# Intuitive Surgical Campus Expansion

## Transportation Impact Analysis

Prepared for:

City of Sunnyvale

July 23, 2021

**Hexagon Transportation Consultants, Inc.**
Hexagon Office: 4 North Second Street, Suite 400
San Jose, CA 95113
Hexagon Job Number: 17OZ12
Phone: 408.971.6100
Client Name: Ms. Lillian Tsang

# Table of Contents

Executive Summary ..... i
1. Introduction ..... 1
2. Existing Conditions ..... 13
3. Background Conditions ..... 35
4. Project Conditions ..... 44
5. Other Transportation Issues ..... 69
6. Conclusions ..... 80

## Appendices

Appendix A Traffic Counts
Appendix B Volume Summary
Appendix C Level of Service Calculations
Appendix D Signal Warrant Worksheets
Appendix E Intuitive Campus TDM Plan

## List of Tables

Table ES- 1 Trip Generation Summary ..... iii
Table ES- 2 Signalized Intersection Level of Service Summary ..... viii
Table ES- 3 Unsignalized Intersection Level of Service Summary ..... x

Table 1 Signalized Intersection Level of Service Definitions Based on Control Delay ..... 7
Table 2 Unsignalized Intersection Level of Service Based on Delay ..... 8
Table 3 Freeway Segment Level of Service Definition ..... 9
Table 4 Existing Level of Service Summary - Signalized Intersections ..... 27
Table 5 Existing Level of Service Summary - Unsignalized Intersections ..... 29
Table 6 Existing Freeway Level of Service Summary ..... 29
Table 7 Existing Freeway Ramp Capacity Analysis ..... 30
Table 8 Background Level of Service Summary - Signalized Intersections ..... 41
Table 9 Background Level of Service Summary - Unsignalized Intersection ..... 43
Table 10 Trip Generation Summary ..... 46
Table 11 Existing Plus Project Level of Service Summary - Signalized Intersections ..... 55
Table 12 Existing Plus Project Level of Service Summary - Unsignalized Intersections ..... 57
Table 13 Existing Plus Project Signalized Intersection Impact Improvements Summary ..... 59
Table 14 Existing Plus Project Unsignalized Intersection Impact Improvements Summary ..... 60
Table 15 Background Plus Project Level of Service Summary - Signalized Intersections ..... 61
Table 16 Background Plus Project Level of Service Summary - Unsignalized Intersection ..... 63
Table 17 Background Plus Project Signalized Intersection Impact Improvements Summary ..... 66
Table 18 Background Plus Project Unsignalized Intersection Impact Improvements Summary ..... 66
Table 19 Project Conditions Freeway Analysis Summary ..... 67
Table 20 Project Conditions Freeway Ramp Analysis ..... 68
Table 21 AM Queuing Analysis Summary ..... 72
Table 22 PM Queuing Analysis Summary ..... 73
Table 23 Transit Travel Time Delay Analysis ..... 74
Table 24 Queuing Analysis – Project Driveways ..... 77
Table 25 Proposed Project Vehicle Parking Requirement ..... 78
Table 26 Project Bicycle Parking Requirement ..... 79

## List of Figures

Figure 1 Site Location and Study Intersections ..... 2
Figure 2 Proposed Project Site Plan ..... 3
Figure 3 Existing Transit Services ..... 17
Figure 4 Existing Pedestrian Facilities ..... 18
Figure 5 Existing Bicycle Facilities ..... 21
Figure 6 Existing Lane Configurations ..... 22
Figure 7 Existing Traffic Volumes ..... 24
Figure 8 Background Lane Configurations ..... 36
Figure 9 Approved Developments ..... 37
Figure 10 Background Traffic Volumes ..... 38
Figure 11 Project Trip Distribution ..... 47
Figure 12 Net Project Trips ..... 48
Figure 13 Existing Plus Project Trips ..... 51
Figure 14 Background Plus Project Trips ..... 53

# AUTO TRIP REDUCTION STATEMENT

**UPDATED: October 2014**

SANTA CLARA Valley Transportation Authority

| PROJECT INFORMATION | *Relevant TIA Section:* | 1. Introduction |
|---|---|---|

**Project Name:** Intuitive Surgical Engineering Campus Expansion Traffic Impact Analysis

**Location:** 932, 950, 945-955 Kifer Road, Sunnyvale, CA

**Description:**

The project proposes to construct 380,000 square feet of office space on the north site to replace an existing surface parking lot and 900,000 square feet of R&D space on the south site to replace an existing office building and former industrial buildings.

| | | | | |
|---|---|---|---|---|
| **Size (net new):** | *D.U. Residential* | 1,280,000 | *Sq. Ft. Comm.* | *Acres (Gr.)* |
| **Density:** | *D.U. / Acre* | | | *Floor Area Ratio (FAR)* |

**Located within 2000 feet walking distance of an LRT, BRT, BART or Caltrain station or major bus stop?** No

| PROJECT AUTO TRIP GENERATION | *Relevant TIA Section:* | 4. Project Conditions | | |
|---|---|---|---|---|
| **Auto Trips Generated:** | 637 *AM Pk Hr* | 685 *PM Pk Hr* | 11,528 *Total Weekday* | |
| **Methodology (check one)** | ☒ **ITE** | ☐ **Other** *(Please describe below)* | | |

| AUTO TRIP REDUCTION APPROACH | *Relevant TIA Section:* | 4. Project Conditions | |
|---|---|---|---|
| ☒ **Standard** *Complete Table A below* | ☐ **Peer/Study-Based** *Complete Table B below* | ☐ **Target-Based** *Complete Table C below* | ☒ **None Taken** |

| TRIP REDUCTION REQUIREMENTS | *Relevant TIA Section:* | N/A |
|---|---|---|

**Is the project required to meet any trip reduction requirements or targets?** No **If so, specify percent:**

**Reference code or requirement:**

## TRIP REDUCTION APPROACHES

**A. STANDARD APPROACH** — *Relevant TIA Section:* Project Conditions

| Type of Reduction *Specify reduction. See Table 2 in TIA Guidelines* | | % Reduction from ITE Rates | Total Trips Reduced (AM/PM/Daily) | TOTAL REDUCTION CLAIMED | |
|---|---|---|---|---|---|
| | | | | % | Trips |
| **Transit** | | | | 8% | 65/70/1,107 |
| **Mixed-Use** | | | | | |
| **Financial Incentives** | Standard Reduction | 5% | 41/44/692 | | |
| **Shuttle** | Standard Reduction | 3% | 24/26/415 | | |

**B. PEER/STUDY-BASED APPROACH** — *Relevant TIA Section:*

| Basis of Reduction | TOTAL REDUCTION CLAIMED | |
|---|---|---|
| | % | Trips |
| | | |

| C. TARGET-BASED APPROACH | | Relevant TIA Section: | |
|---|---|---|---|
| Type of Reduction (check all that apply) | | | TOTAL REDUCTION CLAIMED |
| ❒ % Trip Reduction | ❒ % SOV mode share | ❒ Trip Cap | % / Trips |
| | | | |
| Description | | | |
| Time period for reduction | Peak Hour | Peak Period | Full Day |
| | ❒ AM/PM | ❒ AM/PM | ❒ |

| OTHER TDM/REDUCTION MEASURES | | | |
|---|---|---|---|
| Bicycle/Pedestrian | No | Relevant TIA Section: | |
| Parking Management | No | Relevant TIA Section: | |
| Transit | No | Relevant TIA Section: | |
| Site Planning and Design | No | Relevant TIA Section: | |
| TDM Program | Yes | Relevant TIA Section: | Appendix E - Intuitive Campus TDM Plan |

The project's baseline TDM programs include an on-site TDM coordinator, membership in Transportation Management Association (TMA), priority parking for carpool/vanpool/clean-fuel vehicles, bicycle parking/sharing/facilities, rideshare matching services, pre-tax commuter benefits, and marketing information.

| IMPLEMENTATION | Relevant TIA Section: | |
|---|---|---|
| Have the project sponsor and Lead Agency agreed to any of the following measures? | | |
| ❒Monitoring | | |
| ❒Enforcement | | |
| ❒Data Sharing | | |

# Executive Summary

This report presents the results of the transportation impact analysis (TIA) conducted for the proposed Intuitive Surgical Engineering Campus Expansion at 932, 950, and 945-955 Kifer Road in Sunnyvale, California. The project comprises a 15.6-acre site located on the north side of Kifer Road and a 16.8-acre site located on the south side of Kifer Road between Lawrence Expressway and Wolfe Road. The project proposes 380,000 square feet of office space on the north site and 900,000 square feet of research and development space on the south site[1]. The two sites would be connected by a private pedestrian bridge across Kifer Road and would be integrated with the existing nearby Intuitive Surgical facilities. The project proposes to construct the office building on the north site to replace an existing surface parking lot. The research and development building on the south site would replace an existing office building and vacant industrial building. Access to the north site would be primarily provided via a proposed signalized driveway at the east property line, as well as a visitor driveway to the west. Access to the south site would be primarily provided via a proposed driveway on the south leg of the Commercial Street and Kifer Road intersection, as well as a visitor driveway to the east.

This study was conducted for the purpose of identifying the potential near-term traffic impacts related to the proposed development. The project is consistent with the proposed Lawrence Station Area Plan (LSAP) Update project, and the potential long-term traffic impacts are presented in the traffic study conducted for the LSAP-Update.

## Project Trip Generation

Through empirical research, data have been collected that quantify the amount of traffic produced by many types of land uses. This research is compiled in the *Trip Generation Manual, 10th Edition (2017)* published by the Institute of Transportation Engineers' (ITE). The magnitude of traffic added to the roadway system by a particular development is estimated by multiplying the applicable trip generation rates by the size of the development. Trip generation rates for the proposed office building are based on the average rates published for "General Office Building" (Land Use Code 710). Trip generation rates for the proposed research and development building are based on the average rates published for "Research and Development Center" (Land Use Code 760).

[1] The project size has since been reduced to 364,000 square feet of office space (including 13,000 square feet of cafeteria space) on the north site and 847,000 square feet of research and development space (including 16,000 square feet of cafeteria space) and an 11,000 square-foot detached amenity building on the south site. This analysis reflects a slightly conservative project description.

**Trip Reductions**

Transportation Demand Management (TDM) is a combination of services, incentives, facilities, and actions that reduce single-occupant vehicle (SOV) trips to help relieve traffic congestion, parking demand, and air pollution problems. The project plans to implement a TDM Plan that will provide financial incentives to promote alternative travel modes, including free transit passes, dedicated carpool/vanpool parking spaces, bike facilities and services, and marketing campaigns and on-site services to reduce daily trips. The project also plans to provide fully funded daily shuttles from the Intuitive Surgical campus to the Lawrence Caltrain Station, Great America Station, Fremont Civic Center Park & Ride, Fremont BART Station, and other Intuitive Surgical campus sites in the area. The VTA's *Congestion Management Program Transportation Impact Analysis Guidelines* (October 2014) indicates a trip reduction of up to 5% can be applied for TDM programs that include financial incentives that are offered to all employees on an ongoing basis and is greater than or equal to the monthly maximum pre-tax commuter benefit. The guidelines also indicate that a 3% trip reduction can be applied for TDM programs that provide a fully funded shuttle service to light rail, Caltrain, or BART facilities. Thus, a total trip reduction of 8% was applied to the project trip generation.

In addition, the proposed project would receive trip credits for the trips generated by the existing on-site use. AM and PM peak hour counts were collected at the existing site driveways on May 23, 2019.

**Net Project Trips**

After applying the ITE trip generation rates and the applicable trip reductions, the proposed project is estimated to generate a net increase of 637 vehicle trips during the AM peak hour (539 inbound and 98 outbound) and 685 vehicle trips during the PM peak hour (62 inbound and 623 outbound).

The trip generation for the proposed project is summarized in Table ES-1.

**Table ES- 1**
**Trip Generation Summary**

| Land Use | Size | Daily Rate | Daily Trips | AM Peak Hour Rate | AM In % | AM In | AM Out | AM Total | PM Peak Hour Rate | PM In % | PM In | PM Out | PM Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Proposed Use** [5] | | | | | | | | | | | | | |
| Office [1] | 380.0 ksf | 9.74 | 3,701 | 1.16 | 86% | 379 | 62 | 441 | 1.15 | 16% | 70 | 367 | 437 |
| R & D [2] | 900.0 ksf | 11.26 | 10,134 | 0.42 | 75% | 284 | 94 | 378 | 0.49 | 15% | 66 | 375 | 441 |
| **Gross Project Trips** | **1,280 ksf** | | **13,835** | | | **663** | **156** | **819** | | | **136** | **742** | **878** |
| **Trip Reductions** | | | | | | | | | | | | | |
| *Standard TDM Reduction* [4] | | | (1,107) | | | (53) | (12) | (65) | | | (11) | (59) | (70) |
| **Total Project Trips** | | | **12,728** | | | **610** | **144** | **754** | | | **125** | **683** | **808** |
| **Other Trip Adjustments** | | | | | | | | | | | | | |
| Existing Uses [3] | | | (1,200) | | | (71) | (46) | (117) | | | (63) | (60) | (123) |
| **Net Project Trips** | | | **11,528** | | | **539** | **98** | **637** | | | **62** | **623** | **685** |

Notes:
KSF = 1,000 square feet
d.u. = dwelling unit

[1] General Office Building (Land Use 710) average rates published in ITE's Trip Generation Manual, 10th Edition, 2017.

[2] Research and Development Center (Land Use 760) average rates published in ITE's Trip Generation Manual, 10th Edition, 2017.

[3] Trip generation of existing buildings occupying the project site was based on driveway counts conducted May 23, 2019. Daily Trips were estimated based on the average AM and PM peak hour trips multiplied by 10.

[4] As prescribed by the *VTA Transportation Impact Analysis Guidelines, 2014* , an 8% standard TDM reduction was applied to the project's trip generation. A maximum trip reduction of 5% was applied for TDM programs which include financial incentives and a 3% reduction was applied for TDM programs which commit to fully funding a dedicated shuttle to light rail, Caltrain, or BART facilities.

[5] The project size has been reduced to 364,000 square feet of office space, 847,000 square feet of research and development space, and an 11,000 square-foot detached amenity building which would result in minimal reduction in trips generated.

## Intersection Levels of Service Results

The intersection level of service analysis (see Tables ES-2 and ES-3) showed that based on City of Sunnyvale intersection impact criteria, the project would generate an adverse intersection impact at five signalized intersections and two unsignalized intersections during at least one peak period.

### Potential Improvement Strategies for Intersection Impacts

Improvement options were studied for the five impacted signalized intersections and two impacted unsignalized intersections. An intersection impact can be satisfactorily addressed by implementing measures that would restore intersection conditions to its LOS standard *or* to an average delay equal to without-project conditions or better.

#### TDM Plan

The project is consistent with the proposed Lawrence Station Area Plan (LSAP) Update project. Non-residential developments within the LSAP area would be required to implement a Transportation Demand Management (TDM) Plan with a 30% peak hour trip reduction requirement or pay a penalty. For informational purposes, Hexagon examined whether the implementation of such a TDM Plan could eliminate any project impacts under background plus project conditions. If the project implements a TDM Plan with a 30% peak hour trip reduction, the project could generate a lesser impact at all six study intersections under background plus project conditions. However, the proposed TDM Plan would not restore intersection conditions to the LOS standard or to an average delay equal to without-project conditions or better for any intersection under background plus project conditions.

**Wolfe Road and Central Expressway Ramps (#16)**

Under background conditions, the LOS would be an unacceptable LOS F during the PM peak hour. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet the City of Sunnyvale's adverse intersection impact criteria.

> **Potential Improvement:** Improvement would require widening both the eastbound and westbound Central Expressway off-ramps to include one left-turn, one shared through-left lane and one right-turn lane. There appears to be sufficient right-of-way to accommodate the potential improvements. The improvements would lengthen the respective crosswalks by up to 12 feet. The widened approaches would increase traffic exposure time for pedestrians by 3 to 5 seconds and 1 to 3 seconds for bicyclists crossing the intersection.

With the proposed improvement, the intersection would operate at an acceptable LOS D- under background plus project conditions during the PM peak hour. However, the improvement requires widening the Central Expressway off-ramps, which are in the County's jurisdiction, so the City cannot ensure the implementation of the potential improvement. The LSAP requires projects within the plan area to contribute their fair share towards the cost of the identified improvement.

**Lawrence Expressway and Kifer Road (#25)**

Under background conditions, the LOS would be an unacceptable LOS F during both the AM and PM peak hours. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet the City of Sunnyvale's adverse intersection impact criteria.

> **Potential Improvement:** The County of Santa Clara has identified a future project to provide a grade separation at this intersection. This would improve the north-south flow of traffic and potentially address the project's impacts.

The LSAP requires projects within the plan area to contribute their fair share towards the cost of the grade separation at Lawrence Expressway and Kifer Road. This intersection is under Santa Clara County's jurisdiction; therefore, it is up to the County to approve and advance the proposed improvement at the intersection.

**Lawrence Expressway and Monroe Street/Reed Avenue (#26) [CMP]**

Under background conditions, the LOS would be an unacceptable LOS F during the AM peak hour. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet VTA's CMP adverse intersection impact criteria.

> **Potential Improvement:** The County of Santa Clara has identified a future project to provide a grade separation at this intersection. This would improve the north-south flow of traffic and potentially address the project's impact.

The LSAP requires projects within the plan area to contribute to their fair share towards the cost of the grade separation at Lawrence Expressway and Monroe Street/Reed Avenue. This intersection is under Santa Clara County's jurisdiction; therefore, it is up to the County to approve and advance the proposed improvement at the intersection.

**Oakmead Parkway and Central Expressway (#27) [CMP]**

Under background conditions, the LOS would be an unacceptable LOS F during both the AM and PM peak hours. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet the City of Sunnyvale's adverse intersection impact criteria.

> **Potential Improvement:** As documented in the *Valley Transportation Plan 2040,* Central Expressway is planned to be widened to six lanes between Lawrence Expressway and San Tomas Expressway without HOV lane operations. This would improve the east-west flow of traffic and potentially address the project's impact.

With the additional lanes, the intersection would operate at an acceptable LOS D- during the AM peak hour and LOS D during the PM peak hour under background plus project conditions. The LSAP requires projects within the plan area to contribute their fair share towards the cost of the identified improvement. This intersection is under Santa Clara County's jurisdiction; therefore, it is up to the County to approve and advance the proposed improvement at the intersection.

**Bowers Avenue and Central Expressway (#29) [CMP]**

Under background conditions, the LOS would be an unacceptable LOS F during the PM peak hour. The addition of project traffic would increase both the critical-movement delay and V/C ratio to meet the County of Santa Clara's adverse intersection impact criteria.

> **Potential Improvement:** According to the *City Place Santa Clara Project Draft Environmental Impact Report*, dated October 2015, the Bowers Avenue/Central Expressway intersection is recommended for lane additions to improve vehicle operations. The City Place Project is responsible for constructing third southbound left-turn and third eastbound left-turn lanes at this intersection.

With the proposed improvement, the intersection would operate at an acceptable LOS E- under background plus project conditions during the PM peak hour. The LSAP requires projects within the plan area to contribute their fair share towards the cost of the identified improvement. This intersection is under Santa Clara County's jurisdiction; therefore, it is up to the County to approve and advance the proposed improvement at the intersection.

**Commercial Street and Kifer Road (#20)**

Under background conditions, the LOS would be an acceptable LOS C during the AM peak hour and an unacceptable LOS F during the PM peak hour. During the AM peak hour, the addition of project traffic would deteriorate traffic operations to an unacceptable LOS F, which meets the City of Sunnyvale's adverse intersection impact criteria. During the PM peak hour, the addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet the City of Sunnyvale's adverse intersection impact criteria. In addition, the intersection would meet the peak-hour signal warrant under background plus project conditions during both the AM and PM peak hours.

> **Potential Improvement:** Improvement would require installation of a signal at the intersection of Commercial Street and Kifer Road. Installation of a signal would greatly reduce the delay for southbound vehicles while maintaining minimal delay for westbound and eastbound traffic. The improvement would include one left-turn lane and one shared through-right lane on the southbound approach.

With the proposed improvement, the intersection would operate at an acceptable LOS C+ during the AM peak hour and LOS C during the PM peak hour under background plus project conditions. As discussed in the *Fortinet Traffic Operations Analysis (TOA)*, prepared by Hexagon Transportation Consultants, dated December 5, 2018, a traffic signal would be required to address the potential project impacts generated by the Fortinet project at this intersection. Since the Intuitive Surgical project would also require a traffic signal to address the intersection impact, it should contribute its fair share towards the signal installation costs. As discussed in the Fortinet TOA report, the Fortinet project would generate 76 trips at this intersection during the PM peak hour. The Intuitive Surgical project would generate 538 trips during the PM peak hour at this intersection. Therefore, the Intuitive Surgical project should contribute 88% of the signal installation cost.

**Wolfe Road and Maude Avenue (#13)**

Under existing conditions, the LOS would be an unacceptable LOS F during the PM peak hour. The intersection would meet the peak-hour signal warrant under existing plus project conditions during the PM peak hour and would therefore meet the City of Sunnyvale's adverse intersection impact criteria.

The currently unsignalized intersection at Wolfe Road and Maude Avenue is being signalized by Intuitive Surgical as a part of the 1050 Kifer Road project. With signalization, the intersection would operate at an acceptable LOS C under existing plus project conditions during the PM peak hour.

## Freeway Impact Analysis

VTA CMP guidelines define that a project would cause a freeway impact if the project deteriorates freeway levels of service from an acceptable level to an unacceptable level, or if the freeway already operates at an unacceptable level under existing conditions, the project would add traffic exceeding 1% of the freeway capacity. The results of the CMP freeway analysis show that the project would have an adverse impact on the following freeway segments:

- SR 237 Eastbound between Lawrence Expressway and Great America Parkway – PM Peak Hour
- SR 237 Westbound between Great America Parkway and Lawrence Expressway – AM Peak Hour

To address the project impact, a trip reduction of 27% would be required for the AM peak hour and 37% would be required for the PM peak hour. As discussed above, the projects within the proposed LSAP plan area would be required to implement TDM measures achieving a 30% peak hour trip reduction. It is unclear whether higher trip reductions are attainable.

The VTA's Valley Transportation Plan (VTP) 2040 identifies freeway express lane projects along SR 237 between N. First Street and SR 85. On the identified freeway segments, the existing HOV lanes are proposed to be converted to express lanes. According to the latest VTA CMP Monitoring Report, the HOV lanes on the impacted segments currently are operating at acceptable levels of service. Therefore, converting the HOV lanes to express lanes could potentially add capacity to the freeway segment. Projects within the proposed LSAP plan area shall participate in VTA's Voluntary Freeway Contribution Program to fund improvements along SR 237.

Freeways are under Caltrans jurisdiction. Therefore, capacity improvements on freeways are beyond the capabilities of the City of Sunnyvale.

## Freeway Ramp Capacity Analysis

For the purpose of this study, the project is said to create an adverse impact on a freeway ramp if its implementation:

- Would cause the volume-to-capacity (V/C) ratio of the freeway ramp to exceed 1.0; or
- Would increase the amount of traffic on a freeway ramp that is already exceeding its capacity by more than one percent (1%) of the ramp's capacity.

The results of the ramp analysis show that the study freeway ramps currently have sufficient capacity to service the existing traffic volumes and the ramps would continue to operate below capacity under project conditions.

## Other Transportation Issues

Hexagon conducted a site plan review, queuing analysis, pedestrian, bicycle and transit facility analysis and parking analysis for the proposed project. Our recommendation is listed below.

### Recommendation

- The project applicant shall ensure that there would not be tall vegetation or objects that could block a driver's view 360 feet down the road as they exit the project driveways on Kifer Road.

## Table ES- 2
## Signalized Intersection Level of Service Summary

| # | Intersection | Peak Hour | Count Date | LOS Std. | Existing Conditions Avg. Delay (sec) | Existing Conditions LOS | Existing + Project Conditions Avg. Delay (sec) | Existing + Project Conditions LOS | Existing + Project Conditions In Crit. Delay (sec) | Existing + Project Conditions Incr. In Crit. V/C | Background Conditions Avg. Delay (sec) | Background Conditions LOS | Background + Project Conditions Avg. Delay (sec) | Background + Project Conditions LOS | Background + Project Conditions In Crit. Delay (sec) | Background + Project Conditions Incr. In Crit. V/C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Mary Avenue & Central Expressway (County*) | AM | 11/14/17 | E | 51.5 | D- | 51.5 | D- | 0.1 | 0.002 | 73.3 | E | 73.3 | E | 0.0 | 0.002 |
| | | PM | 12/13/18 | | 60.1 | E | 59.9 | E+ | 0.1 | 0.001 | 78.0 | E- | 78.3 | E- | 0.5 | 0.001 |
| 2 | Fair Oaks Avenue & US 101 NB Ramps | AM | 05/08/18 | D | 21.3 | C+ | 21.4 | C+ | 0.1 | 0.004 | 26.5 | C | 26.8 | C | 0.5 | 0.004 |
| | | PM | 05/08/18 | | 22.8 | C+ | 23.8 | C | 1.8 | 0.030 | 32.7 | C- | 36.4 | D+ | 7.5 | 0.029 |
| 3 | Fair Oaks Avenue & Ahwanee Avenue | AM | 05/08/18 | D | 20.8 | C+ | 20.6 | C+ | 0.0 | 0.002 | 21.5 | C+ | 21.4 | C+ | 0.1 | 0.002 |
| | | PM | 05/08/18 | | 13.8 | B | 13.7 | B | 0.0 | 0.001 | 14.7 | B | 14.7 | B | 0.0 | 0.001 |
| 4 | Fair Oaks Avenue & Duane Avenue | AM | 05/08/18 | D | 32.1 | C- | 31.8 | C | -0.1 | 0.003 | 33.6 | C- | 33.4 | C- | 0.1 | 0.003 |
| | | PM | 05/08/18 | | 30.2 | C | 30.3 | C | 0.0 | 0.001 | 35.2 | D+ | 35.3 | D+ | 0.7 | 0.019 |
| 5 | Fair Oaks Avenue & Wolfe Road | AM | 05/08/18 | D | 22.8 | C+ | 23.0 | C+ | 0.2 | 0.003 | 23.8 | C | 23.9 | C | 0.1 | 0.003 |
| | | PM | 05/08/18 | | 19.8 | B- | 19.6 | B- | 0.0 | 0.002 | 22.2 | C+ | 22.1 | C+ | 0.0 | 0.002 |
| 6 | Fair Oaks Avenue & Arques Avenue | AM | 05/08/18 | D | 34.8 | C- | 34.9 | C- | 0.1 | 0.003 | 36.2 | D+ | 36.2 | D+ | 0.1 | 0.003 |
| | | PM | 05/08/18 | | 44.5 | D | 45.7 | D | 1.8 | 0.020 | 47.1 | D | 48.8 | D | 2.5 | 0.019 |
| 7 | Fair Oaks Avenue & California Avenue | AM | 12/06/17 | D | 10.8 | B+ | 10.7 | B+ | 0.0 | 0.001 | 10.2 | B+ | 10.2 | B+ | 0.0 | 0.002 |
| | | PM | 12/06/17 | | 15.7 | B | 15.6 | B | 0.0 | 0.000 | 15.7 | B | 15.6 | B | 0.0 | 0.000 |
| 8 | Fair Oaks Avenue & Kifer Road | AM | 05/08/18 | D | 15.6 | B | 16.1 | B | 0.6 | 0.023 | 15.8 | B | 16.4 | B | 0.7 | 0.023 |
| | | PM | 05/08/18 | | 25.9 | C | 28.7 | C | 3.6 | 0.040 | 31.6 | C | 36.4 | D+ | 5.2 | 0.041 |
| 9 | Fair Oaks Avenue & Evelyn Avenue | AM | 05/08/18 | D | 35.9 | D+ | 36.1 | D+ | 0.4 | 0.017 | 39.7 | D | 40.3 | D | 1.1 | 0.017 |
| | | PM | 05/08/18 | | 29.8 | C | 29.8 | C | 0.1 | 0.021 | 34.0 | C- | 34.4 | C- | 0.6 | 0.020 |
| 10 | Fair Oaks Avenue & Old SF Road | AM | 05/08/18 | D | 33.3 | C- | 34.2 | C- | 1.4 | 0.023 | 35.2 | D+ | 36.1 | D+ | 1.5 | 0.024 |
| | | PM | 05/08/18 | | 33.7 | C- | 33.5 | C- | -0.3 | 0.016 | 34.9 | C- | 34.9 | C- | 0.0 | 0.018 |
| 11 | Fair Oaks Avenue & El Camino Real (*) | AM | 05/08/18 | E | 41.0 | D | 41.1 | D | 0.2 | 0.007 | 42.1 | D | 42.3 | D | 0.2 | 0.006 |
| | | PM | 10/30/18 | | 41.8 | D | 42.0 | D | 0.0 | 0.001 | 46.2 | D | 46.5 | D | 0.7 | 0.008 |
| 12 | Sunnyvale-Saratoga Road & Remington Drive (*) | AM | 11/14/17 | E | 42.9 | D | 43.0 | D | 0.1 | 0.004 | 56.8 | E+ | 57.6 | E+ | 1.0 | 0.004 |
| | | PM | 10/30/18 | | 43.6 | D | 44.1 | D | 0.7 | 0.008 | 46.6 | D | 47.2 | D | 1.1 | 0.009 |
| 13 | Wolfe Road & Maude Avenue (1) | AM | 12/06/17 | D | - | - | - | - | - | - | 20.1 | C+ | 20.3 | C+ | 0.0 | 0.008 |
| | | PM | 12/06/17 | | - | - | - | - | - | - | 24.7 | C | 24.3 | C | 0.1 | 0.002 |
| 14 | Wolfe Road & Stewart Drive | AM | 11/15/17 | D | 22.4 | C+ | 22.4 | C+ | -0.1 | 0.002 | 24.2 | C | 23.9 | C | -0.1 | 0.002 |
| | | PM | 11/15/17 | | 30.8 | C | 30.8 | C | -0.1 | 0.001 | 30.4 | C | 30.3 | C | 0.0 | 0.001 |
| 15 | Wolfe Road & Arques Avenue | AM | 11/14/17 | D | 35.6 | D+ | 35.5 | D+ | -0.1 | 0.002 | 34.9 | C- | 34.6 | C- | -0.1 | 0.002 |
| | | PM | 11/14/17 | | 40.8 | D | 40.7 | D | 0.0 | 0.001 | 39.9 | D | 39.7 | D | 0.0 | 0.000 |
| 16 | Wolfe Road & Central Expressway Ramps | AM | 12/06/17 | D | 37.2 | D+ | 37.4 | D+ | 0.0 | 0.000 | 41.2 | D | 41.5 | D | 0.0 | 0.000 |
| | | PM | 12/06/17 | | **71.0** | **E** | **74.3** | **E** | **5.5** | **0.020** | **93.5** | **F** | **98.4** | **F** | **7.9** | **0.020** |

Notes:

** = CMP, County = County of Santa Clara*

">120" indicates this signalized intersection experiences lengthy delay that is beyond the reasonable calculation range of the HCM 2000 methodology.

(1) The intersection of Wolfe Road and Maude Avenue will be converted from side-street stop control under existing conditions to signal control under background conditions.

**BOLD** indicates an unacceptable level of service

**BOLD** and boxed indicates an adverse intersection impact

## Table ES- 2 (Continued)
## Signalized Intersection Level of Service Summary

| # | Intersection | Peak Hour | Count Date | LOS Std. | Existing Conditions Avg. Delay (sec) | Existing Conditions LOS | Existing + Project Conditions Avg. Delay (sec) | Existing + Project Conditions LOS | Existing + Project Conditions In Crit. Delay (sec) | Existing + Project Conditions Incr. In Crit. V/C | Background Conditions Avg. Delay (sec) | Background Conditions LOS | Background + Project Conditions Avg. Delay (sec) | Background + Project Conditions LOS | Background + Project Conditions In Crit. Delay (sec) | Background + Project Conditions Incr. In Crit. V/C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | Wolfe Road & Kifer Road | AM | 11/14/17 | D | 29.0 | C | 32.8 | C- | 4.0 | 0.040 | 39.8 | D | 43.8 | D | 4.0 | 0.040 |
| | | PM | 11/14/17 | | 43.1 | D | 45.5 | D | 2.8 | 0.024 | 49.5 | D | 52.8 | D- | 4.1 | 0.024 |
| 18 | Wolfe Road & Evelyn Avenue | AM | 11/15/17 | D | 38.6 | D+ | 38.5 | D+ | -0.1 | 0.006 | 41.0 | D | 41.0 | D | 0.0 | 0.006 |
| | | PM | 11/15/17 | | 36.5 | D+ | 36.4 | D+ | 0.0 | 0.007 | 37.7 | D+ | 37.7 | D+ | 0.0 | 0.007 |
| 19 | Wolfe Road & Reed Avenue | AM | 11/14/17 | D | 37.0 | D+ | 37.2 | D+ | 0.4 | 0.009 | 36.8 | D+ | 37.1 | D+ | 0.4 | 0.009 |
| | | PM | 11/14/17 | | 38.9 | D+ | 39.0 | D | -0.1 | 0.004 | 40.3 | D | 40.5 | D | 0.0 | 0.004 |
| 21 | Lawrence Expressway & US 101 NB Ramps (County) | AM | 05/23/19 | E | 11.9 | B+ | 12.3 | B | 0.3 | 0.013 | 12.8 | B | 13.1 | B | 0.4 | 0.011 |
| | | PM | 05/23/19 | | 14.0 | B | 14.1 | B | 0.0 | 0.010 | 15.6 | B | 15.7 | B | 0.1 | 0.002 |
| 22 | Lawrence Expressway & US 101 SB Ramps (County) | AM | 05/23/19 | E | 7.9 | A | 8.3 | A | 0.6 | 0.016 | 11.2 | B+ | 12.8 | B | 2.7 | 0.016 |
| | | PM | 05/23/19 | | 22.3 | C+ | 22.0 | C+ | 0.0 | 0.003 | 28.5 | C | 28.5 | C | 0.5 | 0.003 |
| 23 | Lawrence Expressway & Oakmead Parkway (County) | AM | 05/23/19 | E | 40.4 | D | 40.3 | D | 0.1 | 0.004 | 70.3 | E | 70.0 | E | 0.2 | 0.003 |
| | | PM | 05/23/19 | | 52.3 | D- | 52.4 | D- | 0.1 | 0.002 | **80.8** | **F** | **81.4** | **F** | **1.6** | **0.002** |
| 24 | Lawrence Expressway & Arques Avenue (County*) | AM | 04/04/17 | E | 48.2 | D | 48.1 | D | 0.4 | 0.004 | 68.4 | E | 69.2 | E | 2.3 | 0.004 |
| | | PM | 11/13/18 | | 71.6 | E | 71.1 | E | 0.2 | 0.002 | **113.8** | **F** | **113.7** | **F** | **1.4** | **0.003** |
| 25 | Lawrence Expressway & Kifer Road (County) | AM | 03/07/18 | E | 54.4 | D- | 56.9 | E+ | 5.8 | 0.023 | **106.4** | **F** | **111.0** | **F** | **8.7** | **0.023** |
| | | PM | 03/07/18 | | **101.6** | **F** | **>120** | **F** | **52.2** | **0.065** | **>120** | **F** | **>120** | **F** | **32.5** | **0.068** |
| 26 | Lawrence Expressway & Monroe Street (County*) | AM | 03/07/18 | E | **114.8** | **F** | **>120** | **F** | **11.1** | **0.016** | **>120** | **F** | **>120** | **F** | **11.6** | **0.016** |
| | | PM | 11/13/18 | | 61.8 | E | 62.1 | E | 0.4 | 0.015 | 70.2 | E | 73.0 | E | 4.9 | 0.015 |
| 27 | Oakmead Parkway & Central Expressway (County*) | AM | 11/15/17 | E | 46.1 | D | 47.8 | D | 2.9 | 0.015 | **116.3** | **F** | **>120** | **F** | **8.6** | **0.015** |
| | | PM | 11/13/18 | | 49.7 | D | 51.0 | D- | 2.6 | 0.017 | **109.7** | **F** | **114.9** | **F** | **9.2** | **0.017** |
| 28 | Corvin Drive & Kifer Road (SC) | AM | 11/15/17 | D | 8.1 | A | 7.9 | A | -0.2 | 0.018 | 9.3 | A | 9.2 | A | -0.2 | 0.018 |
| | | PM | 11/15/17 | | 9.0 | A | 9.1 | A | 0.0 | 0.002 | 9.2 | A | 9.4 | A | 0.0 | 0.002 |
| 29 | Bowers Avenue & Central Expressway (County*) | AM | 11/15/17 | E | 46.5 | D | 46.6 | D | 0.2 | 0.011 | 70.2 | E | 71.8 | E | 2.6 | 0.010 |
| | | PM | 11/13/18 | | 53.8 | D- | 54.2 | D- | 0.7 | 0.012 | **83.4** | **F** | **85.8** | **F** | **5.0** | **0.012** |
| 30 | Bowers Avenue & Kifer Road (SC) | AM | 11/15/17 | D | 29.1 | C | 29.7 | C | 0.8 | 0.016 | 31.8 | C | 33.1 | C- | 1.8 | 0.017 |
| | | PM | 03/07/18 | | 28.6 | C | 29.3 | C | 4.6 | -0.035 | 36.7 | D+ | 37.1 | D+ | 0.0 | 0.000 |
| 31 | Semiconductor Drive & Kifer Road | AM | 09/11/18 | D | 14.1 | B | 14.2 | B | 1.0 | 0.108 | 17.6 | B | 17.6 | B | 0.6 | 0.109 |
| | | PM | 09/11/18 | | 9.4 | A | 8.7 | A | -0.3 | 0.101 | 20.7 | C+ | 21.2 | C+ | 0.8 | 0.101 |
| 32 | 1020 Kifer Rd Driveway & Kifer Road | AM | - | D | Future Intersection | | 11.0 | B+ | - | - | 12.3 | B | 20.1 | C+ | 0.0 | 0.083 |
| | | PM | - | | | | 15.4 | B | - | - | 18.3 | B- | 30.7 | C | 10.3 | 0.164 |

Notes:
* = CMP, SC = Santa Clara, County = County of Santa Clara
">120" indicates this signalized intersection experiences lengthy delay that is beyond the reasonable calculation range of the HCM 2000 methodology.
**BOLD** indicates an unacceptable level of service
**BOLD** and boxed indicates an adverse intersection impact

## Table ES- 3
## Unsignalized Intersection Level of Service Summary

| | | | | | Existing | | | Existing plus Project | | | | | Background | | | Background plus Project | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| # | Intersection | Control [1] | Peak Hour | Count Date | Delay (sec) | LOS | Signal Warrant Met | Delay (sec) | LOS | Incr. in Delay | Incr. in V/C | Signal Warrant Met | Delay (sec) | LOS | Signal Warrant Met | Delay (sec) | LOS | Incr. in Delay | Incr. in V/C | Signal Warrant Met |
| 13 | Wolfe Road & Maude Avenue (2) | side-street | AM | 12/06/17 | 25.7 | D | No | 27.6 | D | 1.9 | 0.005 | No | - | - | - | - | - | - | - | - |
| | | stop | PM | 12/06/17 | **67.4** | **F** | **Yes** | **73.6** | **F** | **6.2** | **0.001** | **Yes** | - | - | - | - | - | - | - | - |
| 20 | Commercial Street & Kifer Road | side-street | AM | 12/06/17 | 12.3 | B | No | 29.6 | D | 17.3 | 0.245 | No | 16.2 | C | No | **89.0** | **F** | **72.8** | **0.459** | **Yes** |
| | | stop | PM | 12/06/17 | 24.1 | C | Yes | **114.0** | **F** | **89.9** | **0.415** | **Yes** | **95.9** | **F** | **Yes** | **>120** | **F** | **341.3** | **0.754** | **Yes** |

Notes:

">120" indicates this unsignalized intersection experiences lengthy delay that is beyond the reasonable calculation range of the HCM 2000 methodology.

(1) Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay. Those reported for all-way stop-controlled intersections represent intersection average.

(2) The intersection of Wolfe Road and Maude Avenue will be converted from side-street stop control under existing conditions to signal control under background conditions.

**BOLD** indicates an unacceptable level of service

**BOLD** and boxed indicates an adverse intersection impact

# 1. Introduction

This report presents the results of the transportation impact analysis (TIA) conducted for the proposed Intuitive Surgical Engineering Campus Expansion at 932, 950, and 945-955 Kifer Road in Sunnyvale, California. The project comprises a 15.6-acre site located on the north side of Kifer Road and a 16.8-acre site located on the south side of Kifer Road between Lawrence Expressway and Wolfe Road (see Figure 1). The project proposes 380,000 square feet of office space on the north site and 900,000 square feet of research and development space on the south site[1]. The two sites would be connected by a private pedestrian bridge across Kifer Road and would be integrated with the existing nearby Intuitive Surgical facilities. The project proposes to construct the office building on the north site to replace an existing surface parking lot. The research and development building on the south site would replace an existing office building and vacant industrial building. Access to the north site would be primarily provided via a proposed signalized driveway at the east property line, as well as a visitor driveway to the west. Access to the south site would be primarily provided via a proposed driveway on the south leg of the Commercial Street and Kifer Road intersection, as well as a visitor driveway to the east (see Figure 2).

## Scope of Study

This study was conducted for the purpose of identifying the potential near-term traffic impacts related to the proposed development. The project is consistent with the proposed Lawrence Station Area Plan (LSAP) Update project, and the potential long-term traffic impacts are presented in the traffic study conducted for the LSAP-Update.

Since the project is estimated to generate more than 100 peak hour trips, the potential impacts of the project were evaluated in accordance with the standards set forth by the City of Sunnyvale and the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program (CMP). The traffic study includes an analysis of AM and PM peak hour traffic conditions for 32 intersections in the vicinity of the project site. Seven of the study intersections are CMP intersections. Two of the study intersections are unsignalized intersections under existing conditions. Under background plus project conditions, the unsignalized Wolfe Road and Maude Avenue intersection would be converted to a signalized intersection and the signalized 1020 Kifer Road Driveway/Kifer Road intersection would be added to the network. The study intersections were selected to include locations where the proposed project is expected to generate 10 or more peak-hour trips per lane.

[1] The project size has since been reduced to 364,000 square feet of office space (including 13,000 square feet of cafeteria space) on the north site and 847,000 square feet of research and development space (including 16,000 square feet of cafeteria space) and an 11,000 square-foot detached amenity building on the south site. This analysis reflects a slightly conservative project description.

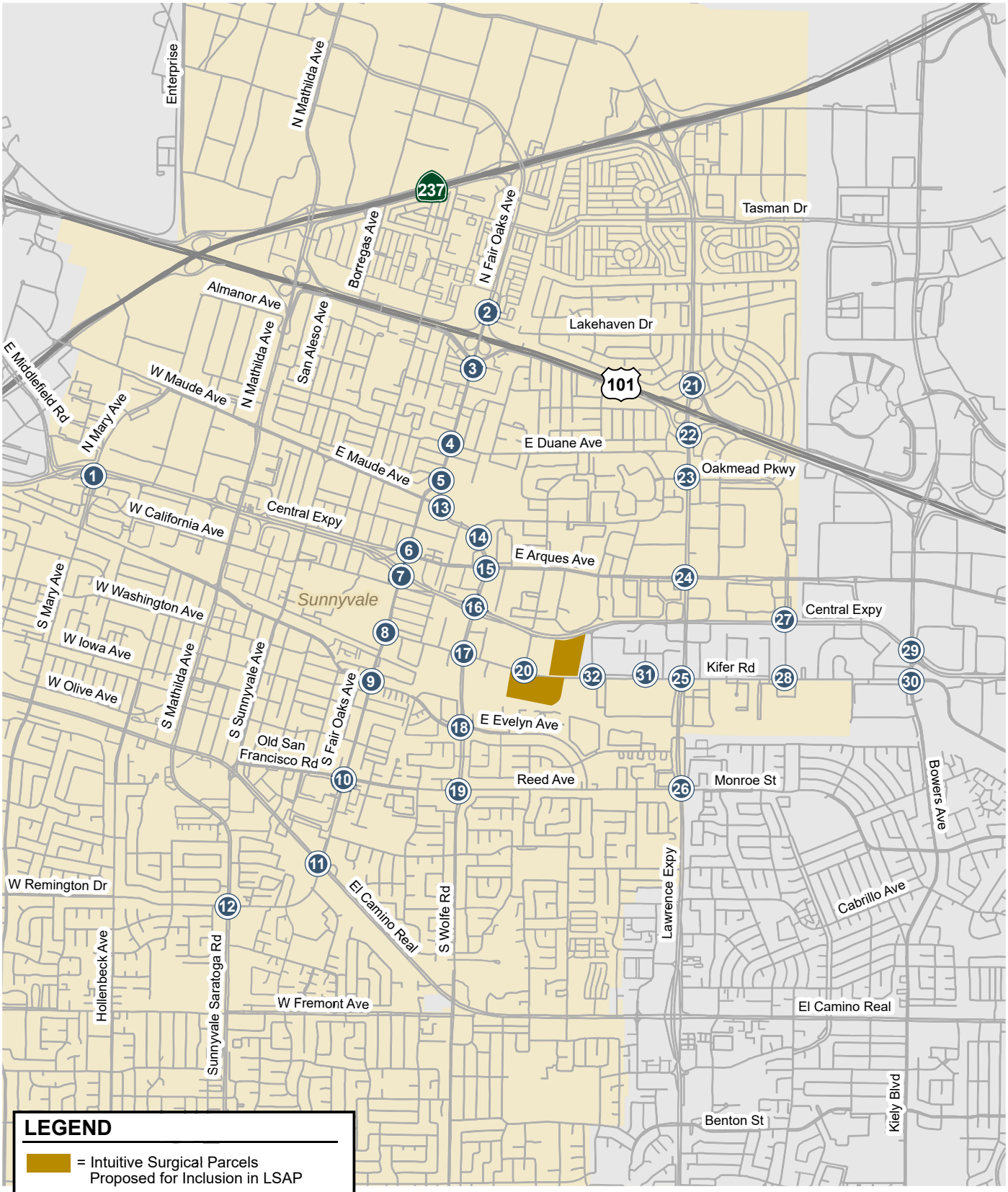



**Figure 1**
**Site Location and Study Intersections**

**Figure 2**
**Proposed Project Site Plan**

The Santa Clara County VTA CMP guidelines require that the CMP freeway segments be evaluated to determine the impact of added traffic for projects that generate trips equal to or greater than one percent of the freeway segment's capacity. The proposed project is expected to generate added traffic volume on four freeway segments along US 101 and SR 237. The traffic analysis also includes a capacity analysis for six freeway ramps.

The study intersections, freeway segments, and freeway ramps are listed below.

## Study Intersections

1. Mary Avenue & Central Expressway *
2. Fair Oaks Avenue & US 101 Northbound Ramps
3. Fair Oaks Avenue & Ahwanee Avenue
4. Fair Oaks Avenue & Duane Avenue
5. Fair Oaks Avenue & Wolfe Road
6. Fair Oaks Avenue & Arques Avenue
7. Fair Oaks Avenue & California Avenue
8. Fair Oaks Avenue & Kifer Road
9. Fair Oaks Avenue & Evelyn Avenue
10. Fair Oaks Avenue & Old San Francisco Road
11. Fair Oaks Avenue & El Camino Real *
12. Sunnyvale Saratoga Road & Remington Drive *
13. Wolfe Road & Maude Avenue (unsignalized)
14. Wolfe Road & Stewart Drive
15. Wolfe Road & Arques Avenue
16. Wolfe Road & Central Expressway Ramps
17. Wolfe Road & Kifer Road
18. Wolfe Road & Evelyn Avenue
19. Wolfe Road & Reed Avenue
20. Commercial Street & Kifer Road (unsignalized)
21. Lawrence Expressway & US 101 Northbound Ramps
22. Lawrence Expressway & US 101 Southbound Ramps
23. Lawrence Expressway & Oakmead Parkway
24. Lawrence Expressway & Arques Avenue*
25. Lawrence Expressway & Kifer Road
26. Lawrence Expressway & Reed Avenue/Monroe Road*
27. Oakmead Parkway & Central Expressway *
28. Corvin Drive & Kifer Road [City of Santa Clara]
29. Bowers Avenue & Central Expressway *
30. Bowers Avenue & Kifer Road [City of Santa Clara]
31. Semiconductor Drive & Kifer Road
32. Project Driveway & Kifer Road (future intersection)

* Denotes CMP intersections

## Freeway Segments

US 101

1. Between Mathilda Avenue and Fair Oaks Avenue
2. Between Fair Oaks Avenue and Lawrence Expressway
3. Between Lawrence Expressway and Bowers Avenue/Great America Parkway

SR 237

4. Between Lawrence Expressway and Great America Parkway

## Study Freeway Ramps

US 101 and Fair Oaks Avenue Interchange

1. Northbound On-Ramp from Fair Oaks Avenue
2. Southbound Off-Ramp to Southbound Fair Oaks Avenue

US 101 and Lawrence Expressway Interchange

3. Southbound On-Ramp from Northbound Lawrence Expressway
4. Northbound Off-Ramp to Lawrence Expressway
5. Northbound On-Ramp from Northbound Lawrence Expressway
6. Southbound Off-Ramp to Lawrence Expressway

Traffic conditions at the study intersections were analyzed for both the weekday AM and PM peak hours of adjacent street traffic. The AM peak hour is expected to occur between 7:00 AM and 10:00 AM, and the PM peak hour is expected to occur between 4:00 PM and 7:00 PM on a regular weekday. These are the peak commute hours during which most traffic congestion occurs on the roadways.

Traffic conditions were evaluated for the scenarios described below.

**Scenario 1:** *Existing Conditions.* Existing traffic volumes at study intersections were based on traffic counts conducted in 2017 through 2019, as well as the 2018 CMP TRAFFIX database. Existing traffic count data is provided in Appendix A.

**Scenario 2:** *Background Conditions.* Background conditions were estimated by adding to existing traffic volumes the project traffic from approved but not yet completed and occupied developments in the study area. Approved project trips and approved project trip information were obtained from the City of Sunnyvale and the City of Santa Clara. In addition, roadway improvements associated with the approved developments were assumed as directed by City Staff.

**Scenario 3:** *Existing Plus Project Conditions.* Existing plus project conditions were estimated by adding to existing traffic volumes the additional traffic generated by the project. Existing plus project conditions were evaluated relative to existing conditions in order to determine the effects the project would have on the existing roadway network.

**Scenario 4:** *Background Plus Project Conditions.* Background traffic volumes with the project were estimated by adding to background traffic volumes the additional traffic generated by the project. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts.

According to VTA's CMP TIA guidelines, a scenario analyzing project impacts under cumulative conditions is also required. Because the project is consistent with the proposed update of the Lawrence Station Area Plan (LSAP), the cumulative project impacts are included in the *Lawrence Station Area Plan Update Transportation Impact Analysis* that is concurrently prepared.

# Methodology

This section presents the methods used to determine the traffic conditions for each scenario described above. It includes descriptions of the data requirements, the analysis methodologies, and the applicable level of service standards.

## Data Requirements

The data required for the analysis were obtained from the City of Sunnyvale, the City of Santa Clara, the VTA CMP TRAFFIX database, county records for freeways and expressways, Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10th Edition (2017)*, field observations, and previous traffic studies. The following data were collected from these sources:

- Existing traffic volumes,
- Existing lane configurations,
- Signal timing and phasing,
- Applicable trip generation rates, and
- Approved projects information.

## Level of Service Standards and Analysis Methodologies

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The level of service analysis was supplemented with a queuing analysis for selected movements at the study intersections and an analysis of freeway segments and freeway ramps in the study area. In addition, the unsignalized intersection of Commercial Street and Kifer Road was evaluated to determine if the intersection would meet the peak hour signal warrant. The various analysis methods are described in further detail below.

### Signalized Study Intersections

The City of Sunnyvale and City of Santa Clara level of service analysis methodologies for signalized intersections are the *Highway Capacity Manual* (HCM) 2000 operations method. This method is applied using the TRAFFIX software. The HCM 2000 operations method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated traffic impact analysis tool, the City of Sunnyvale and City of Santa Clara employ the CMP default values for the analysis parameters within the software.

The Cities of Sunnyvale and Santa Clara level of service standards for signalized intersections are all LOS D or better. Within the City of Sunnyvale, intersections on roadways considered to be "regionally significant" have a standard of LOS E. In the study area, signalized intersections within Sunnyvale along El Camino Real, Sunnyvale-Saratoga Road, Central Expressway and Lawrence Expressway are considered regionally significant. The correlation between average control delay and level of service is shown in Table 1.

### CMP Intersections

The designated level of service analysis methodology for the CMP is also the HCM 2000 operations method for signalized intersections, using TRAFFIX. The CMP level of service standard for signalized intersections within the City of Sunnyvale and the City of Santa Clara is LOS E or better.

