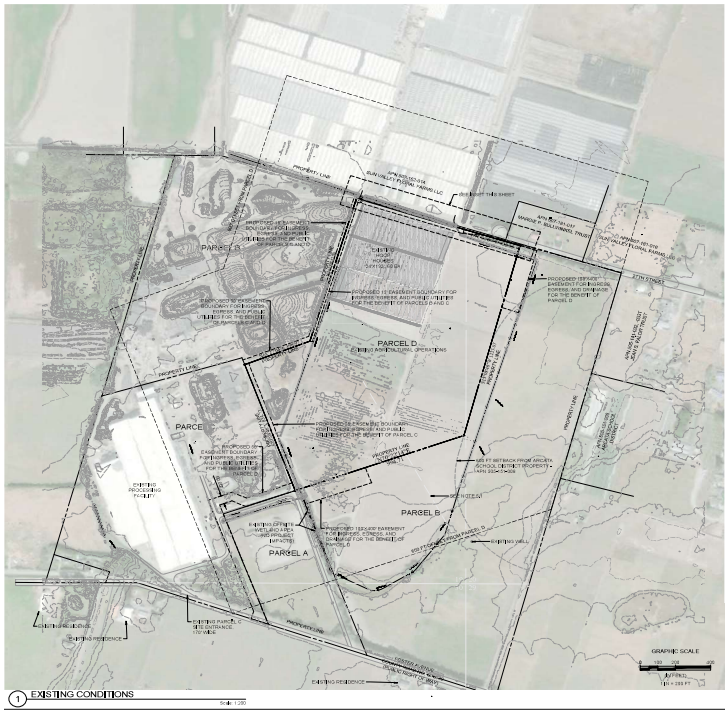
Final Traffic Impact Study for the Arcata Land Company Commercial Cannabis Project



1 EXISTING CONDITIONS

Source: Wallace Group

Prepared for the County of Humbolt

Submitted by
W-Trans

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Executive Summary

The proposed project is a cannabis cultivation facility to be located on the north side of Foster Avenue, west of the City of Arcata, in the County of Humboldt. Based on standard ITE rates, the project would be expected to result in 232 new trips per day at peak operation, including 40 trips during the a.m. peak hour and 37 trips during the p.m. peak hour, though the actual peak hour trip generation is expected to be less since the beginning and end of shifts would not coincide with the peak hours of the transportation network.

The study intersections of Sunset Avenue/US 101 South Ramps, Sunset Avenue/US 101 North Ramps, Janes Road/11th Street, SR 255/Jackson Ranch Road, and SR 255/V Street all have a calculated collision rate above the statewide average for similar facilities. The City and Caltrans may wish to review the need for additional signing at Sunset Avenue/US 101 South Ramps to notify drivers of conditions that require their attention. Consolidation of Sunset Avenue/US 101 North Ramps and Sunset Avenue/LK Wood Boulevard into a single roundabout with five legs would have a beneficial impact on safety at this location. Increased enforcement may help to reduce the frequency of DUI collisions at SR 255/Jackson Ranch Road and right-of-way infractions at SR 255/V Street.

All study intersections would be expected to operate at LOS C or better overall under Existing and Baseline Conditions without or with the addition of project-related trips, though roundabouts would be needed at Foster Avenue/Alliance Road and Sunset Avenue/US 101 North Ramps to accommodate the anticipated Future volumes, as documented in the *Central Arcata Areawide Traffic Study* (CAATS). With these improvements and with the addition of project traffic to Future volumes, all intersections would operate acceptably. It is recommended that the applicant pay proportional share fees toward the cost of the roundabout projects needed at Foster Avenue/Alliance Road and Sunset Avenue/US 101 North Ramps consistent with the Traffic Mitigation Fee Program established by the CAATS.

As of the date of this analysis, the County of Humboldt has not yet established thresholds of significance related to VMT so the project was assessed based on guidance provided by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*. Under this guidance and using data contained in the countywide travel demand model, the project is expected to have a less-than-significant transportation impact on VMT.

A connected pedestrian network would be provided on-site consisting of sidewalks and pathways. The lack of existing pedestrian facilities on Foster Avenue or transit service within acceptable walking distance does not result in an impact given the rural setting. Existing bicycle facilities in the project vicinity, including the shared use of minor streets, provide adequate access for bicyclists and connectivity would be further improved upon completion of planned bicycle projects in the area. Although not considered walkable, employees could use a bicycle to reach nearby transit stops. It is recommended that a minimum of 12 bicycle parking spaces be provided on-site to encourage employees to commute via bicycle.

Sight lines on Foster Avenue are adequate to accommodate all turns into and out of the project driveway and no channelization in the form of a turn pocket would not be warranted. To maintain existing sight lines, any new signage to be located along the project frontage should be placed outside of the vision triangle of a driver waiting on the driveway.

Introduction

This report presents an analysis of the potential traffic impacts that would be associated with development of a cannabis cultivation facility to be located on the north side of Foster Avenue in the County of Humboldt. The traffic study was completed in accordance with the criteria established by the County of Humboldt, reflects a scope of work requested by County staff, and is consistent with standard traffic engineering techniques.

Prelude

The purpose of a traffic impact study is to provide County staff and policy makers with data that they can use to make an informed decision regarding the potential transportation impacts of a proposed project, and any associated improvements that would be required in order to mitigate these impacts to an acceptable level under CEQA, the City's General Plan, or other policies. Impacts relative to access for pedestrians, bicyclists, and to transit are addressed in the context of the CEQA criteria. Consistent with SB 743, the project's transportation impacts were analyzed using VMT. While no longer a part of the CEQA review process, vehicular traffic service levels at key intersections were evaluated for consistency with General Plan policies by determining the number of new trips that the proposed use would be expected to generate, distributing these trips to the surrounding street system based on anticipated travel patterns specific to the proposed project, then analyzing the impact the new traffic would be expected to have on the study intersections.

Project Profile

The project site is located at 3318 Foster Avenue, west of Arcata in the County of Humboldt. The proposed project is a partial mixed-light and outdoor cannabis cultivation facility and would be located on a parcel contiguous to a recently approved manufacturing, processing, and distribution business. As proposed, the project includes approximately 28.4 acres of cultivation and would require up to 116 employees during the peak season, though 40 of these employees would be shared with the already-approved processing facility so the project would result in a net increase of 76 new employees. Most employees would work shifts scheduled to begin between 6:00 and 6:30 a.m. and end between 3:00 and 3:30 p.m., though 15 employees would work a shift that would begin late morning and end in the evening in order to support the proposed light deprivation cultivation process. Although there would be an internal access road connecting to the existing Sun Valley Group Farms operation to the north near the terminus of 27th Street, the connection would be gated so all access to the site would occur at the existing driveway on Foster Avenue.

The location of the project site is shown in Figure 1.

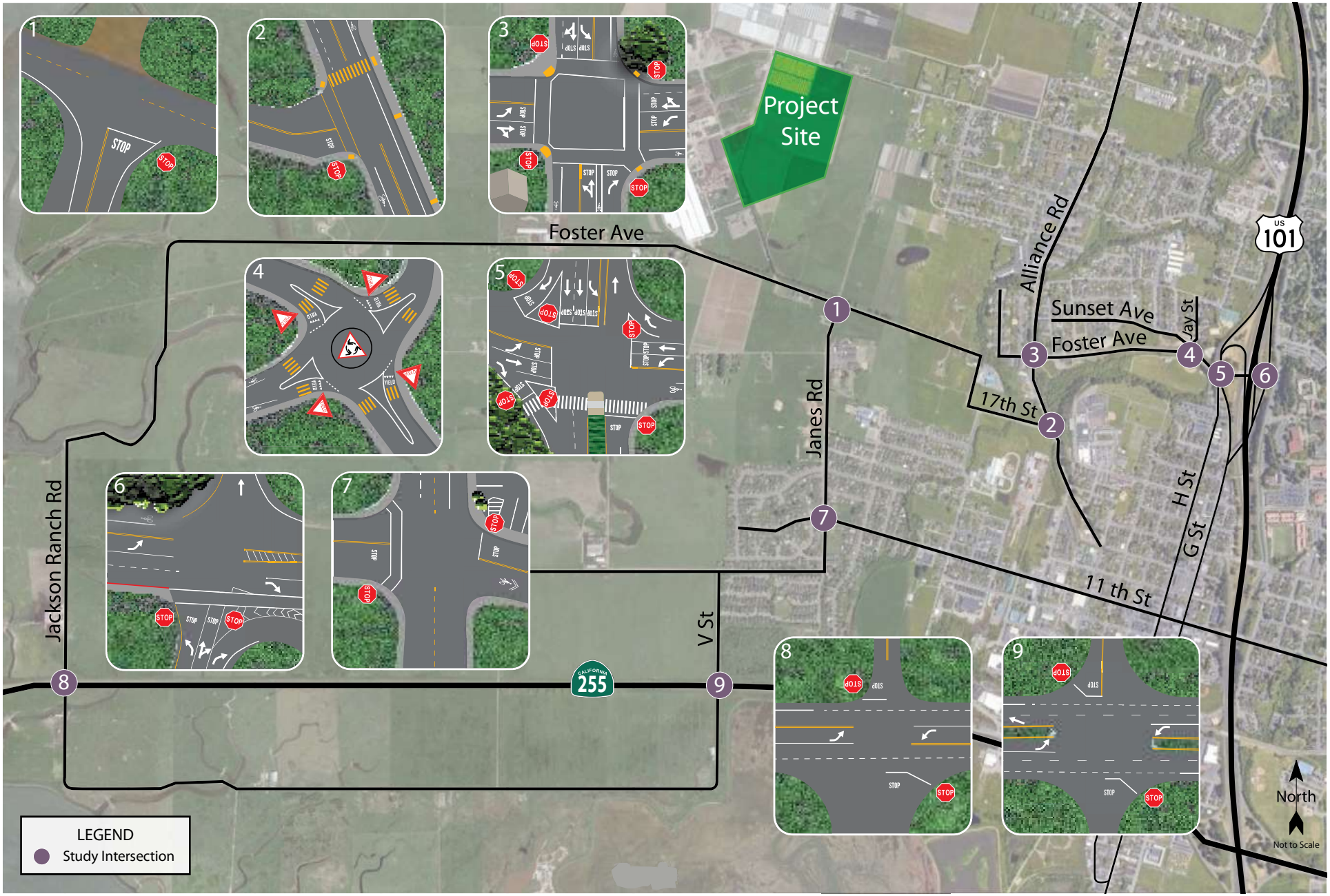

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Figure 1 – Study Area and Existing Lane Configurations

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Transportation Setting

Operational Analysis

Study Area and Periods

The study area consists of the section of Foster Avenue fronting the project site as well as the following intersections:

1. Foster Avenue/Janes Road
2. Alliance Road/17th Street
3. Foster Avenue/Alliance Road
4. Sunset Avenue/Foster Avenue-Jay Street
5. Sunset Avenue/US 101 South Ramps
6. Sunset Avenue/US 101 North Ramps
7. Janes Road/11th Street
8. Samoa Boulevard (SR 255)/Jackson Ranch Road
9. Samoa Boulevard (SR 255)/V Street

Operating conditions during the weekday a.m. and p.m. peak periods were evaluated to capture the highest volumes on the local transportation network. The morning peak hour typically occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work or school commute, while the p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward bound commute.

Study Intersections

Foster Avenue/Janes Road is a three-legged intersection stop-controlled on the northbound Janes Road approach.

Alliance Road/17th Street is a three-legged intersection with a stop control on the eastbound 17th Street approach. A yellow basic crosswalk is striped on the west leg and a yellow continental crosswalk is striped on the north leg. Class II bike lanes are present on Alliance Road.

Foster Avenue/Alliance Road is a four-legged intersection with stop controls on all four approaches and crosswalks on all four legs. Class II bike lanes are present on the north, south, and east legs.

Sunset Avenue/Foster Avenue-Jay Street is a modern roundabout with crosswalks and raised splitter islands on all four legs of the intersection; the center island is mountable. Class II bike lanes are present on the Foster Avenue leg.

Sunset Avenue/US 101 South Ramps is a four-legged, all-way stop-controlled intersection with a crosswalk on the south leg only. The north leg is composed of the US 101 southbound on- and off-ramps and G and H Streets form a one-way couplet on the south leg, with G Street serving the northbound approach to the intersection and H Street carrying southbound traffic away from intersection. A Class II bike lane is present on the westbound approach and the eastbound approach is considered a Class III bike route.

Sunset Avenue/US 101 North Ramps is a four-legged intersection with the off- and on-ramps forming the south and north legs of the intersection respectively. The off-ramp approach is stop-controlled and has a crosswalk connecting through to LK Wood Boulevard. Class II bike lanes are marked on Sunset Avenue.

Janes Road/11th Street is a four-legged intersection with stop-controls on the eastbound and westbound 11th Street approaches. There is a crosswalk on the west leg.

Samoa Boulevard (SR 255)/Jackson Ranch Road is a four-legged intersection with stop controls on the northbound and southbound minor street approaches. The north leg is Jackson Ranch Road and the south leg is Old Samoa Road.

Samoa Boulevard (SR 255)/V Street is a four-legged intersection with stop controls on the northbound and southbound minor street approaches. The north leg is V Street and the south leg is Old Samoa Road. SR 255 transitions to a single lane in each direction to the west of the intersection.

The locations of the study intersections along with the existing lane configurations and controls are shown in Figure 1.

Collision History

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on records available from the California Highway Patrol, as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The most current five-year period available is April 1, 2014 through March 31, 2019.

As presented in Table 1, the calculated collision rates for the study intersections were compared to average collision rates for similar facilities statewide, as indicated in *2016 Collision Data on California State Highways*, California Department of Transportation (Caltrans). These average rates statewide are for intersections in the same environment (urban, suburban, or rural), with the same number of approaches (three or four), and the same controls (all-way stop, two-way stop, or roundabout). As indicated in the table, five of the nine study intersections experienced collisions at rates higher than the statewide average for similar facilities. The collision rate calculations are provided in Appendix A and the intersections with above-average collision rates are discussed below.

Table 1 – Collision Rates at the Study Intersections

Study Intersection	Number of Collisions (2014-2019)	Calculated Collision Rate (c/mve)	Statewide Average Collision Rate (c/mve)
1. Foster Ave/Janes Rd	0	0.00	0.14
2. Alliance Rd/17th St	1	0.07	0.08
3. Foster Ave/Alliance Rd	1	0.05	0.19
4. Sunset Ave/Foster Ave-Jay St	1	0.08	0.13
5. Sunset Ave/US 101 S Ramps	8	**0.33**	0.19
6. Sunset Ave/US 101 N Ramps	5	**0.22**	0.13
7. Janes Rd/11th St	2	**0.34**	0.13
8. SR 255/Jackson Ranch Rd	4	**0.30**	0.22
9. SR 255/V St	5	**0.37**	0.23

Note: c/mve = collisions per million vehicles entering; **Bold** = collision rate higher than the Statewide average

Further review was performed to determine any trends or concerns present at those locations with above-average collision rates. It is noted that the statewide rates are for highway facilities that generally carry much higher

volumes; because the volumes are relatively low at some of the study intersections, even a minimal number of crashes results in an above-average collision rate. Consideration was therefore given not just to the rate, but also to the actual number of crashes reported.

Sunset Avenue/US 101 South Ramps – Of the eight reported collisions, six involved objects, one was a broadside, and one was a rear-end. All six of the object collisions involved a motorist travelling southbound on either the off-ramp approach or moving away from the intersection on H Street. On the off-ramp, three collisions with objects occurred between 200 and 250 feet north of the intersection, which is near a horizontal curve, and all three were attributed to improper turning. On H Street, three collisions with objects occurred between 10 and 70 feet south of the intersection; two were attributed to improper turning and one was due to unsafe speed. The City and Caltrans may wish to review the need for additional signing at this location to notify drivers of conditions that require their attention.

Sunset Avenue/US 101 North Ramps – Five collisions occurred during the study period, consisting of three collisions with objects, one sideswipe, and one overturn. The proximity to the adjacent intersection at Sunset Avenue/LK Wood Boulevard results in an unusual striping configuration and an elongated crosswalk extending from the west side of the study intersection to the east side of LK Wood Boulevard. The recommendation presented in the *Central Arcata Areawide Traffic Study,* including consolidation of the two intersections into a single roundabout with five legs, would be expected to have a beneficial impact on safety at this location.

Janes Road/11th Street – Both collisions at this location were broadsides between southbound and westbound vehicles that occurred between 4:00 and 4:30 p.m. Sight lines appear to be adequate, and speed was *not* indicated as a collision factor, so it is unclear what precipitated this trend. Because the calculation rate has the volume in the denominator, the rate at this location is quite high despite the fact that there were only two collisions in five years. Further, the most recent collision occurred in September 2015 so the latter three years of the study period did not have a single collision; as a study period of two to three years is often considered adequate, no mediation appears necessary.

SR 255/Jackson Ranch Road – Of the four collisions that occurred within the study period, one was a broadside, one was a rear-end, and two collisions were with objects. The rear-end collision and one of the object-related collisions were attributed to driving under the influence (DUI). Given the lack of adequate data points to determine a clear trend, no remedial measures are suggested, though increased enforcement may help to reduce the frequency of DUI collisions.

SR 255/V Street – Four of the five total collisions that occurred within the study period were broadside crashes with the other being a collision with an object. All four of the broadside collisions involved a motorist entering the intersection from the southbound V Street approach and three were attributed to right-of-way violations. The width of the intersection is approximately 85 feet wide between the opposing minor street limit lines with two travel lanes in each direction, a left-turn lane, a median, and shoulders, which results in a more time-consuming turning movement from the stop-controlled approaches. It appears that sight lines are adequate for the posted 55-mph speed limit, though increased enforcement of right-of-way laws may be beneficial at this location.

Alternative Modes

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. While there are limited pedestrian facilities on many of the streets in the study area, there are no pedestrian facilities on the segment of Foster Avenue to the west of McDaniel Slough, as might be expected for the rural setting.

- **Alliance Road** – Sidewalks exist continuously on Alliance Road on either one side of the street or the other, with crosswalks connecting locations where the sidewalk switches from one side to the other. Additionally, crosswalks exist at the study intersections.

- **Foster Avenue (East of McDaniel Slough)** – Intermittent sidewalk coverage is provided on Foster Road with gaps between Alliance Road and Jay Street. There is a multi-use pathway on the south side of the street that connects to existing facilities at Jay Street and Alliance Road. Curb ramps and crosswalks are present at side-street approaches. Lighting is provided by overhead streetlights.

- **Sunset Avenue** – Continuous sidewalks are provided on the south side of this street east of Jay Street where there is a connection to the regional trail system. The geometrics of the intersections with US 101 North and LK Wood Boulevard result in pedestrians traveling a substantial distance in crossing both of these intersecting streets in a configuration that is difficult and results in undesirable crossing conditions.

Bicycle Facilities

The *Highway Design Manual*, Caltrans, 2017, classifies bikeways into four categories:

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV Bikeway** – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

In the project area, Class II bike lanes exist on sections of Alliance Road, Sunset Avenue and Foster Avenue. Additionally, 11th Street is classified as a Class III bike route between Janes Road and Redwood Park and there is a multi-use pathway on the south side of Foster Avenue between the intersections of Alliance Road/17th Street and Sunset Avenue/Foster Avenue-Jay Street. Bicyclists ride in the roadway and/or on sidewalks along other streets within the project study area. Table 2 summarizes the existing and planned bicycle facilities in the surrounding vicinity, as contained in the *City of Arcata Pedestrian & Bicycle Master Plan,* City of Arcata, 2010 and the *Humboldt Regional Bicycle Plan,* Humboldt County Association of Governments, 2018.

Table 2 – Bicycle Facility Summary				
Status **Facility**	**Class**	**Length (miles)**	**Begin Point**	**End Point**
Existing				
Foster Ave Path	I	0.46	Alliance Rd	Sunset Ave
Alliance Rd	II	1.30	Spear Ave	11th St
Sunset Ave	II	0.13	G St	L.K. Wood Blvd
Foster Ave	II	0.37	Jay St	Alliance Rd
11th St	III	1.60	Janes Rd	Redwood Park
Planned				
Annie & Mary Rail Trail	I	3.50	West End Rd	Arcata Skate Park
Hammond Trail	I	1.40	Western City Limits	Annie & Mary Rail Trail
Sunset Ave	II	0.45	Western Ave	G St
11th St	II	0.30	Q St	Janes Rd
Foster Ave	III	0.40	Janes Rd	Alliance Rd
Janes Rd-V St	III	1.10	SR 255	Foster Ave
Baldwin St	III	0.22	Cahill Park	Sunset Ave

Sources: *City of Arcata Pedestrian & Bicycle Master Plan*, City of Arcata, 2010; *Humboldt Regional Bicycle Plan*, Humboldt County Association of Governments, 2018

Transit Facilities

The Humboldt Transit Authority (HTA) provides fixed route bus service in the City of Arcata through the Arcata and Mad River Transit System (AMRTS) route, the Willow Creek-Arcata route, and the Redwood Transit System (RTS) route. Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. Arcata Dial-A-Ride service is designed to serve the needs of individuals with disabilities throughout Humboldt County.

AMRTS Gold Route provides loop service to destinations throughout the City of Arcata and stops near the intersection of Foster Avenue/Alliance Road approximately 1.3 miles from the project site, so while not within what is typically considered an acceptable walking distance of one-half a mile, a bicycle could be used to close the gap between the transit stop and the project site. Gold Route operates Monday through Friday with approximately one-hour headways between 7:00 a.m. and 10:00 p.m. AMRTS Orange Route provides Saturday service with approximately one-hour headways between 7:00 a.m. and 7:00 p.m.

The Redwood Transit System (RTS) route provides regional service between the City of Arcata and surrounding communities in Humboldt County. RTS stops at the Arcata Transit Center between 9th Street and 10th Street, a bikeable distance of approximately two miles from the project site. RTS operates Monday through Friday with approximately one- to three-hour headways between 6:30 a.m. and 10:00 p.m. Saturday and Sunday service operates with similar headways between 9:00 a.m. and 8:00 p.m.

The Willow Creek-Arcata route provides regional service between the City of Arcata and Willow Creek and stops at Arcata High School approximately 1.4 miles from the project site. The route is timed to align with the high school schedule on weekdays and has limited service on weekends.

Two bicycles can be carried on most HTA buses. Bike rack space is on a first come, first served basis. Additional bicycles are allowed on HTA buses at the discretion of the driver.

Capacity Analysis

Intersection Level of Service Methodologies

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections were analyzed using methodologies published in the *Highway Capacity Manual* (HCM), 6th Edition, Transportation Research Board, 2018. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle.

The Levels of Service for the intersections with side-street stop controls, or those which are unsignalized and have one or two approaches stop controlled, were analyzed using the "Two-Way Stop-Controlled" (TWSC) intersection capacity method from the HCM. This methodology determines a level of service for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual movements together with the weighted overall average delay for the intersection.

The study intersections with stop signs on all approaches were analyzed using the "All-Way Stop-Controlled" (AWSC) intersection methodology from the HCM. This methodology evaluates delay for each approach based on turning movements, opposing and conflicting traffic volumes, and the number of lanes. Average vehicle delay is computed for the intersection as a whole and is then related to a Level of Service.

Intersections that are currently or are proposed to be controlled by modern roundabouts were evaluated using the FHWA Roundabout Method, also contained within the Unsignalized Methodology of the HCM. This methodology determines intersection operation using the gap acceptance method using basic geometric and volume data to calculate entering and circulating flows. This information is then translated to an overall average vehicle delay, with LOS break points at the same delays as used in the signalized methodology. Because the HCM roundabout methodology is relatively unsophisticated, the more advanced SIDRA roundabout analysis software was utilized in any cases where the basic HCM methodology predicts operation worse than LOS A.

The ranges of delay associated with the various levels of service are indicated in Table 3.

Table 3 – Intersection Level of Service Criteria			
LOS	**Two-Way Stop-Controlled (TWSC)**	**All-Way Stop-Controlled (AWSC)**	**Roundabout**
A	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.	Delay of 0 to 10 seconds. Upon stopping, drivers are immediately able to proceed.	Delay of 0 to 10 seconds.
B	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.	Delay of 10 to 15 seconds. Drivers may wait for one or two vehicles to clear the intersection before proceeding from a stop.	Delay of 10 to 20 seconds.
C	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.	Delay of 15 to 25 seconds. Drivers will enter a queue of one or two vehicles on the same approach and wait for vehicle to clear from one or more approaches prior to entering the intersection.	Delay of 20 to 35 seconds.
D	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.	Delay of 25 to 35 seconds. Queues of more than two vehicles are encountered on one or more approaches.	Delay of 35 to 55 seconds.
E	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.	Delay of 35 to 50 seconds. Longer queues are encountered on more than one approach to the intersection.	Delay of 55 to 80 seconds.
F	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.	Delay of more than 50 seconds. Drivers enter long queues on all approaches.	Delay of more than 80 seconds.

Reference: *Highway Capacity Manual,* Transportation Research Board, 2018

Traffic Operation Standards

County of Humboldt

The County's LOS standard is specified in Policy C-P5 of the *Humboldt County General Plan,* which states that the County shall strive to maintain LOS C operation on all roadway segments and intersections except for US 101, where LOS D is considered acceptable. For the purposes of this analysis, the standard was applied to the overall operation of the intersection, not any single movement or approach. The policy also states that LOS improvements for automobiles should not adversely affect the LOS or quality of service for other modes of transportation, if possible.

City of Arcata

Because many of the study intersections are located in the City of Arcata rather than County jurisdiction, these intersections were evaluated with respect to operational thresholds previously accepted by the City. The City of Arcata does not have an adopted LOS policy; however, through discussions with City staff as part of our involvement in preparation of the *Central Arcata Areawide Traffic Study*, W-Trans, 2017, an operational threshold of LOS C was identified as being the desired minimum within the City. This threshold is to be applied to the operation of the intersection as whole and not that of any one movement or approach. Further, the City's preference has been not to use traffic signals to achieve acceptable operation, instead using all-way stop controls where feasible or roundabouts where volumes exceed what can be handled by an all-way stop-controlled

intersection. The need for improvements to increase capacity and reduce delay was therefore considered only if the overall intersection delay was projected to exceed 25 seconds.

Existing Conditions

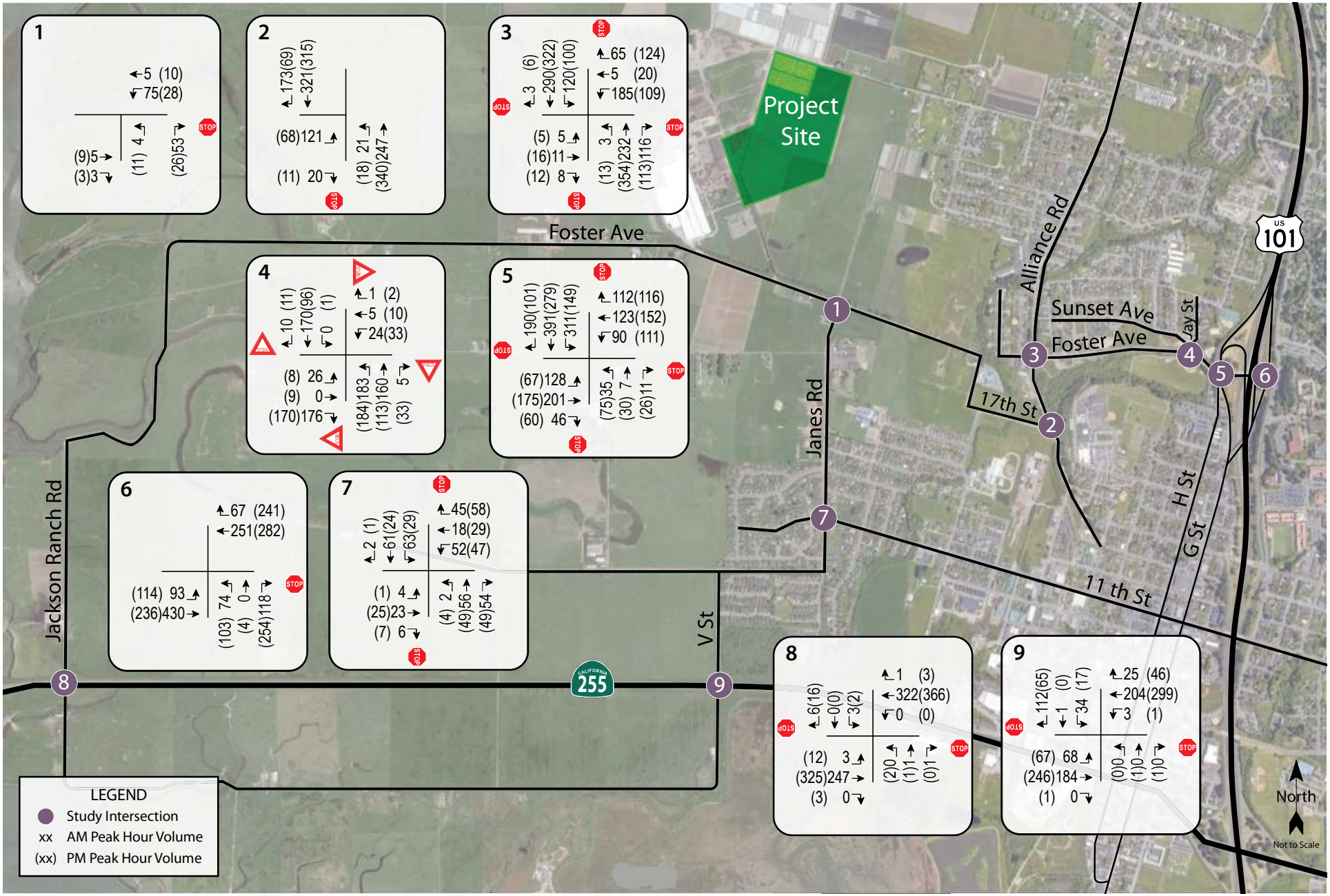
The Existing Conditions scenario provides an evaluation of operation based on existing traffic volumes during the weekday a.m. and p.m. peak periods. This condition does not include project-generated traffic volumes. Volume data was collected in March 2019 at the study intersections on SR 255. For the remaining intersections, data collected in March 2016 for the *Central Arcata Areawide Traffic Study* was also used in this analysis to be consistent with previous planning work completed in the area. All data was collected while local schools, including Humboldt State, were in session. Additionally, the counts were collected prior to the shelter-in-place directives associated with the COVID-19 public health pandemic so the Existing Conditions analysis is representative of typical conditions before the pandemic and could represent volumes that are maintained for some time as businesses recover from the financial fall-out associated with the pandemic.

