition and excavation work is complete, construction of the project is expected to take approximately 16 months to complete. Construction of the off-site linear features within the off-site infrastructure alignment areas is expected to be completed within the 17-month construction window. On-site construction is expected to require a maximum of 215 workers (craft and supervisory) per month and an average of 108 workers per month.

Per City standard practice, the project would be required to submit a construction management plan for City approval that includes the information described above (i.e., demolition plan, remediation procedure, construction schedule, and construction staging and parking areas), as well as planned street closures and/or detours and planned truck routes.

Typical activities related to the construction of any development could include lane narrowing and/or lane closures, sidewalk and pedestrian crosswalk closures, and bike lane closures. In the event of any type of 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.

Construction Vehicle Access

The site plan shows a driveway on Alviso Milpitas Road at the south end of the site. This secondary entrance would be constructed in advance of the Nortech Parkway extension and main project driveway. Thus, all construction vehicles would use Alviso Milpitas Road to access the site during construction of the project including the Nortech Parkway extension. It is expected that all construction vehicles would access Alviso Milpitas Road via the McCarthy Boulevard/Ranch Drive intersection east of the site, since this is the only paved connection to Alviso Milpitas Road that currently exists. Accordingly, construction vehicles would be routed through the SR 237/McCarthy Boulevard interchange and away from residential neighborhoods and dense employment areas. Ultimately, the mandatory construction management plan would identify the official truck routes. Due to the relatively isolated project site location and secluded southern driveway, no operational issues related to construction vehicles would be expected.

Pedestrian, Bicycle and Transit Facilities

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

The project proposes to make several bicycle and pedestrian improvements in the vicinity of the project site as well as internally on the project site. These improvements include the following:

- Bike lanes and sidewalks along both sides of the Nortech Parkway extension.
- Bicycle racks on the project site near the administrative buildings and wayfinding signage and bike route markings on the on-site internal roadway network.
- Pedestrian improvements at the new signalized intersection of Zanker Road and the Nortech Parkway extension including striped crosswalks and pedestrian signals and push buttons. These improvements would be constructed as part of the project VMT mitigation.
- A new raised median along Zanker Road between Nortech Parkway and the SR 237 westbound ramps, which will reduce vehicular speeds by narrowing the roadway and will provide a refuge for pedestrians. These improvements would be constructed as part of the project VMT mitigation.
- A new multi-use two-way trail along the east side of Zanker Road connecting the SR 237 Bikeway Trail to the future Nortech Parkway extension. The trail extension would be constructed as part of the project VMT mitigation.

Transit Service

There are no transit stops in the immediate vicinity of the project site. The nearest transit facilities are located at the McCarthy Boulevard/ Ranch Drive intersection (about 0.5 mile east of the project site) and at the Zanker Road/Tasman Drive intersection (about 1.5 miles south of the project site) and have limited first mile/last mile connectivity. However, due to the isolated site location and general nature of the industrial project, the project is expected to generate very few new transit trips.

Parking

Vehicular Parking

According to the City of San Jose's off-street parking requirements (Chapter 20.90, Table 20-190 of the City's Zoning Code), the vehicle parking requirements for the 478,973 s.f. Data Center are as follows:

- Office/Meeting/Technician Workspace: 1 space per 250 s.f. of floor area, and
- Computer Equipment Space: 1 space per 5,000 s.f. of floor area.

The project proposes approximately 22,370 s.f. of office/meeting/technician workspace and approximately 456,603 s.f. of computer equipment space. Thus, based on the City's municipal code, the project would require 182 vehicular parking spaces as show in Table 7 below.

Table 7
Vehicle Parking Requirements Based on City of San Jose Municipal Code

Unit Type	Square Feet	City of San Jose Parking Requirements	
		Parking Ratio	Spaces Required
Office/Meeting/Technician Workspace	22,370	1 space per 250 sq.ft.	90
Computer Equipment Space	456,603	1 space per 5,000 sq.ft.	92
Total:	478,973		182
Source: San Jose Municipal Code Chapter 20.90, Table 20-190.			

According to the site plan, the project proposes to provide 116 vehicle parking spaces, or 66 fewer parking spaces than what the City's municipal code requires. The project would require a parking exception from the City of San Jose Planning Department to allow for a reduction in parking supply. Accordingly, previous parking data collected at two existing Data Centers operating in the City of Santa Clara will be used to demonstrate that the actual parking demand for Data Centers is less than the City of San Jose's parking requirement. The details of the parking demand analysis are described below.

Parking Demand for Data Centers

Parking demand data at five Data Centers in the City of Santa Clara were collected in 2017. Of the five Data Centers, three are smaller and two are similar in size to the proposed project. For this reason, only the parking counts for the two similarly sized Data Centers were used. Parking demand counts were conducted on three weekdays in August of 2017 at both locations.

The two comparable Data Centers that were counted are located at 2045 Lafayette Street in Santa Clara (323,122 s.f.) and 2220 De La Cruz Boulevard in Santa Clara (365,489 s.f.). Parking demand was counted every hour between 8:00 AM and 6:00 PM on August 8, 2017 (Tuesday), August 9, 2017 (Wednesday), and August 10, 2017 (Thursday). The parking demand study is contained in Appendix E.

The total number of cars parked every hour were counted at each site. The peak parking demand occurs when the maximum number of cars are present at the site. The peak parking demand for both Data Center locations occurred at 1:00 PM with 75 total cars parked on site at 2045 Lafayette Street (Wednesday 8/9/2017) and 84 cars parked on site at 2220 De La Cruz Boulevard (Thursday 8/10/2017). The results of the parking study are presented below in Table 8.

The peak parking demand per 1,000 s.f. was calculated by dividing the number of parked cars by the size of each Data Center. As shown in the table, both Data Centers had a peak demand of 0.23 parking spaces per 1,000 s.f. Based on this observed peak parking demand rate, the proposed 478,973 s.f. Data Center project would need to provide 111 parking spaces as follows:

$$(478,973 \text{ s.f.} / 1,000 \text{ s.f.}) \times 0.23 \text{ spaces} = 110.16 = 111 \text{ spaces (rounded up)}$$

The project proposes to provide 116 parking spaces, which would exceed the calculated peak parking demand by 5 parking spaces. Therefore, based on the Data Center parking demand analysis, 116 vehicle parking spaces would be adequate to serve the project. However, a parking exception would be required to allow the proposed reduction in parking supply. It is ultimately up to the City of San Jose Planning Department purview to adopt a different parking requirement standard for the project.

Table 8
Summary of Parking Demand Counts for Data Centers in Santa Clara

Time	Parked Cars							
	2045 Lafayette Street				2220 De La Cruz Boulevard			
	8/8/2017	8/9/2017	8/10/2017	Daily	8/8/2017	8/9/2017	8/10/2017	Daily
	Tuesday	Wednesday	Thursday	Average	Tuesday	Wednesday	Thursday	Average
8:00 AM	58	54	56	56	67	69	70	69
9:00 AM	60	55	58	58	71	71	73	72
10:00 AM	58	56	62	59	83	74	81	79
11:00 AM	59	51	56	55	81	76	81	79
12:00 PM	56	51	54	54	75	69	71	72
1:00 PM	63	75	74	71	70	68	84	74
2:00 PM	65	71	68	68	71	68	76	72
3:00 PM	53	65	67	62	72	60	63	65
4:00 PM	50	52	61	54	51	53	57	54
5:00 PM	32	35	41	36	41	49	52	47
6:00 PM	24	32	36	31	27	30	34	30
Size (s.f.)	323,122				365,489			
Max. Parking Demand (veh/ ksf)	0.232				0.230			

Bicycle Parking

The project is required to provide 1 bicycle parking space per 5,000 s.f. of office/meeting/technician workspace, plus 1 bicycle parking space for each 50,000 s.f. of floor area devoted to computer equipment space according to the City of San Jose Municipal Code (Chapter 20.90, Table 20-190). This equates to a total parking requirement of 15 bicycle spaces as follows:

Office/Meeting/Technician Workspace: $22,370 \text{ s.f.} / 5,000 \text{ s.f.} = 4.47 = 5 \text{ spaces (rounded up)}$

Computer Equipment Space: $456,603 \text{ s.f.} / 50,000 \text{ s.f.} = 9.13 = 10 \text{ spaces (rounded up)}$

The project proposes to provide 35 bicycle parking spaces, which would exceed the City's bicycle parking requirement. Bicycle racks would be provided near the entrances to the administrative portion of the buildings.

Motorcycle Parking

General industrial land uses are required to provide one motorcycle space per 50 code required auto parking spaces according to the City of San Jose parking standards (San Jose Municipal Code Chapter 20.90, Table 20-250). As described in the previous chapter, a data center has similar characteristics to industrial land uses. Accordingly, the project would be required to provide 4 motorcycle parking spaces as follows:

$182 \text{ Code-required auto spaces} / 50 = 3.64 = 4 \text{ motorcycle spaces (rounded up)}$

The project proposes to provide two motorcycle parking spaces in each parking lot, which meets the City's parking requirement of 4 motorcycle spaces.

5. Conclusions

This report presents the results of the transportation analysis conducted for a proposed approximately 479,000 square-foot (s.f.) data center campus located at 1657 Alviso-Milpitas Road in San Jose, California. The transportation impacts of the project were evaluated following the standards and methodologies established in the City of San Jose's Transportation Analysis Handbook, adopted in April 2018. Based on the City of San Jose's Transportation Analysis Policy (Policy 5-1) and the Transportation Analysis Handbook and in accordance with applicable provisions of the California Environmental Quality Act (CEQA), the Transportation Analysis report for the project includes a CEQA transportation analysis and a non-CEQA Local Transportation Analysis (LTA).

CEQA Transportation Impacts

Project Vehicle Miles Traveled (VMT) Analysis

Per the City's VMT Evaluation Tool, the existing Area VMT for employment uses is 17.30 VMT per employee, which is above the existing regional average threshold of 14.37 VMT per employee. The project VMT estimated by the Evaluation Tool is 17.24 VMT per employee, which also exceeds the applicable industrial threshold of 14.37 VMT per employee. Since the VMT generated by the project would exceed the threshold of significance for industrial employment uses in the area, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact.

Project Mitigation

The following multi-modal infrastructure improvements (numbers 1 - 4 below), parking reduction measure (number 5 below), and Transportation Demand Management (TDM) measure (number 6 below) will be implemented to mitigate the significant VMT impact:

1. **Increase Roadway Network Connectivity**
2. **Traffic Calming**
3. **Pedestrian Network Improvements**
4. **Bike Access Improvements**
5. **Limit Parking Supply**
6. **Commute Trip Reduction Marketing and Education**

Based on the City's VMT Evaluation Tool, implementing the recommended mitigation measures would lower the project VMT to 14.12 per employee (a reduction of about 18%), which would reduce the project impact to a less-than-significant level (below the threshold of 14.37 VMT per employee).

Cumulative VMT Impact Analysis

The proposed project would be consistent with the development type and intensity provided in the *Envision San Jose 2040 General Plan*, the cumulative effects of which were previously evaluated in the *Envision San Jose 2040 General Plan Environmental Impact Report* and *Supplemental Program Environmental Impact Report*. The project is consistent with the applicable General Plan goals and policies for the following reasons:

- The project's proposed use is consistent with the current zoning: *Light Industrial* (LI).
- While the project would increase the employment density in the project area, the proposed density would be consistent with the current General Plan Land Use Designation that applies to the project site.
- The project would provide improvements to pedestrian and bicycle connectivity and safety in the vicinity of the project site by constructing a Class I Bikeway Trail extension.
- The project would provide improvements to roadway network connectivity and safety near the project site by constructing a new intersection at Zanker Road/Nortech Parkway, extending Nortech Parkway east of Zanker Road, and constructing a raised median on Zanker Road.

Based on the project description, the proposed project would be consistent with the *Envision San Jose 2040 General Plan* and would not require a General Plan Amendment (GPA). The project including its proposed improvements would be considered part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

Local Transportation Effects

Project Trip Generation

After applying the ITE trip rates to the proposed project and applying the appropriate trip adjustments and reductions, it is estimated that the project would generate 369 net new daily trips, with 41 net new trips (22 inbound and 19 outbound) occurring during the AM peak hour and 34 net new trips (10 inbound and 24 outbound) occurring during the PM peak hour.

Intersection Traffic Operations

The results of the intersection level of service analysis show that the three existing signalized study intersections are currently operating at acceptable levels of service (LOS D or better) during the AM and PM peak hours of traffic and would continue to operate acceptably under background and background plus project conditions. The future signalized intersection of Zanker Road and Nortech Parkway also would operate acceptably under background plus project conditions.

North San Jose Traffic Impact Fees

Although the project site is not actually located within the NSJADP boundaries, the project would contribute toward traffic growth within the NSJADP area since it would add vehicle trips to intersections located within the Policy area boundaries. Therefore, the project would be required to pay the applicable NSJADP TIF based on the amount of industrial space being proposed. The initial NSJADP traffic impact fee (TIF) established back in 2005 for industrial/office/R&D development was \$10.44 per square foot (s.f.). Based on a 3.3% annual fee escalation that was established as part of the NSJADP,

the 2020 TIF is \$16.99 per s.f. of industrial, office and R&D development. The next fee increase is anticipated to take place on July 1, 2021.

For the purpose of calculating the NSJADP fee amount, the size of the proposed data center would need to be converted to equivalent industrial space square footage since data center is not a land use listed in the NSJADP. Data centers, such as the project, are similar to industrial spaces in that they are essentially warehouses that store customer data and associated ancillary operations and have a small number of employees and visitors.

Other Transportation Items

The proposed site plan shows adequate site access and on-site circulation for automobiles. The project would enhance pedestrian and bicycle access and circulation by providing sidewalks and bike facilities along the Nortech Parkway extension. In addition, the project would construct a Class I Bikeway Trail extension along the east side of Zanker Road (within the City's ROW), connecting the existing trail segment with the new Nortech Parkway extension. Below are recommendations resulting from the site plan review, which are recommended to be included as part of the project in addition to the foregoing improvements.

Recommendation

- Provide a sidewalk along the project driveway from the Nortech Parkway extension to the data center site.