**Table 1**
**Signalized Intersection Level of Service Definitions Based on Control Delay**

| Level of Service | Description | Average Control Delay Per Vehicle (sec/veh) |
|---|---|---|
| A | Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay. | 10.0 or less |
| B+<br>B<br>B- | Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay. | 10.1 to 12.0<br>12.1 to 18.0<br>18.1 to 20.0 |
| C+<br>C<br>C- | Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though may still pass through the intersection without stopping. | 20.1 to 23.0<br>23.1 to 32.0<br>32.1 to 35.0 |
| D+<br>D<br>D- | The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable. | 35.1 to 39.0<br>39.1 to 51.0<br>51.1 to 55.0 |
| E+<br>E<br>E- | This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur | 55.1 to 60.0<br>60.1 to 75.0<br>75.1 to 80.0 |
| F | This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels. | greater than 80.0 |
| Source: | Transportation Research Board, 2000 Highway Capacity Manual (Washington, D.C., 2000) p10-16.<br>VTA Traffic Level of Service Analysis Guidelines (June 2003), Table 2. | |

## Unsignalized Study Intersections

The level of service for the unsignalized intersections was evaluated using the 2000 HCM methodology. Level of service for unsignalized (stop-controlled and yield controlled) intersections is evaluated based on the delay experienced by vehicles on the controlled approaches. For two-way or T-intersections, operations are defined by the average control delay experienced by the worst approach. For all-way stop controlled intersections, the level of service is reported based on the average delay for all approaches. The City of Sunnyvale General Plan level of service standard for unsignalized intersections is LOS D or better.

The correlation between delay and level of service for unsignalized intersections is shown in Table 2.

**Table 2**
**Unsignalized Intersection Level of Service Based on Delay**

| Level of Service | Description | Average Delay Per Vehicle (sec.) |
|---|---|---|
| A | Little or no traffic delay | 10.0 or less |
| B | Short traffic delays | 10.1 to 15.0 |
| C | Average traffic delays | 15.1 to 25.0 |
| D | Long traffic delays | 25.1 to 35.0 |
| E | Very long traffic delays | 35.1 to 50.0 |
| F | Extreme traffic delays | greater than 50.0 |

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000) p17-2.

## Traffic Signal Warrant Analysis

An assessment of the need for signalization was conducted for unsignalized study intersections. For this study, the need for signalization was assessed on the basis of the peak hour volume signal warrant (Warrant #3) described in the 2014 California Manual on Uniform Traffic Control Devices (CA MUTCD). This method provides an indication of whether traffic conditions and peak-hour traffic levels are, or would be, sufficient to justify the installation of a traffic signal. It should be noted that it is just one of the factors/warrants used to indicate whether installation of a traffic control signal is justified.

## Freeway Segments

Within Santa Clara County, freeway segments are analyzed as prescribed in the Santa Clara County CMP technical guideline. The level of service for freeway segments is estimated based on vehicle density. Density is calculated by the following formula:

$$D = V / (N*S)$$

Where:

D = density, in vehicles per mile per lane (vpmpl)

V = peak hour volume, in vehicle per hour (vph)

N = number of travel lanes

S = average travel speed, in miles per hour (mph)

The vehicle density on a segment is correlated to level of service as shown in Table 3. The CMP requires that mixed-flow lanes and auxiliary lanes be analyzed separately from high-occupancy vehicle (HOV) lanes (otherwise known as carpool lanes). The CMP specifies that a capacity of 2,300 vehicles per hour per lane (vphpl) be used for segments three lanes or wider in one direction, and a capacity of 2,200 vphpl be used for segments two lanes wide in one direction. HOV lanes are specified as having a capacity of 1,650 vphpl. The CMP defines an acceptable level of service for freeway segments as LOS E or better.

**Table 3**
**Freeway Segment Level of Service Definition**

| Level of Service | Description | Density (vehicles/mile/lane) |
|---|---|---|
| A | Average operating speeds at the free-flow speed generally prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. | 11.0 or less |
| B | Speeds at the free-flow speed are generally maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high. | 11.0 to 18.0 |
| C | Speeds at or near the free-flow speed of the freeway prevail. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more vigilance on the part of the driver. | 18.0 to 26.0 |
| D | Speeds begin to decline slightly with increased flows at this level. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels. | 26.0 to 46.0 |
| E | At this level, the freeway operates at or near capacity. Operations in this level are volatile, because there are virtually no usable gaps in the traffic stream, leaving little room to maneuver within the traffic stream. | 46.0 to 58.0 |
| F | Vehicular flow breakdowns occurs. Large queues form behind breakdown points. | greater than 58.0 |
| Source: | Santa Clara County Valley Transportation Authority, Transportation Impact Analysis Guidelines, Updated March 2009 (Based on the Highway Capacity Manual (2000), Washington, D.C.) | |

## Freeway Ramps

A freeway ramp analysis was performed in order to verify that the freeway ramps would have sufficient capacity to serve the expected traffic volumes with and without the project. This analysis consisted of a volume-to-capacity ratio evaluation of the freeway ramps at the study interchanges. The ramp capacities were obtained from the *Highway Capacity Manual 2000*, and considered the free-flow speed, number of lanes on the ramp, and ramp metering.

**Vehicle Queuing**

For selected high-demand movements at the study intersections, the estimated maximum vehicle queues were compared to the existing or planned storage capacity. The queuing analysis is presented for informational purposes only. The City of Sunnyvale does not have impact criteria for intersection queuing. However, in the City of Sunnyvale, a project is said to create an operational deficiency if the background plus project conditions increases the 95th percentile queue by one vehicle for a movement that is already over capacity compared to the background conditions.

Vehicle queues were calculated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

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

Where:

$P(x = n)$ = probability of "n" vehicles in queue per lane

$n$ = number of vehicles in the queue per lane

$\lambda$ = Average number of vehicles in the queue per lane (vehicles per hour per lane/signal cycles per hour)

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

For signalized intersections, the 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles. Or, a queue length larger than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Therefore, left-turn pocket storage designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time for a signalized movement. The 95th percentile queue length is also known as the "design queue length."

## Adverse Impact Criteria

Criteria are used to establish what constitutes an adverse impact. For this analysis, the criteria used to determine impacts on signalized and unsignalized intersections as well as freeway facilities are based on the City of Sunnyvale, the City of Santa Clara, and VTA's CMP level of service standards.

The effects of the project on other transportation facilities, such as bicycle facilities and transit service, were determined on the basis of engineering judgment.

### Definition of Intersection Impacts at Signalized Intersections

The project is said to create an adverse impact on traffic conditions at a signalized intersection in the City of Sunnyvale and the City of Santa Clara if for the study peak hour:

1. The level of service at the intersection drops below its respective level of service standard when project traffic is added; or
2. An intersection that operates below its level of service standard under no project conditions experiences an increase in critical-movement delay of four (4) or more seconds, *and* the critical volume-to-capacity ratio (v/c) is increased by 0.01 or more when project traffic is added.

The exception to this threshold is when the addition of project traffic reduces the amount of average control delay for critical movements, i.e., the change in average control delay for critical movements are negative. In this case, the threshold is when the project increases the critical V/C value by 0.01 or more.

An impact by the City of Sunnyvale, City of Santa Clara and CMP standards is said to be satisfactorily addressed when measures are implemented that would restore intersection conditions to its LOS standard *or* to an average delay equal to without-project conditions or better.

### Definition of Intersection Impacts at Unsignalized Intersections

**City of Sunnyvale**

Level of service analysis at unsignalized intersections is generally used to determine the need for modification in type of intersection control (i.e. all-way stop or signalization). As part of this evaluation, traffic volumes, delays, and traffic signal warrants are evaluated to determine if the existing intersection control is appropriate.

Per City of Sunnyvale guidelines, for determining the level of service for unsignalized intersections, the average intersection delay is used for all-way stop controlled intersections, and the worst movement delay is used for side-street stop-controlled intersections. Project impacts at the City's unsignalized intersections would be considered if one of the following criteria is met:

1. If an intersection operates at an acceptable LOS (i.e. D or better) without the project and degrades to an unacceptable LOS (i.e. LOS E or F) with the addition of project traffic.
2. If an unsignalized intersection operates at an unacceptable LOS (i.e. LOS E or F) without the project and the addition of project traffic increases:
    a. The average intersection delay by four (4) seconds or more, and the volume-to-capacity value by 0.01 or more for all-way stop controlled intersections; or
    b. The worst movement delay by four (4) seconds or more, and the volume-to-capacity value by 0.01 or more for side-street stop controlled.

3. Intersection meets the warrant(s) for installation of a traffic signal as per the latest edition of California Manual on Uniform Traffic Control Devices.

### Definition of Freeway Impacts

For this analysis, the criteria used to determine impacts on freeway segments are based on CMP standards. Per CMP requirements, freeway impacts are measured relative to existing conditions (i.e. there is no evaluation of freeways under background conditions). The project is said to create an adverse impact on traffic conditions on a freeway segment if for either peak hour:

1. The level of service of the freeway segment drops below the LOS E standard when project traffic is added; or
2. The level of service of the freeway segment is LOS F under existing conditions and the number of new trips added by the project is more than one percent of the freeway capacity.

### Definition of Freeway Ramp Impacts

A freeway ramp analysis was performed in order to verify that the freeway ramps would have sufficient capacity to serve the expected traffic volumes with and without the project. For the purpose of this study, the project is said to create an adverse impact on a freeway ramp if its implementation:

1. Causes the volume-to-capacity (v/c) ratio of the freeway ramp to exceed 1.0; or
2. Increases the amount of traffic on a freeway ramp that is already exceeding its capacity by more than one percent (1%) of the ramp's capacity.

## Report Organization

The remainder of this report is divided into five chapters. Chapter 2 describes the existing roadway network, transit services, and pedestrian and bicycle facilities. Chapter 3 presents the traffic conditions in the study area under background conditions. Chapter 4 describes the methods used to estimate the project traffic on the roadway network and presents the intersection operations under existing plus project and background plus project conditions. Also included in Chapter 4 are the freeway segment and freeway ramp analyses. Chapter 5 provides an evaluation of other transportation related issues for the proposed project, such as vehicle queuing, potential project impacts on transit, pedestrian, and bicycle facilities, site access and circulation, and parking. Chapter 6 presents the traffic study conclusions, including a summary of any recommended improvement measures.

# 2.
# Existing Conditions

This chapter describes the existing conditions for transportation facilities in the vicinity of the site, including the roadway network, transit services, and pedestrian and bicycle facilities.

## Existing Roadway Network

Regional access to the study area is provided by US 101.

**US 101** is an eight-lane freeway (three mixed-flow lanes and one HOV lane in each direction) in the vicinity of the site. US 101 extends northward through San Francisco and southward through Gilroy. Access to and from the project area is provided via full interchanges at Fair Oaks Avenue and Lawrence Expressway.

Major roadways within or near the project area include: Kifer Road, Lawrence Expressway, Wolfe Road, Fair Oaks Avenue, Central Expressway, Reed Avenue/Monroe Street, Arques Avenue, Evelyn Avenue, and Commercial Street. These roads are described below.

**Kifer Road** is a four-lane roadway within the project vicinity with a posted speed limit of 40 miles per hour (mph). Kifer Road begins west at Fair Oaks Avenue and extends east towards Bowers Avenue, where it transitions into Walsh Avenue. Kifer Road has a center two-way left-turn median along the entirety of the roadway. On-street parking is prohibited on both sides of Kifer Road within the project vicinity. In the study area, Kifer Road includes sidewalks along some segments of the roadway and crosswalks at the nearby signalized intersections. There are no sidewalks on the south side of Kifer Road fronting the project site. Bike lanes are provided on both sides of Kifer Road between Fair Oaks Avenue and Lawrence Expressway and between Corvin Drive and Uranium Drive. Bike lanes are present on the south side of Kifer Road between the Costco Driveway and Corvin Drive, mainly due to construction on the north side. Kifer Road provides direct access to the project site.

**Lawrence Expressway** is a north-south, eight-lane expressway with a raised median and a posted speed limit of 50 mph in the project vicinity. It begins at Saratoga Avenue in the south, crosses through Sunnyvale, extends northward and transitions into Caribbean Drive. Lawrence Expressway connects with US 101 via a full-access freeway interchange. Lawrence Expressway includes sidewalks along both sides on most segments and crosswalks at signalized intersections. There are no bike lanes on Lawrence Expressway, but bikes are allowed to ride on the shoulders. On-street parking is not permitted on this roadway. Lawrence Expressway provides regional access to the project site via its interchanges with SR 237, US 101, Central Expressway and I-280.

**Wolfe Road** is a four-lane to six-lane, north-south arterial that begins at N. Fair Oaks Avenue, and extends south into the City of Cupertino, ending at Stevens Creek Boulevard (its transition point into Miller Avenue). Wolfe Road has a posted speed limit of 35 mph in the project vicinity. Wolfe Road includes sidewalks along most segments in both directions of travel and crosswalks at signalized intersections. Bike routes or lanes are provided along Wolfe Road for its entirety. On-street parking is permitted along only certain segments of the roadway. Wolfe Road provides regional access to the project site via its interchanges with Central Expressway and I-280.

**Fair Oaks Avenue** is a four-lane to six-lane, north-south roadway with a posted speed limit of 30 mph in the project vicinity. Fair Oaks Avenue begins at Java Drive north of SR 237 and extends southward, and transitions into Remington Drive at its junction with El Camino Real. Sidewalks exist on both sides for most of the segments along with crosswalks, pedestrian push buttons, and signal heads at all major intersections. Bike lanes are present along Fair Oaks Avenue between Evelyn Avenue and Kifer Road, as well as south of Old San Francisco Road. On-street parking is generally permitted north of Old San Francisco Road. Fair Oaks Avenue provides regional access to the project site via its interchanges with SR 237, US 101 and Central Expressway.

**Central Expressway** is an east-west, four-lane to six-lane expressway. It begins at Trimble Road in the east, crosses Sunnyvale, extends westward and transitions into Alma Street. In the study area, Central Expressway has two eastbound lanes and two westbound lanes and a posted speed limit of 50 mph. Central Expressway is mostly grade-separated within Sunnyvale except at Mary Avenue. The Mary Avenue intersection has crosswalks with pedestrian push buttons and signal heads across all legs. On-street parking is prohibited on Central Expressway and no sidewalks are provided. There are no bike lanes along Central Expressway, but bikes are allowed to ride on the shoulders. Central Expressway connects to Wolfe Road, Commercial Street and Lawrence Expressway in the project vicinity.

**Reed Avenue/Monroe Street** is a two-lane to four-lane roadway with a posted speed limit of 35 mph in the project vicinity. Reed Avenue/Monroe Street begins west at Wolfe Road as Reed Avenue and extends southeast towards its terminus at Tisch Way in the City of San Jose. Reed Avenue is within the City of Sunnyvale, and transitions to Monroe Street in the City of Santa Clara at its intersection with Lawrence Expressway (Sunnyvale-Santa Clara city boundary). Reed Avenue/Monroe Street has a center two-way left-turn lane that runs along the entirety of the roadway. In the study area, on-street parking is permitted on the north side of Reed Avenue between Wolfe Road and Sitka Terrace, along portions of both sides between Evelyn Avenue and Timberpine Avenue, and along the south side between Timberpine Avenue and Willow Avenue. On Monroe Street, on-street parking is permitted on both sides east of Nobili Avenue. Sidewalks are present along both sides of the street. Bike lanes are provided on both sides of Reed Avenue between Sunnyvale Avenue and Lawrence Expressway and on the north side of Monroe Street between Lawrence Expressway and Nobili Avenue.

**Arques Avenue** is a two-lane to four-lane roadway with a posted speed limit of 35 mph in the project vicinity. Arques Avenue begins at Stowell Avenue in the west and extends east past San Tomas Expressway and transitions into Scott Boulevard. Arques Avenue connects with Central Expressway via a westbound on-ramp and an eastbound off-ramp. Arques Avenue connects with Lawrence Expressway via a traffic signal. Sidewalks are present along both sides of the street between Wolfe Road and Lawrence Expressway and along the north side between Fair Oaks Avenue and Wolfe Road. Bike lanes are provided east of Fair Oaks Avenue.

**Evelyn Avenue** is a two-lane to four-lane roadway that begins west at Castro Street in the City of Mountain View and extends east to its terminal at Reed Avenue in the City of Sunnyvale. Within Sunnyvale, Evelyn Avenue generally includes two travel lanes and a center two-way left-turn lane and has a posted speed limit of 30 mph in the study area. Evelyn Avenue includes sidewalks and bicycle lanes on both directions of travel and crosswalks at signalized intersections. On-street parking is permitted along most segments of this roadway.

**Commercial Street** is a two-lane roadway that is broken into two segments. The northern segment extends north from Central Expressway to Arques Avenue, and the southern segment extends south from Central Expressway to Kifer Road. The southern segment of Commercial Street has a posted speed limit of 25 mph and provides access to the project site via Kifer Road. There are no bike lanes, sidewalks, or on-street parking along the southern segment of Commercial Street.

## Existing Transit Service

Existing transit services in the vicinity of the project site are provided by Caltrain, VTA, and ACE. Transit services are described below and shown on Figure 3.

### ACE Shuttle Service

The nearest bus stop to the project site is located at the Commercial Street and Kifer Road intersection, within the project area. This bus stop is serviced by the Altamont Commuter Express (ACE) Gray Shuttle (Route 822). ACE provides commuter rail service between Stockton, Tracy, Pleasanton, and San Jose during commute hours. This free shuttle, funded by the Bay Area Air Quality Management District, transports Sunnyvale passengers to and from the ACE Great America Station in Santa Clara. The Gray Shuttle runs on Arques Avenue, Wolfe Road, and Kifer Road, with three southbound trips in the morning (between 6:15 AM and 9:10 AM) and four northbound trips in the afternoon/evening (between 3:10 PM and 6:40 PM) with headways averaging 60 minutes.

### Caltrain Service

Commuter rail service between San Francisco and Gilroy is provided by Caltrain. The project site is located between the Sunnyvale Caltrain Station and the Lawrence Caltrain Station. Caltrain service to both stations is described below.

#### Sunnyvale Caltrain Station

The Sunnyvale Caltrain Station, located near the intersection of Frances Street and Evelyn Avenue, provides Caltrain service with approximately 15- to 30-minute headways during the weekday AM and PM commute hours and 60-minute headways during weekday midday and night hours as well as on weekends. The Sunnyvale Caltrain Station provides service for all Local, Limited-Stop, and Baby-Bullet trains. The Sunnyvale Caltrain Station is located approximately 7,800 feet from the project site, which is approximately an 8- to 11-minute bike ride. There are continuous pedestrian facilities between the Sunnyvale Caltrain station and the project site. Bicycle lanes are present on Kifer Road, but the ends of Hendy Avenue between Kifer Road and the Sunnyvale Caltrain station do not provide bicycle facilities.

**Lawrence Caltrain Station**

The Lawrence Caltrain Station, located beneath the Lawrence Expressway overcrossing between Reed Avenue and Kifer Road, provides Caltrain service with approximately 20- to 30-minute headways during the weekday AM and PM commute hours and 60-minute headways during weekday midday and night hours as well as on weekends. The Lawrence Caltrain Station provides service for only Local and Limited-Stop trains. Services are provided between 4:30 AM and 1:45 AM (next day). The Baby-Bullet train does not stop at the Lawrence Caltrain Station. The project site is located about 3,700 feet from the Lawrence Caltrain Station, which is approximately a 14-minute walk or 3-minute bike ride. Continuous pedestrian facilities are not present between the project site and the Lawrence Caltrain Station. The sidewalk fronting the Greystar project site is currently under construction. Crosswalks are lacking at the Osram driveways on Kifer Road and at all intersections and driveways on San Zeno Way. Between the project site and the Lawrence Caltrain station, bicycle lanes are present along Kifer Road, but San Zeno Way does not provide bicycle facilities.

Two free public Caltrain shuttles provide service at the Lawrence Caltrain Station: the Bowers/Walsh shuttle and the Mission shuttle. The shuttle routes are shown on Figure 4. These shuttles are funded jointly by the Bay Area Air Quality Management District, the Peninsula Corridor Joint Powers Board, and private employers.

## Existing Pedestrian Facilities

Within the project vicinity, sidewalks and crosswalks are present along most sections of roadways. As shown on Figure 4, sidewalks and crosswalks are missing along only selected sections of the roadways. Along Kifer Road, which is the roadway fronting the project site, sidewalk is mostly missing on both sides of the street west of the project site and on the north side near Corvin Drive. Sidewalk is also missing along certain segments of Corvin Drive, Oakmead Parkway, Arques Avenue, north side on Aster Avenue, and fronting the Greystar (1120 Kifer Road) construction site, the Lawrence Station Development construction site, and the Nuevo construction site. Pedestrian crosswalks and signal heads are present at the nearby signalized intersections. Currently, sidewalks along Kifer Road are generally six feet wide. According to the City's current General Plan Land Use and Transportation Element, Kifer Road, which is a Commercial/Industrial Corridor, should have sidewalks with a width of 11 feet. The current sidewalk widths along Kifer Road do not comply with General Plan standards.

**Figure 3**
**Existing Transit Services**

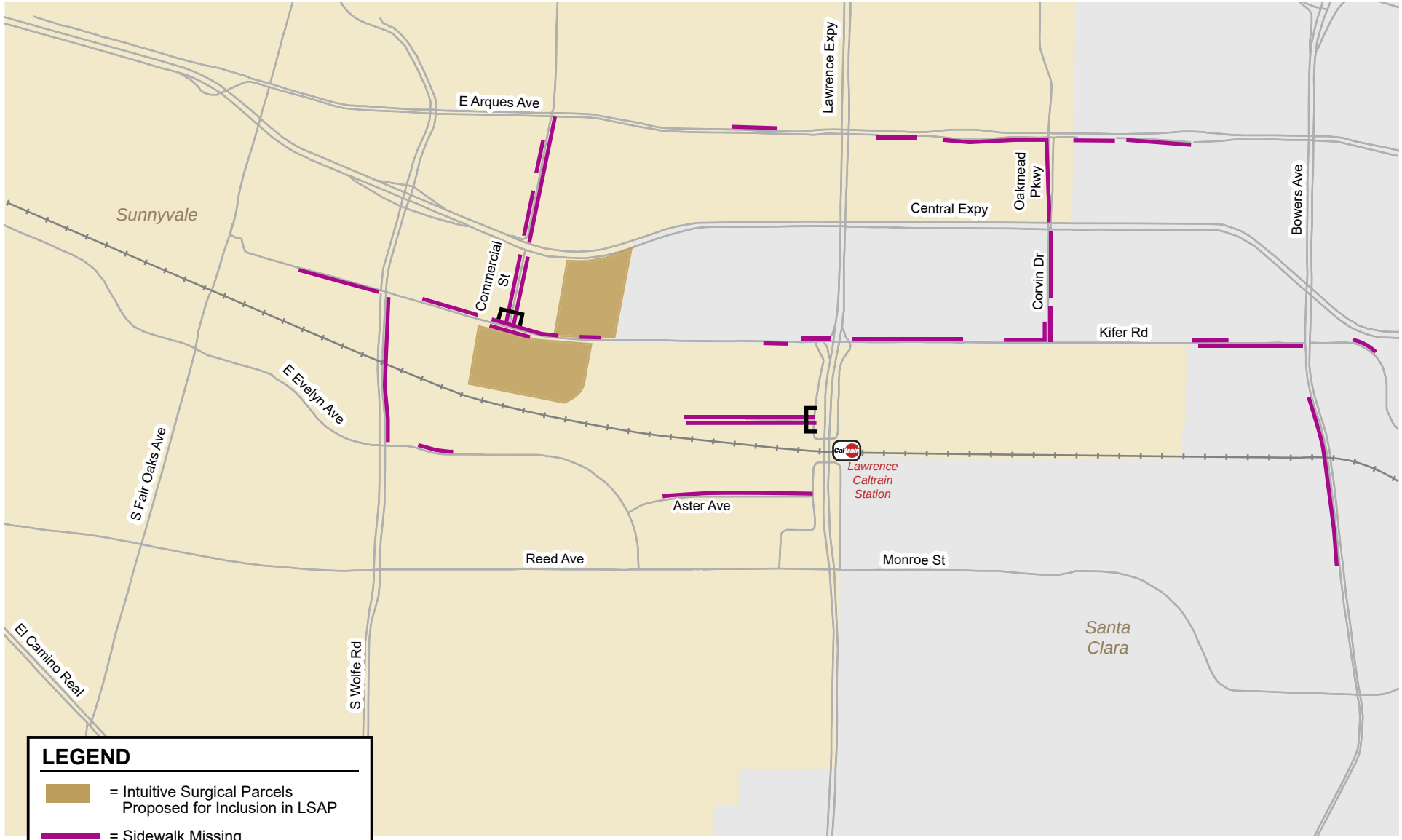



**Figure 4**
**Existing Pedestrian Facilities**

## Existing Bicycle Facilities

Bicycle facilities in the project vicinity include bike lanes and bike routes. Bike lanes are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes are streets that accommodate bicycles with pavement markings and signage but are not separate from the travel lanes.

The existing bicycle facilities in the study area are shown on Figure 5. The following bicycle facilities exist within the immediate project vicinity:

Bike Lanes:

- Kifer Road between Fair Oaks Avenue and Lawrence Expressway, and between the Costco Driveway and Uranium Drive
- Fair Oaks Avenue between Evelyn Avenue and Kifer Road
- Evelyn Avenue, along its entire length
- Reed Avenue/Old San Francisco Road between Sunnyvale Avenue and Lawrence Expressway
- Wolfe Road between Reed Avenue and Fair Oaks Avenue
- Arques Avenue/Scott Boulevard between Central Expressway and Fair Oaks Avenue
- Oakmead Parkway between Lawrence Expressway and Central Expressway
- Stewart Drive between Duane Avenue and Wolfe Road
- Duane Avenue between Fair Oaks Boulevard and AMD Place
- DeGuigne Drive/Commercial Street between Duane Avenue and Central Expressway
- Bowers Avenue between Great America Parkway and Chromite Drive
- Aster Avenue between E. Evelyn Avenue and Willow Avenue

Bike routes are present along Wolfe Road between Fremont Avenue and Reed Avenue, on Fair Oaks Avenue between Tasman Drive and Weddell Drive, between Ahwanee Avenue to Kifer Road, and between Evelyn Avenue to Old San Francisco Road, and on Bowers Avenue between El Camino Real and Chromite Drive. According to the *City of Sunnyvale Bike Map, 2018 Edition*, there are three guided bike routes within the City. Each guided route is briefly described below and shown on Figure 5:

- Bike Route 352: This is a generally north-south bike route that extends north from the southern City limits into the Moffett Park area. North of El Camino Real, this route travels along Sunnyvale Avenue until Evelyn Avenue and transitions into Bike Route 353 (described below). South of El Camino Real, this bike route zigzags along local roadways west of Sunnyvale-Saratoga Road, providing access to Fremont High School and Nimitz Elementary School.

- Bike Route 353: This is a generally north-south bike route that extends north from the southern City limits into the Moffett Park area. South of Evelyn Avenue, this route transitions into Bike Route 352 (described above). North of Evelyn Avenue, this route travels mostly along Morse Avenue south of US 101 and along Borregas Avenue north of US 101. Bike Route 353 provides access to Bishop Elementary School and Columbia Middle School.

- Bike Route 600: This is a generally east-west bike route that extends east from the intersection at Bernardo Avenue and El Camino Real and ending east at Poinciana Drive. This route travels parallel and north of El Camino Real along residential roadways (mainly Olive Avenue, Gail Avenue, Iris Avenue and Lily Avenue). This route provides access to the Civic Center, Ellis Elementary School, Braly Elementary School and Ponderosa Elementary School.

A Class I multi-use path has recently been constructed/in the process of construction along the west and south edges of the Intuitive Surgical campus expansion project at 1050 Kifer Road/1127 Sonora Court. This multi-use path would provide pedestrians and bicyclists an alternate path to access the Caltrain station via Sonora Court.

Overall, the existing bicycle facilities in the study area provide adequate connections for bicycles. However, certain segments of Kifer Road east Lawrence Expressway are missing bicycle facilities. Additionally, San Zeno Way, Lawrence Station Road, and Willow Avenue do not provide bicycle facilities, which would otherwise connect the Lawrence Caltrain Station to the surrounding areas.

## Existing Intersection Lane Configurations

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 6.

## Existing Traffic Volumes

The existing traffic volumes were obtained from peak hour traffic counts collected in 2017 through 2019. The existing PM traffic counts for the CMP intersections were collected in 2018. The existing AM and PM peak hour traffic volumes are shown graphically on Figure 7. Traffic count data are included in Appendix A. Traffic volumes at the study intersections for all scenarios of the traffic study are tabulated in Appendix B.

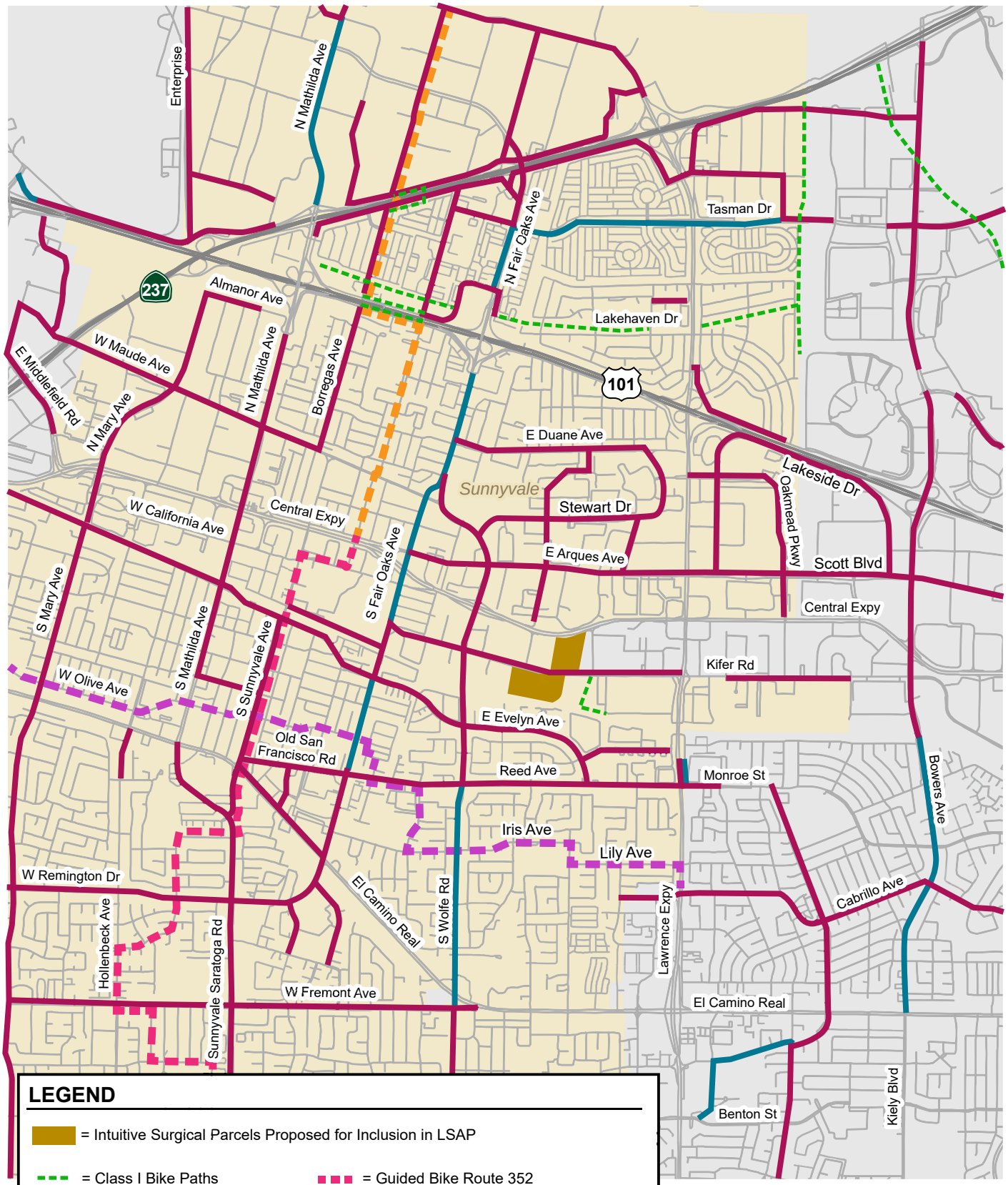



**Figure 5**
**Existing Bicycle Facilities**

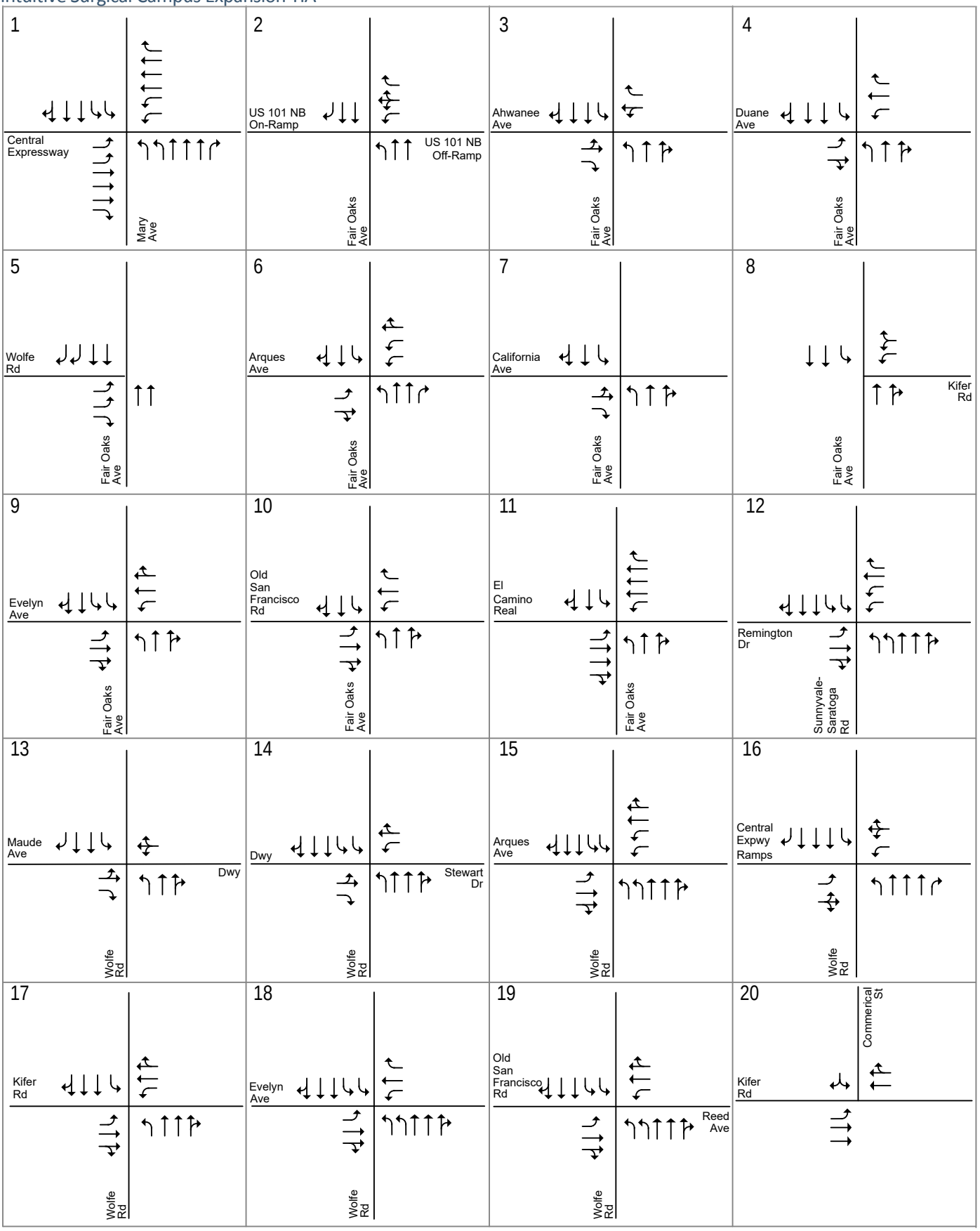
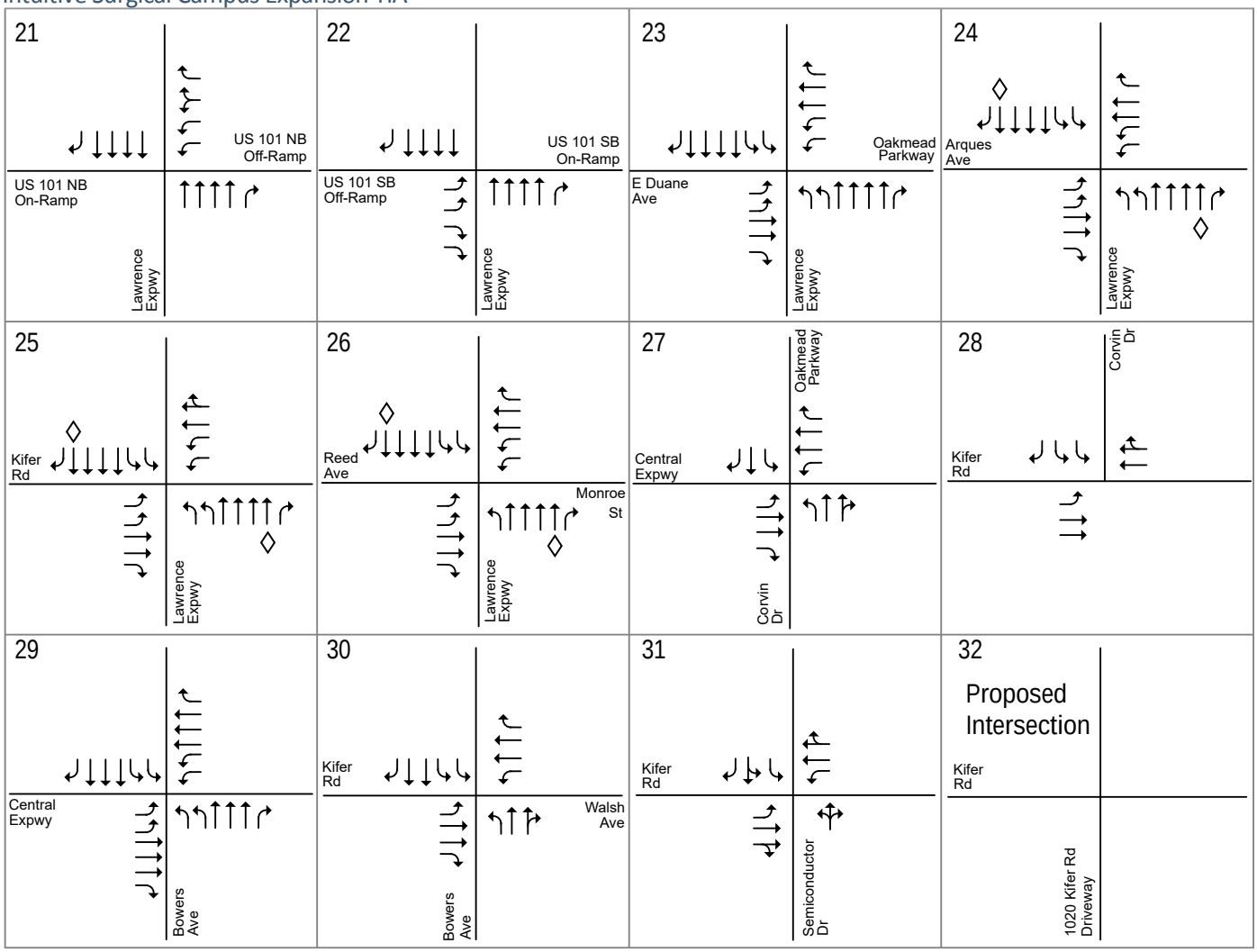



**Figure 6**
**Existing Lane Configurations**



NORTH
Not to Scale



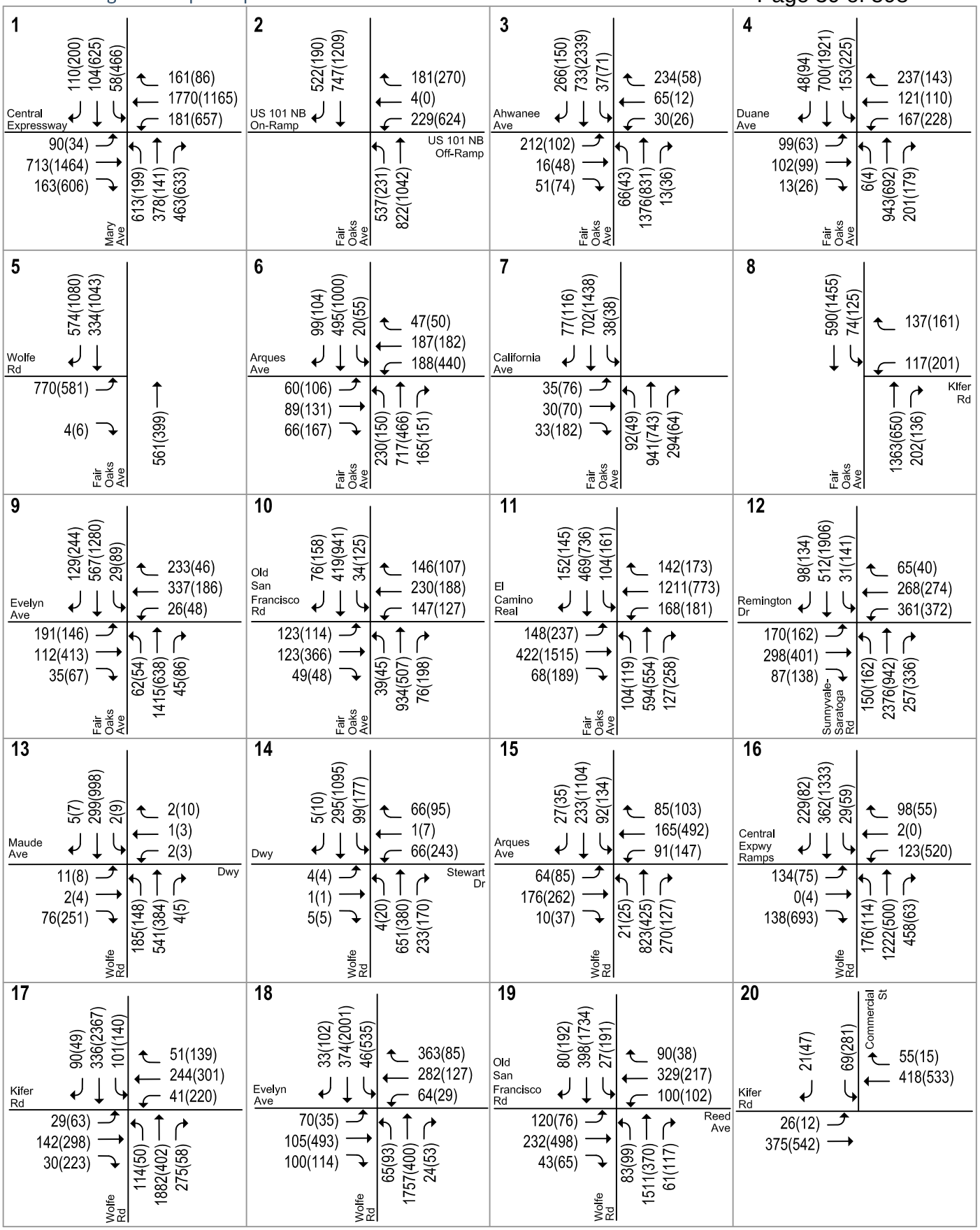

**LEGEND**

◊ = HOV Lane

**Figure 6**
**Existing Lane Configurations**



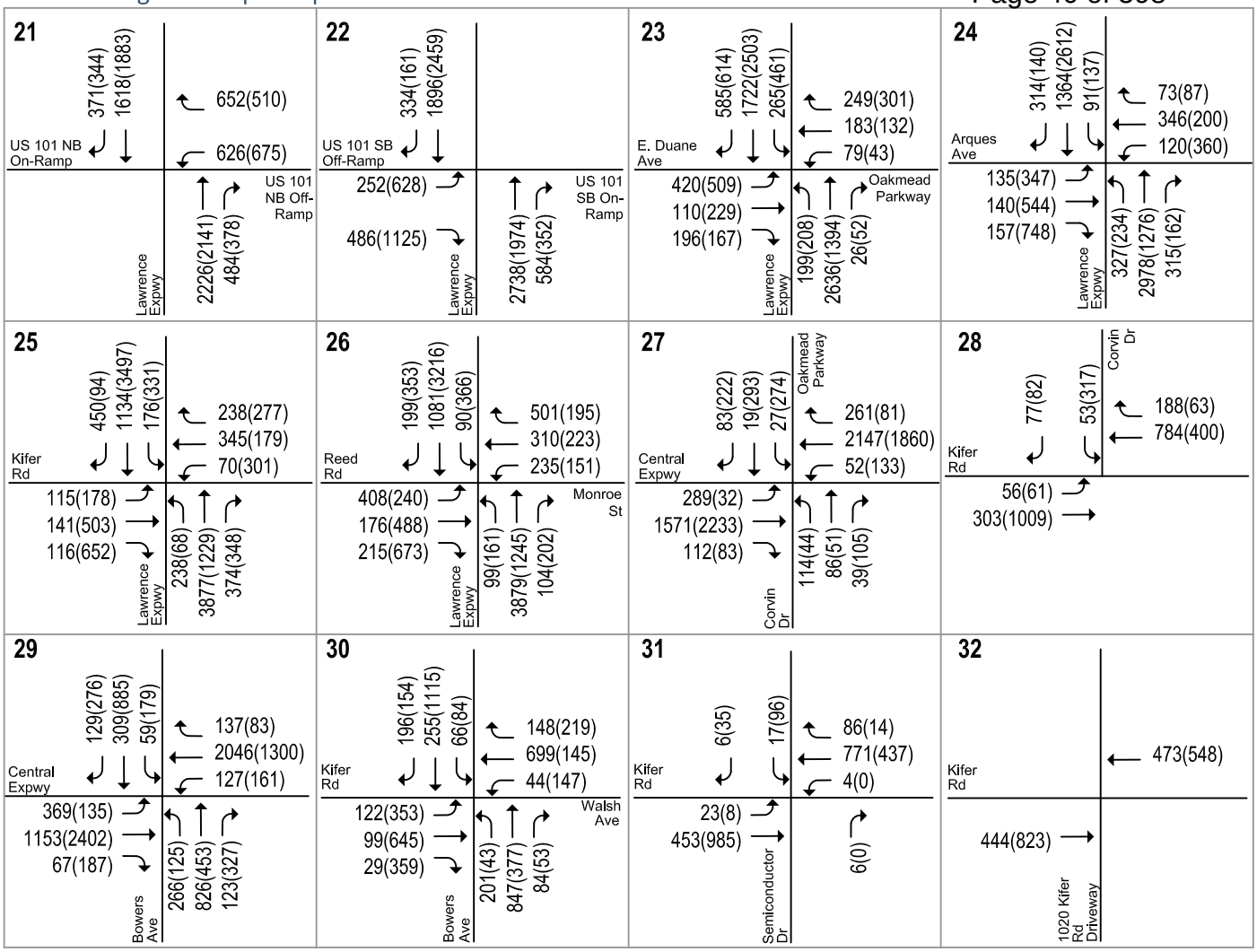
NORTH
Not to Scale




LEGEND

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

**Figure 7**
**Existing Traffic Volumes**




LEGEND

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

**Figure 7**
**Existing Traffic Volumes**

## Existing Intersection Levels of Service

Intersection levels of service were evaluated against the respective city and CMP standards. The results of the intersection level of service analysis under existing conditions are summarized in Table 4 for the signalized study intersections and Table 5 for the unsignalized study intersections. The results of the analysis show that the following intersections currently operate at unacceptable levels.

City of Sunnyvale Intersection:

- Wolfe Road and Central Expressway Ramps (#16) – PM peak hour (LOS E)

County of Santa Clara Intersections:

- Lawrence Expressway and Kifer Road (#25) – PM peak hour (LOS F)
- Lawrence Expressway and Monroe Street/Reed Avenue (#26) – AM peak hour (LOS F)

As shown on Table 5, the unsignalized intersection at Wolfe Road and Maude Avenue is currently operating at an unacceptable LOS F during the PM peak hour for the worst approach (the eastbound movement). This eastbound movement currently experiences lengthy delays because the eastbound left-turn movement must wait for a gap in both directions of travel on Wolfe Road before turning. The currently unsignalized intersection at Wolfe Road and Maude Avenue is being signalized by Intuitive Surgical as a part of the 1050 Kifer Road project.

The other unsignalized study intersection, Commercial Street and Kifer Road, currently operates at LOS C or better under existing conditions. However, the peak-hour signal warrant was checked for this intersection due to the anticipated project impacts. The results show that this intersection meets the peak-hour signal warrant during the PM peak hour under existing conditions. The intersection level of service sheets are included in Appendix C. The peak-hour signal warrant worksheets are included in Appendix D.

**Table 4**
**Existing Level of Service Summary - Signalized Intersections**

| # | Intersection | Peak Hour | Count Date | LOS Std. | Existing Avg. Delay (sec) | Existing LOS |
|---|---|---|---|---|---|---|
| 1 | Mary Avenue & Central Expressway (County*) | AM | 11/14/17 | E | 51.5 | D- |
| | | PM | 12/13/18 | | 60.1 | E |
| 2 | Fair Oaks Avenue & US 101 NB Ramps | AM | 05/08/18 | D | 21.3 | C+ |
| | | PM | 05/08/18 | | 22.8 | C+ |
| 3 | Fair Oaks Avenue & Ahwanee Avenue | AM | 05/08/18 | D | 20.8 | C+ |
| | | PM | 05/08/18 | | 13.8 | B |
| 4 | Fair Oaks Avenue & Duane Avenue | AM | 05/08/18 | D | 32.1 | C- |
| | | PM | 05/08/18 | | 30.2 | C |
| 5 | Fair Oaks Avenue & Wolfe Road | AM | 05/08/18 | D | 22.8 | C+ |
| | | PM | 05/08/18 | | 19.8 | B- |
| 6 | Fair Oaks Avenue & Arques Avenue | AM | 05/08/18 | D | 34.8 | C- |
| | | PM | 05/08/18 | | 44.5 | D |
| 7 | Fair Oaks Avenue & California Avenue | AM | 12/06/17 | D | 10.8 | B+ |
| | | PM | 12/06/17 | | 15.7 | B |
| 8 | Fair Oaks Avenue & Kifer Road | AM | 05/08/18 | D | 15.6 | B |
| | | PM | 05/08/18 | | 25.9 | C |
| 9 | Fair Oaks Avenue & Evelyn Avenue | AM | 05/08/18 | D | 35.9 | D+ |
| | | PM | 05/08/18 | | 29.8 | C |
| 10 | Fair Oaks Avenue & Old SF Road | AM | 05/08/18 | D | 33.3 | C- |
| | | PM | 05/08/18 | | 33.7 | C- |
| 11 | Fair Oaks Avenue & El Camino Real (*) | AM | 05/08/18 | E | 41.0 | D |
| | | PM | 10/30/18 | | 41.8 | D |
| 12 | Sunnyvale-Saratoga Road & Remington Drive (*) | AM | 11/14/17 | E | 42.9 | D |
| | | PM | 10/30/18 | | 43.6 | D |
| 13 | Wolfe Road & Maude Avenue (1) | AM | 12/06/17 | D | - | - |
| | | PM | 12/06/17 | | - | - |
| 14 | Wolfe Road & Stewart Drive | AM | 11/15/17 | D | 22.4 | C+ |
| | | PM | 11/15/17 | | 30.8 | C |
| 15 | Wolfe Road & Arques Avenue | AM | 11/14/17 | D | 35.6 | D+ |
| | | PM | 11/14/17 | | 40.8 | D |
| 16 | Wolfe Road & Central Expressway Ramps | AM | 12/06/17 | D | 37.2 | D+ |
| | | PM | 12/06/17 | | **71.0** | **E** |

Notes:

* = *CMP, County = County of Santa Clara*

(1) The Wolfe Road & Maude Avenue intersection is signalized under background conditions.