Under Existing Conditions, all study intersections operate acceptably based on the applicable LOS standards at LOS C or better overall during both peak periods evaluated. A summary of the intersection level of service calculations is contained in Table 4 and copies of the Level of Service calculations for all evaluated scenarios are provided in Appendix B. The Existing traffic volumes are shown in Figure 2.

Table 4 – Existing Peak Hour Intersection Levels of Service

Study Intersection ***Approach***	**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**
1. Foster Ave/Janes Rd	7.2	A	6.1	A
Northbound (Janes Rd) Approach	*8.7*	*A*	*8.7*	*A*
2. Alliance Rd/17th St	3.3	A	1.9	A
Eastbound (17th St) Approach	*19.6*	*C*	*17.4*	*C*
3. Foster Ave/Alliance Rd	13.5	B	16.6	C
4. Sunset Ave/Foster Ave-Jay St	5.3	A	4.7	A
5. Sunset Ave/US 101 S Ramps	14.2	B	11.4	B
6. Sunset Ave/US 101 N Ramps	5.4	A	7.2	A
Northbound (US 101 Off-ramp) Approach	*24.8*	*C*	*21.8*	*C*
7. Janes Rd/11th St	5.5	A	5.9	A
Eastbound (11th St) Approach	*11.3*	*B*	*10.2*	*B*
Westbound (11th St) Approach	*10.8*	*B*	*9.9*	*A*
8. SR 255/Jackson Ranch Rd	0.3	A	0.5	A
Northbound (Old Samoa Rd) Approach	*12.0*	*B*	*15.5*	*C*
Southbound (Jackson Ranch Rd) Approach	*11.6*	*B*	*11.5*	*B*
9. SR 255/V St	3.3	A	2.0	A
Northbound (Old Samoa Rd) Approach	*12.5*	*B*	*13.2*	*B*
Southbound (V St) Approach	*10.5*	*B*	*11.0*	*B*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*



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Final Traffic Impact Study for the Arcata Land Company Commercial Cannabis Project

Figure 2 – Existing Traffic Volumes

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Baseline Conditions

The Baseline Conditions scenario provides an evaluation of operation with traffic from approved or pending projects in the study area that could be operational within the next three to five years. At the request of County staff, projects at the following four Accessor Parcel Numbers (APNs) were included in the Baseline Conditions analysis. The trip generation potential for each Baseline project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 10th Edition, 2017.

- **APN 507-161-015** is located north of Upper Bay Road and east of Mad River Road and has an application in process for 10,000 square feet of mixed light cannabis cultivation and 4,000 square feet of indoor cultivation. Since the number of employees is unknown, the trip generation was estimated using standard ITE rates based on floor area for the "General Light Industrial" (ITE #110) land use. Based on these rates, the project would be expected to result in an average of 69 daily trips with ten trips during the a.m. peak hour and nine trips during the p.m. peak hour. The majority of patrons would be expected to use the US 101 ramps at Giuntoli Lane to reach the site unless travelling to/from the Central Arcata area, so for the purposes of this analysis it was assumed that one-third of the trips would be to/from Alliance Road south of 17th Street.

- **APN 505-151-009** is located to the west of Stewart Avenue and has an application in process for 10,000 square feet of mixed light cannabis cultivation. Based on standard ITE rates for General Light Industrial and using the total floor area of the canopy as the independent variable, the project would be expected to result in 50 trips per day on average, with seven trips during the a.m. peak hour and six trips during the p.m. peak hour. For the purpose of assigning trips to the surrounding roadway network, it was assumed that one-third of the trips would each be to/from US 101 North at Sunset Avenue, US 101 South at Sunset Avenue, and south on Alliance Road.

- **APN 506-231-010** is the site on which the proposed Arcata Land Company Commercial Cannabis Project would be located. The proposed cultivation project would be located on Parcel D, while a recently approved manufacturing, processing, and distribution business is to be located on Parcel C. The approved uses are not yet operational but are expected to be within the next year. The project was approved with a maximum of 46 employees so the trip generation potential was estimated based on this maximum employment count using standard ITE rates for the General Light Industrial land use. Based on these rates, the approved cannabis manufacturing, processing, and distribution business would be expected to generate 140 trips per day, including 24 trips during the a.m. peak hour and 23 trips during the p.m. peak hour. The same trip distribution assumptions applied for the proposed Arcata Land Company Commercial Cannabis Project were applied to the approved processing uses (see the Trip Distribution section for additional information).

- **APN 506-231-009** is an adjacent parcel to the proposed cultivation project and is on the north side of the street at 2730 Foster Avenue. The details of the application are not finalized, but the most recent proposal includes conversion of a three-acre site to 82,000 square feet of cannabis cultivation as well as reuse of a 17,000 square-foot former mill building to manufacturing, processing, and distribution uses. The project is expected to require up to 25 employees at peak times. Based on this maximum employment count and using standard ITE rates for the General Light Industrial land use, the project would be expected to generate 76 trips per day, including 13 trips during the a.m. peak hour and 12 trips during the p.m. peak hour. The same trip distribution assumptions applied for the approved uses on APN 506-231-010 as well as the proposed Arcata Land Company Commercial Cannabis Project were applied to this project (see the Trip Distribution section for additional information).

Upon the addition of traffic associated the approved or pending Baseline County projects in the study area to Existing volumes, all the study intersections would be expected to continue operating acceptably at LOS C or better overall during both peak hours. Baseline volumes are shown in Figure 3 and these results are summarized in Table 5.

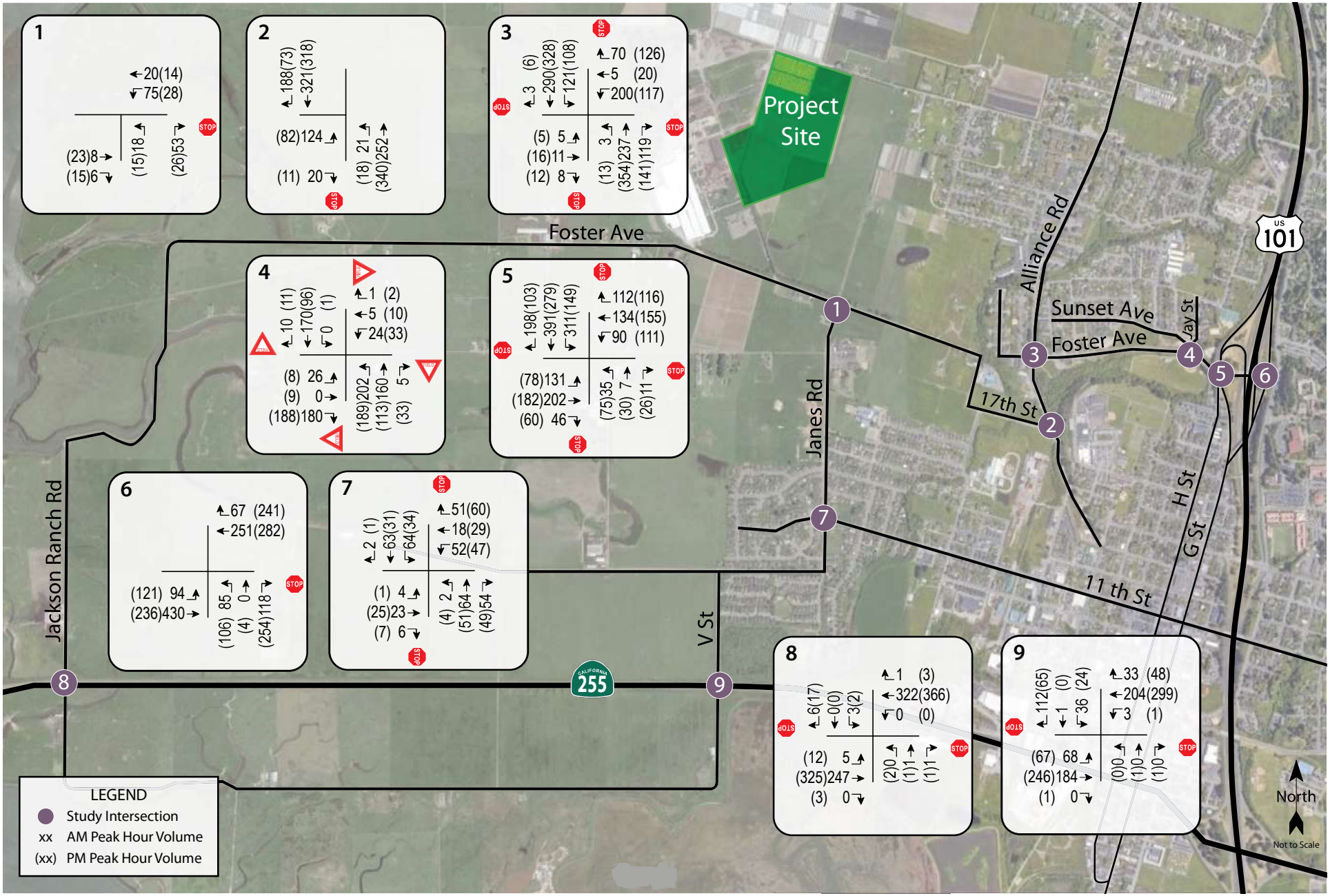

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Figure 3 – Baseline Traffic Volumes

W-Trans

Table 5 – Baseline Peak Hour Intersection Levels of Service					
Study Intersection ***Approach***		**AM Peak**		**PM Peak**	
		Delay	**LOS**	**Delay**	**LOS**
1.	Foster Ave/Janes Rd	6.6	A	4.7	A
	Northbound (Janes Rd) Approach	*9.1*	*A*	*8.9*	*A*
2.	Alliance Rd/17th St	3.4	A	2.2	A
	Eastbound (17th St) Approach	*20.3*	*C*	*18.4*	*C*
3.	Foster Ave/Alliance Rd	14.0	B	17.0	C
4.	Sunset Ave/Foster Ave-Jay St	5.4	A	4.7	A
5.	Sunset Ave/US 101 S Ramps	14.3	B	11.5	B
6.	Sunset Ave/US 101 N Ramps	6.2	A	7.7	A
	Northbound (US 101 Off-ramp) Approach	*28.4*	*D*	*23.4*	*C*
7.	Janes Rd/11th St	5.5	A	5.9	A
	Eastbound (11th St) Approach	*11.4*	*B*	*10.4*	*B*
	Westbound (11th St) Approach	*10.9*	*B*	*10.0*	*B*
8.	SR 255/Jackson Ranch Rd	0.3	A	0.5	A
	Northbound (Old Samoa Rd) Approach	*12.0*	*B*	*15.5*	*C*
	Southbound (Jackson Ranch Rd) Approach	*11.6*	*B*	*11.4*	*B*
9.	SR 255/V St	3.3	A	2.1	A
	Northbound (Old Samoa Rd) Approach	*12.6*	*B*	*13.2*	*B*
	Southbound (V St) Approach	*10.6*	*B*	*11.4*	*B*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Future Conditions

Future traffic volumes were developed using an assumed growth rate of 1.5 percent per year to a horizon year of 2036 to be consistent with the analysis prepared for the *Central Arcata Areawide Traffic Study* (CAATS). For Intersections 1 through 7, a growth factor of 1.35 was applied to the existing volumes since the future horizon year is 20 years from the year that the data was collected in 2016. For Intersections 8 and 9, an exponential growth factor of 1.29 was applied to the existing volumes since the future year is 17 years from the year that the existing count data was collected in 2019. No changes to the existing infrastructure or transportation system were assumed for this scenario.

Under the anticipated Future volumes, all study intersections are expected to operate acceptably based on the applicable standards for each intersection at LOS C or better overall during both peak hours, except for Foster Avenue/Alliance Road and Sunset Avenue/US 101 North Ramps which would both operate unacceptably at LOS D overall during the p.m. peak hour. Future volumes are shown in Figure 4 and Future operating conditions are summarized in Table 6.

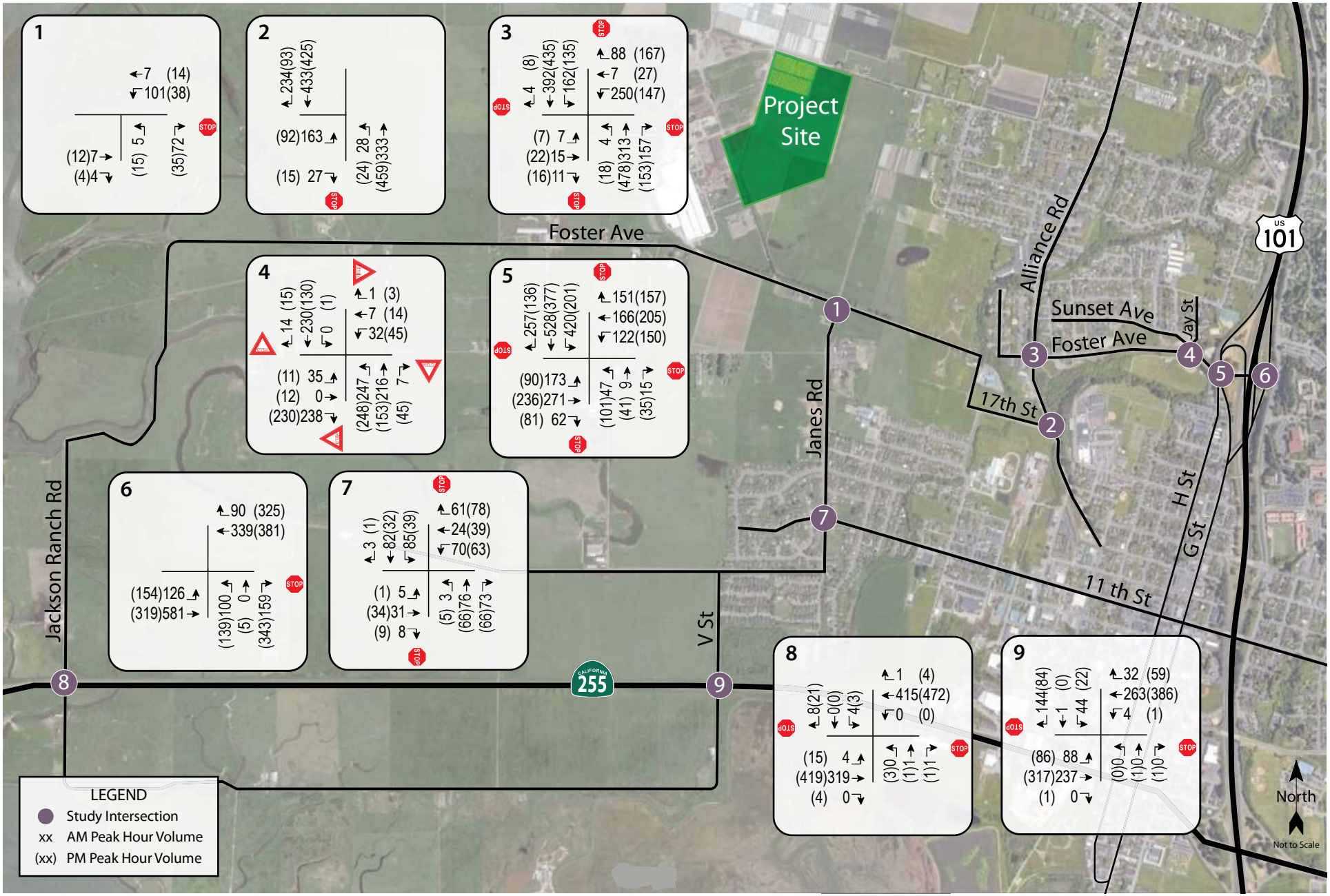

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Figure 4 – Future Traffic Volumes

W-Trans

Table 6 – Future Peak Hour Intersection Levels of Service					
Study Intersection ***Approach***		**AM Peak**		**PM Peak**	
		Delay	**LOS**	**Delay**	**LOS**
1.	Foster Ave/Janes Rd	7.2	A	6.1	A
	Northbound (Janes Rd) Approach	*8.7*	*A*	*8.8*	*A*
2.	Alliance Rd/17th St	5.0	A	2.4	A
	Eastbound (17th St) Approach	*30.8*	*D*	*23.2*	*C*
3.	Foster Ave/Alliance Rd	18.3	C	**32.7**	**D**
	Mini-Roundabout	8.4	A	9.0	A
4.	Sunset Ave/Foster Ave-Jay St	6.0	A	5.5	A
5.	Sunset Ave/US 101 S Ramps	20.1	C	13.0	B
6.	Sunset Ave/US 101 N Ramps	10.9	B	**31.1**	**D**
	Northbound (US 101 Off-ramp) Approach	*54.6*	*F*	*103.2*	*F*
	Roundabout	10.6	B	19.8	C
7.	Janes Rd/11th St	5.8	A	5.9	A
	Eastbound (11th St) Approach	*12.2*	*B*	*10.2*	*B*
	Westbound (11th St) Approach	*11.7*	*B*	*9.9*	*A*
8.	SR 255/Jackson Ranch Rd	0.3	A	0.5	A
	Northbound (Old Samoa Rd) Approach	*12.8*	*B*	*15.5*	*C*
	Southbound (Jackson Ranch Rd) Approach	*12.6*	*B*	*11.5*	*B*
9.	SR 255/V St	3.5	A	2.0	A
	Northbound (Old Samoa Rd) Approach	*13.6*	*B*	*13.2*	*B*
	Southbound (V St) Approach	*11.1*	*B*	*11.0*	*A*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics;* **Bold** text denotes unacceptable operation; Shaded cells = conditions with recommended improvements

The CAATS identified the need for short-term improvements at Foster Avenue/Alliance Road consisting of striping modifications to provide dedicated turn lanes and installation of a mini-roundabout to accommodate the anticipated long-term growth. The striping improvements have already been completed so the new intersection geometry was included in all scenarios of this analysis; however, consistent with the results of the CAATS, installation of a mini-roundabout would be needed to achieve acceptable operation under Future Conditions.

Also recommended in the CAATS was consolidation of the two closely-spaced intersections of Sunset Avenue with the US 101 North Ramps and LK Wood Boulevard into a five-leg roundabout. This improvement would be expected to result in sufficient right-of-way to include a separated bikeway or cycle track on the south side of Sunset Avenue between the US 101 South Ramps and LK Wood Boulevard. With installation of a mini-roundabout at Foster Avenue/Alliance Road and a roundabout at Sunset Avenue/US 101 North Ramps, all study intersections would operate acceptably. Concept layouts for these improvements are included in Appendix C.

It is noted that volumes associated with each of the six proposed projects within the City of Arcata that were assessed individually in the CAATS could reasonably be expected to be included in the anticipated Future volumes since a growth factor methodology was applied; therefore trips associated with these projects were not added to the Future volumes to avoid double-counting trips. It was recommended in the CAATS that no improvements be

made beyond those that are needed for Future Conditions estimated by a growth factor to avoid providing excess capacity, which must often come at the expense of pedestrian and bicycle safety and comfort.

Project Description

As proposed, the project includes approximately 28.4 acres of cannabis cultivation and would require up to 116 employees during the peak season, though 40 of these employees would be shared with an already-approved processing facility on-site so the project would result in a net increase of 76 new employees. The permitted processing facilities are located on Parcel C, while the proposed cultivation facilities would be located on Parcel D. Most employees would work shifts scheduled to begin between 6:00 and 6:30 a.m. and end between 3:00 and 3:30 p.m., though 15 employees would work a shift that would begin late morning and end in the evening in order to support the proposed light deprivation cultivation process. All access to the site would occur at the existing driveway on Foster Avenue. The project site plan is shown in Figure 5.

Trip Generation

Numerous trip generation rates and categories in the *Trip Generation Manual*, 10th Edition, 2017, published by the Institute of Transportation Engineers (ITE) were explored in determining the potential trip generation associated with the proposed project since the manual does not have any published standard rates for cannabis cultivation land uses. It was determined that cannabis cultivation could be classified as a light industrial use so standard rates for "General Light Industrial" (Land Use #110) were further examined.

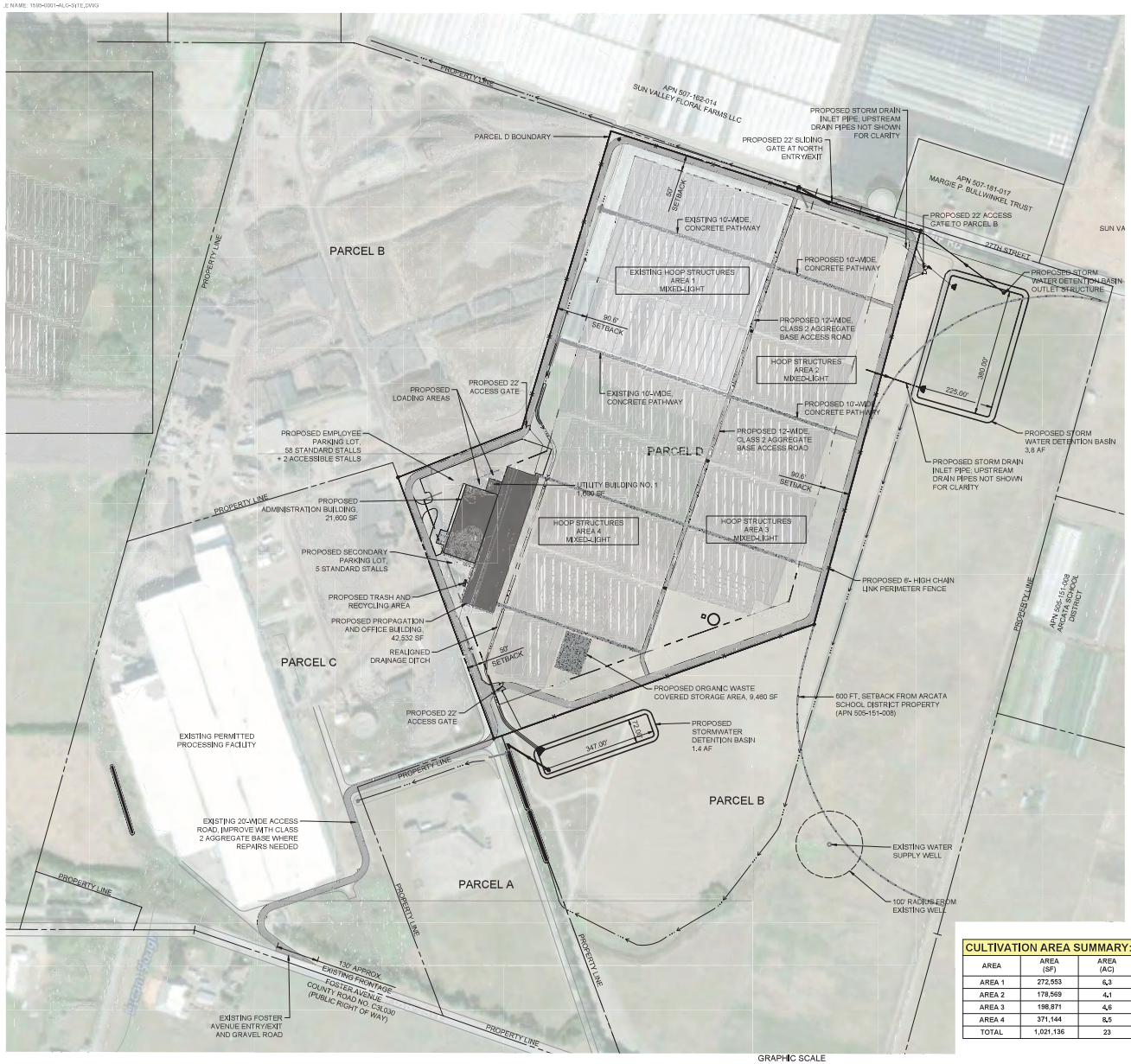
A review of standard rates for light industrial uses and a comparison of those based on area versus those based on employees indicate that the average ratio between employees and floor space is about 770 square feet per employee. For a total of 1,237,104 square feet (28.4 acres) of light industrial space, this would translate to an anticipated work force of about 1,600 persons. The project anticipates a maximum of 76 new employees during the peak season so standard rates based on floor area appear unreasonable and would substantially overestimate the trip generation potential. Because the proposed uses require such substantial floor area dedicated to each employee it was determined that standard rates for General Light Industrial uses based on employees, rather than floor area, would provide a more accurate estimate of the trip generation potential of the project.

Based on a total of 76 net new employees, the proposed project would be expected to result in 232 new trips per day at peak operation, including 40 trips during the a.m. peak hour and 37 trips during the p.m. peak hour. As is the case with all standard trip generation rates, although employees are the independent variable, trips generated by all aspects of the use are included, so trips associated with deliveries, visitors, shipments, and other activities are reflected in the rate and resulting trip estimates. The trip generation estimate, as approved by County staff, is summarized in Table 7.

Table 7 – Trip Generation Summary

Land Use	Units	Daily		AM Peak Hour			PM Peak Hour		
		Rate	Trips	Trips	In	Out	Trips	In	Out
General Light Industrial	76 employees	3.05	232	40	33	7	37	8	29

It should be noted that the daily trip generation shown in the table above is likely conservative for the project since all trips associated with delivery of products would be internal to the adjacent processing facility, meaning that they would not occur on the surrounding street network. The peak hour trip generations are also likely conservative since employees would work shifts scheduled to begin and end outside the peak periods for the transportation network so employees would be expected to generate few trips during the critical peak hours. The trip generation numbers are therefore expected to result in a conservative assessment of the project's potential effects.



CULTIVATION AREA SUMMARY:

AREA	AREA (SF)	AREA (AC)	192' LONG HOOP HOUSE	177' LONG HOOP HOUSE	144' LONG HOOP HOUSE	TOTAL HOOP HOUSE COUNT
AREA 1	272,553	6.3	36	18	0	54
AREA 2	178,569	4.1	23	11	0	34
AREA 3	198,871	4.6	35	0	2	37
AREA 4	371,144	8.5	72	0	0	72
TOTAL	1,021,136	23	166	29	2	197

North

Not to Scale

Source: Wallace Group 8/20

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Figure 5 – Site Plan

Trip Distribution

The pattern used to allocate new project trips to the street network was determined based on a review of the existing count data, familiarity with the area and surrounding region, and likely origins and destinations for employees and material deliveries. The applicant was consulted to learn where employees of the adjacent Sun Valley Farms operation live as well as the path that trucks needed for deliveries and shipments would be expected to take. The highest number of employees are expected to live to the south in Eureka, which has the County's largest housing supply; these employees are anticipated to use the US 101 South Ramps at Sunset Avenue. A relatively even number of employees are anticipated to live in Arcata and McKinleyville and would either use 11th Street east of Janes Road or the US 101 North Ramps at Sunset Avenue, respectively. A small percentage of trips are anticipated via SR 255 to the west of Jackson Ranch Road, while most origins and destinations for truck trips are expected to be to the south on US 101, though trucks are expected to use SR 255, V Street, and Janes Road to reach the site to avoid the more heavily travelled intersections along Sunset Avenue.

The applied trip distribution assumptions are shown in Table 8 and on Figure 6.