San Jose Data Center (SJC02) TA Technical Appendices

Appendix A

Intersection Volumes

Intersection Number: **1**
 Traffic Node Number: 3821
 Intersection Name: Zanker Road & Tasman Drive
Peak Hour: AM
 Count Date: 03/06/18
 Scenario: 479,000 SF Data Center
 Date of Analysis: 04/27/21

SJ Growth Factor (% Per Year): **0.01**Number of Years: **3.08**

		Movements												
		North Approach			East Approach			South Approach			West Approach			Total
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Count (Mar 2018)		27	243	405	836	1116	242	110	625	102	34	230	60	4030
1% Annual Growth (SJ Count Adjustment)		1	7	12	26	34	7	3	19	3	1	7	2	124
Existing Conditions (Apr 2021)		28	250	417	862	1150	249	113	644	105	35	237	62	4154
Approved Project Trips														
	San Jose ATI	12	72	59	66	119	15	22	106	56	12	106	17	662
	Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
	Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Approved Trips	12	72	59	66	119	15	22	106	56	12	106	17	662
Background Conditions		40	322	476	928	1269	264	135	750	161	47	343	79	4816
	Bkgrd check	40	322	476	928	1269	264	135	750	161	47	343	79	
Project Trips														
	Project Trips	2	4	1	1	0	0	0	5	0	0	0	2	15
	Project Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
	Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Project Trips	2	4	1	1	0	0	0	5	0	0	0	2	15
Background + Project Conditions		42	326	477	929	1269	264	135	755	161	47	343	81	4831
	Bkgrd+Proj check	42	326	477	929	1269	264	135	755	161	47	343	81	

Intersection Number: **2**
 Traffic Node Number: 3031
 Intersection Name: Zanker Road & SR 237 EB Ramps
Peak Hour: AM
 Count Date: 10/12/16
 Scenario: 479,000 SF Data Center
 Date of Analysis: 04/27/21

SJ Growth Factor (% Per Year): **0.01**Number of Years: **4.50**

Movements													
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count (Oct 2016)	0	306	58	0	0	0	391	747	0	511	2	30	2045
1% Annual Growth (SJ Count Adjustment)	0	14	3	0	0	0	18	34	0	23	0	1	92
Existing Conditions (Apr 2021)	0	320	61	0	0	0	409	781	0	534	2	31	2137
Approved Project Trips													
San Jose ATI	0	106	19	0	0	0	15	123	0	78	0	1	342
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	106	19	0	0	0	15	123	0	78	0	1	342
Background Conditions	0	426	80	0	0	0	424	904	0	612	2	32	2479
Bkgrd check	0	426	80	0	0	0	424	904	0	612	2	32	
Project Trips													
Project Trips	0	7	9	0	0	0	0	8	0	0	0	3	27
Project Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	7	9	0	0	0	0	8	0	0	0	3	27
Background + Project Conditions	0	433	89	0	0	0	424	912	0	612	2	35	2506
Bkgrd+Proj check	0	433	90	0	0	0	424	912	0	612	2	35	

Intersection Number: **3**
 Traffic Node Number: 3030
 Intersection Name: Zanker Road & SR 237 WB Ramps
 Peak Hour: **AM**
 Count Date: 10/12/16
 Scenario: 479,000 SF Data Center

Date of Analysis: 04/27/21

SJ Growth Factor (% Per Year): **0.01**Number of Years: **4.50**

Movements													
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count (Oct 2016)	0	88	29	78	0	286	674	104	0	0	0	0	1259
1% Annual Growth (SJ Count Adjustment)	0	4	1	4	0	13	30	5	0	0	0	0	57
Existing Conditions (Apr 2021)	0	92	30	82	0	299	704	109	0	0	0	0	1316
Approved Project Trips													
San Jose ATI	0	26	0	82	0	94	9	50	0	0	0	0	261
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	26	0	82	0	94	9	50	0	0	0	0	261
Background Conditions	0	118	30	164	0	393	713	159	0	0	0	0	1577
Bkgrd check	0	118	30	164	0	393	713	159	0	0	0	0	
Project Trips													
Project Trips	0	16	3	11	0	0	0	11	0	0	0	0	41
Project Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	16	3	11	0	0	0	11	0	0	0	0	41
Background + Project Conditions	0	134	33	175	0	393	713	170	0	0	0	0	1618
Bkgrd+Proj check	0	134	33	175	0	393	713	170	0	0	0	0	

Intersection Number: **4**
 Traffic Node Number: 4000
 Intersection Name: Zanker Road & Nortech Parkway
 Peak Hour: **AM**
 Count Date: --
 Scenario: 479,000 SF Data Center

Date of Analysis: 04/27/21

SJ Growth Factor (% Per Year): **0.01**Number of Years: **2.42**

		Movements												
		North Approach			East Approach			South Approach			West Approach			
Scenario:		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Count (NA)		0	122	0	0	0	0	0	191	0	0	0	0	313
1% Annual Growth (SJ Count Adjustment)		0	3	0	0	0	0	0	5	0	0	0	0	8
Existing Conditions (Apr 2021)		0	125	0	0	0	0	0	196	0	0	0	0	321
Approved Project Trips														
	San Jose ATI	0	26	0	0	0	0	0	132	0	0	0	0	158
	Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
	Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Approved Trips	0	26	0	0	0	0	0	132	0	0	0	0	158
Background Conditions		0	151	0	0	0	0	0	328	0	0	0	0	479
	Bkgrd check	0	151	0	0	0	0	0	328	0	0	0	0	
Project Trips														
	Project Trips	0	0	0	0	0	19	22	0	0	0	0	0	41
	Project Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
	Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Project Trips	0	0	0	0	0	19	22	0	0	0	0	0	41
Background + Project Conditions		0	151	0	0	0	19	22	328	0	0	0	0	520
	Bkgrd+Proj check	0	151	0	0	0	19	22	328	0	0	0	0	

Intersection Number: **1**
 Traffic Node Number: 3821
 Intersection Name: Zanker Road & Tasman Drive
Peak Hour: PM
 Count Date: 03/06/18
 Scenario: 479,000 SF Data Center

Date of Analysis: 04/27/21

SJ Growth Factor (% Per Year): **0.01**Number of Years: **3.08**

		Movements												
		North Approach			East Approach			South Approach			West Approach			Total
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Count (Mar 2018)		41	416	160	286	399	276	235	660	243	109	798	131	3754
1% Annual Growth (SJ Count Adjustment)		1	13	5	9	12	9	7	20	7	3	25	4	116
Existing Conditions (Apr 2021)		42	429	165	295	411	285	242	680	250	112	823	135	3870
Approved Project Trips														
	San Jose ATI	7	75	93	46	109	26	29	127	40	21	167	13	753
	Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
	Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Approved Trips	7	75	93	46	109	26	29	127	40	21	167	13	753
Background Conditions		49	504	258	341	520	311	271	807	290	133	990	148	4623
	Bkgrd check	49	504	258	341	520	311	271	807	290	133	990	148	
Project Trips														
	Project Trips	2	5	1	0	0	0	0	2	0	0	0	1	11
	Project Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
	Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Project Trips	2	5	1	0	0	0	0	2	0	0	0	1	11
Background + Project Conditions		51	509	259	341	520	311	271	809	290	133	990	149	4634
	Bkgrd+Proj check	51	510	259	341	520	311	271	809	290	133	990	149	

Intersection Number: **2**
 Traffic Node Number: 3031
 Intersection Name: Zanker Road & SR 237 EB Ramps
Peak Hour: PM
 Count Date: 11/01/18
 Scenario: 479,000 SF Data Center

Date of Analysis: 04/27/21

SJ Growth Factor (% Per Year): **0.01**Number of Years: **2.42**

Movements													
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count (Nov 2018)	0	722	278	0	0	0	931	494	0	121	3	4	2553
1% Annual Growth (SJ Count Adjustment)	0	17	7	0	0	0	22	12	0	3	0	0	62
Existing Conditions (Apr 2021)	0	739	285	0	0	0	953	506	0	124	3	4	2615
Approved Project Trips													
San Jose ATI	0	118	102	0	0	0	56	105	0	23	5	0	409
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	118	102	0	0	0	56	105	0	23	5	0	409
Background Conditions	0	857	387	0	0	0	1009	611	0	147	8	4	3024
Bkgrd check	0	857	387	0	0	0	1009	611	0	147	8	4	
Project Trips													
Project Trips	0	8	12	0	0	0	0	3	0	0	0	2	25
Project Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	8	12	0	0	0	0	3	0	0	0	2	25
Background + Project Conditions	0	865	399	0	0	0	1009	614	0	147	8	6	3049
Bkgrd+Proj check	0	865	399	0	0	0	1009	615	0	147	8	6	

Intersection Number: **3**
 Traffic Node Number: 3030
 Intersection Name: Zanker Road & SR 237 WB Ramps
 Peak Hour: **PM**
 Count Date: 11/01/18
 Scenario: 479,000 SF Data Center
 Date of Analysis: 04/27/21

SJ Growth Factor (% Per Year): **0.01**Number of Years: **2.42**

Movements													
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count (Nov 2018)	0	358	15	106	0	652	464	38	0	0	0	0	1633
1% Annual Growth (SJ Count Adjustment)	0	9	0	3	0	16	11	1	0	0	0	0	39
Existing Conditions (Apr 2021)	0	367	15	109	0	668	475	39	0	0	0	0	1672
Approved Project Trips													
San Jose ATI	0	118	0	24	0	84	36	8	0	0	0	0	270
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	118	0	24	0	84	36	8	0	0	0	0	270
Background Conditions	0	485	15	133	0	752	511	47	0	0	0	0	1942
Bkgrd check	0	485	15	133	0	752	511	47	0	0	0	0	
Project Trips													
Project Trips	0	20	4	5	0	0	0	5	0	0	0	0	34
Project Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	20	4	5	0	0	0	5	0	0	0	0	34
Background + Project Conditions	0	505	19	138	0	752	511	52	0	0	0	0	1976
Bkgrd+Proj check	0	505	19	138	0	752	511	52	0	0	0	0	

Intersection Number: **4**
 Traffic Node Number: 4000
 Intersection Name: Zanker Road & Nortech Parkway
 Peak Hour: **PM**
 Count Date: --
 Scenario: 479,000 SF Data Center
 Date of Analysis: 04/27/21

SJ Growth Factor (% Per Year): **0.01**Number of Years: **2.17**

Movements													
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count (NA)	0	382	0	0	0	0	0	148	0	0	0	0	530
1% Annual Growth (SJ Count Adjustment)	0	8	0	0	0	0	0	3	0	0	0	0	11
Existing Conditions (Apr 2021)	0	390	0	0	0	0	0	151	0	0	0	0	541
Approved Project Trips													
San Jose ATI	0	118	0	0	0	0	0	32	0	0	0	0	150
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	118	0	0	0	0	0	32	0	0	0	0	150
Background Conditions	0	508	0	0	0	0	0	183	0	0	0	0	691
Bkgrd check	0	508	0	0	0	0	0	183	0	0	0	0	
Project Trips													
Project Trips	0	0	0	0	0	24	10	0	0	0	0	0	34
Project Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	24	10	0	0	0	0	0	34
Background + Project Conditions	0	508	0	0	0	24	10	183	0	0	0	0	725
Bkgrd+Proj check	0	508	0	0	0	24	10	183	0	0	0	0	

Appendix B

Approved Trips Inventory (ATI)

[illegible]

AM PROJECT TRIPS

03/08/2021

Intersection of : WB 237 From Zanker Rp & Zanker Rd

Traffix Node Number : 3030

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PD14-007 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (MFG.)	0	19	0	0	7	0	0	0	0	0	0	30

TOTAL:	0	373 50	9	15 0	110 26	0	0	0	0	94	0	369 82
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	LEFT	THRU	RIGHT
NORTH	150	110 26	0
EAST	94	0	369 82
SOUTH	0	373 50	9
WEST	0	0	0

Traffix Node Number : 3030

[illegible]

PM PROJECT TRIPS

03/08/2021

Intersection of : WB 237 From Zanker Rp & Zanker Rd

Traffix Node Number : 3030

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PD14-007 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (MFG.)	0	3	0	0	43	0	0	0	0	0	0	6

TOTAL:	0	58 8	36	98 0	672 118	0	0	0	0	84	0	68 24
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	LEFT	THRU	RIGHT
NORTH	98 0	672 118	0
EAST	84	0	68 24
SOUTH	0	58 8	36
WEST	0	0	0

[illegible]

AM PROJECT TRIPS

03/08/2021

Intersection of : EB 237 From Zanker Rp & EB 237 To Zanker Rp & Zanker Rd

Traffix Node Number : 3031

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PD14-007 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (MFG.)	0	19	0	4	3	0	0	0	0	0	0	0

TOTAL:	0	355 123	15	66 19	144 106	0	93 1	0	78	0	0	0
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	LEFT	THRU	RIGHT
NORTH	66 19	144 106	0
EAST	0	0	0
SOUTH	0	355 123	15
WEST	93 1	0	78

Intersection of : EB 237 From Zanker Rp & EB 237 To Zanker Rp & Zanker Rd

[illegible]

PM PROJECT TRIPS

03/08/2021

Intersection of : EB 237 From Zanker Rp & EB 237 To Zanker Rp & Zanker Rd

Traffix Node Number : 3031

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PD14-007 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (MFG.)	0	3	0	26	17	0	0	0	0	0	0	0

TOTAL:	0	141 105	56	408 102	366 118	0	14 0	5	23	0	0	0
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	LEFT	THRU	RIGHT
NORTH	408 102	366 118	0
EAST	0	0	0
SOUTH	0	141 105	56
WEST	14 0	5	23

AM PROJECT TRIPS

03/08/2021

Intersection of : E Tasman Dr & Zanker Rd

Traffix Node Number : 3821

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
C15-054 (3-14457) Office/Industrial 1657 ALVISO-MILPITAS ROAD 237 INDUSTRIAL CENTER/ CILKER	0	140 0	0	6 0	23 0	8 0	53 0	0	0	0	0	37 0
H14-011 (3-18810) Retail/Commercial NW CORNER OF SR 237 AND N. FIRST STREET HOMEWOOD SUITES HOTEL	8	0	0	0	0	0	0	1	5	0	1	0
H83-01-001 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER - ORIGINAL APPROVED TRIPS	0	3	0	0	22	0	0	0	0	2	0	0
NSJ LEGACY	38	77	22	55	45	12	17	92	5	13	71	43
NORTH SAN JOSE												
PD13-012 (3-09684) Office/Industrial NW CORNER OF SR237 AND N. FIRST STREET SOUTH BAY	6	16	0	3	4	0	0	5	2	0	21	14
PD13-039 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (R&D)	0	0	0	0	0	0	0	0	0	0	0	0
PD14-007 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (MFG.)	4	10	0	1	1	0	0	2	0	0	14	9

AM PROJECT TRIPS

03/08/2021

Intersection of : E Tasman Dr & Zanker Rd

Traffix Node Number : 3821

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PDC16-013 (3-06800) Retail/Commercial N. FIRST ST. BETWEEN GOLD STREET AND SR 237 TOP GOLF	0	0	0	0	0	0	0	6	0	0	12	0

TOTAL:	56	24 59 106	22	65 59	95 72	21 12	72 17	106	12	15	119	103 66
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	LEFT	THRU	RIGHT
NORTH	65 59	95 72	21 12
EAST	15	119	103 66
SOUTH	56	248 106	22
WEST	72 17	106	12

PM PROJECT TRIPS

03/08/2021

Intersection of : E Tasman Dr & Zanker Rd

Traffix Node Number : 3821

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
C15-054 (3-14457) Office/Industrial 1657 ALVISO-MILPITAS ROAD 237 INDUSTRIAL CENTER/ CILKER	0	22 0	0	39 0	150 0	58 0	8 0	0	0	0	0	8 0
H14-011 (3-18810) Retail/Commercial NW CORNER OF SR 237 AND N. FIRST STREET HOMEWOOD SUITES HOTEL	9	0	0	0	0	0	0	1	6	0	1	0
H83-01-001 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER - ORIGINAL APPROVED TRIPS	0	22	2	0	3	0	0	0	0	0	0	0
NSJ LEGACY	29	101	27	71	47	7	13	104	6	26	76	43
NORTH SAN JOSE												
PD13-012 (3-09684) Office/Industrial NW CORNER OF SR237 AND N. FIRST STREET SOUTH BAY	1	2	0	14	16	0	0	21	6	0	2	2
PD13-039 (3-18698) Office/Industrial NW CORNER OF NORTHECH PKWY AND DISK DR TRAMMEL CROW (R&D)	0	0	0	0	0	0	0	0	0	0	0	0
PD14-007 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (MFG.)	1	2	0	8	9	0	0	12	3	0	2	1

PM PROJECT TRIPS

03/08/2021

Intersection of : E Tasman Dr & Zanker Rd

Traffix Node Number : 3821

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PDC16-013 (3-06800)	0	0	0	0	0	0	0	29	0	0	28	0
Retail/Commercial												
N. FIRST ST. BETWEEN GOLD STREET AND SR 237												
TOP GOLF												

TOTAL:	40	149 127	29	132 93	225 75	68 7	21 13	167	21	26	109	52 46
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	LEFT	THRU	RIGHT
NORTH	132 93	225 75	68 7
EAST	26	109	52 46
SOUTH	40	149 127	29
WEST	21 13	167	21