**BOLD** indicates unacceptable level of service

**Table 4 (Continued)**
**Existing Level of Service Summary - Signalized Intersections**

| # | Intersection | Peak Hour | Count Date | LOS Std. | Existing Avg. Delay (sec) | Existing LOS |
|---|---|---|---|---|---|---|
| 17 | Wolfe Road & Kifer Road | AM | 11/14/17 | D | 29.0 | C |
| | | PM | 11/14/17 | | 43.1 | D |
| 18 | Wolfe Road & Evelyn Avenue | AM | 11/15/17 | D | 38.6 | D+ |
| | | PM | 11/15/17 | | 36.5 | D+ |
| 19 | Wolfe Road & Reed Avenue | AM | 11/14/17 | D | 37.0 | D+ |
| | | PM | 11/14/17 | | 38.9 | D+ |
| 21 | Lawrence Expressway & US 101 NB Ramps | AM | 05/23/19 | E | 11.9 | B+ |
| | | PM | 05/23/19 | | 14.0 | B |
| 22 | Lawrence Expressway & US 101 SB Ramps | AM | 05/23/19 | E | 7.9 | A |
| | | PM | 05/23/19 | | 22.3 | C+ |
| 23 | Lawrence Expressway & Oakmead Parkway | AM | 05/23/19 | E | 40.4 | D |
| | | PM | 05/23/19 | | 52.3 | D- |
| 24 | Lawrence Expressway & Arques Avenue | AM | 04/04/17 | E | 48.2 | D |
| | | PM | 11/13/18 | | 71.6 | E |
| 25 | Lawrence Expressway & Kifer Road (County) | AM | 03/07/18 | E | 54.4 | D- |
| | | PM | 03/07/18 | | **101.6** | **F** |
| 26 | Lawrence Expressway & Monroe Street (County*) | AM | 03/07/18 | E | **114.8** | **F** |
| | | PM | 11/13/18 | | 61.8 | E |
| 27 | Oakmead Parkway & Central Expressway | AM | 11/15/17 | E | 46.1 | D |
| | | PM | 11/13/18 | | 49.7 | D |
| 28 | Corvin Drive & Kifer Road (SC) | AM | 11/15/17 | D | 8.1 | A |
| | | PM | 11/15/17 | | 9.0 | A |
| 29 | Bowers Avenue & Central Expressway (County*) | AM | 11/15/17 | E | 46.5 | D |
| | | PM | 11/13/18 | | 53.8 | D- |
| 30 | Bowers Avenue & Kifer Road (SC) | AM | 11/15/17 | D | 29.1 | C |
| | | PM | 03/07/18 | | 28.6 | C |
| 31 | Semiconductor Drive & Kifer Road | AM | 09/11/18 | D | 14.1 | B |
| | | PM | 09/11/18 | | 9.4 | A |
| 32 | 1020 Kifer Rd Driveway & Kifer Road | AM | - | | Future Intersection | |
| | | PM | - | | | |

Notes:

* = *CMP, SC = Santa Clara, County = County of Santa Clara*

**BOLD** indicates unacceptable level of service

**Table 5**
**Existing Level of Service Summary - Unsignalized Intersections**

| # | Intersection | Control [(1)] | LOS Standard | Peak Hour | Count Date | Existing Delay (sec) | Existing LOS | Existing Signal Warrant Met |
|---|---|---|---|---|---|---|---|---|
| 13 | Wolfe Road & Maude Avenue | side-street stop | D | AM | 12/06/17 | 25.7 | D | No |
| | | | | PM | 12/06/17 | **67.4** | **F** | **Yes** |
| 20 | Commercial Street & Kifer Road | side-street stop | D | AM | 12/06/17 | 12.3 | B | No |
| | | | | PM | 12/06/17 | 24.1 | C | Yes |

Notes:
(1) Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay. Those reported for all-way stop-controlled intersections represent intersection average.
**BOLD** indicates unacceptable level of service

## Existing Freeway Levels of Service

Existing weekday AM and PM peak-hour traffic volumes on the study freeway segments were obtained from the *2018 CMP Monitoring & Conformance Report* published by VTA (see Table 6). All three study freeway segments on US 101 are operating at LOS F in the northbound direction in the morning and LOS F in the southbound direction in the evening. The study freeway segment on SR 237 operates at LOS F in the westbound directions in the morning and LOS F in the eastbound direction in the evening.

**Table 6**
**Existing Freeway Level of Service Summary**

| Freeway | Dir. | Segment | Peak Hour | Existing Conditions - Mixed Flow Lanes[1] Avg. Speed (mph) | # of Lanes | Capacity | Density (pc/mi/ln) | Volume | LOS[2] |
|---|---|---|---|---|---|---|---|---|---|
| US 101 | SB | Mathilda Avenue to Fair Oaks Avenue | AM | 63.0 | 3 | 6,900 | 24.0 | 4,611 | C |
| | | | PM | **20.6** | **3** | **6,900** | **67.0** | **4,149** | **F** |
| US 101 | SB | Fair Oaks Avenue to Lawrence Expressway | AM | 60.0 | 3 | 6,900 | 30.0 | 5,346 | D |
| | | | PM | **12.4** | **3** | **6,900** | **79.0** | **2,949** | **F** |
| US 101 | SB | Lawrence Expressway to Great America Parkway | AM | 55.0 | 3 | 6,900 | 35.0 | 5,850 | D |
| | | | PM | **6.4** | **3** | **6,900** | **91.0** | **1,746** | **F** |
| US 101 | NB | Great America Parkway to Lawrence Expressway | AM | **17.2** | **3** | **6,900** | **72.0** | **3,702** | **F** |
| | | | PM | 47.6 | 3 | 6,900 | 42.0 | 5,964 | D |
| US 101 | NB | Lawrence Expressway to Fair Oaks Avenue | AM | **18.2** | **3** | **6,900** | **70.0** | **3,840** | **F** |
| | | | PM | 47.2 | 3 | 6,900 | 42.0 | 5,958 | D |
| US 101 | NB | Fair Oaks Avenue to Mathilda Avenue | AM | **26.0** | **3** | **6,900** | **61.0** | **4,740** | **F** |
| | | | PM | 54.8 | 3 | 6,900 | 36.0 | 5,859 | D |
| SR 237 | EB | Lawrence Expressway to Great America Parkway | AM | 58.0 | 2 | 4,400 | 32.0 | 3,746 | D |
| | | | PM | **9.8** | **2** | **4,400** | **84.0** | **1,644** | **F** |
| SR 237 | WB | Great America Parkway to Lawrence Expressway | AM | **24.6** | **2** | **4,400** | **62.0** | **3,066** | **F** |
| | | | PM | 57.8 | 2 | 4,400 | 33.0 | 3,760 | D |

Notes
Dir. = direction, NB = northbound, SB = southbound, mph = miles per hour, pc/mi/ln = passenger cars per mile per lane
[1] Source: Santa Clara Valley Transportation Authority Congestion Management Program Monitoring Study, 2018.
**BOLD** indicates substandard level of service.

## Existing Freeway Ramp Capacity Analysis

This analysis consists of a volume-to-capacity ratio evaluation of six freeway ramps at the interchanges of US 101 and Fair Oaks Avenue and US 101 and Lawrence Expressway. The ramp capacities were obtained from the *Highway Capacity Manual 2000* (Chapter 25), which considers the free-flow speed, the number of lanes on the study ramp, and ramp metering.

Hexagon conducted field observations at the study freeway ramps in May 2018 and 2019. The field observations showed that the US 101 southbound on-ramp from northbound Lawrence Expressway was metered during the PM peak hour. The field observations showed minimal ramp queuing at this location, typically one to two vehicles. Due to the short observed queue length, a queuing analysis was omitted from the traffic study. The US 101 northbound on-ramp from Fair Oaks Avenue has ramp meter equipment, and Caltrans could turn on the ramp metering in the future. To be conservative, it was assumed that the US 101 on-ramp from Fair Oaks Avenue is metered during the AM peak hour.

It is assumed that the metered ramps would each have a capacity of 900 vehicles per hour for the mixed-flow lanes. A capacity of 900 vehicles per hour is assumed for the HOV lanes. The peak-hour freeway ramp volumes were obtained through recent traffic counts and Caltrans. As shown on Table 7, all freeway ramps currently have sufficient capacity to serve the existing traffic volumes. The study ramps have volume-to-capacity (V/C) ratios that are well below 1.0, which means that the existing traffic demand is lower than the ramp capacity.

**Table 7**
**Existing Freeway Ramp Capacity Analysis**

| Interchange | Ramp | Type | Peak Hour | Lanes | | | Existing Conditions | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Mixed-Flow | HOV | Meter[1] | Capacity[2] | Peak Volume[3] | v/c |
| US101/Fair Oaks Avenue | NB On-Ramp from Fair Oaks Avenue | Diagonal | AM | 1 | 1 | Equipment | 1,800 | 1,061 | 0.59 |
| | | | PM | | | Present | 1,800 | 416 | 0.23 |
| | SB Off-Ramp to SB Fair Oaks Avenue | Diagonal | AM | 1 | - | - | 2,000 | 363 | 0.18 |
| | | | PM | | | | 2,000 | 893 | 0.45 |
| US 101/Lawrence Expressway | NB Off-Ramp to Lawrence Expressway | Diagonal | AM | 2 | - | - | 3,800 | 1,278 | 0.34 |
| | | | PM | | | | 3,800 | 1,185 | 0.31 |
| | SB On-Ramp from NB Lawrence Expressway | Diagonal | AM | 2 | 1 | Equipment | 1,800 | 584 | 0.32 |
| | | | PM | | | Present | 1,800 | 352 | 0.20 |
| | NB On-Ramp from NB Lawrence Expressway | Loop | AM | 1 | 1 | Equipment | 1,800 | 484 | 0.27 |
| | | | PM | | | Present | 1,800 | 378 | 0.21 |
| | SB Off-Ramp to Lawrence Expressway | Diagonal | AM | 2 | - | - | 3,800 | 738 | 0.19 |
| | | | PM | | | | 3,800 | 1,753 | 0.46 |

Notes:
NB=northbound, SB=southbound, v/c = volume-to-capacity ratio

[1] As a conservative approach, if an on-ramp has meter equipment present, the ramp is analyzed assuming it is metered.
[2] Ramp capacities were obtained from the Highway Capacity Manual, 2000 (pg 25-4), and considered the free-flow speed, the number of lanes on the ramp, and ramp metering.
[3] Peak-hour volumes are obtained through intersection counts and Caltrans.

## Observed Existing Conditions

Traffic conditions were observed in the field in order to identify existing operational deficiencies and to confirm the accuracy of calculated intersection levels of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to level of service, and (2) to identify any locations where the level of service analysis does not accurately reflect existing traffic conditions. Hexagon conducted field observations in 2017, 2018, and 2019 during the AM peak commute period (7:00 AM to 10:00 AM) and during the PM peak commute period (4:00 PM to 7:00 PM). During the peak commute periods, most of the study intersections had no noticeable operational issues, and vehicular queues on all approaches were mostly able to clear in one cycle. The observed operational issues at the study intersections are identified below.

Note that the discussion below indicates occasional instances when specific movements could not make it through the intersection in one cycle. Intersection level of service calculations for signalized intersections are based on the average delay of all movements within the peak hour. Therefore, if one movement is failing to clear within one signal cycle but other movements receive minimal delays, the intersection could still operate at an acceptable level of service.

### Mary Avenue and Central Expressway

During the AM peak hour, there was heavy congestion for the westbound through movement that often required two signal cycles to clear.

During the PM peak hour, southbound left-turn and westbound left-turn vehicles often filled the turn pockets and required two signal cycles to clear.

### Fair Oaks Avenue and US 101 Northbound Ramps

During the AM peak commute period, the northbound left-turn queues were observed to occasionally extend beyond the existing turn pocket storage space and required two signal cycles to clear the intersection.

During the PM peak commute period, the westbound left-turn movement received heavy traffic volumes and occasionally required two signal cycles to clear the intersection.

### Fair Oaks Avenue and Duane Avenue

During the AM peak commute period, southbound and westbound left-turn movements received heavy traffic volumes and required two signal cycles to clear the intersection. This congestion was observed to occur only during the peak 15-minute drop-off operations of the nearby King’s Academy school.

### Fair Oaks Avenue and Wolfe Road

During the PM commute peak hour, southbound through traffic continuing onto southbound Wolfe Road often queued towards the Duane Avenue intersection while waiting for the green phase, but all cleared within one signal cycle. The eastbound left-turn movement often queued towards Maude Avenue, but all cleared within one signal cycle.

### Fair Oaks Avenue and Old San Francisco Road

During the AM peak hour, westbound left turning vehicles occasionally required two cycles to clear the intersection. During the PM peak hour, eastbound left turning vehicles occasionally required two signals to clear the intersection.

### Fair Oaks Avenue and El Camino Real

During the PM peak hour, there was heavy demand for the eastbound through and westbound left-turn movements. Vehicles at the back of the queues often required two signal cycles to clear.

### Sunnyvale-Saratoga Road and Remington Drive

During the PM peak hour, the westbound left-turn movement frequently queued towards Manet Drive and required multiple signal cycles to clear.

### Fair Oaks Avenue and El Camino Real

During the PM peak hour, there was heavy demand for the eastbound through and westbound left-turn movements. Vehicles at the back of the queues often required two signal cycles to clear.

### Wolfe Road and Arques Avenue

During the PM peak hour, westbound left-turn traffic was heavy and consistently required two signal cycles to clear.

### Wolfe Road and Central Expressway Ramps

The intersections on Wolfe Road at the Central Expressway eastbound and westbound ramps were observed to operate as one intersection during the AM and PM peak commute periods. Due to the signal operations, the northbound left-turning vehicles and southbound left-turning vehicles were observed to experience long delays. During the AM peak commute period, the northbound left-turn queues were observed to occasionally extend beyond the storage space.

During the PM peak commute period, the southbound through queues were observed to occasionally spillback to the upstream intersection at Wolfe Road/Arques Avenue and required two signal cycles to clear the intersection.

### Wolfe Road and Kifer Road

During the PM peak commute period, westbound left-turn traffic was heavy and consistently required two signal cycles to clear.

### Wolfe Road and Evelyn Avenue

During the PM peak commute period, the southbound through queues were observed to extend beyond the entrance to the left-turn pocket which would prevent southbound left-turn vehicles from entering the storage space.

### Commercial Street and Kifer Road

At one point during the PM peak hour, the southbound left turning queue was very long. There was a maximum of 15 to 20 vehicles observed in the queue. It took 2 to 3 minutes for each vehicle to turn left onto Kifer Street from Commercial Street. However, this happened for a short period of time (about ten minutes), and the south bound left turning queue was subsequently reduced to five vehicles. The south bound right turning vehicles were able to turn right without any problem.

### Lawrence Expressway between Arques Avenue and US 101 Northbound Ramps

During the AM peak period, the northbound through movement on Lawrence Expressway is the peak commute direction. There are temporarily queue spillbacks in the northbound direction, but most vehicles clear each intersection within a cycle. At the Oakmead Parkway intersection, there are lengthy queues at the northbound left-turn movement that fill the turn pocket, but most vehicles clear within one cycle. The eastbound left-turn movement on Oakmead Parkway queues to the Duane Avenue/Stewart Drive intersection, and vehicles at the back of the queue cannot clear the Lawrence Expressway intersection within one signal cycle.

During the PM peak period, the southbound through movement on Lawrence Expressway is the peak commute direction. During the peak 15 minutes or so, progression along southbound Lawrence Expressway is slow because of downstream queue spillbacks, and vehicles often require multiple cycles to clear each intersection. At the Arques Avenue intersection, there is heavy demand for the eastbound right-turn movement, and vehicles queue past upstream intersections and require multiple cycles to clear. At the Oakmead Parkway intersection, there is heavy demand for the southbound left-turn movement, but vehicles clear the intersection within one signal cycle. The US 101 southbound off-ramp experiences heavy demand for the eastbound right-turn movement and vehicles often require multiple signal cycles to clear.

### Lawrence Expressway and Kifer Road

During the PM peak hour, westbound left turn vehicles occasionally needed two signal cycles to clear the intersection. Southbound vehicles along Lawrence Expressway blocked the intersection such that westbound left turn vehicles from Kifer Road were not able to turn left into Lawrence Expressway. Also, southbound left turn vehicles occasionally needed two signal cycles to clear the intersection.

### Lawrence Expressway and Reed Avenue

During the AM peak hour, eastbound left turn vehicles occasionally needed two signal cycles to clear the intersection and the queue extended past the Willow Avenue intersection. Northbound through vehicles experienced stop and go conditions. The queue extended to Cabrillo Avenue and required two signal cycles to clear the intersection.

### Oakmead Parkway and Central Expressway

During the AM peak hour, westbound traffic was heavy on Central Expressway and required multiple signal cycles to clear. The eastbound left-turn movement received heavy demand and frequently queued out of the turn pocket, requiring two cycles to clear.

During the PM peak hour, eastbound traffic was heavy on Central Expressway and required multiple signal cycles to clear. The westbound left-turn movement sometimes required two cycles to clear the intersection. The southbound left-turn queue extended to Arques Avenue and required multiple cycles to clear. The queue did not seem to affect traffic operations at the Oakmead Parkway and Arques Avenue intersection. At the Oakmead Parkway and Central Expressway intersection, the southbound traffic was heavy, but was usually able to clear within one signal cycle. However, the northbound permitted left-turns were affected by the heavy southbound traffic and required multiple cycles to clear.

### Bowers Avenue and Central Expressway

During the AM peak hour, westbound traffic was heavy on Central Expressway and required multiple signal cycles to clear. The eastbound left-turn movement received heavy demand and sometimes required two cycles to clear the intersection.

During the PM peak hour, southbound spillback queues from the Bowers Avenue and Kifer Road intersection affected traffic operations at this intersection. These spillback queues would occasionally prevent eastbound through vehicles from progressing through the Bowers Avenue and Central Expressway intersection. The southbound and eastbound queues often required multiple cycles to clear. The westbound left-turn movement sometimes required two cycles to clear.

### Bowers Avenue and Kifer Road

During the PM peak hour, the eastbound left turn movement often required more than one cycle to clear the intersection and the queue almost extended to Oakmead Village Court.

# 3. Background Conditions

This chapter describes background traffic conditions, which are defined as conditions with the addition of traffic from approved but not yet constructed and occupied projects in the study area. Traffic volumes for background conditions comprise volumes from the existing traffic counts plus traffic generated by approved projects in the vicinity of the site. This chapter describes the procedure used to determine background traffic volumes and the resulting traffic conditions.

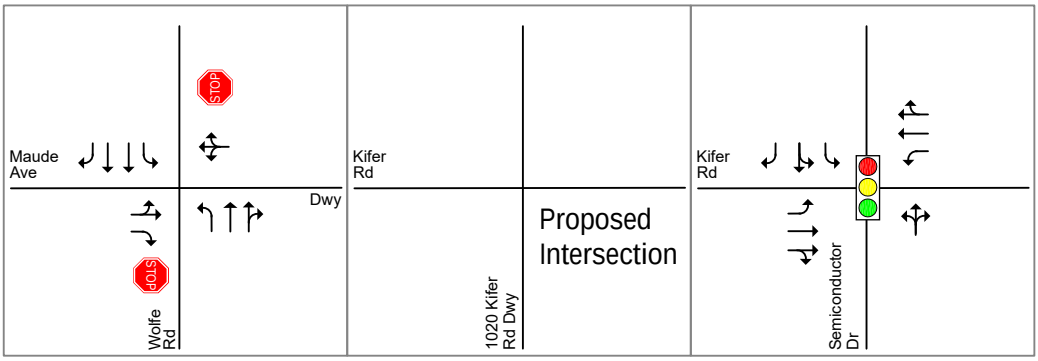
## Background Transportation Network

It is assumed in this analysis that the transportation network under background conditions, including roadway and intersection lane configurations, would be mostly the same as that described under the existing conditions. It is assumed that the Wolfe Road and Maude Avenue intersection is signalized under background conditions. It is also assumed that the signalized 1020 Kifer Road Driveway and Kifer Road intersection would exist under background conditions. The north approach of the 1020 Kifer Road Driveway/Kifer Road intersection would be added under project conditions. The lane configurations under background conditions are shown on Figure 8.

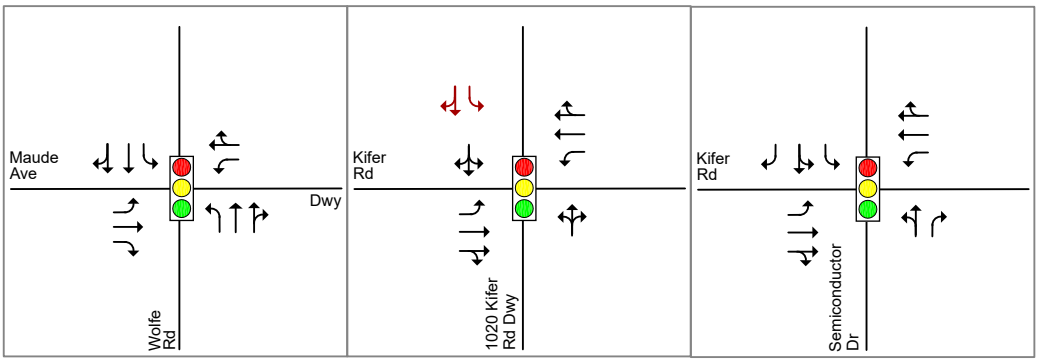
## Background Traffic Volumes

Background traffic volumes were estimated by adding traffic from approved but not yet completed developments in the study area. Approved developments are those developments that have been approved by local agencies, are under construction, or are built but not yet occupied. Approved project lists were obtained from the City of Sunnyvale and the City of Santa Clara. Based on a review of traffic studies prepared for these projects, the types and sizes of these developments, and their distances from the project site, a total of 79 approved projects were selected for inclusion in the background scenario. Trip generation for all background projects was based on their respective traffic reports provided by City staff, where available. The approved but not yet completed development locations included in this study are shown on Figure 9. The approved project volumes are included in Appendix B. The AM and PM peak-hour traffic volumes at the study intersections under background conditions are shown on Figure 10.

Existing Conditions




Background Conditions




**LEGEND**

= Traffic Signal

= Stop Sign

= Lane Configuration under Project Conditions

**Figure 8**
**Background Lane Configurations**

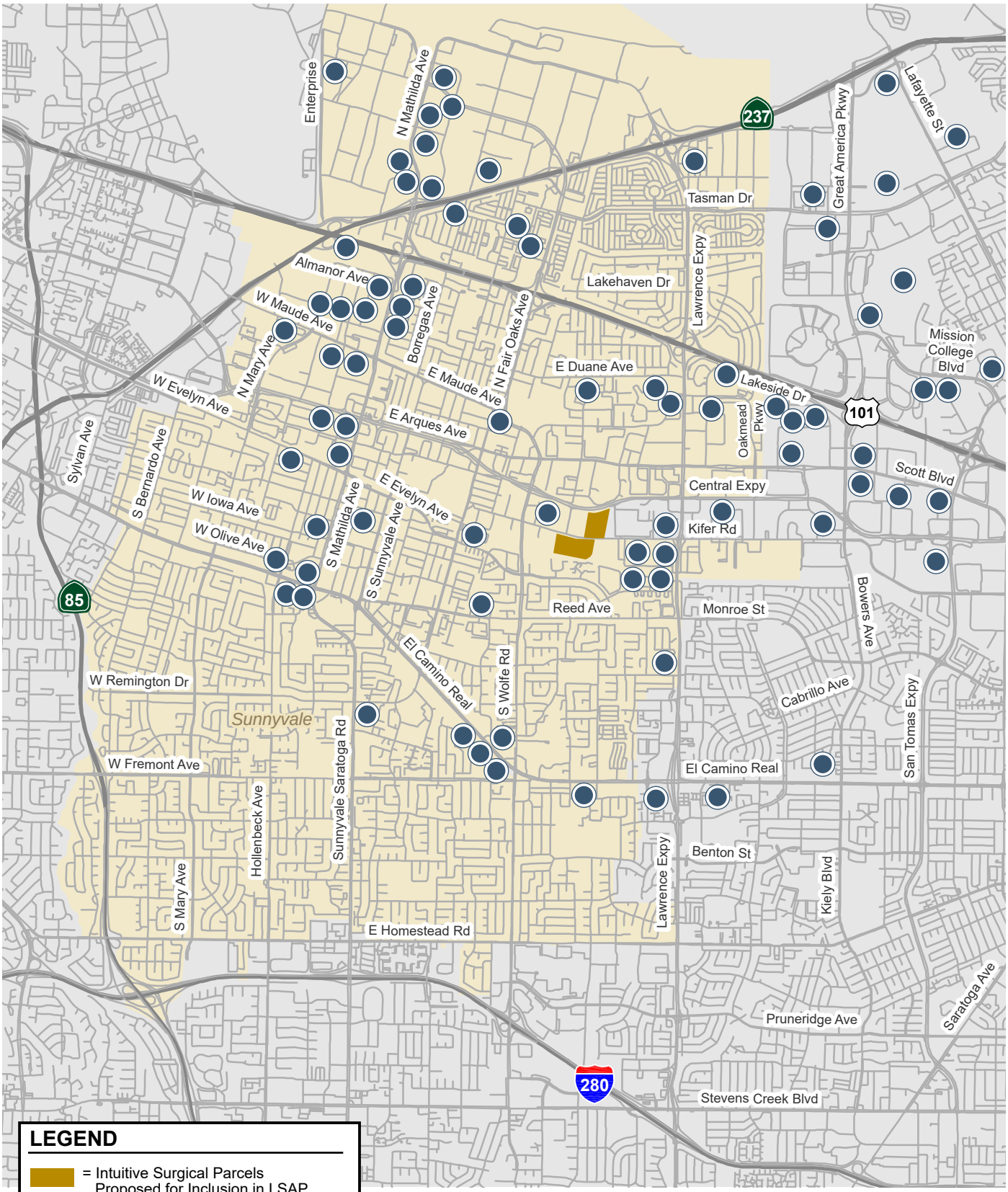
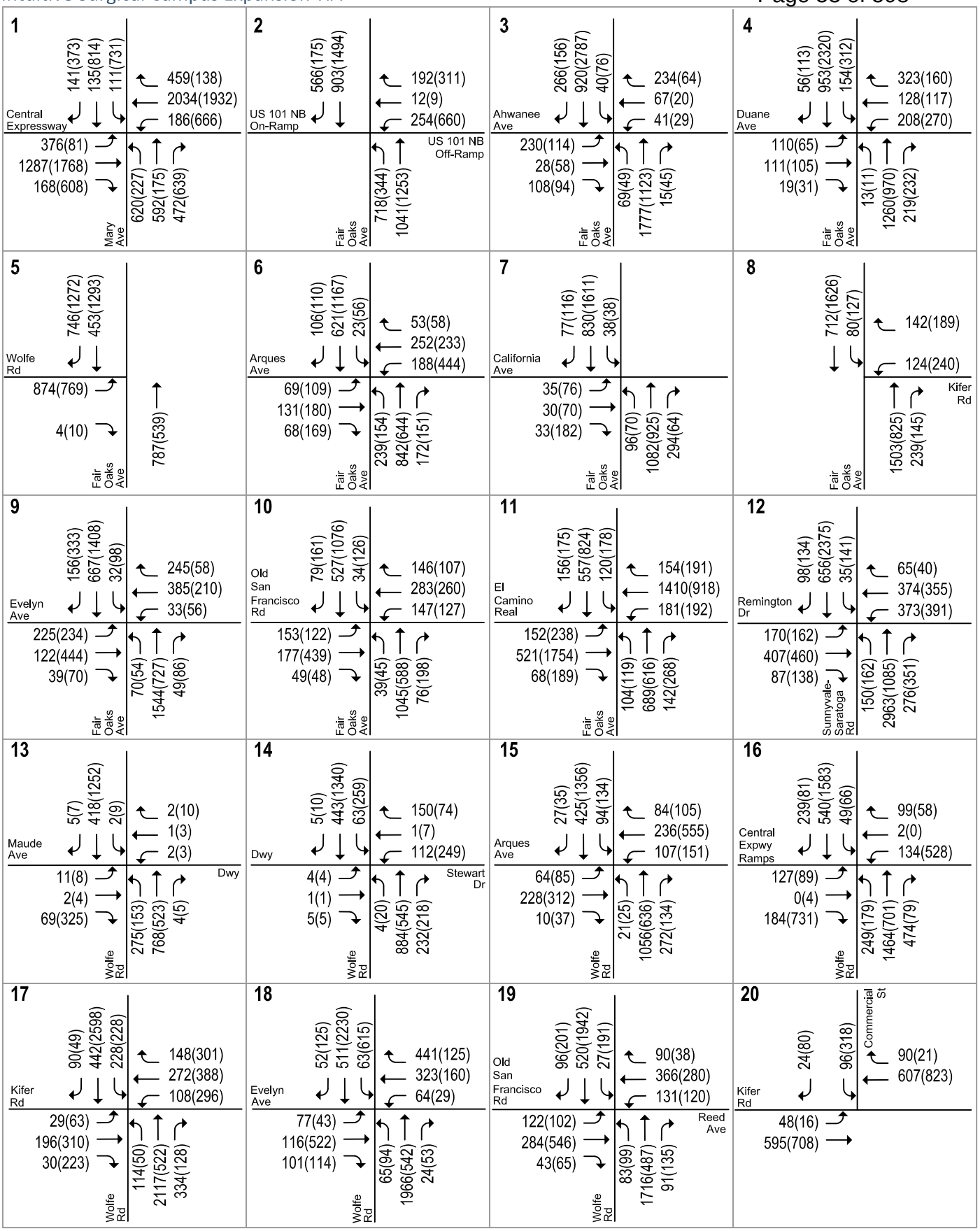


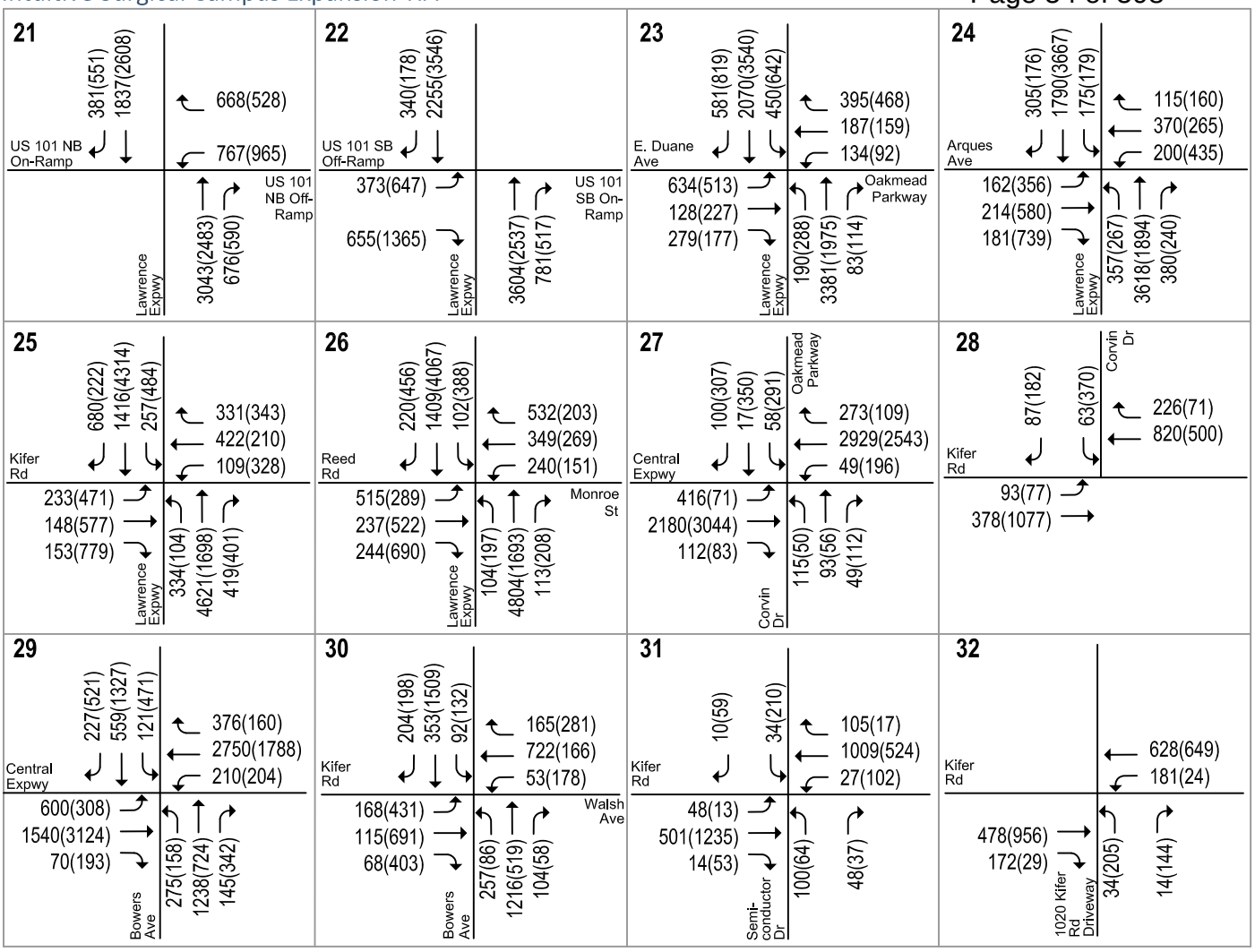

**Figure 9**
**Approved Developments**




LEGEND

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

**Figure 10**
**Background Traffic Volumes**




LEGEND

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

**Figure 10**
**Background Traffic Volumes**

## Background Intersection Levels of Service

Intersection levels of service were evaluated against the respective city and CMP standards. The results of the intersection level of service analysis under background conditions are summarized in Table 8 for the signalized study intersections and Table 9 for the unsignalized study intersection. The results of the analysis show that the following study intersections would operate at unacceptable levels.

City of Sunnyvale Intersection:

- Wolfe Road and Central Expressway Ramps (#16) – PM peak hour (LOS F)

County of Santa Clara Intersections:

- Lawrence Expressway and Oakmead Parkway/Duane Avenue (#23) – PM peak hour (LOS F)
- Lawrence Expressway and Arques Avenue (#24) – PM peak hour (LOS F)
- Lawrence Expressway and Kifer Road (#25) – AM and PM peak hour (LOS F)
- Lawrence Expressway and Monroe Street/Reed Avenue (#26) – AM peak hour (LOS F)
- Oakmead Parkway and Central Expressway (#27) – AM and PM peak hour (LOS F)
- Bowers Avenue and Central Expressway (#29) – PM peak hour (LOS F)

As shown in Table 9, the unsignalized intersection at Commercial Street and Kifer Road would operate at an unacceptable LOS F during the PM peak hour for the worst approach (the southbound movement) under background conditions. This southbound movement would experience lengthy delays because the southbound left-turn movement must wait for a gap in both directions of travel on Kifer Road before turning. The peak-hour signal warrant was checked for this intersection, and the results show that this intersection would meet the peak-hour signal warrant during the PM peak hour under background conditions. The intersection level of service sheets are included in Appendix C. The peak-hour signal warrant worksheets are included in Appendix D.

**Table 8**
**Background Level of Service Summary - Signalized Intersections**

| # | Intersection | Peak Hour | Count Date | LOS Std. | Existing Avg. Delay (sec) | Existing LOS | Background Avg. Delay (sec) | Background LOS |
|---|---|---|---|---|---|---|---|---|
| 1 | Mary Avenue & Central Expressway (County*) | AM | 11/14/17 | E | 51.5 | D- | 73.3 | E |
| | | PM | 12/13/18 | | 60.1 | E | 78.0 | E- |
| 2 | Fair Oaks Avenue & US 101 NB Ramps | AM | 05/08/18 | D | 21.3 | C+ | 26.5 | C |
| | | PM | 05/08/18 | | 22.8 | C+ | 32.7 | C- |
| 3 | Fair Oaks Avenue & Ahwanee Avenue | AM | 05/08/18 | D | 20.8 | C+ | 21.5 | C+ |
| | | PM | 05/08/18 | | 13.8 | B | 14.7 | B |
| 4 | Fair Oaks Avenue & Duane Avenue | AM | 05/08/18 | D | 32.1 | C- | 33.6 | C- |
| | | PM | 05/08/18 | | 30.2 | C | 35.2 | D+ |
| 5 | Fair Oaks Avenue & Wolfe Road | AM | 05/08/18 | D | 22.8 | C+ | 23.8 | C |
| | | PM | 05/08/18 | | 19.8 | B- | 22.2 | C+ |
| 6 | Fair Oaks Avenue & Arques Avenue | AM | 05/08/18 | D | 34.8 | C- | 36.2 | D+ |
| | | PM | 05/08/18 | | 44.5 | D | 47.1 | D |
| 7 | Fair Oaks Avenue & California Avenue | AM | 12/06/17 | D | 10.8 | B+ | 10.2 | B+ |
| | | PM | 12/06/17 | | 15.7 | B | 15.7 | B |
| 8 | Fair Oaks Avenue & Kifer Road | AM | 05/08/18 | D | 15.6 | B | 15.8 | B |
| | | PM | 05/08/18 | | 25.9 | C | 31.6 | C |
| 9 | Fair Oaks Avenue & Evelyn Avenue | AM | 05/08/18 | D | 35.9 | D+ | 39.7 | D |
| | | PM | 05/08/18 | | 29.8 | C | 34.0 | C- |
| 10 | Fair Oaks Avenue & Old SF Road | AM | 05/08/18 | D | 33.3 | C- | 35.2 | D+ |
| | | PM | 05/08/18 | | 33.7 | C- | 34.9 | C- |
| 11 | Fair Oaks Avenue & El Camino Real (*) | AM | 05/08/18 | E | 41.0 | D | 42.1 | D |
| | | PM | 10/30/18 | | 41.8 | D | 46.2 | D |
| 12 | Sunnyvale-Saratoga Road & Remington Drive (*) | AM | 11/14/17 | E | 42.9 | D | 56.8 | E+ |
| | | PM | 10/30/18 | | 43.6 | D | 46.6 | D |
| 13 | Wolfe Road & Maude Avenue (1) | AM | 12/06/17 | D | - | - | 20.1 | C+ |
| | | PM | 12/06/17 | | - | - | 24.7 | C |
| 14 | Wolfe Road & Stewart Drive | AM | 11/15/17 | D | 22.4 | C+ | 24.2 | C |
| | | PM | 11/15/17 | | 30.8 | C | 30.4 | C |
| 15 | Wolfe Road & Arques Avenue | AM | 11/14/17 | D | 35.6 | D+ | 34.9 | C- |
| | | PM | 11/14/17 | | 40.8 | D | 39.9 | D |
| 16 | Wolfe Road & Central Expressway Ramps | AM | 12/06/17 | D | 37.2 | D+ | 41.2 | D |
| | | PM | 12/06/17 | | **71.0** | **E** | **93.5** | **F** |

Notes:
* = *CMP, County = County of Santa Clara*
(1) The Wolfe Road & Maude Avenue intersection is signalized under background conditions.
**BOLD** indicates unacceptable level of service

**Table 8 (Continued)**
**Background Level of Service Summary - Signalized Intersections**

| # | Intersection | Peak Hour | Count Date | LOS Std. | Existing Avg. Delay (sec) | Existing LOS | Background Avg. Delay (sec) | Background LOS |
|---|---|---|---|---|---|---|---|---|
| 17 | Wolfe Road & Kifer Road | AM | 11/14/17 | D | 29.0 | C | 39.8 | D |
| | | PM | 11/14/17 | | 43.1 | D | 49.5 | D |
| 18 | Wolfe Road & Evelyn Avenue | AM | 11/15/17 | D | 38.6 | D+ | 41.0 | D |
| | | PM | 11/15/17 | | 36.5 | D+ | 37.7 | D+ |
| 19 | Wolfe Road & Reed Avenue | AM | 11/14/17 | D | 37.0 | D+ | 36.8 | D+ |
| | | PM | 11/14/17 | | 38.9 | D+ | 40.3 | D |
| 21 | Lawrence Expressway & US 101 NB Ramps (County) | AM | 05/23/19 | E | 11.9 | B+ | 12.8 | B |
| | | PM | 05/23/19 | | 14.0 | B | 15.6 | B |
| 22 | Lawrence Expressway & US 101 SB Ramps (County) | AM | 05/23/19 | E | 7.9 | A | 11.2 | B+ |
| | | PM | 05/23/19 | | 22.3 | C+ | 28.5 | C |
| 23 | Lawrence Expressway & Oakmead Parkway (County) | AM | 05/23/19 | E | 40.4 | D | 70.3 | E |
| | | PM | 05/23/19 | | 52.3 | D- | **80.8** | **F** |
| 24 | Lawrence Expressway & Arques Avenue (County*) | AM | 04/04/17 | E | 48.2 | D | 68.4 | E |
| | | PM | 11/13/18 | | 71.6 | E | **113.8** | **F** |
| 25 | Lawrence Expressway & Kifer Road (County) | AM | 03/07/18 | E | 54.4 | D- | **106.4** | **F** |
| | | PM | 03/07/18 | | **101.6** | **F** | **>120** | **F** |
| 26 | Lawrence Expressway & Monroe Street (County*) | AM | 03/07/18 | E | **114.8** | **F** | **>120** | **F** |
| | | PM | 11/13/18 | | 61.8 | E | 70.2 | E |
| 27 | Oakmead Parkway & Central Expressway (County*) | AM | 11/15/17 | E | 46.1 | D | **116.3** | **F** |
| | | PM | 11/13/18 | | 49.7 | D | **109.7** | **F** |
| 28 | Corvin Drive & Kifer Road (SC) | AM | 11/15/17 | D | 8.1 | A | 9.3 | A |
| | | PM | 11/15/17 | | 9.0 | A | 9.2 | A |
| 29 | Bowers Avenue & Central Expressway (County*) | AM | 11/15/17 | E | 46.5 | D | 70.2 | E |
| | | PM | 11/13/18 | | 53.8 | D- | **83.4** | **F** |
| 30 | Bowers Avenue & Kifer Road (SC) | AM | 11/15/17 | D | 29.1 | C | 31.8 | C |
| | | PM | 03/07/18 | | 28.6 | C | 36.7 | D+ |
| 31 | Semiconductor Drive & Kifer Road | AM | 09/11/18 | D | 14.1 | B | 17.6 | B |
| | | PM | 09/11/18 | | 9.4 | A | 20.7 | C+ |
| 32 | 1020 Kifer Rd Driveway & Kifer Road | AM | - | | Future Intersection | | 12.3 | B |
| | | PM | - | | | | 18.3 | B- |

Notes:
* = *CMP, SC = Santa Clara, County = County of Santa Clara*
">120" indicates this signalized intersection experiences lengthy delay that is beyond the reasonable calculation range of the HCM 2000 methodology.
**BOLD** indicates unacceptable level of service

**Table 9**
**Background Level of Service Summary - Unsignalized Intersection**

| # | Intersection | Control [1] | Peak Hour | Count Date | Existing Delay (sec) | Existing LOS | Existing Signal Warrant Met | Background Delay (sec) | Background LOS | Background Signal Warrant Met |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 | Commercial Street & Kifer Road | side-street stop | AM | 12/06/17 | 12.3 | B | No | 16.2 | C | No |
| | | | PM | 12/06/17 | 24.1 | C | Yes | **95.9** | **F** | **Yes** |

Notes:

(1) Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay. Those reported for all-way stop-controlled intersections represent intersection average.

**BOLD** indicates unacceptable level of service

# 4.
# Project Conditions

This chapter describes the method by which project traffic is estimated, roadway traffic operations under existing plus project conditions, background plus project conditions, and cumulative conditions, and any impacts caused by the project. Existing plus project traffic conditions could potentially occur if the project were to be occupied prior to the other approved projects in the area. However, it is unlikely that this traffic condition would occur, since some of the other approved projects expected to add traffic to the study area would likely be built and occupied during the time this project is going through the development review process.

## Project Description

The project comprises a 15.6-acre site located on the north side of Kifer Road and a 16.8-acre site located on the south side of Kifer Road between Lawrence Expressway and Wolfe Road. The project proposes 380,000 square feet of office space on the north site and 900,000 square feet of research and development space on the south site. The two sites would be connected by a private pedestrian bridge across Kifer Road and would be integrated with the existing nearby Intuitive Surgical facilities. The project proposes to construct the office building on the north site replacing an existing surface parking lot. The research and development building on the south site would replace an existing office building and vacant industrial building. Access to the north site would be primarily provided via a proposed signalized driveway at the east property line, as well as a visitor driveway to the west. Access to the south site would be primarily provided via a proposed driveway on the south leg of the Commercial Street and Kifer Road intersection, as well as a visitor driveway to the east.

## Project Trip Estimates

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

## Trip Generation

Through empirical research, data have been collected that quantify the amount of traffic produced by many types of land uses. This research is compiled in the *Trip Generation Manual, 10th Edition (2017)* published by the Institute of Transportation Engineers' (ITE). The magnitude of traffic added to the roadway system by a particular development is estimated by multiplying the applicable trip generation rates by the size of the development. Trip generation rates for the proposed office building are based on the average rates published for "General Office Building" (Land Use Code 710). Trip generation rates for the proposed research and development building are based on the average rates published for "Research and Development Center" (Land Use Code 760).

### Trip Reductions

Transportation Demand Management (TDM) is a combination of services, incentives, facilities, and actions that reduce single-occupant vehicle (SOV) trips to help relieve traffic congestion, parking demand, and air pollution problems. The project plans to implement a TDM Plan that will provide financial incentives to promote alternative travel modes, including free transit passes, dedicated carpool/vanpool parking spaces, bike facilities and services, and marketing campaigns and on-site services to reduce daily trips. The project also plans to provide fully funded daily shuttles from the Intuitive Surgical campus to the Lawrence Caltrain Station, Great America Station, Fremont Civic Center Park & Ride, Fremont BART Station, and other Intuitive Surgical campus sites in the area. The VTA's *Congestion Management Program Transportation Impact Analysis Guidelines* (October 2014) indicates a trip reduction of up to 5% can be applied for TDM programs that include financial incentives that are offered to all employees on an ongoing basis and is greater than or equal to the monthly maximum pre-tax commuter benefit. The guidelines also indicate that a 3% trip reduction can be applied for TDM programs that provide a fully funded shuttle service to light rail, Caltrain, or BART facilities. Thus, a total trip reduction of 8% was applied to the project trip generation.

In addition, the proposed project would receive trip credits for the trips generated by the existing on-site use. AM and PM peak hour counts were collected at the existing site driveways on May 23, 2019.

### Net Project Trips

After applying the ITE trip generation rates and the applicable trip reductions, the proposed project is estimated to generate a net increase of 637 vehicle trips during the AM peak hour (539 inbound and 98 outbound) and 685 vehicle trips during the PM peak hour (62 inbound and 623 outbound).

The trip generation for the proposed project is summarized in Table 10.

**Table 10**
**Trip Generation Summary**

| Land Use | Size | | Daily Rate | Daily Trips | AM Peak Hour Rate | AM Peak Hour In % | AM Peak Hour In | AM Peak Hour Out | AM Peak Hour Total | PM Peak Hour Rate | PM Peak Hour In % | PM Peak Hour In | PM Peak Hour Out | PM Peak Hour Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Proposed Use** [5] | | | | | | | | | | | | | | |
| Office [1] | 380.0 | ksf | 9.74 | 3,701 | 1.16 | 86% | 379 | 62 | 441 | 1.15 | 16% | 70 | 367 | 437 |
| R & D [2] | 900.0 | ksf | 11.26 | 10,134 | 0.42 | 75% | 284 | 94 | 378 | 0.49 | 15% | 66 | 375 | 441 |
| **Gross Project Trips** | **1,280** | **ksf** | | **13,835** | | | **663** | **156** | **819** | | | **136** | **742** | **878** |
| **Trip Reductions** | | | | | | | | | | | | | | |
| *Standard TDM Reduction* [4] | | | | (1,107) | | | (53) | (12) | (65) | | | (11) | (59) | (70) |
| **Total Project Trips** | | | | **12,728** | | | **610** | **144** | **754** | | | **125** | **683** | **808** |
| **Other Trip Adjustments** | | | | | | | | | | | | | | |
| Existing Uses [3] | | | | (1,200) | | | (71) | (46) | (117) | | | (63) | (60) | (123) |
| **Net Project Trips** | | | | **11,528** | | | **539** | **98** | **637** | | | **62** | **623** | **685** |

Notes:
KSF = 1,000 square feet
d.u. = dwelling unit

[1] General Office Building (Land Use 710) average rates published in ITE's Trip Generation Manual, 10th Edition, 2017.

[2] Research and Development Center (Land Use 760) average rates published in ITE's Trip Generation Manual, 10th Edition, 2017.

[3] Trip generation of existing buildings occupying the project site was based on driveway counts conducted May 23, 2019. Daily Trips were estimated based on the average AM and PM peak hour trips multiplied by 10.

[4] As prescribed by the *VTA Transportation Impact Analysis Guidelines, 2014* , an 8% standard TDM reduction was applied to the project's trip generation. A maximum trip reduction of 5% was applied for TDM programs which include financial incentives and a 3% reduction was applied for TDM programs which commit to fully funding a dedicated shuttle to light rail, Caltrain, or BART facilities.

[5] The project size has been reduced to 364,000 square feet of office space, 847,000 square feet of research and development space, and an 11,000 square-foot detached amenity building which would result in minimal reduction in trips generated.

## Trip Distribution and Assignment

Trips generated by the proposed project were distributed to the study network based on the existing travel patterns on the surrounding roadway system and the locations of complementary land uses. Office, research, and development uses generate mostly inbound trips in the morning and mostly outbound trips in the evening. The majority of the project trips would travel via US 101, Lawrence Expressway, and Central Expressway. The project trip distribution is shown on Figure 11.

The project trips were assigned to the roadway network based on the direction of approach and departure, roadway network connections, freeway and expressway access points, and the locations of project driveways. It is assumed that all trips generated by the office building would use the signalized project driveway. All trips generated by the research and development building are assumed to use the driveway at the Commercial Street and Kifer Road intersection. The net project trips at the study intersections are shown on Figure 12.