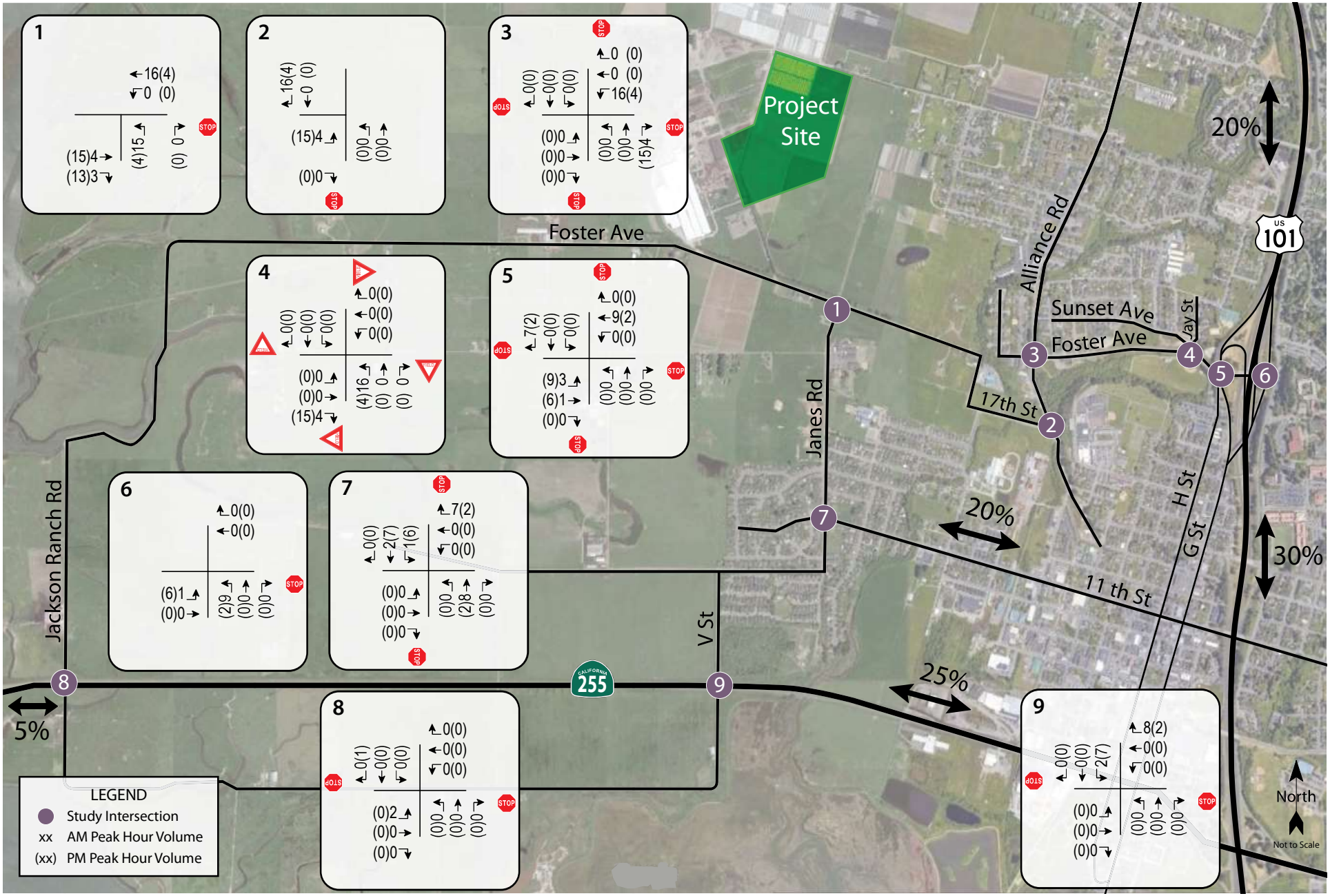
Table 8 – Trip Distribution Assumptions

Routes	Percent
To/from US 101 North of Sunset Ave	20
To/from US 101 South of Sunset Ave	30
To/from 11th St East of Janes Rd	20
To/from SR 255 East of V St	25
To/from SR 255 West of Jackson Ranch Rd	5
TOTAL	**100**

Intersection Operation

Existing plus Project Conditions

Upon the addition of project-related traffic to the Existing volumes, the study intersections are expected to continue operating at acceptable service levels overall and with minor increases in delay during both the a.m. and p.m. peak hours. Project traffic volumes are shown in Figure 6 and these results are summarized in Table 9.



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Final Traffic Impact Study for the Arcata Land Company Commercial Cannabis Project

Figure 6 – Project Traffic Volumes and Trip Distribution

Table 9 – Existing and Existing plus Project Peak Hour Intersection Levels of Service

	Study Intersection *Approach*	Existing Conditions				Existing plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1.	Foster Ave/Janes Rd	7.2	A	6.1	A	6.6	A	4.6	A
	NB (Janes Rd) Approach	*8.7*	*A*	*8.7*	*A*	*9.1*	*A*	*8.9*	*A*
2.	Alliance Rd/17th St	3.3	A	1.9	A	3.4	A	2.2	A
	EB (17th St) Approach	*19.6*	*C*	*17.4*	*C*	*20.2*	*C*	*18.3*	*C*
3.	Foster Ave/Alliance Rd	13.5	B	16.6	C	13.9	B	16.6	C
4.	Sunset Ave/Foster Ave-Jay St	5.3	A	4.7	A	5.4	A	4.7	A
5.	Sunset Ave/US 101 S Ramps	14.2	B	11.4	B	14.3	B	11.4	B
6.	Sunset Ave/US 101 N Ramps	5.4	A	7.2	A	6.1	A	7.8	A
	NB (US 101 Off-ramp) Approach	*24.8*	*C*	*21.8*	*C*	*27.8*	*D*	*22.9*	*C*
7.	Janes Rd/11th St	5.5	A	5.9	A	5.5	A	5.9	A
	EB (11th St) Approach	*11.3*	*B*	*10.2*	*B*	*11.4*	*B*	*10.4*	*B*
	WB (11th St) Approach	*10.8*	*B*	*9.9*	*A*	*10.8*	*B*	*10.0*	*B*
8.	SR 255/Jackson Ranch Rd	0.3	A	0.5	A	0.3	A	0.5	A
	NB (Old Samoa Rd) Approach	*12.0*	*B*	*15.5*	*C*	*12.0*	*B*	*15.5*	*C*
	SB (Jackson Ranch Rd) Approach	*11.6*	*B*	*11.5*	*B*	*11.6*	*B*	*11.4*	*B*
9.	SR 255/V St	3.3	A	2.0	A	3.3	A	2.1	A
	NB (Old Samoa Rd) Approach	*12.5*	*B*	*13.2*	*B*	*12.6*	*B*	*13.2*	*B*
	SB (V St) Approach	*10.5*	*B*	*11.0*	*B*	*10.6*	*B*	*11.4*	*B*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics;* NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

It should be noted that with the addition of project-related traffic volumes, average overall delay at the intersection of Foster Avenue/Janes Road decreases slightly during each peak hour. While this is counter-intuitive, this condition occurs when a project adds trips to movements that are currently underutilized or have delays that are below the intersection average, resulting in a better balance between approaches and lower overall average delay. At this location, the project adds trips predominantly to the Foster Avenue through movements, which have delays that are lower than the overall intersection average resulting in a slight reduction in average delay. The conclusion could incorrectly be drawn that the project improves operation based on this data alone; however, it is more appropriate to conclude that the project trips are expected to make use of excess capacity, so drivers will experience little, if any, change in conditions as a result of the project.

Finding – All study intersections are expected to continue operating acceptably at LOS C or better overall upon the addition of project trips to the Existing volumes and the project would not result in an adverse effect to the surrounding roadway network.

Baseline plus Project Conditions

Upon the addition of project-related traffic to the Baseline volumes, the study intersections are expected to continue operating acceptably at the same service levels overall during both peak hours. These results are summarized in Table 10.

Table 10 – Baseline and Baseline plus Project Peak Hour Intersection Levels of Service

Study Intersection *Approach*		Baseline Conditions				Baseline plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1.	Foster Ave/Janes Rd	6.6	A	4.7	A	6.3	A	3.9	A
	NB (Janes Rd) Approach	*9.1*	*A*	*8.9*	*A*	*9.5*	*A*	*9.1*	*A*
2.	Alliance Rd/17th St	3.4	A	2.2	A	3.4	A	2.6	A
	EB (17th St) Approach	*20.3*	*C*	*18.4*	*C*	*20.9*	*C*	*19.4*	*C*
3.	Foster Ave/Alliance Rd	14.0	B	17.0	C	14.4	B	17.1	C
4.	Sunset Ave/Foster Ave-Jay St	5.4	A	4.7	A	5.5	A	4.8	A
5.	Sunset Ave/US 101 S Ramps	14.3	B	11.5	B	14.4	B	11.5	B
6.	Sunset Ave/US 101 N Ramps	6.2	A	7.7	A	7.5	A	8.3	A
	NB (US 101 Off-ramp) Approach	*28.4*	*D*	*23.4*	*C*	*33.2*	*D*	*25.0*	*D*
7.	Janes Rd/11th St	5.5	A	5.9	A	5.5	A	5.8	A
	EB (11th St) Approach	*11.4*	*B*	*10.4*	*B*	*11.6*	*B*	*10.5*	*B*
	WB (11th St) Approach	*10.9*	*B*	*10.0*	*B*	*10.9*	*B*	*10.1*	*B*
8.	SR 255/Jackson Ranch Rd	0.3	A	0.5	A	0.3	A	0.5	A
	NB (Old Samoa Rd) Approach	*12.0*	*B*	*15.5*	*C*	*12.0*	*B*	*15.6*	*C*
	SB (Jackson Ranch Rd) Approach	*11.6*	*B*	*11.4*	*B*	*11.5*	*B*	*11.4*	*B*
9.	SR 255/V St	3.3	A	2.1	A	3.3	A	2.3	A
	NB (Old Samoa Rd) Approach	*12.6*	*B*	*13.2*	*B*	*12.6*	*B*	*13.2*	*B*
	SB (V St) Approach	*10.6*	*B*	*11.4*	*B*	*10.7*	*B*	*11.8*	*B*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics;* NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

It is noted that with the addition of project-related traffic volumes, average overall delay decreases at Foster Avenue/Janes Road during both peak hours and at Janes Road/11th Street during the p.m. peak hour. This is for the same reasons as described at Foster Avenue/Janes Road under Existing plus Project Conditions. At Janes Road/11th Street, the project adds trips predominantly to the through and right-turn movements during the evening peak hour, which have delays that are lower than the overall intersection average resulting in a slight reduction in average delay.

Finding – All study intersections are expected to continue operating acceptably at LOS C or better overall upon the addition of project trips to the Baseline volumes; the project would therefore not result in an adverse effect to the surrounding roadway network.

Future plus Project Conditions

Upon the addition of project-related traffic to the anticipated Future volumes, and with no changes to the existing configurations or controls, the study intersections are expected to continue operating acceptably per the applicable LOS standards for each jurisdiction at LOS C or better overall during both peak hours, except for Foster Avenue/Alliance Road and Sunset Avenue/US 101 North Ramps. With the improvements identified as being needed under Future Conditions (without project trips), including a mini-roundabout at Foster Avenue/Alliance Road and a five-legged roundabout at Sunset Avenue/US 101 North Ramps, all intersections would operate acceptably even with the addition of project trips. These results are summarized in Table 11.

Table 11 – Future and Future plus Project Peak Hour Intersection Levels of Service

	Study Intersection ***Approach***	**Future Conditions**				**Future plus Project**			
		AM Peak		**PM Peak**		**AM Peak**		**PM Peak**	
		Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
1.	Foster Ave/Janes Rd	7.2	A	6.1	A	6.8	A	5.0	A
	NB (Janes Rd) Approach	*8.7*	*A*	*8.8*	*A*	*9.2*	*A*	*9.0*	*A*
2.	Alliance Rd/17th St	5.0	A	2.4	A	5.3	A	2.9	A
	EB (17th St) Approach	*30.8*	*D*	*23.2*	*C*	*32.2*	*D*	*25.1*	*D*
3.	Foster Ave/Alliance Rd	18.3	C	**32.7**	**D**	19.0	C	**33.0**	**D**
	Mini-Roundabout	8.4	A	9.0	A	8.6	A	9.1	A
4.	Sunset Ave/Foster Ave-Jay St	6.0	A	5.5	A	6.1	A	5.5	A
5.	Sunset Ave/US 101 S Ramps	20.1	C	13.0	B	20.3	C	13.1	B
6.	Sunset Ave/US 101 N Ramps	10.9	B	**31.1**	**D**	13.2	B	**33.7**	**D**
	NB (US 101 Off-ramp) Approach	*54.6*	*F*	*103.2*	*F*	*65.2*	*F*	*111.9*	*F*
	Roundabout	10.6	B	19.8	C	10.7	B	20.4	C
7.	Janes Rd/11th St	5.8	A	5.9	A	5.8	A	6.1	A
	EB (11th St) Approach	*12.2*	*B*	*10.2*	*B*	*12.3*	*B*	*10.8*	*B*
	WB (11th St) Approach	*11.7*	*B*	*9.9*	*A*	*11.7*	*B*	*10.4*	*B*
8.	SR 255/Jackson Ranch Rd	0.3	A	0.5	A	0.3	A	0.6	A
	NB (Old Samoa Rd) Approach	*12.8*	*B*	*15.5*	*C*	*12.8*	*B*	*18.3*	*C*
	SB (Jackson Ranch Rd) Approach	*12.6*	*B*	*11.5*	*B*	*12.6*	*B*	*12.5*	*B*
9.	SR 255/V St	3.5	A	2.0	A	3.5	A	2.2	A
	NB (Old Samoa Rd) Approach	*13.6*	*B*	*13.2*	*B*	*13.7*	*B*	*14.6*	*B*
	SB (V St) Approach	*11.1*	*B*	*11.0*	*A*	*11.1*	*B*	*12.1*	*B*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics;* NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; **Bold** text denotes unacceptable operation; Shaded cells = conditions with recommended improvements

Again, it is noted that with the addition of project-related traffic volumes, average overall delay at Foster Avenue/Janes Road would decrease slightly during each peak hour for the same reasons specified under Existing plus Project and Baseline plus Project Conditions.

Since the project would contribute to the need for future improvements at Foster Avenue/Alliance Road and Sunset Avenue/US 101 North Ramps, the applicant should pay proportional share fees toward the cost of both roundabout projects. The project would add 19 trips to Foster Avenue/Alliance Road during the p.m. peak hour and eight trips to Sunset Avenue/US 101 North Ramps, which represents 4.2 and 1.8 percent of the anticipated growth at each respective intersection by the year 2036. As contained in the *Central Arcata Areawide Traffic Study* (CAATS), the mini-roundabout at Foster Avenue/Alliance Road is expected to have a total cost of $325,000; therefore, the applicant should pay a fee of $13,512 to the City of Arcata to alleviate the cumulative effects that project traffic would have on the intersection. The roundabout project at Sunset Avenue/US 101 North Ramps is projected to have a cost of $3,125,000, though only 15 percent of this cost was included in the Traffic Impact Mitigation Fee Program established by the CAATS so the project should contribute a proportional share fee of $8,714 to the roundabout project. Copies of the proportional share fee calculations are contained in Appendix D.

Finding – All study intersections are expected to continue operating acceptably at LOS C or better overall upon the addition of project trips to the anticipated Future volumes, except for Foster Avenue/Alliance Road and Sunset Avenue/US 101 North Ramps both of which would operate at LOS D overall during the p.m. peak hour. With installation of a mini-roundabout at Foster Avenue/Alliance Road and a roundabout at Sunset Avenue/US 101 North Ramps, both intersections would operate acceptably with project trips added to Future volumes.

Recommendation – The applicant should pay proportional share fees to the City of Arcata to alleviate the project's contribution to the needed improvements at Foster Avenue/Alliance Road and Sunset Avenue/US 101 North Ramps, consisting of $13,512 and $8,714, respectively.

Vehicle Miles Traveled

Background and Threshold of Significance

Senate Bill (SB) 743 established a change in the metric to be applied for determining transportation impacts associated with development projects. Rather than the delay-based criteria associated with a Level of Service (LOS) analysis, the increase in Vehicle Miles Traveled (VMT) as a result of a project is now the basis for determining California Environmental Quality Act (CEQA) impacts with respect to transportation and traffic. As of the date of this analysis, the County of Humboldt has not yet established thresholds of significance related to VMT. As a result, the project-related VMT impacts were assessed based on guidance provided by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018.

OPR provides guidance for VMT analysis based on VMT per capita for residential projects and VMT per worker for employment-based projects. Since the VMT associated with the proposed project would be primarily associated with employment-based travel, VMT per employee was used as the metric for this analysis. Projects that generate vehicle travel exceeding 15 percent below the existing regional average VMT per employee may indicate a significant transportation impact. OPR guidance states that a county is an appropriate geographical boundary for a baseline if that is the area within which workers of the project would be expected to live. Employees of the proposed project are expected to reside within the County Humboldt so countywide data was used to establish the baseline VMT per employee.

Project Impact

The County of Humboldt has a travel demand model that includes numerous traffic analysis zones (TAZs) within the region that contain VMT information. Caltrans District 1 staff was consulted to obtain the VMT information for the entire county as well as TAZ 235, which is the zone in which the project site is located. The countywide average daily VMT per employee of 14.59 was used as a baseline for this analysis. Applying OPR's guidance, an employee-based project generating a VMT that is 15 percent or more below this value, or 12.40 miles per employee per day or less, would have a less-than-significant VMT impact. TAZ 235 has a daily VMT per employee of 2.41; however, the TAZ only has two employees so data for adjacent TAZs was also reviewed. The existing processing uses on Parcel C are located in TAZ 886 along with the Sun Valley Group flower business to the north of the project site. This TAZ has 505 employees with a VMT per employee of 3.64, or approximately 75 percent below the existing countywide average. Given the similar land use characteristics to the proposed project and substantially more employee data points available, the VMT for TAZ 886 rather than TAZ 235 was determined to be a better representation of the project. Since it is reasonable to presume that the travel patterns of workers for the proposed project would be similar to those of workers in TAZ 886, it is reasonable to conclude that the project would have a less-than-significant VMT impact associated with employee travel. This information is summarized in Table 12.

Table 12 – Vehicle Miles Traveled Analysis Summary

VMT Metric	Countywide Baseline VMT Rate	Significance Threshold	Project VMT Rate	Resulting Significance
VMT per Employee	14.59	12.40	3.64	Less than Significant

Note: VMT Rate is measured in VMT/Employee, or the number of daily miles driven per employee

Finding – Based on OPR guidance, the project would be expected to have a less-than-significant transportation impact on VMT.

Alternative Modes

Pedestrian Facilities

Given the rural location of the site, pedestrian trips to external destinations are expected to be limited. The project site is not located within what is generally considered an acceptable walking distance (one-quarter mile) of any destinations that would be reachable with the provision of pedestrian facilities so the lack of existing facilities for pedestrians does not result in an impact. Although external pedestrian trips are not anticipated, internal trips are expected between the various facilities. As shown on the site plan, pedestrian facilities including sidewalks and pathways would be provided throughout the site.

Finding – A connected pedestrian network would be provided on-site, though the lack of existing pedestrian infrastructure on Foster Avenue does not result in an impact given the rural setting.

Bicycle Facilities

Existing bike lanes on Sunset Avenue, Alliance Road, and Foster Avenue together with the shared use of minor streets provide adequate access for bicyclists within the study area. Upon completion of the planned improvements outlined in the *City of Arcata Pedestrian & Bicycle Master Plan* and the *Humboldt Regional Bicycle Plan*, including the provision of Class III bike routes on Foster Avenue between Alliance Road and Janes Road and on Janes Road to the south of Foster Avenue, access for bicyclists would be improved and the project site would be connected to the surrounding network. It should be noted that even upon completion of the planned improvements, the approximately one-third mile segment of Foster Avenue between the project driveway and Janes Road would not have a bicycle facility; however, given the low volume of vehicles and short length of the segment, it would be considered acceptable for bicyclists to share the roadway with motorists.

Bicycle Storage

Zoning regulations for the County of Humboldt do not specify bicycle parking requirements for cultivation uses, though because the site would be accessible for bicyclists the project should include dedicated bicycle parking. It is recommended that bicycle parking be provided at a rate of one space for every 10 employees. This would translate to a need for 12 bicycle parking spaces based on the maximum employment count of 116 employees.

Finding – Existing bicycle facilities in the project vicinity, including the shared use of minor streets, provide adequate access for bicyclists and connectivity would be further improved upon completion of planned bicycle projects.

Recommendation – A minimum of 12 bicycle parking spaces should be provided on-site and this information should be added to the site plan.

Transit

The lack of existing transit service within acceptable walking distance of the project site is typical for its rural location. Should an employee need to use transit, they could bike to the nearest transit stops at Foster Avenue/Alliance Road, the Arcata Transit Center, or Arcata High School.

Finding – The lack of transit facilities serving the project does not result in an impact given the rural location and expected demand.

Access and Circulation

Site Access

As proposed, access to the site would occur at the existing driveway on Foster Avenue approximately one-third mile west of the Janes Road intersection. Foster Avenue is approximately 20 feet wide with a single lane in each direction and has a posted speed limit of 25 miles per hour (mph) adjacent to the project site. Based on count data collected in March 2019 specifically for this study, the roadway has an average daily traffic (ADT) volume of 310 vehicles per day, with 23 vehicles counted during the a.m. peak hour and 41 vehicles during the p.m. peak hour.

Sight Distance

At unsignalized intersections and driveways a substantially clear line of sight should be maintained between the driver of a vehicle waiting at the crossroad and the driver of an approaching vehicle. Adequate time should be provided for the waiting vehicle to either cross, turn left, or turn right, without requiring the through traffic to radically alter their speed. Sight distances along Foster Avenue at the project driveway were evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distance at driveways is based on stopping sight distance, with approach travel speed used as the basis for determining the recommended sight distance.

For the posted speed limit of 25 mph on Foster Avenue, the minimum stopping sight distance needed is 150 feet. Based on a review of field conditions, at the position of a driver waiting on the driveway sight lines extend approximately 300 feet to the west to a horizontal curve in the roadway alignment and extend more than 500 feet to the east, both of which are more than adequate for the posted speed limit. Additionally, adequate stopping sight distance is available for a following driver to notice and react to a preceding motorist slowing or stopped waiting to turn into the project site. In order to maintain existing adequate sight lines, it is recommended that any new signage to be installed near the driveway be placed outside of the vision triangle.

Finding – Sight lines on Foster Avenue are adequate to accommodate all turns into and out of the project driveway.

Recommendation – Any new signage to be located along the project frontage should be placed outside of the vision triangle of a driver waiting on the driveway.

Turn Lane Warrants

The need for a left-turn lane on Foster Avenue at the existing project driveway was evaluated based on criteria contained in the *Intersection Channelization Design Guide*, National Cooperative Highway Research Program (NCHRP) Report No. 279, Transportation Research Board, 1985, as well as an update of the methodology developed by the Washington State Department of Transportation and published in the *Method For Prioritizing Intersection Improvements*, January 1997. The NCHRP report references a methodology developed by M. D. Harmelink that includes equations that can be applied to expected or actual traffic volumes in order to determine the need for a turn pocket based on safety issues.

Under on the anticipated Future plus Project volumes, which represents worst-case conditions, and accounting for trips associated with the already-approved cannabis processing facility, a left-turn lane would not be warranted at the project driveway during either peak hour. The turn lane warrant analysis sheets are contained in Appendix E.

Finding – No channelization in the form of a turn pocket would be warranted at the project driveway.

Conclusions and Recommendations

Conclusions

- Based on standard ITE rates, the proposed project would be expected to result in 232 new trips per day at peak operation, including 40 trips during the a.m. peak hour and 37 trips during the p.m. peak hour, though the actual peak hour trip generation is expected to be less since the beginning and end of shifts would not coincide with the peak hours of the transportation network.

- The study intersections of Sunset Avenue/US 101 South Ramps, Sunset Avenue/US 101 North Ramps, Janes Road/11th Street, SR 255/Jackson Ranch Road, and SR 255/V Street all have a calculated collision rate above the statewide average for similar facilities.

- All study intersections would be expected to operate at LOS C or better overall under Existing and Baseline Conditions without or with the addition of project-related trips, though roundabouts would be needed at Foster Avenue/Alliance Road and Sunset Avenue/US 101 North Ramps to accommodate the anticipated Future volumes. With these improvements and with the addition of project traffic to Future volumes, all intersections would operate acceptably.

- Based on OPR guidance, the project would be expected to have a less-than-significant transportation impact on VMT.

- A connected pedestrian network would be provided on-site consisting of sidewalks and pathways. The lack of existing pedestrian facilities on Foster Avenue does not result in an impact given the rural setting.

- Existing bicycle facilities in the project vicinity, including the shared use of minor streets, provide adequate access for bicyclists and connectivity would be further improved upon completion of planned bicycle projects in the area.

- The lack of existing transit service within an acceptable walking distance of the project site is typical for its rural location and is therefore considered acceptable, though employees could use a bicycle to reach nearby transit stops.

- Sight lines on Foster Avenue are adequate to accommodate all turns into and out of the project driveway.

- No channelization in the form of a turn pocket would not be warranted on Foster Avenue at the project driveway.

Recommendations

- The City and Caltrans may wish to review the need for additional signing at Sunset Avenue/US 101 South Ramps to notify drivers of conditions that require their attention. Consolidation of Sunset Avenue/US 101 North Ramps and Sunset Avenue/LK Wood Boulevard into a single roundabout with five legs would have a beneficial impact on safety at this location. Increased enforcement may help to reduce the frequency of DUI collisions at SR 255/Jackson Ranch Road and right-of-way infractions at SR 255/V Street.

- The applicant should pay proportional share fees toward the cost of the roundabout projects needed at Foster Avenue/Alliance Road and Sunset Avenue/US 101 North Ramps consistent with the Traffic Mitigation Fee Program established by the *Central Arcata Areawide Traffic Study*.

- A minimum of 12 bicycle parking spaces should be provided on-site and this information should be added to the site plan.

- Any new signage to be located along the project frontage should be placed outside of the vision triangle of a driver waiting on the driveway.