Appendix C

Intersection Level of Service Calculations

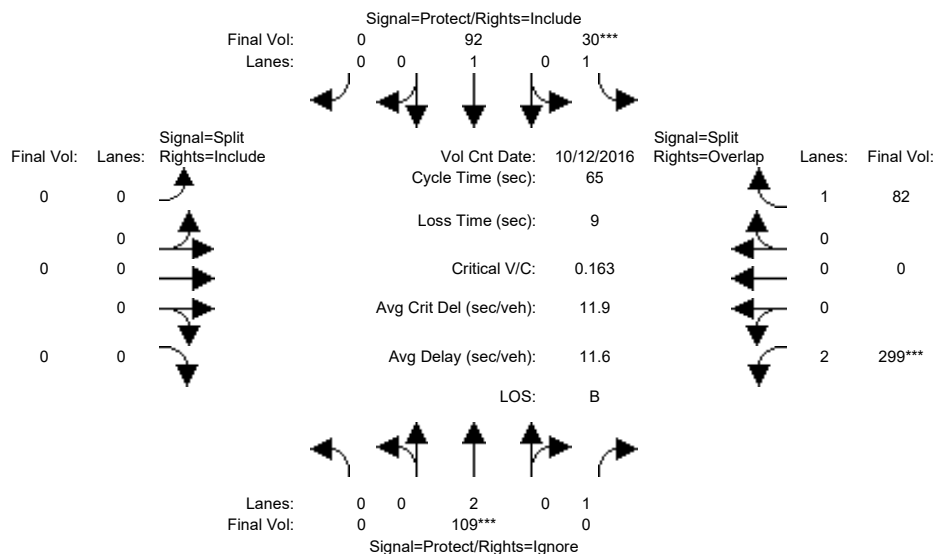
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

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

Intersection #3030: Zanker Rd & SR 237 North



Street Name:	Zanker Road						SR 237 (North)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:	>> Count Date: 12 Oct 2016 << 7:50-8:50AM											
Base Vol:	0	109	704	30	92	0	0	0	0	299	0	82
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	109	704	30	92	0	0	0	0	299	0	82
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	109	704	30	92	0	0	0	0	299	0	82
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	109	0	30	92	0	0	0	0	299	0	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	109	0	30	92	0	0	0	0	299	0	82
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	109	0	30	92	0	0	0	0	299	0	82
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3800	1750	1750	1900	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.03	0.00	0.02	0.05	0.00	0.00	0.00	0.00	0.09	0.00	0.05
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.17	0.00	0.11	0.28	0.00	0.00	0.00	0.00	0.58	0.00	0.69
Volume/Cap:	0.00	0.16	0.00	0.16	0.17	0.00	0.00	0.00	0.00	0.16	0.00	0.07
Delay/Veh:	0.0	22.9	0.0	26.7	17.7	0.0	0.0	0.0	0.0	6.4	0.0	3.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	22.9	0.0	26.7	17.7	0.0	0.0	0.0	0.0	6.4	0.0	3.4
LOS by Move:	A	C	A	C	B	A	A	A	A	A	A	A
DesignQueue:	0	2	0	1	2	0	0	0	0	3	0	1

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

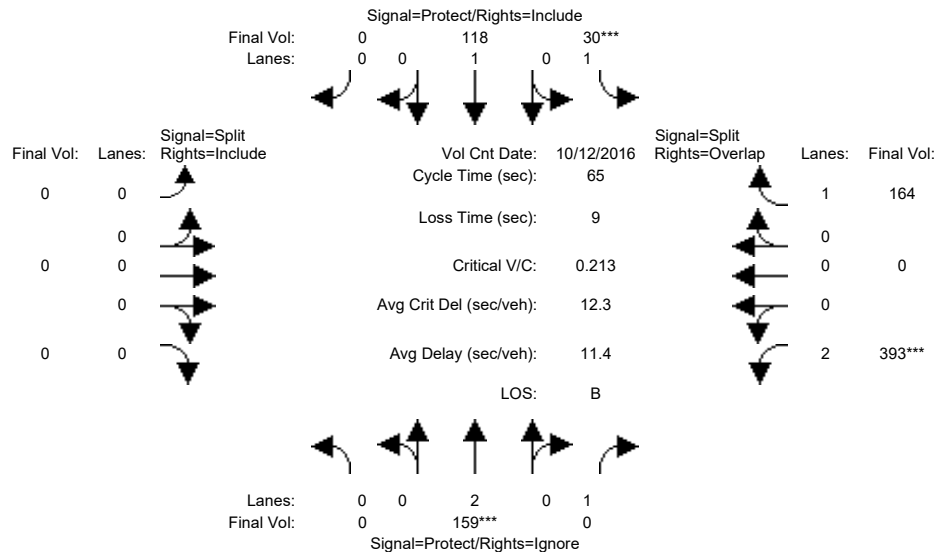
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

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

Intersection #3030: Zanker Rd & SR 237 North



Street Name:	Zanker Road						SR 237 (North)											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																		
Min. Green:	0	10	10			7	10	0			0	0	0			10	0	10
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																		
Volume Module: >>	Count	Date:	12	Oct	2016	<<	7:50-8:50AM											
Base Vol:	0	109	704			30	92	0			0	0	0			299	0	82
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00
Initial Bse:	0	109	704			30	92	0			0	0	0			299	0	82
Added Vol:	0	0	0			0	0	0			0	0	0			0	0	0
ATI:	0	50	9			0	26	0			0	0	0			94	0	82
Initial Fut:	0	159	713			30	118	0			0	0	0			393	0	164
User Adj:	1.00	1.00	0.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00
PHF Volume:	0	159	0			30	118	0			0	0	0			393	0	164
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0
Reduced Vol:	0	159	0			30	118	0			0	0	0			393	0	164
PCE Adj:	1.00	1.00	0.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00
FinalVolume:	0	159	0			30	118	0			0	0	0			393	0	164
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																		
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900			1900	1900	1900			1900	1900	1900			1900	1900	1900
Adjustment:	0.92	1.00	0.92			0.92	1.00	0.92			0.92	1.00	0.92			0.83	1.00	0.92
Lanes:	0.00	2.00	1.00			1.00	1.00	0.00			0.00	0.00	0.00			2.00	0.00	1.00
Final Sat.:	0	3800	1750			1750	1900	0			0	0	0			3150	0	1750
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																		
Capacity Analysis Module:																		
Vol/Sat:	0.00	0.04	0.00			0.02	0.06	0.00			0.00	0.00	0.00			0.12	0.00	0.09
Crit Moves:	****					****					****					****		
Green/Cycle:	0.00	0.19	0.00			0.11	0.30	0.00			0.00	0.00	0.00			0.56	0.00	0.67
Volume/Cap:	0.00	0.22	0.00			0.16	0.21	0.00			0.00	0.00	0.00			0.22	0.00	0.14
Delay/Veh:	0.0	22.4	0.0			26.7	17.3	0.0			0.0	0.0	0.0			7.1	0.0	3.9
User DelAdj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00
AdjDel/Veh:	0.0	22.4	0.0			26.7	17.3	0.0			0.0	0.0	0.0			7.1	0.0	3.9
LOS by Move:	A	C	A			C	B	A			A	A	A			A	A	A
DesignQueue:	0	2	0			1	3	0			0	0	0			4	0	2
Note: Queue reported is the number of cars per lane.																		

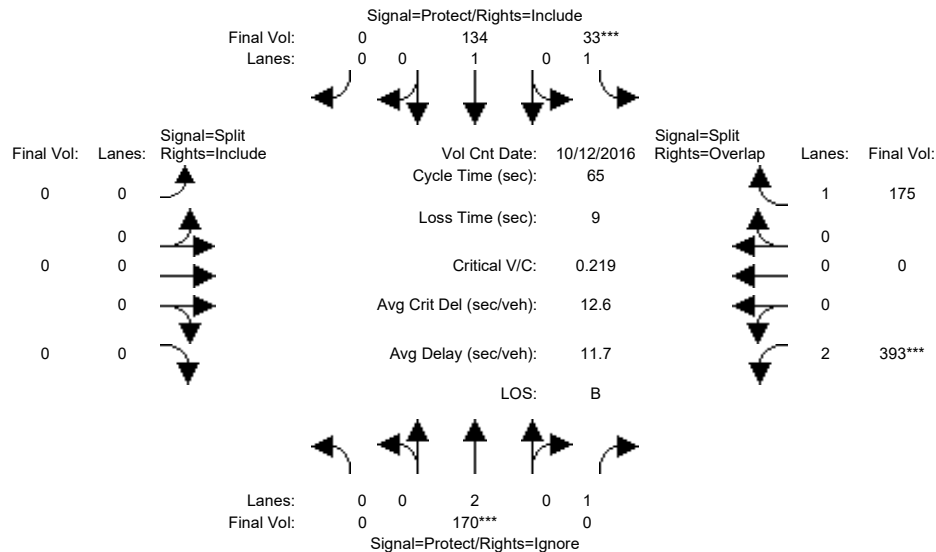
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgrd + Proj (AM)

Intersection #3030: Zanker Rd & SR 237 North



Street Name:	Zanker Road						SR 237 (North)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date:	12 Oct 2016 << 7:50-8:50AM											
Base Vol:	0	109	704	30	92	0	0	0	0	299	0	82
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	109	704	30	92	0	0	0	0	299	0	82
Added Vol:	0	11	0	3	16	0	0	0	0	0	0	11
ATI:	0	50	9	0	26	0	0	0	0	94	0	82
Initial Fut:	0	170	713	33	134	0	0	0	0	393	0	175
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	170	0	33	134	0	0	0	0	393	0	175
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	170	0	33	134	0	0	0	0	393	0	175
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	170	0	33	134	0	0	0	0	393	0	175
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3800	1750	1750	1900	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.04	0.00	0.02	0.07	0.00	0.00	0.00	0.00	0.12	0.00	0.10
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.20	0.00	0.11	0.31	0.00	0.00	0.00	0.00	0.55	0.00	0.66
Volume/Cap:	0.00	0.22	0.00	0.18	0.23	0.00	0.00	0.00	0.00	0.22	0.00	0.15
Delay/Veh:	0.0	22.0	0.0	26.8	17.0	0.0	0.0	0.0	0.0	7.4	0.0	4.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	22.0	0.0	26.8	17.0	0.0	0.0	0.0	0.0	7.4	0.0	4.2
LOS by Move:	A	C	A	C	B	A	A	A	A	A	A	A
DesignQueue:	0	2	0	1	3	0	0	0	0	4	0	2

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

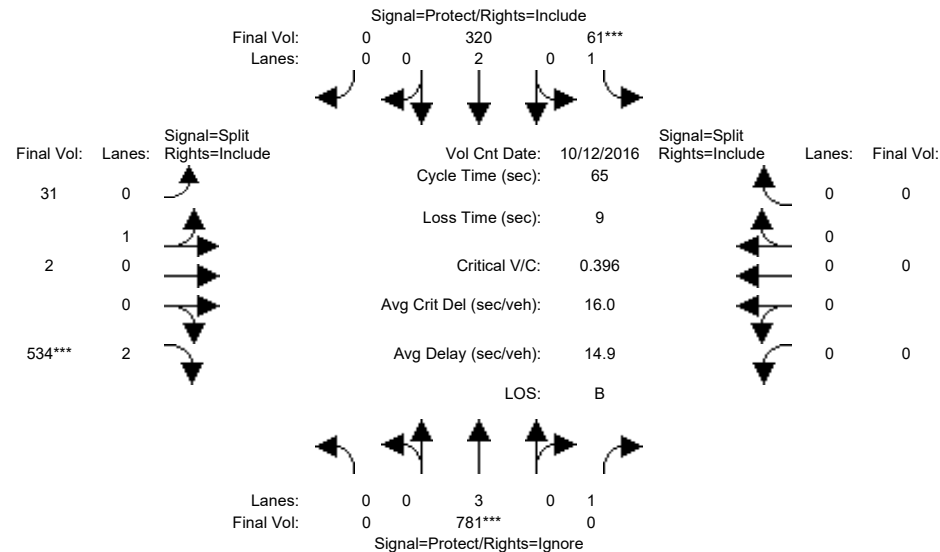
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

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

Intersection #3031: Zanker Rd & SR 237 South



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 12 Oct 2016 << 8:00-9:00AM												
Base Vol:	0	781	409	61	320	0	31	2	534	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	781	409	61	320	0	31	2	534	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	781	409	61	320	0	31	2	534	0	0	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	781	0	61	320	0	31	2	534	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	781	0	61	320	0	31	2	534	0	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	781	0	61	320	0	31	2	534	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.83	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	0.94	0.06	2.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	1750	3800	0	1691	109	3150	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.14	0.00	0.03	0.08	0.00	0.02	0.02	0.17	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.34	0.00	0.11	0.44	0.00	0.42	0.42	0.42	0.00	0.00	0.00
Volume/Cap:	0.00	0.41	0.00	0.32	0.19	0.00	0.04	0.04	0.41	0.00	0.00	0.00
Delay/Veh:	0.0	16.7	0.0	27.8	11.0	0.0	11.3	11.3	13.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	16.7	0.0	27.8	11.0	0.0	11.3	11.3	13.5	0.0	0.0	0.0
LOS by Move:	A	B	A	C	B	A	B	B	B	A	A	A
DesignQueue:	0	6	0	2	3	0	1	1	7	0	0	0
Note: Queue reported is the number of cars per lane.												

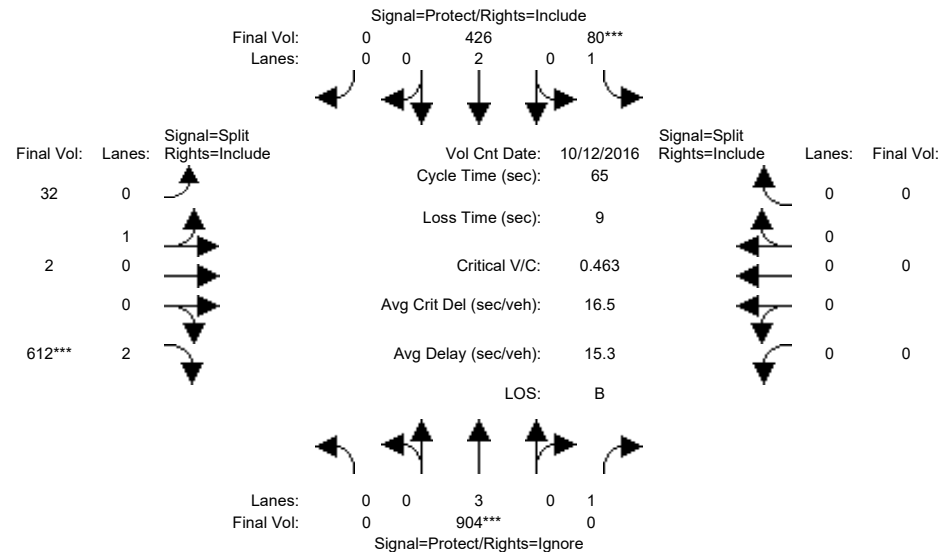
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

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

Intersection #3031: Zanker Rd & SR 237 South



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 12 Oct 2016 << 8:00-9:00AM												
Base Vol:	0	781	409	61	320	0	31	2	534	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	781	409	61	320	0	31	2	534	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	123	15	19	106	0	1	0	78	0	0	0
Initial Fut:	0	904	424	80	426	0	32	2	612	0	0	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	904	0	80	426	0	32	2	612	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	904	0	80	426	0	32	2	612	0	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	904	0	80	426	0	32	2	612	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.83	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	0.94	0.06	2.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	1750	3800	0	1694	106	3150	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.00	0.05	0.11	0.00	0.02	0.02	0.19	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.34	0.00	0.11	0.45	0.00	0.42	0.42	0.42	0.00	0.00	0.00
Volume/Cap:	0.00	0.47	0.00	0.42	0.25	0.00	0.05	0.05	0.47	0.00	0.00	0.00
Delay/Veh:	0.0	17.1	0.0	28.7	11.3	0.0	11.4	11.4	14.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	17.1	0.0	28.7	11.3	0.0	11.4	11.4	14.1	0.0	0.0	0.0
LOS by Move:	A	B	A	C	B	A	B	B	B	A	A	A
DesignQueue:	0	8	0	3	4	0	1	1	8	0	0	0