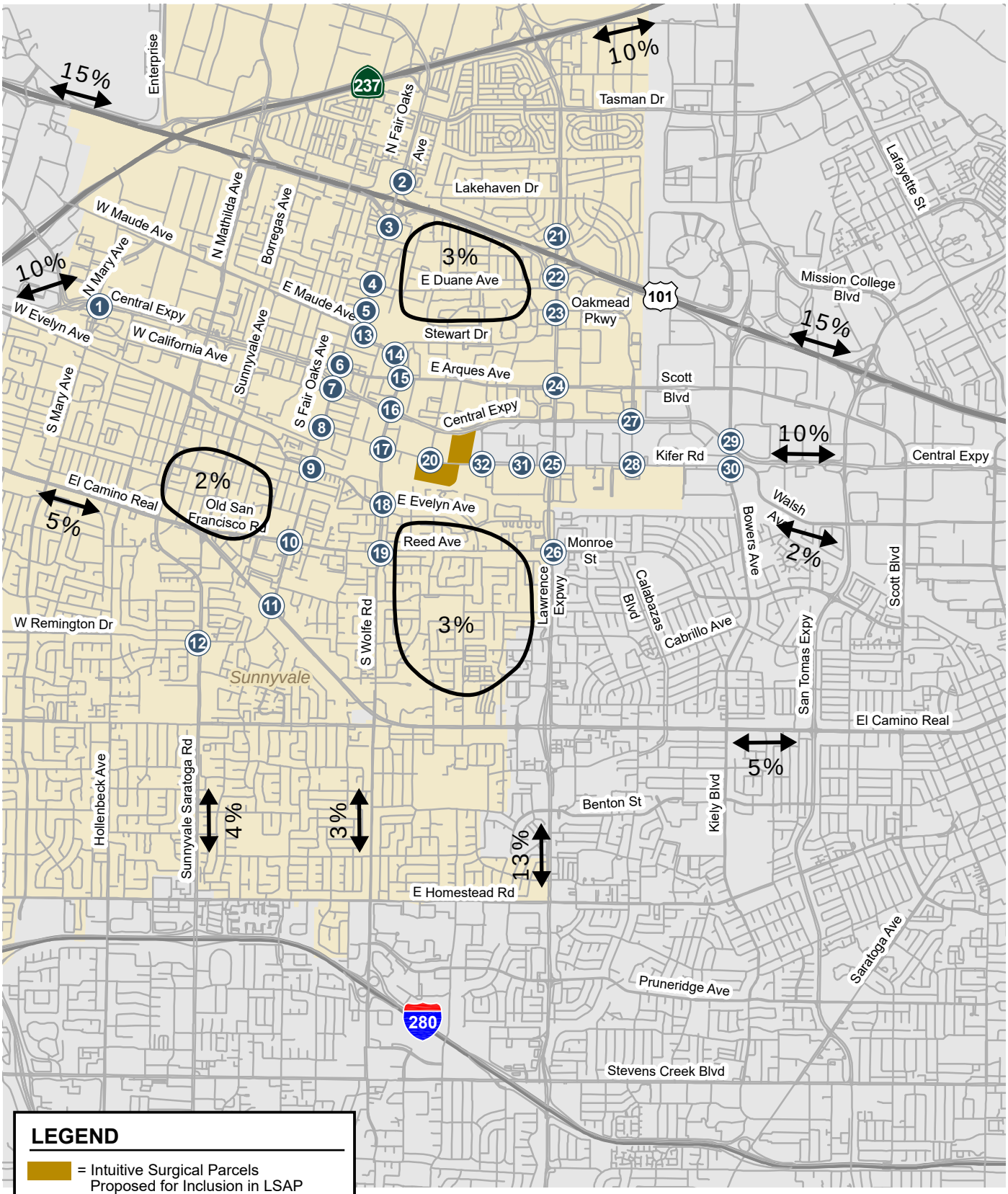
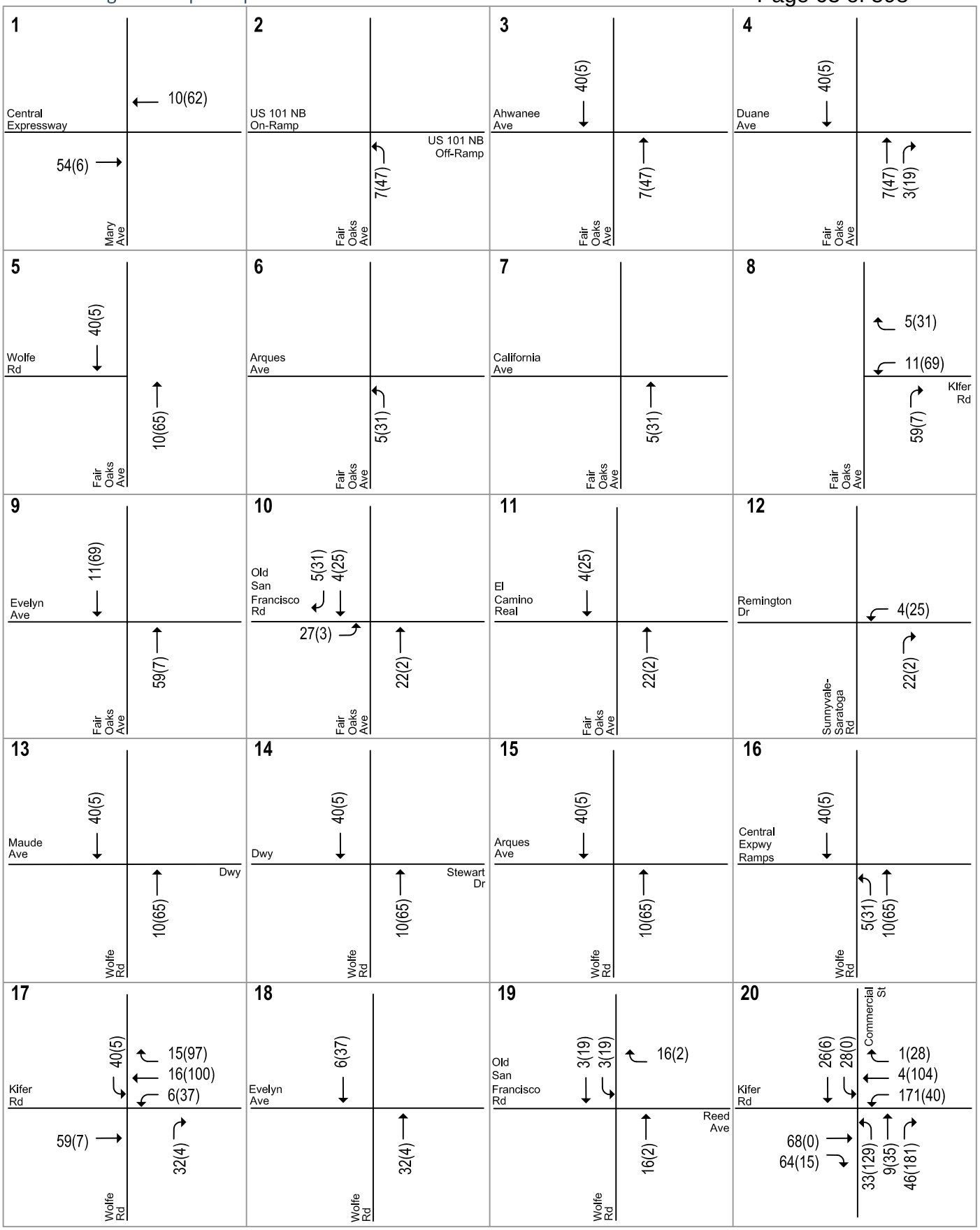


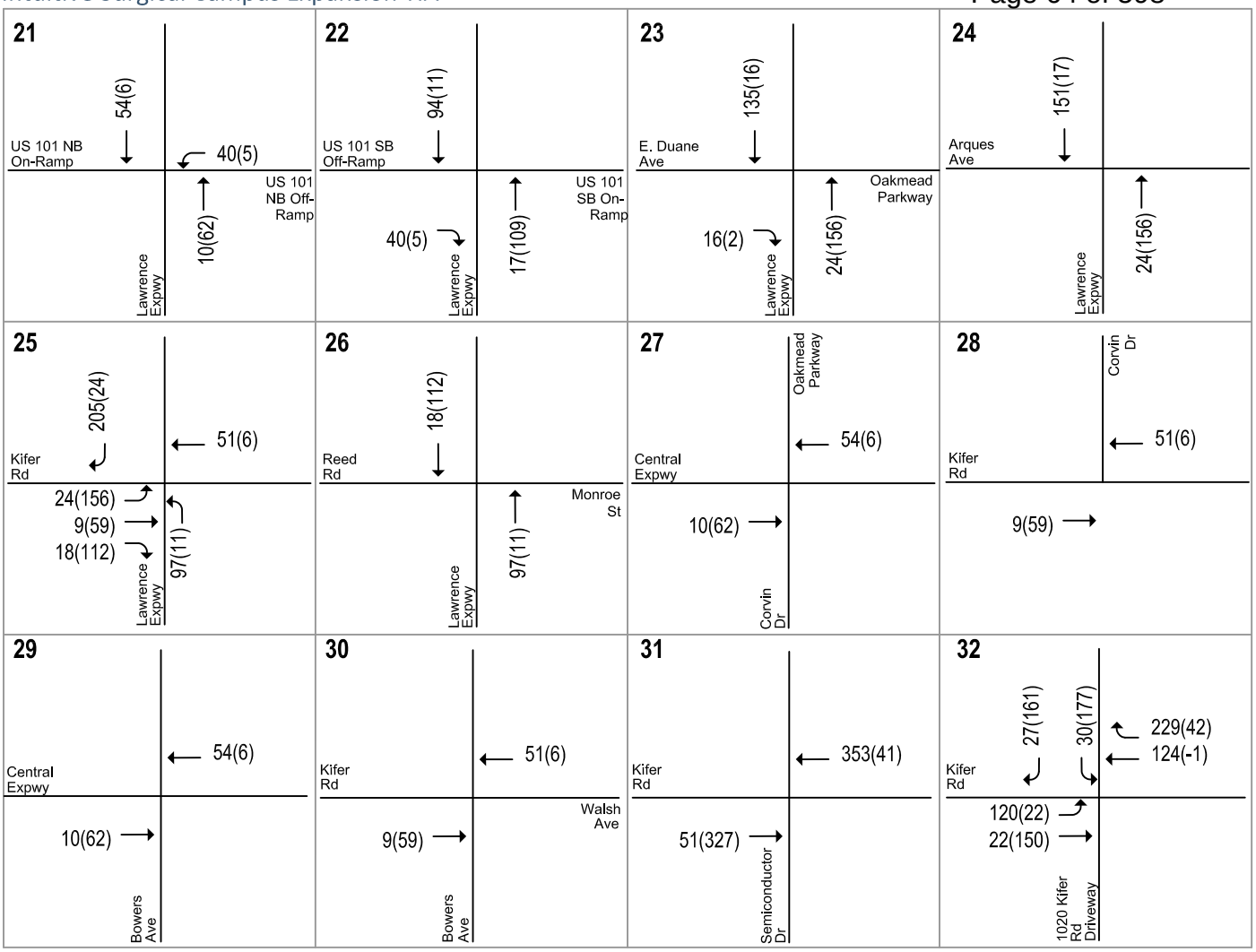

**Figure 11**
**Project Trip Distribution**




LEGEND

XX(XX) = AM(PM) Peak-Hour Trips

**Figure 12**
**Net Project Trips**




LEGEND

XX(XX) = AM(PM) Peak-Hour Trips

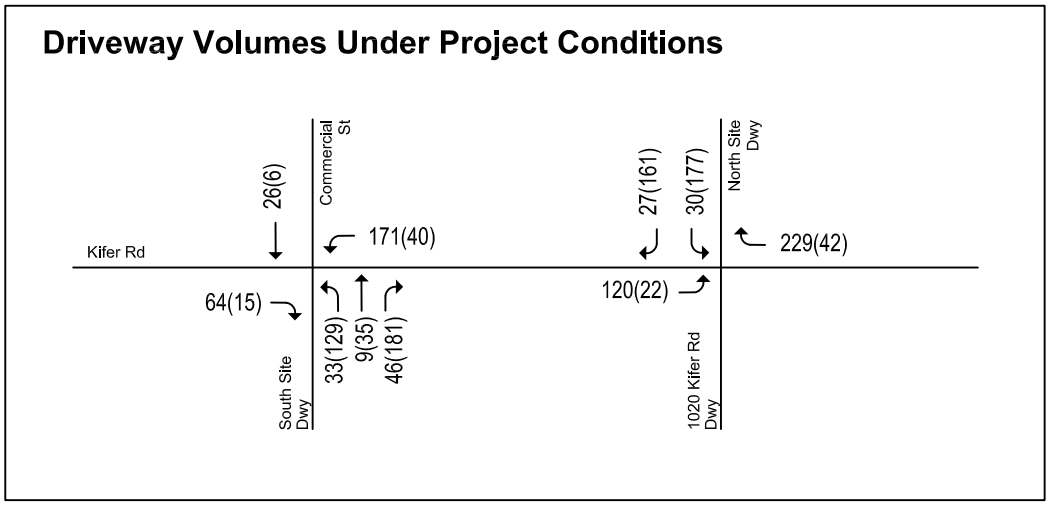



**Figure 12**
**Net Project Trips**

## Intersection Traffic Volumes Under Project Conditions

Project impacts were evaluated relative to both (1) existing traffic volumes and (2) background traffic volumes. For the existing plus project scenario, the net new trips generated by the proposed project were added to the existing traffic volumes to derive the existing plus project traffic volumes. Figure 13 shows the intersection turning-movement volumes under existing plus project conditions. For the background plus project scenario, the net new trips generated by the proposed project were added to the background traffic volumes to derive the background plus project traffic volumes. Figure 14 shows the intersection turning-movement volumes under background plus project conditions.

## Transportation Network Under Project Conditions

It is assumed in this analysis that the transportation network under existing plus project conditions and background plus project, including roadways and intersection lane configurations, would be the same as that described under existing conditions and background conditions, respectively, at all study intersections, except the project driveways. The project proposes to add a driveway at the south leg of the Commercial Street and Kifer Road intersection for the south project site.

## Existing Plus Project Intersection Levels of Service

The intersection levels of service results for existing plus project conditions were compared to existing conditions to determine potential adverse intersection impacts (see Tables 11 and 12). Based on City of Sunnyvale and CMP intersection impact criteria, the project would generate adverse impacts at the following intersections:

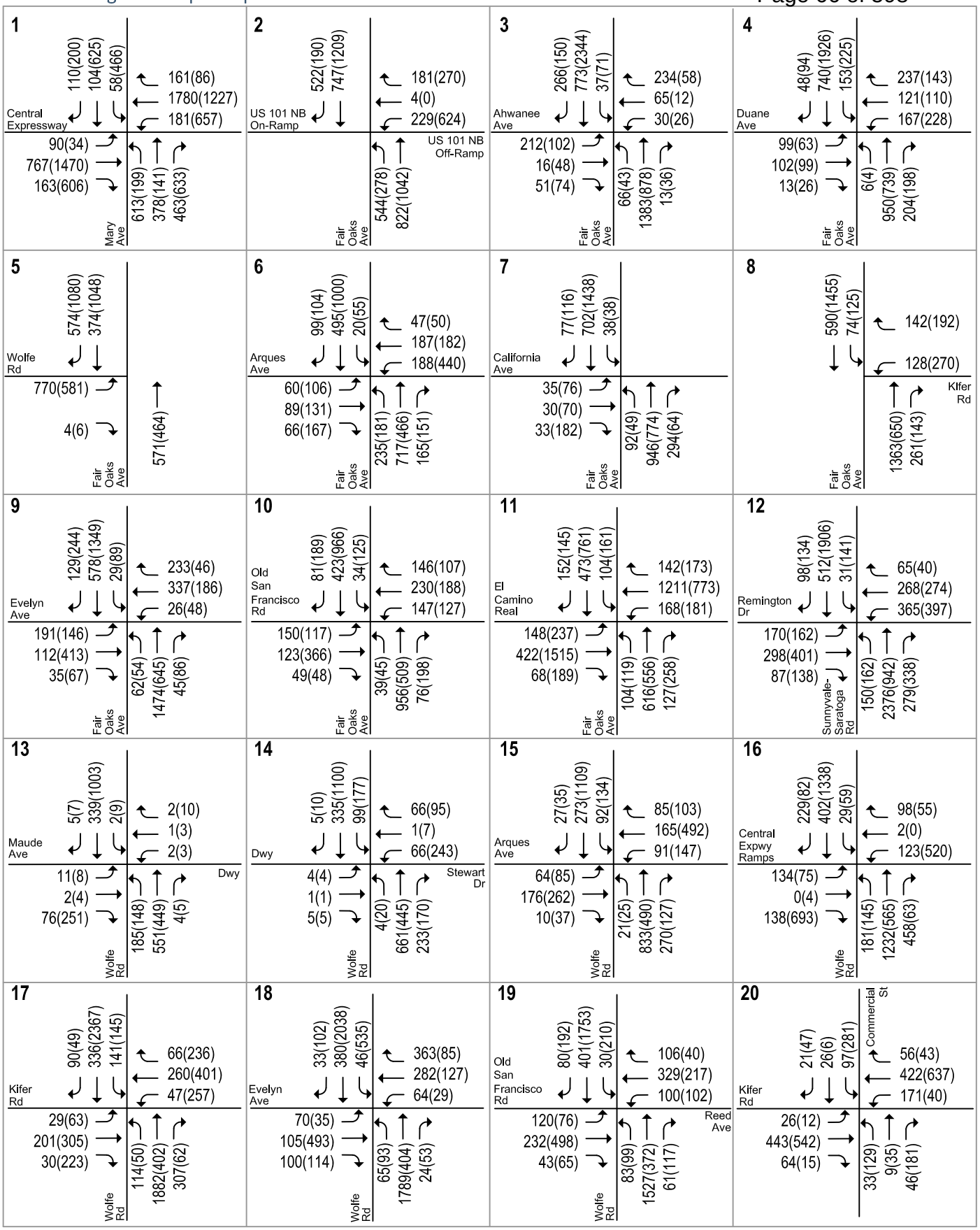
City of Sunnyvale Intersections:

- Wolfe Road and Central Expressway Ramps (#16) – PM peak hour
- Commercial Street and Kifer Road (#20) – PM peak hour
- Wolfe Road and Maude Avenue (#13) – PM peak hour

County of Santa Clara Intersection:

- Lawrence Expressway and Kifer Road (#25) – PM peak hour
- Lawrence Expressway and Monroe Street/Reed Avenue (#26) – AM peak hour

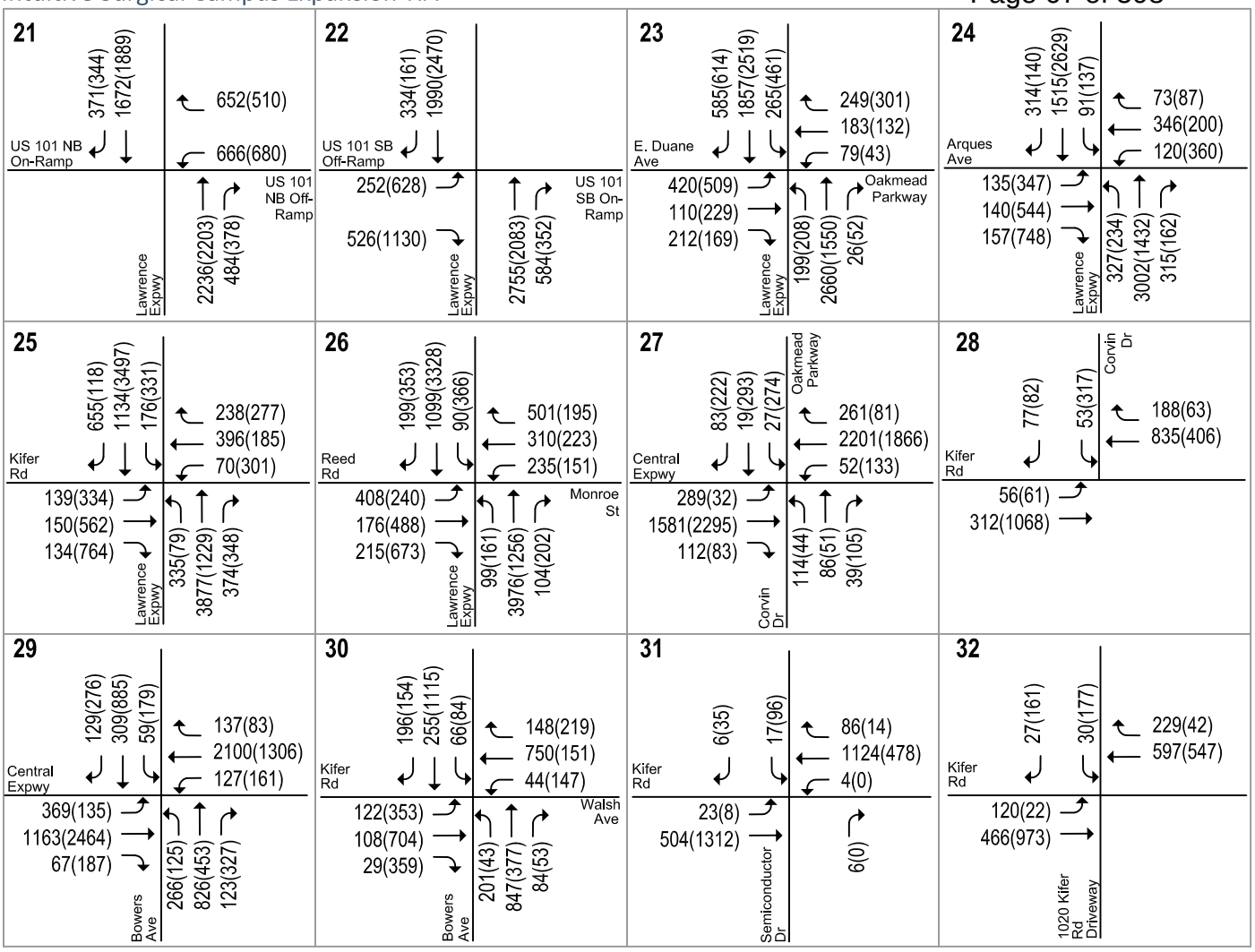
The intersection level of service sheets are included in Appendix C. The peak-hour signal warrant worksheets are included in Appendix D. The LSAP requires projects within the plan area to make a fair share contribution toward the cost of the identified improvements. Potential improvement strategies are discussed in the following section.




LEGEND

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

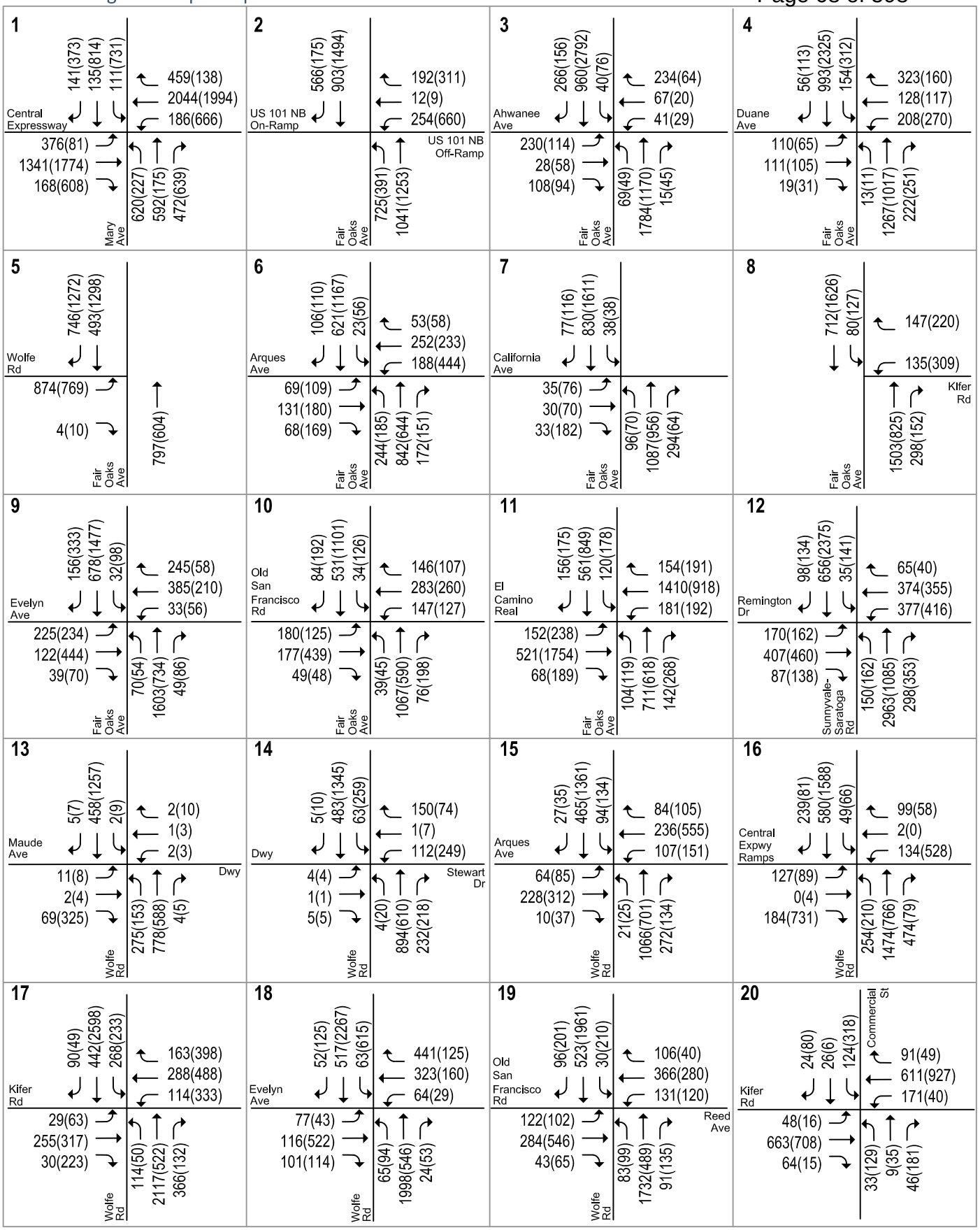
**Figure 13**
**Existing Plus Project Traffic Volumes**




LEGEND

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

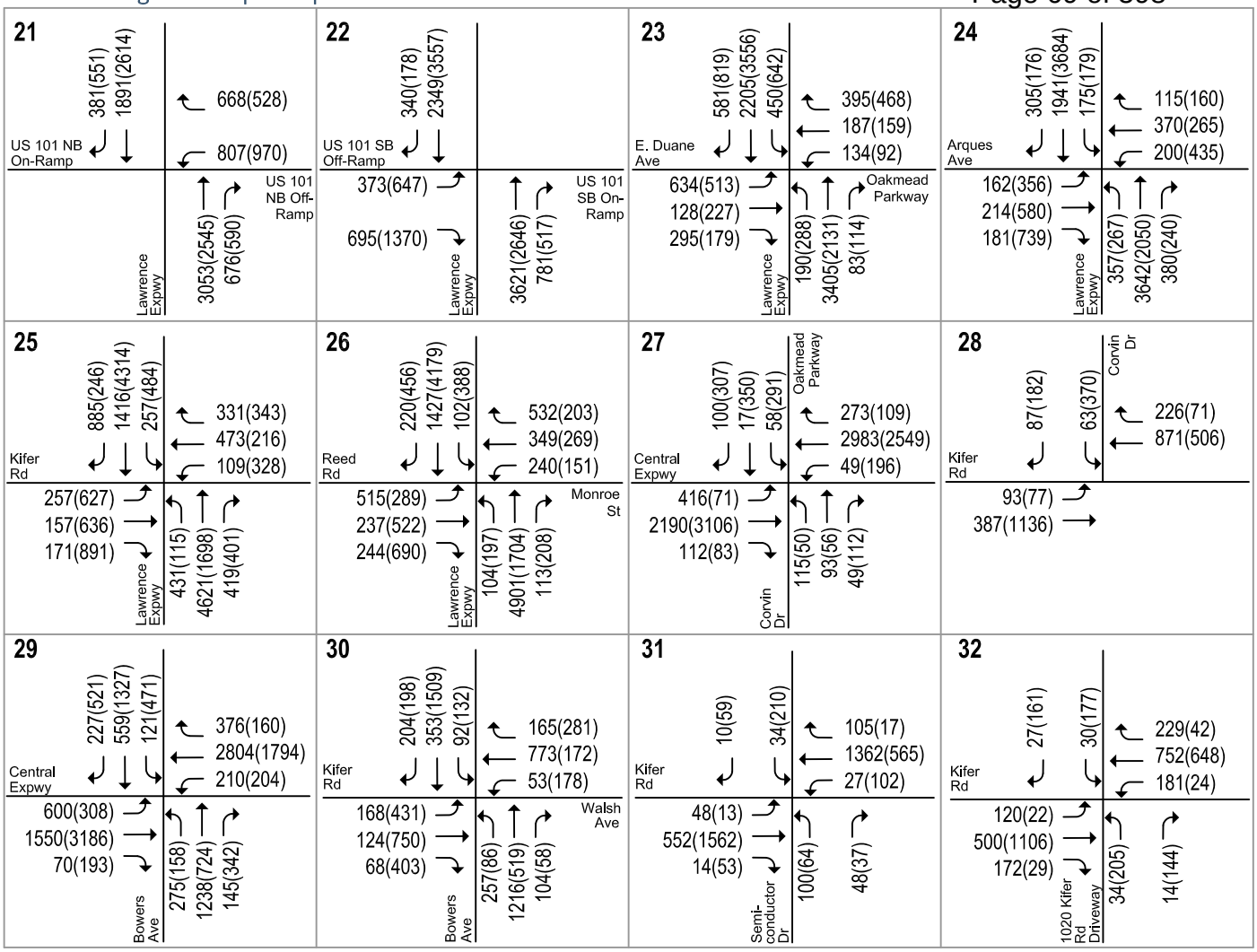
**Figure 13**
**Existing Plus Project Traffic Volumes**




LEGEND

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

**Figure 14**
**Background Plus Project Traffic Volumes**




LEGEND

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

**Figure 14**
**Background Plus Project Traffic Volumes**

**Table 11**
**Existing Plus Project Level of Service Summary - Signalized Intersections**

| # | Intersection | Peak Hour | Count Date | LOS Std. | Existing | | Existing + Project Conditions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Avg. Delay (sec) | LOS | Avg. Delay (sec) | LOS | Incr. In Crit. Delay (sec) | Incr. In Crit. V/C |
| 1 | Mary Avenue & Central Expressway (County*) | AM | 11/14/17 | E | 51.5 | D- | 51.5 | D- | 0.1 | 0.002 |
| | | PM | 12/13/18 | | 60.1 | E | 59.9 | E+ | 0.1 | 0.001 |
| 2 | Fair Oaks Avenue & US 101 NB Ramps | AM | 05/08/18 | D | 21.3 | C+ | 21.4 | C+ | 0.1 | 0.004 |
| | | PM | 05/08/18 | | 22.8 | C+ | 23.8 | C | 1.8 | 0.030 |
| 3 | Fair Oaks Avenue & Ahwanee Avenue | AM | 05/08/18 | D | 20.8 | C+ | 20.6 | C+ | 0.0 | 0.002 |
| | | PM | 05/08/18 | | 13.8 | B | 13.7 | B | 0.0 | 0.001 |
| 4 | Fair Oaks Avenue & Duane Avenue | AM | 05/08/18 | D | 32.1 | C- | 31.8 | C | -0.1 | 0.003 |
| | | PM | 05/08/18 | | 30.2 | C | 30.3 | C | 0.0 | 0.001 |
| 5 | Fair Oaks Avenue & Wolfe Road | AM | 05/08/18 | D | 22.8 | C+ | 23.0 | C+ | 0.2 | 0.003 |
| | | PM | 05/08/18 | | 19.8 | B- | 19.6 | B- | 0.0 | 0.002 |
| 6 | Fair Oaks Avenue & Arques Avenue | AM | 05/08/18 | D | 34.8 | C- | 34.9 | C- | 0.1 | 0.003 |
| | | PM | 05/08/18 | | 44.5 | D | 45.7 | D | 1.8 | 0.020 |
| 7 | Fair Oaks Avenue & California Avenue | AM | 12/06/17 | D | 10.8 | B+ | 10.7 | B+ | 0.0 | 0.001 |
| | | PM | 12/06/17 | | 15.7 | B | 15.6 | B | 0.0 | 0.000 |
| 8 | Fair Oaks Avenue & Kifer Road | AM | 05/08/18 | D | 15.6 | B | 16.1 | B | 0.6 | 0.023 |
| | | PM | 05/08/18 | | 25.9 | C | 28.7 | C | 3.6 | 0.040 |
| 9 | Fair Oaks Avenue & Evelyn Avenue | AM | 05/08/18 | D | 35.9 | D+ | 36.1 | D+ | 0.4 | 0.017 |
| | | PM | 05/08/18 | | 29.8 | C | 29.8 | C | 0.1 | 0.021 |
| 10 | Fair Oaks Avenue & Old SF Road | AM | 05/08/18 | D | 33.3 | C- | 34.2 | C- | 1.4 | 0.023 |
| | | PM | 05/08/18 | | 33.7 | C- | 33.5 | C- | -0.3 | 0.016 |
| 11 | Fair Oaks Avenue & El Camino Real (*) | AM | 05/08/18 | E | 41.0 | D | 41.1 | D | 0.2 | 0.007 |
| | | PM | 10/30/18 | | 41.8 | D | 42.0 | D | 0.0 | 0.001 |
| 12 | Sunnyvale-Saratoga Road & Remington Drive (*) | AM | 11/14/17 | E | 42.9 | D | 43.0 | D | 0.1 | 0.004 |
| | | PM | 10/30/18 | | 43.6 | D | 44.1 | D | 0.7 | 0.008 |
| 13 | Wolfe Road & Maude Avenue (1) | AM | 12/06/17 | D | - | - | - | - | - | - |
| | | PM | 12/06/17 | | - | - | - | - | - | - |
| 14 | Wolfe Road & Stewart Drive | AM | 11/15/17 | D | 22.4 | C+ | 22.4 | C+ | -0.1 | 0.002 |
| | | PM | 11/15/17 | | 30.8 | C | 30.8 | C | -0.1 | 0.001 |
| 15 | Wolfe Road & Arques Avenue | AM | 11/14/17 | D | 35.6 | D+ | 35.5 | D+ | -0.1 | 0.002 |
| | | PM | 11/14/17 | | 40.8 | D | 40.7 | D | 0.0 | 0.001 |
| 16 | Wolfe Road & Central Expressway Ramps | AM | 12/06/17 | D | 37.2 | D+ | 37.4 | D+ | 0.0 | 0.000 |
| | | PM | 12/06/17 | | **71.0** | **E** | **74.3** | **E** | **5.5** | **0.020** |

Notes:
* = *CMP, County = County of Santa Clara*
(1) The Wolfe Road & Maude Avenue intersection is signalized under background conditions.
**BOLD** indicates an unacceptable level of service
**BOLD** and boxed indicates an adverse intersection impact

**Table 11 (Continued)**
**Existing Plus Project Level of Service Summary - Signalized Intersections**

| # | Intersection | Peak Hour | Count Date | LOS Std. | Existing | | Existing + Project Conditions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Avg. Delay (sec) | LOS | Avg. Delay (sec) | LOS | Incr. In Crit. Delay (sec) | Incr. In Crit. V/C |
| 17 | Wolfe Road & Kifer Road | AM | 11/14/17 | D | 29.0 | C | 32.8 | C- | 4.0 | 0.040 |
| | | PM | 11/14/17 | | 43.1 | D | 45.5 | D | 2.8 | 0.024 |
| 18 | Wolfe Road & Evelyn Avenue | AM | 11/15/17 | D | 38.6 | D+ | 38.5 | D+ | -0.1 | 0.006 |
| | | PM | 11/15/17 | | 36.5 | D+ | 36.4 | D+ | 0.0 | 0.007 |
| 19 | Wolfe Road & Reed Avenue | AM | 11/14/17 | D | 37.0 | D+ | 37.2 | D+ | 0.4 | 0.009 |
| | | PM | 11/14/17 | | 38.9 | D+ | 39.0 | D | -0.1 | 0.004 |
| 21 | Lawrence Expressway & US 101 NB Ramps | AM | 05/23/19 | E | 11.9 | B+ | 12.3 | B | 0.3 | 0.013 |
| | (County) | PM | 05/23/19 | | 14.0 | B | 14.1 | B | 0.0 | 0.010 |
| 22 | Lawrence Expressway & US 101 SB Ramps | AM | 05/23/19 | E | 7.9 | A | 8.3 | A | 0.6 | 0.016 |
| | (County) | PM | 05/23/19 | | 22.3 | C+ | 22.0 | C+ | 0.0 | 0.003 |
| 23 | Lawrence Expressway & Oakmead Parkway | AM | 05/23/19 | E | 40.4 | D | 40.3 | D | 0.1 | 0.004 |
| | (County) | PM | 05/23/19 | | 52.3 | D- | 52.4 | D- | 0.1 | 0.002 |
| 24 | Lawrence Expressway & Arques Avenue | AM | 04/04/17 | E | 48.2 | D | 48.1 | D | 0.4 | 0.004 |
| | (County*) | PM | 11/13/18 | | 71.6 | E | 71.1 | E | 0.2 | 0.002 |
| 25 | Lawrence Expressway & Kifer Road (County) | AM | 03/07/18 | E | 54.4 | D- | 56.9 | E+ | 5.8 | 0.023 |
| | | PM | 03/07/18 | | **101.6** | **F** | **>120** | **F** | **52.2** | **0.065** |
| 26 | Lawrence Expressway & Monroe Street | AM | 03/07/18 | E | **114.8** | **F** | **>120** | **F** | **11.1** | **0.016** |
| | (County*) | PM | 11/13/18 | | 61.8 | E | 62.1 | E | 0.4 | 0.015 |
| 27 | Oakmead Parkway & Central Expressway | AM | 11/15/17 | E | 46.1 | D | 47.8 | D | 2.9 | 0.015 |
| | (County*) | PM | 11/13/18 | | 49.7 | D | 51.0 | D- | 2.6 | 0.017 |
| 28 | Corvin Drive & Kifer Road (SC) | AM | 11/15/17 | D | 8.1 | A | 7.9 | A | -0.2 | 0.018 |
| | | PM | 11/15/17 | | 9.0 | A | 9.1 | A | 0.0 | 0.002 |
| 29 | Bowers Avenue & Central Expressway (County*) | AM | 11/15/17 | E | 46.5 | D | 46.6 | D | 0.2 | 0.011 |
| | | PM | 11/13/18 | | 53.8 | D- | 54.2 | D- | 0.7 | 0.012 |
| 30 | Bowers Avenue & Kifer Road (SC) | AM | 11/15/17 | D | 29.1 | C | 29.7 | C | 0.8 | 0.016 |
| | | PM | 03/07/18 | | 28.6 | C | 29.3 | C | 4.6 | -0.035 |
| 31 | Semiconductor Drive & Kifer Road | AM | 09/11/18 | D | 14.1 | B | 14.2 | B | 1.0 | 0.108 |
| | | PM | 09/11/18 | | 9.4 | A | 8.7 | A | -0.3 | 0.101 |
| 32 | 1020 Kifer Rd Driveway & Kifer Road | AM | - | D | Future | | 11.0 | B+ | - | - |
| | | PM | - | | Intersection | | 15.4 | B | - | - |

Notes:
* = *CMP, SC = Santa Clara, County = County of Santa Clara*
">120" indicates this signalized intersection experiences lengthy delay that is beyond the reasonable calculation range of the HCM 2000 methodology.
**BOLD** indicates an unacceptable level of service
**BOLD** and boxed indicates an adverse project impact

**Table 12**
**Existing Plus Project Level of Service Summary - Unsignalized Intersections**

| # | Intersection | Control [1] | Peak Hour | Count Date | Existing Delay (sec) | Existing LOS | Existing Signal Warrant Met | Existing plus Project Delay (sec) | Existing plus Project LOS | Incr. in Delay | Incr. in V/C | Signal Warrant Met |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13 | Wolfe Road & Maude Avenue | side-street stop | AM | 12/06/17 | 25.7 | D | No | 27.6 | D | 1.9 | 0.005 | No |
| | | | PM | 12/06/17 | **67.4** | **F** | **Yes** | **73.6** | **F** | **6.2** | **0.001** | **Yes** |
| 20 | Commercial Street & Kifer Road | side-street stop | AM | 12/06/17 | 12.3 | B | No | 29.6 | D | 17.3 | 0.245 | No |
| | | | PM | 12/06/17 | 24.1 | C | Yes | **114.0** | **F** | **89.9** | **0.415** | **Yes** |

Notes:
(1) Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay. Those reported for all-way stop-controlled intersections represent intersection average.
**BOLD** indicates an unacceptable level of service
**BOLD** and boxed indicates an adverse intersection impact

## Existing Plus Project Potential Intersection Improvement Strategies

Improvement options were studied for each intersection experiencing impacts under existing plus project conditions when compared to existing conditions. An intersection impact can be satisfactorily addressed by implementing measures that would restore intersection conditions to its LOS standard *or* to an average delay equal to without-project conditions or better. The LOS results under the improved existing plus project conditions are summarized in Tables 13 and 14.

### TDM Plan

The project is consistent with the proposed Lawrence Station Area Plan (LSAP) Update project. Non-residential developments within the LSAP area would be required to implement a Transportation Demand Management (TDM) Plan with a 30% peak hour trip reduction requirement or pay a penalty. For informational purposes, Hexagon examined whether the implementation of such a TDM Plan could eliminate any project impacts under existing plus project conditions. If the project implements a TDM Plan with a 30% peak hour trip reduction, the project could generate a lesser impact at all five study intersections under existing plus project conditions. However, the proposed TDM Plan would not restore intersection conditions to the LOS standard or to an average delay equal to without-project conditions or better for any intersection under existing plus project conditions.

### Wolfe Road and Central Expressway Ramps (#16)

Under existing conditions, the LOS would be an unacceptable LOS E during the PM peak hour. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet the City of Sunnyvale's adverse intersection impact criteria.

> **Potential Improvement:** Improvement would require widening both the eastbound and westbound Central Expressway off-ramps to include one left-turn lane, one shared through-left lane and one right-turn lane. There appears to be sufficient right-of-way to accommodate the potential improvements. The improvements would lengthen the respective crosswalks by up to 12 feet. The widened approaches would increase traffic exposure time for pedestrians by 3 to 5 seconds and 1 to 3 seconds for bicyclists crossing the intersection.

With the proposed improvement, the intersection would operate at an acceptable LOS D under existing plus project conditions during the PM peak hour (see Table 13). However, the improvement requires widening the Central Expressway off-ramps, which are in the County's jurisdiction, so the City cannot ensure the implementation of the potential improvement. The LSAP requires projects within the plan area to contribute their fair share towards the cost of the identified improvement.

### Lawrence Expressway and Kifer Road (#25)

Under existing conditions, the LOS would be an unacceptable LOS F during the PM peak hour. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet the City of Sunnyvale's adverse intersection impact criteria.

> **Potential Improvement:** The County of Santa Clara has identified a future project to provide a grade separation at this intersection. This would improve the north-south flow of traffic and potentially address the project's impacts.

The LSAP requires projects within the plan area to contribute their fair share towards the cost of the grade separation at Lawrence Expressway and Kifer Road. This intersection is under Santa Clara County's jurisdiction; therefore, it is up to the County to approve and advance the proposed improvement at the intersection.

### Lawrence Expressway and Monroe Street/Reed Avenue (#26) [CMP]

Under existing conditions, the LOS would be an unacceptable LOS F during the AM peak hour. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet VTA's CMP adverse intersection impact criteria.

> **Potential Improvement:** The County of Santa Clara has identified a future project to provide a grade separation at this intersection. This would improve the north-south flow of traffic and potentially address the project's impact.

The LSAP requires projects within the plan area to contribute their fair share towards the cost of the grade separation at Lawrence Expressway and Monroe Street/Reed Avenue. This intersection is under Santa Clara County's jurisdiction; therefore, it is up to the County to approve and advance the proposed improvement at the intersection.

### Commercial Street and Kifer Road (#20)

Under existing conditions, the LOS would be an acceptable LOS C during the PM peak hour. The addition of project traffic would deteriorate traffic operations to an unacceptable LOS F, which meets the City of Sunnyvale's adverse intersection impact criteria. In addition, the intersection would meet the peak-hour signal warrant under existing plus project conditions during the PM peak hour.

> **Potential Improvement:** Improvement would require installation of a signal at the intersection of Commercial Street and Kifer Road. Installation of a signal would greatly reduce the delay for southbound vehicles while maintaining minimal delay for westbound and eastbound traffic. The improvement would include one left-turn lane and one shared through-right lane on the southbound approach.

With the proposed improvement, the intersection would operate at an acceptable LOS C under existing plus project conditions during the PM peak hour (see Table 14). As discussed in the *Fortinet Traffic Operations Analysis (TOA)*, prepared by Hexagon Transportation Consultants, dated December 5, 2018, a traffic signal would be required to address the potential project impacts generated by the Fortinet project at this intersection. Since the Intuitive Surgical project would also require a traffic signal to address the intersection impact, it should contribute its fair share towards the signal installation costs. As discussed in the Fortinet TOA report, the Fortinet project would generate 76 trips at this intersection during the PM peak hour. The Intuitive Surgical project would generate 538 trips during the PM peak hour at this intersection. Therefore, the Intuitive Surgical project should contribute 88% of the signal installation cost.

## Wolfe Road and Maude Avenue (#13)

Under existing conditions, the LOS would be an unacceptable LOS F during the PM peak hour. The intersection would meet the peak-hour signal warrant under existing plus project conditions during the PM peak hour and would therefore meet the City of Sunnyvale's adverse intersection impact criteria.

The currently unsignalized intersection at Wolfe Road and Maude Avenue is being signalized by Intuitive Surgical as a part of the 1050 Kifer Road project. With signalization, the intersection would operate at an acceptable LOS C under existing plus project conditions during the PM peak hour (see Table 14).

**Table 13**
**Existing Plus Project Signalized Intersection Impact Improvements Summary**

| | | | | | Existing | | Existing Plus Project | | Existing Plus Project Improved | |
|---|---|---|---|---|---|---|---|---|---|---|
| # | Intersection | Peak Hour | Count Date | LOS Std. | Avg. Delay (sec) | LOS | Avg. Delay (sec) | LOS | Avg. Delay (sec) | LOS |
| 16 | Wolfe Road & Central Expressway Ramps | AM | 12/06/17 | D | 37.2 | D+ | 37.4 | D+ | 28.2 | C |
| | | PM | 12/06/17 | | **71.0** | **E** | **74.3** | **E** | 49.4 | D |
| 25 | Lawrence Expressway & Kifer Road (County) | AM | 03/07/18 | E | 54.4 | D- | 56.9 | E+ | - | D |
| | | PM | 03/07/18 | | **101.6** | **F** | **>120** | **F** | - | D |
| 26 | Lawrence Expressway & Monroe Street (County*) | AM | 03/07/18 | E | **114.8** | **F** | **>120** | **F** | - | D |
| | | PM | 11/13/18 | | 61.8 | E | 62.1 | E | - | D |

Notes:
** = CMP, County = County of Santa Clara*
">120" indicates this signalized intersection experiences lengthy delay that is beyond the reasonable calculation range of the HCM 2000 methodology.
**BOLD** indicates an unacceptable level of service
**BOLD** and boxed indicates an adverse intersection impact

**Table 14**
**Existing Plus Project Unsignalized Intersection Impact Improvements Summary**

| # | Intersection | Control [1] | LOS Standard | Peak Hour | Count Date | Existing Delay (sec) | Existing LOS | Existing Plus Project Delay (sec) | Existing Plus Project LOS | Existing Plus Project Improved Delay (sec) | Existing Plus Project Improved LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13 | Wolfe Road & Maude Avenue | side-street | D | AM | 12/06/17 | 25.7 | D | 27.6 | D | 20.5 | C+ |
| | | stop | | PM | 12/06/17 | **67.4** | **F** | **73.6** | **F** | 27.3 | C |
| 20 | Commercial Street & Kifer Road | side-street | D | AM | 12/06/17 | 12.3 | B | 29.6 | D | 24.3 | C |
| | | stop | | PM | 12/06/17 | 24.1 | C | **114.0** | **F** | 29.7 | C |

Notes:

(1) Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay. Those reported for all-way stop-controlled intersections represent intersection average.

**BOLD** indicates an unacceptable level of service

**BOLD** and boxed indicates an adverse intersection impact

## Background Plus Project Intersection Levels of Service

The intersection levels of service results for background plus project conditions were compared to background conditions to determine potential adverse intersection impacts (see Tables 15 and 16). Based on City of Sunnyvale and CMP intersection impact criteria, the project would generate adverse impacts at the following study intersections:

City of Sunnyvale Intersections:

- Wolfe Road and Central Expressway Ramps (#16) – PM peak hour (LOS F)
- Commercial Street and Kifer Road (#20) – AM and PM peak hour (LOS F)

County of Santa Clara Intersections:

- Lawrence Expressway and Kifer Road (#25) – AM and PM peak hours (LOS F)
- Lawrence Expressway and Monroe Street/Reed Avenue (#26) – AM peak hour (LOS F)
- Oakmead Parkway and Central Expressway (#27) – AM and PM peak hours (LOS F)
- Bowers Avenue and Central Expressway (#29) – PM peak hour (LOS F)

The LSAP requires projects within the plan area to make a fair share contribution toward the cost of the identified improvements. Potential improvement strategies are discussed in the following section.

**Table 15**
**Background Plus Project Level of Service Summary - Signalized Intersections**

| # | Intersection | Peak Hour | Count Date | LOS Std. | Background | | Background + Project Conditions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Avg. Delay (sec) | LOS | Avg. Delay (sec) | LOS | Incr. In Crit. Delay (sec) | Incr. In Crit. V/C |
| 1 | Mary Avenue & Central Expressway (County*) | AM | 11/14/17 | E | 73.3 | E | 73.3 | E | 0.0 | 0.002 |
| | | PM | 12/13/18 | | 78.0 | E- | 78.3 | E- | 0.5 | 0.001 |
| 2 | Fair Oaks Avenue & US 101 NB Ramps | AM | 05/08/18 | D | 26.5 | C | 26.8 | C | 0.5 | 0.004 |
| | | PM | 05/08/18 | | 32.7 | C- | 36.4 | D+ | 7.5 | 0.029 |
| 3 | Fair Oaks Avenue & Ahwanee Avenue | AM | 05/08/18 | D | 21.5 | C+ | 21.4 | C+ | 0.1 | 0.002 |
| | | PM | 05/08/18 | | 14.7 | B | 14.7 | B | 0.0 | 0.001 |
| 4 | Fair Oaks Avenue & Duane Avenue | AM | 05/08/18 | D | 33.6 | C- | 33.4 | C- | 0.1 | 0.003 |
| | | PM | 05/08/18 | | 35.2 | D+ | 35.3 | D+ | 0.7 | 0.019 |
| 5 | Fair Oaks Avenue & Wolfe Road | AM | 05/08/18 | D | 23.8 | C | 23.9 | C | 0.1 | 0.003 |
| | | PM | 05/08/18 | | 22.2 | C+ | 22.1 | C+ | 0.0 | 0.002 |
| 6 | Fair Oaks Avenue & Arques Avenue | AM | 05/08/18 | D | 36.2 | D+ | 36.2 | D+ | 0.1 | 0.003 |
| | | PM | 05/08/18 | | 47.1 | D | 48.8 | D | 2.5 | 0.019 |
| 7 | Fair Oaks Avenue & California Avenue | AM | 12/06/17 | D | 10.2 | B+ | 10.2 | B+ | 0.0 | 0.002 |
| | | PM | 12/06/17 | | 15.7 | B | 15.6 | B | 0.0 | 0.000 |
| 8 | Fair Oaks Avenue & Kifer Road | AM | 05/08/18 | D | 15.8 | B | 16.4 | B | 0.7 | 0.023 |
| | | PM | 05/08/18 | | 31.6 | C | 36.4 | D+ | 5.2 | 0.041 |
| 9 | Fair Oaks Avenue & Evelyn Avenue | AM | 05/08/18 | D | 39.7 | D | 40.3 | D | 1.1 | 0.017 |
| | | PM | 05/08/18 | | 34.0 | C- | 34.4 | C- | 0.6 | 0.020 |
| 10 | Fair Oaks Avenue & Old SF Road | AM | 05/08/18 | D | 35.2 | D+ | 36.1 | D+ | 1.5 | 0.024 |
| | | PM | 05/08/18 | | 34.9 | C- | 34.9 | C- | 0.0 | 0.018 |
| 11 | Fair Oaks Avenue & El Camino Real (*) | AM | 05/08/18 | E | 42.1 | D | 42.3 | D | 0.2 | 0.006 |
| | | PM | 10/30/18 | | 46.2 | D | 46.5 | D | 0.7 | 0.008 |
| 12 | Sunnyvale-Saratoga Road & Remington Drive (*) | AM | 11/14/17 | E | 56.8 | E+ | 57.6 | E+ | 1.0 | 0.004 |
| | | PM | 10/30/18 | | 46.6 | D | 47.2 | D | 1.1 | 0.009 |
| 13 | Wolfe Road & Maude Avenue (1) | AM | 12/06/17 | D | 20.1 | C+ | 20.3 | C+ | -0.1 | 0.012 |
| | | PM | 12/06/17 | | 24.7 | C | 24.3 | C | 0.0 | 0.002 |
| 14 | Wolfe Road & Stewart Drive | AM | 11/15/17 | D | 24.2 | C | 23.9 | C | -0.1 | 0.002 |
| | | PM | 11/15/17 | | 30.4 | C | 30.3 | C | 0.0 | 0.001 |
| 15 | Wolfe Road & Arques Avenue | AM | 11/14/17 | D | 34.9 | C- | 34.6 | C- | -0.1 | 0.002 |
| | | PM | 11/14/17 | | 39.9 | D | 39.7 | D | 0.0 | 0.000 |
| 16 | Wolfe Road & Central Expressway Ramps | AM | 12/06/17 | D | 41.2 | D | 41.5 | D | 0.0 | 0.000 |
| | | PM | 12/06/17 | | **93.5** | **F** | **98.4** | **F** | **7.9** | **0.020** |

Notes:
* = *CMP, County = County of Santa Clara*
(1) The Wolfe Road & Maude Avenue intersection is signalized under background conditions.
**BOLD** indicates an unacceptable level of service
**BOLD** and boxed indicates an adverse intersection impact

**Table 15 (Continued)**
**Background Plus Project Level of Service Summary - Signalized Intersections**

| # | Intersection | Peak Hour | Count Date | LOS Std. | Background | | Background + Project Conditions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Avg. Delay (sec) | LOS | Avg. Delay (sec) | LOS | Incr. In Crit. Delay (sec) | Incr. In Crit. V/C |
| 17 | Wolfe Road & Kifer Road | AM | 11/14/17 | D | 39.8 | D | 43.8 | D | 4.0 | 0.040 |
| | | PM | 11/14/17 | | 49.5 | D | 52.8 | D- | 4.1 | 0.024 |
| 18 | Wolfe Road & Evelyn Avenue | AM | 11/15/17 | D | 41.0 | D | 41.0 | D | 0.0 | 0.006 |
| | | PM | 11/15/17 | | 37.7 | D+ | 37.7 | D+ | 0.0 | 0.007 |
| 19 | Wolfe Road & Reed Avenue | AM | 11/14/17 | D | 36.8 | D+ | 37.1 | D+ | 0.4 | 0.009 |
| | | PM | 11/14/17 | | 40.3 | D | 40.5 | D | 0.0 | 0.004 |
| 21 | Lawrence Expressway & US 101 NB Ramps (County) | AM | 05/23/19 | E | 12.8 | B | 13.1 | B | 0.4 | 0.011 |
| | | PM | 05/23/19 | | 15.6 | B | 15.7 | B | 0.1 | 0.002 |
| 22 | Lawrence Expressway & US 101 SB Ramps (County) | AM | 05/23/19 | E | 11.2 | B+ | 12.8 | B | 2.7 | 0.016 |
| | | PM | 05/23/19 | | 28.5 | C | 28.5 | C | 0.5 | 0.003 |
| 23 | Lawrence Expressway & Oakmead Parkway (County) | AM | 05/23/19 | E | 70.3 | E | 70.0 | E | 0.2 | 0.003 |
| | | PM | 05/23/19 | | **80.8** | **F** | **81.4** | **F** | **1.6** | **0.002** |
| 24 | Lawrence Expressway & Arques Avenue (County*) | AM | 04/04/17 | E | 68.4 | E | 69.2 | E | 2.3 | 0.004 |
| | | PM | 11/13/18 | | **113.8** | **F** | **113.7** | **F** | **1.4** | **0.003** |
| 25 | Lawrence Expressway & Kifer Road (County) | AM | 03/07/18 | E | **106.4** | **F** | **111.0** | **F** | **8.7** | **0.023** |
| | | PM | 03/07/18 | | **>120** | **F** | **>120** | **F** | **32.5** | **0.068** |
| 26 | Lawrence Expressway & Monroe Street (County*) | AM | 03/07/18 | E | **>120** | **F** | **>120** | **F** | **11.6** | **0.016** |
| | | PM | 11/13/18 | | 70.2 | E | 73.0 | E | 4.9 | 0.015 |
| 27 | Oakmead Parkway & Central Expressway (County*) | AM | 11/15/17 | E | **116.3** | **F** | **>120** | **F** | **8.6** | **0.015** |
| | | PM | 11/13/18 | | **109.7** | **F** | **114.9** | **F** | **9.2** | **0.017** |
| 28 | Corvin Drive & Kifer Road (SC) | AM | 11/15/17 | D | 9.3 | A | 9.2 | A | -0.2 | 0.018 |
| | | PM | 11/15/17 | | 9.2 | A | 9.4 | A | 0.0 | 0.002 |
| 29 | Bowers Avenue & Central Expressway (County*) | AM | 11/15/17 | E | 70.2 | E | 71.8 | E | 2.6 | 0.010 |
| | | PM | 11/13/18 | | **83.4** | **F** | **85.8** | **F** | **5.0** | **0.012** |
| 30 | Bowers Avenue & Kifer Road (SC) | AM | 11/15/17 | D | 31.8 | C | 33.1 | C- | 1.8 | 0.017 |
| | | PM | 03/07/18 | | 36.7 | D+ | 37.1 | D+ | 0.0 | 0.000 |
| 31 | Semiconductor Drive & Kifer Road | AM | 09/11/18 | D | 17.6 | B | 17.6 | B | 0.6 | 0.109 |
| | | PM | 09/11/18 | | 20.7 | C+ | 21.2 | C+ | 0.8 | 0.101 |
| 32 | 1020 Kifer Rd Driveway & Kifer Road | AM | - | D | 12.3 | B | 20.1 | C+ | 0.0 | 0.083 |
| | | PM | - | | 18.3 | B- | 30.7 | C | 10.3 | 0.164 |

Notes:
** = CMP, SC = Santa Clara, County = County of Santa Clara*
">120" indicates this signalized intersection experiences lengthy delay that is beyond the reasonable calculation range of the HCM 2000 methodology.
**BOLD** indicates an unacceptable level of service
**BOLD** and boxed indicates an adverse intersection impact

**Table 16**
**Background Plus Project Level of Service Summary - Unsignalized Intersection**

| # | Intersection | Control [1] | Peak Hour | Count Date | Background Delay (sec) | Background LOS | Background Signal Warrant Met | Background plus Project Delay (sec) | Background plus Project LOS | Incr. in Delay | Incr. in V/C | Signal Warrant Met |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | Commercial Street & Kifer Road | side-street stop | AM | 12/06/17 | 16.2 | C | No | **89.0** | **F** | **72.8** | **0.459** | **Yes** |
| | | | PM | 12/06/17 | **95.9** | **F** | **Yes** | **>120** | **F** | **341.3** | **0.754** | **Yes** |

Notes:
">120" indicates this unsignalized intersection experiences lengthy delay that is beyond the reasonable calculation range of the HCM 2000 methodology.
(1) Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay. Those reported for all-way stop-controlled intersections represent intersection average.
**BOLD** indicates an unacceptable level of service
**BOLD** and boxed indicates an adverse intersection impact

## Background Plus Project Potential Intersection Improvement Strategies

Improvement options were studied for each intersection experiencing impacts under background plus project conditions when compared to background conditions. An intersection impact can be satisfactorily addressed by implementing measures that would restore intersection conditions to its LOS standard *or* to an average delay equal to without-project conditions or better. The LOS results under the improved background plus project conditions are summarized in Tables 17 and 18.