Study Participants and References

Study Participants

Principal in Charge	Dalene J. Whitlock, PE, PTOE
Senior Planner	Barry Bergman, AICP
Associate Engineer	Cameron Nye, EIT
Graphics/Formatting	Alex Scrobonia
Quality Control	Dalene J. Whitlock, PE, PTOE

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Appendix A

Collision Rate Calculations

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Intersection Collision Rate Worksheet

Arcata Land Company Cannabis Cultivation Project TIS

Intersection # 1: Foster Avenue & Janes Road
Date of Count: Thursday, September 17, 2020

Number of Collisions: 0
Number of Injuries: 0
Number of Fatalities: 0
Average Daily Traffic (ADT): 870
Start Date: April 1, 2014
End Date: March 31, 2019
Number of Years: 5

Intersection Type: Tee
Control Type: Stop & Yield Controls
Area: Suburban

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{0 \times 1{,}000{,}000}{870 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.00 c/mve**	**0.0%**	**0.0%**
Statewide Average*	**0.14 c/mve**	**1.2%**	**38.2%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2016 Collision Data on California State Highways, Caltrans

Intersection # 2: Alliane Road & 17th Street
Date of Count: Thursday, September 17, 2020

Number of Collisions: 1
Number of Injuries: 0
Number of Fatalities: 0
Average Daily Traffic (ADT): 8200
Start Date: April 1, 2014
End Date: March 31, 2019
Number of Years: 5

Intersection Type: Tee
Control Type: Stop & Yield Controls
Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{1 \times 1{,}000{,}000}{8{,}200 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.07 c/mve**	**0.0%**	**0.0%**
Statewide Average*	**0.08 c/mve**	**1.0%**	**45.1%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2016 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

Arcata Land Company Cannabis Cultivation Project TIS

Intersection # 3: Foster Avenue & Alliance Road
Date of Count: Thursday, September 17, 2020

Number of Collisions: 1
Number of Injuries: 0
Number of Fatalities: 0
Average Daily Traffic (ADT): 10800
Start Date: April 1, 2014
End Date: March 31, 2019
Number of Years: 5

Intersection Type: Four-Legged
Control Type: 4 Way Stop
Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{1 \times 1{,}000{,}000}{10{,}800 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.05 c/mve**	**0.0%**	**0.0%**
Statewide Average*	**0.19 c/mve**	**0.4%**	**29.2%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2016 Collision Data on California State Highways, Caltrans

Intersection # 4: Sunset Avenue & Foster Avenue-Jay Street
Date of Count: Thursday, September 17, 2020

Number of Collisions: 1
Number of Injuries: 0
Number of Fatalities: 0
Average Daily Traffic (ADT): 6700
Start Date: April 1, 2014
End Date: March 31, 2019
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Stop & Yield Controls
Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{1 \times 1{,}000{,}000}{6{,}700 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.08 c/mve**	**0.0%**	**0.0%**
Statewide Average*	**0.13 c/mve**	**1.1%**	**43.8%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2016 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

Arcata Land Company Cannabis Cultivation Project TIS

Intersection # 5: Sunset Avenue & US 101 South Ramps
Date of Count: Thursday, September 17, 2020

Number of Collisions: 8
Number of Injuries: 3
Number of Fatalities: 0
Average Daily Traffic (ADT): 13400
Start Date: April 1, 2014
End Date: March 31, 2019
Number of Years: 5

Intersection Type: Four-Legged
Control Type: 4 Way Stop
Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{8 \times 1{,}000{,}000}{13{,}400 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.33 c/mve**	**0.0%**	**37.5%**
Statewide Average*	**0.19 c/mve**	**0.4%**	**29.2%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2016 Collision Data on California State Highways, Caltrans

Intersection # 6: Susnet Avenue & US 101 North Ramps
Date of Count: Thursday, September 17, 2020

Number of Collisions: 5
Number of Injuries: 2
Number of Fatalities: 0
Average Daily Traffic (ADT): 12300
Start Date: April 1, 2014
End Date: March 31, 2019
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Stop & Yield Controls
Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{5 \times 1{,}000{,}000}{12{,}300 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.22 c/mve**	**0.0%**	**40.0%**
Statewide Average*	**0.13 c/mve**	**1.1%**	**43.8%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2016 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

Arcata Land Company Cannabis Cultivation Project TIS

Intersection # 7: Janes Road & 11th Street

Date of Count: Thursday, September 17, 2020

Number of Collisions: 2
Number of Injuries: 2
Number of Fatalities: 0
Average Daily Traffic (ADT): 3200
Start Date: April 1, 2014
End Date: March 31, 2019
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Stop & Yield Controls
Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{2 \times 1{,}000{,}000}{3{,}200 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.34 c/mve**	**0.0%**	**100.0%**
Statewide Average*	**0.13 c/mve**	**1.1%**	**43.8%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2016 Collision Data on California State Highways, Caltrans

Intersection # 8: SR 255 & Jackson Ranch Road

Date of Count: Thursday, September 17, 2020

Number of Collisions: 4
Number of Injuries: 2
Number of Fatalities: 0
Average Daily Traffic (ADT): 7300
Start Date: April 1, 2014
End Date: March 31, 2019
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Stop & Yield Controls
Area: Rural

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{4 \times 1{,}000{,}000}{7{,}300 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.30 c/mve**	**0.0%**	**50.0%**
Statewide Average*	**0.22 c/mve**	**2.5%**	**43.4%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2016 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

Arcata Land Company Cannabis Cultivation Project TIS

Intersection # 9: SR 255 & V Street

Date of Count: Thursday, September 17, 2020

Number of Collisions: 5
Number of Injuries: 3
Number of Fatalities: 0
Average Daily Traffic (ADT): 7400
Start Date: April 1, 2014
End Date: March 31, 2019
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Stop & Yield Controls
Area: Suburban

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{5 \times 1{,}000{,}000}{7{,}400 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.37 c/mve**	**0.0%**	**60.0%**
Statewide Average*	**0.23 c/mve**	**1.9%**	**39.0%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2016 Collision Data on California State Highways, Caltrans

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Appendix B

Intersection Level of Service Calculations

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Intersection Level Of Service Report
Intersection 1: Janes Rd/Foster Ave

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name	Janes Rd		Foster Ave		Foster Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Janes Rd		Foster Ave		Foster Ave	
Base Volume Input [veh/h]	4	53	5	3	75	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	53	5	3	75	5
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	15	1	1	21	1
Total Analysis Volume [veh/h]	4	59	6	3	83	6
Pedestrian Volume [ped/h]	0		0		0	

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Version 7.00-06

Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.05	0.00	0.00	0.05	0.00
d_M, Delay for Movement [s/veh]	9.91	8.57	0.00	0.00	7.36	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.19	0.19	0.00	0.00	0.16	0.16
95th-Percentile Queue Length [ft/ln]	4.79	4.79	0.00	0.00	4.07	4.07
d_A, Approach Delay [s/veh]	8.65		0.00		6.86	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.18					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Alliance Rd/17th St

Control Type:	Two-way stop	Delay (sec / veh):	21.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.375

Intersection Setup

Name	Alliance Rd		Alliance Rd		17th St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	20.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Alliance Rd		Alliance Rd		17th St	
Base Volume Input [veh/h]	21	247	321	173	121	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	247	321	173	121	20
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	69	89	48	34	6
Total Analysis Volume [veh/h]	23	274	357	192	134	22
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					No	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.37	0.04
d_M, Delay for Movement [s/veh]	8.61	0.00	0.00	0.00	20.98	11.16
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.07	0.07	0.00	0.00	1.70	0.11
95th-Percentile Queue Length [ft/ln]	1.73	1.73	0.00	0.00	42.38	2.82
d_A, Approach Delay [s/veh]	0.67		0.00		19.59	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	3.25					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Alliance Rd/Foster Ave

Control Type:	All-way stop	Delay (sec / veh):	13.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.549

Intersection Setup

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	70.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Base Volume Input [veh/h]	3	232	116	120	290	3	5	11	8	185	5	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	232	116	120	290	3	5	11	8	185	5	65
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	64	32	33	81	1	1	3	2	51	1	18
Total Analysis Volume [veh/h]	3	258	129	133	322	3	6	12	9	206	6	72
Pedestrian Volume [ped/h]	14			7			15			10		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	580	654	546	591	467	522	499	594
Degree of Utilization, x	0.45	0.20	0.24	0.55	0.01	0.04	0.41	0.13

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.33	0.73	0.95	3.33	0.04	0.13	2.00	0.45
95th-Percentile Queue Length [ft]	58.14	18.24	23.73	83.17	0.97	3.14	50.05	11.27
Approach Delay [s/veh]	12.47		14.64		10.03		13.47	
Approach LOS	B		B		B		B	
Intersection Delay [s/veh]	13.52							
Intersection LOS	B							

Intersection Level Of Service Report
Intersection 4: Foster Ave-Jay St/Sunset Ave

Control Type:	Roundabout	Delay (sec / veh):	5.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Base Volume Input [veh/h]	183	160	5	0	170	10	26	0	176	24	5	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	183	160	5	0	170	10	26	0	176	24	5	1
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	44	1	0	47	3	7	0	49	7	1	0
Total Analysis Volume [veh/h]	203	178	6	0	189	11	29	0	196	27	6	1
Pedestrian Volume [ped/h]	16			1			42			1		

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Version 7.00-06

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	30			241			220			418		
Exiting Flow Rate [veh/h]	420			212			224			6		
Demand Flow Rate [veh/h]	183	160	5	0	170	10	26	0	176	24	5	1
Adjusted Demand Flow Rate [veh/h]	203	178	6	0	189	11	29	0	196	27	6	1

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	395	204	230	35
Capacity of Entry and Bypass Lanes [veh/h]	1339	1080	1103	901
Pedestrian Impedance	1.00	1.00	0.99	1.00
Capacity per Entry Lane [veh/h]	1310	1059	1075	884
X, volume / capacity	0.30	0.19	0.21	0.04

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	1.24	0.69	0.79	0.12
95th-Percentile Queue Length [ft]	31.12	17.37	19.72	3.00
Approach Delay [s/veh]	5.37	5.14	5.28	4.43
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	5.26			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 5: Sunset Ave/US 101 Ramps-G St-H St

Control Type:	All-way stop	Delay (sec / veh):	14.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.647

Intersection Setup

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	35	7	11	311	391	190	128	201	46	90	123	112
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	7	11	311	391	190	128	201	46	90	123	112
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	2	3	85	107	52	35	55	13	25	34	31
Total Analysis Volume [veh/h]	38	8	12	340	427	207	140	219	50	98	134	122
Pedestrian Volume [ped/h]	60			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	616	525	565	565	631	482	513	564	468	497	545
Degree of Utilization, x	0.09	0.65	0.38	0.38	0.33	0.29	0.43	0.09	0.21	0.27	0.22

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.31	4.60	1.75	1.75	1.43	1.20	2.11	0.29	0.78	1.08	0.85
95th-Percentile Queue Length [ft]	7.76	114.	43.8	43.8	35.6	29.88	52.85	7.27	19.54	27.02	21.26
Approach Delay [s/veh]	9.45	15.46				13.66			12.06		
Approach LOS	A	C				B			B		
Intersection Delay [s/veh]	14.18										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 6: Sunset Ave/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	45.5
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.490

Intersection Setup

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	1	0	0	0	0	0
Pocket Length [ft]	320.00	100.00	320.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	74	0	118	0	0	0	93	430	0	0	251	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	74	0	118	0	0	0	93	430	0	0	251	67
Peak Hour Factor	0.9000	0.9000	0.9000	1.0000	1.0000	1.0000	0.9000	0.9000	1.0000	1.0000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	0	33	0	0	0	26	119	0	0	70	19
Total Analysis Volume [veh/h]	82	0	131	0	0	0	103	478	0	0	279	74
Pedestrian Volume [ped/h]	75			0			0			0		

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Version 7.00-06

Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane												
Storage Area [veh]	0			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.49	0.00	0.22	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	45.53	26.08	11.90	0.00	0.00	0.00	8.26	0.00	0.00	0.00	0.00	0.00
Movement LOS	E	D	B				A	A			A	A
95th-Percentile Queue Length [veh/ln]	2.36	0.37	0.37	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	58.93	9.36	9.36	0.00	0.00	0.00	6.99	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	24.84			0.00			1.47			0.00		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	5.36											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 7: 11th St/Janes Rd

Control Type:	Two-way stop	Delay (sec / veh):	12.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	Janes Rd			Janes Rd			11th St			11th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Janes Rd			Janes Rd			11th St			11th St		
Base Volume Input [veh/h]	2	56	54	63	61	2	4	23	6	52	18	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	56	54	63	61	2	4	23	6	52	18	45
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	16	15	18	17	1	1	6	2	14	5	13
Total Analysis Volume [veh/h]	2	62	60	70	68	2	4	26	7	58	20	50
Pedestrian Volume [ped/h]	0			0			4			0		

Intersection Settings

Priority Scheme	Free			Free			Stop			Stop		
Flared Lane							Yes			Yes		
Storage Area [veh]	0			0			1			1		
Two-Stage Gap Acceptance							No			No		
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.05	0.00	0.00	0.01	0.05	0.01	0.10	0.03	0.05
d_M, Delay for Movement [s/veh]	7.37	0.00	0.00	7.58	0.00	0.00	11.98	11.85	8.96	11.79	11.89	9.32
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.15	0.15	0.15	0.17	0.17	0.17	0.47	0.47	0.47
95th-Percentile Queue Length [ft/ln]	0.10	0.10	0.10	3.76	3.76	3.76	4.33	4.33	4.33	11.64	11.64	11.64
d_A, Approach Delay [s/veh]	0.12			3.79			11.32			10.84		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	5.48											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 8: SR-255/Jackson Ranch Rd

Control Type:	Two-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	400.00	100.00	100.00	400.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Base Volume Input [veh/h]	0	1	1	3	0	6	3	247	0	0	322	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	3	0	6	3	247	0	0	322	1
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	2	1	69	0	0	89	0
Total Analysis Volume [veh/h]	0	1	1	3	0	7	3	274	0	0	358	1
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	No		
Storage Area [veh]	2	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.43	14.17	9.72	14.43	14.27	10.37	8.01	0.00	0.00	7.79	0.00	0.00
Movement LOS	B	B	A	B	B	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.05	0.05	0.05	0.01	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.19	0.19	0.19	1.37	1.37	1.37	0.19	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.95			11.59			0.09			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.25											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 9: SR-255/V St

Control Type:	Two-way stop	Delay (sec / veh):	14.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Old Samoa Rd			V St			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			V St			SR-255			SR-255		
Base Volume Input [veh/h]	0	0	0	34	1	112	68	184	0	3	204	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	34	1	112	68	184	0	3	204	25
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	9	0	31	19	51	0	1	57	7
Total Analysis Volume [veh/h]	0	0	0	38	1	124	76	204	0	3	227	28
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	Yes		
Storage Area [veh]	1	1	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.09	0.00	0.14	0.06	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.29	14.48	8.86	13.82	14.80	9.49	7.92	0.00	0.00	7.64	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.48	0.48	0.48	0.18	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	11.96	11.96	11.96	4.62	0.00	0.00	0.17	0.00	0.00
d_A, Approach Delay [s/veh]	12.54			10.53			2.15			0.09		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	3.34											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 1: Janes Rd/Foster Ave

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

Intersection Setup

Name	Janes Rd		Foster Ave		Foster Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Janes Rd		Foster Ave		Foster Ave	
Base Volume Input [veh/h]	11	26	9	3	28	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	26	9	3	28	10
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	7	3	1	8	3
Total Analysis Volume [veh/h]	12	29	10	3	31	11
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.03	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	9.15	8.52	0.00	0.00	7.29	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.13	0.13	0.00	0.00	0.06	0.06
95th-Percentile Queue Length [ft/ln]	3.16	3.16	0.00	0.00	1.48	1.48
d_A, Approach Delay [s/veh]	8.70		0.00		5.38	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.07					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Alliance Rd/17th St

Control Type:	Two-way stop	Delay (sec / veh):	18.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.221

Intersection Setup

Name	Alliance Rd		Alliance Rd		17th St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	20.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Alliance Rd		Alliance Rd		17th St	
Base Volume Input [veh/h]	18	340	315	69	68	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	340	315	69	68	11
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	94	88	19	19	3
Total Analysis Volume [veh/h]	20	378	350	77	76	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					No	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.22	0.02
d_M, Delay for Movement [s/veh]	8.24	0.00	0.00	0.00	18.45	10.56
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	0.83	0.06
95th-Percentile Queue Length [ft/ln]	1.35	1.35	0.00	0.00	20.82	1.39
d_A, Approach Delay [s/veh]	0.41		0.00		17.37	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.85					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Alliance Rd/Foster Ave

Control Type:	All-way stop	Delay (sec / veh):	16.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.693

Intersection Setup

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	70.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Base Volume Input [veh/h]	13	354	113	100	322	6	5	16	12	109	20	124
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	354	113	100	322	6	5	16	12	109	20	124
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	96	31	27	88	2	1	4	3	30	5	34
Total Analysis Volume [veh/h]	14	386	123	109	351	7	5	17	13	119	22	135
Pedestrian Volume [ped/h]	14			7			15			10		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	577	652	532	576	447	496	474	555
Degree of Utilization, x	0.69	0.19	0.21	0.62	0.01	0.06	0.25	0.28

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	5.44	0.69	0.76	4.27	0.03	0.19	0.98	1.16
95th-Percentile Queue Length [ft]	135.96	17.24	19.07	106.69	0.85	4.81	24.62	28.91
Approach Delay [s/veh]	18.92		16.95		10.48		12.20	
Approach LOS	C		C		B		B	
Intersection Delay [s/veh]	16.56							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 4: Foster Ave-Jay St/Sunset Ave

Control Type:	Roundabout	Delay (sec / veh):	4.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Base Volume Input [veh/h]	184	113	33	1	96	11	8	9	170	33	10	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	184	113	33	1	96	11	8	9	170	33	10	2
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	29	8	0	25	3	2	2	44	8	3	1
Total Analysis Volume [veh/h]	189	116	34	1	99	11	8	9	175	34	10	2
Pedestrian Volume [ped/h]	16			1			42			1		

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Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	18			238			137			319		
Exiting Flow Rate [veh/h]	314			129			214			45		
Demand Flow Rate [veh/h]	184	113	33	1	96	11	8	9	170	33	10	2
Adjusted Demand Flow Rate [veh/h]	189	116	34	1	99	11	8	9	175	34	10	2

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	346	114	196	47
Capacity of Entry and Bypass Lanes [veh/h]	1355	1083	1201	997
Pedestrian Impedance	1.00	1.00	0.99	1.00
Capacity per Entry Lane [veh/h]	1325	1062	1171	977
X, volume / capacity	0.26	0.10	0.16	0.05

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	1.02	0.35	0.59	0.15
95th-Percentile Queue Length [ft]	25.58	8.73	14.65	3.70
Approach Delay [s/veh]	4.93	4.31	4.50	4.10
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	4.65			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 5: Sunset Ave/US 101 Ramps-G St-H St

Control Type:	All-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.338

Intersection Setup

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	75	30	26	149	279	101	67	175	60	111	152	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	30	26	149	279	101	67	175	60	111	152	116
Peak Hour Factor	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	8	7	39	73	26	17	46	16	29	40	30
Total Analysis Volume [veh/h]	78	31	27	155	290	105	70	182	62	116	158	121
Pedestrian Volume [ped/h]	60			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	593	528	568	568	634	504	539	597	503	538	597
Degree of Utilization, x	0.23	0.29	0.26	0.26	0.17	0.14	0.34	0.10	0.23	0.29	0.20

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.88	1.22	1.01	1.01	0.59	0.48	1.48	0.35	0.88	1.22	0.75
95th-Percentile Queue Length [ft]	21.97	30.41	25.26	25.26	14.74	11.99	36.99	8.64	22.11	30.41	18.83
Approach Delay [s/veh]	10.86	11.20				11.70			11.53		
Approach LOS	B	B				B			B		
Intersection Delay [s/veh]	11.37										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 6: Sunset Ave/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	49.0
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.588

Intersection Setup

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	1	0	0	0	0	0
Pocket Length [ft]	320.00	100.00	320.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	103	4	254	0	0	0	114	236	0	0	282	241
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	103	4	254	0	0	0	114	236	0	0	282	241
Peak Hour Factor	0.9490	0.9490	0.9490	1.0000	1.0000	1.0000	0.9490	0.9490	1.0000	1.0000	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	1	67	0	0	0	30	62	0	0	74	63
Total Analysis Volume [veh/h]	109	4	268	0	0	0	120	249	0	0	297	254
Pedestrian Volume [ped/h]	75			0			0			0		

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Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane												
Storage Area [veh]	0			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.59	0.02	0.34	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	48.98	27.32	10.62	0.00	0.00	0.00	9.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	E	D	B				A	A			A	A
95th-Percentile Queue Length [veh/ln]	3.21	0.70	0.66	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	80.23	17.50	16.49	0.00	0.00	0.00	9.98	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	21.77			0.00			2.93			0.00		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	7.21											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 7: 11th St/Janes Rd

Control Type:	Two-way stop	Delay (sec / veh):	10.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Janes Rd			Janes Rd			11th St			11th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Janes Rd			Janes Rd			11th St			11th St		
Base Volume Input [veh/h]	4	49	49	29	24	1	1	25	7	47	29	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	49	49	29	24	1	1	25	7	47	29	58
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	14	14	8	7	0	0	7	2	13	8	16
Total Analysis Volume [veh/h]	4	54	54	32	27	1	1	28	8	52	32	64
Pedestrian Volume [ped/h]	0			0			4			0		

Intersection Settings

Priority Scheme	Free			Free			Stop			Stop		
Flared Lane							Yes			Yes		
Storage Area [veh]	0			0			1			1		
Two-Stage Gap Acceptance							No			No		
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.04	0.01	0.07	0.05	0.07
d_M, Delay for Movement [s/veh]	7.29	0.00	0.00	7.48	0.00	0.00	10.85	10.60	8.66	10.41	10.61	9.07
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.07	0.07	0.07	0.14	0.14	0.14	0.40	0.40	0.40
95th-Percentile Queue Length [ft/ln]	0.19	0.19	0.19	1.65	1.65	1.65	3.41	3.41	3.41	10.10	10.10	10.10
d_A, Approach Delay [s/veh]	0.26			3.99			10.18			9.88		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	5.90											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 8: SR-255/Jackson Ranch Rd

Control Type:	Two-way stop	Delay (sec / veh):	17.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	400.00	100.00	100.00	400.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Base Volume Input [veh/h]	2	1	1	2	0	16	12	325	3	0	366	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	1	2	0	16	12	325	3	0	366	3
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	1	0	4	3	90	1	0	102	1
Total Analysis Volume [veh/h]	2	1	1	2	0	18	13	361	3	0	407	3
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Priority Scheme	Stop		Stop		Free		Free	
Flared Lane	Yes		No					
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No		No					
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.53	16.52	10.37	17.20	16.65	10.82	8.17	0.00	0.00	8.01	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.11	0.11	0.11	0.03	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.76	0.76	0.76	2.69	2.69	2.69	0.86	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.49			11.46			0.28			0.00		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	0.49											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 9: SR-255/V St

Control Type:	Two-way stop	Delay (sec / veh):	17.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Old Samoa Rd			V St			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			V St			SR-255			SR-255		
Base Volume Input [veh/h]	0	1	1	17	0	65	67	246	1	1	299	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	17	0	65	67	246	1	1	299	46
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	5	0	18	19	68	0	0	83	13
Total Analysis Volume [veh/h]	0	1	1	19	0	72	74	273	1	1	332	51
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	Yes		
Storage Area [veh]	1	1	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.06	0.00	0.09	0.06	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	15.62	17.27	9.08	15.96	17.18	9.74	8.28	0.00	0.00	7.80	0.00	0.00
Movement LOS	C	C	A	C	C	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.29	0.29	0.29	0.20	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.26	0.26	0.26	7.22	7.22	7.22	5.05	0.00	0.00	0.06	0.00	0.00
d_A, Approach Delay [s/veh]	13.18			11.04			1.76			0.02		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.00											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 1: Janes Rd/Foster Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.027

Intersection Setup

Name	Janes Rd		Foster Ave		Foster Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Janes Rd		Foster Ave		Foster Ave	
Base Volume Input [veh/h]	4	53	5	3	75	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	14	0	3	3	0	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	53	8	6	75	20
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	15	2	2	21	6
Total Analysis Volume [veh/h]	20	59	9	7	83	22
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.06	0.00	0.00	0.05	0.00
d_M, Delay for Movement [s/veh]	10.15	8.70	0.00	0.00	7.37	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.27	0.27	0.00	0.00	0.16	0.16
95th-Percentile Queue Length [ft/ln]	6.69	6.69	0.00	0.00	4.10	4.10
d_A, Approach Delay [s/veh]	9.07		0.00		5.83	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.64					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Alliance Rd/17th St

Control Type:	Two-way stop	Delay (sec / veh):	21.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.394

Intersection Setup

Name	Alliance Rd		Alliance Rd		17th St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	20.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Alliance Rd		Alliance Rd		17th St	
Base Volume Input [veh/h]	21	252	321	173	121	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	15	3	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	252	321	188	124	20
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	70	89	52	34	6
Total Analysis Volume [veh/h]	23	280	357	209	138	22
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					No	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.39	0.04
d_M, Delay for Movement [s/veh]	8.66	0.00	0.00	0.00	21.79	11.23
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.07	0.07	0.00	0.00	1.82	0.11
95th-Percentile Queue Length [ft/ln]	1.75	1.75	0.00	0.00	45.59	2.85
d_A, Approach Delay [s/veh]	0.66		0.00		20.34	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	3.36					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Alliance Rd/Foster Ave

Control Type:	All-way stop	Delay (sec / veh):	14.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.559

Intersection Setup

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	70.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Base Volume Input [veh/h]	3	237	116	121	290	3	5	11	8	185	5	70
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	3	0	0	0	0	0	0	15	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	237	119	121	290	3	5	11	8	200	5	70
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	66	33	34	81	1	1	3	2	56	1	19
Total Analysis Volume [veh/h]	3	263	132	134	322	3	6	12	9	222	6	78
Pedestrian Volume [ped/h]	14			7			15			10		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	570	642	538	582	462	515	496	590
Degree of Utilization, x	0.47	0.21	0.25	0.56	0.01	0.04	0.45	0.14

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.46	0.77	0.98	3.43	0.04	0.13	2.28	0.49
95th-Percentile Queue Length [ft]	61.57	19.16	24.44	85.79	0.99	3.18	57.04	12.36
Approach Delay [s/veh]	12.86		15.03		10.13		14.10	
Approach LOS	B		C		B		B	
Intersection Delay [s/veh]	13.95							
Intersection LOS	B							

Intersection Level Of Service Report
Intersection 4: Foster Ave-Jay St/Sunset Ave

Control Type:	Roundabout	Delay (sec / veh):	5.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Base Volume Input [veh/h]	187	160	5	0	170	10	26	0	177	24	5	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	0	0	0	0	0	0	0	3	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	202	160	5	0	170	10	26	0	180	24	5	1
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	44	1	0	47	3	7	0	50	7	1	0
Total Analysis Volume [veh/h]	224	178	6	0	189	11	29	0	200	27	6	1
Pedestrian Volume [ped/h]	16			1			42			1		

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	30			262			220			440		
Exiting Flow Rate [veh/h]	424			212			246			6		
Demand Flow Rate [veh/h]	202	160	5	0	170	10	26	0	180	24	5	1
Adjusted Demand Flow Rate [veh/h]	224	178	6	0	189	11	29	0	200	27	6	1

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	417	204	234	35
Capacity of Entry and Bypass Lanes [veh/h]	1339	1057	1103	882
Pedestrian Impedance	1.00	1.00	0.99	1.00
Capacity per Entry Lane [veh/h]	1310	1036	1075	864
X, volume / capacity	0.31	0.19	0.21	0.04

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	1.34	0.71	0.81	0.12
95th-Percentile Queue Length [ft]	33.53	17.83	20.16	3.07
Approach Delay [s/veh]	5.54	5.27	5.32	4.53
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	5.38			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 5: Sunset Ave/US 101 Ramps-G St-H St

Control Type:	All-way stop	Delay (sec / veh):	14.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.650

Intersection Setup

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	35	7	11	311	391	192	129	201	46	90	125	112
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	6	2	1	0	0	9	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	7	11	311	391	198	131	202	46	90	134	112
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	2	3	85	107	54	36	55	13	25	37	31
Total Analysis Volume [veh/h]	38	8	12	340	427	216	143	221	50	98	146	122
Pedestrian Volume [ped/h]	60			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	620	523	562	562	627	480	511	561	467	496	544
Degree of Utilization, x	0.09	0.65	0.38	0.38	0.34	0.30	0.43	0.09	0.21	0.29	0.22

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.31	4.64	1.77	1.77	1.53	1.24	2.16	0.29	0.78	1.22	0.85
95th-Percentile Queue Length [ft]	7.70	115.9	44.19	44.19	38.28	30.90	53.96	7.30	19.61	30.45	21.36
Approach Delay [s/veh]	9.40	15.59				13.80			12.25		
Approach LOS	A	C				B			B		
Intersection Delay [s/veh]	14.31										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 6: Sunset Ave/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	51.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.563

Intersection Setup

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	1	0	0	0	0	0
Pocket Length [ft]	320.00	100.00	320.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	76	0	118	0	0	0	93	430	0	0	251	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	0	0	0	0	0	1	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	85	0	118	0	0	0	94	430	0	0	251	67
Peak Hour Factor	0.9000	0.9000	0.9000	1.0000	1.0000	1.0000	0.9000	0.9000	1.0000	1.0000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	0	33	0	0	0	26	119	0	0	70	19
Total Analysis Volume [veh/h]	94	0	131	0	0	0	104	478	0	0	279	74
Pedestrian Volume [ped/h]	75			0			0			0		

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Version 7.00-06

Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane												
Storage Area [veh]	0			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.56	0.00	0.22	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	51.32	26.15	11.90	0.00	0.00	0.00	8.27	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	D	B				A	A			A	A
95th-Percentile Queue Length [veh/ln]	2.93	0.37	0.37	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	73.24	9.36	9.36	0.00	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	28.37			0.00			1.48			0.00		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	6.24											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: 11th St/Janes Rd

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Janes Rd			Janes Rd			11th St			11th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Janes Rd			Janes Rd			11th St			11th St		
Base Volume Input [veh/h]	2	56	54	63	61	2	4	23	6	52	18	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	0	1	2	0	0	0	0	0	0	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	64	54	64	63	2	4	23	6	52	18	51
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	18	15	18	18	1	1	6	2	14	5	14
Total Analysis Volume [veh/h]	2	71	60	71	70	2	4	26	7	58	20	57
Pedestrian Volume [ped/h]	0			0			4			0		

Generated with PTV VISTRO
Version 7.00-06

Intersection Settings

Priority Scheme	Free		Free		Stop		Stop	
Flared Lane					Yes		Yes	
Storage Area [veh]	0		0		1		1	
Two-Stage Gap Acceptance					No		No	
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.05	0.00	0.00	0.01	0.05	0.01	0.10	0.04	0.06
d_M, Delay for Movement [s/veh]	7.38	0.00	0.00	7.60	0.00	0.00	12.23	11.98	8.98	11.92	12.00	9.36
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.15	0.15	0.15	0.18	0.18	0.18	0.48	0.48	0.48
95th-Percentile Queue Length [ft/ln]	0.10	0.10	0.10	3.85	3.85	3.85	4.42	4.42	4.42	11.92	11.92	11.92
d_A, Approach Delay [s/veh]	0.11			3.77			11.44			10.85		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	5.45											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 8: SR-255/Jackson Ranch Rd

Control Type:	Two-way stop	Delay (sec / veh):	14.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	400.00	100.00	100.00	400.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Base Volume Input [veh/h]	0	1	1	3	0	6	3	247	0	0	322	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	2	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	3	0	6	5	247	0	0	322	1
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	2	1	69	0	0	89	0
Total Analysis Volume [veh/h]	0	1	1	3	0	7	6	274	0	0	358	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	No		
Storage Area [veh]	2	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.53	14.27	9.72	14.53	14.37	10.37	8.02	0.00	0.00	7.79	0.00	0.00
Movement LOS	B	B	A	B	B	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.06	0.06	0.06	0.02	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.19	0.19	0.19	1.38	1.38	1.38	0.38	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.99			11.62			0.17			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.29											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 9: SR-255/V St