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

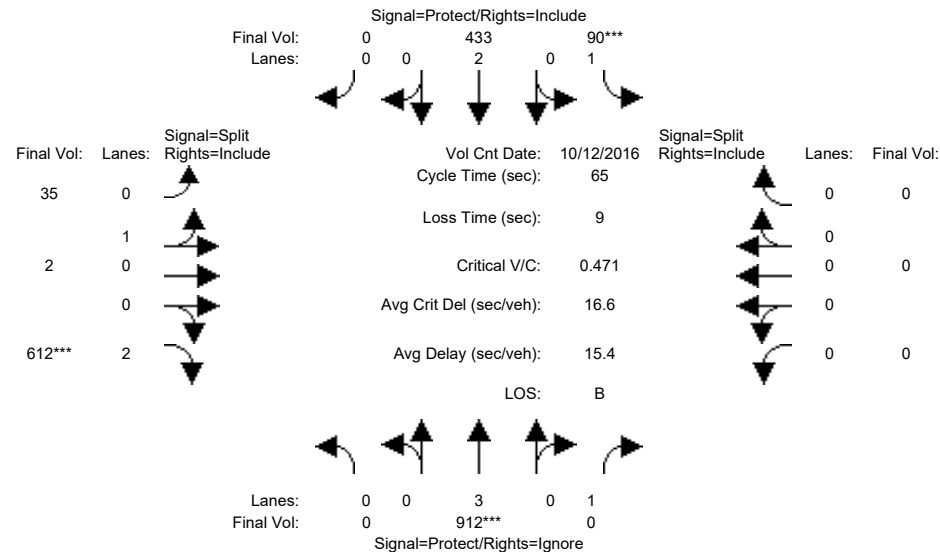
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgrd + Proj (AM)

Intersection #3031: Zanker Rd & SR 237 South



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 12 Oct 2016 << 8:00-9:00AM												
Base Vol:	0	781	409	61	320	0	31	2	534	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	781	409	61	320	0	31	2	534	0	0	0
Added Vol:	0	8	0	10	7	0	3	0	0	0	0	0
ATI:	0	123	15	19	106	0	1	0	78	0	0	0
Initial Fut:	0	912	424	90	433	0	35	2	612	0	0	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	912	0	90	433	0	35	2	612	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	912	0	90	433	0	35	2	612	0	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	912	0	90	433	0	35	2	612	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.83	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	0.95	0.05	2.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	1750	3800	0	1703	97	3150	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.00	0.05	0.11	0.00	0.02	0.02	0.19	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.34	0.00	0.11	0.45	0.00	0.41	0.41	0.41	0.00	0.00	0.00
Volume/Cap:	0.00	0.47	0.00	0.47	0.25	0.00	0.05	0.05	0.47	0.00	0.00	0.00
Delay/Veh:	0.0	17.0	0.0	29.0	11.2	0.0	11.5	11.5	14.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	17.0	0.0	29.0	11.2	0.0	11.5	11.5	14.2	0.0	0.0	0.0
LOS by Move:	A	B	A	C	B	A	B	B	B	A	A	A
DesignQueue:	0	8	0	3	4	0	1	1	8	0	0	0
Note: Queue reported is the number of cars per lane.												

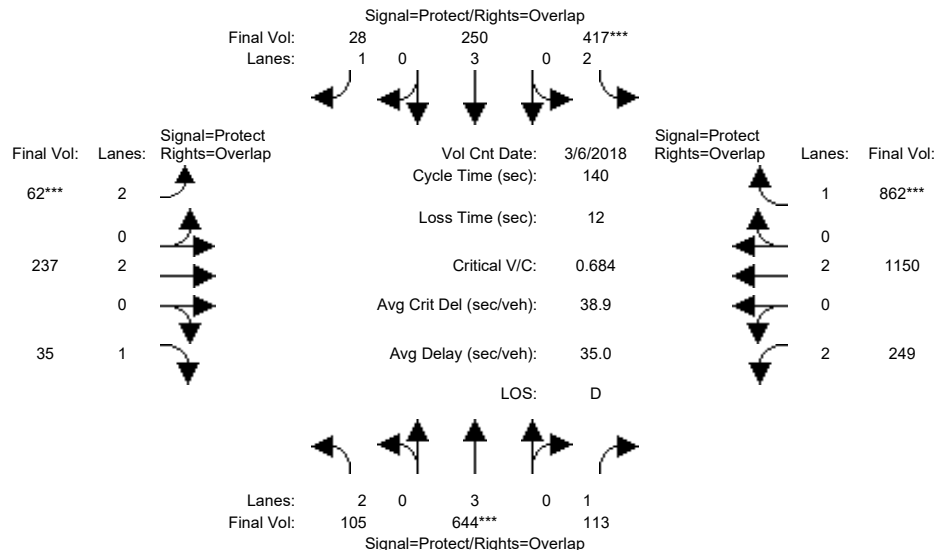
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

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

Intersection #3821: Zanker Rd & Tasman Dr



Street Name:	Zanker Road						Tasman Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 6 Mar 2018 <<												
Base Vol:	105	644	113	417	250	28	62	237	35	249	1150	862
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	644	113	417	250	28	62	237	35	249	1150	862
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	105	644	113	417	250	28	62	237	35	249	1150	862
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	105	644	113	417	250	28	62	237	35	249	1150	862
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	644	113	417	250	28	62	237	35	249	1150	862
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	105	644	113	417	250	28	62	237	35	249	1150	862
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.06	0.13	0.04	0.02	0.02	0.06	0.02	0.08	0.30	0.49
Crit Moves:	****			****			****					****
Green/Cycle:	0.14	0.16	0.46	0.19	0.21	0.26	0.05	0.27	0.41	0.30	0.51	0.70
Volume/Cap:	0.23	0.70	0.14	0.70	0.21	0.06	0.39	0.23	0.05	0.27	0.59	0.70
Delay/Veh:	53.3	58.0	22.1	56.8	46.2	39.4	66.1	40.1	24.7	37.8	24.2	14.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.3	58.0	22.1	56.8	46.2	39.4	66.1	40.1	24.7	37.8	24.2	14.0
LOS by Move:	D	E	C	E	D	D	E	D	C	D	C	B
DesignQueue:	4	14	5	16	5	2	3	7	2	8	24	25
Note: Queue reported is the number of cars per lane.												

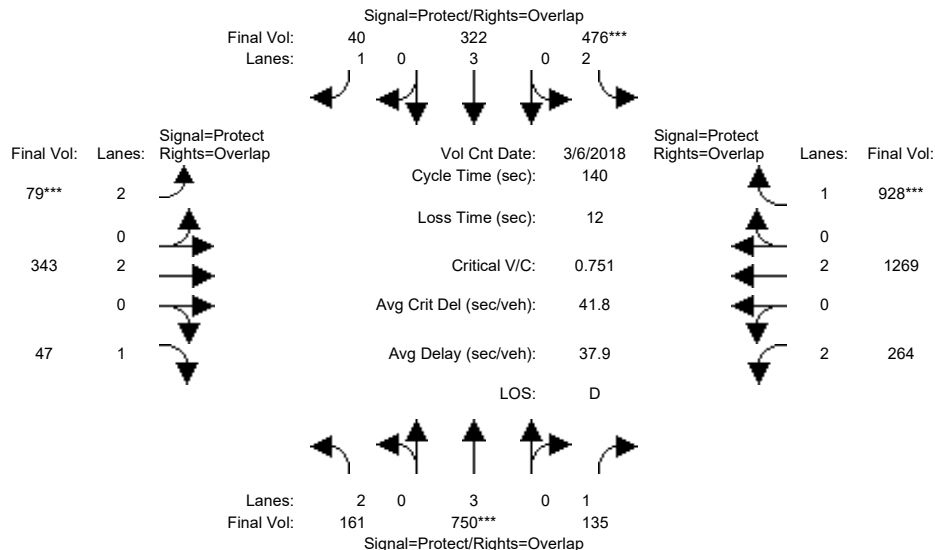
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

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

Intersection #3821: Zanker Rd & Tasman Dr



Street Name:	Zanker Road						Tasman Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 6 Mar 2018 <<												
Base Vol:	105	644	113	417	250	28	62	237	35	249	1150	862
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	644	113	417	250	28	62	237	35	249	1150	862
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	56	106	22	59	72	12	17	106	12	15	119	66
Initial Fut:	161	750	135	476	322	40	79	343	47	264	1269	928
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	161	750	135	476	322	40	79	343	47	264	1269	928
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	161	750	135	476	322	40	79	343	47	264	1269	928
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	161	750	135	476	322	40	79	343	47	264	1269	928
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.13	0.08	0.15	0.06	0.02	0.03	0.09	0.03	0.08	0.33	0.53
Crit Moves:	****			****			****			****		
Green/Cycle:	0.15	0.17	0.43	0.20	0.22	0.27	0.05	0.28	0.44	0.26	0.50	0.69
Volume/Cap:	0.33	0.77	0.18	0.77	0.26	0.09	0.50	0.32	0.06	0.32	0.67	0.77
Delay/Veh:	53.2	59.0	24.4	58.8	45.8	38.8	67.3	39.8	22.9	41.8	27.8	17.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.2	59.0	24.4	58.8	45.8	38.8	67.3	39.8	22.9	41.8	27.8	17.1
LOS by Move:	D	E	C	E	D	D	E	D	C	D	C	B
DesignQueue:	6	17	7	19	7	2	4	10	2	9	27	28
Note: Queue reported is the number of cars per lane.												

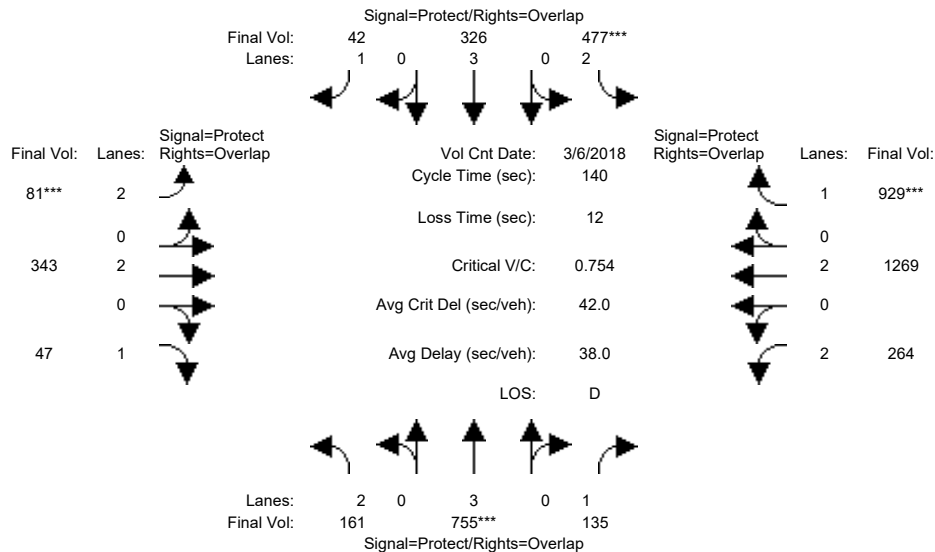
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgrd + Proj (AM)

Intersection #3821: Zanker Rd & Tasman Dr



Street Name:	Zanker Road						Tasman Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 6 Mar 2018 <<												
Base Vol:	105	644	113	417	250	28	62	237	35	249	1150	862
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	644	113	417	250	28	62	237	35	249	1150	862
Added Vol:	0	5	0	1	4	2	2	0	0	0	0	1
ATI:	56	106	22	59	72	12	17	106	12	15	119	66
Initial Fut:	161	755	135	477	326	42	81	343	47	264	1269	929
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	161	755	135	477	326	42	81	343	47	264	1269	929
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	161	755	135	477	326	42	81	343	47	264	1269	929
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	161	755	135	477	326	42	81	343	47	264	1269	929
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.13	0.08	0.15	0.06	0.02	0.03	0.09	0.03	0.08	0.33	0.53
Crit Moves:	****			****			****			****		
Green/Cycle:	0.15	0.17	0.43	0.20	0.22	0.27	0.05	0.28	0.44	0.26	0.49	0.69
Volume/Cap:	0.33	0.77	0.18	0.77	0.27	0.09	0.51	0.32	0.06	0.32	0.68	0.77
Delay/Veh:	53.2	58.9	24.4	58.9	45.8	38.8	67.7	39.8	22.9	41.8	27.9	17.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.2	58.9	24.4	58.9	45.8	38.8	67.7	39.8	22.9	41.8	27.9	17.2
LOS by Move:	D	E	C	E	D	D	E	D	C	D	C	B
DesignQueue:	6	17	7	19	7	3	4	10	2	9	27	28
Note: Queue reported is the number of cars per lane.												

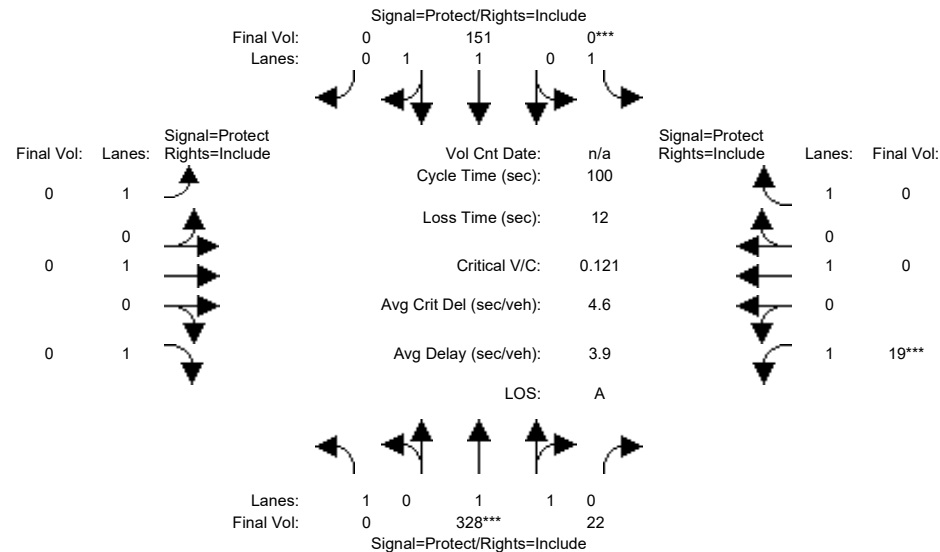
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgrd + Proj (AM)

Intersection #4000: Zanker Rd & Nortech Pkwy



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	0	196	0	0	125	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	196	0	0	125	0	0	0	0	0	0	0
Added Vol:	0	0	22	0	0	0	0	0	0	19	0	0
ATI(extrapo):	0	132	0	0	26	0	0	0	0	0	0	0
Initial Fut:	0	328	22	0	151	0	0	0	0	19	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	328	22	0	151	0	0	0	0	19	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	328	22	0	151	0	0	0	0	19	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	328	22	0	151	0	0	0	0	19	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.94	0.92	0.97	0.92	0.92	1.00	0.92	0.88	1.00	0.92
Lanes:	1.00	1.87	0.13	1.00	2.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	3436	230	1750	3700	0	1750	1900	1750	1663	1900	1750

Capacity Analysis Module:

Vol/Sat:	0.00	0.10	0.10	0.00	0.04	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.79	0.79	0.00	0.79	0.00	0.00	0.00	0.00	0.09	0.00	0.00
Volume/Cap:	0.00	0.12	0.12	0.00	0.05	0.00	0.00	0.00	0.00	0.12	0.00	0.00
Delay/Veh:	0.0	2.6	2.6	0.0	2.4	0.0	0.0	0.0	0.0	41.9	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	2.6	2.6	0.0	2.4	0.0	0.0	0.0	0.0	41.9	0.0	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	D	A	A
DesignQueue:	0	2	2	0	1	0	0	0	0	1	0	0

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

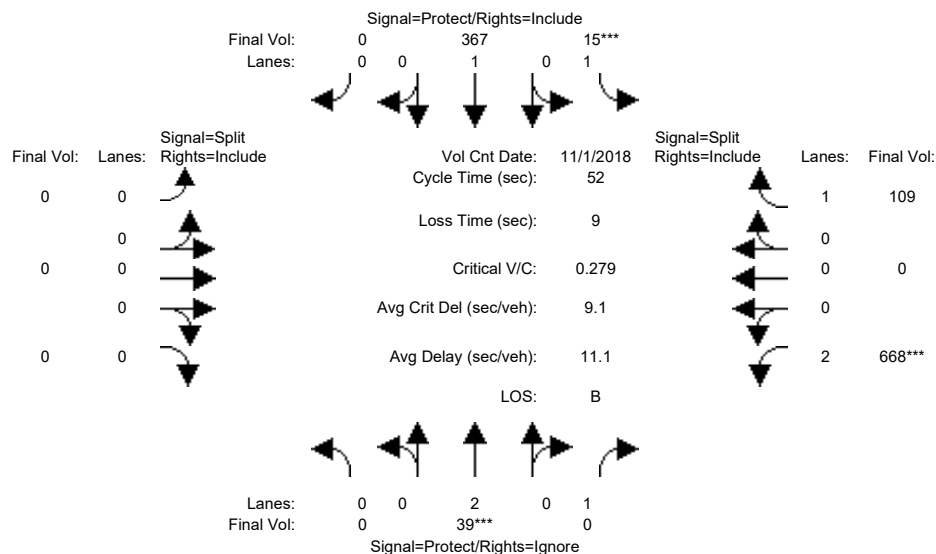
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

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

Intersection #3030: Zanker Rd & SR 237 North



Street Name:	Zanker Road						SR 237 (North)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 1 Nov 2018 << 5:00-6:00PM												
Base Vol:	0	39	475	15	367	0	0	0	0	668	0	109
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	39	475	15	367	0	0	0	0	668	0	109
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	39	475	15	367	0	0	0	0	668	0	109
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	39	0	15	367	0	0	0	0	668	0	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	39	0	15	367	0	0	0	0	668	0	109
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	39	0	15	367	0	0	0	0	668	0	109
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3800	1750	1750	1900	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.00	0.01	0.19	0.00	0.00	0.00	0.00	0.21	0.00	0.06
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.19	0.00	0.13	0.33	0.00	0.00	0.00	0.00	0.50	0.00	0.50
Volume/Cap:	0.00	0.05	0.00	0.06	0.59	0.00	0.00	0.00	0.00	0.42	0.00	0.12
Delay/Veh:	0.0	17.2	0.0	19.8	16.1	0.0	0.0	0.0	0.0	8.4	0.0	7.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	17.2	0.0	19.8	16.1	0.0	0.0	0.0	0.0	8.4	0.0	7.0
LOS by Move:	A	B	A	B	B	A	A	A	A	A	A	A
DesignQueue:	0	0	0	0	8	0	0	0	0	6	0	2

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

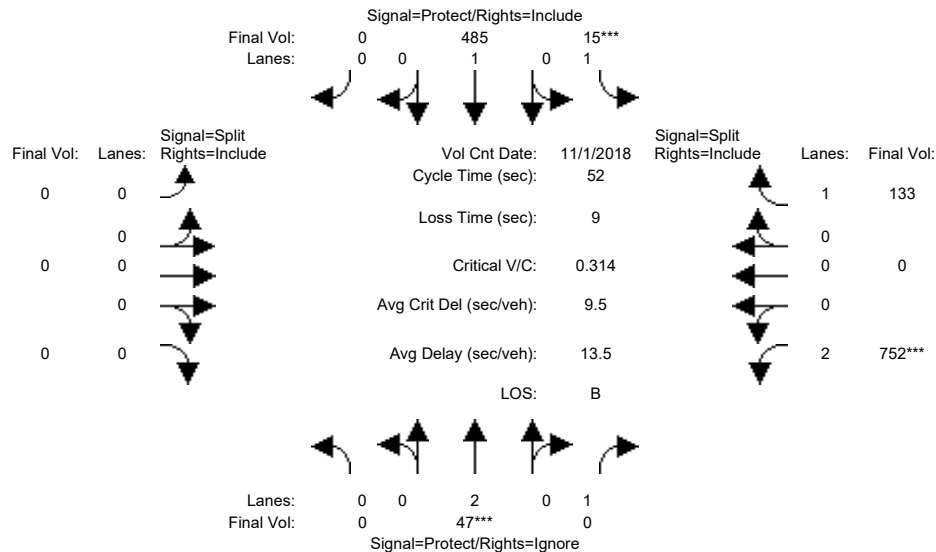
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

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

Intersection #3030: Zanker Rd & SR 237 North



Street Name:	Zanker Road						SR 237 (North)											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Min. Green:	0		10		10	7		10		0	0		0	10		0	10	
Y+R:	4.0		4.0		4.0	4.0		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Volume Module: >> Count Date: 1 Nov 2018 << 5:00-6:00PM																		
Base Vol:	0		39		475	15		367		0	0		0	668		0	109	
Growth Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Initial Bse:	0		39		475	15		367		0	0		0	668		0	109	
Added Vol:	0		0		0	0		0		0	0		0	0		0	0	
ATI:	0		8		36	0		118		0	0		0	84		0	24	
Initial Fut:	0		47		511	15		485		0	0		0	752		0	133	
User Adj:	1.00		1.00		0.00	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
PHF Adj:	1.00		1.00		0.00	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
PHF Volume:	0		47		0	15		485		0	0		0	752		0	133	
Reduct Vol:	0		0		0	0		0		0	0		0	0		0	0	
Reduced Vol:	0		47		0	15		485		0	0		0	752		0	133	
PCE Adj:	1.00		1.00		0.00	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
MLF Adj:	1.00		1.00		0.00	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
FinalVolume:	0		47		0	15		485		0	0		0	752		0	133	
Saturation Flow Module:																		
Sat/Lane:	1900		1900		1900	1900		1900		1900	1900		1900	1900		1900	1900	
Adjustment:	0.92		1.00		0.92	0.92		1.00		0.92	0.92		1.00	0.92		0.83	1.00	0.92
Lanes:	0.00		2.00		1.00	1.00		1.00		0.00	0.00		0.00	2.00		0.00	1.00	
Final Sat.:	0		3800		1750	1750		1900		0	0		0	3150		0	1750	
Capacity Analysis Module:																		
Vol/Sat:	0.00		0.01		0.00	0.01		0.26		0.00	0.00		0.00	0.24		0.00	0.08	
Crit Moves:	****			****			****			****			****					
Green/Cycle:	0.00		0.19		0.00	0.13		0.33		0.00	0.00		0.00	0.50		0.00	0.50	
Volume/Cap:	0.00		0.06		0.00	0.06		0.78		0.00	0.00		0.00	0.48		0.00	0.15	
Delay/Veh:	0.0		17.2		0.0	19.8		22.2		0.0	0.0		0.0	8.8		0.0	7.1	
User DelAdj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
AdjDel/Veh:	0.0		17.2		0.0	19.8		22.2		0.0	0.0		0.0	8.8		0.0	7.1	
LOS by Move:	A		B		A	B		C		A	A		A	A		A	A	
DesignQueue:	0		1		0	0		10		0	0		0	7		0	2	
Note: Queue reported is the number of cars per lane.																		

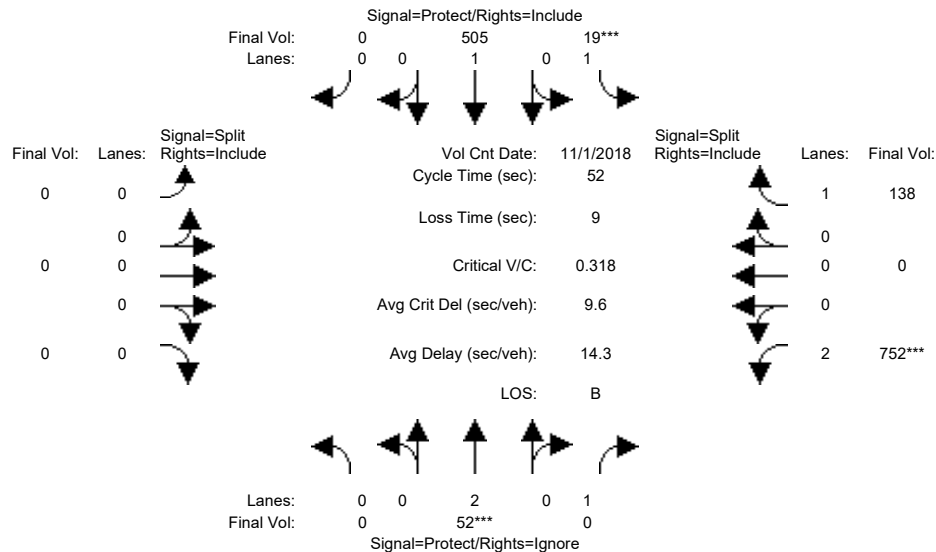
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgrd + Proj (PM)

Intersection #3030: Zanker Rd & SR 237 North



Street Name:	Zanker Road						SR 237 (North)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 1 Nov 2018 << 5:00-6:00PM												
Base Vol:	0	39	475	15	367	0	0	0	0	668	0	109
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	39	475	15	367	0	0	0	0	668	0	109
Added Vol:	0	5	0	4	20	0	0	0	0	0	0	5
ATI:	0	8	36	0	118	0	0	0	0	84	0	24
Initial Fut:	0	52	511	19	505	0	0	0	0	752	0	138
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	52	0	19	505	0	0	0	0	752	0	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	52	0	19	505	0	0	0	0	752	0	138
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	52	0	19	505	0	0	0	0	752	0	138
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3800	1750	1750	1900	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.00	0.01	0.27	0.00	0.00	0.00	0.00	0.24	0.00	0.08
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.19	0.00	0.13	0.33	0.00	0.00	0.00	0.00	0.50	0.00	0.50
Volume/Cap:	0.00	0.07	0.00	0.08	0.81	0.00	0.00	0.00	0.00	0.48	0.00	0.16
Delay/Veh:	0.0	17.2	0.0	19.8	24.1	0.0	0.0	0.0	0.0	8.8	0.0	7.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	17.2	0.0	19.8	24.1	0.0	0.0	0.0	0.0	8.8	0.0	7.1
LOS by Move:	A	B	A	B	C	A	A	A	A	A	A	A
DesignQueue:	0	1	0	1	11	0	0	0	0	7	0	2

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

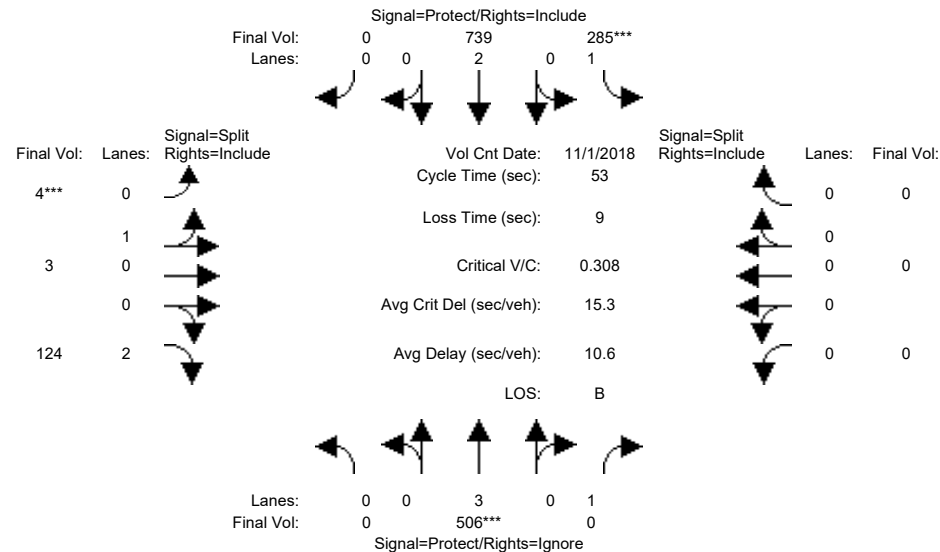
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

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

Intersection #3031: Zanker Rd & SR 237 South



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 1 Nov 2018 << 5:00-6:00PM												
Base Vol:	0	506	953	285	739	0	4	3	124	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	506	953	285	739	0	4	3	124	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	506	953	285	739	0	4	3	124	0	0	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	506	0	285	739	0	4	3	124	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	506	0	285	739	0	4	3	124	0	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	506	0	285	739	0	4	3	124	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.83	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	0.57	0.43	2.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	1750	3800	0	1029	771	3150	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.00	0.16	0.19	0.00	0.00	0.00	0.04	0.00	0.00	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.23	0.00	0.42	0.64	0.00	0.19	0.19	0.19	0.00	0.00	0.00
Volume/Cap:	0.00	0.39	0.00	0.39	0.30	0.00	0.02	0.02	0.21	0.00	0.00	0.00
Delay/Veh:	0.0	17.6	0.0	11.2	4.3	0.0	17.5	17.5	18.3	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	17.6	0.0	11.2	4.3	0.0	17.5	17.5	18.3	0.0	0.0	0.0
LOS by Move:	A	B	A	B	A	A	B	B	B	A	A	A
DesignQueue:	0	4	0	6	4	0	0	0	2	0	0	0

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

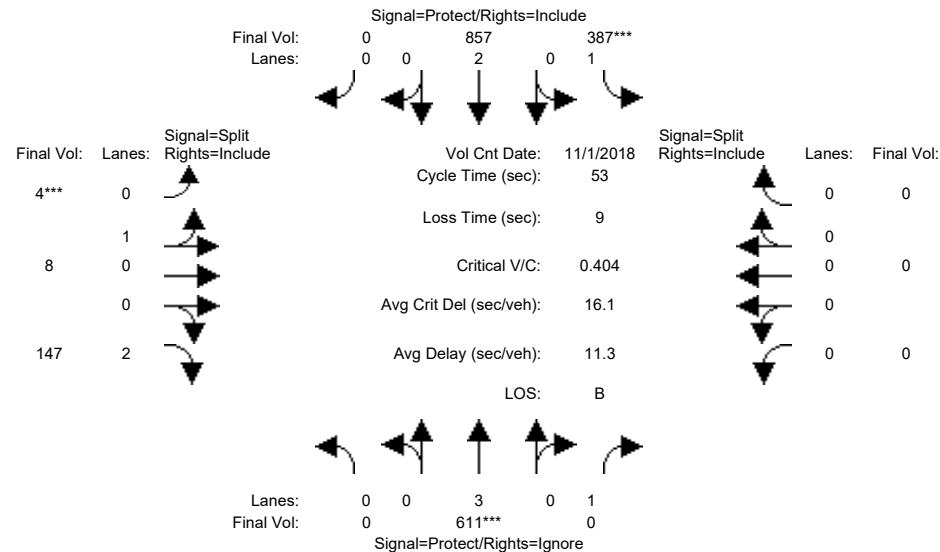
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