### TDM Plan

For informational purposes, Hexagon examined whether the implementation of the proposed LSAP TDM requirement could eliminate any project impacts under background plus project conditions. If the project implements a TDM Plan with a 30% peak hour trip reduction, the project could generate a lesser impact at all six study intersections under background plus project conditions. However, the proposed TDM Plan would not restore intersection conditions to the LOS standard or to an average delay equal to without-project conditions or better for any intersection under background plus project conditions.

### Wolfe Road and Central Expressway Ramps (#16)

Under background conditions, the LOS would be an unacceptable LOS F during the PM peak hour. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet the City of Sunnyvale's adverse intersection impact criteria.

> **Potential Improvement:** Improvement would require widening both the eastbound and westbound Central Expressway off-ramps to include one left-turn, one shared through-left lane and one right-turn lane. There appears to be sufficient right-of-way to accommodate the potential improvements. The improvements would lengthen the respective crosswalks by up to 12 feet. The widened approaches would increase traffic exposure time for pedestrians by 3 to 5 seconds and 1 to 3 seconds for bicyclists crossing the intersection.

With the proposed improvement, the intersection would operate at an acceptable LOS D- under background plus project conditions during the PM peak hour (see Table 17). However, the improvement requires widening the Central Expressway off-ramps, which are in the County's jurisdiction, so the City cannot ensure the implementation of the potential improvement. The LSAP requires projects within the plan area to contribute their fair share towards the cost of the identified improvement.

### Lawrence Expressway and Kifer Road (#25)

Under background conditions, the LOS would be an unacceptable LOS F during both the AM and PM peak hours. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet the City of Sunnyvale's adverse intersection impact criteria.

> **Potential Improvement:** The County of Santa Clara has identified a future project to provide a grade separation at this intersection. This would improve the north-south flow of traffic and potentially address the project's impacts.

The LSAP requires projects within the plan area to contribute their fair share towards the cost of the grade separation at Lawrence Expressway and Kifer Road. This intersection is under Santa Clara County's jurisdiction; therefore, it is up to the County to approve and advance the proposed improvement at the intersection.

### Lawrence Expressway and Monroe Street/Reed Avenue (#26) [CMP]

Under background conditions, the LOS would be an unacceptable LOS F during the AM peak hour. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet VTA's CMP adverse intersection impact criteria.

> **Potential Improvement:** The County of Santa Clara has identified a future project to provide a grade separation at this intersection. This would improve the north-south flow of traffic and potentially address the project's impact.

The LSAP requires projects within the plan area to contribute to their fair share towards the cost of the grade separation at Lawrence Expressway and Monroe Street/Reed Avenue. This intersection is under Santa Clara County's jurisdiction; therefore, it is up to the County to approve and advance the proposed improvement at the intersection.

### Oakmead Parkway and Central Expressway (#27) [CMP]

Under background conditions, the LOS would be an unacceptable LOS F during both the AM and PM peak hours. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet the City of Sunnyvale's adverse intersection impact criteria.

> **Potential Improvement:** As documented in the *Valley Transportation Plan 2040,* Central Expressway is planned to be widened to six lanes between Lawrence Expressway and San Tomas Expressway without HOV lane operations. This would improve the east-west flow of traffic and potentially address the project's impact.

With the additional lanes, the intersection would operate at an acceptable LOS D- during the AM peak hour and LOS D during the PM peak hour under background plus project conditions. The LSAP requires projects within the plan area to contribute their fair share towards the cost of the identified improvement. This intersection is under Santa Clara County's jurisdiction; therefore, it is up to the County to approve and advance the proposed improvement at the intersection.

### Bowers Avenue and Central Expressway (#29) [CMP]

Under background conditions, the LOS would be an unacceptable LOS F during the PM peak hour. The addition of project traffic would increase both the critical-movement delay and V/C ratio to meet the County of Santa Clara's adverse intersection impact criteria.

**Potential Improvement:** According to the *City Place Santa Clara Project Draft Environmental Impact Report*, dated October 2015, the Bowers Avenue/Central Expressway intersection is recommended for lane additions to improve vehicle operations. The City Place Project is responsible for constructing third southbound left-turn and third eastbound left-turn lanes at this intersection.

With the proposed improvement, the intersection would operate at an acceptable LOS E- under background plus project conditions during the PM peak hour. The LSAP requires projects within the plan area to contribute their fair share towards the cost of the identified improvement. This intersection is under Santa Clara County's jurisdiction; therefore, it is up to the County to approve and advance the proposed improvement at the intersection.

### Commercial Street and Kifer Road (#20)

Under background conditions, the LOS would be an acceptable LOS C during the AM peak hour and an unacceptable LOS F during the PM peak hour. During the AM peak hour, the addition of project traffic would deteriorate traffic operations to an unacceptable LOS F, which meets the City of Sunnyvale's adverse intersection impact criteria. During the PM peak hour, the addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet the City of Sunnyvale's adverse intersection impact criteria. In addition, the intersection would meet the peak-hour signal warrant under background plus project conditions during both the AM and PM peak hours.

**Potential Improvement:** Improvement would require installation of a signal at the intersection of Commercial Street and Kifer Road. Installation of a signal would greatly reduce the delay for southbound vehicles while maintaining minimal delay for westbound and eastbound traffic. The improvement would include one left-turn lane and one shared through-right lane on the southbound approach.

With the proposed improvement, the intersection would operate at an acceptable LOS C+ during the AM peak hour and LOS C during the PM peak hour under background plus project conditions (see Table 18). As discussed in the *Fortinet Traffic Operations Analysis (TOA)*, prepared by Hexagon Transportation Consultants, dated December 5, 2018, a traffic signal would be required to address the potential project impacts generated by the Fortinet project at this intersection. Since the Intuitive Surgical project would also require a traffic signal to address the intersection impact, it should contribute its fair share towards the signal installation costs. As discussed in the Fortinet TOA report, the Fortinet project would generate 76 trips at this intersection during the PM peak hour. The Intuitive Surgical project would generate 538 trips during the PM peak hour at this intersection. Therefore, the Intuitive Surgical project should contribute 88% of the signal installation cost.

**Table 17**
**Background Plus Project Signalized Intersection Impact Improvements Summary**

| # | Intersection | Peak Hour | Count Date | LOS Std. | Background Avg. Delay (sec) | Background LOS | Background Plus Project Avg. Delay (sec) | Background Plus Project LOS | Background Plus Project Improved Avg. Delay (sec) | Background Plus Project Improved LOS |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | Wolfe Road & Central Expressway Ramps | AM | 12/06/17 | D | 41.2 | D | 41.5 | D | 30.2 | C |
| | | PM | 12/06/17 | | **93.5** | **F** | **98.4** | **F** | 51.3 | D- |
| 25 | Lawrence Expressway & Kifer Road | AM | 03/07/18 | E | **106.4** | **F** | **111.0** | **F** | - | D |
| | (County) (1) | PM | 03/07/18 | | **>120** | **F** | **>120** | **F** | - | D |
| 26 | Lawrence Expressway & Monroe | AM | 03/07/18 | E | **>120** | **F** | **>120** | **F** | - | D |
| | Street/Reed Avenue (County*) (1) | PM | 11/13/18 | | 70.2 | E | 73.0 | E | - | D |
| 27 | Oakmead Parkway & Central Expressway | AM | 11/15/17 | E | **116.3** | **F** | **>120** | **F** | 51.1 | D- |
| | (County*) (1) | PM | 11/13/18 | | **109.7** | **F** | **114.9** | **F** | 50.5 | D |
| 29 | Bowers Avenue & Central Expressway | AM | 11/15/17 | E | 70.2 | E | 71.8 | E | 61.1 | E |
| | (County*) (1) | PM | 11/13/18 | | **83.4** | **F** | **85.8** | **F** | 77.7 | E- |

Notes:
* = *CMP, County = County of Santa Clara*
">120" indicates this signalized intersection experiences lengthy delay that is beyond the reasonable calculation range of the HCM 2000 methodology.
(1) Intersection is not under Sunnyvale's jurisdiction, so the City cannot ensure the implementation of the potential improvement.
**BOLD** indicates an unacceptable level of service
**BOLD** and boxed indicates an adverse intersection impact

**Table 18**
**Background Plus Project Unsignalized Intersection Impact Improvements Summary**

| # | Intersection | Control (1) | LOS Standard | Peak Hour | Count Date | Background Delay (sec) | Background LOS | Background Plus Project Delay (sec) | Background Plus Project LOS | Background Plus Project Improved Delay (sec) | Background Plus Project Improved LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | Commercial Street & Kifer Road | side-street stop | D | AM | 12/06/17 | 16.2 | C | **89.0** | **F** | 23.0 | C+ |
| | | | | PM | 12/06/17 | **95.9** | **F** | **>120** | **F** | 29.9 | C |

Notes:
">120" indicates this unsignalized intersection experiences lengthy delay that is beyond the reasonable calculation range of the HCM 2000 methodology.
(1) Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay. Those reported for all-way stop-controlled intersections represent intersection average.
**BOLD** indicates an unacceptable level of service
**BOLD** and boxed indicates an adverse intersection impact

## Cumulative Conditions

Cumulative conditions were studied in the *Lawrence Station Area Plan Update Transportation Impact Analysis*. This project, as part of the LSAP-Update, would contribute to the cumulative impacts and would be required to contribute to the cumulative fair share improvements.

## Project Conditions Freeway Impact Analysis

VTA CMP guidelines define that a project would cause a freeway impact if the project would deteriorate freeway levels of service from an acceptable level to an unacceptable level, or if the freeway already operates at an unacceptable level under existing conditions, the project would add traffic exceeding 1% of the freeway capacity. The traffic added by the project to each freeway segment is summarized in Table 19. The project would have an adverse impact on the following freeway segments:

- SR 237 Eastbound between Lawrence Expressway and Great America Parkway – PM Peak Hour
- SR 237 Westbound between Great America Parkway and Lawrence Expressway – AM Peak Hour

To address the project impact, a trip reduction of 27% would be required for the AM peak hour and 37% would be required for the PM peak hour. As discussed above, the projects within the proposed LSAP plan area would be required to implement TDM measures achieving a 30% peak hour trip reduction. It is unclear whether higher trip reductions are attainable.

The VTA's Valley Transportation Plan (VTP) 2040 identifies freeway express lane projects along SR 237 between N. First Street and SR 85. On the identified freeway segments, the existing HOV lanes are proposed to be converted to express lanes. According to the latest VTA CMP Monitoring Report, the HOV lanes on the impacted segments currently are operating at acceptable levels of service. Therefore, converting the HOV lanes to express lanes could potentially add capacity to the freeway segment. Projects within the proposed LSAP plan area shall participate in VTA's Voluntary Freeway Contribution Program to fund improvements along SR 237.

Freeways are under Caltrans jurisdiction. Therefore, capacity improvements on freeways are beyond the capabilities of the City of Sunnyvale.

**Table 19**
**Project Conditions Freeway Analysis Summary**

| | | | | Existing Conditions - Mixed Flow Lanes[1] | | | | | | Project Conditions | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Freeway | Dir. | Segment | Peak Hour | Avg. Speed (mph) | # of Lanes | Capacity | Density (pc/mi/ln) | Volume | LOS | Project Trips | % Capacity |
| US 101 | SB | Mathilda Avenue to Fair Oaks Avenue | AM | 63.0 | 3 | 6,900 | 24.0 | 4,611 | C | 81 | 1.17% |
| | | | PM | **20.6** | **3** | **6,900** | **67.0** | **4,149** | **F** | 9 | 0.13% |
| US 101 | SB | Fair Oaks Avenue to Lawrence Expressway | AM | 60.0 | 3 | 6,900 | 30.0 | 5,346 | D | 40 | 0.58% |
| | | | PM | **12.4** | **3** | **6,900** | **79.0** | **2,949** | **F** | 5 | 0.07% |
| US 101 | SB | Lawrence Expressway to Great America Parkway | AM | 55.0 | 3 | 6,900 | 35.0 | 5,850 | D | 7 | 0.10% |
| | | | PM | **6.4** | **3** | **6,900** | **91.0** | **1,746** | **F** | 47 | 0.68% |
| US 101 | NB | Great America Parkway to Lawrence Expressway | AM | **17.2** | **3** | **6,900** | **72.0** | **3,702** | **F** | 40 | 0.58% |
| | | | PM | 47.6 | 3 | 6,900 | 42.0 | 5,964 | D | 5 | 0.07% |
| US 101 | NB | Lawrence Expressway to Fair Oaks Avenue | AM | **18.2** | **3** | **6,900** | **70.0** | **3,840** | **F** | 7 | 0.10% |
| | | | PM | 47.2 | 3 | 6,900 | 42.0 | 5,958 | D | 47 | 0.68% |
| US 101 | NB | Fair Oaks Avenue to Mathilda Avenue | AM | **26.0** | **3** | **6,900** | **61.0** | **4,740** | **F** | 15 | 0.22% |
| | | | PM | 54.8 | 3 | 6,900 | 36.0 | 5,859 | D | 93 | 1.35% |
| SR 237 | EB | Lawrence Expressway to Great America Parkway | AM | 58.0 | 2 | 4,400 | 32.0 | 3,746 | D | 10 | 0.23% |
| | | | PM | **9.8** | **2** | **4,400** | **84.0** | **1,644** | **F** | **62** | **1.41%** |
| SR 237 | WB | Great America Parkway to Lawrence Expressway | AM | **24.6** | **2** | **4,400** | **62.0** | **3,066** | **F** | **54** | **1.23%** |
| | | | PM | 57.8 | 2 | 4,400 | 33.0 | 3,760 | D | 6 | 0.14% |

Notes
Dir. = direction, NB = northbound, SB = southbound, mph = miles per hour, pc/mi/ln = passenger cars per mile per lane
[1] Source: Santa Clara Valley Transportation Authority Congestion Management Program Monitoring Study, 2018.
**BOLD** indicates substandard level of service.
**BOLD** and boxed indicates an adverse project impact.

## Project Conditions Ramp Analysis

Freeway ramp volumes under project conditions were estimated by adding project trips to the existing volumes obtained from Caltrans. The peak hour ramp volumes under existing plus project conditions are shown in Table 20.

For the purpose of this study, the project is said to create an adverse impact on a freeway ramp if its implementation:

- Would cause the volume-to-capacity (V/C) ratio of the freeway ramp to exceed 1.0; or
- Would increase the amount of traffic on a freeway ramp that is already exceeding its capacity by more than one percent (1%) of the ramp's capacity.

The ramp analysis shows that the study freeway ramps would continue to operate below capacity under project conditions.

**Table 20**
**Project Conditions Freeway Ramp Analysis**

| Interchange | Ramp | Type | Peak Hour | Existing Conditions | | | Project Conditions | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Capacity[1] | Peak Volume[2] | v/c | Project Trips | Peak Volume | v/c |
| US101/Fair Oaks Avenue | NB On-Ramp from Fair Oaks Avenue | Diagonal | AM | 1,800 | 1,061 | 0.59 | 7 | 1,068 | 0.59 |
| | | | PM | 1,800 | 416 | 0.23 | 47 | 463 | 0.26 |
| | SB Off-Ramp to SB Fair Oaks Avenue | Diagonal | AM | 2,000 | 363 | 0.18 | 40 | 403 | 0.20 |
| | | | PM | 2,000 | 893 | 0.45 | 5 | 898 | 0.45 |
| US 101/Lawrence Expressway | NB Off-Ramp to Lawrence Expressway | Diagonal | AM | 3,800 | 1,278 | 0.34 | 40 | 1,318 | 0.35 |
| | | | PM | 3,800 | 1,185 | 0.31 | 5 | 1,190 | 0.31 |
| | SB On-Ramp from NB Lawrence Expressway | Diagonal | AM | 1,800 | 584 | 0.32 | 7 | 591 | 0.33 |
| | | | PM | 1,800 | 352 | 0.20 | 47 | 399 | 0.22 |
| | NB On-Ramp from NB Lawrence Expressway | Loop | AM | 1,800 | 484 | 0.27 | 7 | 491 | 0.27 |
| | | | PM | 1,800 | 378 | 0.21 | 47 | 425 | 0.24 |
| | SB Off-Ramp to Lawrence Expressway | Diagonal | AM | 3,800 | 738 | 0.19 | 40 | 778 | 0.20 |
| | | | PM | 3,800 | 1,753 | 0.46 | 5 | 1,758 | 0.46 |

Notes:
NB=northbound, SB=southbound, v/c = volume-to-capacity ratio

[1] Ramp capacities were obtained from the Highway Capacity Manual, 2000 (pg 25-4), and considered the free-flow speed, the number of lanes on the ramp, and ramp metering.

[2] Peak-hour volumes are obtained from Caltrans.

[3] As a conservative approach, if an on-ramp has meter equipment present, the ramp is analyzed assuming it is metered.

# 5.
# Other Transportation Issues

This chapter presents an analysis of other transportation issues associated with the project, including:

- operations analysis – vehicle queuing and storage at selected intersections
- potential impacts to transit services and pedestrian and bicycle facilities,
- site access and circulation, and
- parking.

Unlike the level of service impact methodology, which is adopted by the City Council, the analyses in this chapter are based on professional judgment in accordance with the standards and methods employed by the traffic engineering community. Although operational issues are not considered CEQA impacts, they do describe traffic conditions that are relevant to describing the project environment.

## Queuing Analysis

The analysis of intersection level of service was supplemented with a queuing analysis for selected movements at the study intersections. Vehicle queues were estimated using a Poisson probability distribution. The operations analysis is based on vehicle queuing for high-demand left-turn movements at intersections where 10 or more project trips per lane were added. This analysis provides a basis for determining whether the addition of project trips would exacerbate peak hour queues and delays, as well as estimating future storage requirements at intersections. For signalized intersections, the estimated queue length was compared to the length of the existing turn pockets. For unsignalized intersections, the estimated queue lengths were compared to the storage space available between the limit line and the upstream intersection.

The AM queuing analysis is based on vehicle queuing for the seven movements listed below.

- Northbound left turn at Fair Oaks Avenue and Arques Avenue
- Westbound left turn at Fair Oaks Avenue and Kifer Road
- Southbound left turn at Wolfe Road and Kifer Road
- Southbound left turn at Commercial Street and Kifer Road
- Westbound left turn at Lawrence Expressway and US 101 northbound ramps
- Northbound left turn at Lawrence Expressway and Kifer Road
- Eastbound left turn at Lawrence Expressway and Kifer Road

The PM queuing analysis is based on vehicle queuing for the eight movements listed below.

- Northbound left turn at Fair Oaks Avenue and US 101 northbound ramps
- Westbound left turn at Fair Oaks Avenue and Kifer Road
- Westbound left turn at Sunnyvale-Saratoga Road and Remington Drive
- Northbound left turn at Wolfe Road and Central Expressway ramps
- Westbound left turn at Wolfe Road and Kifer Road
- Southbound left turn at Wolfe Road and Reed Avenue
- Northbound left turn at Lawrence Expressway and Kifer Road
- Eastbound left turn at Lawrence Expressway and Kifer Road

The queuing results for the background plus project scenario were compared to the background scenario to determine whether the project would cause extensive queuing issues for the AM and PM peak hours (see Table 21 and Table 22). The proposed project would create operational deficiencies at the six locations listed below during at least one peak hour.

- Northbound left turn at Fair Oaks Avenue and US 101 northbound ramps
- Northbound left turn at Wolfe Road and Central Expressway ramps
- Southbound left turn at Wolfe Road and Kifer Road
- Westbound left turn at Wolfe Road and Kifer Road
- Northbound left turn at Lawrence Expressway and Kifer Road
- Eastbound left turn at Lawrence Expressway and Kifer Road

Below is a detailed discussion of the above identified locations under background plus project conditions.

### Fair Oaks Avenue and US 101 Northbound Ramps

The project is expected to add 47 vehicles during the PM peak hour onto the northbound left-turn lane under background plus project conditions and would lengthen the 95$^{th}$ percentile queue. This left-turn movement has one turn lane with a total queue storage space of approximately 260 feet. Under background conditions during the PM peak hour, the 95$^{th}$ percentile queue length would be 350 feet, with the back-of-queue extending out of the turn pocket. Under background plus project conditions, the 95$^{th}$ percentile queue length would be extended by 50 feet to 400 feet.

There is no room to further extend this left-turn lane. There is no feasible improvement for the identified queuing deficiency.

### Wolfe Road and Central Expressway Ramps

The left-turn movement has one turn lane with a total queue storage space of approximately 300 feet. Under background conditions during the PM peak hour, the 95$^{th}$ percentile queue length would be 325 feet, with the back-of-queue extending out of the turn pocket. Under background plus project conditions, the proposed project would add 31 northbound left-turn vehicles during the PM peak hour. The 95$^{th}$ percentile queue length would be extended by 50 feet to 375 feet.

The existing median could be narrowed to extend the northbound left-turn lane to accommodate the background plus project 95$^{th}$ percentile queues. However, narrowing the median would require the removal of several trees.

## Wolfe Road and Kifer Road

The project is expected to add 40 vehicles during the AM peak hour to the southbound left-turn movement under background plus project conditions and would lengthen the 95th percentile queue. Under background conditions during the AM peak hour, the 95th percentile queue length would be 400 feet per lane, with the back-of-queue extending out of the turn pocket. Under background plus project conditions, the 95th percentile queue length would be extended by 50 feet per lane to 450 feet per lane.

The project is expected to add 37 vehicles during the PM peak hour to the westbound left-turn movement under background plus project conditions and would lengthen the 95th percentile queue. Under background conditions during the PM peak hour, the 95th percentile queue length would be 600 feet per lane, with the back-of-queue extending out of the turn pocket. Under background plus project conditions, the 95th percentile queue length would be extended by 50 feet per lane to 650 feet per lane.

Improvements would require the construction of second southbound left-turn and westbound left-turn lanes at the Wolfe Road and Kifer Road intersection. The additional lanes would accommodate the background plus project queues for both the southbound and westbound left-turn movements. The LSAP requires projects within the plan area to contribute their fair share towards the cost of the lane construction at Wolfe Road and Kifer Road.

## Lawrence Expressway and Kifer Road

The project is expected to add 98 vehicles (or 49 vehicles per lane) during the AM peak hour to the northbound left-turn movement under background plus project conditions and would lengthen the 95th percentile queue. Under background conditions during the AM peak hour, the 95th percentile queue length would be 325 feet per lane. Under background plus project conditions, the 95th percentile queue length would be extended by 100 feet to 425 feet.

The project is expected to add 24 vehicles (or 12 vehicles per lane) during the AM peak hour and 156 vehicles (or 78 vehicles per lane) during the PM peak hour to the eastbound left-turn movement under background plus project conditions and would lengthen the 95th percentile queues. Since the 95th percentile queue under background plus project conditions is longer during the PM peak hour (600 feet compared to 275 feet during the AM peak hour), the following discussion is focused on the PM peak hour.

Under background conditions during the PM peak hour, the 95th percentile queue length would be 475 feet per lane, with the back-of-queue extending out of the turn pocket. Under background plus project conditions, the addition of project trips would extend the 95th percentile queue by 125 feet per lane to 600 feet per lane.

There is no room to further extend the eastbound left-turn pocket. It is expected that the proposed Lawrence Expressway Grade Separation project at this intersection would remove the identified queuing issue. The LSAP requires projects within the plan area to contribute their fair share towards the cost of the grade separation at Lawrence Expressway and Kifer Road.

**Table 21**
**AM Queuing Analysis Summary**

| | Fair Oaks Avenue and Arques Avenue | Fair Oaks Avenue and Kifer Road | Wolfe Road and Kifer Road | Commercial Street and Kifer Road | Lawrence Expressway and US 101 NB Ramps | Lawrence Expressway and Kifer Road | |
|---|---|---|---|---|---|---|---|
| **Movement:** | **NBL [3]** | **WBL [3]** | **SBL** | **SBL** | **WBL** | **NBL** | **EBL** |
| ***Existing*** | | | | | | | |
| Cycle/Delay[1] (sec) | 100 | 265 | 160 | 12.3 | 85 | 181 | 181 |
| Volume (vphpl ) | 230 | 89 | 101 | 90 | 258 | 119 | 58 |
| Avg. Queue (veh/ln.) | 6 | 7 | 4 | 0 | 6 | 6 | 3 |
| Avg. Queue[2] (ft./ln) | 150 | 175 | 100 | 0 | 150 | 150 | 75 |
| 95th%. Queue (veh/ln.) | 11 | 11 | 8 | 1 | 10 | 10 | 6 |
| 95th%. Queue[2] (ft./ln) | 275 | 275 | 200 | 25 | 250 | 250 | 150 |
| Storage (ft./ ln.) | 300 | 830 | 365 | 575 | 615 | 375 | 210 |
| Adequate (Y/N) | Y | Y | Y | Y | Y | Y | Y |
| ***Background*** | | | | | | | |
| Cycle/Delay[1] (sec) | 100 | 265 | 160 | 16.2 | 85 | 181 | 181 |
| Volume (vphpl ) | 239 | 95 | 228 | 120 | 312 | 167 | 117 |
| Avg. Queue (veh/ln.) | 7 | 7 | 10 | 1 | 7 | 8 | 6 |
| Avg. Queue[2] (ft./ln) | 175 | 175 | 250 | 25 | 175 | 200 | 150 |
| 95th%. Queue (veh/ln.) | 11 | 12 | 16 | 2 | 12 | 13 | 10 |
| 95th%. Queue[2] (ft./ln) | 275 | 300 | 400 | 50 | 300 | 325 | 250 |
| Storage (ft./ ln.) | 300 | 830 | 365 | 575 | 615 | 375 | 210 |
| Adequate (Y/N) | Y | Y | N | Y | Y | Y | N |
| ***Background Plus Project*** | | | | | | | |
| Cycle/Delay[1] (sec) | 100 | 265 | 160 | 89 | 85 | 181 | 181 |
| Volume (vphpl ) | 244 | 102 | 268 | 174 | 325 | 216 | 129 |
| Avg. Queue (veh/ln.) | 7 | 8 | 12 | 4 | 8 | 11 | 6 |
| Avg. Queue[2] (ft./ln) | 175 | 200 | 300 | 100 | 200 | 275 | 150 |
| 95th%. Queue (veh/ln.) | 11 | 12 | 18 | 8 | 12 | 17 | 11 |
| 95th%. Queue[2] (ft./ln) | 275 | 300 | 450 | 200 | 300 | 425 | 275 |
| Storage (ft./ ln.) | 300 | 830 | 365 | 575 | 615 | 375 | 210 |
| Adequate (Y/N) | Y | Y | N | Y | Y | N | N |
| **Project Related Operational Deficiency?** | No | No | **Yes** | No | No | **Yes** | **Yes** |

Notes:

[1] Vehicle queue calculations based on cycle length for signalized intersections.

[2] Assumes 25 feet per vehicle queued.

[3] Cycle length calibrated so calculated average queue length matches conditions observed in the field.

**BOLD** indicates that the storage cannot accommodate the anticipated 95th percentile queue under background plus project conditions and the 95th percentile queue is expected to increase by at least one vehicle compared to background conditions.

**Table 22**
**PM Queuing Analysis Summary**

| | Fair Oaks Avenue and US 101 NB Ramps | Fair Oaks Avenue and Kifer Road | Sunnyvale-Saratoga Road and Remington Drive | Wolfe Road and Central Expressway Ramps | Wolfe Road and Kifer Road | Wolfe Road and Reed Avenue | Lawrence Expressway and Kifer Road | |
|---|---|---|---|---|---|---|---|---|
| **Movement:** | **NBL** | **WBL [3]** | **WBL** | **NBL** | **WBL [3]** | **SBL [3]** | **NBL** | **EBL** |
| ***Existing*** | | | | | | | | |
| Cycle/Delay[1] (sec) | 95 | 60 | 160 | 160 | 205 | 210 | 190 | 190 |
| Volume (vphpl ) | 231 | 146 | 186 | 114 | 220 | 96 | 34 | 89 |
| Avg. Queue (veh/ln.) | 6 | 2 | 8 | 5 | 13 | 6 | 2 | 5 |
| Avg. Queue[2] (ft./ln) | 150 | 50 | 200 | 125 | 325 | 150 | 50 | 125 |
| 95th%. Queue (veh/ln.) | 10 | 5 | 13 | 9 | 19 | 10 | 4 | 9 |
| 95th%. Queue[2] (ft./ln) | 250 | 125 | 325 | 225 | 475 | 250 | 100 | 225 |
| Storage (ft./ ln.) | 260 | 830 | 370 | 300 | 185 | 240 | 375 | 210 |
| Adequate (Y/N) | Y | Y | Y | Y | N | N | Y | N |
| ***Background*** | | | | | | | | |
| Cycle/Delay[1] (sec) | 95 | 60 | 160 | 160 | 205 | 210 | 190 | 190 |
| Volume (vphpl ) | 344 | 173 | 196 | 179 | 296 | 96 | 52 | 236 |
| Avg. Queue (veh/ln.) | 9 | 3 | 9 | 8 | 17 | 6 | 3 | 12 |
| Avg. Queue[2] (ft./ln) | 225 | 75 | 225 | 200 | 425 | 150 | 75 | 300 |
| 95th%. Queue (veh/ln.) | 14 | 6 | 14 | 13 | 24 | 10 | 6 | 19 |
| 95th%. Queue[2] (ft./ln) | 350 | 150 | 350 | 325 | 600 | 250 | 150 | 475 |
| Storage (ft./ ln.) | 260 | 830 | 370 | 300 | 185 | 240 | 375 | 210 |
| Adequate (Y/N) | N | Y | Y | N | N | N | Y | N |
| ***Background Plus Project*** | | | | | | | | |
| Cycle/Delay[1] (sec) | 95 | 60 | 160 | 160 | 205 | 210 | 190 | 190 |
| Volume (vphpl ) | 391 | 219 | 208 | 210 | 333 | 105 | 58 | 314 |
| Avg. Queue (veh/ln.) | 10 | 4 | 9 | 9 | 19 | 6 | 3 | 17 |
| Avg. Queue[2] (ft./ln) | 250 | 100 | 225 | 225 | 475 | 150 | 75 | 425 |
| 95th%. Queue (veh/ln.) | 16 | 7 | 14 | 15 | 26 | 10 | 6 | 24 |
| 95th%. Queue[2] (ft./ln) | 400 | 175 | 350 | 375 | 650 | 250 | 150 | 600 |
| Storage (ft./ ln.) | 260 | 830 | 370 | 300 | 185 | 240 | 375 | 210 |
| Adequate (Y/N) | N | Y | Y | N | N | N | Y | N |
| **Project Related Operational Deficiency?** | **Yes** | No | No | **Yes** | **Yes** | No | No | **Yes** |

Notes:

[1] Vehicle queue calculations based on cycle length for signalized intersections.

[2] Assumes 25 feet per vehicle queued.

[3] Cycle length calibrated so calculated average queue length matches conditions observed in the field.

**BOLD** indicates that the storage cannot accommodate the anticipated 95th percentile queue under background plus project conditions and the 95th percentile queue is expected to increase by at least one vehicle compared to background conditions.

## Potential Impacts to Transit Facilities

The project site is located about 3,700 feet from the Lawrence Caltrain Station. Under existing conditions, there is not a continuous pedestrian path between the project site and the Lawrence Caltrain Station. The proposed project includes frontage improvements along both the north and south project site. Given the project's free daily shuttle service and the site's proximity to the Lawrence Caltrain Station, it is possible that some Intuitive Surgical employees would utilize Caltrain. Several trains currently operate at or near capacity. The Caltrain electrification project would enable Caltrain to provide more frequent train service at the Lawrence Caltrain station. Caltrain predicts an initial capacity increase of over 30%. It is expected that the Caltrain electrification project would accommodate the potential increase in transit ridership generated by the project. It is assumed that if the free shuttle service becomes full, employers would increase their funding for the service as required by their TDM requirements or as a part of their commuter benefits, and additional shuttles would be provided to meet the demand.

There is also one ACE shuttle that has a bus stop within ¼ of the project site. There probably would be employees of the project that would ride this bus. This route has sufficient capacity to accommodate additional riders.

### Transit Travel Time Impacts

Currently, ACE bus route 822 travels within the project vicinity through some of the study intersections. To assess the transit travel time impacts, the bus route travel times in the study area under background plus project conditions were compared to background conditions. Bus route travel times are estimated using published schedules and adjusted based on delays experienced at study intersection movements. VTA does not have established criteria to determine impact to transit services. Therefore, this analysis is presented for information purposes only.

The results show that there would be minimal changes in transit delay in the study area under the project scenario. For the ACE Gray Shuttle, the project would increase route delay by up to 65 seconds during the peak hours. The proposed project would be located within and consistent with the proposed Lawrence Station Area Plan (LSAP) Update, and the cumulative transit related impacts are included in the traffic impact analysis report prepared by the LSAP-Update study. The project is expected to worsen left-turn queuing at six left-turn movements (identified in above section). The ACE Gray Shuttle would not turn left at these six left-turn movements. The results of the transit travel time comparison are summarized in Table 23.

**Table 23**
**Transit Travel Time Delay Analysis**

| | | Existing | | Background | Background + Project | | |
|---|---|---|---|---|---|---|---|
| Route | Peak Hour | Travel Time (min) | Delay in the Study Area (sec) | Delay in the Study Area (sec) | Delay in the Study Area (sec) | Change in Delay (sec) | % Change in Travel Time |
| ***ACE 822 (Gray Shuttle)*** [1] | | | | | | | |
| Northbound | PM | 40 | 326.1 | 389.9 | 426.9 | 37.0 | 1.50% |
| Southbound | AM | 32 | 328.8 | 478.8 | 543.3 | 64.5 | 3.12% |

Notes
[1] ACE 822 operates with northbound services during the PM peak commute period and southbound services during the AM peak commute period.

## Potential Impacts to Pedestrian Facilities

The proposed project is expected to generate pedestrian walking trips between the project site and the nearby Lawrence Caltrain Station. As part of the proposed project, sidewalks would be added on the Kifer Road project frontages. The project proposes detached sidewalks along the streets fronting the south project site. Detached sidewalks provide barriers between pedestrians and roadway traffic and would improve pedestrian safety and comfort levels. The project also proposes a new multi-modal path that would create a continuous pedestrian and bicycle network from the Caltrain Station through to Kifer Road along the south and west boundaries of the south site (see Figure 2). A continuous pedestrian network from the project site to the Lawrence Caltrain Station is anticipated with the buildout of the LSAP.

Outside of trips to and from the Caltrain station, the project is expected to generate minimal pedestrian traffic to the surrounding area. The project plans to provide various on-site services to reduce daily trips, including food service, food vending, postage and mail services, onsite ATM, and onsite dry cleaning and laundry. The project would also provide a fitness center, jogging paths, and private recreational facilities.

The proposed project would install a private pedestrian bridge across Kifer Road connecting the north project site to the south project site. This would provide a safe way for employees to access both buildings, without impacting traffic on Kifer Road. The project also proposes crosswalks at all legs of the Commercial Street and Kifer Road intersection and the north, east, and west legs of the proposed signalized driveway. Crosswalks are also proposed along Kifer Road at the two visitor driveways and at various locations within the project site.

The project is consistent with the proposed LSAP-Update plan and would improve pedestrian facilities by providing sidewalks, crosswalks, and a continuous connection between the project site and the Lawrence Caltrain Station.

## Potential Impacts to Bicycle Facilities

Within the immediate project vicinity, bike lanes are present on Kifer Road, Evelyn Avenue, Reed Avenue/Old San Francisco Road, Wolfe Road, and Arques Avenue (see Figure 4 in Chapter 2). The project site is located within an industrial area, and nearby streets carry high traffic volumes. The proposed project is expected to generate bicycle trips between the project site and the Lawrence Caltrain Station. There are currently no continuous bicycle facilities connecting the project site to the Caltrain Station. The project proposes a new multi-modal path that would create a continuous pedestrian and bicycle network from the Caltrain Station through to Kifer Road along the south and west boundaries of the south site (see Figure 2).

The project is consistent with the proposed LSAP-Update plan and would improve bicycle facilities by providing a continuous connection between the project site and the Lawrence Caltrain Station.

# Site Access and Circulation

The evaluation of site access and circulation is based on the plan dated February 28, 2020. Site access and circulation was reviewed in accordance with generally accepted traffic engineering standards.

## Site Access

Vehicular access to the project site would be provided via four driveways along Kifer Road. Two driveways would provide access to the north project site and two driveways would provide access to the south project site. All four driveways would be full access. The eastern driveway of the north site is proposed to be signalized and would provide access to the employee basement parking and loading dock at the office building. The western driveway of the north site would provide access to the visitor surface parking lot and drop-off location. The western driveway of the south site would be the south leg of the existing Commercial Street and Kifer Road intersection and would provide access to the employee parking structure, visitor surface parking lot, and loading docks at the research and development building. The eastern driveway of the south site would provide access for pick-ups and drop-offs. The driveways are at least twenty feet wide and meet the Sunnyvale Municipal Code (Chapter 19.46.120).

### Site Access Queuing

As shown on Figure 2, access to the main parking areas is provided by the north leg of the proposed signalized driveway at 1020 Kifer Road for the north site and the south leg of the Commercial Street and Kifer Road intersection for the south site. The western driveway of the south site would have two inbound lanes, which would provide more on-site storage capacity for potential inbound vehicles queuing at the on-site security gate. In addition, the parking garage driveway on the south site would have a reversible lane, providing two inbound lanes during the AM and two outbound lanes during the PM. The reversible lane would provide more throughput capacity through the on-site security gate for inbound vehicles in the morning and exiting vehicles during the evening.

A queuing analysis (shown on Table 24) indicates that the 95$^{th}$ percentile queue for the southbound left-turn movement at the north site's signalized driveway would be 200 feet during the PM peak hour. The 95$^{th}$ percentile queue for the northbound left-turn movement at the Commercial Street driveway would be 150 feet during the PM peak hour. Both driveways queues would extend out of the turn pocket towards the parking garage exits. All other driveway entrances and exits would have sufficient storage to accommodate the anticipated 95$^{th}$ percentile queues. While the 95$^{th}$ percentile queues for vehicles exiting the project driveways would extend beyond the proposed turn pockets, this queue length is expected to be observed only once or twice during the peak hour. As shown on Table 24, the average queue lengths for existing vehicles do not extend beyond the turn pockets.

**Table 24**
**Queuing Analysis – Project Driveways**

| Movement: | Commercial Street and Kifer Road | | | | 1020 Kifer Road Driveway and Kifer Road | | | |
|---|---|---|---|---|---|---|---|---|
| Peak Hour: | NBL AM | NBL PM | WBL AM | WBL PM | SBL AM | SBL PM | EBL AM | EBL PM |
| ***Background Plus Project*** | | | | | | | | |
| Cycle/Delay[1] (sec) | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| Volume (vphpl ) | 33 | 129 | 171 | 40 | 30 | 177 | 120 | 22 |
| Avg. Queue (veh/ln.) | 1 | 3 | 4 | 1 | 1 | 4 | 3 | 1 |
| Avg. Queue[2] (ft./ln) | 25 | 75 | 100 | 25 | 25 | 100 | 75 | 25 |
| 95th%. Queue (veh/ln.) | 3 | 6 | 8 | 3 | 2 | 8 | 6 | 2 |
| 95th%. Queue[2] (ft./ln) | 75 | 150 | 200 | 75 | 50 | 200 | 150 | 50 |
| Storage (ft./ ln.) | 135 | 135 | 650 | 650 | 125 | 125 | 325 | 325 |
| Adequate (Y/N) | Y | N | Y | Y | Y | N | Y | Y |

Notes:
[1] Vehicle queue calculations are based on cycle length for signalized intersections, and movement delay for unsignalized intersections.
[2] Assumes 25 feet per vehicle queued.

**Site Distance at the Project Driveways**

The project access points should be free and clear of any obstructions to optimize sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and other roadway users travelling on adjacent roadways. Landscaping and parking should not conflict with a driver's ability to locate a gap in traffic and see oncoming pedestrians and bicyclists. Adequate corner sight distance (sight distance triangles) should be provided at all site access points in accordance with City standards.

All four project driveways would allow all movements, thus the project traffic exiting these driveways would need to have adequate sight distance in both directions. The speed limit on Kifer Road is 40 miles per hour. The Caltrans recommended stopping sight distance is 360 feet (based on a design speed of 45 mph). Kifer Road under project conditions would not have roadway curves or on-street parking that would block a driver's view of oncoming traffic 360 feet down the road.

**Recommendation**

The project applicant shall ensure that there would not be tall vegetation or objects that could block a driver's view 360 feet down the road as they exit the project driveways on Kifer Road.

## Circulation

The project site would have two main driveway aisles that provide access to the parking garages and two secondary driveway aisles that provide access to visitor parking and drop-off locations. The parking aisles throughout the project site, including the parking garages, are at least 24 feet wide, which would be adequate for two-way vehicle travel and to allow maneuvering in/out of parking spaces. The parking spaces within the parking garages are 8 feet 6 inches wide by 18 feet long satisfying the City of Sunnyvale standard parking space requirements.

**Emergency Vehicles, Truck Access and Circulation**

All driving aisles on the project site are at least 20 feet wide for emergency vehicle access and circulation per City standards. Loading zones and garbage truck access are also provided in accordance with City requirements.

## Parking

The review of on-site parking is based on the plan dated February 28, 2020 and the LSAP parking requirements.

### Vehicle Parking

The project proposes a five-story, above-grade parking structure to serve the south site and a two-story parking basement below the office building to serve the north site. However, up to 180 spaces in the south parking structure would serve the north site. The project proposes to provide 2,550 parking spaces – 822 on the north site and 1,728 on the south site. LSAP requirements are summarized in Table 25.

Based on LSAP parking requirements, the proposed project would be required to provide between 2,550 and 3,943 vehicle parking spaces. Thus, the project vehicle parking would meet the lower end of the required LSAP vehicle parking. Based on the project TDM plan dated February 28, 2020 the project is also providing preferential parking for 128 carpool and pick-up/drop-off locations for shared ride services. This will encourage the use of alternative modes of travel and reduce parking demand.

**Table 25**
**Proposed Project Vehicle Parking Requirement**

| Land Use | Rate | Vehicle Parking Spaces |
|---|---|---|
| **Proposed** | | |
| Office and R&D | - | 2,550 |
| **LSAP Parking Requirements** [1] | | |
| Office [2] | 2.75 - 4.00 per 1,000 s.f. | 966 - 1,404 |
| R&D [2] | 2.00 - 3.20 per 1,000 s.f. | 1,662 - 2,660 |
| ***Total Vehicle Parking Spaces Required*** [3] | | ***2,550 - 3,943*** |

Notes
s.f. = square feet
[1] Source: *Sunnyvale Municipal Code* , Chapter 19.35 Lawrence Station Area Specific Plan District, Table 19.35.080A: Off-Street Vehicle Parking Space Requirements
[2] Amenity areas are not counted towards parking because they only serve onsite employees
[3] Three percent reduction applied due to provision of shower and locker facilities per *Sunnyvale Municipal Code* Section 19.46.100 (e)

## Bicycle Parking Requirements

The project proposes to provide a total of 198 bicycle parking spaces, including 50 short-term bicycle parking spaces and 148 long-term bicycle parking spaces. LSAP requirements are summarized in Table 26.

Based on LSAP parking requirements, the proposed project would be required to provide a total of 197 bicycle parking spaces, including 148 long term secured bicycle parking spaces and 49 short term bicycle racks. Therefore, the project bicycle parking would meet the requirement.

**Table 26**
**Project Bicycle Parking Requirement**

| Land Use | Rate | Bicycle Parking Spaces |
|---|---|---|
| **LSAP Parking Requirements** [1] | | |
| Short Term | 1.0 per 25% of 6,000 s.f. | 49 |
| Long Term | 1.0 per 75% of 6,000 s.f. | 148 |
| ***Total Bicycle Parking Spaces Required*** | | ***197*** |

Notes
s.f. = square feet
[1] Source: *Sunnyvale Municipal Code* , Chapter 19.35 Lawrence Station Area Specific Plan District, Table 19.35.080B: LSAP Bicycle Parking Requirements

# 6. Conclusions

This report presents the results of the transportation impact analysis (TIA) conducted for the proposed Intuitive Surgical Engineering Campus Expansion at 932, 950, and 945-955 Kifer Road in Sunnyvale, California. The project comprises a 15.6-acre site located on the north side of Kifer Road and a 16.8-acre site located on the south side of Kifer Road between Lawrence Expressway and Wolfe Road. The project proposes 380,000 square feet of office space on the north site and 900,000 square feet of research and development space on the south site[1]. The two sites would be connected by a private pedestrian bridge across Kifer Road and would be integrated with the existing nearby Intuitive Surgical facilities. The project proposes to construct the office building on the north site to replace an existing surface parking lot. The research and development building on the south site would replace an existing office building and vacant industrial building. Access to the north site would be primarily provided via a proposed signalized driveway at the east property line, as well as a visitor driveway to the west. Access to the south site would be primarily provided via a proposed driveway on the south leg of the Commercial Street and Kifer Road intersection, as well as a visitor driveway to the east.

This study was conducted for the purpose of identifying the potential near-term traffic impacts related to the proposed development. The project is consistent with the proposed Lawrence Station Area Plan (LSAP) Update project, and the potential long-term traffic impacts are presented in the traffic study conducted for the LSAP-Update.

## Intersection Level of Service Results

The intersection level of service analysis showed that based on City of Sunnyvale intersection impact criteria, the project would generate an adverse intersection impact at five signalized intersections and one unsignalized intersection during at least one peak period.

### Potential Improvements Strategies for Intersection Impacts

Improvement options were studied for the five impacted signalized intersections and two impacted unsignalized intersections. An intersection impact can be satisfactorily addressed by implementing measures that would restore intersection conditions to the LOS standard *or* to an average delay equal to without-project conditions or better.

[1] The project size has since been reduced to 364,000 square feet of office space (including 13,000 square feet of cafeteria space) on the north site and 847,000 square feet of research and development space (including 16,000 square feet of cafeteria space) and an 11,000 square-foot detached amenity building on the south site. This analysis reflects a slightly conservative project description.

**TDM Plan**

The project is consistent with the proposed Lawrence Station Area Plan (LSAP) Update project. Non-residential developments within the LSAP area would be required to implement a Transportation Demand Management (TDM) Plan with a 30% peak hour trip reduction requirement or pay a penalty. For informational purposes, Hexagon examined whether the implementation of such a TDM Plan could eliminate any project impacts under background plus project conditions. If the project implements a TDM Plan with a 30% peak hour trip reduction, the project could generate a lesser impact at all six study intersections under background plus project conditions. However, the proposed TDM Plan would not restore intersection conditions to the LOS standard or to an average delay equal to without-project conditions or better for any intersection under background plus project conditions.

**Wolfe Road and Central Expressway Ramps (#16)**

Under background conditions, the LOS would be an unacceptable LOS F during the PM peak hour. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet the City of Sunnyvale's adverse intersection impact criteria.

> **Potential Improvement:** Improvement would require widening both the eastbound and westbound Central Expressway off-ramps to include one left-turn, one shared through-left lane and one right-turn lane. There appears to be sufficient right-of-way to accommodate the potential improvements. The improvements would lengthen the respective crosswalks by up to 12 feet. The widened approaches would increase traffic exposure time for pedestrians by 3 to 5 seconds and 1 to 3 seconds for bicyclists crossing the intersection.

With the proposed improvement, the intersection would operate at an acceptable LOS D- under background plus project conditions during the PM peak hour. However, the improvement requires widening the Central Expressway off-ramps, which are in the County's jurisdiction, so the City cannot ensure the implementation of the potential improvement. The LSAP requires projects within the plan area to contribute their fair share towards the cost of the identified improvement.

**Lawrence Expressway and Kifer Road (#25)**

Under background conditions, the LOS would be an unacceptable LOS F during both the AM and PM peak hours. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet the City of Sunnyvale's adverse intersection impact criteria.

> **Potential Improvement:** The County of Santa Clara has identified a future project to provide a grade separation at this intersection. This would improve the north-south flow of traffic and potentially address the project's impacts.

The LSAP requires projects within the plan area to contribute their fair share towards the cost of the grade separation at Lawrence Expressway and Kifer Road. This intersection is under Santa Clara County's jurisdiction; therefore, it is up to the County to approve and advance the proposed improvement at the intersection.

**Lawrence Expressway and Monroe Street/Reed Avenue (#26) [CMP]**

Under background conditions, the LOS would be an unacceptable LOS F during the AM peak hour. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet VTA's CMP adverse intersection impact criteria.

> **Potential Improvement:** The County of Santa Clara has identified a future project to provide a grade separation at this intersection. This would improve the north-south flow of traffic and potentially address the project's impact.

The LSAP requires projects within the plan area to contribute to their fair share towards the cost of the grade separation at Lawrence Expressway and Monroe Street/Reed Avenue. This intersection is under Santa Clara County's jurisdiction; therefore, it is up to the County to approve and advance the proposed improvement at the intersection.

**Oakmead Parkway and Central Expressway (#27) [CMP]**

Under background conditions, the LOS would be an unacceptable LOS F during both the AM and PM peak hours. The addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet the City of Sunnyvale's adverse intersection impact criteria.

> **Potential Improvement:** As documented in the *Valley Transportation Plan 2040,* Central Expressway is planned to be widened to six lanes between Lawrence Expressway and San Tomas Expressway without HOV lane operations. This would improve the east-west flow of traffic and potentially address the project's impact.

With the additional lanes, the intersection would operate at an acceptable LOS D- during the AM peak hour and LOS D during the PM peak hour under background plus project conditions. The LSAP requires projects within the plan area to contribute their fair share towards the cost of the identified improvement. This intersection is under Santa Clara County's jurisdiction; therefore, it is up to the County to approve and advance the proposed improvement at the intersection.

**Bowers Avenue and Central Expressway (#29) [CMP]**

Under background conditions, the LOS would be an unacceptable LOS F during the PM peak hour. The addition of project traffic would increase both the critical-movement delay and V/C ratio to meet the County of Santa Clara's adverse intersection impact criteria.