Control Type:	Two-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Old Samoa Rd			V St			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			V St			SR-255			SR-255		
Base Volume Input [veh/h]	0	0	0	34	1	112	68	184	0	3	204	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	2	0	0	0	0	0	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	36	1	112	68	184	0	3	204	33
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	10	0	31	19	51	0	1	57	9
Total Analysis Volume [veh/h]	0	0	0	40	1	124	76	204	0	3	227	37
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane	Yes			Yes								
Storage Area [veh]	1			1			0			0		
Two-Stage Gap Acceptance	No			No								
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.09	0.00	0.14	0.06	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.31	14.60	8.86	13.88	14.86	9.52	7.95	0.00	0.00	7.64	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.48	0.48	0.48	0.19	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	12.05	12.05	12.05	4.66	0.00	0.00	0.17	0.00	0.00
d_A, Approach Delay [s/veh]	12.59			10.61			2.16			0.09		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	3.34											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 1: Janes Rd/Foster Ave

Control Type:	Two-way stop	Delay (sec / veh):	9.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

Intersection Setup

Name	Janes Rd		Foster Ave		Foster Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Janes Rd		Foster Ave		Foster Ave	
Base Volume Input [veh/h]	11	26	9	3	28	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	14	12	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	26	23	15	28	14
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	7	6	4	8	4
Total Analysis Volume [veh/h]	17	29	26	17	31	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.03	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	9.34	8.65	0.00	0.00	7.35	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.15	0.00	0.00	0.06	0.06
95th-Percentile Queue Length [ft/ln]	3.74	3.74	0.00	0.00	1.51	1.51
d_A, Approach Delay [s/veh]	8.91		0.00		4.85	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.69					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Alliance Rd/17th St

Control Type:	Two-way stop	Delay (sec / veh):	19.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.267

Intersection Setup

Name	Alliance Rd		Alliance Rd		17th St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	20.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Alliance Rd		Alliance Rd		17th St	
Base Volume Input [veh/h]	18	340	318	69	68	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	4	14	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	340	318	73	82	11
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	94	88	20	23	3
Total Analysis Volume [veh/h]	20	378	353	81	91	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					No	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.27	0.02
d_M, Delay for Movement [s/veh]	8.26	0.00	0.00	0.00	19.37	10.59
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	1.06	0.06
95th-Percentile Queue Length [ft/ln]	1.36	1.36	0.00	0.00	26.43	1.40
d_A, Approach Delay [s/veh]	0.41		0.00		18.35	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.20					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Alliance Rd/Foster Ave

Control Type:	All-way stop	Delay (sec / veh):	17.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.702

Intersection Setup

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	70.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Base Volume Input [veh/h]	13	354	127	108	328	6	5	16	12	113	20	126
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	14	0	0	0	0	0	0	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	354	141	108	328	6	5	16	12	117	20	126
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	96	38	29	89	2	1	4	3	32	5	34
Total Analysis Volume [veh/h]	14	386	154	118	357	7	5	17	13	127	22	137
Pedestrian Volume [ped/h]	14			7			15			10		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	570	643	524	567	441	489	468	548
Degree of Utilization, x	0.70	0.24	0.23	0.64	0.01	0.06	0.27	0.29

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	5.59	0.93	0.86	4.56	0.03	0.20	1.09	1.20
95th-Percentile Queue Length [ft]	139.83	23.25	21.43	114.04	0.86	4.89	27.21	29.93
Approach Delay [s/veh]	19.07		17.73		10.61		12.51	
Approach LOS	C		C		B		B	
Intersection Delay [s/veh]	16.99							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 4: Foster Ave-Jay St/Sunset Ave

Control Type:	Roundabout	Delay (sec / veh):	4.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Base Volume Input [veh/h]	185	113	33	1	96	11	8	9	174	33	10	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	0	0	0	0	0	14	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	189	113	33	1	96	11	8	9	188	33	10	2
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	29	8	0	25	3	2	2	48	8	3	1
Total Analysis Volume [veh/h]	195	116	34	1	99	11	8	9	194	34	10	2
Pedestrian Volume [ped/h]	16			1			42			1		

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	18			244			137			325		
Exiting Flow Rate [veh/h]	334			129			220			45		
Demand Flow Rate [veh/h]	189	113	33	1	96	11	8	9	188	33	10	2
Adjusted Demand Flow Rate [veh/h]	195	116	34	1	99	11	8	9	194	34	10	2

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	352	114	216	47
Capacity of Entry and Bypass Lanes [veh/h]	1355	1077	1201	991
Pedestrian Impedance	1.00	1.00	0.99	1.00
Capacity per Entry Lane [veh/h]	1325	1055	1171	971
X, volume / capacity	0.26	0.11	0.18	0.05

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	1.05	0.35	0.66	0.15
95th-Percentile Queue Length [ft]	26.18	8.79	16.41	3.73
Approach Delay [s/veh]	4.97	4.34	4.65	4.13
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	4.73			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 5: Sunset Ave/US 101 Ramps-G St-H St

Control Type:	All-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.351

Intersection Setup

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	75	30	26	149	279	101	69	177	60	111	153	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	2	9	5	0	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	30	26	149	279	103	78	182	60	111	155	116
Peak Hour Factor	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	8	7	39	73	27	20	47	16	29	40	30
Total Analysis Volume [veh/h]	78	31	27	155	290	107	81	189	62	116	161	121
Pedestrian Volume [ped/h]	60			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	597	525	564	564	630	504	539	597	501	536	595
Degree of Utilization, x	0.23	0.30	0.26	0.26	0.17	0.16	0.35	0.10	0.23	0.30	0.20

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.87	1.22	1.02	1.02	0.61	0.57	1.57	0.35	0.89	1.25	0.76
95th-Percentile Queue Length [ft]	21.79	30.62	25.44	25.44	15.19	14.22	39.13	8.65	22.18	31.33	18.91
Approach Delay [s/veh]	10.80	11.26				11.87			11.60		
Approach LOS	B	B				B			B		
Intersection Delay [s/veh]	11.45										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 6: Sunset Ave/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	53.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.626

Intersection Setup

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	1	0	0	0	0	0
Pocket Length [ft]	320.00	100.00	320.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	104	4	254	0	0	0	116	236	0	0	282	241
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	0	0	0	0	5	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	106	4	254	0	0	0	121	236	0	0	282	241
Peak Hour Factor	0.9490	0.9490	0.9490	1.0000	1.0000	1.0000	0.9490	0.9490	1.0000	1.0000	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	1	67	0	0	0	32	62	0	0	74	63
Total Analysis Volume [veh/h]	112	4	268	0	0	0	128	249	0	0	297	254
Pedestrian Volume [ped/h]	75			0			0			0		

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Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane												
Storage Area [veh]	0			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.63	0.02	0.34	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	53.82	27.99	10.63	0.00	0.00	0.00	9.04	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	D	B				A	A			A	A
95th-Percentile Queue Length [veh/ln]	3.53	0.70	0.66	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	88.19	17.58	16.53	0.00	0.00	0.00	10.73	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	23.41			0.00			3.07			0.00		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	7.73											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: 11th St/Janes Rd

Control Type:	Two-way stop	Delay (sec / veh):	11.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Janes Rd			Janes Rd			11th St			11th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Janes Rd			Janes Rd			11th St			11th St		
Base Volume Input [veh/h]	4	49	49	29	24	1	1	25	7	47	29	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	0	5	7	0	0	0	0	0	0	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	51	49	34	31	1	1	25	7	47	29	60
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	14	14	9	9	0	0	7	2	13	8	17
Total Analysis Volume [veh/h]	4	57	54	38	34	1	1	28	8	52	32	67
Pedestrian Volume [ped/h]	0			0			4			0		

Intersection Settings

Priority Scheme	Free		Free		Stop		Stop	
Flared Lane					Yes		Yes	
Storage Area [veh]	0		0		1		1	
Two-Stage Gap Acceptance					No		No	
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.04	0.01	0.08	0.05	0.07
d_M, Delay for Movement [s/veh]	7.31	0.00	0.00	7.50	0.00	0.00	11.11	10.79	8.70	10.63	10.81	9.10
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.08	0.08	0.08	0.14	0.14	0.14	0.42	0.42	0.42
95th-Percentile Queue Length [ft/ln]	0.19	0.19	0.19	1.98	1.98	1.98	3.53	3.53	3.53	10.52	10.52	10.52
d_A, Approach Delay [s/veh]	0.25			3.90			10.35			9.99		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	5.87											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 8: SR-255/Jackson Ranch Rd

Control Type:	Two-way stop	Delay (sec / veh):	17.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	400.00	100.00	100.00	400.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Base Volume Input [veh/h]	2	1	1	2	0	16	12	325	3	0	366	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	1	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	1	2	0	17	12	325	3	0	366	3
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	1	0	5	3	90	1	0	102	1
Total Analysis Volume [veh/h]	2	1	1	2	0	19	13	361	3	0	407	3
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	No		
Storage Area [veh]	2	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.56	16.52	10.37	17.21	16.66	10.83	8.17	0.00	0.00	8.01	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.11	0.11	0.11	0.03	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.76	0.76	0.76	2.81	2.81	2.81	0.86	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.50			11.44			0.28			0.00		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	0.50											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 9: SR-255/V St

Control Type:	Two-way stop	Delay (sec / veh):	17.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Old Samoa Rd			V St			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			V St			SR-255			SR-255		
Base Volume Input [veh/h]	0	1	1	17	0	65	67	246	1	1	299	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	7	0	0	0	0	0	0	0	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	24	0	65	67	246	1	1	299	48
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	7	0	18	19	68	0	0	83	13
Total Analysis Volume [veh/h]	0	1	1	27	0	72	74	273	1	1	332	53
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	Yes		
Storage Area [veh]	1	1	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.08	0.00	0.09	0.06	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	15.62	17.31	9.08	15.96	17.18	9.72	8.28	0.00	0.00	7.80	0.00	0.00
Movement LOS	C	C	A	C	C	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.29	0.29	0.29	0.20	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.26	0.26	0.26	7.24	7.24	7.24	5.06	0.00	0.00	0.06	0.00	0.00
d_A, Approach Delay [s/veh]	13.19			11.42			1.76			0.02		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.13											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 1: Janes Rd/Foster Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	Janes Rd		Foster Ave		Foster Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Janes Rd		Foster Ave		Foster Ave	
Base Volume Input [veh/h]	4	53	5	3	75	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	72	7	4	101	7
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	18	2	1	25	2
Total Analysis Volume [veh/h]	5	72	7	4	101	7
Pedestrian Volume [ped/h]	0		0		0	

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Version 7.00-06

Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.07	0.00	0.00	0.06	0.00
d_M, Delay for Movement [s/veh]	10.27	8.63	0.00	0.00	7.39	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.24	0.24	0.00	0.00	0.20	0.20
95th-Percentile Queue Length [ft/ln]	5.99	5.99	0.00	0.00	5.02	5.02
d_A, Approach Delay [s/veh]	8.74		0.00		6.91	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.24					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Alliance Rd/17th St

Control Type:	Two-way stop	Delay (sec / veh):	33.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.578

Intersection Setup

Name	Alliance Rd		Alliance Rd		17th St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	20.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Alliance Rd		Alliance Rd		17th St	
Base Volume Input [veh/h]	21	247	321	173	121	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	333	433	234	163	27
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	83	108	59	41	7
Total Analysis Volume [veh/h]	28	333	433	234	163	27
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					No	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.58	0.05
d_M, Delay for Movement [s/veh]	9.02	0.00	0.00	0.00	33.86	12.09
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.09	0.09	0.00	0.00	3.35	0.16
95th-Percentile Queue Length [ft/ln]	2.35	2.35	0.00	0.00	83.78	3.98
d_A, Approach Delay [s/veh]	0.70		0.00		30.77	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	5.01					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 3: Alliance Rd/Foster Ave

Control Type:	All-way stop	Delay (sec / veh):	18.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.726

Intersection Setup

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	70.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Base Volume Input [veh/h]	3	232	116	120	290	3	5	11	8	185	5	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	313	157	162	392	4	7	15	11	250	7	88
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	78	39	41	98	1	2	4	3	63	2	22
Total Analysis Volume [veh/h]	4	313	157	162	392	4	7	15	11	250	7	88
Pedestrian Volume [ped/h]	14			7			15			10		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	532	594	507	546	427	471	464	546
Degree of Utilization, x	0.60	0.26	0.32	0.73	0.02	0.06	0.54	0.17

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.87	1.06	1.37	6.00	0.05	0.17	3.13	0.63
95th-Percentile Queue Length [ft]	96.72	26.40	34.18	150.11	1.25	4.37	78.37	15.63
Approach Delay [s/veh]	16.29		21.40		10.89		16.81	
Approach LOS	C		C		B		C	
Intersection Delay [s/veh]	18.31							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 4: Foster Ave-Jay St/Sunset Ave

Control Type:	Roundabout	Delay (sec / veh):	6.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Base Volume Input [veh/h]	183	160	5	0	170	10	26	0	176	24	5	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	247	216	7	0	230	14	35	0	238	32	7	1
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	62	54	2	0	58	4	9	0	60	8	2	0
Total Analysis Volume [veh/h]	247	216	7	0	230	14	35	0	238	32	7	1
Pedestrian Volume [ped/h]	16			1			42			1		

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	36			292			267			508		
Exiting Flow Rate [veh/h]	510			257			273			7		
Demand Flow Rate [veh/h]	247	216	7	0	230	14	35	0	238	32	7	1
Adjusted Demand Flow Rate [veh/h]	247	216	7	0	230	14	35	0	238	32	7	1

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	480	249	279	41
Capacity of Entry and Bypass Lanes [veh/h]	1331	1025	1051	822
Pedestrian Impedance	1.00	1.00	0.99	1.00
Capacity per Entry Lane [veh/h]	1302	1005	1025	806
X, volume / capacity	0.36	0.24	0.27	0.05

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	1.67	0.95	1.08	0.16
95th-Percentile Queue Length [ft]	41.71	23.82	26.95	3.91
Approach Delay [s/veh]	6.13	5.94	6.12	4.95
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	6.03			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 5: Sunset Ave/US 101 Ramps-G St-H St

Control Type:	All-way stop	Delay (sec / veh):	20.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.850

Intersection Setup

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	35	7	11	311	391	190	128	201	46	90	123	112
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	9	15	420	528	257	173	271	62	122	166	151
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	2	4	105	132	64	43	68	16	31	42	38
Total Analysis Volume [veh/h]	47	9	15	420	528	257	173	271	62	122	166	151
Pedestrian Volume [ped/h]	60			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	629	494	528	528	585	436	461	501	421	444	482
Degree of Utilization, x	0.11	0.85	0.50	0.50	0.44	0.40	0.59	0.12	0.29	0.37	0.31

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.38	8.74	2.77	2.77	2.23	1.87	3.70	0.42	1.19	1.71	1.33
95th-Percentile Queue Length [ft]	9.49	218.	69.1	69.1	55.7	46.63	92.46	10.50	29.70	42.69	33.19
Approach Delay [s/veh]	9.45	23.52				18.16			14.64		
Approach LOS	A	C				C			B		
Intersection Delay [s/veh]	20.09										
Intersection LOS	C										

Intersection Level Of Service Report
Intersection 6: Sunset Ave/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	120.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.866

Intersection Setup

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	1	0	0	0	0	0
Pocket Length [ft]	320.00	100.00	320.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	74	0	118	0	0	0	93	430	0	0	251	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.0000	1.0000	1.0000	1.3500	1.3500	1.0000	1.0000	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	100	0	159	0	0	0	126	581	0	0	339	90
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	0	40	0	0	0	32	145	0	0	85	23
Total Analysis Volume [veh/h]	100	0	159	0	0	0	126	581	0	0	339	90
Pedestrian Volume [ped/h]	75			0			0			0		

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Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane												
Storage Area [veh]	0			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.87	0.00	0.31	0.00	0.00	0.00	0.11	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	120.35	34.77	13.29	0.00	0.00	0.00	8.58	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	D	B				A	A			A	A
95th-Percentile Queue Length [veh/ln]	5.23	0.54	0.54	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	130.84	13.60	13.60	0.00	0.00	0.00	9.38	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	54.62			0.00			1.53			0.00		
Approach LOS	F			A			A			A		
d_I, Intersection Delay [s/veh]	10.92											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: 11th St/Janes Rd

Control Type:	Two-way stop	Delay (sec / veh):	13.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name	Janes Rd			Janes Rd			11th St			11th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Janes Rd			Janes Rd			11th St			11th St		
Base Volume Input [veh/h]	2	56	54	63	61	2	4	23	6	52	18	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	76	73	85	82	3	5	31	8	70	24	61
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	19	18	21	21	1	1	8	2	18	6	15
Total Analysis Volume [veh/h]	3	76	73	85	82	3	5	31	8	70	24	61
Pedestrian Volume [ped/h]	0			0			4			0		

Intersection Settings

Priority Scheme	Free			Free			Stop			Stop		
Flared Lane							Yes			Yes		
Storage Area [veh]	0			0			1			1		
Two-Stage Gap Acceptance							No			No		
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.06	0.00	0.00	0.01	0.06	0.01	0.14	0.05	0.06
d_M, Delay for Movement [s/veh]	7.40	0.00	0.00	7.67	0.00	0.00	13.21	12.77	9.20	13.02	12.93	9.79
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.19	0.19	0.19	0.24	0.24	0.24	0.67	0.67	0.67
95th-Percentile Queue Length [ft/ln]	0.15	0.15	0.15	4.73	4.73	4.73	5.93	5.93	5.93	16.75	16.75	16.75
d_A, Approach Delay [s/veh]	0.15			3.84			12.17			11.73		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	5.81											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 8: SR-255/Jackson Ranch Rd

Control Type:	Two-way stop	Delay (sec / veh):	16.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	400.00	100.00	100.00	400.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Base Volume Input [veh/h]	0	1	1	3	0	6	3	247	0	0	322	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	4	0	8	4	319	0	0	415	1
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	2	1	80	0	0	104	0
Total Analysis Volume [veh/h]	0	1	1	4	0	8	4	319	0	0	415	1
Pedestrian Volume [ped/h]	0			0			0			0		

Generated with PTV VISTRO
Version 7.00-06

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	No		
Storage Area [veh]	2	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.12	15.54	10.00	16.13	15.71	10.84	8.16	0.00	0.00	7.90	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.08	0.08	0.08	0.01	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.22	0.22	0.22	1.90	1.90	1.90	0.26	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.77			12.60			0.10			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.28											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 9: SR-255/V St

Control Type:	Two-way stop	Delay (sec / veh):	16.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Old Samoa Rd			V St			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			V St			SR-255			SR-255		
Base Volume Input [veh/h]	0	0	0	34	1	112	68	184	0	3	204	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	44	1	144	88	237	0	4	263	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	11	0	36	22	59	0	1	66	8
Total Analysis Volume [veh/h]	0	0	0	44	1	144	88	237	0	4	263	32
Pedestrian Volume [ped/h]	0			0			0			0		

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Version 7.00-06

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	Yes		
Storage Area [veh]	1	1	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.12	0.00	0.17	0.07	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.00	15.96	8.95	15.23	16.35	9.75	8.06	0.00	0.00	7.72	0.00	0.00
Movement LOS	C	C	A	C	C	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.59	0.59	0.59	0.22	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	14.75	14.75	14.75	5.61	0.00	0.00	0.23	0.00	0.00
d_A, Approach Delay [s/veh]	13.64			11.06			2.18			0.10		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	3.48											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 1: Janes Rd/Foster Ave

Control Type:	Two-way stop	Delay (sec / veh):	9.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.017

Intersection Setup

Name	Janes Rd		Foster Ave		Foster Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Janes Rd		Foster Ave		Foster Ave	
Base Volume Input [veh/h]	11	26	9	3	28	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	35	12	4	38	14
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	9	3	1	10	4
Total Analysis Volume [veh/h]	15	35	12	4	38	14
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.03	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	9.32	8.57	0.00	0.00	7.30	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.16	0.16	0.00	0.00	0.07	0.07
95th-Percentile Queue Length [ft/ln]	3.94	3.94	0.00	0.00	1.82	1.82
d_A, Approach Delay [s/veh]	8.79		0.00		5.34	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.08					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Alliance Rd/17th St

Control Type:	Two-way stop	Delay (sec / veh):	25.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.342

Intersection Setup

Name	Alliance Rd		Alliance Rd		17th St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	20.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Alliance Rd		Alliance Rd		17th St	
Base Volume Input [veh/h]	18	340	315	69	68	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	459	425	93	92	15
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	115	106	23	23	4
Total Analysis Volume [veh/h]	24	459	425	93	92	15
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					No	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.34	0.03
d_M, Delay for Movement [s/veh]	8.52	0.00	0.00	0.00	25.18	11.24
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.07	0.07	0.00	0.00	1.46	0.08
95th-Percentile Queue Length [ft/ln]	1.76	1.76	0.00	0.00	36.56	1.95
d_A, Approach Delay [s/veh]	0.42		0.00		23.22	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.43					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 3: Alliance Rd/Foster Ave

Control Type:	All-way stop	Delay (sec / veh):	32.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.950

Intersection Setup

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	70.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Base Volume Input [veh/h]	13	354	113	100	322	6	5	16	12	109	20	124
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	478	153	135	435	8	7	22	16	147	27	167
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	120	38	34	109	2	2	6	4	37	7	42
Total Analysis Volume [veh/h]	18	478	153	135	435	8	7	22	16	147	27	167
Pedestrian Volume [ped/h]	14			7			15			10		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	522	584	481	517	397	435	430	497
Degree of Utilization, x	0.95	0.26	0.28	0.86	0.02	0.09	0.34	0.39

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	12.11	1.05	1.14	9.06	0.05	0.29	1.50	1.83
95th-Percentile Queue Length [ft]	302.68	26.15	28.50	226.57	1.35	7.14	37.38	45.79
Approach Delay [s/veh]	43.74		32.51		11.80		14.87	
Approach LOS	E		D		B		B	
Intersection Delay [s/veh]	32.72							
Intersection LOS	D							

Intersection Level Of Service Report
Intersection 4: Foster Ave-Jay St/Sunset Ave

Control Type:	Roundabout	Delay (sec / veh):	5.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Base Volume Input [veh/h]	184	113	33	1	96	11	8	9	170	33	10	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	248	153	45	1	130	15	11	12	230	45	14	3
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	62	38	11	0	33	4	3	3	58	11	4	1
Total Analysis Volume [veh/h]	248	153	45	1	130	15	11	12	230	45	14	3
Pedestrian Volume [ped/h]	16			1			42			1		

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	24			313			180			420		
Exiting Flow Rate [veh/h]	413			170			283			59		
Demand Flow Rate [veh/h]	248	153	45	1	130	15	11	12	230	45	14	3
Adjusted Demand Flow Rate [veh/h]	248	153	45	1	130	15	11	12	230	45	14	3

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	455	149	259	64
Capacity of Entry and Bypass Lanes [veh/h]	1346	1003	1150	899
Pedestrian Impedance	1.00	1.00	0.99	1.00
Capacity per Entry Lane [veh/h]	1317	983	1121	882
X, volume / capacity	0.34	0.15	0.23	0.07

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	1.52	0.52	0.87	0.23
95th-Percentile Queue Length [ft]	37.89	13.02	21.71	5.66
Approach Delay [s/veh]	5.82	5.04	5.28	4.75
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	5.47			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 5: Sunset Ave/US 101 Ramps-G St-H St

Control Type:	All-way stop	Delay (sec / veh):	13.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.456

Intersection Setup

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	75	30	26	149	279	101	67	175	60	111	152	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	101	41	35	201	377	136	90	236	81	150	205	157
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	10	9	50	94	34	23	59	20	38	51	39
Total Analysis Volume [veh/h]	101	41	35	201	377	136	90	236	81	150	205	157
Pedestrian Volume [ped/h]	60			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	661	497	532	532	589	486	517	568	480	511	562
Degree of Utilization, x	0.27	0.40	0.35	0.35	0.23	0.19	0.46	0.14	0.31	0.40	0.28

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.08	1.94	1.59	1.59	0.89	0.67	2.36	0.50	1.32	1.91	1.14
95th-Percentile Queue Length [ft]	26.96	48.42	39.73	39.73	22.16	16.81	59.02	12.39	33.03	47.84	28.44
Approach Delay [s/veh]	10.43	13.13				13.53			13.28		
Approach LOS	B	B				B			B		
Intersection Delay [s/veh]	13.00										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 6: Sunset Ave/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	330.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.450

Intersection Setup

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	1	0	0	0	0	0
Pocket Length [ft]	320.00	100.00	320.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	103	4	254	0	0	0	114	236	0	0	282	241
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.0000	1.0000	1.0000	1.3500	1.3500	1.0000	1.0000	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	139	5	343	0	0	0	154	319	0	0	381	325
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	1	86	0	0	0	39	80	0	0	95	81
Total Analysis Volume [veh/h]	139	5	343	0	0	0	154	319	0	0	381	325
Pedestrian Volume [ped/h]	146			0			0			0		

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Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane												
Storage Area [veh]	0			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.45	0.06	0.48	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	330.12	47.65	11.99	0.00	0.00	0.00	9.87	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	E	B				A	A			A	A
95th-Percentile Queue Length [veh/ln]	10.40	1.20	1.07	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	260.04	29.96	26.73	0.00	0.00	0.00	15.54	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	103.15			0.00			3.22			0.00		
Approach LOS	F			A			A			A		
d_I, Intersection Delay [s/veh]	31.07											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: 11th St/Janes Rd

Control Type:	Two-way stop	Delay (sec / veh):	11.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Janes Rd			Janes Rd			11th St			11th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Janes Rd			Janes Rd			11th St			11th St		
Base Volume Input [veh/h]	4	49	49	29	24	1	1	25	7	47	29	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	66	66	39	32	1	1	34	9	63	39	78
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	17	17	10	8	0	0	9	2	16	10	20
Total Analysis Volume [veh/h]	5	66	66	39	32	1	1	34	9	63	39	78
Pedestrian Volume [ped/h]	0			0			4			0		

Intersection Settings

Priority Scheme	Free			Free			Stop			Stop		
Flared Lane							Yes			Yes		
Storage Area [veh]	0			0			1			1		
Two-Stage Gap Acceptance							No			No		
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.05	0.01	0.10	0.06	0.08
d_M, Delay for Movement [s/veh]	7.30	0.00	0.00	7.55	0.00	0.00	11.57	11.03	8.76	11.01	11.09	9.33
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.08	0.08	0.08	0.18	0.18	0.18	0.55	0.55	0.55
95th-Percentile Queue Length [ft/ln]	0.24	0.24	0.24	2.07	2.07	2.07	4.45	4.45	4.45	13.70	13.70	13.70
d_A, Approach Delay [s/veh]	0.27			4.09			10.58			10.30		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	6.12											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 8: SR-255/Jackson Ranch Rd

Control Type:	Two-way stop	Delay (sec / veh):	20.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

Intersection Setup

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	400.00	100.00	100.00	400.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Base Volume Input [veh/h]	2	1	1	2	0	16	12	325	3	0	366	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	1	1	3	0	21	15	419	4	0	472	4
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	1	0	5	4	105	1	0	118	1
Total Analysis Volume [veh/h]	3	1	1	3	0	21	15	419	4	0	472	4
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Priority Scheme	Stop		Stop		Free		Free	
Flared Lane	Yes		No					
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No		No					
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	20.57	18.81	10.89	20.02	18.97	11.46	8.36	0.00	0.00	8.17	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.15	0.15	0.15	0.04	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.26	1.26	1.26	3.75	3.75	3.75	1.05	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	18.28			12.53			0.29			0.00		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	0.55											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 9: SR-255/V St

Control Type:	Two-way stop	Delay (sec / veh):	19.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name	Old Samoa Rd			V St			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			V St			SR-255			SR-255		
Base Volume Input [veh/h]	0	1	1	17	0	65	67	246	1	1	299	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	22	0	84	86	317	1	1	386	59
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	6	0	21	22	79	0	0	97	15
Total Analysis Volume [veh/h]	0	1	1	22	0	84	86	317	1	1	386	59
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane	Yes			Yes								
Storage Area [veh]	1			1			0			0		
Two-Stage Gap Acceptance	No			No								
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.08	0.00	0.11	0.08	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.86	19.85	9.23	18.23	19.69	10.05	8.51	0.00	0.00	7.91	0.00	0.00
Movement LOS	C	C	A	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.36	0.36	0.36	0.25	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.31	0.31	0.31	9.01	9.01	9.01	6.28	0.00	0.00	0.06	0.00	0.00
d_A, Approach Delay [s/veh]	14.54			11.75			1.81			0.02		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.10											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 1: Janes Rd/Foster Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.028

Intersection Setup

Name	Janes Rd		Foster Ave		Foster Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Janes Rd		Foster Ave		Foster Ave	
Base Volume Input [veh/h]	4	53	5	3	75	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	0	4	3	0	16
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	53	9	6	75	21
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	15	3	2	21	6
Total Analysis Volume [veh/h]	21	59	10	7	83	23
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.06	0.00	0.00	0.05	0.00
d_M, Delay for Movement [s/veh]	10.18	8.72	0.00	0.00	7.37	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.27	0.27	0.00	0.00	0.16	0.16
95th-Percentile Queue Length [ft/ln]	6.82	6.82	0.00	0.00	4.10	4.10
d_A, Approach Delay [s/veh]	9.10		0.00		5.77	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.60					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Alliance Rd/17th St