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

Intersection #3031: Zanker Rd & SR 237 South



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 1 Nov 2018 << 5:00-6:00PM												
Base Vol:	0	506	953	285	739	0	4	3	124	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	506	953	285	739	0	4	3	124	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	105	56	102	118	0	0	5	23	0	0	0
Initial Fut:	0	611	1009	387	857	0	4	8	147	0	0	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	611	0	387	857	0	4	8	147	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	611	0	387	857	0	4	8	147	0	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	611	0	387	857	0	4	8	147	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.83	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	0.33	0.67	2.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	1750	3800	0	600	1200	3150	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.11	0.00	0.22	0.23	0.00	0.01	0.01	0.05	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.00	0.21	0.00	0.43	0.64	0.00	0.19	0.19	0.19	0.00	0.00	0.00
Volume/Cap:	0.00	0.51	0.00	0.51	0.35	0.00	0.04	0.04	0.25	0.00	0.00	0.00
Delay/Veh:	0.0	18.9	0.0	11.6	4.5	0.0	17.6	17.6	18.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	18.9	0.0	11.6	4.5	0.0	17.6	17.6	18.5	0.0	0.0	0.0
LOS by Move:	A	B	A	B	A	A	B	B	B	A	A	A
DesignQueue:	0	5	0	7	5	0	0	0	2	0	0	0

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

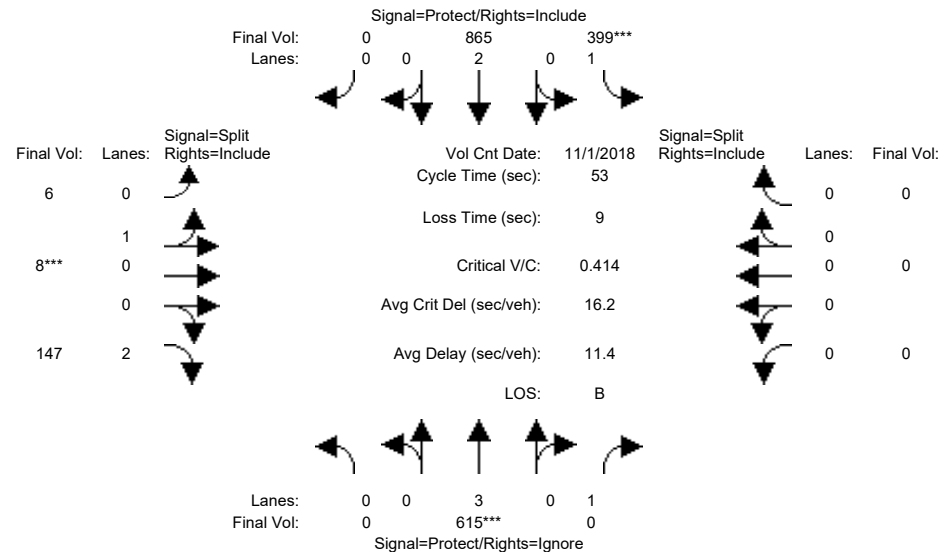
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgrd + Proj (PM)

Intersection #3031: Zanker Rd & SR 237 South



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 1 Nov 2018 << 5:00-6:00PM												
Base Vol:	0	506	953	285	739	0	4	3	124	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	506	953	285	739	0	4	3	124	0	0	0
Added Vol:	0	4	0	12	8	0	2	0	0	0	0	0
ATI:	0	105	56	102	118	0	0	5	23	0	0	0
Initial Fut:	0	615	1009	399	865	0	6	8	147	0	0	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	615	0	399	865	0	6	8	147	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	615	0	399	865	0	6	8	147	0	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	615	0	399	865	0	6	8	147	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.83	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	0.43	0.57	2.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	1750	3800	0	771	1029	3150	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.11	0.00	0.23	0.23	0.00	0.01	0.01	0.05	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.21	0.00	0.44	0.64	0.00	0.19	0.19	0.19	0.00	0.00	0.00
Volume/Cap:	0.00	0.52	0.00	0.52	0.35	0.00	0.04	0.04	0.25	0.00	0.00	0.00
Delay/Veh:	0.0	19.2	0.0	11.6	4.5	0.0	17.6	17.6	18.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	19.2	0.0	11.6	4.5	0.0	17.6	17.6	18.5	0.0	0.0	0.0
LOS by Move:	A	B	A	B	A	A	B	B	B	A	A	A
DesignQueue:	0	5	0	8	5	0	0	0	2	0	0	0
Note: Queue reported is the number of cars per lane.												

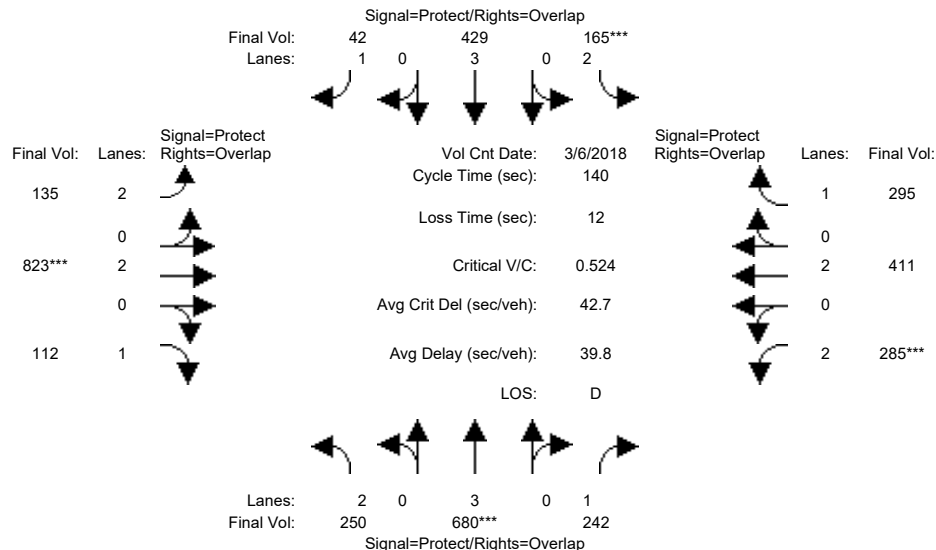
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

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

Intersection #3821: Zanker Rd & Tasman Dr



Street Name:	Zanker Road						Tasman Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 6 Mar 2018 <<												
Base Vol:	250	680	242	165	429	42	135	823	112	285	411	295
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	680	242	165	429	42	135	823	112	285	411	295
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	250	680	242	165	429	42	135	823	112	285	411	295
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	250	680	242	165	429	42	135	823	112	285	411	295
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	250	680	242	165	429	42	135	823	112	285	411	295
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	250	680	242	165	429	42	135	823	112	285	411	295
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.12	0.14	0.05	0.08	0.02	0.04	0.22	0.06	0.09	0.11	0.17
Crit Moves:	****			****			****			****		
Green/Cycle:	0.17	0.23	0.40	0.10	0.16	0.34	0.18	0.41	0.58	0.17	0.41	0.51
Volume/Cap:	0.47	0.52	0.35	0.52	0.47	0.07	0.24	0.52	0.11	0.52	0.26	0.33
Delay/Veh:	53.3	47.8	29.5	61.4	53.9	31.7	49.8	31.0	13.1	53.6	27.4	20.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.3	47.8	29.5	61.4	53.9	31.7	49.8	31.0	13.1	53.6	27.4	20.4
LOS by Move:	D	D	C	E	D	C	D	C	B	D	C	C
DesignQueue:	10	14	13	7	10	2	5	20	4	11	10	13

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

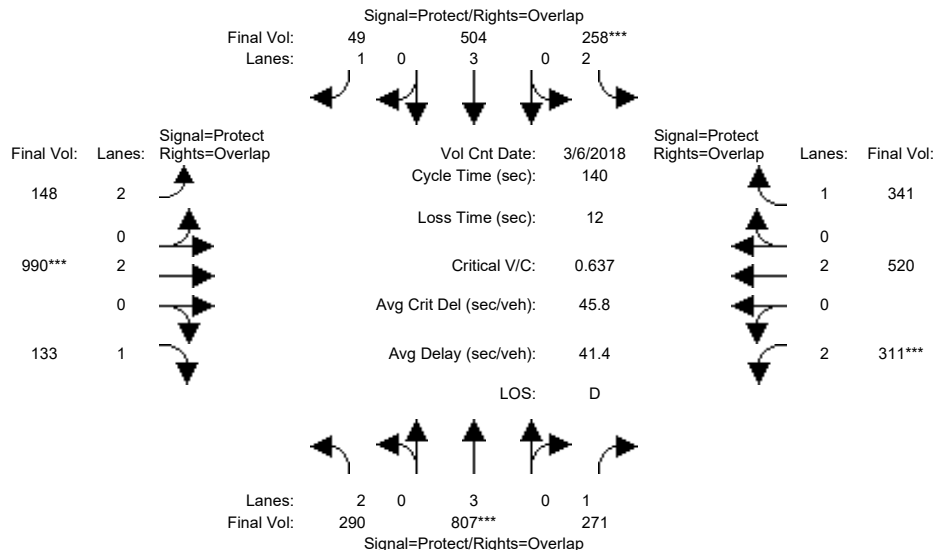
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

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

Intersection #3821: Zanker Rd & Tasman Dr



Street Name: Zanker Road Tasman Drive

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 6 Mar 2018 <<

Base Vol:	250	680	242	165	429	42	135	823	112	285	411	295
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	680	242	165	429	42	135	823	112	285	411	295
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	40	127	29	93	75	7	13	167	21	26	109	46
Initial Fut:	290	807	271	258	504	49	148	990	133	311	520	341
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	290	807	271	258	504	49	148	990	133	311	520	341
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	290	807	271	258	504	49	148	990	133	311	520	341
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	290	807	271	258	504	49	148	990	133	311	520	341

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750

Capacity Analysis Module:

Vol/Sat:	0.09	0.14	0.15	0.08	0.09	0.03	0.05	0.26	0.08	0.10	0.14	0.19
Crit Moves:	****			****			****			****		
Green/Cycle:	0.18	0.22	0.38	0.13	0.17	0.32	0.15	0.41	0.59	0.15	0.41	0.54
Volume/Cap:	0.51	0.64	0.41	0.64	0.51	0.09	0.31	0.64	0.13	0.64	0.33	0.36
Delay/Veh:	52.8	50.4	32.6	61.3	53.1	33.1	53.3	34.0	12.9	58.3	28.1	18.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.8	50.4	32.6	61.3	53.1	33.1	53.3	34.0	12.9	58.3	28.1	18.5
LOS by Move:	D	D	C	E	D	C	D	C	B	E	C	B
DesignQueue:	11	17	15	11	11	3	6	24	5	13	12	14

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

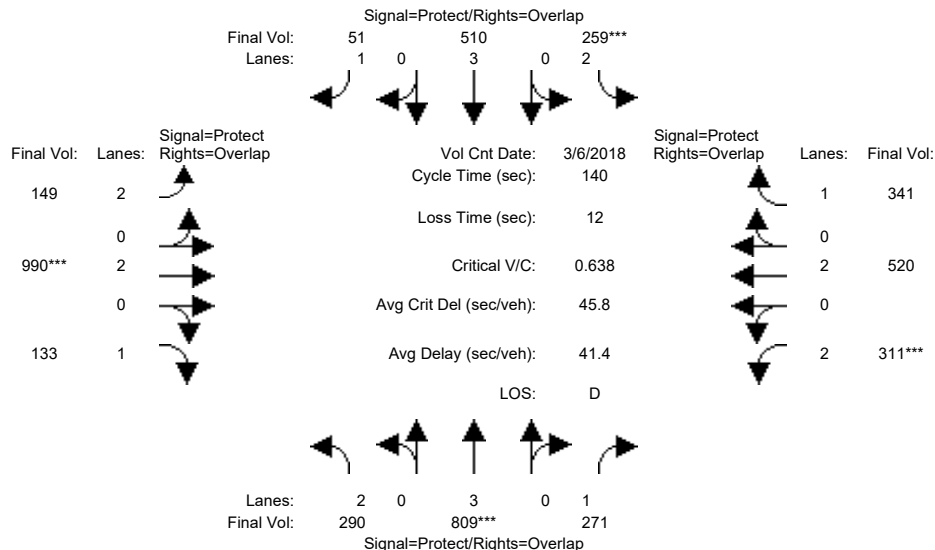
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgrd + Proj (PM)

Intersection #3821: Zanker Rd & Tasman Dr



Street Name:	Zanker Road						Tasman Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 6 Mar 2018 <<												
Base Vol:	250	680	242	165	429	42	135	823	112	285	411	295
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	680	242	165	429	42	135	823	112	285	411	295
Added Vol:	0	2	0	1	6	2	1	0	0	0	0	0
ATI:	40	127	29	93	75	7	13	167	21	26	109	46
Initial Fut:	290	809	271	259	510	51	149	990	133	311	520	341
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	290	809	271	259	510	51	149	990	133	311	520	341
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	290	809	271	259	510	51	149	990	133	311	520	341
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	290	809	271	259	510	51	149	990	133	311	520	341
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.14	0.15	0.08	0.09	0.03	0.05	0.26	0.08	0.10	0.14	0.19
Crit Moves:	****			****			****			****		
Green/Cycle:	0.18	0.22	0.38	0.13	0.17	0.32	0.15	0.41	0.59	0.15	0.41	0.54
Volume/Cap:	0.52	0.64	0.41	0.64	0.52	0.09	0.31	0.64	0.13	0.64	0.33	0.36
Delay/Veh:	52.9	50.4	32.5	61.3	53.0	33.0	53.4	34.0	13.0	58.3	28.1	18.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.9	50.4	32.5	61.3	53.0	33.0	53.4	34.0	13.0	58.3	28.1	18.5
LOS by Move:	D	D	C	E	D	C	D	C	B	E	C	B
DesignQueue:	11	17	15	11	11	3	6	24	5	13	12	14
Note: Queue reported is the number of cars per lane.												