> **Potential Improvement:** According to the *City Place Santa Clara Project Draft Environmental Impact Report*, dated October 2015, the Bowers Avenue/Central Expressway intersection is recommended for lane additions to improve vehicle operations. The City Place Project is responsible for constructing third southbound left-turn and third eastbound left-turn lanes at this intersection.

With the proposed improvement, the intersection would operate at an acceptable LOS E- under background plus project conditions during the PM peak hour. The LSAP requires projects within the plan area to contribute their fair share towards the cost of the identified improvement. This intersection is under Santa Clara County's jurisdiction; therefore, it is up to the County to approve and advance the proposed improvement at the intersection.

**Commercial Street and Kifer Road (#20)**

Under background conditions, the LOS would be an acceptable LOS C during the AM peak hour and an unacceptable LOS F during the PM peak hour. During the AM peak hour, the addition of project traffic would deteriorate traffic operations to an unacceptable LOS F, which meets the City of Sunnyvale's adverse intersection impact criteria. During the PM peak hour, the addition of project traffic would increase both the critical-movement delay and V/C ratio sufficient to meet the City of Sunnyvale's adverse intersection impact criteria. In addition, the intersection would meet the peak-hour signal warrant under background plus project conditions during both the AM and PM peak hours.

**Potential Improvement:** Improvement would require installation of a signal at the intersection of Commercial Street and Kifer Road. Installation of a signal would greatly reduce the delay for southbound vehicles while maintaining minimal delay for westbound and eastbound traffic. The improvement would include one left-turn lane and one shared through-right lane on the southbound approach.

With the proposed improvement, the intersection would operate at an acceptable LOS C+ during the AM peak hour and LOS C during the PM peak hour under background plus project conditions. As discussed in the *Fortinet Traffic Operations Analysis (TOA)*, prepared by Hexagon Transportation Consultants, dated December 5, 2018, a traffic signal would be required to address the potential project impacts generated by the Fortinet project at this intersection. Since the Intuitive Surgical project would also require a traffic signal to address the intersection impact, it should contribute its fair share towards the signal installation costs. As discussed in the Fortinet TOA report, the Fortinet project would generate 76 trips at this intersection during the PM peak hour. The Intuitive Surgical project would generate 538 trips during the PM peak hour at this intersection. Therefore, the Intuitive Surgical project should contribute 88% of the signal installation cost.

**Wolfe Road and Maude Avenue (#13)**

Under existing conditions, the LOS would be an unacceptable LOS F during the PM peak hour. The intersection would meet the peak-hour signal warrant under existing plus project conditions during the PM peak hour and would therefore meet the City of Sunnyvale's adverse intersection impact criteria.

The currently unsignalized intersection at Wolfe Road and Maude Avenue is being signalized by Intuitive Surgical as a part of the 1050 Kifer Road project. With signalization, the intersection would operate at an acceptable LOS C under existing plus project conditions during the PM peak hour.

## Freeway Impacts

The results of the CMP freeway analysis show that the project is anticipated to have an adverse impact on two study freeway segments, identified below:

- SR 237 Eastbound between Lawrence Expressway and Great America Parkway – PM Peak Hour
- SR 237 Westbound between Great America Parkway and Lawrence Expressway – AM Peak Hour

To address the project impact, a trip reduction of 27% would be required for the AM peak hour and 37% would be required for the PM peak hour. As discussed above, the projects within the proposed LSAP plan area would be required to implement TDM measures achieving a 30% peak hour trip reduction. It is unclear whether higher trip reductions are attainable.

The VTA's Valley Transportation Plan (VTP) 2040 identifies freeway express lane projects along SR 237 between N. First Street and SR 85. On the identified freeway segments, the existing HOV lanes are proposed to be converted to express lanes. According to the latest VTA CMP Monitoring Report, the HOV lanes on the impacted segments currently are operating at acceptable levels of service. Therefore, converting the HOV lanes to express lanes could potentially add capacity to the freeway segment. Projects within the proposed LSAP plan area shall participate in VTA's Voluntary Freeway Contribution Program to fund improvements along SR 237.

Freeways are under Caltrans jurisdiction. Therefore, capacity improvements on freeways are beyond the capabilities of the City of Sunnyvale.

## Freeway Ramp Impacts

The results of the ramp analysis show that the study freeway ramps currently have sufficient capacity to service the existing traffic volumes and the ramps would continue to have sufficient capacity to serve the project traffic volumes under project conditions.

## Other Transportation Issues

Hexagon conducted a site plan review, queuing analysis, pedestrian, bicycle and transit facility analysis and parking analysis for the proposed project. Our recommendation is listed below.

### Recommendation

- The project applicant shall ensure that there would not be tall vegetation or objects that could block a driver's view 360 feet down the road as they exit the project driveways on Kifer Road.

# Intuitive Surgical Campus Expansion Transportation Impact Analysis

## Technical Appendices

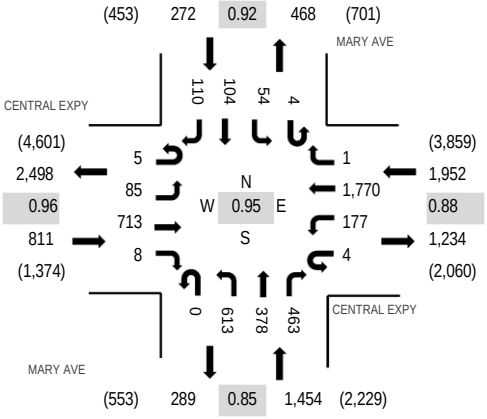
**July 23, 2021**

# Appendix A
## Traffic Counts

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

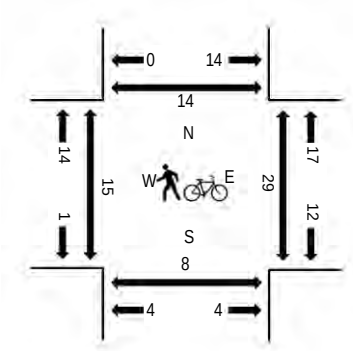
**Location:** 42 MARY AVE & CENTRAL EXPY AM
**Date and Start Time:** Tuesday, November 14, 2017
**Peak Hour:** 07:45 AM - 08:45 AM
**Peak 15-Minutes:** 08:30 AM - 08:45 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | CENTRAL EXPY Eastbound | | | | CENTRAL EXPY Westbound | | | | MARY AVE Northbound | | | | MARY AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 6 | 87 | 0 | 1 | 45 | 439 | 0 | 0 | 61 | 15 | 54 | 0 | 5 | 9 | 26 | 748 | 3,634 | 1 | 5 | 0 | 1 |
| 7:15 AM | 0 | 6 | 108 | 0 | 2 | 51 | 569 | 0 | 0 | 57 | 19 | 59 | 0 | 5 | 13 | 25 | 914 | 4,024 | 0 | 1 | 0 | 0 |
| 7:30 AM | 0 | 15 | 120 | 0 | 1 | 56 | 456 | 0 | 0 | 101 | 33 | 97 | 1 | 1 | 24 | 22 | 927 | 4,231 | 0 | 0 | 0 | 0 |
| 7:45 AM | 1 | 14 | 160 | 0 | 0 | 57 | 439 | 0 | 0 | 135 | 62 | 112 | 0 | 11 | 27 | 27 | 1,045 | 4,489 | 3 | 2 | 0 | 1 |
| 8:00 AM | 0 | 22 | 191 | 4 | 0 | 52 | 510 | 0 | 0 | 123 | 64 | 110 | 2 | 10 | 29 | 21 | 1,138 | 4,281 | 0 | 7 | 3 | 4 |
| 8:15 AM | 4 | 19 | 169 | 3 | 2 | 34 | 396 | 0 | 0 | 175 | 125 | 120 | 2 | 21 | 22 | 29 | 1,121 | | 6 | 5 | 1 | 2 |
| 8:30 AM | 0 | 30 | 193 | 1 | 2 | 34 | 425 | 1 | 0 | 180 | 127 | 121 | 0 | 12 | 26 | 33 | 1,185 | | 4 | 8 | 3 | 7 |
| 8:45 AM | 0 | 31 | 190 | 0 | 0 | 40 | 243 | 4 | 0 | 97 | 103 | 79 | 0 | 17 | 26 | 7 | 837 | | 0 | 0 | 0 | 0 |

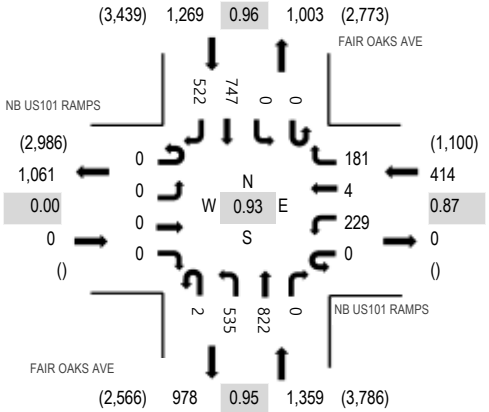
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 1 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 10 |
| Lights | 4 | 85 | 705 | 8 | 4 | 172 | 1,728 | 1 | 0 | 609 | 371 | 457 | 4 | 53 | 102 | 107 | 4,410 |
| Mediums | 1 | 0 | 7 | 0 | 0 | 4 | 38 | 0 | 0 | 4 | 5 | 5 | 0 | 1 | 1 | 3 | 69 |
| Total | 5 | 85 | 713 | 8 | 4 | 177 | 1,770 | 1 | 0 | 613 | 378 | 463 | 4 | 54 | 104 | 110 | 4,489 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

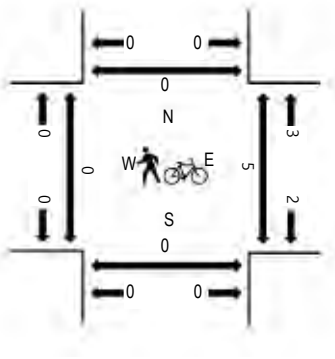
**Location:** 10 FAIR OAKS AVE & NB US101 RAMPS AM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 07:45 AM - 08:45 AM
**Peak 15-Minutes:** 08:00 AM - 08:15 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | NB US101 RAMPS Eastbound | | | | NB US101 RAMPS Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 48 | 1 | 71 | 81 | 0 | 0 | 0 | 98 | 98 | 451 | 2,512 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 48 | 1 | 56 | 0 | 112 | 85 | 0 | 0 | 0 | 144 | 111 | 557 | 2,878 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 82 | 0 | 33 | 2 | 122 | 147 | 0 | 0 | 0 | 186 | 135 | 707 | 2,976 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 94 | 0 | 40 | 1 | 133 | 210 | 0 | 0 | 0 | 174 | 145 | 797 | 3,042 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 54 | 1 | 58 | 1 | 159 | 212 | 0 | 0 | 0 | 198 | 134 | 817 | 3,022 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 46 | 1 | 42 | 0 | 102 | 164 | 0 | 0 | 0 | 190 | 110 | 655 | 2,905 | 0 | 2 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 35 | 2 | 41 | 0 | 141 | 236 | 0 | 0 | 0 | 185 | 133 | 773 | 3,000 | 0 | 3 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 41 | 0 | 157 | 246 | 0 | 0 | 0 | 187 | 121 | 777 | 2,933 | 0 | 2 | 0 | 0 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 40 | 3 | 123 | 230 | 0 | 0 | 0 | 156 | 119 | 700 | 2,791 | 0 | 1 | 0 | 0 |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 42 | 0 | 159 | 231 | 0 | 0 | 0 | 168 | 128 | 750 | | 0 | 3 | 0 | 0 |
| 9:30 AM | 0 | 0 | 0 | 0 | 0 | 36 | 0 | 41 | 1 | 143 | 218 | 0 | 0 | 0 | 150 | 117 | 706 | | 0 | 0 | 0 | 0 |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 45 | 2 | 107 | 186 | 0 | 0 | 0 | 151 | 101 | 635 | | 0 | 0 | 0 | 0 |

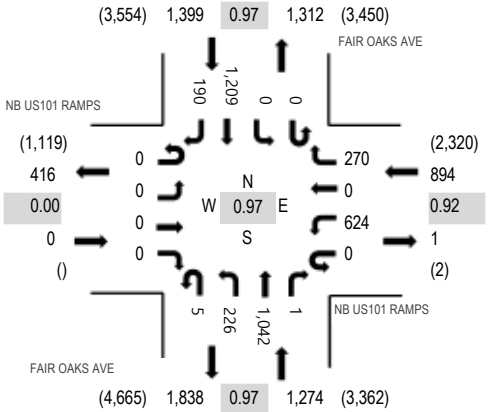
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 2 | 9 |
| Lights | 0 | 0 | 0 | 0 | 0 | 221 | 4 | 175 | 2 | 523 | 810 | 0 | 0 | 0 | 734 | 513 | 2,982 |
| Mediums | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 5 | 0 | 9 | 11 | 0 | 0 | 0 | 12 | 7 | 51 |
| Total | 0 | 0 | 0 | 0 | 0 | 229 | 4 | 181 | 2 | 535 | 822 | 0 | 0 | 0 | 747 | 522 | 3,042 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

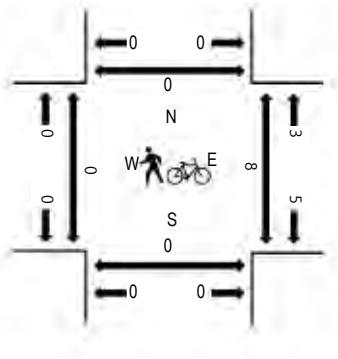
**Location:** 10 FAIR OAKS AVE & NB US101 RAMPS PM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 05:15 PM - 06:15 PM
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | NB US101 RAMPS Eastbound | | | | NB US101 RAMPS Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 103 | 0 | 44 | 0 | 56 | 167 | 0 | 0 | 0 | 168 | 24 | 562 | 2,695 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 96 | 1 | 48 | 0 | 48 | 215 | 0 | 0 | 0 | 169 | 21 | 598 | 2,996 | 0 | 1 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 113 | 1 | 49 | 0 | 48 | 234 | 0 | 0 | 0 | 258 | 35 | 738 | 3,319 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 143 | 0 | 48 | 0 | 49 | 228 | 0 | 0 | 1 | 295 | 33 | 797 | 3,472 | 0 | 1 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 154 | 0 | 62 | 0 | 54 | 232 | 0 | 0 | 0 | 323 | 38 | 863 | 3,549 | 0 | 3 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 172 | 0 | 66 | 0 | 68 | 262 | 0 | 0 | 0 | 307 | 46 | 921 | 3,567 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 157 | 0 | 53 | 0 | 45 | 273 | 0 | 0 | 0 | 329 | 34 | 891 | 3,410 | 0 | 3 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 161 | 0 | 85 | 1 | 55 | 259 | 1 | 0 | 0 | 271 | 41 | 874 | 3,207 | 0 | 2 | 0 | 0 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 134 | 0 | 66 | 4 | 58 | 248 | 0 | 0 | 0 | 302 | 69 | 881 | 2,992 | 0 | 3 | 0 | 0 |
| 6:15 PM | 0 | 0 | 0 | 0 | 0 | 124 | 0 | 73 | 2 | 44 | 232 | 0 | 0 | 0 | 246 | 43 | 764 | | 0 | 0 | 0 | 0 |
| 6:30 PM | 0 | 0 | 0 | 0 | 0 | 108 | 0 | 75 | 2 | 54 | 169 | 0 | 0 | 0 | 231 | 49 | 688 | | 0 | 0 | 0 | 0 |
| 6:45 PM | 0 | 0 | 0 | 0 | 0 | 109 | 0 | 75 | 0 | 67 | 187 | 0 | 0 | 0 | 183 | 38 | 659 | | 0 | 0 | 0 | 0 |

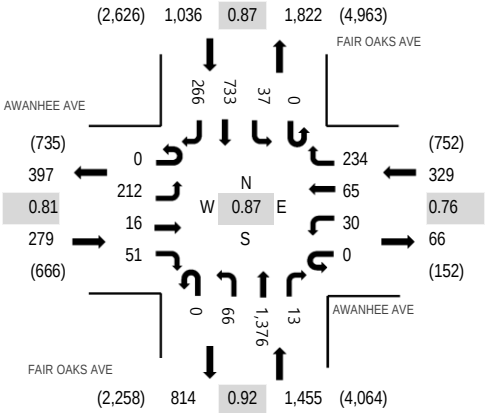
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 4 |
| Lights | 0 | 0 | 0 | 0 | 0 | 621 | 0 | 266 | 5 | 223 | 1,032 | 1 | 0 | 0 | 1,199 | 187 | 3,534 |
| Mediums | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 0 | 1 | 10 | 0 | 0 | 0 | 9 | 2 | 29 |
| Total | 0 | 0 | 0 | 0 | 0 | 624 | 0 | 270 | 5 | 226 | 1,042 | 1 | 0 | 0 | 1,209 | 190 | 3,567 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

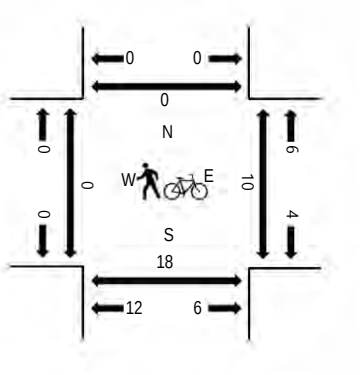
**Location:** 11 FAIR OAKS AVE & AWANHEE AVE AM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 07:45 AM - 08:45 AM
**Peak 15-Minutes:** 07:45 AM - 08:00 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | AWANHEE AVE Eastbound | | | | AWANHEE AVE Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | Total | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 7:00 AM | 0 | 23 | 0 | 21 | 0 | 5 | 1 | 31 | 0 | 6 | 160 | 2 | 0 | 4 | 132 | 24 | 409 | 2,550 | 0 | 0 | 3 | 0 |
| 7:15 AM | 0 | 34 | 2 | 12 | 0 | 10 | 7 | 30 | 0 | 8 | 208 | 3 | 0 | 8 | 155 | 35 | 512 | 2,928 | 0 | 0 | 2 | 0 |
| 7:30 AM | 0 | 77 | 10 | 12 | 0 | 11 | 14 | 53 | 0 | 14 | 238 | 2 | 0 | 7 | 231 | 69 | 738 | 3,090 | 0 | 1 | 7 | 0 |
| 7:45 AM | 0 | 67 | 9 | 18 | 0 | 8 | 37 | 69 | 0 | 25 | 332 | 5 | 0 | 16 | 204 | 101 | 891 | 3,099 | 0 | 1 | 7 | 0 |
| 8:00 AM | 0 | 64 | 4 | 10 | 0 | 9 | 13 | 65 | 0 | 16 | 360 | 2 | 0 | 11 | 173 | 60 | 787 | 2,975 | 0 | 3 | 2 | 0 |
| 8:15 AM | 0 | 36 | 2 | 12 | 0 | 6 | 10 | 51 | 0 | 13 | 295 | 2 | 0 | 5 | 182 | 60 | 674 | 2,880 | 0 | 4 | 2 | 0 |
| 8:30 AM | 0 | 45 | 1 | 11 | 0 | 7 | 5 | 49 | 0 | 12 | 389 | 4 | 0 | 5 | 174 | 45 | 747 | 2,884 | 0 | 2 | 2 | 0 |
| 8:45 AM | 0 | 38 | 4 | 6 | 0 | 8 | 7 | 62 | 0 | 6 | 442 | 1 | 0 | 9 | 162 | 22 | 767 | 2,775 | 0 | 2 | 1 | 0 |
| 9:00 AM | 0 | 31 | 0 | 8 | 0 | 6 | 11 | 42 | 0 | 14 | 370 | 2 | 0 | 8 | 175 | 25 | 692 | 2,583 | 0 | 0 | 1 | 0 |
| 9:15 AM | 0 | 25 | 2 | 10 | 0 | 1 | 7 | 47 | 0 | 10 | 398 | 1 | 1 | 6 | 156 | 14 | 678 | | 0 | 3 | 1 | 0 |
| 9:30 AM | 0 | 29 | 0 | 5 | 0 | 3 | 4 | 35 | 0 | 6 | 380 | 3 | 0 | 6 | 149 | 18 | 638 | | 0 | 1 | 2 | 0 |
| 9:45 AM | 0 | 30 | 1 | 7 | 0 | 2 | 1 | 25 | 0 | 2 | 332 | 1 | 0 | 4 | 157 | 13 | 575 | | 0 | 0 | 1 | 0 |

## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 2 | 0 | 9 |
| Lights | 0 | 208 | 16 | 50 | 0 | 30 | 65 | 231 | 0 | 65 | 1,347 | 11 | 0 | 37 | 708 | 264 | 3,032 |
| Mediums | 0 | 4 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 1 | 22 | 2 | 0 | 0 | 23 | 2 | 58 |
| Total | 0 | 212 | 16 | 51 | 0 | 30 | 65 | 234 | 0 | 66 | 1,376 | 13 | 0 | 37 | 733 | 266 | 3,099 |

All Traffic Data Services Inc.
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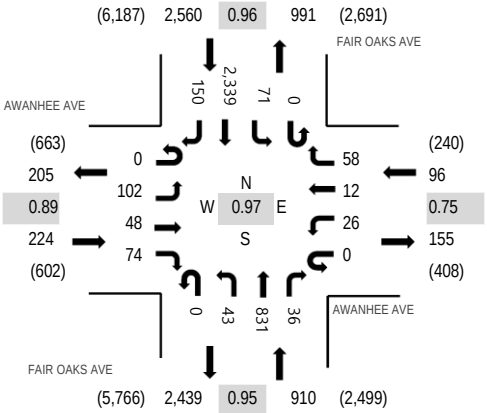
www.alltrafficdata.net

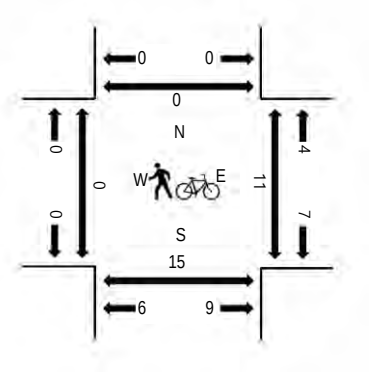
**Location:** 11 FAIR OAKS AVE & AWANHEE AVE PM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | AWANHEE AVE Eastbound | | | | AWANHEE AVE Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 26 | 4 | 12 | 0 | 6 | 0 | 7 | 0 | 11 | 149 | 7 | 0 | 17 | 303 | 29 | 571 | 2,645 | 0 | 1 | 6 | 0 |
| 4:15 PM | 0 | 24 | 5 | 15 | 0 | 4 | 2 | 9 | 0 | 17 | 180 | 8 | 1 | 11 | 318 | 36 | 630 | 2,985 | 0 | 1 | 2 | 0 |
| 4:30 PM | 0 | 25 | 7 | 23 | 0 | 0 | 10 | 10 | 0 | 11 | 172 | 4 | 1 | 14 | 378 | 33 | 688 | 3,327 | 0 | 0 | 2 | 0 |
| 4:45 PM | 0 | 33 | 5 | 11 | 0 | 3 | 2 | 8 | 0 | 14 | 180 | 4 | 0 | 24 | 411 | 61 | 756 | 3,596 | 0 | 6 | 4 | 0 |
| 5:00 PM | 0 | 26 | 8 | 9 | 0 | 6 | 4 | 11 | 0 | 10 | 202 | 8 | 0 | 20 | 577 | 30 | 911 | 3,790 | 0 | 1 | 0 | 0 |
| 5:15 PM | 0 | 26 | 12 | 29 | 0 | 10 | 2 | 20 | 0 | 11 | 221 | 7 | 0 | 9 | 586 | 39 | 972 | 3,735 | 0 | 3 | 4 | 0 |
| 5:30 PM | 0 | 23 | 15 | 21 | 0 | 5 | 5 | 12 | 0 | 7 | 197 | 7 | 0 | 20 | 608 | 37 | 957 | 3,574 | 0 | 5 | 3 | 0 |
| 5:45 PM | 0 | 27 | 13 | 15 | 0 | 5 | 1 | 15 | 0 | 15 | 211 | 14 | 0 | 22 | 568 | 44 | 950 | 3,339 | 0 | 2 | 6 | 0 |
| 6:00 PM | 0 | 26 | 7 | 25 | 0 | 3 | 3 | 14 | 0 | 14 | 183 | 4 | 0 | 21 | 512 | 44 | 856 | 3,093 | 0 | 3 | 2 | 0 |
| 6:15 PM | 0 | 16 | 11 | 20 | 0 | 3 | 3 | 13 | 0 | 15 | 199 | 11 | 0 | 12 | 465 | 43 | 811 | | 0 | 6 | 1 | 0 |
| 6:30 PM | 0 | 17 | 4 | 21 | 0 | 5 | 2 | 18 | 0 | 11 | 167 | 10 | 0 | 22 | 405 | 40 | 722 | | 0 | 1 | 5 | 0 |
| 6:45 PM | 0 | 22 | 4 | 15 | 0 | 3 | 5 | 11 | 0 | 13 | 189 | 16 | 0 | 21 | 366 | 39 | 704 | | 0 | 1 | 3 | 0 |

## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Lights | 0 | 101 | 48 | 74 | 0 | 24 | 12 | 58 | 0 | 42 | 794 | 36 | 0 | 68 | 2,328 | 149 | 3,734 |
| Mediums | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 37 | 0 | 0 | 2 | 11 | 1 | 55 |
| Total | 0 | 102 | 48 | 74 | 0 | 26 | 12 | 58 | 0 | 43 | 831 | 36 | 0 | 71 | 2,339 | 150 | 3,790 |

All Traffic Data Services Inc.
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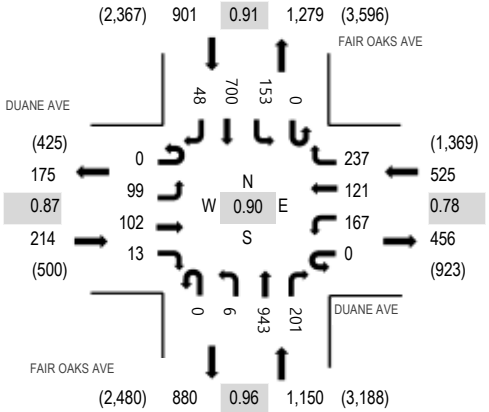
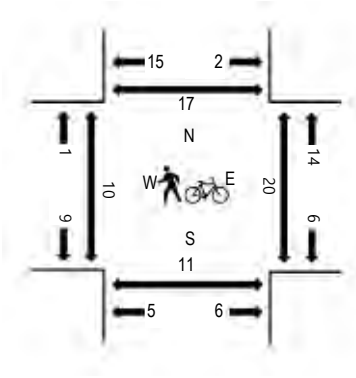
**Location:** 12 FAIR OAKS AVE & DUANE AVE AM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 07:45 AM - 08:45 AM
**Peak 15-Minutes:** 07:45 AM - 08:00 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | DUANE AVE Eastbound | | | | DUANE AVE Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 17 | 4 | 2 | 0 | 43 | 8 | 14 | 0 | 1 | 107 | 12 | 0 | 13 | 155 | 4 | 380 | 2,256 | 0 | 2 | 0 | 4 |
| 7:15 AM | 0 | 19 | 15 | 1 | 0 | 35 | 18 | 24 | 0 | 1 | 140 | 24 | 1 | 17 | 154 | 10 | 459 | 2,558 | 1 | 3 | 0 | 10 |
| 7:30 AM | 0 | 32 | 29 | 3 | 0 | 50 | 35 | 47 | 0 | 2 | 173 | 43 | 0 | 48 | 170 | 10 | 642 | 2,723 | 2 | 0 | 5 | 7 |
| 7:45 AM | 0 | 31 | 34 | 2 | 0 | 54 | 41 | 75 | 0 | 1 | 216 | 65 | 0 | 58 | 179 | 19 | 775 | 2,790 | 2 | 1 | 1 | 10 |
| 8:00 AM | 0 | 31 | 31 | 4 | 0 | 33 | 30 | 52 | 0 | 1 | 230 | 43 | 0 | 24 | 192 | 11 | 682 | 2,724 | 0 | 4 | 1 | 0 |
| 8:15 AM | 0 | 10 | 19 | 5 | 0 | 36 | 24 | 51 | 0 | 4 | 211 | 46 | 0 | 36 | 172 | 10 | 624 | 2,667 | 4 | 5 | 2 | 1 |
| 8:30 AM | 0 | 27 | 18 | 2 | 0 | 44 | 26 | 59 | 0 | 0 | 286 | 47 | 0 | 35 | 157 | 8 | 709 | 2,699 | 2 | 4 | 5 | 1 |
| 8:45 AM | 0 | 22 | 17 | 3 | 0 | 53 | 27 | 75 | 0 | 2 | 300 | 24 | 0 | 26 | 148 | 12 | 709 | 2,579 | 1 | 1 | 2 | 3 |
| 9:00 AM | 0 | 20 | 12 | 1 | 0 | 31 | 26 | 42 | 0 | 3 | 264 | 28 | 0 | 19 | 168 | 11 | 625 | 2,444 | 2 | 1 | 1 | 5 |
| 9:15 AM | 0 | 17 | 5 | 7 | 0 | 41 | 19 | 57 | 0 | 2 | 312 | 24 | 0 | 9 | 154 | 9 | 656 | | 0 | 2 | 2 | 1 |
| 9:30 AM | 0 | 21 | 9 | 4 | 0 | 40 | 14 | 51 | 0 | 3 | 263 | 28 | 0 | 18 | 136 | 2 | 589 | | 0 | 3 | 1 | 1 |
| 9:45 AM | 0 | 15 | 6 | 5 | 0 | 41 | 21 | 32 | 0 | 3 | 252 | 27 | 0 | 10 | 155 | 7 | 574 | | 0 | 1 | 2 | 3 |

## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 4 |
| Lights | 0 | 97 | 102 | 12 | 0 | 159 | 119 | 235 | 0 | 6 | 921 | 196 | 0 | 152 | 675 | 45 | 2,719 |
| Mediums | 0 | 2 | 0 | 1 | 0 | 8 | 2 | 1 | 0 | 0 | 19 | 5 | 0 | 1 | 25 | 3 | 67 |
| Total | 0 | 99 | 102 | 13 | 0 | 167 | 121 | 237 | 0 | 6 | 943 | 201 | 0 | 153 | 700 | 48 | 2,790 |

All Traffic Data Services Inc.
(303) 216-2439
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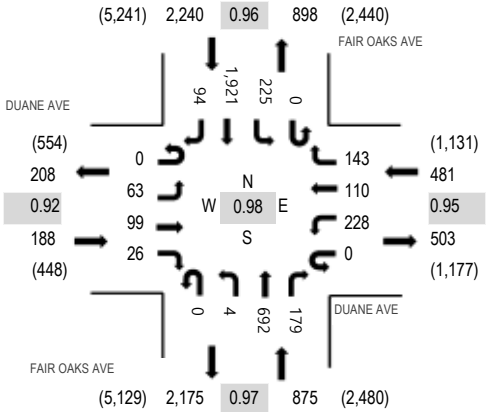
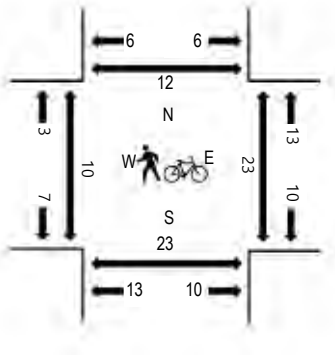
**Location:** 12 FAIR OAKS AVE & DUANE AVE PM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | DUANE AVE Eastbound | | | | DUANE AVE Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 6 | 17 | 3 | 0 | 51 | 22 | 26 | 0 | 2 | 136 | 39 | 0 | 19 | 234 | 21 | 576 | 2,576 | 0 | 0 | 2 | 4 |
| 4:15 PM | 0 | 16 | 15 | 4 | 0 | 42 | 15 | 18 | 0 | 3 | 151 | 39 | 0 | 39 | 254 | 22 | 618 | 2,897 | 2 | 1 | 0 | 2 |
| 4:30 PM | 0 | 10 | 19 | 9 | 0 | 30 | 13 | 30 | 0 | 0 | 144 | 49 | 0 | 43 | 285 | 18 | 650 | 3,242 | 0 | 4 | 2 | 4 |
| 4:45 PM | 0 | 9 | 17 | 4 | 0 | 44 | 13 | 16 | 0 | 6 | 178 | 43 | 0 | 47 | 336 | 19 | 732 | 3,553 | 2 | 7 | 6 | 1 |
| 5:00 PM | 0 | 11 | 25 | 5 | 0 | 58 | 26 | 32 | 0 | 3 | 169 | 42 | 0 | 50 | 455 | 21 | 897 | 3,784 | 0 | 4 | 6 | 3 |
| 5:15 PM | 0 | 16 | 23 | 9 | 0 | 58 | 25 | 43 | 0 | 1 | 178 | 47 | 0 | 54 | 482 | 27 | 963 | 3,709 | 3 | 6 | 1 | 3 |
| 5:30 PM | 0 | 11 | 32 | 5 | 0 | 61 | 25 | 34 | 0 | 0 | 171 | 39 | 0 | 77 | 482 | 24 | 961 | 3,529 | 3 | 8 | 3 | 2 |
| 5:45 PM | 0 | 25 | 19 | 7 | 0 | 51 | 34 | 34 | 0 | 0 | 174 | 51 | 0 | 44 | 502 | 22 | 963 | 3,263 | 1 | 5 | 6 | 3 |
| 6:00 PM | 0 | 12 | 17 | 10 | 0 | 52 | 28 | 29 | 0 | 3 | 169 | 22 | 0 | 27 | 427 | 26 | 822 | 2,940 | 3 | 2 | 4 | 5 |
| 6:15 PM | 0 | 14 | 16 | 6 | 0 | 47 | 17 | 20 | 0 | 4 | 174 | 37 | 0 | 27 | 393 | 28 | 783 | | 1 | 5 | 3 | 2 |
| 6:30 PM | 0 | 11 | 12 | 5 | 0 | 35 | 20 | 12 | 0 | 1 | 171 | 39 | 0 | 18 | 350 | 21 | 695 | | 2 | 4 | 1 | 4 |
| 6:45 PM | 0 | 14 | 10 | 4 | 0 | 35 | 15 | 20 | 0 | 4 | 156 | 35 | 0 | 28 | 294 | 25 | 640 | | 4 | 1 | 2 | 8 |

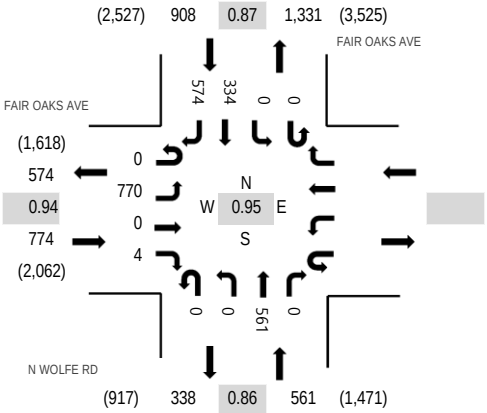
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| Lights | 0 | 63 | 99 | 26 | 0 | 224 | 110 | 142 | 0 | 4 | 687 | 175 | 0 | 224 | 1,907 | 94 | 3,755 |
| Mediums | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 1 | 14 | 0 | 27 |
| Total | 0 | 63 | 99 | 26 | 0 | 228 | 110 | 143 | 0 | 4 | 692 | 179 | 0 | 225 | 1,921 | 94 | 3,784 |

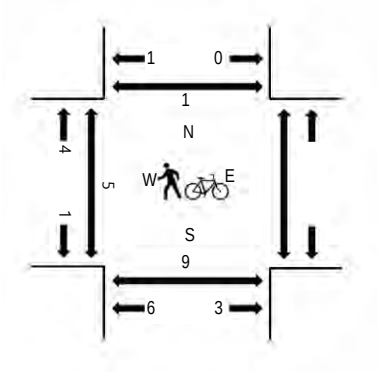
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

**Location:** 13 N WOLFE RD & FAIR OAKS AVE AM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 07:45 AM - 08:45 AM
**Peak 15-Minutes:** 07:45 AM - 08:00 AM

## Peak Hour - All Vehicles




## Peak Hour - Pedestrians/Bicycles in Crosswalk




Note: Total study counts contained in parentheses.

## Traffic Counts

| Interval Start Time | FAIR OAKS AVE Eastbound | | | | Westbound | | | | N WOLFE RD Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 82 | 0 | 0 | | | | | 0 | 0 | 48 | 0 | 0 | 0 | 38 | 156 | 324 | 1,767 | 1 | | 0 | 0 |
| 7:15 AM | 0 | 122 | 0 | 0 | | | | | 0 | 0 | 59 | 0 | 0 | 0 | 62 | 124 | 367 | 2,002 | 2 | | 0 | 0 |
| 7:30 AM | 0 | 136 | 0 | 0 | | | | | 0 | 0 | 135 | 0 | 0 | 0 | 71 | 146 | 488 | 2,147 | 1 | | 0 | 0 |
| 7:45 AM | 0 | 206 | 0 | 0 | | | | | 0 | 0 | 157 | 0 | 0 | 0 | 77 | 148 | 588 | 2,243 | 1 | | 1 | 0 |
| 8:00 AM | 0 | 175 | 0 | 1 | | | | | 0 | 0 | 117 | 0 | 0 | 0 | 106 | 160 | 559 | 2,207 | 4 | | 5 | 1 |
| 8:15 AM | 0 | 179 | 0 | 1 | | | | | 0 | 0 | 115 | 0 | 0 | 0 | 78 | 139 | 512 | 2,184 | 0 | | 1 | 0 |
| 8:30 AM | 0 | 210 | 0 | 2 | | | | | 0 | 0 | 172 | 0 | 0 | 0 | 73 | 127 | 584 | 2,229 | 0 | | 0 | 0 |
| 8:45 AM | 0 | 195 | 0 | 1 | | | | | 0 | 0 | 131 | 0 | 0 | 0 | 79 | 146 | 552 | 2,145 | 1 | | 0 | 0 |
| 9:00 AM | 0 | 186 | 0 | 1 | | | | | 0 | 0 | 136 | 0 | 0 | 0 | 81 | 132 | 536 | 2,086 | 0 | | 2 | 0 |
| 9:15 AM | 0 | 202 | 0 | 0 | | | | | 0 | 0 | 155 | 0 | 0 | 0 | 91 | 109 | 557 | | 0 | | 1 | 0 |
| 9:30 AM | 0 | 186 | 0 | 1 | | | | | 0 | 0 | 129 | 0 | 0 | 0 | 72 | 112 | 500 | | 1 | | 1 | 0 |
| 9:45 AM | 0 | 175 | 0 | 1 | | | | | 0 | 0 | 117 | 0 | 0 | 0 | 81 | 119 | 493 | | 0 | | 1 | 0 |

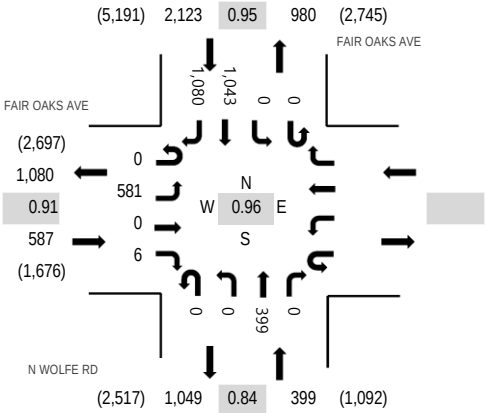
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 1 | 0 | 0 | | | | | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 4 |
| Lights | 0 | 753 | 0 | 4 | | | | | 0 | 0 | 544 | 0 | 0 | 0 | 324 | 554 | 2,179 |
| Mediums | 0 | 16 | 0 | 0 | | | | | 0 | 0 | 15 | 0 | 0 | 0 | 9 | 20 | 60 |
| Total | 0 | 770 | 0 | 4 | | | | | 0 | 0 | 561 | 0 | 0 | 0 | 334 | 574 | 2,243 |

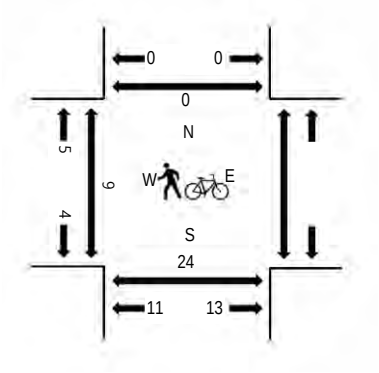
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

**Location:** 13 N WOLFE RD & FAIR OAKS AVE PM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:30 PM - 05:45 PM

## Peak Hour - All Vehicles




## Peak Hour - Pedestrians/Bicycles in Crosswalk




Note: Total study counts contained in parentheses.

## Traffic Counts

| Interval Start Time | FAIR OAKS AVE Eastbound | | | | Westbound | | | | N WOLFE RD Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 129 | 0 | 2 | | | | | 0 | 0 | 73 | 0 | 0 | 0 | 121 | 171 | 496 | 2,241 | 0 | | 0 | 0 |
| 4:15 PM | 0 | 127 | 0 | 3 | | | | | 1 | 0 | 87 | 0 | 0 | 0 | 134 | 169 | 521 | 2,463 | 0 | | 0 | 0 |
| 4:30 PM | 0 | 130 | 0 | 0 | | | | | 0 | 0 | 95 | 0 | 0 | 0 | 166 | 183 | 574 | 2,728 | 0 | | 2 | 0 |
| 4:45 PM | 0 | 162 | 0 | 2 | | | | | 0 | 0 | 86 | 0 | 0 | 0 | 204 | 196 | 650 | 2,960 | 0 | | 3 | 0 |
| 5:00 PM | 0 | 127 | 0 | 1 | | | | | 0 | 0 | 99 | 0 | 0 | 0 | 266 | 225 | 718 | 3,109 | 4 | | 5 | 0 |
| 5:15 PM | 0 | 154 | 0 | 2 | | | | | 0 | 0 | 96 | 0 | 0 | 0 | 267 | 267 | 786 | 3,109 | 0 | | 2 | 0 |
| 5:30 PM | 0 | 149 | 0 | 1 | | | | | 0 | 0 | 119 | 0 | 0 | 0 | 246 | 291 | 806 | 3,020 | 3 | | 5 | 0 |
| 5:45 PM | 0 | 151 | 0 | 2 | | | | | 0 | 0 | 85 | 0 | 0 | 0 | 264 | 297 | 799 | 2,850 | 2 | | 7 | 0 |
| 6:00 PM | 0 | 128 | 0 | 4 | | | | | 0 | 0 | 83 | 0 | 0 | 0 | 244 | 259 | 718 | 2,609 | 1 | | 0 | 0 |
| 6:15 PM | 0 | 119 | 0 | 1 | | | | | 0 | 0 | 110 | 0 | 0 | 0 | 237 | 230 | 697 | | 1 | | 5 | 0 |
| 6:30 PM | 0 | 150 | 0 | 4 | | | | | 0 | 0 | 78 | 0 | 0 | 0 | 190 | 214 | 636 | | 4 | | 3 | 0 |
| 6:45 PM | 0 | 128 | 0 | 0 | | | | | 0 | 0 | 80 | 0 | 0 | 0 | 155 | 195 | 558 | | 2 | | 0 | 0 |

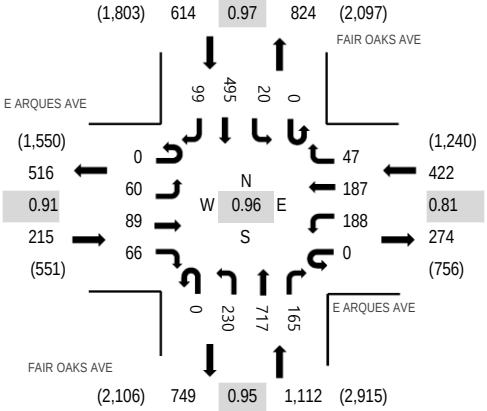
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 0 | 573 | 0 | 6 | | | | | 0 | 0 | 398 | 0 | 0 | 0 | 1,041 | 1,071 | 3,089 |
| Mediums | 0 | 8 | 0 | 0 | | | | | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 9 | 20 |
| Total | 0 | 581 | 0 | 6 | | | | | 0 | 0 | 399 | 0 | 0 | 0 | 1,043 | 1,080 | 3,109 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

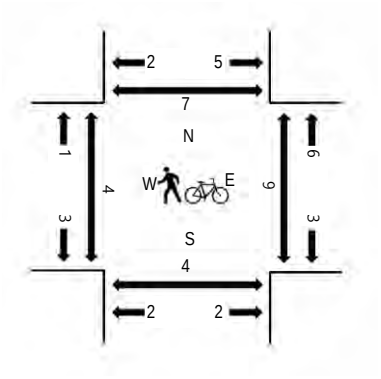
**Location:** 15 FAIR OAKS AVE & E ARQUES AVE AM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 08:15 AM - 09:15 AM
**Peak 15-Minutes:** 08:15 AM - 08:30 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | E ARQUES AVE Eastbound | | | | E ARQUES AVE Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 3 | 10 | 7 | 0 | 33 | 35 | 8 | 0 | 35 | 63 | 10 | 0 | 5 | 137 | 31 | 377 | 1,918 | 1 | 2 | 0 | 2 |
| 7:15 AM | 0 | 13 | 14 | 8 | 0 | 36 | 33 | 4 | 0 | 50 | 98 | 21 | 0 | 4 | 124 | 26 | 431 | 2,058 | 0 | 0 | 0 | 4 |
| 7:30 AM | 0 | 18 | 15 | 8 | 0 | 46 | 47 | 11 | 0 | 50 | 133 | 24 | 0 | 3 | 124 | 35 | 514 | 2,244 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 20 | 23 | 11 | 0 | 56 | 64 | 23 | 0 | 51 | 151 | 34 | 0 | 3 | 130 | 30 | 596 | 2,305 | 1 | 0 | 0 | 2 |
| 8:00 AM | 0 | 13 | 16 | 4 | 0 | 50 | 54 | 10 | 0 | 45 | 123 | 31 | 0 | 8 | 135 | 28 | 517 | 2,288 | 3 | 2 | 3 | 0 |
| 8:15 AM | 0 | 21 | 22 | 16 | 0 | 40 | 46 | 15 | 0 | 60 | 186 | 44 | 0 | 4 | 138 | 25 | 617 | 2,363 | 1 | 4 | 1 | 1 |
| 8:30 AM | 0 | 13 | 23 | 21 | 0 | 52 | 42 | 10 | 0 | 57 | 184 | 31 | 0 | 2 | 121 | 19 | 575 | 2,341 | 0 | 2 | 1 | 1 |
| 8:45 AM | 0 | 15 | 22 | 13 | 0 | 46 | 45 | 9 | 0 | 51 | 181 | 44 | 0 | 5 | 119 | 29 | 579 | 2,328 | 1 | 0 | 1 | 2 |
| 9:00 AM | 0 | 11 | 22 | 16 | 0 | 50 | 54 | 13 | 0 | 62 | 166 | 46 | 0 | 9 | 117 | 26 | 592 | 2,303 | 1 | 2 | 1 | 3 |
| 9:15 AM | 0 | 5 | 33 | 17 | 0 | 51 | 48 | 17 | 0 | 71 | 185 | 48 | 0 | 7 | 92 | 21 | 595 | | 1 | 1 | 0 | 4 |
| 9:30 AM | 0 | 10 | 26 | 14 | 0 | 42 | 42 | 12 | 0 | 74 | 177 | 52 | 0 | 5 | 86 | 22 | 562 | | 3 | 1 | 2 | 4 |
| 9:45 AM | 0 | 13 | 22 | 13 | 0 | 35 | 46 | 15 | 0 | 72 | 148 | 57 | 0 | 11 | 98 | 24 | 554 | | 4 | 2 | 1 | 1 |

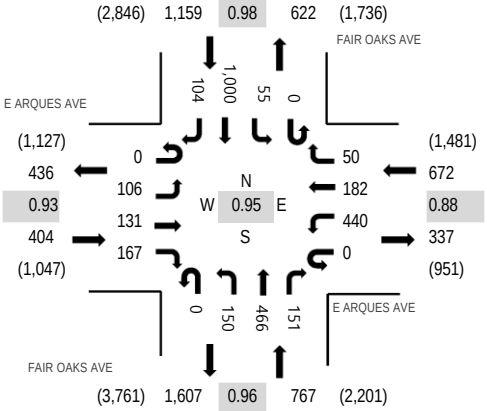
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 0 | 59 | 89 | 63 | 0 | 180 | 181 | 46 | 0 | 227 | 705 | 164 | 0 | 19 | 482 | 96 | 2,311 |
| Mediums | 0 | 1 | 0 | 3 | 0 | 8 | 6 | 1 | 0 | 3 | 12 | 1 | 0 | 1 | 13 | 3 | 52 |
| Total | 0 | 60 | 89 | 66 | 0 | 188 | 187 | 47 | 0 | 230 | 717 | 165 | 0 | 20 | 495 | 99 | 2,363 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

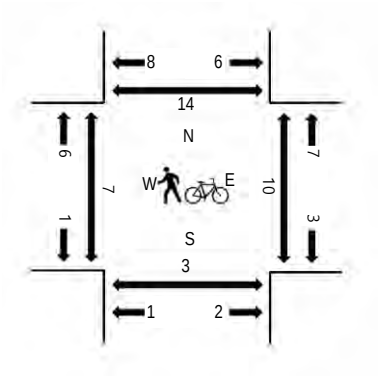
**Location:** 15 FAIR OAKS AVE & E ARQUES AVE PM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 05:15 PM - 06:15 PM
**Peak 15-Minutes:** 05:30 PM - 05:45 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | E ARQUES AVE Eastbound | | | | E ARQUES AVE Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 15 | 20 | 23 | 0 | 36 | 15 | 11 | 0 | 31 | 108 | 26 | 0 | 14 | 148 | 25 | 472 | 2,090 | 2 | 0 | 0 | 0 |
| 4:15 PM | 0 | 22 | 29 | 24 | 0 | 40 | 28 | 8 | 0 | 34 | 90 | 25 | 0 | 4 | 161 | 13 | 478 | 2,263 | 0 | 2 | 0 | 3 |
| 4:30 PM | 0 | 21 | 23 | 29 | 0 | 55 | 19 | 14 | 0 | 33 | 108 | 35 | 0 | 9 | 185 | 15 | 546 | 2,564 | 2 | 0 | 0 | 2 |
| 4:45 PM | 0 | 28 | 33 | 27 | 0 | 64 | 28 | 12 | 0 | 42 | 115 | 32 | 0 | 8 | 185 | 20 | 594 | 2,804 | 1 | 0 | 0 | 2 |
| 5:00 PM | 0 | 22 | 30 | 37 | 0 | 75 | 52 | 14 | 0 | 38 | 97 | 46 | 0 | 14 | 204 | 16 | 645 | 2,950 | 2 | 6 | 2 | 0 |
| 5:15 PM | 0 | 23 | 30 | 38 | 0 | 124 | 45 | 16 | 0 | 39 | 127 | 41 | 0 | 14 | 253 | 29 | 779 | 3,002 | 3 | 0 | 0 | 1 |
| 5:30 PM | 0 | 23 | 33 | 53 | 0 | 134 | 48 | 9 | 0 | 40 | 135 | 30 | 0 | 14 | 239 | 28 | 786 | 2,847 | 2 | 5 | 2 | 4 |
| 5:45 PM | 0 | 33 | 40 | 32 | 0 | 92 | 49 | 7 | 0 | 44 | 115 | 40 | 0 | 13 | 258 | 17 | 740 | 2,662 | 0 | 3 | 0 | 1 |
| 6:00 PM | 0 | 27 | 28 | 44 | 0 | 90 | 40 | 18 | 0 | 27 | 89 | 40 | 0 | 14 | 250 | 30 | 697 | 2,535 | 1 | 2 | 1 | 5 |
| 6:15 PM | 0 | 24 | 33 | 31 | 0 | 65 | 32 | 10 | 0 | 33 | 110 | 47 | 0 | 14 | 197 | 28 | 624 | | 0 | 0 | 1 | 2 |
| 6:30 PM | 0 | 14 | 26 | 29 | 0 | 70 | 43 | 7 | 0 | 38 | 115 | 38 | 0 | 16 | 185 | 20 | 601 | | 0 | 0 | 0 | 1 |
| 6:45 PM | 0 | 29 | 39 | 35 | 0 | 67 | 36 | 8 | 0 | 36 | 112 | 45 | 0 | 8 | 182 | 16 | 613 | | 0 | 0 | 0 | 1 |

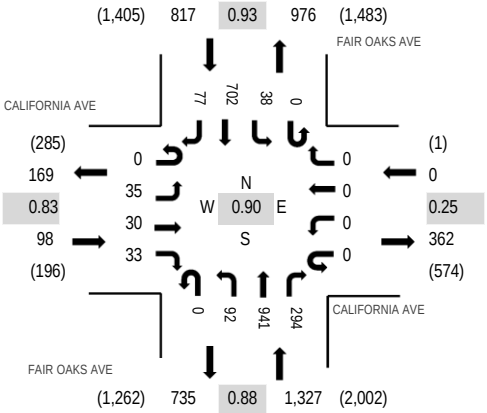
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lights | 0 | 106 | 129 | 167 | 0 | 438 | 182 | 50 | 0 | 150 | 463 | 149 | 0 | 55 | 993 | 104 | 2,986 |
| Mediums | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 7 | 0 | 15 |
| Total | 0 | 106 | 131 | 167 | 0 | 440 | 182 | 50 | 0 | 150 | 466 | 151 | 0 | 55 | 1,000 | 104 | 3,002 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