Control Type:	Two-way stop	Delay (sec / veh):	21.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.394

Intersection Setup

Name	Alliance Rd		Alliance Rd		17th St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	20.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Alliance Rd		Alliance Rd		17th St	
Base Volume Input [veh/h]	21	247	321	173	121	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	16	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	247	321	189	125	20
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	69	89	53	35	6
Total Analysis Volume [veh/h]	23	274	357	210	139	22
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.39	0.04
d_M, Delay for Movement [s/veh]	8.67	0.00	0.00	0.00	21.66	11.23
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.07	0.07	0.00	0.00	1.82	0.11
95th-Percentile Queue Length [ft/ln]	1.76	1.76	0.00	0.00	45.59	2.85
d_A, Approach Delay [s/veh]	0.67		0.00		20.24	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	3.37					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Alliance Rd/Foster Ave

Control Type:	All-way stop	Delay (sec / veh):	13.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.557

Intersection Setup

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	70.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Base Volume Input [veh/h]	3	232	116	120	290	3	5	11	8	185	5	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	4	0	0	0	0	0	0	16	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	232	120	120	290	3	5	11	8	201	5	65
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	64	33	33	81	1	1	3	2	56	1	18
Total Analysis Volume [veh/h]	3	258	133	133	322	3	6	12	9	223	6	72
Pedestrian Volume [ped/h]	14			7			15			10		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	572	644	539	584	463	517	497	590
Degree of Utilization, x	0.46	0.21	0.25	0.56	0.01	0.04	0.45	0.13

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.37	0.77	0.96	3.41	0.04	0.13	2.29	0.45
95th-Percentile Queue Length [ft]	59.36	19.27	24.11	85.27	0.98	3.17	57.26	11.33
Approach Delay [s/veh]	12.68		14.95		10.10		14.16	
Approach LOS	B		B		B		B	
Intersection Delay [s/veh]	13.88							
Intersection LOS	B							

Intersection Level Of Service Report
Intersection 4: Foster Ave-Jay St/Sunset Ave

Control Type:	Roundabout	Delay (sec / veh):	5.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Base Volume Input [veh/h]	183	160	5	0	170	10	26	0	176	24	5	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	16	0	0	0	0	0	0	0	4	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	199	160	5	0	170	10	26	0	180	24	5	1
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	55	44	1	0	47	3	7	0	50	7	1	0
Total Analysis Volume [veh/h]	221	178	6	0	189	11	29	0	200	27	6	1
Pedestrian Volume [ped/h]	16			1			42			1		

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Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	30			259			220			437		
Exiting Flow Rate [veh/h]	424			212			243			6		
Demand Flow Rate [veh/h]	199	160	5	0	170	10	26	0	180	24	5	1
Adjusted Demand Flow Rate [veh/h]	221	178	6	0	189	11	29	0	200	27	6	1

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	414	204	234	35
Capacity of Entry and Bypass Lanes [veh/h]	1339	1060	1103	885
Pedestrian Impedance	1.00	1.00	0.99	1.00
Capacity per Entry Lane [veh/h]	1310	1039	1075	867
X, volume / capacity	0.31	0.19	0.21	0.04

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	1.33	0.71	0.81	0.12
95th-Percentile Queue Length [ft]	33.18	17.77	20.16	3.06
Approach Delay [s/veh]	5.52	5.25	5.32	4.52
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	5.37			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 5: Sunset Ave/US 101 Ramps-G St-H St

Control Type:	All-way stop	Delay (sec / veh):	14.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.650

Intersection Setup

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	35	7	11	311	391	190	128	201	46	90	123	112
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	7	3	1	0	0	9	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	7	11	311	391	197	131	202	46	90	132	112
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	2	3	85	107	54	36	55	13	25	36	31
Total Analysis Volume [veh/h]	38	8	12	340	427	215	143	221	50	98	144	122
Pedestrian Volume [ped/h]	60			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	620	523	562	562	627	480	512	562	467	496	544
Degree of Utilization, x	0.09	0.65	0.38	0.38	0.34	0.30	0.43	0.09	0.21	0.29	0.22

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.31	4.63	1.77	1.77	1.52	1.24	2.16	0.29	0.78	1.20	0.85
95th-Percentile Queue Length [ft]	7.71	115.8	44.15	44.15	37.98	30.88	53.92	7.30	19.60	29.88	21.35
Approach Delay [s/veh]	9.41	15.57				13.79			12.22		
Approach LOS	A	C				B			B		
Intersection Delay [s/veh]	14.30										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 6: Sunset Ave/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	50.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.552

Intersection Setup

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	1	0	0	0	0	0
Pocket Length [ft]	320.00	100.00	320.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	74	0	118	0	0	0	93	430	0	0	251	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	0	0	0	0	0	1	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	83	0	118	0	0	0	94	430	0	0	251	67
Peak Hour Factor	0.9000	0.9000	0.9000	1.0000	1.0000	1.0000	0.9000	0.9000	1.0000	1.0000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	0	33	0	0	0	26	119	0	0	70	19
Total Analysis Volume [veh/h]	92	0	131	0	0	0	104	478	0	0	279	74
Pedestrian Volume [ped/h]	75			0			0			0		

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Version 7.00-06

Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane												
Storage Area [veh]	0			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.55	0.00	0.22	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	50.32	26.15	11.90	0.00	0.00	0.00	8.27	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	D	B				A	A			A	A
95th-Percentile Queue Length [veh/ln]	2.83	0.37	0.37	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	70.79	9.36	9.36	0.00	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	27.75			0.00			1.48			0.00		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	6.09											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: 11th St/Janes Rd

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Janes Rd			Janes Rd			11th St			11th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Janes Rd			Janes Rd			11th St			11th St		
Base Volume Input [veh/h]	2	56	54	63	61	2	4	23	6	52	18	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	0	1	2	0	0	0	0	0	0	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	64	54	64	63	2	4	23	6	52	18	52
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	18	15	18	18	1	1	6	2	14	5	14
Total Analysis Volume [veh/h]	2	71	60	71	70	2	4	26	7	58	20	58
Pedestrian Volume [ped/h]	0			0			4			0		

Intersection Settings

Priority Scheme	Free		Free		Stop		Stop	
Flared Lane					Yes		Yes	
Storage Area [veh]	0		0		1		1	
Two-Stage Gap Acceptance					No		No	
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.05	0.00	0.00	0.01	0.05	0.01	0.10	0.04	0.06
d_M, Delay for Movement [s/veh]	7.38	0.00	0.00	7.60	0.00	0.00	12.25	11.98	8.98	11.91	11.99	9.35
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.15	0.15	0.15	0.18	0.18	0.18	0.48	0.48	0.48
95th-Percentile Queue Length [ft/ln]	0.10	0.10	0.10	3.85	3.85	3.85	4.42	4.42	4.42	11.92	11.92	11.92
d_A, Approach Delay [s/veh]	0.11			3.77			11.44			10.83		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	5.46											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 8: SR-255/Jackson Ranch Rd

Control Type:	Two-way stop	Delay (sec / veh):	14.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	400.00	100.00	100.00	400.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Base Volume Input [veh/h]	0	1	1	3	0	6	3	247	0	0	322	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	2	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	3	0	6	5	247	0	0	322	1
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	2	1	69	0	0	89	0
Total Analysis Volume [veh/h]	0	1	1	3	0	7	6	274	0	0	358	1
Pedestrian Volume [ped/h]	0			0			0			0		

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Version 7.00-06

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	No		
Storage Area [veh]	2	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.53	14.27	9.72	14.53	14.37	10.37	8.02	0.00	0.00	7.79	0.00	0.00
Movement LOS	B	B	A	B	B	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.06	0.06	0.06	0.02	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.19	0.19	0.19	1.38	1.38	1.38	0.38	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.99			11.62			0.17			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.29											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 9: SR-255/V St

Control Type:	Two-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Old Samoa Rd			V St			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			V St			SR-255			SR-255		
Base Volume Input [veh/h]	0	0	0	34	1	112	68	184	0	3	204	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	2	0	0	0	0	0	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	36	1	112	68	184	0	3	204	33
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	10	0	31	19	51	0	1	57	9
Total Analysis Volume [veh/h]	0	0	0	40	1	124	76	204	0	3	227	37
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Priority Scheme	Stop		Stop		Free		Free	
Flared Lane	Yes		Yes					
Storage Area [veh]	1		1		0		0	
Two-Stage Gap Acceptance	No		No					
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.09	0.00	0.14	0.06	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.31	14.60	8.86	13.88	14.86	9.52	7.95	0.00	0.00	7.64	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.48	0.48	0.48	0.19	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	12.05	12.05	12.05	4.66	0.00	0.00	0.17	0.00	0.00
d_A, Approach Delay [s/veh]	12.59			10.61			2.16			0.09		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	3.34											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 1: Janes Rd/Foster Ave

Control Type:	Two-way stop	Delay (sec / veh):	9.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

Intersection Setup

Name	Janes Rd		Foster Ave		Foster Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Janes Rd		Foster Ave		Foster Ave	
Base Volume Input [veh/h]	11	26	9	3	28	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	15	13	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	26	24	16	28	14
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	7	7	4	8	4
Total Analysis Volume [veh/h]	17	29	27	18	31	16
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.03	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	9.35	8.66	0.00	0.00	7.35	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.15	0.00	0.00	0.06	0.06
95th-Percentile Queue Length [ft/ln]	3.75	3.75	0.00	0.00	1.52	1.52
d_A, Approach Delay [s/veh]	8.91		0.00		4.85	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.62					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Alliance Rd/17th St

Control Type:	Two-way stop	Delay (sec / veh):	19.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.269

Intersection Setup

Name	Alliance Rd		Alliance Rd		17th St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	20.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Alliance Rd		Alliance Rd		17th St	
Base Volume Input [veh/h]	18	340	315	69	68	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	4	15	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	340	315	73	83	11
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	94	88	20	23	3
Total Analysis Volume [veh/h]	20	378	350	81	92	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.27	0.02
d_M, Delay for Movement [s/veh]	8.25	0.00	0.00	0.00	19.34	10.57
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	1.07	0.06
95th-Percentile Queue Length [ft/ln]	1.35	1.35	0.00	0.00	26.67	1.39
d_A, Approach Delay [s/veh]	0.41		0.00		18.33	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.22					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Alliance Rd/Foster Ave

Control Type:	All-way stop	Delay (sec / veh):	16.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.696

Intersection Setup

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	70.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Base Volume Input [veh/h]	13	354	113	100	322	6	5	16	12	109	20	124
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	15	0	0	0	0	0	0	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	354	128	100	322	6	5	16	12	113	20	124
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	96	35	27	88	2	1	4	3	31	5	34
Total Analysis Volume [veh/h]	14	386	139	109	351	7	5	17	13	123	22	135
Pedestrian Volume [ped/h]	14			7			15			10		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	575	650	528	572	445	494	472	553
Degree of Utilization, x	0.70	0.21	0.21	0.63	0.01	0.06	0.26	0.28

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	5.48	0.81	0.77	4.32	0.03	0.19	1.03	1.16
95th-Percentile Queue Length [ft]	137.05	20.15	19.21	108.08	0.85	4.84	25.82	29.07
Approach Delay [s/veh]	18.85		17.16		10.52		12.31	
Approach LOS	C		C		B		B	
Intersection Delay [s/veh]	16.65							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 4: Foster Ave-Jay St/Sunset Ave

Control Type:	Roundabout	Delay (sec / veh):	4.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Base Volume Input [veh/h]	184	113	33	1	96	11	8	9	170	33	10	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	0	0	0	0	0	15	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	188	113	33	1	96	11	8	9	185	33	10	2
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	48	29	8	0	25	3	2	2	48	8	3	1
Total Analysis Volume [veh/h]	194	116	34	1	99	11	8	9	191	34	10	2
Pedestrian Volume [ped/h]	16			1			42			1		

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Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	18			243			137			324		
Exiting Flow Rate [veh/h]	330			129			219			45		
Demand Flow Rate [veh/h]	188	113	33	1	96	11	8	9	185	33	10	2
Adjusted Demand Flow Rate [veh/h]	194	116	34	1	99	11	8	9	191	34	10	2

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	351	114	213	47
Capacity of Entry and Bypass Lanes [veh/h]	1355	1078	1201	992
Pedestrian Impedance	1.00	1.00	0.99	1.00
Capacity per Entry Lane [veh/h]	1325	1057	1171	972
X, volume / capacity	0.26	0.11	0.18	0.05

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	1.04	0.35	0.65	0.15
95th-Percentile Queue Length [ft]	26.08	8.78	16.13	3.72
Approach Delay [s/veh]	4.97	4.33	4.63	4.13
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	4.71			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 5: Sunset Ave/US 101 Ramps-G St-H St

Control Type:	All-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.349

Intersection Setup

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	75	30	26	149	279	101	67	175	60	111	152	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	2	9	6	0	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	30	26	149	279	103	76	181	60	111	154	116
Peak Hour Factor	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	8	7	39	73	27	20	47	16	29	40	30
Total Analysis Volume [veh/h]	78	31	27	155	290	107	79	188	62	116	160	121
Pedestrian Volume [ped/h]	60			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	597	525	565	565	631	504	539	597	502	536	595
Degree of Utilization, x	0.23	0.30	0.26	0.26	0.17	0.16	0.35	0.10	0.23	0.30	0.20

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.87	1.22	1.02	1.02	0.61	0.55	1.55	0.35	0.89	1.24	0.76
95th-Percentile Queue Length [ft]	21.82	30.58	25.41	25.41	15.16	13.80	38.81	8.65	22.17	31.04	18.90
Approach Delay [s/veh]	10.81	11.25				11.84			11.58		
Approach LOS	B	B				B			B		
Intersection Delay [s/veh]	11.44										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 6: Sunset Ave/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	52.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.615

Intersection Setup

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	1	0	0	0	0	0
Pocket Length [ft]	320.00	100.00	320.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	103	4	254	0	0	0	114	236	0	0	282	241
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	0	0	0	0	6	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	105	4	254	0	0	0	120	236	0	0	282	241
Peak Hour Factor	0.9490	0.9490	0.9490	1.0000	1.0000	1.0000	0.9490	0.9490	1.0000	1.0000	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	1	67	0	0	0	32	62	0	0	74	63
Total Analysis Volume [veh/h]	111	4	268	0	0	0	126	249	0	0	297	254
Pedestrian Volume [ped/h]	75			0			0			0		

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Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane												
Storage Area [veh]	0			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.61	0.02	0.34	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	52.41	27.82	10.63	0.00	0.00	0.00	9.03	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	D	B				A	A			A	A
95th-Percentile Queue Length [veh/ln]	3.43	0.70	0.66	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	85.81	17.56	16.52	0.00	0.00	0.00	10.54	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	22.91			0.00			3.03			0.00		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	7.57											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: 11th St/Janes Rd

Control Type:	Two-way stop	Delay (sec / veh):	11.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Janes Rd			Janes Rd			11th St			11th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Janes Rd			Janes Rd			11th St			11th St		
Base Volume Input [veh/h]	4	49	49	29	24	1	1	25	7	47	29	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	0	6	7	0	0	0	0	0	0	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	51	49	35	31	1	1	25	7	47	29	60
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	14	14	10	9	0	0	7	2	13	8	17
Total Analysis Volume [veh/h]	4	57	54	39	34	1	1	28	8	52	32	67
Pedestrian Volume [ped/h]	0			0			4			0		

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Intersection Settings

Priority Scheme	Free			Free			Stop			Stop		
Flared Lane							Yes			Yes		
Storage Area [veh]	0			0			1			1		
Two-Stage Gap Acceptance							No			No		
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.04	0.01	0.08	0.05	0.07
d_M, Delay for Movement [s/veh]	7.31	0.00	0.00	7.50	0.00	0.00	11.14	10.81	8.71	10.65	10.83	9.11
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.08	0.08	0.08	0.14	0.14	0.14	0.42	0.42	0.42
95th-Percentile Queue Length [ft/ln]	0.19	0.19	0.19	2.03	2.03	2.03	3.54	3.54	3.54	10.56	10.56	10.56
d_A, Approach Delay [s/veh]	0.25			3.95			10.36			10.00		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	5.88											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 8: SR-255/Jackson Ranch Rd

Control Type:	Two-way stop	Delay (sec / veh):	17.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	400.00	100.00	100.00	400.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Base Volume Input [veh/h]	2	1	1	2	0	16	12	325	3	0	366	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	1	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	1	2	0	17	12	325	3	0	366	3
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	1	0	5	3	90	1	0	102	1
Total Analysis Volume [veh/h]	2	1	1	2	0	19	13	361	3	0	407	3
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	No		
Storage Area [veh]	2	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.56	16.52	10.37	17.21	16.66	10.83	8.17	0.00	0.00	8.01	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.11	0.11	0.11	0.03	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.76	0.76	0.76	2.81	2.81	2.81	0.86	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.50			11.44			0.28			0.00		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	0.50											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 9: SR-255/V St

Control Type:	Two-way stop	Delay (sec / veh):	17.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Old Samoa Rd			V St			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			V St			SR-255			SR-255		
Base Volume Input [veh/h]	0	1	1	17	0	65	67	246	1	1	299	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	7	0	0	0	0	0	0	0	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	24	0	65	67	246	1	1	299	48
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	7	0	18	19	68	0	0	83	13
Total Analysis Volume [veh/h]	0	1	1	27	0	72	74	273	1	1	332	53
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Priority Scheme	Stop		Stop		Free		Free	
Flared Lane	Yes		Yes					
Storage Area [veh]	1		1		0		0	
Two-Stage Gap Acceptance	No		No					
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.08	0.00	0.09	0.06	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	15.62	17.31	9.08	15.96	17.18	9.72	8.28	0.00	0.00	7.80	0.00	0.00
Movement LOS	C	C	A	C	C	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.29	0.29	0.29	0.20	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.26	0.26	0.26	7.24	7.24	7.24	5.06	0.00	0.00	0.06	0.00	0.00
d_A, Approach Delay [s/veh]	13.19			11.42			1.76			0.02		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.13											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 1: Janes Rd/Foster Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.051

Intersection Setup

Name	Janes Rd		Foster Ave		Foster Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Janes Rd		Foster Ave		Foster Ave	
Base Volume Input [veh/h]	4	53	5	3	75	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	29	0	6	6	0	32
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	53	11	9	75	37
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	15	3	3	21	10
Total Analysis Volume [veh/h]	37	59	12	10	83	41
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.06	0.00	0.00	0.05	0.00
d_M, Delay for Movement [s/veh]	10.45	8.87	0.00	0.00	7.38	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.36	0.36	0.00	0.00	0.16	0.16
95th-Percentile Queue Length [ft/ln]	8.93	8.93	0.00	0.00	4.12	4.12
d_A, Approach Delay [s/veh]	9.48		0.00		4.94	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.29					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Alliance Rd/17th St

Control Type:	Two-way stop	Delay (sec / veh):	22.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.408

Intersection Setup

Name	Alliance Rd		Alliance Rd		17th St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	20.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Alliance Rd		Alliance Rd		17th St	
Base Volume Input [veh/h]	21	252	321	173	121	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	32	6	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	252	321	205	127	20
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	70	89	57	35	6
Total Analysis Volume [veh/h]	23	280	357	228	141	22
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					No	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.41	0.04
d_M, Delay for Movement [s/veh]	8.72	0.00	0.00	0.00	22.40	11.31
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.07	0.07	0.00	0.00	1.92	0.12
95th-Percentile Queue Length [ft/ln]	1.78	1.78	0.00	0.00	48.03	2.89
d_A, Approach Delay [s/veh]	0.66		0.00		20.90	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	3.43					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Alliance Rd/Foster Ave

Control Type:	All-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.567

Intersection Setup

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	70.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Base Volume Input [veh/h]	3	237	116	121	290	3	5	11	8	185	5	70
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	6	0	0	0	0	0	0	32	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	237	122	121	290	3	5	11	8	217	5	70
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	66	34	34	81	1	1	3	2	60	1	19
Total Analysis Volume [veh/h]	3	263	136	134	322	3	6	12	9	241	6	78
Pedestrian Volume [ped/h]	14			7			15			10		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	563	633	530	573	457	509	494	587
Degree of Utilization, x	0.47	0.22	0.25	0.57	0.01	0.04	0.49	0.14

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.52	0.81	0.99	3.53	0.04	0.13	2.64	0.50
95th-Percentile Queue Length [ft]	63.03	20.28	24.87	88.20	1.00	3.22	66.04	12.43
Approach Delay [s/veh]	13.10		15.39		10.21		14.97	
Approach LOS	B		C		B		B	
Intersection Delay [s/veh]	14.41							
Intersection LOS	B							

Intersection Level Of Service Report
Intersection 4: Foster Ave-Jay St/Sunset Ave

Control Type:	Roundabout	Delay (sec / veh):	5.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Base Volume Input [veh/h]	187	160	5	0	170	10	26	0	177	24	5	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	32	0	0	0	0	0	0	0	6	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	219	160	5	0	170	10	26	0	183	24	5	1
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	44	1	0	47	3	7	0	51	7	1	0
Total Analysis Volume [veh/h]	243	178	6	0	189	11	29	0	203	27	6	1
Pedestrian Volume [ped/h]	16			1			42			1		

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Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	30			282			220			459		
Exiting Flow Rate [veh/h]	427			212			265			6		
Demand Flow Rate [veh/h]	219	160	5	0	170	10	26	0	183	24	5	1
Adjusted Demand Flow Rate [veh/h]	243	178	6	0	189	11	29	0	203	27	6	1

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	436	204	237	35
Capacity of Entry and Bypass Lanes [veh/h]	1339	1036	1103	865
Pedestrian Impedance	1.00	1.00	0.99	1.00
Capacity per Entry Lane [veh/h]	1310	1016	1075	848
X, volume / capacity	0.33	0.20	0.22	0.04

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	1.43	0.73	0.82	0.13
95th-Percentile Queue Length [ft]	35.81	18.27	20.50	3.13
Approach Delay [s/veh]	5.70	5.40	5.35	4.63
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	5.50			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 5: Sunset Ave/US 101 Ramps-G St-H St

Control Type:	All-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.653

Intersection Setup

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	35	7	11	311	391	192	129	201	46	90	125	112
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	13	3	3	0	0	19	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	7	11	311	391	205	132	204	46	90	144	112
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	2	3	85	107	56	36	56	13	25	39	31
Total Analysis Volume [veh/h]	38	8	12	340	427	224	144	223	50	98	157	122
Pedestrian Volume [ped/h]	60			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	623	521	559	559	624	479	509	559	466	494	542
Degree of Utilization, x	0.09	0.65	0.38	0.38	0.36	0.30	0.44	0.09	0.21	0.32	0.23

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.31	4.68	1.78	1.78	1.63	1.25	2.20	0.29	0.79	1.35	0.86
95th-Percentile Queue Length [ft]	7.66	116.8	44.48	44.48	40.68	31.34	55.08	7.34	19.67	33.80	21.44
Approach Delay [s/veh]	9.37	15.70				13.92			12.44		
Approach LOS	A	C				B			B		
Intersection Delay [s/veh]	14.43										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 6: Sunset Ave/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	59.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.643

Intersection Setup

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	1	0	0	0	0	0
Pocket Length [ft]	320.00	100.00	320.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	76	0	118	0	0	0	93	430	0	0	251	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	0	0	0	0	0	3	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	95	0	118	0	0	0	96	430	0	0	251	67
Peak Hour Factor	0.9000	0.9000	0.9000	1.0000	1.0000	1.0000	0.9000	0.9000	1.0000	1.0000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	0	33	0	0	0	27	119	0	0	70	19
Total Analysis Volume [veh/h]	106	0	131	0	0	0	107	478	0	0	279	74
Pedestrian Volume [ped/h]	75			0			0			0		

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Version 7.00-06

Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane												
Storage Area [veh]	0			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.64	0.00	0.22	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	59.56	26.37	11.90	0.00	0.00	0.00	8.28	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	D	B				A	A			A	A
95th-Percentile Queue Length [veh/ln]	3.62	0.37	0.37	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	90.57	9.36	9.36	0.00	0.00	0.00	7.29	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	33.21			0.00			1.51			0.00		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	7.45											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: 11th St/Janes Rd

Control Type:	Two-way stop	Delay (sec / veh):	12.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Janes Rd			Janes Rd			11th St			11th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Janes Rd			Janes Rd			11th St			11th St		
Base Volume Input [veh/h]	2	56	54	63	61	2	4	23	6	52	18	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	16	0	3	3	0	0	0	0	0	0	13
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	72	54	66	64	2	4	23	6	52	18	58
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	20	15	18	18	1	1	6	2	14	5	16
Total Analysis Volume [veh/h]	2	80	60	73	71	2	4	26	7	58	20	64
Pedestrian Volume [ped/h]	0			0			4			0		

Intersection Settings

Priority Scheme	Free		Free		Stop		Stop	
Flared Lane					Yes		Yes	
Storage Area [veh]	0		0		1		1	
Two-Stage Gap Acceptance					No		No	
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.05	0.00	0.00	0.01	0.05	0.01	0.10	0.04	0.07
d_M, Delay for Movement [s/veh]	7.38	0.00	0.00	7.63	0.00	0.00	12.51	12.13	9.00	12.07	12.13	9.40
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.16	0.16	0.16	0.18	0.18	0.18	0.49	0.49	0.49
95th-Percentile Queue Length [ft/ln]	0.10	0.10	0.10	3.99	3.99	3.99	4.53	4.53	4.53	12.23	12.23	12.23
d_A, Approach Delay [s/veh]	0.10			3.81			11.58			10.87		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	5.45											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 8: SR-255/Jackson Ranch Rd

Control Type:	Two-way stop	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	400.00	100.00	100.00	400.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Base Volume Input [veh/h]	0	1	1	3	0	6	3	247	0	0	322	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	1	3	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	3	0	7	6	247	0	0	322	1
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	2	2	69	0	0	89	0
Total Analysis Volume [veh/h]	0	1	1	3	0	8	7	274	0	0	358	1
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	No		
Storage Area [veh]	2	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.59	14.30	9.72	14.57	14.41	10.38	8.02	0.00	0.00	7.79	0.00	0.00
Movement LOS	B	B	A	B	B	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.06	0.06	0.06	0.02	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.19	0.19	0.19	1.49	1.49	1.49	0.44	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.01			11.52			0.20			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.32											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 9: SR-255/V St

Control Type:	Two-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Old Samoa Rd			V St			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			V St			SR-255			SR-255		
Base Volume Input [veh/h]	0	0	0	34	1	112	68	184	0	3	204	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	3	0	0	0	0	0	0	0	16
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	37	1	112	68	184	0	3	204	41
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	10	0	31	19	51	0	1	57	11
Total Analysis Volume [veh/h]	0	0	0	41	1	124	76	204	0	3	227	46
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Priority Scheme	Stop		Stop		Free		Free	
Flared Lane	Yes		Yes					
Storage Area [veh]	1		1		0		0	
Two-Stage Gap Acceptance	No		No					
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.10	0.00	0.14	0.06	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.32	14.72	8.86	13.95	14.92	9.55	7.97	0.00	0.00	7.64	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.49	0.49	0.49	0.19	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	12.14	12.14	12.14	4.70	0.00	0.00	0.17	0.00	0.00
d_A, Approach Delay [s/veh]	12.63			10.67			2.16			0.08		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	3.32											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 1: Janes Rd/Foster Ave

Control Type:	Two-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.024

Intersection Setup

Name	Janes Rd		Foster Ave		Foster Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Janes Rd		Foster Ave		Foster Ave	
Base Volume Input [veh/h]	11	26	9	3	28	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	0	28	25	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	26	37	28	28	18
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	7	10	8	8	5
Total Analysis Volume [veh/h]	20	29	41	31	31	20
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.03	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	9.51	8.78	0.00	0.00	7.40	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.17	0.17	0.00	0.00	0.06	0.06
95th-Percentile Queue Length [ft/ln]	4.16	4.16	0.00	0.00	1.55	1.55
d_A, Approach Delay [s/veh]	9.08		0.00		4.50	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.92					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Alliance Rd/17th St

Control Type:	Two-way stop	Delay (sec / veh):	20.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.315

Intersection Setup

Name	Alliance Rd		Alliance Rd		17th St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	20.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Alliance Rd		Alliance Rd		17th St	
Base Volume Input [veh/h]	18	340	318	69	68	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	8	28	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	340	318	77	96	11
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	94	88	21	27	3
Total Analysis Volume [veh/h]	20	378	353	86	107	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					No	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.32	0.02
d_M, Delay for Movement [s/veh]	8.27	0.00	0.00	0.00	20.40	10.61
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	1.32	0.06
95th-Percentile Queue Length [ft/ln]	1.36	1.36	0.00	0.00	33.00	1.40
d_A, Approach Delay [s/veh]	0.42		0.00		19.41	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.59					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Alliance Rd/Foster Ave

Control Type:	All-way stop	Delay (sec / veh):	17.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.705