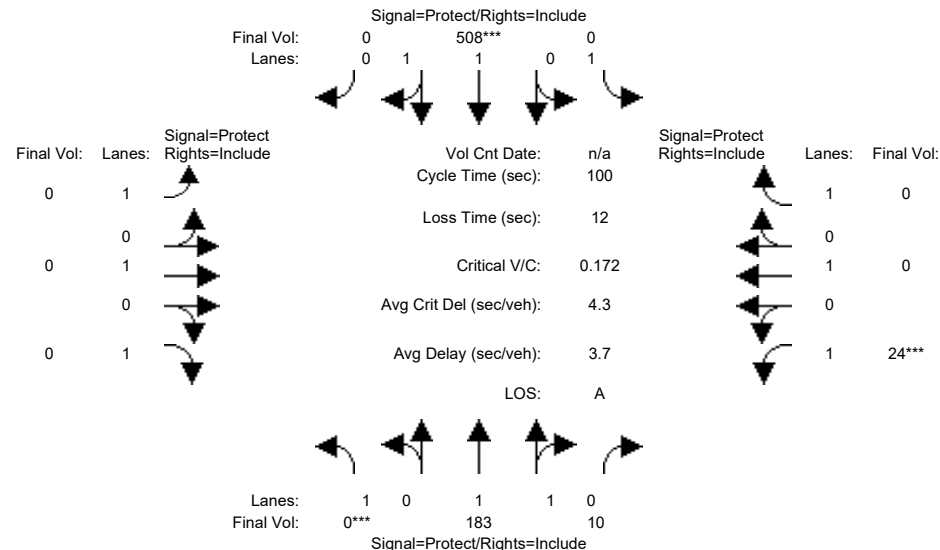
Microsoft Data Center (SJC02)

479,000 SF

North San Jose, CA

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgrd + Proj (PM)

Intersection #4000: Zanker Rd & Nortech Pkwy



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	0	151	0	0	390	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	151	0	0	390	0	0	0	0	0	0	0
Added Vol:	0	0	10	0	0	0	0	0	0	24	0	0
ATI(extrapo):	0	32	0	0	118	0	0	0	0	0	0	0
Initial Fut:	0	183	10	0	508	0	0	0	0	24	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	183	10	0	508	0	0	0	0	24	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	183	10	0	508	0	0	0	0	24	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	183	10	0	508	0	0	0	0	24	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.94	0.92	0.97	0.92	0.92	1.00	0.92	0.88	1.00	0.92
Lanes:	1.00	1.89	0.11	1.00	2.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	3480	190	1750	3700	0	1750	1900	1750	1663	1900	1750

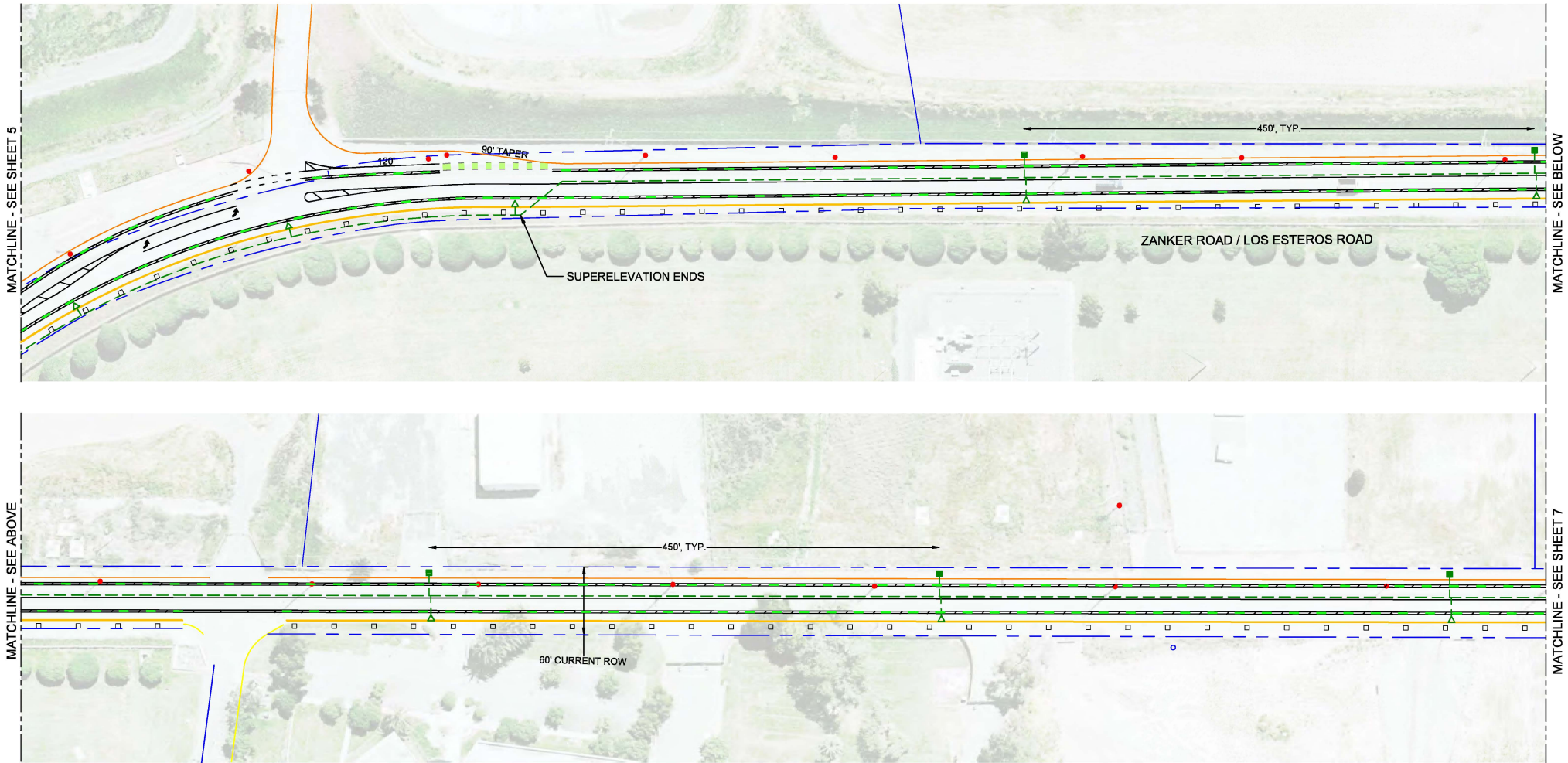
Capacity Analysis Module:

Vol/Sat:	0.00	0.05	0.05	0.00	0.14	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.80	0.80	0.00	0.80	0.00	0.00	0.00	0.00	0.08	0.00	0.00
Volume/Cap:	0.00	0.07	0.07	0.00	0.17	0.00	0.00	0.00	0.00	0.17	0.00	0.00
Delay/Veh:	0.0	2.2	2.2	0.0	2.4	0.0	0.0	0.0	0.0	43.2	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	2.2	2.2	0.0	2.4	0.0	0.0	0.0	0.0	43.2	0.0	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	D	A	A
DesignQueue:	0	1	1	0	3	0	0	0	0	1	0	0

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

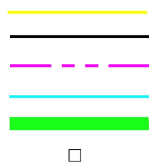
Appendix D

Zanker Road Plan Line

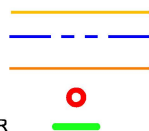


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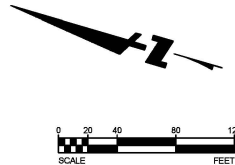
PROPOSED FACE OF CURB
 PROPOSED STRIPING
 PROPOSED RIGHT OF WAY
 PROPOSED BACK OF S/W
 PROPOSED MEDIAN
 TREE WELL



EXISTING FACE OF CURB
 EXISTING ROW
 AC BERM
 UTILITY POLE
 PRECAST PCC BIKE SEPARATOR



CATCH BASIN
 GROUND GRATE INLET
 STORM DRAIN LINE



LOS ESTEROS ROAD PLAN LINE CONCEPTUAL LAYOUT

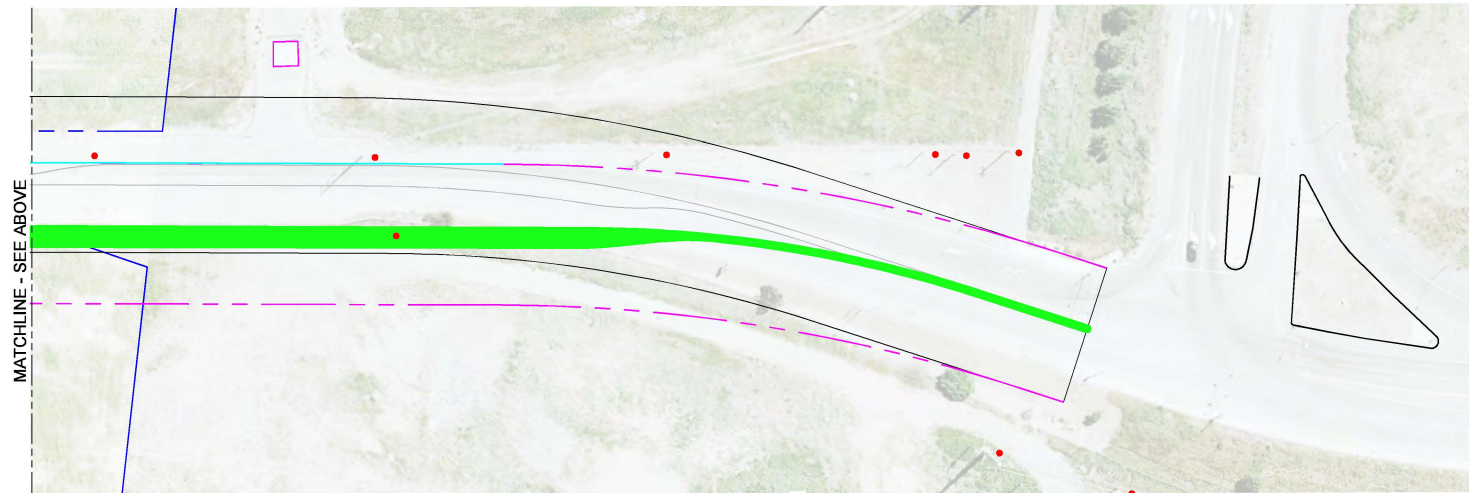
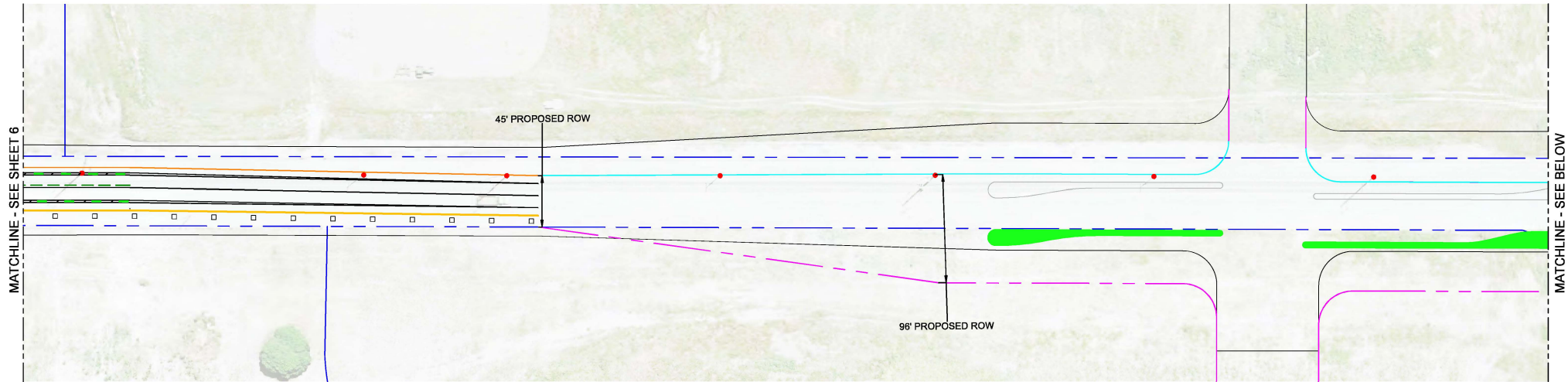
6		
5		
4		
3		
2		
1		
REVISIONS		DATE



DEPARTMENT OF TRANSPORTATION SAN JOSE, CALIFORNIA

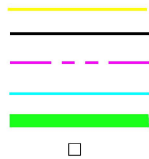
DESIGNED BY: C. DANG
 CHECKED BY: J. HU
 PROJ MGR: Z. KHATTAB
 DATE: JAN 2021
 SCALE: 1"=40'
 SHEET NO. 4 OF 5

JOHN RISTOW
 DIRECTOR
 FILE NO. _____

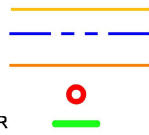


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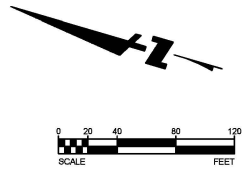
PROPOSED FACE OF CURB
 PROPOSED STRIPING
 PROPOSED RIGHT OF WAY
 PROPOSED BACK OF S/W
 PROPOSED MEDIAN
 TREE WELL



EXISTING FACE OF CURB
 EXISTING ROW
 AC BERM
 UTILITY POLE
 PRECAST PCC BIKE SEPARATOR



CATCH BASIN
 GROUND GRATE INLET
 STORM DRAIN LINE



LOS ESTEROS ROAD PLAN LINE CONCEPTUAL LAYOUT

6		
5		
4		
3		
2		
1		
REVISIONS		DATE



DEPARTMENT OF TRANSPORTATION SAN JOSE, CALIFORNIA

DESIGNED BY: C. DANG
 CHECKED BY: J. HU
 PROJ MGR: Z. KHATTAB
 DATE: JAN 2021
 SCALE: 1"=40'
 SHEET NO. 5 OF 5

JOHN RISTOW
 DIRECTOR
 FILE NO.

Appendix E

Data Center Parking Demand Study



HEXAGON TRANSPORTATION CONSULTANTS, INC.

Memorandum

Date: August 18, 2017
To: Mr. Ray Hashimoto
From: Gary Black
Ollie Zhou
Subject: Parking Study for Server Farm Sites in Santa Clara, California

Hexagon Transportation Consultants, Inc. has completed a parking study for server farm facilities in Santa Clara, California. This study was conducted for the purpose of recommending a parking requirement for server farm facilities to be included in the City of Santa Clara's parking code. The parking requirement should ensure that the peak parking demands at future server farm sites could be contained on site. Hexagon conducted parking demand counts at five server farm sites within the City of Santa Clara to determine the existing peak parking demands. Three of the five server farm sites that were counted were approved by City staff. Subsequent to the initiation of this project, Hexagon was contracted to count two other server farms within the City of Santa Clara for another project. A description of each site and the study findings are discussed below.

Server Farm Sites

Hexagon counted the parking lots at five server farm sites in the City of Santa Clara (see Figure 1). Each site is discussed in detail below:

- Site 1: This 42,585 square feet (s.f.) server farm site is located at 1525 Comstock Street (see Figure 2), east of Kenneth Street. The site is not gated and has 28 parking spaces on site.
- Site 2: This 39,324 s.f. server farm site is located at 1725 Comstock Street (see Figure 3), west of Kenneth Street. The site is not gated and has 25 parking spaces on site.
- Site 3: This 272,000 s.f. server farm site is located at 2401 Walsh Avenue (see Figure 4), west of San Tomas Aquino Creek. The site has gates restricting access to the northern end of the property. There are 160 parking spaces in the ungated area, and 26 spaces in the gated area. The parking spaces along the west edge of the site are mostly occupied by containers and were not counted.
- Site 4: This 323,122 s.f. server farm site is located at 2045 Lafayette Street (see Figure 5), south of Mathew Street. The site is gated and has 138 parking spaces in the gated area.
- Site 5: This 365,489 s.f. server farm site is located at 2220 De La Cruz Boulevard (see Figure 6), north of Reed Street. The site is gated and has 96 parking spaces in the gated area. An additional building recently has been built on the site but is not yet occupied.

Parking Demand Analysis

According to the site managers for sites 1-3, the sites were believed to be busier on Fridays and weekends than weekdays. Therefore, Hexagon conducted parking demand counts at these three server farm sites on a Friday, Saturday and Sunday from 8 AM to 6 PM in July/August 2017. According to the site managers for sites 4-5, the sites were believed to be busier on weekdays. Therefore, Hexagon conducted parking demand counts at these two server farm sites on a Tuesday, Wednesday and Thursday from 8 AM to 6 PM in August 2017.

The collected data (see Appendix) show that parking demand typically peaked between 11:30 AM and 2:30 PM. Site 1 parking demand peaked on July 27th at 1:30 PM with 14 vehicles parked. Site 2 parking demand peaked on July 27th at 12:30 PM with 16 vehicles parked. Site 3 parking demand peaked on July 27th at 2:00 PM with 44 vehicles parked. Site 4 parking demand peaked on August 9th at 1:00 PM with 75 vehicles parked. Site 5 parking demand peaked on August 10th at 1:00 PM with 84 vehicles parked. Based on the maximum observed parking demand at each site, the weighted average peak parking demand (see Table 1) is 0.22 space per 1,000 square feet. However, the maximum observed parking demand rate was 0.41 space per 1,000 square feet. As shown in Table 1, it appears that the smaller server farms (sites 1 and 2) have parking demand rates higher than the larger server farms (sites 3-5).

Table 1
Observed Maximum Parking Demands

Site #	Address	Building Size (s.f.)	Max. Observed Parking Demand	Demand Rate per 1,000 s.f.
1	1525 Comstock St ¹	42,585	14	0.329
2	1725 Comstock St ¹	39,324	16	0.407
3	2401 Walsh Ave ¹	272,000	44	0.162
4	2045 Lafayette St ²	323,122	75	0.232
5	2220 De La Cruz Blvd ²	365,489	84	0.230
Weighted Average				0.22
Maximum Observed				0.41

Notes:

1. Parking demand counts were conducted on a Friday, Saturday and Sunday in July/August 2017.
2. Parking demand counts were conducted on three weekdays in August 2017.