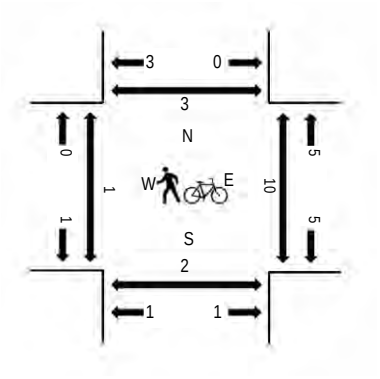
**Location:** 5 FAIR OAKS AVE & CALIFORNIA AVE AM
**Date and Start Time:** Wednesday, December 6, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:45 AM - 09:00 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | CALIFORNIA AVE Eastbound | | | | CALIFORNIA AVE Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | Total | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 7:00 AM | 0 | 4 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 8 | 112 | 21 | 0 | 4 | 108 | 16 | 283 | 1,362 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 6 | 6 | 7 | 0 | 0 | 0 | 0 | 0 | 8 | 114 | 38 | 0 | 8 | 97 | 18 | 302 | 1,594 | 0 | 4 | 0 | 0 |
| 7:30 AM | 0 | 13 | 11 | 9 | 0 | 0 | 0 | 1 | 0 | 15 | 117 | 38 | 0 | 5 | 141 | 12 | 362 | 1,857 | 0 | 4 | 0 | 0 |
| 7:45 AM | 0 | 7 | 10 | 15 | 0 | 0 | 0 | 0 | 0 | 18 | 133 | 53 | 0 | 13 | 145 | 21 | 415 | 2,034 | 0 | 8 | 0 | 1 |
| 8:00 AM | 0 | 8 | 9 | 5 | 0 | 0 | 0 | 0 | 0 | 31 | 192 | 51 | 0 | 10 | 186 | 23 | 515 | 2,242 | 0 | 6 | 0 | 3 |
| 8:15 AM | 0 | 11 | 3 | 9 | 0 | 0 | 0 | 0 | 0 | 20 | 259 | 62 | 0 | 6 | 178 | 17 | 565 | | 0 | 1 | 0 | 0 |
| 8:30 AM | 0 | 9 | 8 | 10 | 0 | 0 | 0 | 0 | 0 | 26 | 227 | 82 | 0 | 13 | 152 | 12 | 539 | | 1 | 2 | 1 | 0 |
| 8:45 AM | 0 | 7 | 10 | 9 | 0 | 0 | 0 | 0 | 0 | 15 | 263 | 99 | 0 | 9 | 186 | 25 | 623 | | 0 | 1 | 1 | 0 |

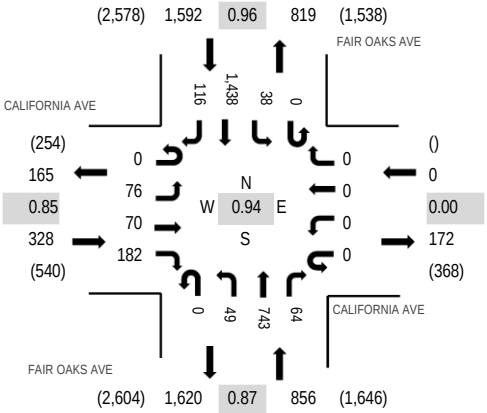
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 6 |
| Lights | 0 | 32 | 29 | 30 | 0 | 0 | 0 | 0 | 0 | 91 | 913 | 291 | 0 | 37 | 682 | 75 | 2,180 |
| Mediums | 0 | 3 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 26 | 3 | 0 | 1 | 16 | 2 | 56 |
| Total | 0 | 35 | 30 | 33 | 0 | 0 | 0 | 0 | 0 | 92 | 941 | 294 | 0 | 38 | 702 | 77 | 2,242 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

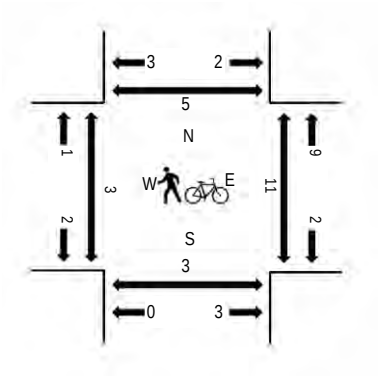
**Location:** 5 FAIR OAKS AVE & CALIFORNIA AVE PM
**Date and Start Time:** Wednesday, December 6, 2017
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:30 PM - 05:45 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | CALIFORNIA AVE Eastbound | | | | CALIFORNIA AVE Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 16 | 26 | 19 | 0 | 0 | 0 | 0 | 0 | 5 | 174 | 12 | 0 | 13 | 186 | 10 | 461 | 1,988 | 0 | 1 | 1 | 0 |
| 4:15 PM | 0 | 12 | 13 | 20 | 0 | 0 | 0 | 0 | 0 | 7 | 173 | 20 | 0 | 8 | 196 | 12 | 461 | 2,158 | 0 | 2 | 0 | 0 |
| 4:30 PM | 0 | 13 | 10 | 21 | 0 | 0 | 0 | 0 | 0 | 10 | 170 | 42 | 0 | 9 | 193 | 10 | 478 | 2,416 | 0 | 1 | 1 | 0 |
| 4:45 PM | 0 | 14 | 11 | 37 | 0 | 0 | 0 | 0 | 0 | 8 | 147 | 22 | 0 | 10 | 312 | 27 | 588 | 2,678 | 0 | 1 | 0 | 1 |
| 5:00 PM | 0 | 19 | 12 | 34 | 0 | 0 | 0 | 0 | 0 | 9 | 170 | 17 | 0 | 9 | 335 | 26 | 631 | 2,776 | 0 | 1 | 1 | 0 |
| 5:15 PM | 0 | 30 | 20 | 46 | 0 | 0 | 0 | 0 | 0 | 11 | 188 | 11 | 0 | 7 | 379 | 27 | 719 | | 0 | 3 | 0 | 3 |
| 5:30 PM | 0 | 14 | 18 | 63 | 0 | 0 | 0 | 0 | 0 | 14 | 216 | 16 | 0 | 13 | 363 | 23 | 740 | | 1 | 1 | 0 | 0 |
| 5:45 PM | 0 | 13 | 20 | 39 | 0 | 0 | 0 | 0 | 0 | 15 | 169 | 20 | 0 | 9 | 361 | 40 | 686 | | 0 | 4 | 0 | 1 |

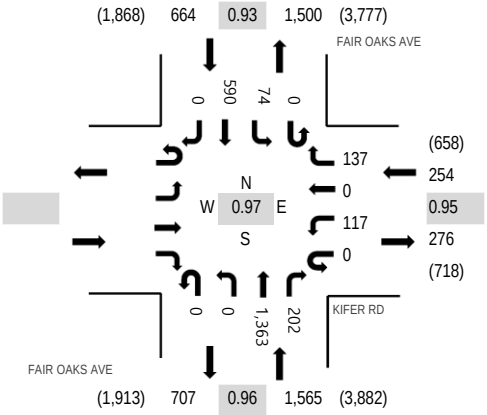
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 0 | 76 | 69 | 181 | 0 | 0 | 0 | 0 | 0 | 48 | 734 | 61 | 0 | 38 | 1,428 | 115 | 2,750 |
| Mediums | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 3 | 0 | 0 | 10 | 1 | 26 |
| Total | 0 | 76 | 70 | 182 | 0 | 0 | 0 | 0 | 0 | 49 | 743 | 64 | 0 | 38 | 1,438 | 116 | 2,776 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

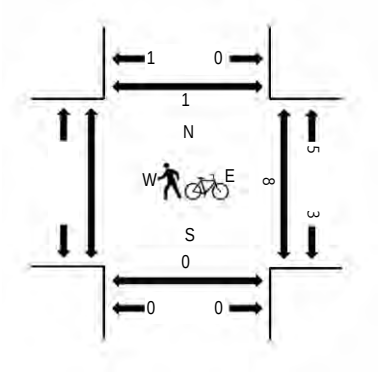
**Location:** 16 FAIR OAKS AVE & KIFER RD AM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 08:15 AM - 09:15 AM
**Peak 15-Minutes:** 09:00 AM - 09:15 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | KIFER RD Eastbound | | | | KIFER RD Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | | | | | 0 | 5 | 0 | 20 | 0 | 0 | 110 | 15 | 1 | 22 | 142 | 0 | 315 | 1,648 | | 1 | 0 | 0 |
| 7:15 AM | | | | | 0 | 9 | 0 | 22 | 0 | 0 | 189 | 15 | 0 | 18 | 149 | 0 | 402 | 1,853 | | 0 | 0 | 0 |
| 7:30 AM | | | | | 0 | 13 | 0 | 29 | 0 | 0 | 241 | 20 | 0 | 13 | 130 | 0 | 446 | 2,076 | | 1 | 0 | 0 |
| 7:45 AM | | | | | 0 | 20 | 0 | 32 | 0 | 0 | 243 | 38 | 0 | 16 | 136 | 0 | 485 | 2,241 | | 1 | 0 | 0 |
| 8:00 AM | | | | | 0 | 22 | 0 | 46 | 0 | 0 | 234 | 33 | 0 | 23 | 162 | 0 | 520 | 2,364 | | 0 | 0 | 1 |
| 8:15 AM | | | | | 0 | 27 | 0 | 37 | 0 | 0 | 335 | 54 | 0 | 18 | 154 | 0 | 625 | 2,483 | | 4 | 0 | 0 |
| 8:30 AM | | | | | 0 | 29 | 0 | 35 | 0 | 0 | 333 | 48 | 0 | 19 | 147 | 0 | 611 | 2,453 | | 2 | 0 | 1 |
| 8:45 AM | | | | | 0 | 29 | 0 | 41 | 0 | 0 | 329 | 47 | 0 | 20 | 142 | 0 | 608 | 2,443 | | 1 | 0 | 0 |
| 9:00 AM | | | | | 0 | 32 | 0 | 24 | 0 | 0 | 366 | 53 | 0 | 17 | 147 | 0 | 639 | 2,396 | | 1 | 0 | 0 |
| 9:15 AM | | | | | 0 | 28 | 0 | 23 | 0 | 0 | 352 | 57 | 0 | 20 | 115 | 0 | 595 | | | 2 | 0 | 0 |
| 9:30 AM | | | | | 0 | 25 | 0 | 39 | 0 | 0 | 353 | 58 | 0 | 29 | 97 | 0 | 601 | | | 0 | 0 | 0 |
| 9:45 AM | | | | | 0 | 42 | 0 | 29 | 0 | 0 | 314 | 45 | 0 | 20 | 111 | 0 | 561 | | | 0 | 0 | 0 |

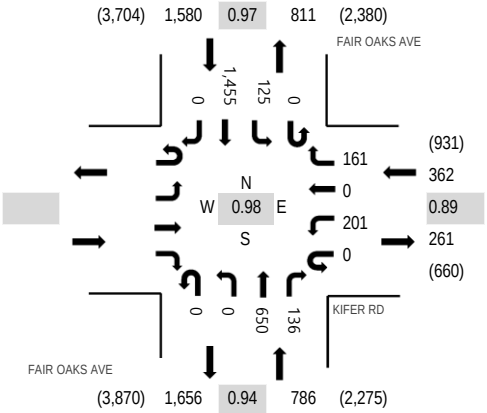
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | | | | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| Lights | | | | | 0 | 115 | 0 | 130 | 0 | 0 | 1,346 | 201 | 0 | 72 | 575 | 0 | 2,439 |
| Mediums | | | | | 0 | 2 | 0 | 6 | 0 | 0 | 17 | 0 | 0 | 2 | 15 | 0 | 42 |
| Total | | | | | 0 | 117 | 0 | 137 | 0 | 0 | 1,363 | 202 | 0 | 74 | 590 | 0 | 2,483 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

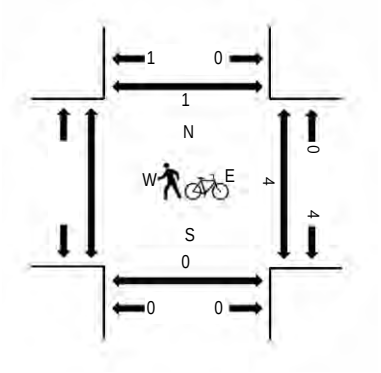
**Location:** 16 FAIR OAKS AVE & KIFER RD PM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 05:15 PM - 06:15 PM
**Peak 15-Minutes:** 05:30 PM - 05:45 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | KIFER RD Eastbound | | | | KIFER RD Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | | | | | 0 | 33 | 0 | 28 | 1 | 0 | 151 | 26 | 0 | 24 | 188 | 0 | 451 | 1,906 | | 0 | 0 | 0 |
| 4:15 PM | | | | | 0 | 34 | 0 | 36 | 0 | 0 | 141 | 26 | 0 | 22 | 184 | 0 | 443 | 2,046 | | 0 | 0 | 0 |
| 4:30 PM | | | | | 0 | 36 | 0 | 37 | 0 | 0 | 143 | 26 | 0 | 23 | 229 | 0 | 494 | 2,271 | | 2 | 0 | 0 |
| 4:45 PM | | | | | 0 | 27 | 0 | 41 | 0 | 0 | 140 | 36 | 0 | 24 | 250 | 0 | 518 | 2,473 | | 1 | 0 | 0 |
| 5:00 PM | | | | | 0 | 35 | 0 | 45 | 0 | 0 | 156 | 26 | 0 | 25 | 304 | 0 | 591 | 2,637 | | 0 | 0 | 0 |
| 5:15 PM | | | | | 0 | 39 | 0 | 42 | 0 | 0 | 153 | 28 | 0 | 25 | 381 | 0 | 668 | 2,728 | | 2 | 0 | 0 |
| 5:30 PM | | | | | 0 | 57 | 0 | 45 | 0 | 0 | 169 | 36 | 0 | 35 | 354 | 0 | 696 | 2,635 | | 0 | 0 | 0 |
| 5:45 PM | | | | | 0 | 55 | 0 | 35 | 0 | 0 | 161 | 36 | 0 | 23 | 372 | 0 | 682 | 2,488 | | 2 | 0 | 0 |
| 6:00 PM | | | | | 0 | 50 | 0 | 39 | 0 | 0 | 167 | 36 | 0 | 42 | 348 | 0 | 682 | 2,367 | | 0 | 0 | 0 |
| 6:15 PM | | | | | 0 | 39 | 0 | 31 | 0 | 0 | 171 | 30 | 0 | 23 | 281 | 0 | 575 | | | 0 | 0 | 1 |
| 6:30 PM | | | | | 0 | 28 | 0 | 35 | 0 | 0 | 185 | 13 | 0 | 25 | 263 | 0 | 549 | | | 0 | 0 | 0 |
| 6:45 PM | | | | | 0 | 40 | 0 | 44 | 0 | 0 | 185 | 33 | 0 | 17 | 242 | 0 | 561 | | | 0 | 0 | 0 |

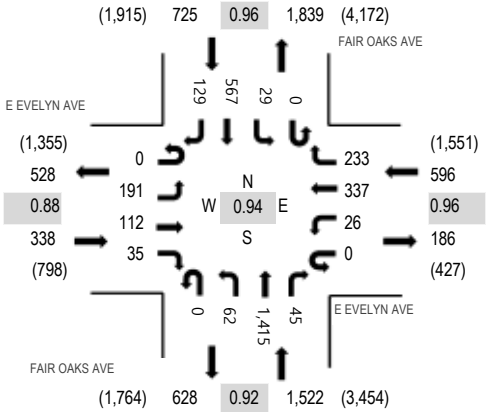
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | | | | | 0 | 201 | 0 | 156 | 0 | 0 | 642 | 135 | 0 | 123 | 1,445 | 0 | 2,702 |
| Mediums | | | | | 0 | 0 | 0 | 5 | 0 | 0 | 8 | 1 | 0 | 2 | 10 | 0 | 26 |
| Total | | | | | 0 | 201 | 0 | 161 | 0 | 0 | 650 | 136 | 0 | 125 | 1,455 | 0 | 2,728 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

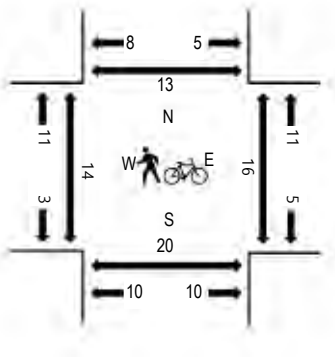
**Location:** 17 FAIR OAKS AVE & E EVELYN AVE AM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 08:15 AM - 09:15 AM
**Peak 15-Minutes:** 08:15 AM - 08:30 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | E EVELYN AVE Eastbound | | | | E EVELYN AVE Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 15 | 26 | 4 | 0 | 5 | 77 | 16 | 0 | 21 | 101 | 5 | 0 | 4 | 111 | 22 | 407 | 1,959 | 0 | 2 | 4 | 3 |
| 7:15 AM | 0 | 16 | 13 | 9 | 0 | 9 | 38 | 21 | 0 | 8 | 147 | 5 | 0 | 5 | 135 | 19 | 425 | 2,225 | 0 | 2 | 3 | 2 |
| 7:30 AM | 0 | 22 | 13 | 10 | 0 | 12 | 60 | 31 | 0 | 8 | 214 | 6 | 0 | 4 | 117 | 25 | 522 | 2,647 | 0 | 2 | 3 | 2 |
| 7:45 AM | 0 | 36 | 22 | 9 | 0 | 21 | 90 | 30 | 0 | 16 | 225 | 4 | 0 | 3 | 123 | 26 | 605 | 2,936 | 3 | 1 | 5 | 6 |
| 8:00 AM | 0 | 38 | 31 | 21 | 0 | 26 | 99 | 32 | 0 | 11 | 224 | 11 | 0 | 5 | 142 | 33 | 673 | 3,120 | 6 | 4 | 3 | 2 |
| 8:15 AM | 0 | 57 | 37 | 7 | 0 | 6 | 93 | 47 | 0 | 14 | 384 | 14 | 0 | 6 | 147 | 35 | 847 | 3,181 | 7 | 7 | 3 | 1 |
| 8:30 AM | 0 | 53 | 24 | 7 | 0 | 2 | 87 | 61 | 0 | 14 | 368 | 16 | 0 | 7 | 139 | 33 | 811 | 3,000 | 2 | 1 | 3 | 3 |
| 8:45 AM | 0 | 45 | 24 | 12 | 0 | 7 | 86 | 54 | 0 | 17 | 360 | 6 | 0 | 8 | 140 | 30 | 789 | 2,831 | 1 | 3 | 1 | 0 |
| 9:00 AM | 0 | 36 | 27 | 9 | 0 | 11 | 71 | 71 | 0 | 17 | 303 | 9 | 0 | 8 | 141 | 31 | 734 | 2,639 | 3 | 4 | 6 | 3 |
| 9:15 AM | 0 | 38 | 17 | 6 | 0 | 12 | 66 | 58 | 0 | 11 | 312 | 4 | 0 | 2 | 112 | 28 | 666 | | 1 | 5 | 2 | 3 |
| 9:30 AM | 0 | 36 | 17 | 5 | 0 | 11 | 59 | 74 | 0 | 8 | 304 | 7 | 0 | 3 | 100 | 18 | 642 | | 0 | 3 | 1 | 0 |
| 9:45 AM | 0 | 29 | 20 | 7 | 0 | 7 | 48 | 53 | 0 | 10 | 261 | 9 | 0 | 5 | 122 | 26 | 597 | | 0 | 5 | 4 | 0 |

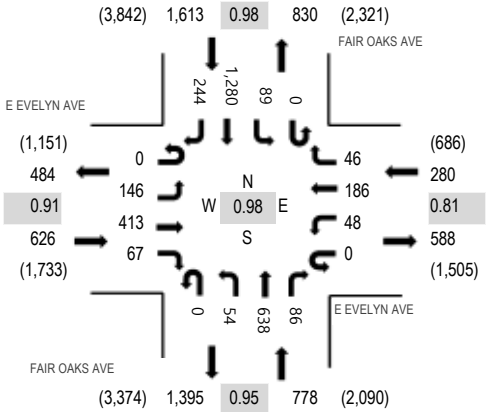
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 5 |
| Lights | 0 | 188 | 109 | 34 | 0 | 26 | 330 | 228 | 0 | 61 | 1,405 | 44 | 0 | 28 | 553 | 125 | 3,131 |
| Mediums | 0 | 2 | 3 | 0 | 0 | 0 | 6 | 5 | 0 | 0 | 10 | 1 | 0 | 1 | 13 | 4 | 45 |
| Total | 0 | 191 | 112 | 35 | 0 | 26 | 337 | 233 | 0 | 62 | 1,415 | 45 | 0 | 29 | 567 | 129 | 3,181 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

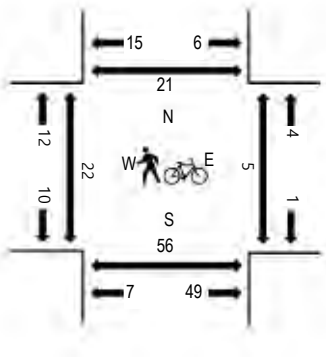
**Location:** 17 FAIR OAKS AVE & E EVELYN AVE PM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 05:15 PM - 06:15 PM
**Peak 15-Minutes:** 05:45 PM - 06:00 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | E EVELYN AVE Eastbound | | | | E EVELYN AVE Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 29 | 49 | 15 | 0 | 5 | 27 | 12 | 0 | 2 | 146 | 9 | 1 | 8 | 180 | 39 | 522 | 2,244 | 0 | 0 | 1 | 0 |
| 4:15 PM | 0 | 25 | 69 | 13 | 0 | 9 | 36 | 9 | 0 | 9 | 123 | 13 | 0 | 14 | 163 | 29 | 512 | 2,419 | 0 | 1 | 3 | 0 |
| 4:30 PM | 0 | 33 | 74 | 16 | 0 | 3 | 23 | 10 | 0 | 7 | 136 | 9 | 0 | 11 | 224 | 41 | 587 | 2,717 | 0 | 4 | 1 | 1 |
| 4:45 PM | 0 | 28 | 94 | 20 | 0 | 4 | 32 | 10 | 0 | 7 | 146 | 8 | 0 | 19 | 217 | 38 | 623 | 2,970 | 1 | 3 | 0 | 2 |
| 5:00 PM | 0 | 44 | 113 | 25 | 0 | 12 | 34 | 8 | 0 | 16 | 119 | 10 | 0 | 24 | 244 | 48 | 697 | 3,191 | 0 | 2 | 3 | 2 |
| 5:15 PM | 0 | 35 | 98 | 11 | 0 | 8 | 50 | 9 | 0 | 9 | 163 | 20 | 0 | 18 | 333 | 56 | 810 | 3,297 | 1 | 1 | 5 | 2 |
| 5:30 PM | 0 | 47 | 109 | 22 | 0 | 18 | 30 | 18 | 0 | 15 | 152 | 20 | 0 | 25 | 324 | 60 | 840 | 3,278 | 8 | 2 | 3 | 3 |
| 5:45 PM | 0 | 33 | 103 | 20 | 0 | 17 | 57 | 12 | 0 | 16 | 155 | 21 | 0 | 22 | 313 | 75 | 844 | 3,097 | 3 | 2 | 5 | 5 |
| 6:00 PM | 0 | 31 | 103 | 14 | 0 | 5 | 49 | 7 | 0 | 14 | 168 | 25 | 0 | 24 | 310 | 53 | 803 | 2,916 | 10 | 0 | 11 | 4 |
| 6:15 PM | 0 | 39 | 100 | 18 | 0 | 10 | 48 | 8 | 0 | 12 | 166 | 22 | 0 | 20 | 281 | 67 | 791 | | 2 | 3 | 11 | 4 |
| 6:30 PM | 0 | 30 | 115 | 24 | 0 | 7 | 23 | 12 | 0 | 4 | 147 | 13 | 0 | 7 | 241 | 36 | 659 | | 2 | 4 | 9 | 1 |
| 6:45 PM | 0 | 40 | 77 | 17 | 0 | 12 | 37 | 15 | 0 | 6 | 155 | 27 | 0 | 12 | 219 | 46 | 663 | | 1 | 0 | 10 | 0 |

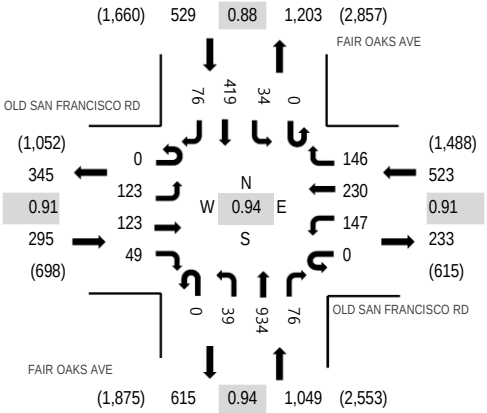
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Lights | 0 | 144 | 410 | 67 | 0 | 48 | 184 | 46 | 0 | 54 | 633 | 85 | 0 | 87 | 1,276 | 244 | 3,278 |
| Mediums | 0 | 2 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 1 | 0 | 2 | 3 | 0 | 18 |
| Total | 0 | 146 | 413 | 67 | 0 | 48 | 186 | 46 | 0 | 54 | 638 | 86 | 0 | 89 | 1,280 | 244 | 3,297 |

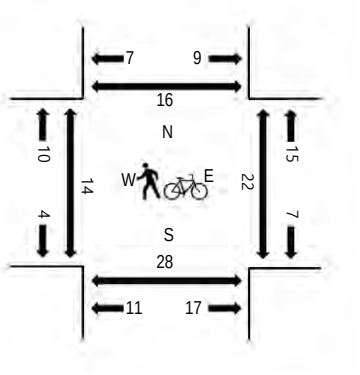
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

**Location:** 19 FAIR OAKS AVE & OLD SAN FRANCISCO RD AM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 08:45 AM - 09:45 AM
**Peak 15-Minutes:** 09:00 AM - 09:15 AM

## Peak Hour - All Vehicles




## Peak Hour - Pedestrians/Bicycles in Crosswalk




Note: Total study counts contained in parentheses.

## Traffic Counts

| Interval Start Time | OLD SAN FRANCISCO RD Eastbound | | | | OLD SAN FRANCISCO RD Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 5 | 6 | 8 | 0 | 10 | 25 | 22 | 0 | 2 | 78 | 11 | 0 | 6 | 127 | 8 | 308 | 1,757 | 1 | 3 | 2 | 1 |
| 7:15 AM | 0 | 14 | 15 | 9 | 0 | 39 | 65 | 22 | 0 | 10 | 111 | 23 | 0 | 7 | 148 | 9 | 472 | 2,023 | 1 | 5 | 6 | 0 |
| 7:30 AM | 0 | 16 | 9 | 6 | 0 | 37 | 50 | 28 | 0 | 10 | 179 | 16 | 0 | 5 | 102 | 16 | 474 | 2,133 | 4 | 5 | 9 | 10 |
| 7:45 AM | 0 | 15 | 19 | 10 | 0 | 46 | 62 | 38 | 0 | 14 | 153 | 13 | 0 | 8 | 109 | 16 | 503 | 2,220 | 6 | 4 | 10 | 10 |
| 8:00 AM | 0 | 16 | 21 | 18 | 0 | 35 | 83 | 34 | 0 | 30 | 167 | 23 | 0 | 12 | 120 | 15 | 574 | 2,291 | 36 | 22 | 14 | 29 |
| 8:15 AM | 0 | 36 | 28 | 19 | 0 | 12 | 78 | 29 | 0 | 22 | 171 | 20 | 0 | 17 | 124 | 26 | 582 | 2,356 | 10 | 11 | 15 | 15 |
| 8:30 AM | 0 | 21 | 29 | 15 | 0 | 32 | 60 | 44 | 0 | 6 | 205 | 25 | 0 | 9 | 93 | 22 | 561 | 2,373 | 0 | 32 | 7 | 29 |
| 8:45 AM | 0 | 33 | 24 | 12 | 0 | 44 | 66 | 25 | 0 | 10 | 207 | 17 | 0 | 9 | 95 | 32 | 574 | 2,396 | 2 | 7 | 9 | 3 |
| 9:00 AM | 0 | 31 | 29 | 11 | 0 | 40 | 56 | 43 | 0 | 10 | 244 | 15 | 0 | 11 | 134 | 15 | 639 | 2,351 | 3 | 6 | 7 | 4 |
| 9:15 AM | 0 | 31 | 36 | 7 | 0 | 38 | 56 | 42 | 0 | 10 | 236 | 21 | 0 | 5 | 107 | 10 | 599 | | 4 | 5 | 5 | 3 |
| 9:30 AM | 0 | 28 | 34 | 19 | 0 | 25 | 52 | 36 | 0 | 9 | 247 | 23 | 0 | 9 | 83 | 19 | 584 | | 4 | 4 | 6 | 3 |
| 9:45 AM | 0 | 29 | 30 | 9 | 0 | 30 | 49 | 35 | 0 | 10 | 186 | 19 | 0 | 11 | 102 | 19 | 529 | | 2 | 2 | 6 | 0 |

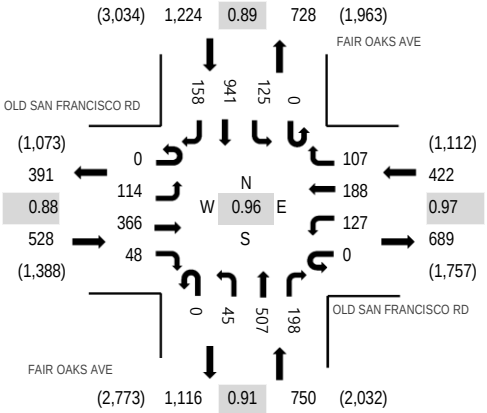
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| Lights | 0 | 123 | 121 | 41 | 0 | 142 | 229 | 139 | 0 | 35 | 926 | 75 | 0 | 30 | 414 | 76 | 2,351 |
| Mediums | 0 | 0 | 2 | 7 | 0 | 5 | 1 | 7 | 0 | 4 | 7 | 1 | 0 | 4 | 5 | 0 | 43 |
| Total | 0 | 123 | 123 | 49 | 0 | 147 | 230 | 146 | 0 | 39 | 934 | 76 | 0 | 34 | 419 | 76 | 2,396 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

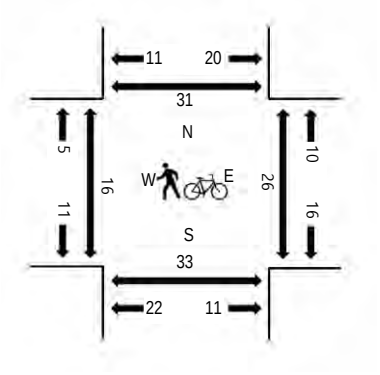
**Location:** 19 FAIR OAKS AVE & OLD SAN FRANCISCO RD PM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 05:15 PM - 06:15 PM
**Peak 15-Minutes:** 05:30 PM - 05:45 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | OLD SAN FRANCISCO RD Eastbound | | | | OLD SAN FRANCISCO RD Westbound | | | | FAIR OAKS AVE Northbound | | | | FAIR OAKS AVE Southbound | | | | Total | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 4:00 PM | 0 | 29 | 67 | 7 | 0 | 32 | 53 | 13 | 0 | 5 | 113 | 27 | 0 | 17 | 142 | 26 | 531 | 2,175 | 1 | 3 | 7 | 3 |
| 4:15 PM | 0 | 19 | 69 | 11 | 0 | 24 | 39 | 18 | 0 | 16 | 106 | 28 | 0 | 14 | 144 | 24 | 512 | 2,264 | 1 | 5 | 4 | 2 |
| 4:30 PM | 0 | 20 | 84 | 13 | 0 | 26 | 34 | 7 | 0 | 9 | 126 | 26 | 0 | 22 | 155 | 30 | 552 | 2,454 | 0 | 8 | 4 | 2 |
| 4:45 PM | 0 | 26 | 77 | 12 | 0 | 21 | 47 | 22 | 0 | 9 | 103 | 44 | 0 | 26 | 166 | 27 | 580 | 2,664 | 3 | 0 | 2 | 4 |
| 5:00 PM | 0 | 25 | 76 | 14 | 0 | 25 | 44 | 12 | 0 | 12 | 131 | 36 | 0 | 31 | 176 | 38 | 620 | 2,842 | 4 | 1 | 6 | 8 |
| 5:15 PM | 0 | 29 | 111 | 10 | 0 | 24 | 56 | 25 | 0 | 9 | 119 | 49 | 0 | 32 | 204 | 34 | 702 | 2,924 | 3 | 9 | 6 | 11 |
| 5:30 PM | 0 | 37 | 90 | 12 | 0 | 36 | 47 | 26 | 0 | 6 | 124 | 42 | 0 | 37 | 261 | 44 | 762 | 2,901 | 5 | 7 | 13 | 8 |
| 5:45 PM | 0 | 28 | 79 | 15 | 0 | 33 | 48 | 27 | 0 | 12 | 131 | 66 | 0 | 30 | 248 | 41 | 758 | 2,746 | 5 | 4 | 4 | 3 |
| 6:00 PM | 0 | 20 | 86 | 11 | 0 | 34 | 37 | 29 | 0 | 18 | 133 | 41 | 0 | 26 | 228 | 39 | 702 | 2,549 | 1 | 5 | 7 | 5 |
| 6:15 PM | 0 | 28 | 90 | 11 | 0 | 36 | 40 | 17 | 0 | 8 | 134 | 46 | 0 | 38 | 192 | 39 | 679 | | 7 | 4 | 9 | 4 |
| 6:30 PM | 0 | 13 | 66 | 10 | 0 | 36 | 55 | 13 | 0 | 8 | 102 | 37 | 0 | 29 | 201 | 37 | 607 | | 2 | 4 | 8 | 2 |
| 6:45 PM | 0 | 24 | 59 | 10 | 0 | 21 | 39 | 16 | 0 | 8 | 118 | 30 | 0 | 29 | 172 | 35 | 561 | | 4 | 2 | 10 | 8 |

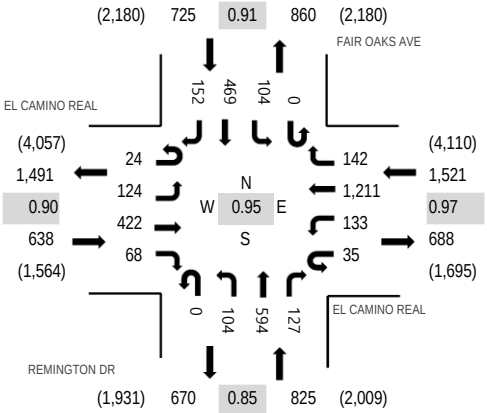
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 0 | 113 | 364 | 45 | 0 | 126 | 188 | 104 | 0 | 42 | 505 | 197 | 0 | 122 | 939 | 158 | 2,903 |
| Mediums | 0 | 1 | 2 | 3 | 0 | 1 | 0 | 3 | 0 | 3 | 2 | 1 | 0 | 3 | 2 | 0 | 21 |
| Total | 0 | 114 | 366 | 48 | 0 | 127 | 188 | 107 | 0 | 45 | 507 | 198 | 0 | 125 | 941 | 158 | 2,924 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

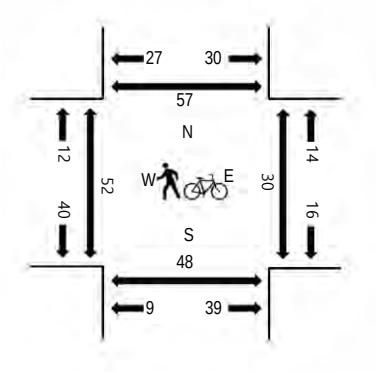
**Location:** 20 REMINGTON DR & EL CAMINO REAL AM
**Date and Start Time:** Tuesday, May 8, 2018
**Peak Hour:** 08:45 AM - 09:45 AM
**Peak 15-Minutes:** 09:15 AM - 09:30 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | EL CAMINO REAL Eastbound | | | | EL CAMINO REAL Westbound | | | | REMINGTON DR Northbound | | | | FAIR OAKS AVE Southbound | | | | Total | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 7:00 AM | 2 | 25 | 41 | 11 | 2 | 7 | 167 | 19 | 0 | 10 | 54 | 10 | 0 | 23 | 112 | 30 | 513 | 2,688 | 2 | 8 | 4 | 1 |
| 7:15 AM | 0 | 14 | 60 | 8 | 7 | 14 | 207 | 35 | 0 | 9 | 76 | 22 | 0 | 22 | 173 | 22 | 669 | 3,041 | 2 | 7 | 1 | 7 |
| 7:30 AM | 1 | 17 | 70 | 5 | 3 | 21 | 215 | 22 | 0 | 7 | 139 | 19 | 0 | 22 | 118 | 38 | 697 | 3,315 | 5 | 5 | 2 | 9 |
| 7:45 AM | 4 | 19 | 64 | 8 | 6 | 15 | 336 | 26 | 0 | 8 | 118 | 18 | 0 | 20 | 131 | 36 | 809 | 3,480 | 3 | 5 | 2 | 4 |
| 8:00 AM | 9 | 24 | 73 | 11 | 1 | 41 | 303 | 30 | 0 | 17 | 124 | 23 | 0 | 34 | 148 | 28 | 866 | 3,605 | 7 | 7 | 5 | 9 |
| 8:15 AM | 2 | 35 | 98 | 24 | 6 | 23 | 334 | 35 | 0 | 17 | 182 | 21 | 0 | 19 | 101 | 46 | 943 | 3,648 | 6 | 8 | 2 | 5 |
| 8:30 AM | 5 | 26 | 80 | 20 | 7 | 22 | 343 | 32 | 0 | 21 | 124 | 22 | 0 | 35 | 99 | 26 | 862 | 3,679 | 6 | 5 | 4 | 4 |
| 8:45 AM | 4 | 32 | 80 | 16 | 3 | 36 | 298 | 37 | 0 | 31 | 187 | 25 | 0 | 23 | 129 | 33 | 934 | 3,709 | 26 | 8 | 32 | 7 |
| 9:00 AM | 5 | 23 | 112 | 23 | 8 | 34 | 287 | 33 | 0 | 28 | 143 | 28 | 0 | 26 | 122 | 37 | 909 | 3,570 | 9 | 6 | 6 | 17 |
| 9:15 AM | 6 | 33 | 104 | 12 | 12 | 32 | 310 | 36 | 0 | 26 | 146 | 47 | 0 | 28 | 133 | 49 | 974 | | 8 | 6 | 6 | 8 |
| 9:30 AM | 9 | 36 | 126 | 17 | 12 | 31 | 316 | 36 | 0 | 19 | 118 | 27 | 0 | 27 | 85 | 33 | 892 | | 9 | 8 | 4 | 21 |
| 9:45 AM | 8 | 30 | 113 | 19 | 10 | 31 | 238 | 31 | 0 | 30 | 83 | 30 | 0 | 26 | 99 | 47 | 795 | | 11 | 10 | 3 | 9 |

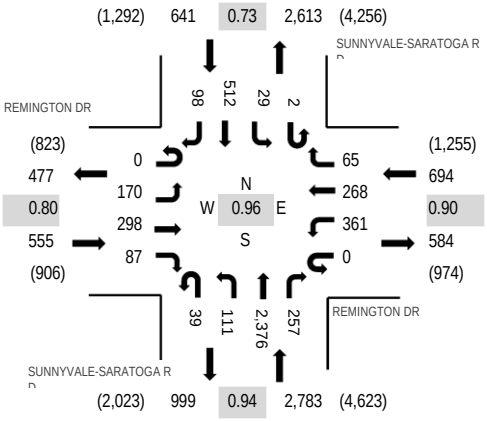
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 1 | 1 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 9 |
| Lights | 23 | 122 | 403 | 67 | 35 | 128 | 1,172 | 141 | 0 | 101 | 585 | 123 | 0 | 101 | 460 | 149 | 3,610 |
| Mediums | 0 | 1 | 17 | 1 | 0 | 5 | 35 | 1 | 0 | 3 | 9 | 4 | 0 | 2 | 9 | 3 | 90 |
| Total | 24 | 124 | 422 | 68 | 35 | 133 | 1,211 | 142 | 0 | 104 | 594 | 127 | 0 | 104 | 469 | 152 | 3,709 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

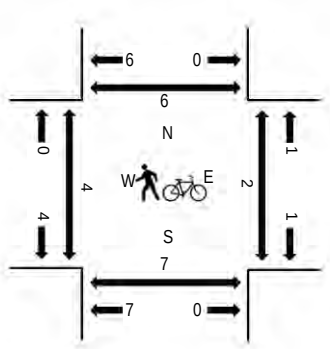
**Location:** 22 SUNNYVALE-SARATOGA RD & REMINGTON DR AM
**Date and Start Time:** Tuesday, November 14, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:15 AM - 08:30 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | REMINGTON DR Eastbound | | | | REMINGTON DR Westbound | | | | SUNNYVALE-SARATOGA RD Northbound | | | | SUNNYVALE-SARATOGA RD Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 9 | 16 | 18 | 0 | 76 | 18 | 8 | 13 | 10 | 248 | 36 | 0 | 8 | 119 | 11 | 590 | 3,403 | 1 | 2 | 17 | 0 |
| 7:15 AM | 0 | 21 | 30 | 29 | 0 | 106 | 38 | 8 | 8 | 24 | 304 | 60 | 0 | 5 | 206 | 20 | 859 | 3,990 | 1 | 5 | 15 | 1 |
| 7:30 AM | 0 | 53 | 53 | 23 | 0 | 90 | 58 | 9 | 6 | 25 | 430 | 68 | 0 | 10 | 134 | 7 | 966 | 4,342 | 0 | 2 | 1 | 4 |
| 7:45 AM | 0 | 28 | 54 | 17 | 0 | 75 | 69 | 6 | 5 | 39 | 518 | 46 | 1 | 4 | 99 | 27 | 988 | 4,523 | 0 | 2 | 0 | 3 |
| 8:00 AM | 0 | 47 | 85 | 25 | 0 | 85 | 96 | 11 | 9 | 46 | 558 | 54 | 0 | 7 | 105 | 49 | 1,177 | 4,673 | 0 | 0 | 3 | 4 |
| 8:15 AM | 0 | 51 | 102 | 22 | 0 | 102 | 71 | 17 | 8 | 26 | 592 | 60 | 1 | 7 | 135 | 17 | 1,211 | | 0 | 0 | 1 | 1 |
| 8:30 AM | 0 | 42 | 56 | 20 | 0 | 74 | 43 | 15 | 9 | 14 | 645 | 72 | 1 | 6 | 133 | 17 | 1,147 | | 0 | 0 | 0 | 1 |
| 8:45 AM | 0 | 30 | 55 | 20 | 0 | 100 | 58 | 22 | 13 | 25 | 581 | 71 | 0 | 9 | 139 | 15 | 1,138 | | 3 | 2 | 3 | 0 |

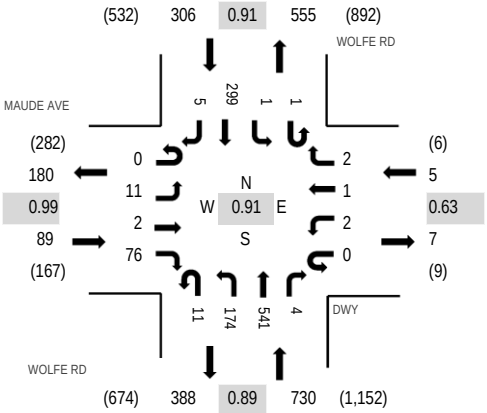
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 4 |
| Lights | 0 | 170 | 291 | 85 | 0 | 350 | 263 | 64 | 39 | 109 | 2,353 | 247 | 2 | 29 | 500 | 94 | 4,596 |
| Mediums | 0 | 0 | 7 | 2 | 0 | 10 | 5 | 1 | 0 | 1 | 22 | 10 | 0 | 0 | 11 | 4 | 73 |
| Total | 0 | 170 | 298 | 87 | 0 | 361 | 268 | 65 | 39 | 111 | 2,376 | 257 | 2 | 29 | 512 | 98 | 4,673 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

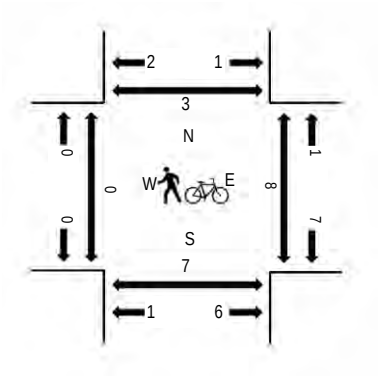
**Location:** 3 WOLFE RD & DWY AM
**Date and Start Time:** Wednesday, December 6, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:15 AM - 08:30 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | MAUDE AVE Eastbound | | | | DWY Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | Total | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 7:00 AM | 0 | 3 | 0 | 15 | 0 | 0 | 0 | 1 | 2 | 16 | 56 | 0 | 1 | 0 | 48 | 0 | 142 | 727 | 0 | 1 | 1 | 0 |
| 7:15 AM | 0 | 3 | 0 | 9 | 0 | 0 | 0 | 0 | 1 | 14 | 70 | 0 | 0 | 0 | 59 | 0 | 156 | 826 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 6 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 35 | 102 | 1 | 1 | 1 | 56 | 0 | 220 | 979 | 3 | 1 | 5 | 0 |
| 7:45 AM | 1 | 3 | 0 | 20 | 0 | 0 | 0 | 0 | 1 | 33 | 91 | 0 | 0 | 0 | 57 | 3 | 209 | 1,055 | 0 | 3 | 1 | 2 |
| 8:00 AM | 0 | 4 | 1 | 19 | 0 | 1 | 0 | 0 | 2 | 30 | 107 | 0 | 0 | 0 | 72 | 5 | 241 | 1,130 | 0 | 1 | 0 | 1 |
| 8:15 AM | 0 | 6 | 1 | 16 | 0 | 0 | 0 | 2 | 2 | 55 | 147 | 2 | 1 | 0 | 77 | 0 | 309 | | 0 | 3 | 1 | 2 |
| 8:30 AM | 0 | 0 | 0 | 24 | 0 | 0 | 1 | 0 | 2 | 47 | 138 | 0 | 0 | 0 | 84 | 0 | 296 | | 0 | 1 | 2 | 0 |
| 8:45 AM | 0 | 1 | 0 | 17 | 0 | 1 | 0 | 0 | 5 | 42 | 149 | 2 | 0 | 1 | 66 | 0 | 284 | | 0 | 2 | 0 | 0 |

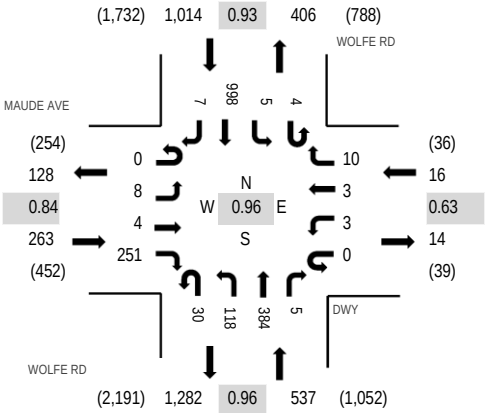
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lights | 0 | 11 | 2 | 70 | 0 | 2 | 1 | 2 | 11 | 171 | 525 | 4 | 1 | 1 | 294 | 5 | 1,100 |
| Mediums | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 3 | 15 | 0 | 0 | 0 | 5 | 0 | 29 |
| Total | 0 | 11 | 2 | 76 | 0 | 2 | 1 | 2 | 11 | 174 | 541 | 4 | 1 | 1 | 299 | 5 | 1,130 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

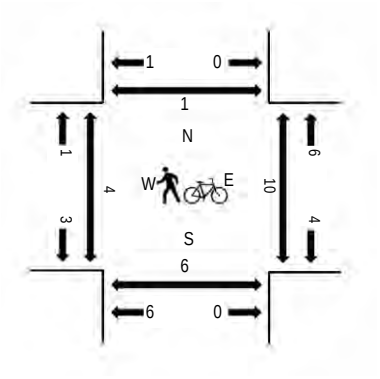
**Location:** 3 WOLFE RD & DWY PM
**Date and Start Time:** Wednesday, December 6, 2017
**Peak Hour:** 04:45 PM - 05:45 PM
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | MAUDE AVE Eastbound | | | | DWY Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | Total | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 4:00 PM | 0 | 0 | 1 | 37 | 0 | 0 | 2 | 2 | 7 | 32 | 101 | 3 | 1 | 1 | 126 | 3 | 316 | 1,471 | 2 | 1 | 0 | 0 |
| 4:15 PM | 0 | 1 | 1 | 56 | 0 | 1 | 0 | 2 | 3 | 19 | 91 | 3 | 2 | 0 | 144 | 2 | 325 | 1,616 | 2 | 0 | 1 | 2 |
| 4:30 PM | 0 | 2 | 2 | 40 | 0 | 1 | 1 | 3 | 4 | 32 | 101 | 2 | 0 | 3 | 181 | 0 | 372 | 1,768 | 4 | 1 | 0 | 8 |
| 4:45 PM | 0 | 5 | 0 | 73 | 0 | 1 | 1 | 2 | 11 | 23 | 103 | 3 | 3 | 1 | 231 | 1 | 458 | 1,830 | 1 | 0 | 2 | 1 |
| 5:00 PM | 0 | 2 | 1 | 55 | 0 | 1 | 1 | 4 | 6 | 35 | 106 | 0 | 0 | 2 | 247 | 1 | 461 | 1,801 | 0 | 4 | 0 | 0 |
| 5:15 PM | 0 | 0 | 3 | 57 | 0 | 0 | 1 | 2 | 7 | 34 | 94 | 1 | 1 | 2 | 271 | 4 | 477 | | 1 | 4 | 3 | 0 |
| 5:30 PM | 0 | 1 | 0 | 66 | 0 | 1 | 0 | 2 | 6 | 26 | 81 | 1 | 0 | 0 | 249 | 1 | 434 | | 2 | 1 | 0 | 0 |
| 5:45 PM | 0 | 1 | 3 | 45 | 0 | 3 | 3 | 2 | 10 | 31 | 72 | 4 | 1 | 2 | 251 | 1 | 429 | | 2 | 7 | 6 | 0 |

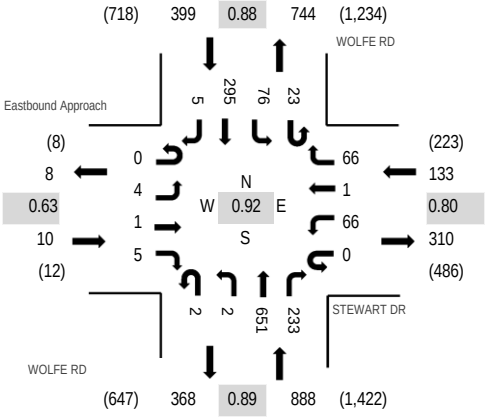
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lights | 0 | 8 | 4 | 249 | 0 | 3 | 3 | 10 | 30 | 117 | 381 | 5 | 4 | 5 | 993 | 7 | 1,819 |
| Mediums | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 5 | 0 | 10 |
| Total | 0 | 8 | 4 | 251 | 0 | 3 | 3 | 10 | 30 | 118 | 384 | 5 | 4 | 5 | 998 | 7 | 1,830 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

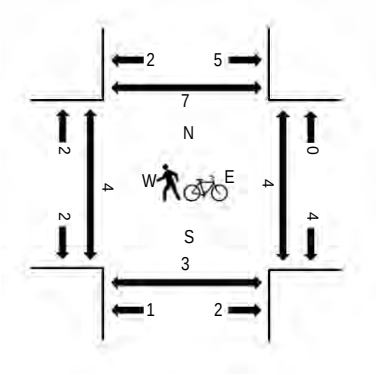
**Location:** 5 WOLFE RD & STEWART DR AM
**Date and Start Time:** Wednesday, November 15, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:30 AM - 08:45 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | Eastbound Approach Eastbound | | | | STEWART DR Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 1 | 0 | 0 | 0 | 11 | 0 | 7 | 1 | 0 | 65 | 20 | 0 | 12 | 45 | 0 | 162 | 945 | 1 | 0 | 0 | 0 |
| 7:15 AM | 0 | 1 | 0 | 0 | 0 | 7 | 0 | 11 | 0 | 0 | 100 | 18 | 2 | 13 | 63 | 0 | 215 | 1,110 | 1 | 0 | 0 | 1 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 14 | 0 | 0 | 117 | 36 | 5 | 20 | 68 | 0 | 268 | 1,219 | 0 | 3 | 0 | 1 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 19 | 0 | 0 | 140 | 37 | 8 | 20 | 63 | 0 | 300 | 1,341 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 1 | 0 | 0 | 0 | 14 | 0 | 13 | 1 | 0 | 145 | 50 | 6 | 19 | 78 | 0 | 327 | 1,430 | 1 | 3 | 1 | 1 |
| 8:15 AM | 0 | 1 | 1 | 2 | 0 | 15 | 1 | 19 | 1 | 1 | 154 | 41 | 3 | 17 | 67 | 1 | 324 | | 3 | 0 | 0 | 3 |
| 8:30 AM | 0 | 2 | 0 | 2 | 0 | 26 | 0 | 17 | 0 | 1 | 185 | 63 | 9 | 14 | 68 | 3 | 390 | | 0 | 1 | 1 | 2 |
| 8:45 AM | 0 | 0 | 0 | 1 | 0 | 11 | 0 | 17 | 0 | 0 | 167 | 79 | 5 | 26 | 82 | 1 | 389 | | 0 | 0 | 1 | 1 |

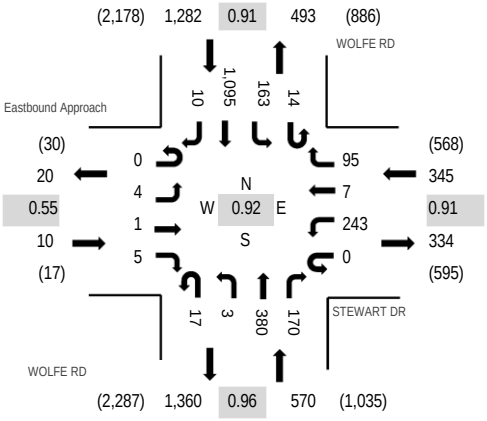
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 4 |
| Lights | 0 | 4 | 1 | 5 | 0 | 63 | 1 | 65 | 2 | 2 | 639 | 227 | 23 | 73 | 288 | 4 | 1,397 |
| Mediums | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 11 | 6 | 0 | 3 | 6 | 1 | 29 |
| Total | 0 | 4 | 1 | 5 | 0 | 66 | 1 | 66 | 2 | 2 | 651 | 233 | 23 | 76 | 295 | 5 | 1,430 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

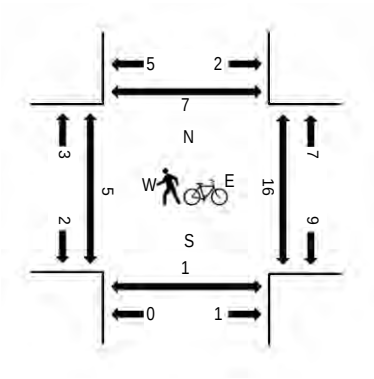
**Location:** 5 WOLFE RD & STEWART DR PM
**Date and Start Time:** Wednesday, November 15, 2017
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:45 PM - 06:00 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | Eastbound Approach Eastbound | | | | STEWART DR Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 33 | 1 | 18 | 3 | 0 | 76 | 36 | 4 | 36 | 141 | 1 | 349 | 1,591 | 1 | 5 | 0 | 3 |
| 4:15 PM | 0 | 0 | 0 | 1 | 0 | 29 | 0 | 18 | 3 | 1 | 66 | 32 | 5 | 25 | 171 | 0 | 351 | 1,775 | 2 | 1 | 1 | 1 |
| 4:30 PM | 0 | 0 | 0 | 1 | 0 | 42 | 1 | 16 | 5 | 1 | 96 | 32 | 6 | 25 | 196 | 0 | 421 | 1,975 | 0 | 2 | 0 | 0 |
| 4:45 PM | 0 | 1 | 3 | 1 | 0 | 46 | 2 | 17 | 2 | 1 | 67 | 44 | 3 | 28 | 253 | 2 | 470 | 2,080 | 0 | 3 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 53 | 2 | 20 | 4 | 0 | 99 | 45 | 3 | 32 | 274 | 1 | 533 | 2,207 | 4 | 4 | 0 | 4 |
| 5:15 PM | 0 | 1 | 1 | 1 | 0 | 61 | 2 | 19 | 5 | 0 | 93 | 33 | 4 | 40 | 288 | 3 | 551 | | 1 | 5 | 0 | 1 |
| 5:30 PM | 0 | 0 | 0 | 3 | 0 | 67 | 2 | 26 | 3 | 2 | 83 | 56 | 2 | 32 | 249 | 1 | 526 | | 0 | 4 | 0 | 0 |
| 5:45 PM | 0 | 3 | 0 | 1 | 0 | 62 | 1 | 30 | 5 | 1 | 105 | 36 | 5 | 59 | 284 | 5 | 597 | | 0 | 2 | 0 | 1 |

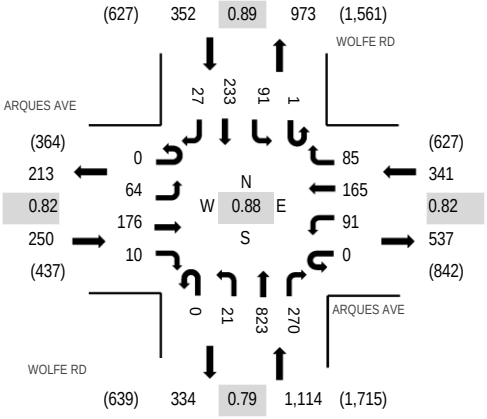
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 0 | 4 | 1 | 5 | 0 | 243 | 7 | 95 | 17 | 3 | 375 | 170 | 14 | 162 | 1,093 | 10 | 2,199 |
| Mediums | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 1 | 2 | 0 | 8 |
| Total | 0 | 4 | 1 | 5 | 0 | 243 | 7 | 95 | 17 | 3 | 380 | 170 | 14 | 163 | 1,095 | 10 | 2,207 |

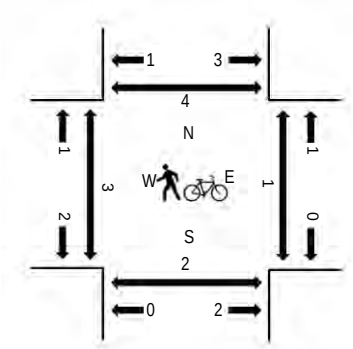
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

**Location:** 45 WOLFE RD & ARQUES AVE AM
**Date and Start Time:** Tuesday, November 14, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:30 AM - 08:45 AM

## Peak Hour - All Vehicles




## Peak Hour - Pedestrians/Bicycles in Crosswalk




Note: Total study counts contained in parentheses.