Intersection Setup

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	70.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Base Volume Input [veh/h]	13	354	127	108	328	6	5	16	12	113	20	126
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	28	0	0	0	0	0	0	8	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	354	155	108	328	6	5	16	12	121	20	126
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	96	42	29	89	2	1	4	3	33	5	34
Total Analysis Volume [veh/h]	14	386	169	118	357	7	5	17	13	132	22	137
Pedestrian Volume [ped/h]	14			7			15			10		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	568	640	521	563	439	486	467	545
Degree of Utilization, x	0.71	0.26	0.23	0.65	0.01	0.06	0.28	0.29

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	5.65	1.06	0.86	4.63	0.03	0.20	1.15	1.20
95th-Percentile Queue Length [ft]	141.16	26.43	21.60	115.67	0.86	4.92	28.80	30.11
Approach Delay [s/veh]	19.09		17.98		10.65		12.65	
Approach LOS	C		C		B		B	
Intersection Delay [s/veh]	17.12							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 4: Foster Ave-Jay St/Sunset Ave

Control Type:	Roundabout	Delay (sec / veh):	4.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Base Volume Input [veh/h]	185	113	33	1	96	11	8	9	174	33	10	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	0	0	0	0	0	0	0	28	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	193	113	33	1	96	11	8	9	202	33	10	2
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	50	29	8	0	25	3	2	2	52	8	3	1
Total Analysis Volume [veh/h]	199	116	34	1	99	11	8	9	208	34	10	2
Pedestrian Volume [ped/h]	16			1			42			1		

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Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	18			248			137			329		
Exiting Flow Rate [veh/h]	348			129			224			45		
Demand Flow Rate [veh/h]	193	113	33	1	96	11	8	9	202	33	10	2
Adjusted Demand Flow Rate [veh/h]	199	116	34	1	99	11	8	9	208	34	10	2

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	356	114	230	47
Capacity of Entry and Bypass Lanes [veh/h]	1355	1072	1201	987
Pedestrian Impedance	1.00	1.00	0.99	1.00
Capacity per Entry Lane [veh/h]	1325	1051	1171	967
X, volume / capacity	0.26	0.11	0.19	0.05

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	1.06	0.35	0.71	0.15
95th-Percentile Queue Length [ft]	26.59	8.83	17.75	3.74
Approach Delay [s/veh]	5.00	4.36	4.77	4.15
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	4.78			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 5: Sunset Ave/US 101 Ramps-G St-H St

Control Type:	All-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.364

Intersection Setup

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	75	30	26	149	279	101	69	177	60	111	153	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	3	17	11	0	0	5	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	30	26	149	279	104	86	188	60	111	158	116
Peak Hour Factor	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	8	7	39	73	27	22	49	16	29	41	30
Total Analysis Volume [veh/h]	78	31	27	155	290	108	89	196	62	116	164	121
Pedestrian Volume [ped/h]	60			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	599	522	562	562	627	504	539	597	500	534	593
Degree of Utilization, x	0.23	0.30	0.26	0.26	0.17	0.18	0.36	0.10	0.23	0.31	0.20

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.87	1.23	1.02	1.02	0.62	0.64	1.65	0.35	0.89	1.29	0.76
95th-Percentile Queue Length [ft]	21.70	30.81	25.61	25.61	15.46	15.91	41.35	8.66	22.24	32.26	18.99
Approach Delay [s/veh]	10.76	11.32				12.04			11.67		
Approach LOS	B	B				B			B		
Intersection Delay [s/veh]	11.54										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 6: Sunset Ave/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	58.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.659

Intersection Setup

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	1	0	0	0	0	0
Pocket Length [ft]	320.00	100.00	320.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	104	4	254	0	0	0	116	236	0	0	282	241
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	0	11	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	109	4	254	0	0	0	127	236	0	0	282	241
Peak Hour Factor	0.9490	0.9490	0.9490	1.0000	1.0000	1.0000	0.9490	0.9490	1.0000	1.0000	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	1	67	0	0	0	33	62	0	0	74	63
Total Analysis Volume [veh/h]	115	4	268	0	0	0	134	249	0	0	297	254
Pedestrian Volume [ped/h]	75			0			0			0		

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Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane												
Storage Area [veh]	0			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.66	0.02	0.34	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	58.47	28.51	10.63	0.00	0.00	0.00	9.07	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	D	B				A	A			A	A
95th-Percentile Queue Length [veh/ln]	3.83	0.71	0.66	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	95.70	17.64	16.56	0.00	0.00	0.00	11.31	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	25.03			0.00			3.17			0.00		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	8.25											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: 11th St/Janes Rd

Control Type:	Two-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Janes Rd			Janes Rd			11th St			11th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Janes Rd			Janes Rd			11th St			11th St		
Base Volume Input [veh/h]	4	49	49	29	24	1	1	25	7	47	29	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	0	11	14	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	53	49	40	38	1	1	25	7	47	29	61
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	15	14	11	11	0	0	7	2	13	8	17
Total Analysis Volume [veh/h]	4	59	54	44	42	1	1	28	8	52	32	68
Pedestrian Volume [ped/h]	0			0			4			0		

Intersection Settings

Priority Scheme	Free			Free			Stop			Stop		
Flared Lane							Yes			Yes		
Storage Area [veh]	0			0			1			1		
Two-Stage Gap Acceptance							No			No		
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.04	0.01	0.08	0.05	0.07
d_M, Delay for Movement [s/veh]	7.32	0.00	0.00	7.51	0.00	0.00	11.37	10.99	8.75	10.86	11.02	9.14
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.09	0.09	0.09	0.15	0.15	0.15	0.44	0.44	0.44
95th-Percentile Queue Length [ft/ln]	0.19	0.19	0.19	2.30	2.30	2.30	3.66	3.66	3.66	10.95	10.95	10.95
d_A, Approach Delay [s/veh]	0.25			3.80			10.51			10.13		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	5.82											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 8: SR-255/Jackson Ranch Rd

Control Type:	Two-way stop	Delay (sec / veh):	17.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	400.00	100.00	100.00	400.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Base Volume Input [veh/h]	2	1	1	2	0	16	12	325	3	0	366	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	3	1	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	1	2	0	19	13	325	3	0	366	3
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	1	0	5	4	90	1	0	102	1
Total Analysis Volume [veh/h]	2	1	1	2	0	21	14	361	3	0	407	3
Pedestrian Volume [ped/h]	0			0			0			0		

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Version 7.00-06

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	No		
Storage Area [veh]	2	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.67	16.56	10.37	17.28	16.72	10.85	8.17	0.00	0.00	8.01	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.12	0.12	0.12	0.04	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.77	0.77	0.77	3.07	3.07	3.07	0.93	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.57			11.41			0.30			0.00		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	0.54											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 9: SR-255/V St

Control Type:	Two-way stop	Delay (sec / veh):	17.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Old Samoa Rd			V St			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			V St			SR-255			SR-255		
Base Volume Input [veh/h]	0	1	1	17	0	65	67	246	1	1	299	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	14	0	0	0	0	0	0	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	31	0	65	67	246	1	1	299	50
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	9	0	18	19	68	0	0	83	14
Total Analysis Volume [veh/h]	0	1	1	34	0	72	74	273	1	1	332	56
Pedestrian Volume [ped/h]	0			0			0			0		

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Version 7.00-06

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	Yes		
Storage Area [veh]	1	1	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.10	0.00	0.09	0.06	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	15.63	17.36	9.08	16.06	17.28	9.80	8.29	0.00	0.00	7.80	0.00	0.00
Movement LOS	C	C	A	C	C	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.34	0.34	0.34	0.20	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.26	0.26	0.26	8.39	8.39	8.39	5.07	0.00	0.00	0.06	0.00	0.00
d_A, Approach Delay [s/veh]	13.22			11.81			1.76			0.02		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.25											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 1: Janes Rd/Foster Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.029

Intersection Setup

Name	Janes Rd		Foster Ave		Foster Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Janes Rd		Foster Ave		Foster Ave	
Base Volume Input [veh/h]	4	53	5	3	75	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	0	4	3	0	16
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	72	11	7	101	23
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	18	3	2	25	6
Total Analysis Volume [veh/h]	20	72	11	7	101	23
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.07	0.00	0.00	0.06	0.00
d_M, Delay for Movement [s/veh]	10.54	8.78	0.00	0.00	7.40	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.32	0.32	0.00	0.00	0.20	0.20
95th-Percentile Queue Length [ft/ln]	7.95	7.95	0.00	0.00	5.05	5.05
d_A, Approach Delay [s/veh]	9.16		0.00		6.03	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.80					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Alliance Rd/17th St

Control Type:	Two-way stop	Delay (sec / veh):	35.5
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.599

Intersection Setup

Name	Alliance Rd		Alliance Rd		17th St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	20.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Alliance Rd		Alliance Rd		17th St	
Base Volume Input [veh/h]	21	247	321	173	121	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	16	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	333	433	250	167	27
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	83	108	63	42	7
Total Analysis Volume [veh/h]	28	333	433	250	167	27
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					No	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.60	0.05
d_M, Delay for Movement [s/veh]	9.08	0.00	0.00	0.00	35.47	12.17
Movement LOS	A	A	A	A	E	B
95th-Percentile Queue Length [veh/ln]	0.10	0.10	0.00	0.00	3.57	0.16
95th-Percentile Queue Length [ft/ln]	2.38	2.38	0.00	0.00	89.20	4.02
d_A, Approach Delay [s/veh]	0.70		0.00		32.23	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	5.26					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 3: Alliance Rd/Foster Ave

Control Type:	All-way stop	Delay (sec / veh):	19.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.735

Intersection Setup

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	70.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Base Volume Input [veh/h]	3	232	116	120	290	3	5	11	8	185	5	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	4	0	0	0	0	0	0	16	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	313	161	162	392	4	7	15	11	266	7	88
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	78	40	41	98	1	2	4	3	67	2	22
Total Analysis Volume [veh/h]	4	313	161	162	392	4	7	15	11	266	7	88
Pedestrian Volume [ped/h]	14			7			15			10		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	526	586	500	539	423	466	462	544
Degree of Utilization, x	0.60	0.27	0.32	0.74	0.02	0.06	0.58	0.17

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.96	1.11	1.39	6.18	0.05	0.18	3.55	0.63
95th-Percentile Queue Length [ft]	99.06	27.80	34.76	154.53	1.26	4.41	88.77	15.72
Approach Delay [s/veh]	16.64		22.09		10.98		17.93	
Approach LOS	C		C		B		C	
Intersection Delay [s/veh]	18.96							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 4: Foster Ave-Jay St/Sunset Ave

Control Type:	Roundabout	Delay (sec / veh):	6.1
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Base Volume Input [veh/h]	183	160	5	0	170	10	26	0	176	24	5	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	16	0	0	0	0	0	0	0	4	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	263	216	7	0	230	14	35	0	242	32	7	1
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	66	54	2	0	58	4	9	0	61	8	2	0
Total Analysis Volume [veh/h]	263	216	7	0	230	14	35	0	242	32	7	1
Pedestrian Volume [ped/h]	16			1			42			1		

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	36			308			267			524		
Exiting Flow Rate [veh/h]	514			257			290			7		
Demand Flow Rate [veh/h]	263	216	7	0	230	14	35	0	242	32	7	1
Adjusted Demand Flow Rate [veh/h]	263	216	7	0	230	14	35	0	242	32	7	1

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	496	249	283	41
Capacity of Entry and Bypass Lanes [veh/h]	1331	1008	1051	809
Pedestrian Impedance	1.00	1.00	0.99	1.00
Capacity per Entry Lane [veh/h]	1302	989	1025	793
X, volume / capacity	0.37	0.25	0.27	0.05

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	1.76	0.97	1.10	0.16
95th-Percentile Queue Length [ft]	43.93	24.34	27.48	3.98
Approach Delay [s/veh]	6.27	6.07	6.17	5.04
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	6.15			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 5: Sunset Ave/US 101 Ramps-G St-H St

Control Type:	All-way stop	Delay (sec / veh):	20.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.853

Intersection Setup

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	35	7	11	311	391	190	128	201	46	90	123	112
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	7	3	1	0	0	9	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	9	15	420	528	264	176	272	62	122	175	151
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	2	4	105	132	66	44	68	16	31	44	38
Total Analysis Volume [veh/h]	47	9	15	420	528	264	176	272	62	122	175	151
Pedestrian Volume [ped/h]	60			0			0			0		

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Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	632	493	526	526	582	434	458	498	418	442	479
Degree of Utilization, x	0.11	0.85	0.50	0.50	0.45	0.41	0.59	0.12	0.29	0.40	0.32

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.38	8.82	2.78	2.78	2.35	1.93	3.76	0.42	1.20	1.86	1.34
95th-Percentile Queue Length [ft]	9.45	220.5	69.62	69.62	58.77	48.27	94.11	10.58	29.89	46.60	33.44
Approach Delay [s/veh]	9.42	23.76				18.43			14.91		
Approach LOS	A	C				C			B		
Intersection Delay [s/veh]	20.33										
Intersection LOS	C										

Intersection Level Of Service Report
Intersection 6: Sunset Ave/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	140.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.948

Intersection Setup

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	1	0	0	0	0	0
Pocket Length [ft]	320.00	100.00	320.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	74	0	118	0	0	0	93	430	0	0	251	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.0000	1.0000	1.0000	1.3500	1.3500	1.0000	1.0000	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	0	0	0	0	0	1	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	109	0	159	0	0	0	127	581	0	0	339	90
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	0	40	0	0	0	32	145	0	0	85	23
Total Analysis Volume [veh/h]	109	0	159	0	0	0	127	581	0	0	339	90
Pedestrian Volume [ped/h]	75			0			0			0		

Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane												
Storage Area [veh]	0			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.95	0.00	0.31	0.00	0.00	0.00	0.11	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	140.79	34.88	13.29	0.00	0.00	0.00	8.59	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	D	B				A	A			A	A
95th-Percentile Queue Length [veh/ln]	6.03	0.54	0.54	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	150.77	13.60	13.60	0.00	0.00	0.00	9.46	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	65.15			0.00			1.54			0.00		
Approach LOS	F			A			A			A		
d_I, Intersection Delay [s/veh]	13.20											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: 11th St/Janes Rd

Control Type:	Two-way stop	Delay (sec / veh):	13.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name	Janes Rd			Janes Rd			11th St			11th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Janes Rd			Janes Rd			11th St			11th St		
Base Volume Input [veh/h]	2	56	54	63	61	2	4	23	6	52	18	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	0	1	2	0	0	0	0	0	0	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	84	73	86	84	3	5	31	8	70	24	68
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	21	18	22	21	1	1	8	2	18	6	17
Total Analysis Volume [veh/h]	3	84	73	86	84	3	5	31	8	70	24	68
Pedestrian Volume [ped/h]	0			0			4			0		

Intersection Settings

Priority Scheme	Free		Free		Stop		Stop	
Flared Lane					Yes		Yes	
Storage Area [veh]	0		0		1		1	
Two-Stage Gap Acceptance					No		No	
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.06	0.00	0.00	0.01	0.06	0.01	0.14	0.05	0.07
d_M, Delay for Movement [s/veh]	7.41	0.00	0.00	7.69	0.00	0.00	13.49	12.91	9.23	13.16	13.04	9.82
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.19	0.19	0.19	0.24	0.24	0.24	0.69	0.69	0.69
95th-Percentile Queue Length [ft/ln]	0.15	0.15	0.15	4.82	4.82	4.82	6.06	6.06	6.06	17.15	17.15	17.15
d_A, Approach Delay [s/veh]	0.14			3.82			12.31			11.74		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	5.80											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 8: SR-255/Jackson Ranch Rd

Control Type:	Two-way stop	Delay (sec / veh):	16.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	400.00	100.00	100.00	400.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Base Volume Input [veh/h]	0	1	1	3	0	6	3	247	0	0	322	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	2	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	4	0	8	6	319	0	0	415	1
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	2	2	80	0	0	104	0
Total Analysis Volume [veh/h]	0	1	1	4	0	8	6	319	0	0	415	1
Pedestrian Volume [ped/h]	0			0			0			0		

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Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	No		
Storage Area [veh]	2	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.20	15.62	10.00	16.21	15.78	10.84	8.17	0.00	0.00	7.90	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.08	0.08	0.08	0.02	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.22	0.22	0.22	1.91	1.91	1.91	0.40	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.81			12.63			0.15			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.30											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 9: SR-255/V St

Control Type:	Two-way stop	Delay (sec / veh):	16.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Old Samoa Rd			V St			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			V St			SR-255			SR-255		
Base Volume Input [veh/h]	0	0	0	34	1	112	68	184	0	3	204	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	2	0	0	0	0	0	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	46	1	144	88	237	0	4	263	40
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	12	0	36	22	59	0	1	66	10
Total Analysis Volume [veh/h]	0	0	0	46	1	144	88	237	0	4	263	40
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane	Yes			Yes								
Storage Area [veh]	1			1			0			0		
Two-Stage Gap Acceptance	No			No								
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.12	0.00	0.17	0.07	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.02	16.08	8.95	15.30	16.41	9.77	8.09	0.00	0.00	7.72	0.00	0.00
Movement LOS	C	C	A	C	C	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.59	0.59	0.59	0.23	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	14.85	14.85	14.85	5.65	0.00	0.00	0.23	0.00	0.00
d_A, Approach Delay [s/veh]	13.68			11.14			2.19			0.10		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	3.49											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 1: Janes Rd/Foster Ave

Control Type:	Two-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

Intersection Setup

Name	Janes Rd		Foster Ave		Foster Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Janes Rd		Foster Ave		Foster Ave	
Base Volume Input [veh/h]	11	26	9	3	28	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	15	13	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	35	27	17	38	18
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	9	7	4	10	5
Total Analysis Volume [veh/h]	19	35	27	17	38	18
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.03	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	9.49	8.69	0.00	0.00	7.36	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.18	0.18	0.00	0.00	0.07	0.07
95th-Percentile Queue Length [ft/ln]	4.46	4.46	0.00	0.00	1.87	1.87
d_A, Approach Delay [s/veh]	8.97		0.00		4.99	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.96					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Alliance Rd/17th St

Control Type:	Two-way stop	Delay (sec / veh):	27.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.399

Intersection Setup

Name	Alliance Rd		Alliance Rd		17th St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	20.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Alliance Rd		Alliance Rd		17th St	
Base Volume Input [veh/h]	18	340	315	69	68	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	4	15	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	459	425	97	107	15
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	115	106	24	27	4
Total Analysis Volume [veh/h]	24	459	425	97	107	15
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					No	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.40	0.03
d_M, Delay for Movement [s/veh]	8.53	0.00	0.00	0.00	27.05	11.25
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.07	0.07	0.00	0.00	1.83	0.08
95th-Percentile Queue Length [ft/ln]	1.76	1.76	0.00	0.00	45.63	1.95
d_A, Approach Delay [s/veh]	0.42		0.00		25.10	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	2.90					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 3: Alliance Rd/Foster Ave

Control Type:	All-way stop	Delay (sec / veh):	33.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.953

Intersection Setup

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	70.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Alliance Ave			Alliance Rd			Foster Ave			Foster Ave		
Base Volume Input [veh/h]	13	354	113	100	322	6	5	16	12	109	20	124
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	15	0	0	0	0	0	0	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	478	168	135	435	8	7	22	16	151	27	167
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	120	42	34	109	2	2	6	4	38	7	42
Total Analysis Volume [veh/h]	18	478	168	135	435	8	7	22	16	151	27	167
Pedestrian Volume [ped/h]	14			7			15			10		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	520	581	479	514	395	434	428	496
Degree of Utilization, x	0.95	0.29	0.28	0.86	0.02	0.09	0.35	0.39

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	12.21	1.19	1.15	9.19	0.05	0.29	1.56	1.84
95th-Percentile Queue Length [ft]	305.24	29.81	28.71	229.77	1.35	7.17	39.03	46.02
Approach Delay [s/veh]	43.70		33.18		11.83		15.02	
Approach LOS	E		D		B		C	
Intersection Delay [s/veh]	33.03							
Intersection LOS	D							

Intersection Level Of Service Report
Intersection 4: Foster Ave-Jay St/Sunset Ave

Control Type:	Roundabout	Delay (sec / veh):	5.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Sunset Ave			Sunset Ave			Foster Ave			Jay St		
Base Volume Input [veh/h]	184	113	33	1	96	11	8	9	170	33	10	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	0	0	0	0	0	15	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	252	153	45	1	130	15	11	12	245	45	14	3
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	38	11	0	33	4	3	3	61	11	4	1
Total Analysis Volume [veh/h]	252	153	45	1	130	15	11	12	245	45	14	3
Pedestrian Volume [ped/h]	16			1			42			1		

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	24			317			180			424		
Exiting Flow Rate [veh/h]	428			170			287			59		
Demand Flow Rate [veh/h]	252	153	45	1	130	15	11	12	245	45	14	3
Adjusted Demand Flow Rate [veh/h]	252	153	45	1	130	15	11	12	245	45	14	3

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	459	149	274	64
Capacity of Entry and Bypass Lanes [veh/h]	1346	999	1150	896
Pedestrian Impedance	1.00	1.00	0.99	1.00
Capacity per Entry Lane [veh/h]	1317	979	1121	878
X, volume / capacity	0.34	0.15	0.24	0.07

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	1.54	0.52	0.94	0.23
95th-Percentile Queue Length [ft]	38.40	13.08	23.38	5.69
Approach Delay [s/veh]	5.86	5.07	5.42	4.77
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	5.53			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 5: Sunset Ave/US 101 Ramps-G St-H St

Control Type:	All-way stop	Delay (sec / veh):	13.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.468

Intersection Setup

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	G St			US 101 Ramps			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	75	30	26	149	279	101	67	175	60	111	152	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	2	9	6	0	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	101	41	35	201	377	138	99	242	81	150	207	157
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	10	9	50	94	35	25	61	20	38	52	39
Total Analysis Volume [veh/h]	101	41	35	201	377	138	99	242	81	150	207	157
Pedestrian Volume [ped/h]	60			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	669	496	530	530	588	487	517	568	480	511	561
Degree of Utilization, x	0.26	0.41	0.36	0.36	0.24	0.20	0.47	0.14	0.31	0.41	0.28

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.06	1.94	1.60	1.60	0.91	0.76	2.46	0.50	1.32	1.95	1.14
95th-Percentile Queue Length [ft]	26.53	48.62	39.91	39.91	22.68	18.89	61.60	12.39	33.05	48.63	28.49
Approach Delay [s/veh]	10.31	13.18				13.72			13.33		
Approach LOS	B	B				B			B		
Intersection Delay [s/veh]	13.07										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 6: Sunset Ave/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	357.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.511

Intersection Setup

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	1	0	0	0	0	0
Pocket Length [ft]	320.00	100.00	320.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	US 101 NB Off-Ramp			US 101 NB On-Ramp			Sunset Ave			Sunset Ave		
Base Volume Input [veh/h]	103	4	254	0	0	0	114	236	0	0	282	241
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.0000	1.0000	1.0000	1.3500	1.3500	1.0000	1.0000	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	0	0	0	0	6	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	141	5	343	0	0	0	160	319	0	0	381	325
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	1	86	0	0	0	40	80	0	0	95	81
Total Analysis Volume [veh/h]	141	5	343	0	0	0	160	319	0	0	381	325
Pedestrian Volume [ped/h]	146			0			0			0		

Intersection Settings

Priority Scheme	Stop			Stop			Free			Free		
Flared Lane												
Storage Area [veh]	0			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.51	0.06	0.48	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	357.29	48.70	12.00	0.00	0.00	0.00	9.91	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	E	B				A	A			A	A
95th-Percentile Queue Length [veh/ln]	10.84	1.21	1.07	0.00	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	271.00	30.16	26.83	0.00	0.00	0.00	16.27	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	111.94			0.00			3.31			0.00		
Approach LOS	F			A			A			A		
d_I, Intersection Delay [s/veh]	33.65											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: 11th St/Janes Rd

Control Type:	Two-way stop	Delay (sec / veh):	11.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Janes Rd			Janes Rd			11th St			11th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Janes Rd			Janes Rd			11th St			11th St		
Base Volume Input [veh/h]	4	49	49	29	24	1	1	25	7	47	29	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	0	6	7	0	0	0	0	0	0	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	68	66	45	39	1	1	34	9	63	39	80
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	17	17	11	10	0	0	9	2	16	10	20
Total Analysis Volume [veh/h]	5	68	66	45	39	1	1	34	9	63	39	80
Pedestrian Volume [ped/h]	0			0			4			0		

Intersection Settings

Priority Scheme	Free			Free			Stop			Stop		
Flared Lane							Yes			Yes		
Storage Area [veh]	0			0			1			1		
Two-Stage Gap Acceptance							No			No		
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.06	0.01	0.10	0.06	0.08
d_M, Delay for Movement [s/veh]	7.32	0.00	0.00	7.56	0.00	0.00	11.85	11.23	8.81	11.25	11.31	9.38
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.10	0.10	0.10	0.18	0.18	0.18	0.57	0.57	0.57
95th-Percentile Queue Length [ft/ln]	0.24	0.24	0.24	2.40	2.40	2.40	4.60	4.60	4.60	14.27	14.27	14.27
d_A, Approach Delay [s/veh]	0.26			4.00			10.75			10.44		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	6.11											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 8: SR-255/Jackson Ranch Rd

Control Type:	Two-way stop	Delay (sec / veh):	20.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

Intersection Setup

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	400.00	100.00	100.00	400.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			Jackson Ranch Rd			SR-255			SR-255		
Base Volume Input [veh/h]	2	1	1	2	0	16	12	325	3	0	366	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	1	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	1	1	3	0	22	15	419	4	0	472	4
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	1	0	6	4	105	1	0	118	1
Total Analysis Volume [veh/h]	3	1	1	3	0	22	15	419	4	0	472	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	No		
Storage Area [veh]	2	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	20.61	18.81	10.89	20.03	18.98	11.47	8.36	0.00	0.00	8.17	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.16	0.16	0.16	0.04	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.27	1.27	1.27	3.89	3.89	3.89	1.05	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	18.31			12.50			0.29			0.00		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	0.56											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 9: SR-255/V St

Control Type:	Two-way stop	Delay (sec / veh):	19.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name	Old Samoa Rd			V St			SR-255			SR-255		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Old Samoa Rd			V St			SR-255			SR-255		
Base Volume Input [veh/h]	0	1	1	17	0	65	67	246	1	1	299	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900	1.2900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	7	0	0	0	0	0	0	0	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	29	0	84	86	317	1	1	386	61
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	7	0	21	22	79	0	0	97	15
Total Analysis Volume [veh/h]	0	1	1	29	0	84	86	317	1	1	386	61
Pedestrian Volume [ped/h]	0			0			0			0		

Generated with PTV VISTRO
Version 7.00-06

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	Yes	Yes		
Storage Area [veh]	1	1	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.10	0.00	0.11	0.08	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.86	19.90	9.23	18.22	19.69	10.03	8.52	0.00	0.00	7.91	0.00	0.00
Movement LOS	C	C	A	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.36	0.36	0.36	0.25	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.31	0.31	0.31	9.03	9.03	9.03	6.29	0.00	0.00	0.06	0.00	0.00
d_A, Approach Delay [s/veh]	14.56			12.13			1.81			0.02		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.21											
Intersection LOS	C											

MOVEMENT SUMMARY

Site: Alliance Rd/Foster Ave - AM Future

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Alliance Rd											
3	L2	4	2.0	0.406	7.2	LOS A	2.5	62.7	0.46	0.31	22.6
8	T1	313	2.0	0.406	7.2	LOS A	2.5	62.7	0.46	0.31	22.7
18	R2	157	2.0	0.406	7.2	LOS A	2.5	62.7	0.46	0.31	22.4
Approach		474	2.0	0.406	7.2	LOS A	2.5	62.7	0.46	0.31	22.6
East: Foster Ave											
1	L2	250	2.0	0.341	7.1	LOS A	1.8	45.4	0.54	0.45	22.2
6	T1	7	2.0	0.341	7.1	LOS A	1.8	45.4	0.54	0.45	22.2
16	R2	88	2.0	0.341	7.1	LOS A	1.8	45.4	0.54	0.45	22.0
Approach		345	2.0	0.341	7.1	LOS A	1.8	45.4	0.54	0.45	22.2
North: Alliance Rd											
7	L2	162	2.0	0.548	10.5	LOS B	3.5	89.4	0.61	0.49	21.8
4	T1	392	2.0	0.548	10.5	LOS B	3.5	89.4	0.61	0.49	21.8
14	R2	4	2.0	0.548	10.5	LOS B	3.5	89.4	0.61	0.49	21.6
Approach		558	2.0	0.548	10.5	LOS B	3.5	89.4	0.61	0.49	21.8
West: Foster Ave											
5	L2	7	2.0	0.053	6.4	LOS A	0.2	5.1	0.62	0.57	22.7
2	T1	15	2.0	0.053	6.4	LOS A	0.2	5.1	0.62	0.57	22.7
12	R2	11	2.0	0.053	6.4	LOS A	0.2	5.1	0.62	0.57	22.4
Approach		33	2.0	0.053	6.4	LOS A	0.2	5.1	0.62	0.57	22.6
All Vehicles		1410	2.0	0.548	8.4	LOS A	3.5	89.4	0.54	0.42	22.2

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: Intersection 3-4 AM Future