Discussion

Based on Hexagon's analysis, the observed average maximum parking demand rate was 0.22 space per 1,000 square feet. However, the maximum observed parking demand rate was 0.41 space per 1,000 square feet. Using the average maximum parking demand rate would result in smaller server farms providing too few parking spaces, while using the maximum parking demand rate would result in larger server farms providing too many parking spaces. Therefore, Hexagon recommends the City to require server farms to provide a minimum of six parking spaces plus 0.22 space for every 1,000 s.f. As shown on Table 2, the suggested parking requirement would best reflect the peak parking demand at the sites that were counted. Site 2 would be required to provide 15 parking spaces, which would be one less than the observed peak parking demand. Site 3 would be required to provide 66 parking spaces, which would be 22 spaces more than the observed peak parking demand.

Table 2
Proposed Parking Requirement for Server Farms

Site #	Address	Building Size (s.f.)	Max. Observed Parking Demand	Required Parking Provision ¹
1	1525 Comstock St	42,585	14	15
2	1725 Comstock St	39,324	16	15
3	2401 Walsh Ave	272,000	44	66
4	2045 Lafayette St	323,122	75	77
5	2220 De La Cruz Blvd	365,489	84	86

Notes:

1. Required parking provision is calculated based on Hexagon's recommended requirement of 6 spaces plus 0.22 space per 1,000 s.f.

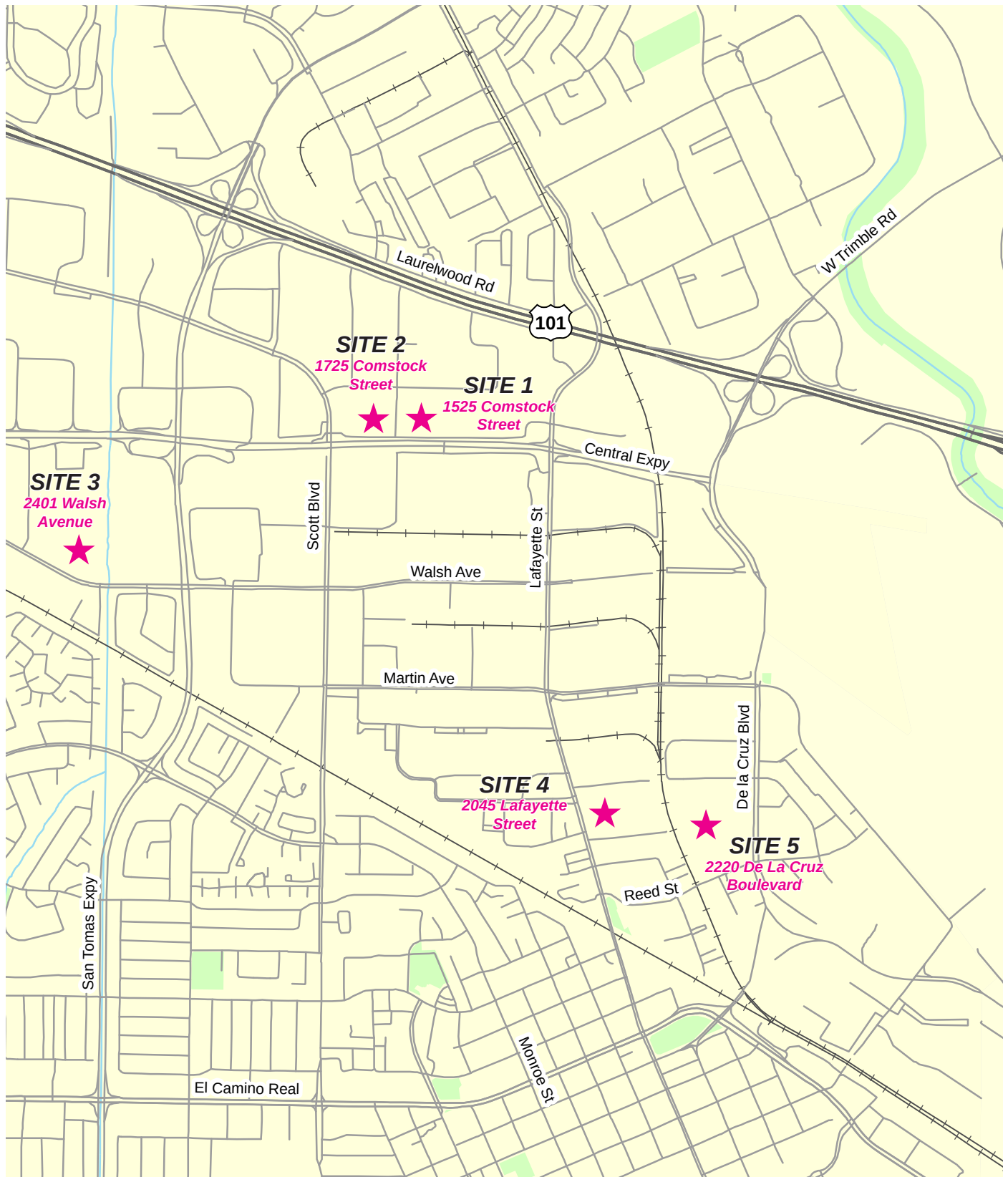


Figure 1
Count Locations



Figure 2
Site 1 - 1525 Comstock Street

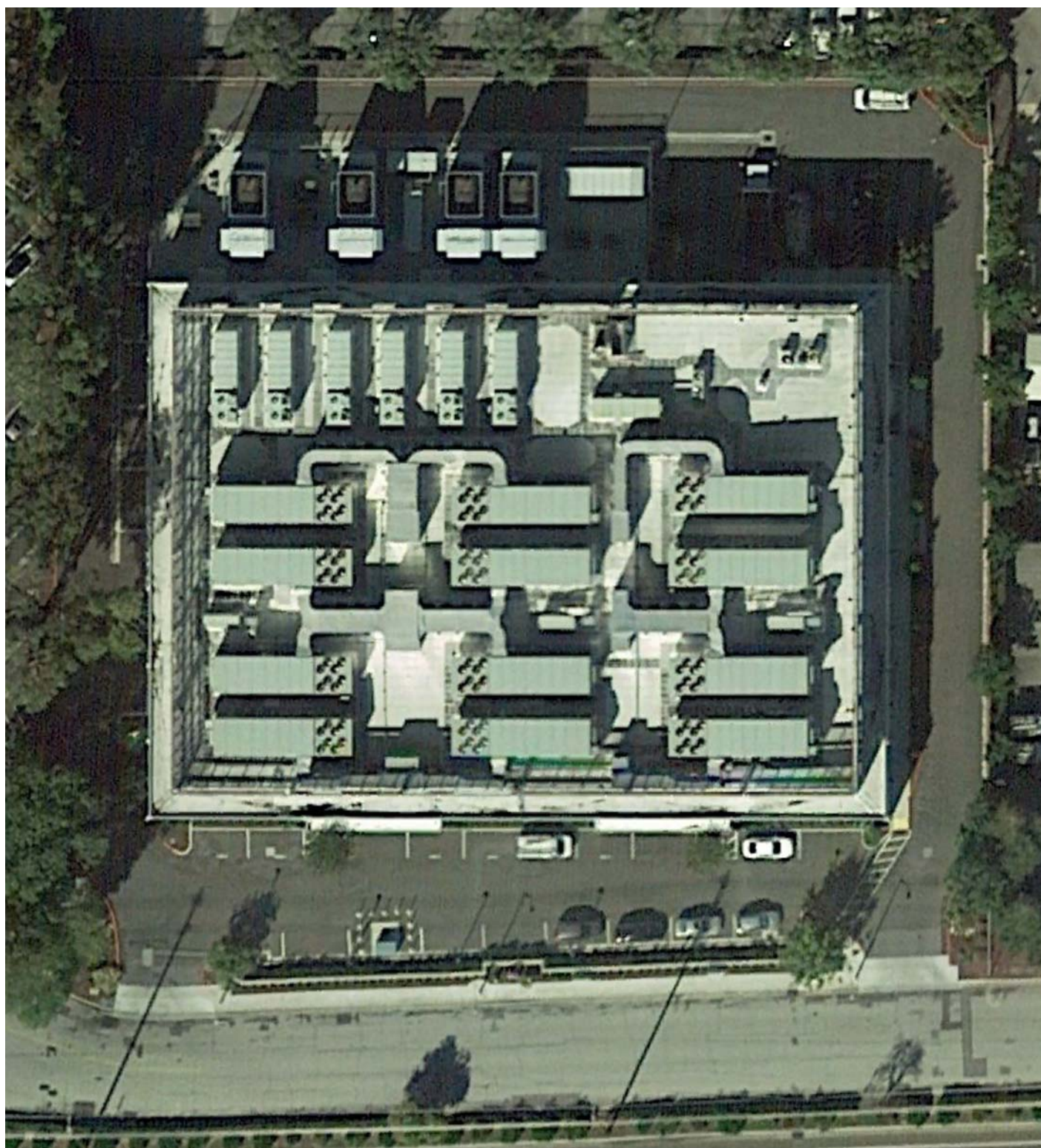


Figure 3
Site 2 - 1725 Comstock Street

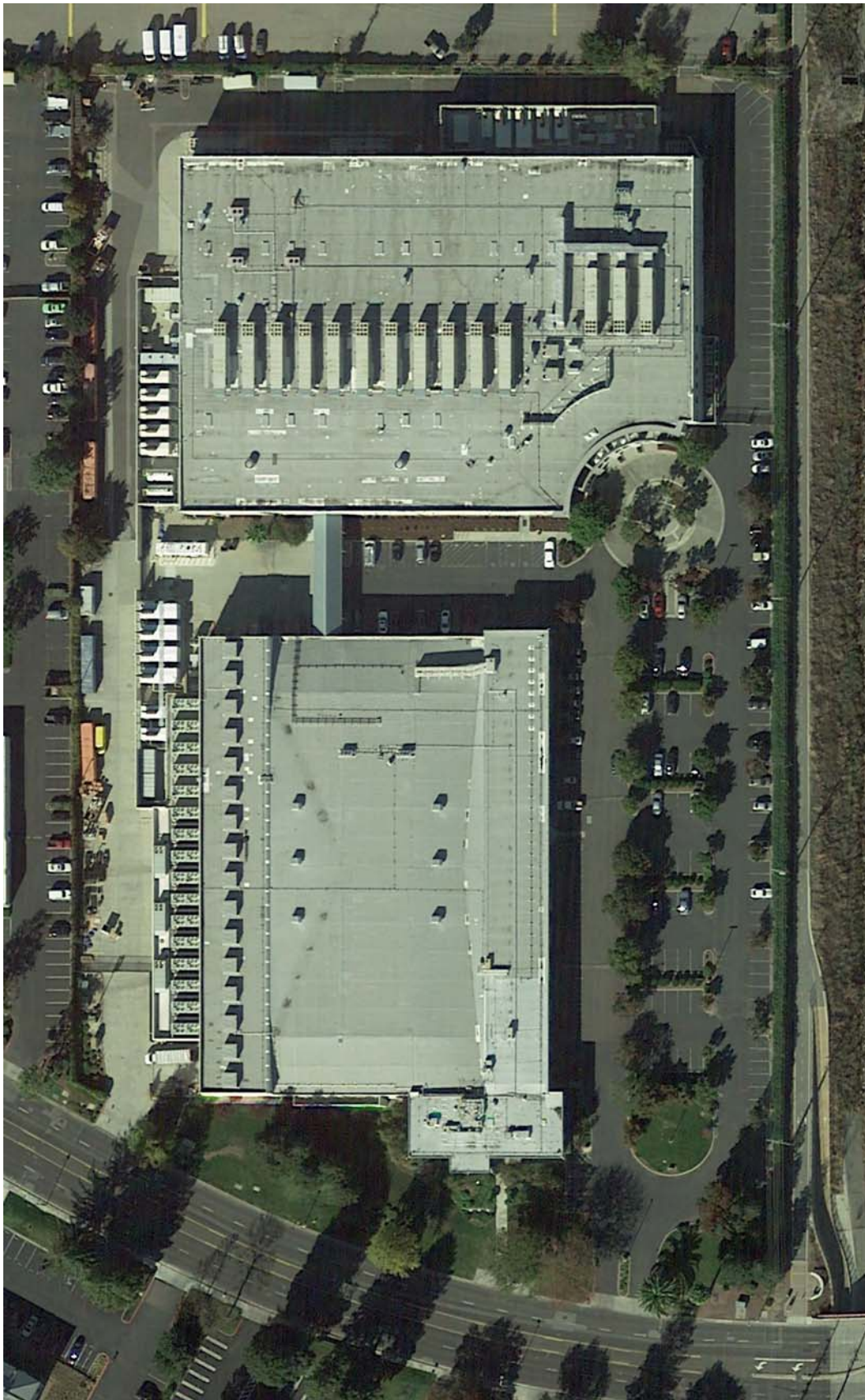


Figure 4
Site 3 - 2401 Walsh Avenue



Figure 5
Site 4 - 2045 Lafayette Street



Figure 6
Site 5 - 2220 De La Cruz Boulevard

Parking Study for Server Farm Sites in Santa Clara, CA
Appendix

Data-storage Sites Parking Counts

7-26-2017 through 8-1-2017

Counts by Auto-Census staff

	1525 Comstock				1725 Comstock				2401 Walsh			
Time	26-Jul	27-Jul	1-Aug	average	26-Jul	27-Jul	1-Aug	average	26-Jul	27-Jul	1-Aug	average
8:00AM	5	6	7	6.0	10	9	10	9.7	28	31	28	29.0
8:30 AM	6	7	8	7.0	11	10	10	10.3	30	34	30	31.3
9:00 AM	6	7	8	7.0	11	10	10	10.3	31	33	33	32.3
9:30 AM	8	8	10	8.7	11	10	10	10.3	32	36	30	32.7
10:00 AM	9	9	14	10.7	12	11	11	11.3	31	35	26	30.7
10:30 AM	10	10	13	11.0	11	11	11	11.0	35	32	28	31.7
11:00 AM	10	10	13	11.0	11	11	11	11.0	33	33	31	32.3
11:30AM	10	10	14	11.3	12	13	11	12.0	27	35	33	31.7
12:00 PM	11	7	12	10.0	11	14	9	11.3	30	29	36	31.7
12:30 PM	11	12	11	11.3	12	16	11	13.0	34	34	37	35.0
1:00 PM	11	11	11	11.0	10	15	14	13.0	32	41	35	36.0
1:30 PM	9	14	13	12.0	11	11	12	11.3	33	43	36	37.3
2:00 PM	9	11	12	10.7	12	11	12	11.7	39	44	36	39.7
2:30 PM	10	8	9	9.0	15	11	11	12.3	30	36	38	34.7
3:00 PM	11	10	9	10.0	15	11	10	12.0	27	31	37	31.7
3:30 PM	9	6	7	7.3	6	5	4	5.0	25	27	28	26.7
4:00PM	8	4	7	6.3	3	3	3	3.0	19	21	21	20.3
4:30PM	8	4	8	6.7	3	2	3	2.7	18	19	14	17.0
5:00PM	8	4	8	6.7	2	2	2	2.0	17	20	16	17.7
5:30PM	4	4	5	4.3	2	2	2	2.0	15	14	11	13.3
6:00PM	6	5	5	5.3	2	2	2	2.0	15	12	9	12.0
Daily Max	11	14	14	12.0	15	16	14	13.0	39	44	38	39.7

Note: Includes loading vehicles. Excludes construction vehicles and vehicles stored behind locked gate

**Appendix 3.17B – Revised
Air Cooler and Generator
Thermal Plume Calculations**