5-Leg Roundabout with northbound right-turn slip lane

Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
SouthEast: NB LK Wood Blvd											
3ax	L1	101	2.0	0.284	7.0	LOS A	1.4	34.4	0.58	0.52	32.3
8x	T1	27	2.0	0.284	7.0	LOS A	1.4	34.4	0.58	0.52	32.7
18x	R2	128	2.0	0.284	7.0	LOS A	1.4	34.4	0.58	0.52	31.9
Approach		256	2.0	0.284	7.0	LOS A	1.4	34.4	0.58	0.52	32.2
NorthEast: SB LK Wood Blvd											
1x	L2	247	2.0	0.558	11.0	LOS B	4.1	104.0	0.70	0.65	30.6
16ax	R1	240	2.0	0.558	11.0	LOS B	4.1	104.0	0.70	0.65	30.5
16x	R2	63	2.0	0.558	11.0	LOS B	4.1	104.0	0.70	0.65	30.0
Approach		550	2.0	0.558	11.0	LOS B	4.1	104.0	0.70	0.65	30.5
West: EB Sunset Ave											
5b	L3	124	2.0	0.641	12.1	LOS B	5.8	146.6	0.70	0.59	30.5
5a	L1	168	2.0	0.641	12.1	LOS B	5.8	146.6	0.70	0.59	30.0
12a	R1	411	2.0	0.641	12.1	LOS B	5.8	146.6	0.70	0.59	30.1
Approach		703	2.0	0.641	12.1	LOS B	5.8	146.6	0.70	0.59	30.2
SouthWest: NB US 101 Off											
5bx	L3	100	2.0	0.274	10.6	LOS B	1.1	28.0	0.71	0.71	30.3
5x	L2	1	2.0	0.274	10.6	LOS B	1.1	28.0	0.71	0.71	30.0
2x	T1	46	2.0	0.274	10.6	LOS B	1.1	28.0	0.71	0.71	30.1
12x	R2	113	2.0	0.157	6.7	LOS A	0.6	16.3	0.61	0.59	32.8
Approach		260	2.0	0.274	8.9	LOS A	1.1	28.0	0.67	0.66	31.2
All Vehicles		1769	2.0	0.641	10.6	LOS B	5.8	146.6	0.68	0.61	30.7

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: Alliance Rd/Foster Ave - PM Future

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Alliance Rd											
3	L2	18	2.0	0.545	9.3	LOS A	4.1	103.1	0.53	0.35	22.1
8	T1	478	2.0	0.545	9.3	LOS A	4.1	103.1	0.53	0.35	22.2
18	R2	153	2.0	0.545	9.3	LOS A	4.1	103.1	0.53	0.35	21.9
Approach		649	2.0	0.545	9.3	LOS A	4.1	103.1	0.53	0.35	22.1
East: Foster Ave											
1	L2	147	2.0	0.404	9.1	LOS A	2.1	54.1	0.66	0.66	21.9
6	T1	27	2.0	0.404	9.1	LOS A	2.1	54.1	0.66	0.66	21.9
16	R2	167	2.0	0.404	9.1	LOS A	2.1	54.1	0.66	0.66	21.7
Approach		341	2.0	0.404	9.1	LOS A	2.1	54.1	0.66	0.66	21.8
North: Alliance Rd											
7	L2	135	2.0	0.499	8.7	LOS A	3.4	86.3	0.53	0.37	22.2
4	T1	435	2.0	0.499	8.7	LOS A	3.4	86.3	0.53	0.37	22.2
14	R2	8	2.0	0.499	8.7	LOS A	3.4	86.3	0.53	0.37	22.0
Approach		578	2.0	0.499	8.7	LOS A	3.4	86.3	0.53	0.37	22.2
West: Foster Ave											
5	L2	7	2.0	0.066	6.0	LOS A	0.3	6.5	0.60	0.55	22.8
2	T1	22	2.0	0.066	6.0	LOS A	0.3	6.5	0.60	0.55	22.8
12	R2	16	2.0	0.066	6.0	LOS A	0.3	6.5	0.60	0.55	22.6
Approach		45	2.0	0.066	6.0	LOS A	0.3	6.5	0.60	0.55	22.7
All Vehicles		1613	2.0	0.545	9.0	LOS A	4.1	103.1	0.56	0.43	22.1

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: Intersection 3-4 PM Future

5-Leg Roundabout with northbound right-turn slip lane

Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
SouthEast: NB LK Wood Blvd											
3ax	L1	203	2.0	0.854	32.3	LOS D	10.0	253.0	0.97	1.31	23.7
8x	T1	171	2.0	0.854	32.3	LOS D	10.0	253.0	0.97	1.31	23.9
18x	R2	209	2.0	0.854	32.3	LOS D	10.0	253.0	0.97	1.31	23.5
Approach		583	2.0	0.854	32.3	LOS D	10.0	253.0	0.97	1.31	23.7
NorthEast: SB LK Wood Blvd											
1x	L2	230	2.0	0.781	24.5	LOS C	7.7	194.7	0.92	1.15	25.9
16ax	R1	177	2.0	0.781	24.5	LOS C	7.7	194.7	0.92	1.15	25.8
16x	R2	151	2.0	0.781	24.5	LOS C	7.7	194.7	0.92	1.15	25.5
Approach		558	2.0	0.781	24.5	LOS C	7.7	194.7	0.92	1.15	25.8
West: EB Sunset Ave											
5b	L3	154	2.0	0.423	7.7	LOS A	2.6	64.9	0.52	0.38	31.7
5a	L1	201	2.0	0.423	7.7	LOS A	2.6	64.9	0.52	0.38	31.2
12a	R1	117	2.0	0.423	7.7	LOS A	2.6	64.9	0.52	0.38	31.3
Approach		473	2.0	0.423	7.7	LOS A	2.6	64.9	0.52	0.38	31.4
SouthWest: NB US 101 Off											
5bx	L3	139	2.0	0.517	13.2	LOS B	3.1	78.0	0.77	0.84	29.8
5x	L2	1	2.0	0.517	13.2	LOS B	3.1	78.0	0.77	0.84	29.6
2x	T1	216	2.0	0.517	13.2	LOS B	3.1	78.0	0.77	0.84	29.7
12x	R2	127	2.0	0.128	4.8	LOS A	0.6	14.2	0.47	0.36	33.7
Approach		483	2.0	0.517	11.0	LOS B	3.1	78.0	0.69	0.71	30.7
All Vehicles		2097	2.0	0.854	19.8	LOS C	10.0	253.0	0.79	0.92	27.2

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Alliance Rd/Foster Ave - AM Future+P]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Alliance Rd												
3	L2	4	2.0	0.409	7.2	LOS A	2.5	63.5	0.46	0.31	0.46	22.6
8	T1	313	2.0	0.409	7.2	LOS A	2.5	63.5	0.46	0.31	0.46	22.6
18	R2	161	2.0	0.409	7.2	LOS A	2.5	63.5	0.46	0.31	0.46	22.4
Approach		478	2.0	0.409	7.2	LOS A	2.5	63.5	0.46	0.31	0.46	22.6
East: Foster Ave												
1	L2	266	2.0	0.356	7.3	LOS A	1.9	48.2	0.55	0.45	0.55	22.2
6	T1	7	2.0	0.356	7.3	LOS A	1.9	48.2	0.55	0.45	0.55	22.2
16	R2	88	2.0	0.356	7.3	LOS A	1.9	48.2	0.55	0.45	0.55	21.9
Approach		361	2.0	0.356	7.3	LOS A	1.9	48.2	0.55	0.45	0.55	22.1
North: Alliance Rd												
7	L2	162	2.0	0.556	10.8	LOS B	4.3	109.4	0.62	0.58	0.74	21.7
4	T1	392	2.0	0.556	10.8	LOS B	4.3	109.4	0.62	0.58	0.74	21.7
14	R2	4	2.0	0.556	10.8	LOS B	4.3	109.4	0.62	0.58	0.74	21.5
Approach		558	2.0	0.556	10.8	LOS B	4.3	109.4	0.62	0.58	0.74	21.7
West: Foster Ave												
5	L2	7	2.0	0.054	6.5	LOS A	0.2	5.2	0.62	0.58	0.62	22.7
2	T1	15	2.0	0.054	6.5	LOS A	0.2	5.2	0.62	0.58	0.62	22.7
12	R2	11	2.0	0.054	6.5	LOS A	0.2	5.2	0.62	0.58	0.62	22.4
Approach		33	2.0	0.054	6.5	LOS A	0.2	5.2	0.62	0.58	0.62	22.6
All Vehicles		1430	2.0	0.556	8.6	LOS A	4.3	109.4	0.55	0.46	0.60	22.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [Sunset-101-LK Wood AM Future+P]

5-Leg Roundabout with northbound right-turn slip lane

Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
SouthEast: NB LK Wood Blvd												
3ax	L1	101	2.0	0.287	7.1	LOS A	1.4	34.7	0.58	0.53	0.58	32.3
8x	T1	27	2.0	0.287	7.1	LOS A	1.4	34.7	0.58	0.53	0.58	32.6
18x	R2	128	2.0	0.287	7.1	LOS A	1.4	34.7	0.58	0.53	0.58	31.9
Approach		256	2.0	0.287	7.1	LOS A	1.4	34.7	0.58	0.53	0.58	32.1
NorthEast: SB LK Wood Blvd												
1x	L2	247	2.0	0.564	11.2	LOS B	5.2	131.3	0.71	0.74	0.97	30.5
16ax	R1	240	2.0	0.564	11.2	LOS B	5.2	131.3	0.71	0.74	0.97	30.4
16x	R2	63	2.0	0.564	11.2	LOS B	5.2	131.3	0.71	0.74	0.97	29.9
Approach		550	2.0	0.564	11.2	LOS B	5.2	131.3	0.71	0.74	0.97	30.4
West: EB Sunset Ave												
5b	L3	125	2.0	0.642	12.2	LOS B	7.8	197.7	0.71	0.68	0.94	30.5
5a	L1	168	2.0	0.642	12.2	LOS B	7.8	197.7	0.71	0.68	0.94	30.0
12a	R1	411	2.0	0.642	12.2	LOS B	7.8	197.7	0.71	0.68	0.94	30.1
Approach		704	2.0	0.642	12.2	LOS B	7.8	197.7	0.71	0.68	0.94	30.1
SouthWest: NB US 101 Off												
5bx	L3	109	2.0	0.291	10.9	LOS B	1.2	30.7	0.71	0.73	0.76	30.1
5x	L2	1	2.0	0.291	10.9	LOS B	1.2	30.7	0.71	0.73	0.76	29.9
2x	T1	46	2.0	0.291	10.9	LOS B	1.2	30.7	0.71	0.73	0.76	29.9
12x	R2	113	2.0	0.157	6.7	LOS A	0.6	16.3	0.61	0.59	0.61	32.8
Approach		269	2.0	0.291	9.2	LOS A	1.2	30.7	0.67	0.67	0.70	31.1
All Vehicles		1779	2.0	0.642	10.7	LOS B	7.8	197.7	0.68	0.67	0.86	30.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Alliance Rd/Foster Ave - PM Future+P]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Alliance Rd												
3	L2	18	2.0	0.558	9.6	LOS A	4.2	107.5	0.54	0.36	0.54	22.1
8	T1	478	2.0	0.558	9.6	LOS A	4.2	107.5	0.54	0.36	0.54	22.1
18	R2	168	2.0	0.558	9.6	LOS A	4.2	107.5	0.54	0.36	0.54	21.9
Approach		664	2.0	0.558	9.6	LOS A	4.2	107.5	0.54	0.36	0.54	22.1
East: Foster Ave												
1	L2	151	2.0	0.409	9.2	LOS A	2.3	58.0	0.66	0.69	0.74	21.9
6	T1	27	2.0	0.409	9.2	LOS A	2.3	58.0	0.66	0.69	0.74	21.9
16	R2	167	2.0	0.409	9.2	LOS A	2.3	58.0	0.66	0.69	0.74	21.7
Approach		345	2.0	0.409	9.2	LOS A	2.3	58.0	0.66	0.69	0.74	21.8
North: Alliance Rd												
7	L2	135	2.0	0.501	8.7	LOS A	3.4	86.6	0.53	0.38	0.53	22.2
4	T1	435	2.0	0.501	8.7	LOS A	3.4	86.6	0.53	0.38	0.53	22.2
14	R2	8	2.0	0.501	8.7	LOS A	3.4	86.6	0.53	0.38	0.53	22.0
Approach		578	2.0	0.501	8.7	LOS A	3.4	86.6	0.53	0.38	0.53	22.2
West: Foster Ave												
5	L2	7	2.0	0.067	6.0	LOS A	0.3	6.5	0.60	0.55	0.60	22.8
2	T1	22	2.0	0.067	6.0	LOS A	0.3	6.5	0.60	0.55	0.60	22.8
12	R2	16	2.0	0.067	6.0	LOS A	0.3	6.5	0.60	0.55	0.60	22.6
Approach		45	2.0	0.067	6.0	LOS A	0.3	6.5	0.60	0.55	0.60	22.7
All Vehicles		1632	2.0	0.558	9.1	LOS A	4.2	107.5	0.57	0.44	0.58	22.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 1 [Sunset-101-LK Wood PM Future+P]

5-Leg Roundabout with northbound right-turn slip lane

Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
SouthEast: NB LK Wood Blvd												
3ax	L1	203	2.0	0.863	33.8	LOS D	13.2	334.9	0.98	1.54	2.66	23.4
8x	T1	171	2.0	0.863	33.8	LOS D	13.2	334.9	0.98	1.54	2.66	23.6
18x	R2	209	2.0	0.863	33.8	LOS D	13.2	334.9	0.98	1.54	2.66	23.2
Approach		583	2.0	0.863	33.8	LOS D	13.2	334.9	0.98	1.54	2.66	23.3
NorthEast: SB LK Wood Blvd												
1x	L2	230	2.0	0.789	25.4	LOS D	10.0	254.5	0.93	1.33	2.11	25.6
16ax	R1	177	2.0	0.789	25.4	LOS D	10.0	254.5	0.93	1.33	2.11	25.6
16x	R2	151	2.0	0.789	25.4	LOS D	10.0	254.5	0.93	1.33	2.11	25.2
Approach		558	2.0	0.789	25.4	LOS D	10.0	254.5	0.93	1.33	2.11	25.5
West: EB Sunset Ave												
5b	L3	162	2.0	0.430	7.8	LOS A	2.6	66.6	0.52	0.39	0.52	31.6
5a	L1	201	2.0	0.430	7.8	LOS A	2.6	66.6	0.52	0.39	0.52	31.1
12a	R1	117	2.0	0.430	7.8	LOS A	2.6	66.6	0.52	0.39	0.52	31.3
Approach		481	2.0	0.430	7.8	LOS A	2.6	66.6	0.52	0.39	0.52	31.3
SouthWest: NB US 101 Off												
5bx	L3	142	2.0	0.525	13.5	LOS B	3.5	89.7	0.77	0.90	1.17	29.7
5x	L2	1	2.0	0.525	13.5	LOS B	3.5	89.7	0.77	0.90	1.17	29.5
2x	T1	216	2.0	0.525	13.5	LOS B	3.5	89.7	0.77	0.90	1.17	29.6
12x	R2	127	2.0	0.128	4.8	LOS A	0.6	14.2	0.47	0.36	0.47	33.7
Approach		486	2.0	0.525	11.3	LOS B	3.5	89.7	0.69	0.76	0.98	30.6
All Vehicles		2107	2.0	0.863	20.4	LOS C	13.2	334.9	0.80	1.04	1.64	27.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Appendix C

Concept Layouts for Improvements

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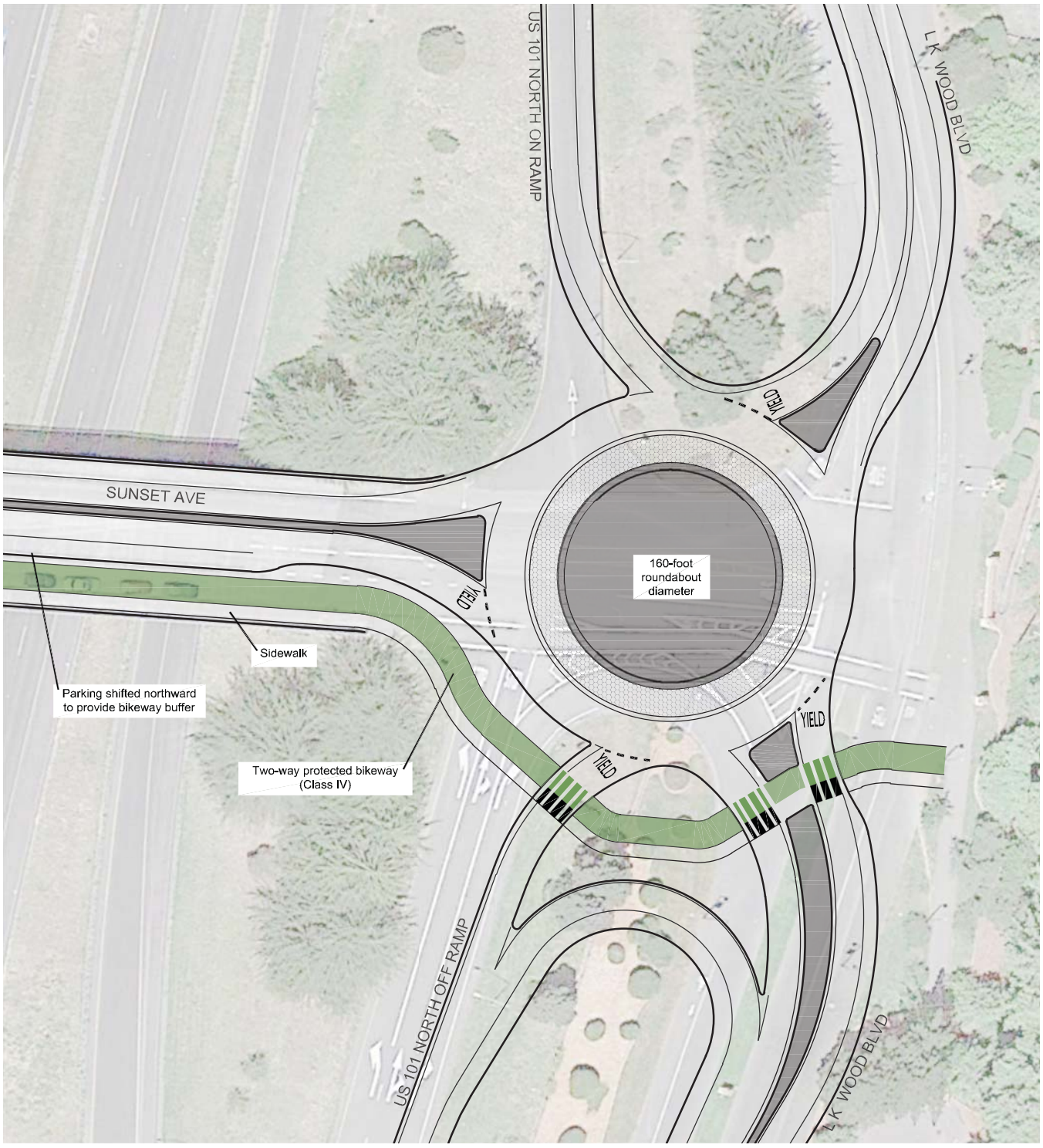

North

Not to Scale

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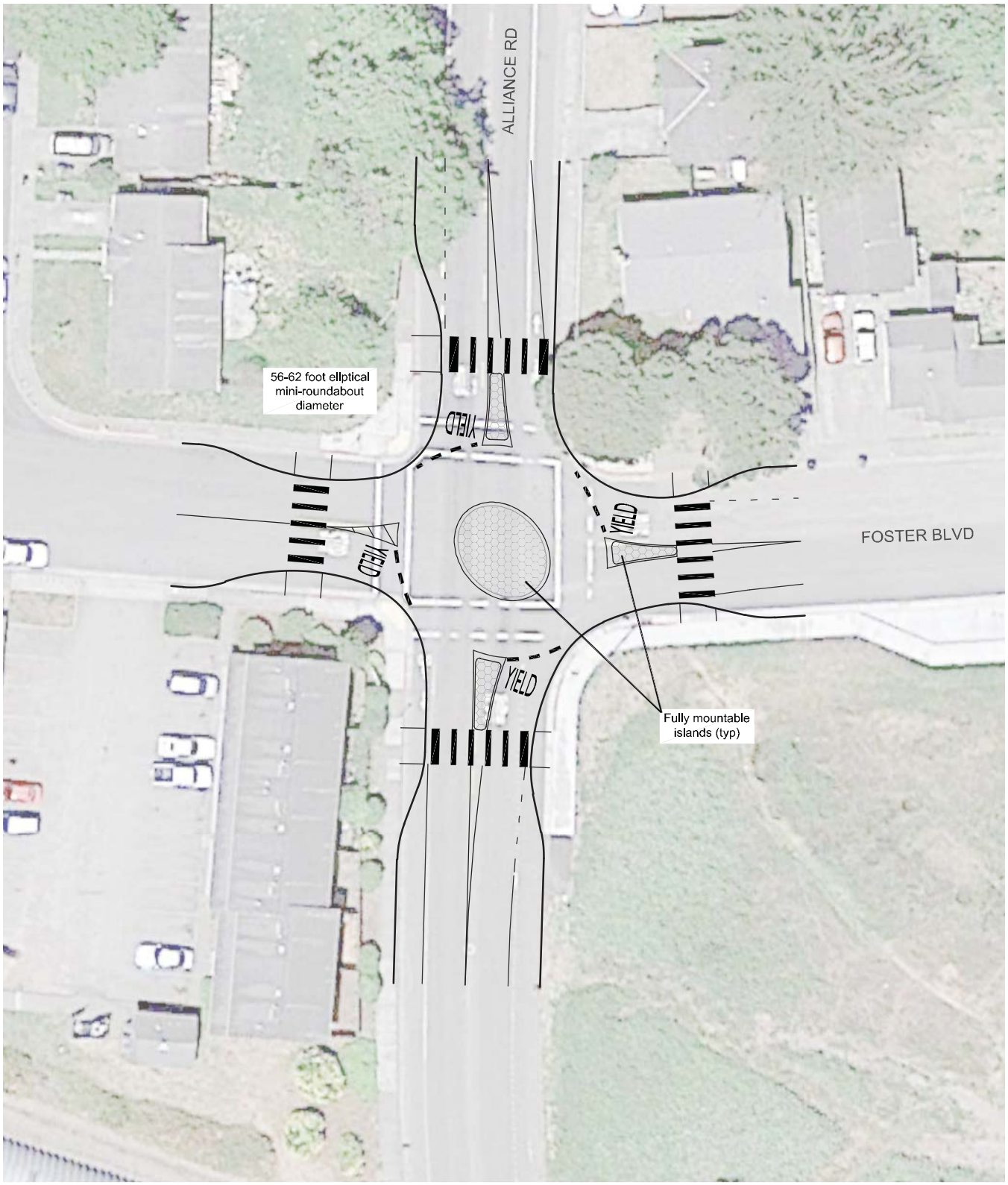
Central Arcata Areawide Traffic Impact Study

Figure 6 – Conceptual Roundabout at Sunset Avenue/US 101N Ramps/LK Wood Boulevard

W-Trans



North

Not to Scale

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Central Arcata Areawide Traffic Impact Study

Figure 7 – Conceptual Mini-Roundabout at Foster Avenue/Alliance Road

W-Trans

Appendix D

Proportional Share Fee Calculations

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Equitable Share Calculations
Arcata Land Company Commercial Cannabis Project

	PM	Total Volume Entering the Intersection of Foster Ave/Alliance Rd	PM
		Existing	1194
Project Trips (T)	19	Future Year	1651

Description of Project Improvement:
Install mini-roundabout.

Calculation of Project Share

P = T / (TB - TE)
where:
P = Equitable Share
T = Project trips during the affected peak hour
TB = Build-out volumes
TE = Existing volumes

T	19
TB	1651
TE	1194
P	**4.2%**

Total Estimated Cost of Improvements $325,000

Equitable Share Contribution **$13,512**

Source: *Caltrans Guide for the Preparation of Traffic Impact Studies*

Equitable Share Calculations
Arcata Land Company Commercial Cannabis Project

	PM	Total Volume Entering the Intersection of Sunset Ave/US 101 North	PM
		Existing	1234
Project Trips (T)	8	Future Year	1674

Description of Project Improvement:
Install five-leg roundabout with LK Wood Boulevard.

Calculation of Project Share

P = T / (TB - TE)
where:
P = Equitable Share
T = Project trips during the affected peak hour
TB = Build-out volumes
TE = Existing volumes

T	8
TB	1674
TE	1234
P	**1.8%**

Total Estimated Cost of Improvements $479,250

Equitable Share Contribution **$8,714**

Source: *Caltrans Guide for the Preparation of Traffic Impact Studies*

Appendix E

Turn Lane Warrants Analysis Sheets

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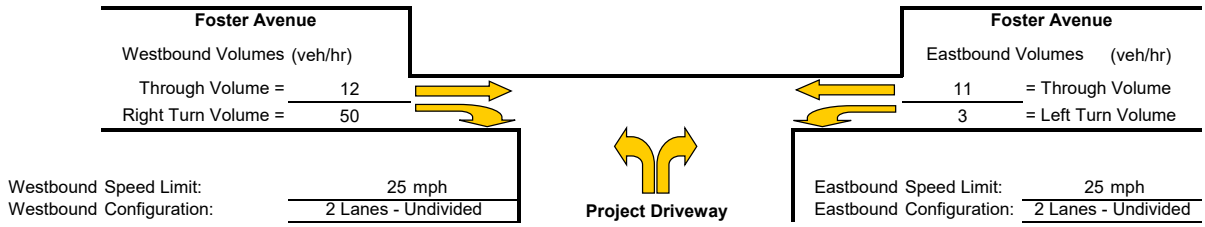
Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: Foster Avenue/Project Driveway
Study Scenario: AM Future + Project

Direction of Analysis Street: East/West
Cross Street Intersects: From the North



Westbound Speed Limit: 25 mph
Westbound Configuration: 2 Lanes - Undivided

Eastbound Speed Limit: 25 mph
Eastbound Configuration: 2 Lanes - Undivided

Westbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	675
Advancing Volume	Va =	62
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Westbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	400
Advancing Volume	Va =	62
If AV<Va then warrant is met		No

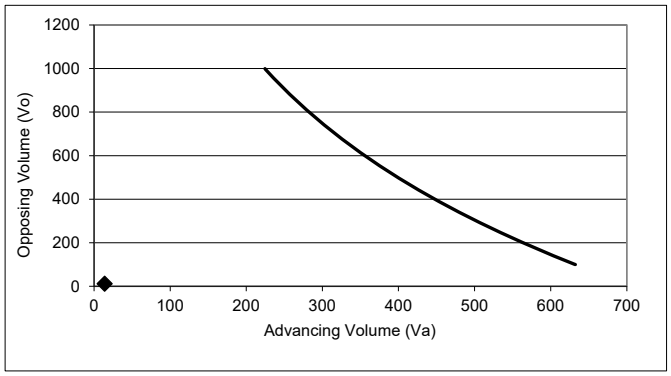
Right Turn Taper Warranted: **NO**

Eastbound Left Turn Lane Warrants

Percentage Left Turns %lt 21.4 %

Advancing Volume Threshold AV 700 veh/hr

If AV<Va then warrant is met



◆ Study Intersection

Two lane roadway warrant threshold for: 25 mph

Turn lane warranted if point falls to right of warrant threshold line

Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: Foster Avenue/Project Driveway
Study Scenario: PM Future + Project

Direction of Analysis Street: East/West
Cross Street Intersects: From the North

Foster Avenue

Westbound Volumes (veh/hr)
Through Volume = 29
Right Turn Volume = 12

Westbound Speed Limit: 25 mph
Westbound Configuration: 2 Lanes - Undivided

Project Driveway

Foster Avenue

Eastbound Volumes (veh/hr)
16 = Through Volume
1 = Left Turn Volume

Eastbound Speed Limit: 25 mph
Eastbound Configuration: 2 Lanes - Undivided

Westbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	960.1
Advancing Volume	Va =	41
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Westbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

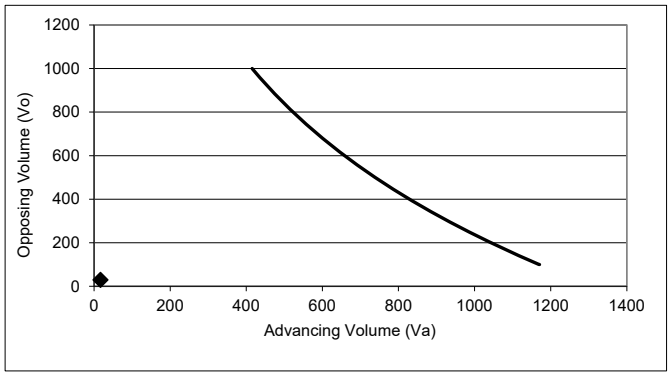
2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	41
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **NO**

Eastbound Left Turn Lane Warrants

Percentage Left Turns %lt 5.9 %
Advancing Volume Threshold AV 1270 veh/hr
If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 25 mph
Turn lane warranted if point falls to right of warrant threshold line

Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.