## Traffic Counts

| Interval Start Time | ARQUES AVE Eastbound | | | | ARQUES AVE Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | | Rolling | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | Hour | West | East | South | North |
| 7:00 AM | 0 | 13 | 25 | 0 | 0 | 22 | 30 | 18 | 1 | 3 | 64 | 22 | 0 | 8 | 45 | 1 | 252 | 1,349 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 8 | 25 | 3 | 0 | 17 | 10 | 14 | 0 | 2 | 82 | 20 | 0 | 12 | 46 | 2 | 241 | 1,533 | 1 | 0 | 0 | 1 |
| 7:30 AM | 0 | 21 | 34 | 1 | 0 | 15 | 33 | 21 | 0 | 1 | 133 | 29 | 1 | 16 | 50 | 5 | 360 | 1,751 | 0 | 0 | 0 | 1 |
| 7:45 AM | 0 | 11 | 41 | 5 | 0 | 32 | 54 | 20 | 0 | 3 | 182 | 59 | 0 | 14 | 68 | 7 | 496 | 1,974 | 1 | 0 | 0 | 2 |
| 8:00 AM | 0 | 12 | 33 | 3 | 0 | 19 | 45 | 18 | 0 | 10 | 147 | 52 | 1 | 19 | 71 | 6 | 436 | 2,057 | 1 | 0 | 0 | 1 |
| 8:15 AM | 0 | 17 | 44 | 3 | 0 | 20 | 43 | 26 | 0 | 2 | 169 | 66 | 0 | 22 | 44 | 3 | 459 | | 1 | 0 | 0 | 0 |
| 8:30 AM | 0 | 17 | 42 | 3 | 0 | 23 | 33 | 13 | 0 | 3 | 277 | 72 | 0 | 25 | 65 | 10 | 583 | | 1 | 0 | 0 | 2 |
| 8:45 AM | 0 | 18 | 57 | 1 | 0 | 29 | 44 | 28 | 0 | 6 | 230 | 80 | 0 | 25 | 53 | 8 | 579 | | 0 | 0 | 0 | 1 |

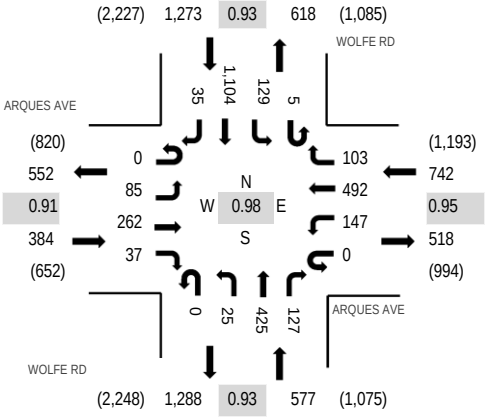
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 9 |
| Lights | 0 | 64 | 174 | 9 | 0 | 83 | 156 | 79 | 0 | 20 | 806 | 263 | 1 | 85 | 227 | 26 | 1,993 |
| Mediums | 0 | 0 | 2 | 1 | 0 | 6 | 9 | 3 | 0 | 1 | 15 | 6 | 0 | 5 | 6 | 1 | 55 |
| Total | 0 | 64 | 176 | 10 | 0 | 91 | 165 | 85 | 0 | 21 | 823 | 270 | 1 | 91 | 233 | 27 | 2,057 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

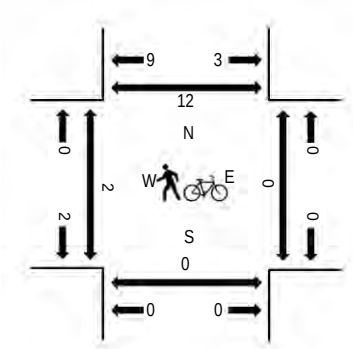
**Location:** 45 WOLFE RD & ARQUES AVE PM
**Date and Start Time:** Tuesday, November 14, 2017
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:45 PM - 06:00 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | ARQUES AVE Eastbound | | | | ARQUES AVE Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | | Rolling | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | Hour | West | East | South | North |
| 4:00 PM | 0 | 16 | 42 | 4 | 0 | 40 | 37 | 16 | 0 | 3 | 79 | 42 | 1 | 28 | 141 | 4 | 453 | 2,171 | 0 | 0 | 1 | 2 |
| 4:15 PM | 0 | 13 | 51 | 5 | 0 | 30 | 52 | 19 | 0 | 4 | 93 | 43 | 2 | 31 | 170 | 4 | 517 | 2,457 | 2 | 0 | 0 | 3 |
| 4:30 PM | 0 | 19 | 52 | 2 | 0 | 39 | 66 | 21 | 1 | 7 | 74 | 42 | 1 | 28 | 175 | 12 | 539 | 2,686 | 0 | 0 | 0 | 3 |
| 4:45 PM | 0 | 17 | 41 | 6 | 0 | 40 | 74 | 17 | 0 | 1 | 77 | 32 | 2 | 44 | 307 | 4 | 662 | 2,880 | 0 | 0 | 0 | 1 |
| 5:00 PM | 0 | 20 | 75 | 10 | 0 | 31 | 131 | 19 | 0 | 2 | 107 | 37 | 0 | 44 | 258 | 5 | 739 | 2,976 | 0 | 0 | 0 | 1 |
| 5:15 PM | 0 | 20 | 65 | 6 | 0 | 45 | 127 | 24 | 0 | 6 | 93 | 25 | 2 | 26 | 291 | 16 | 746 | | 1 | 0 | 0 | 6 |
| 5:30 PM | 0 | 16 | 56 | 11 | 0 | 30 | 112 | 27 | 0 | 6 | 119 | 30 | 3 | 27 | 289 | 7 | 733 | | 0 | 0 | 0 | 2 |
| 5:45 PM | 0 | 29 | 66 | 10 | 0 | 41 | 122 | 33 | 0 | 11 | 106 | 35 | 0 | 32 | 266 | 7 | 758 | | 1 | 0 | 0 | 3 |

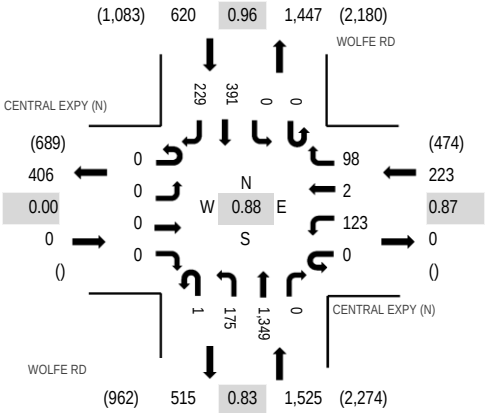
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lights | 0 | 83 | 256 | 36 | 0 | 146 | 485 | 103 | 0 | 25 | 403 | 124 | 5 | 129 | 1,102 | 34 | 2,931 |
| Mediums | 0 | 2 | 6 | 1 | 0 | 1 | 7 | 0 | 0 | 0 | 21 | 3 | 0 | 0 | 2 | 1 | 44 |
| Total | 0 | 85 | 262 | 37 | 0 | 147 | 492 | 103 | 0 | 25 | 425 | 127 | 5 | 129 | 1,104 | 35 | 2,976 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

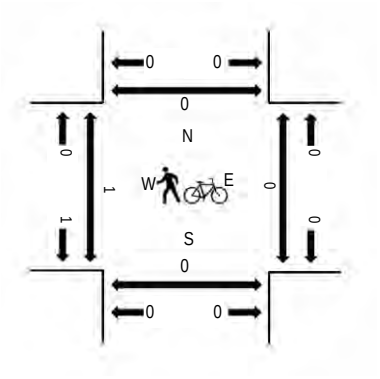
**Location:** 7 WOLFE RD & CENTRAL EXPY (N) AM
**Date and Start Time:** Wednesday, December 6, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:30 AM - 08:45 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | CENTRAL EXPY (N) Eastbound | | | | CENTRAL EXPY (N) Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 28 | 0 | 17 | 104 | 0 | 0 | 0 | 55 | 32 | 270 | 1,463 | 2 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 24 | 0 | 25 | 148 | 0 | 0 | 0 | 64 | 49 | 350 | 1,731 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 26 | 0 | 42 | 177 | 0 | 0 | 0 | 86 | 40 | 398 | 1,908 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 52 | 0 | 20 | 0 | 30 | 206 | 0 | 0 | 0 | 89 | 48 | 445 | 2,186 | 1 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 31 | 1 | 26 | 0 | 36 | 285 | 0 | 0 | 0 | 99 | 60 | 538 | 2,368 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 32 | 1 | 24 | 0 | 43 | 286 | 0 | 0 | 0 | 93 | 48 | 527 | | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 32 | 0 | 24 | 1 | 43 | 415 | 0 | 0 | 0 | 98 | 63 | 676 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 24 | 0 | 53 | 363 | 0 | 0 | 0 | 101 | 58 | 627 | | 1 | 0 | 0 | 0 |

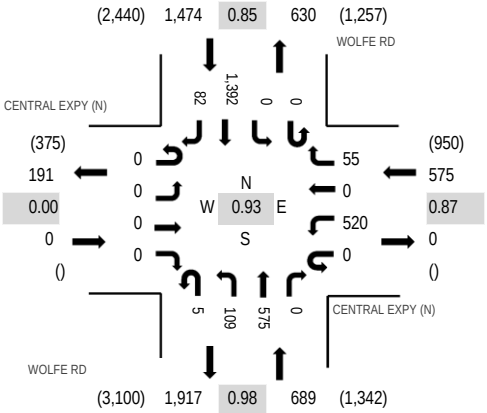
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| Lights | 0 | 0 | 0 | 0 | 0 | 118 | 2 | 97 | 1 | 172 | 1,324 | 0 | 0 | 0 | 371 | 227 | 2,312 |
| Mediums | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 3 | 24 | 0 | 0 | 0 | 20 | 2 | 54 |
| Total | 0 | 0 | 0 | 0 | 0 | 123 | 2 | 98 | 1 | 175 | 1,349 | 0 | 0 | 0 | 391 | 229 | 2,368 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

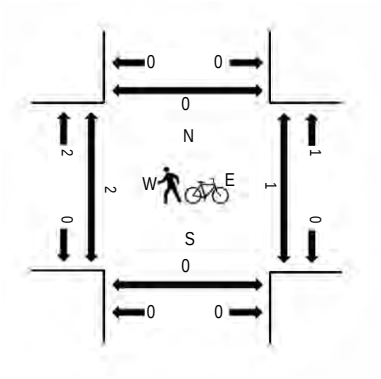
**Location:** 7 WOLFE RD & CENTRAL EXPY (N) PM
**Date and Start Time:** Wednesday, December 6, 2017
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:30 PM - 05:45 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | CENTRAL EXPY (N) Eastbound | | | | CENTRAL EXPY (N) Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 67 | 0 | 7 | 0 | 18 | 155 | 0 | 0 | 0 | 138 | 27 | 412 | 1,994 | 0 | 1 | 0 | 2 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 66 | 0 | 14 | 0 | 16 | 128 | 0 | 0 | 0 | 217 | 20 | 461 | 2,268 | 2 | 1 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 83 | 0 | 14 | 0 | 23 | 174 | 0 | 0 | 0 | 207 | 30 | 531 | 2,452 | 1 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 108 | 0 | 16 | 0 | 20 | 119 | 0 | 0 | 0 | 297 | 30 | 590 | 2,661 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 125 | 0 | 16 | 1 | 24 | 142 | 0 | 0 | 0 | 358 | 20 | 686 | 2,738 | 2 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 148 | 0 | 17 | 3 | 26 | 144 | 0 | 0 | 0 | 287 | 20 | 645 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 123 | 0 | 9 | 1 | 26 | 149 | 0 | 0 | 0 | 408 | 24 | 740 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 124 | 0 | 13 | 0 | 33 | 140 | 0 | 0 | 0 | 339 | 18 | 667 | | 0 | 0 | 0 | 0 |

## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 0 | 0 | 0 | 0 | 0 | 520 | 0 | 55 | 5 | 109 | 557 | 0 | 0 | 0 | 1,384 | 81 | 2,711 |
| Mediums | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 8 | 1 | 27 |
| Total | 0 | 0 | 0 | 0 | 0 | 520 | 0 | 55 | 5 | 109 | 575 | 0 | 0 | 0 | 1,392 | 82 | 2,738 |

All Traffic Data Services Inc.
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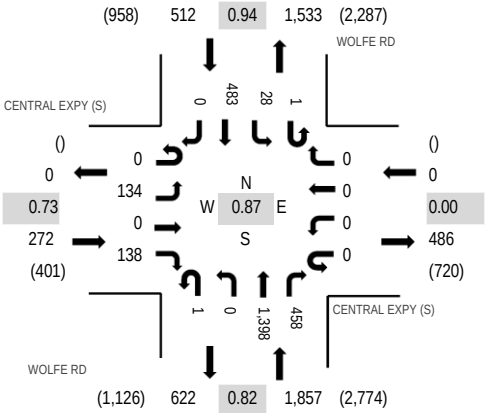
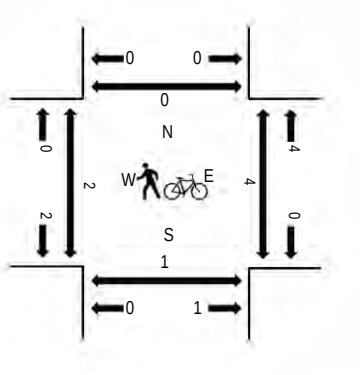
**Location:** 8 WOLFE RD & CENTRAL EXPY (S) AM
**Date and Start Time:** Wednesday, December 6, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:30 AM - 08:45 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | CENTRAL EXPY (S) Eastbound | | | | CENTRAL EXPY (S) Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 9 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 113 | 33 | 1 | 7 | 81 | 0 | 257 | 1,492 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 5 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 169 | 47 | 0 | 4 | 100 | 0 | 347 | 1,804 | 1 | 0 | 0 | 0 |
| 7:30 AM | 0 | 13 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 208 | 60 | 0 | 3 | 110 | 0 | 413 | 2,045 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 24 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 212 | 75 | 0 | 5 | 135 | 0 | 475 | 2,387 | 1 | 0 | 0 | 0 |
| 8:00 AM | 0 | 24 | 0 | 36 | 0 | 0 | 0 | 0 | 1 | 0 | 299 | 79 | 1 | 5 | 124 | 0 | 569 | 2,641 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 34 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 296 | 109 | 0 | 10 | 115 | 0 | 588 | | 1 | 1 | 1 | 0 |
| 8:30 AM | 0 | 31 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 430 | 135 | 0 | 5 | 124 | 0 | 755 | | 0 | 1 | 0 | 0 |
| 8:45 AM | 0 | 45 | 0 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 373 | 135 | 0 | 8 | 120 | 0 | 729 | | 0 | 1 | 0 | 0 |

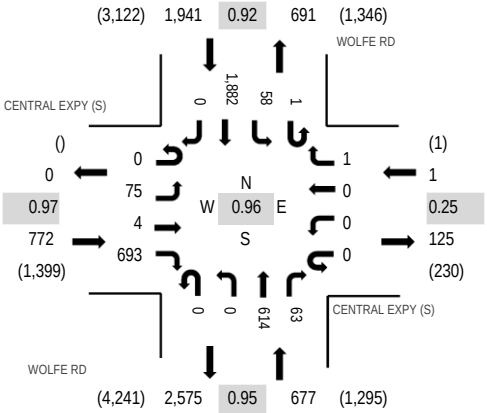
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 1 | 0 | 5 |
| Lights | 0 | 131 | 0 | 135 | 0 | 0 | 0 | 0 | 1 | 0 | 1,382 | 452 | 1 | 28 | 460 | 0 | 2,590 |
| Mediums | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 4 | 0 | 0 | 22 | 0 | 46 |
| Total | 0 | 134 | 0 | 138 | 0 | 0 | 0 | 0 | 1 | 0 | 1,398 | 458 | 1 | 28 | 483 | 0 | 2,641 |

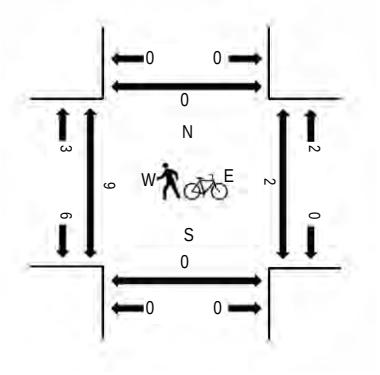
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

**Location:** 8 WOLFE RD & CENTRAL EXPY (S) PM
**Date and Start Time:** Wednesday, December 6, 2017
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:30 PM - 05:45 PM

## Peak Hour - All Vehicles




## Peak Hour - Pedestrians/Bicycles in Crosswalk




Note: Total study counts contained in parentheses.

## Traffic Counts

| Interval Start Time | CENTRAL EXPY (S) Eastbound | | | | CENTRAL EXPY (S) Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 33 | 0 | 89 | 0 | 0 | 0 | 0 | 0 | 0 | 140 | 19 | 0 | 6 | 198 | 0 | 485 | 2,426 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 17 | 0 | 144 | 0 | 0 | 0 | 0 | 0 | 0 | 128 | 12 | 0 | 18 | 265 | 0 | 584 | 2,780 | 1 | 0 | 0 | 0 |
| 4:30 PM | 0 | 27 | 0 | 148 | 0 | 0 | 0 | 0 | 0 | 0 | 170 | 15 | 0 | 12 | 277 | 0 | 649 | 3,024 | 1 | 0 | 0 | 0 |
| 4:45 PM | 0 | 18 | 1 | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 122 | 12 | 0 | 10 | 395 | 0 | 708 | 3,258 | 4 | 0 | 0 | 0 |
| 5:00 PM | 0 | 18 | 0 | 177 | 0 | 0 | 0 | 1 | 0 | 0 | 149 | 11 | 0 | 23 | 460 | 0 | 839 | 3,391 | 3 | 0 | 0 | 0 |
| 5:15 PM | 0 | 18 | 2 | 177 | 0 | 0 | 0 | 0 | 0 | 0 | 155 | 9 | 0 | 5 | 462 | 0 | 828 | | 3 | 0 | 0 | 0 |
| 5:30 PM | 0 | 19 | 1 | 160 | 0 | 0 | 0 | 0 | 0 | 0 | 156 | 19 | 0 | 14 | 514 | 0 | 883 | | 3 | 0 | 0 | 0 |
| 5:45 PM | 0 | 20 | 1 | 179 | 0 | 0 | 0 | 0 | 0 | 0 | 154 | 24 | 1 | 16 | 446 | 0 | 841 | | 0 | 0 | 0 | 0 |

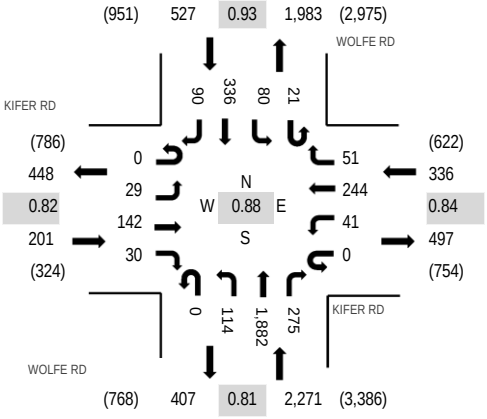
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 0 | 75 | 4 | 691 | 0 | 0 | 0 | 1 | 0 | 0 | 606 | 63 | 1 | 58 | 1,876 | 0 | 3,375 |
| Mediums | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 6 | 0 | 16 |
| Total | 0 | 75 | 4 | 693 | 0 | 0 | 0 | 1 | 0 | 0 | 614 | 63 | 1 | 58 | 1,882 | 0 | 3,391 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

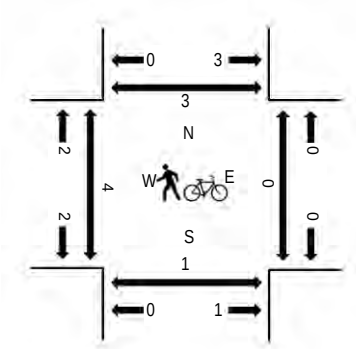
**Location:** 46 WOLFE RD & KIFER RD AM
**Date and Start Time:** Tuesday, November 14, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:30 AM - 08:45 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | KIFER RD Eastbound | | | | KIFER RD Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 2 | 16 | 3 | 0 | 14 | 42 | 17 | 1 | 12 | 127 | 24 | 4 | 7 | 55 | 27 | 351 | 1,948 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 3 | 11 | 5 | 0 | 9 | 39 | 8 | 0 | 14 | 187 | 30 | 2 | 8 | 76 | 16 | 408 | 2,280 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 3 | 25 | 7 | 0 | 8 | 49 | 19 | 0 | 26 | 253 | 38 | 2 | 8 | 70 | 22 | 530 | 2,654 | 2 | 0 | 0 | 0 |
| 7:45 AM | 0 | 9 | 30 | 9 | 0 | 13 | 56 | 12 | 0 | 8 | 343 | 52 | 1 | 8 | 91 | 27 | 659 | 3,072 | 0 | 0 | 3 | 0 |
| 8:00 AM | 0 | 3 | 21 | 6 | 0 | 12 | 68 | 10 | 0 | 22 | 345 | 55 | 6 | 21 | 96 | 18 | 683 | 3,335 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 10 | 37 | 10 | 0 | 13 | 74 | 18 | 0 | 25 | 411 | 55 | 8 | 21 | 78 | 22 | 782 | | 2 | 0 | 0 | 1 |
| 8:30 AM | 0 | 8 | 37 | 8 | 0 | 6 | 46 | 10 | 0 | 29 | 596 | 79 | 3 | 14 | 84 | 28 | 948 | | 1 | 0 | 1 | 0 |
| 8:45 AM | 0 | 8 | 47 | 6 | 0 | 10 | 56 | 13 | 0 | 38 | 530 | 86 | 4 | 24 | 78 | 22 | 922 | | 1 | 0 | 0 | 2 |

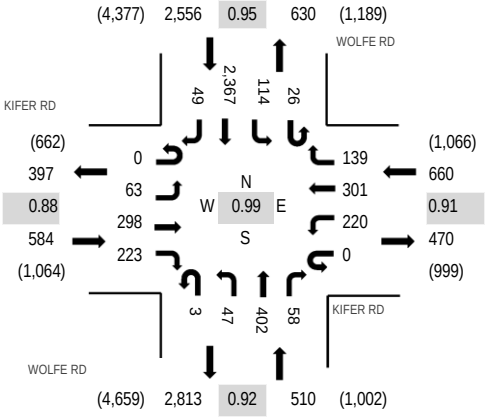
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 4 |
| Lights | 0 | 24 | 139 | 28 | 0 | 39 | 237 | 49 | 0 | 113 | 1,873 | 274 | 20 | 76 | 329 | 89 | 3,290 |
| Mediums | 0 | 4 | 2 | 2 | 0 | 2 | 7 | 2 | 0 | 1 | 9 | 1 | 0 | 3 | 7 | 1 | 41 |
| Total | 0 | 29 | 142 | 30 | 0 | 41 | 244 | 51 | 0 | 114 | 1,882 | 275 | 21 | 80 | 336 | 90 | 3,335 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

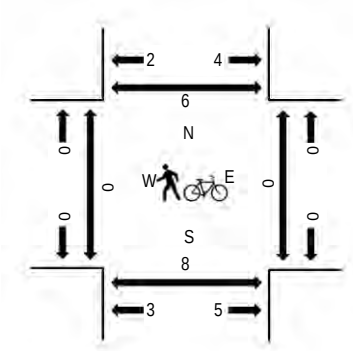
**Location:** 46 WOLFE RD & KIFER RD PM
**Date and Start Time:** Tuesday, November 14, 2017
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | KIFER RD Eastbound | | | | KIFER RD Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 19 | 81 | 30 | 0 | 28 | 54 | 14 | 0 | 11 | 107 | 20 | 9 | 36 | 300 | 16 | 725 | 3,199 | 1 | 1 | 0 | 1 |
| 4:15 PM | 0 | 13 | 63 | 30 | 0 | 36 | 32 | 31 | 1 | 13 | 105 | 15 | 7 | 45 | 328 | 13 | 732 | 3,509 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 21 | 80 | 33 | 0 | 46 | 39 | 27 | 0 | 2 | 83 | 13 | 4 | 51 | 386 | 19 | 804 | 3,869 | 1 | 0 | 0 | 0 |
| 4:45 PM | 0 | 4 | 73 | 33 | 0 | 38 | 46 | 15 | 0 | 10 | 96 | 16 | 4 | 36 | 557 | 10 | 938 | 4,157 | 2 | 0 | 0 | 0 |
| 5:00 PM | 0 | 11 | 75 | 41 | 0 | 63 | 85 | 34 | 1 | 14 | 106 | 10 | 6 | 34 | 546 | 9 | 1,035 | 4,310 | 0 | 0 | 3 | 3 |
| 5:15 PM | 0 | 14 | 90 | 49 | 0 | 52 | 59 | 42 | 1 | 7 | 87 | 17 | 5 | 25 | 627 | 17 | 1,092 | | 0 | 0 | 1 | 1 |
| 5:30 PM | 0 | 19 | 68 | 79 | 0 | 43 | 73 | 35 | 1 | 17 | 112 | 9 | 9 | 20 | 602 | 5 | 1,092 | | 0 | 0 | 2 | 2 |
| 5:45 PM | 0 | 19 | 65 | 54 | 0 | 62 | 84 | 28 | 0 | 9 | 97 | 22 | 6 | 35 | 592 | 18 | 1,091 | | 0 | 0 | 0 | 0 |

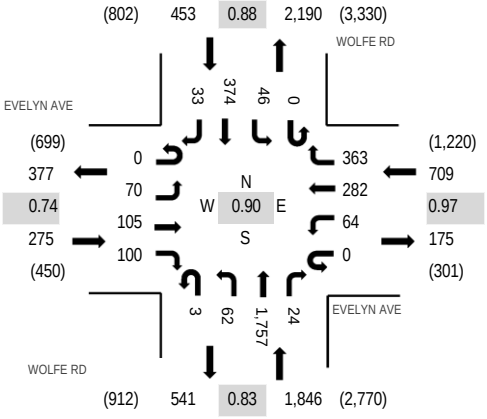
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lights | 0 | 61 | 296 | 223 | 0 | 219 | 301 | 137 | 3 | 47 | 400 | 58 | 26 | 110 | 2,364 | 49 | 4,294 |
| Mediums | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 4 | 3 | 0 | 15 |
| Total | 0 | 63 | 298 | 223 | 0 | 220 | 301 | 139 | 3 | 47 | 402 | 58 | 26 | 114 | 2,367 | 49 | 4,310 |

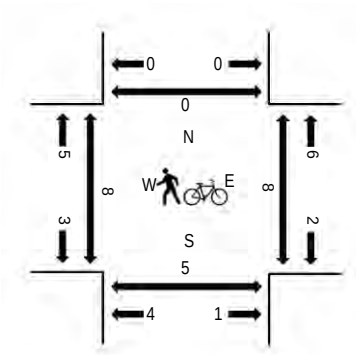
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

**Location:** 6 WOLFE RD & EVELYN AVE AM
**Date and Start Time:** Wednesday, November 15, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:45 AM - 09:00 AM

## Peak Hour - All Vehicles




## Peak Hour - Pedestrians/Bicycles in Crosswalk




Note: Total study counts contained in parentheses.

## Traffic Counts

| Interval Start Time | EVELYN AVE Eastbound | | | | EVELYN AVE Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 14 | 18 | 8 | 0 | 8 | 38 | 43 | 3 | 11 | 113 | 2 | 0 | 12 | 42 | 10 | 322 | 1,959 | 2 | 0 | 0 | 1 |
| 7:15 AM | 0 | 12 | 14 | 9 | 0 | 10 | 35 | 62 | 0 | 8 | 179 | 4 | 0 | 7 | 69 | 9 | 418 | 2,401 | 1 | 0 | 1 | 0 |
| 7:30 AM | 0 | 10 | 15 | 23 | 0 | 15 | 62 | 62 | 4 | 14 | 268 | 7 | 0 | 13 | 59 | 8 | 560 | 2,733 | 1 | 0 | 0 | 0 |
| 7:45 AM | 0 | 18 | 22 | 12 | 0 | 17 | 86 | 73 | 1 | 21 | 285 | 4 | 1 | 8 | 91 | 20 | 659 | 3,028 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 16 | 17 | 23 | 0 | 18 | 89 | 77 | 2 | 14 | 382 | 5 | 0 | 10 | 101 | 10 | 764 | 3,283 | 2 | 1 | 1 | 0 |
| 8:15 AM | 0 | 22 | 39 | 32 | 0 | 21 | 65 | 98 | 0 | 25 | 347 | 8 | 0 | 10 | 74 | 9 | 750 | | 2 | 3 | 3 | 0 |
| 8:30 AM | 0 | 18 | 29 | 18 | 0 | 15 | 63 | 92 | 0 | 9 | 494 | 7 | 0 | 14 | 89 | 7 | 855 | | 3 | 0 | 1 | 0 |
| 8:45 AM | 0 | 14 | 20 | 27 | 0 | 10 | 65 | 96 | 1 | 14 | 534 | 4 | 0 | 12 | 110 | 7 | 914 | | 0 | 0 | 0 | 0 |

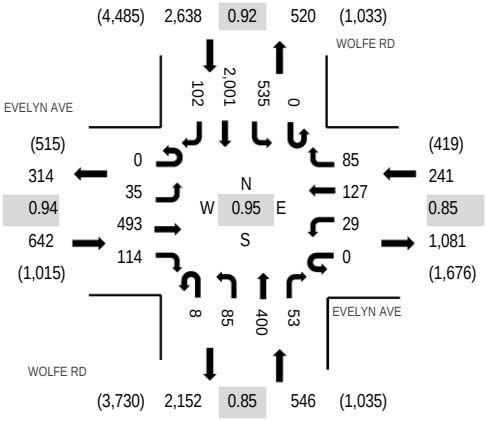
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 6 |
| Lights | 0 | 66 | 102 | 97 | 0 | 64 | 279 | 360 | 3 | 55 | 1,746 | 22 | 0 | 45 | 362 | 29 | 3,230 |
| Mediums | 0 | 2 | 3 | 3 | 0 | 0 | 3 | 3 | 0 | 6 | 10 | 2 | 0 | 1 | 10 | 4 | 47 |
| Total | 0 | 70 | 105 | 100 | 0 | 64 | 282 | 363 | 3 | 62 | 1,757 | 24 | 0 | 46 | 374 | 33 | 3,283 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

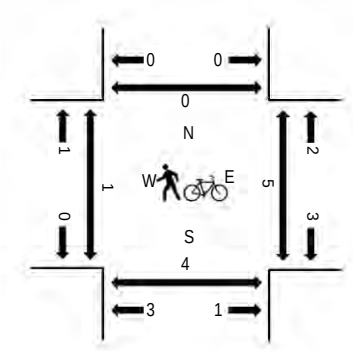
**Location:** 6 WOLFE RD & EVELYN AVE PM
**Date and Start Time:** Wednesday, November 15, 2017
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | EVELYN AVE Eastbound | | | | EVELYN AVE Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 9 | 42 | 14 | 0 | 6 | 14 | 14 | 1 | 12 | 106 | 9 | 1 | 39 | 296 | 15 | 578 | 2,887 | 0 | 0 | 1 | 0 |
| 4:15 PM | 0 | 7 | 61 | 21 | 1 | 4 | 20 | 23 | 0 | 7 | 68 | 11 | 0 | 92 | 313 | 11 | 639 | 3,267 | 2 | 0 | 1 | 0 |
| 4:30 PM | 0 | 13 | 62 | 31 | 0 | 13 | 19 | 16 | 0 | 11 | 113 | 10 | 1 | 76 | 374 | 25 | 764 | 3,698 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 13 | 79 | 21 | 0 | 7 | 29 | 12 | 1 | 12 | 117 | 11 | 0 | 102 | 476 | 26 | 906 | 3,967 | 0 | 1 | 0 | 0 |
| 5:00 PM | 0 | 11 | 127 | 30 | 0 | 13 | 32 | 15 | 1 | 16 | 79 | 13 | 0 | 135 | 466 | 20 | 958 | 4,067 | 1 | 1 | 2 | 0 |
| 5:15 PM | 0 | 7 | 110 | 23 | 0 | 5 | 28 | 23 | 3 | 21 | 119 | 18 | 0 | 154 | 535 | 24 | 1,070 | | 0 | 3 | 1 | 0 |
| 5:30 PM | 0 | 7 | 131 | 33 | 0 | 5 | 34 | 15 | 0 | 21 | 105 | 10 | 0 | 140 | 506 | 26 | 1,033 | | 0 | 1 | 0 | 0 |
| 5:45 PM | 0 | 10 | 125 | 28 | 0 | 6 | 33 | 32 | 4 | 27 | 97 | 12 | 0 | 106 | 494 | 32 | 1,006 | | 0 | 0 | 1 | 0 |

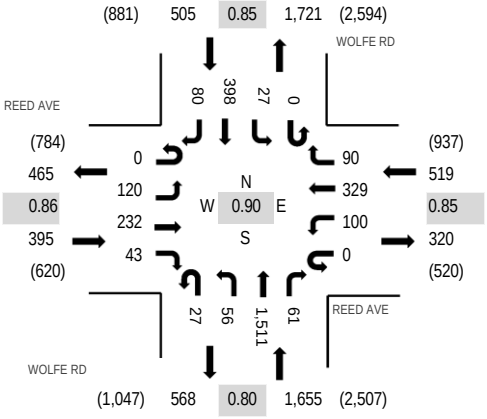
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 0 | 34 | 492 | 112 | 0 | 29 | 127 | 84 | 8 | 82 | 396 | 53 | 0 | 534 | 1,999 | 102 | 4,052 |
| Mediums | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 3 | 4 | 0 | 0 | 1 | 2 | 0 | 15 |
| Total | 0 | 35 | 493 | 114 | 0 | 29 | 127 | 85 | 8 | 85 | 400 | 53 | 0 | 535 | 2,001 | 102 | 4,067 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

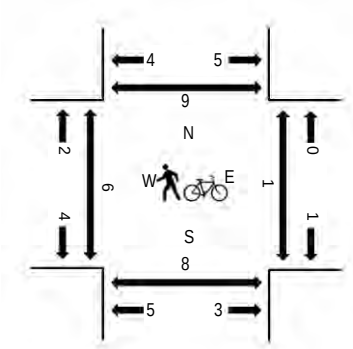
**Location:** 47 WOLFE RD & REED AVE AM
**Date and Start Time:** Tuesday, November 14, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:30 AM - 08:45 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | REED AVE Eastbound | | | | REED AVE Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 19 | 29 | 8 | 0 | 24 | 35 | 14 | 1 | 5 | 91 | 11 | 0 | 4 | 62 | 13 | 316 | 1,871 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 10 | 35 | 7 | 0 | 34 | 47 | 14 | 2 | 6 | 139 | 26 | 0 | 0 | 82 | 10 | 412 | 2,231 | 0 | 0 | 0 | 1 |
| 7:30 AM | 0 | 9 | 27 | 14 | 0 | 25 | 71 | 20 | 4 | 5 | 221 | 12 | 0 | 4 | 94 | 6 | 512 | 2,534 | 2 | 0 | 1 | 1 |
| 7:45 AM | 0 | 20 | 34 | 13 | 0 | 25 | 92 | 17 | 7 | 7 | 299 | 16 | 0 | 2 | 77 | 22 | 631 | 2,880 | 0 | 0 | 0 | 2 |
| 8:00 AM | 0 | 30 | 52 | 12 | 0 | 22 | 86 | 18 | 6 | 16 | 273 | 12 | 0 | 9 | 114 | 26 | 676 | 3,074 | 2 | 1 | 0 | 5 |
| 8:15 AM | 0 | 33 | 71 | 11 | 0 | 24 | 86 | 18 | 6 | 13 | 326 | 17 | 0 | 8 | 76 | 26 | 715 | | 1 | 0 | 2 | 1 |
| 8:30 AM | 0 | 33 | 68 | 8 | 0 | 27 | 97 | 37 | 9 | 9 | 428 | 22 | 0 | 5 | 98 | 17 | 858 | | 2 | 0 | 2 | 1 |
| 8:45 AM | 0 | 24 | 41 | 12 | 0 | 27 | 60 | 17 | 6 | 18 | 484 | 10 | 0 | 5 | 110 | 11 | 825 | | 1 | 0 | 1 | 2 |

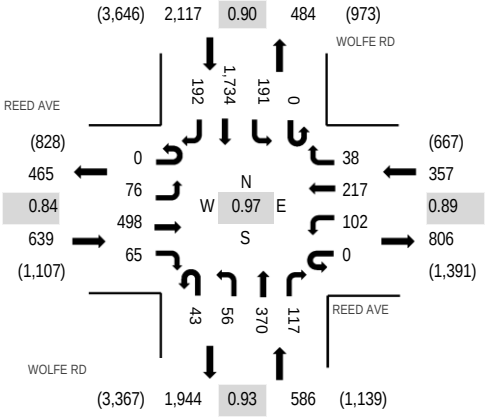
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 0 | 118 | 230 | 39 | 0 | 98 | 326 | 88 | 27 | 51 | 1,497 | 60 | 0 | 25 | 385 | 77 | 3,021 |
| Mediums | 0 | 2 | 2 | 4 | 0 | 2 | 3 | 2 | 0 | 5 | 14 | 1 | 0 | 2 | 13 | 3 | 53 |
| Total | 0 | 120 | 232 | 43 | 0 | 100 | 329 | 90 | 27 | 56 | 1,511 | 61 | 0 | 27 | 398 | 80 | 3,074 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

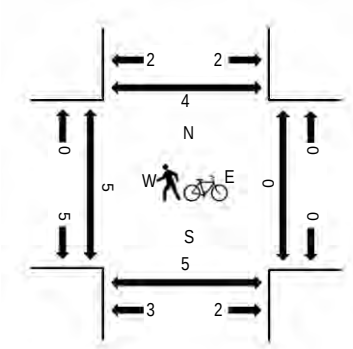
**Location:** 47 WOLFE RD & REED AVE PM
**Date and Start Time:** Tuesday, November 14, 2017
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | REED AVE Eastbound | | | | REED AVE Westbound | | | | WOLFE RD Northbound | | | | WOLFE RD Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 15 | 81 | 12 | 0 | 22 | 53 | 7 | 6 | 10 | 93 | 26 | 0 | 27 | 233 | 25 | 610 | 2,860 | 1 | 3 | 8 | 0 |
| 4:15 PM | 0 | 23 | 80 | 10 | 0 | 20 | 33 | 17 | 6 | 14 | 102 | 21 | 0 | 28 | 296 | 36 | 686 | 3,153 | 0 | 6 | 2 | 2 |
| 4:30 PM | 0 | 21 | 76 | 10 | 0 | 19 | 44 | 8 | 4 | 11 | 84 | 25 | 0 | 29 | 338 | 34 | 703 | 3,416 | 0 | 0 | 1 | 0 |
| 4:45 PM | 0 | 10 | 112 | 18 | 0 | 19 | 61 | 7 | 6 | 15 | 99 | 31 | 3 | 49 | 404 | 27 | 861 | 3,660 | 1 | 1 | 3 | 3 |
| 5:00 PM | 0 | 23 | 115 | 15 | 0 | 26 | 52 | 10 | 9 | 13 | 87 | 28 | 0 | 60 | 434 | 31 | 903 | 3,699 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 22 | 105 | 14 | 0 | 25 | 47 | 8 | 10 | 13 | 85 | 32 | 0 | 47 | 487 | 54 | 949 | | 0 | 0 | 2 | 0 |
| 5:30 PM | 0 | 15 | 156 | 19 | 0 | 21 | 57 | 11 | 9 | 18 | 99 | 31 | 0 | 47 | 416 | 48 | 947 | | 0 | 0 | 1 | 3 |
| 5:45 PM | 0 | 16 | 122 | 17 | 0 | 30 | 61 | 9 | 15 | 12 | 99 | 26 | 0 | 37 | 397 | 59 | 900 | | 1 | 0 | 2 | 1 |

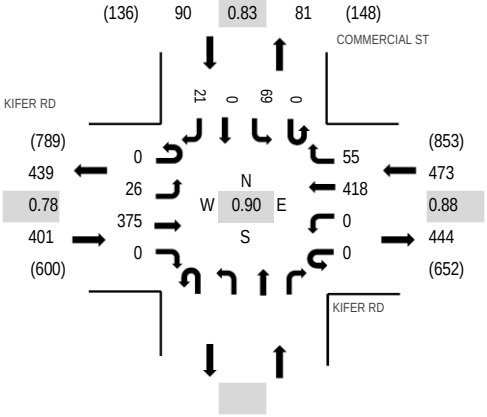
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 0 | 75 | 495 | 62 | 0 | 101 | 217 | 36 | 43 | 54 | 367 | 117 | 0 | 189 | 1,725 | 192 | 3,673 |
| Mediums | 0 | 1 | 3 | 3 | 0 | 1 | 0 | 2 | 0 | 2 | 3 | 0 | 0 | 2 | 9 | 0 | 26 |
| Total | 0 | 76 | 498 | 65 | 0 | 102 | 217 | 38 | 43 | 56 | 370 | 117 | 0 | 191 | 1,734 | 192 | 3,699 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

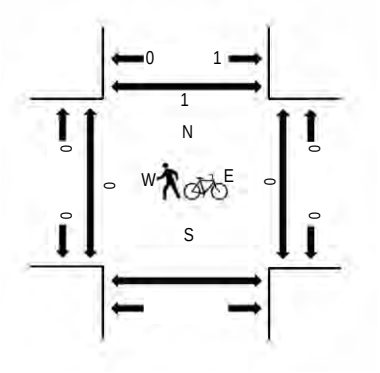
**Location:** 9 COMMERCIAL ST & KIFER RD AM
**Date and Start Time:** Wednesday, December 6, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:30 AM - 08:45 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | KIFER RD Eastbound | | | | KIFER RD Westbound | | | | Northbound | | | | COMMERCIAL ST Southbound | | | | Total | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 7:00 AM | 0 | 1 | 28 | 0 | 0 | 0 | 76 | 9 | | | | | 0 | 3 | 0 | 3 | 120 | 625 | 0 | 0 | | 0 |
| 7:15 AM | 0 | 4 | 31 | 0 | 0 | 0 | 61 | 13 | | | | | 0 | 5 | 0 | 8 | 122 | 707 | 0 | 0 | | 0 |
| 7:30 AM | 0 | 5 | 51 | 0 | 0 | 0 | 97 | 16 | | | | | 0 | 10 | 0 | 3 | 182 | 811 | 0 | 0 | | 1 |
| 7:45 AM | 0 | 9 | 70 | 0 | 0 | 0 | 98 | 10 | | | | | 0 | 10 | 0 | 4 | 201 | 898 | 0 | 0 | | 0 |
| 8:00 AM | 0 | 6 | 64 | 0 | 0 | 0 | 97 | 13 | | | | | 0 | 19 | 0 | 3 | 202 | 964 | 0 | 0 | | 0 |
| 8:15 AM | 0 | 6 | 90 | 0 | 0 | 0 | 98 | 10 | | | | | 0 | 19 | 0 | 3 | 226 | | 0 | 0 | | 0 |
| 8:30 AM | 0 | 5 | 102 | 0 | 0 | 0 | 122 | 13 | | | | | 0 | 20 | 0 | 7 | 269 | | 0 | 0 | | 1 |
| 8:45 AM | 0 | 9 | 119 | 0 | 0 | 0 | 101 | 19 | | | | | 0 | 11 | 0 | 8 | 267 | | 0 | 0 | | 0 |

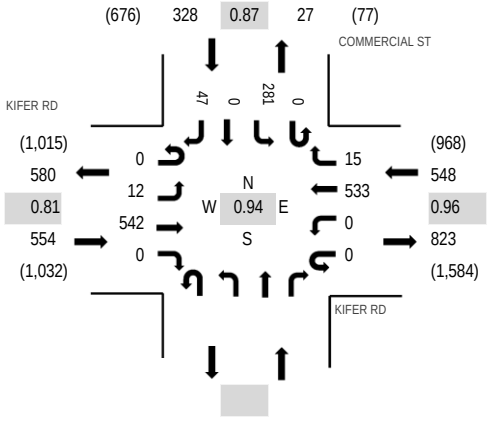
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | | | | | 0 | 0 | 0 | 0 | 3 |
| Lights | 0 | 25 | 367 | 0 | 0 | 0 | 399 | 55 | | | | | 0 | 68 | 0 | 21 | 935 |
| Mediums | 0 | 1 | 6 | 0 | 0 | 0 | 18 | 0 | | | | | 0 | 1 | 0 | 0 | 26 |
| Total | 0 | 26 | 375 | 0 | 0 | 0 | 418 | 55 | | | | | 0 | 69 | 0 | 21 | 964 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

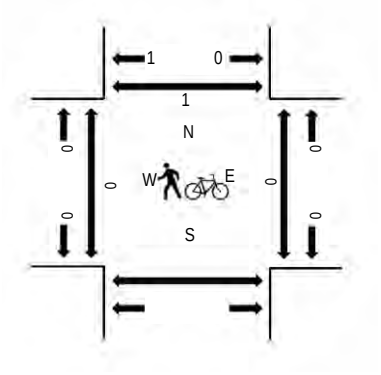
**Location:** 9 COMMERCIAL ST & KIFER RD PM
**Date and Start Time:** Wednesday, December 6, 2017
**Peak Hour:** 04:45 PM - 05:45 PM
**Peak 15-Minutes:** 05:00 PM - 05:15 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

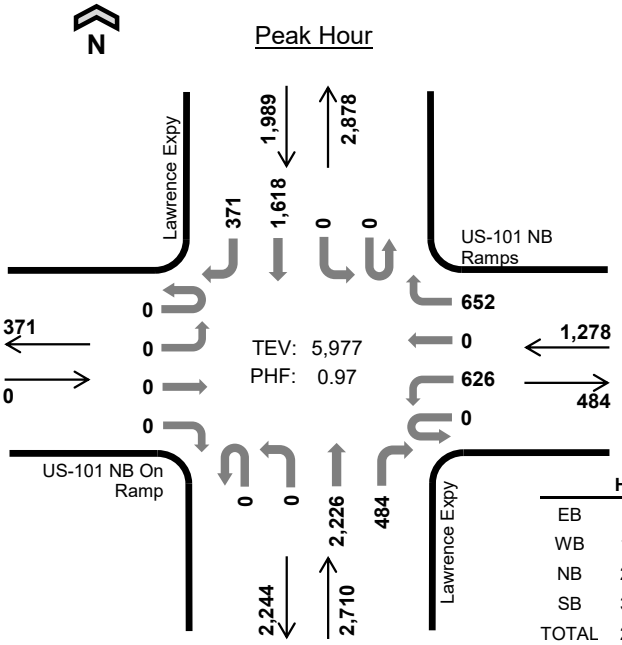
| Interval Start Time | KIFER RD Eastbound | | | | KIFER RD Westbound | | | | Northbound | | | | COMMERCIAL ST Southbound | | | | Total | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 4:00 PM | 0 | 3 | 130 | 0 | 0 | 0 | 81 | 3 | | | | | 0 | 103 | 0 | 6 | 326 | 1,308 | 0 | 0 | | 1 |
| 4:15 PM | 0 | 4 | 112 | 0 | 0 | 0 | 85 | 4 | | | | | 0 | 97 | 0 | 11 | 313 | 1,361 | 0 | 0 | | 0 |
| 4:30 PM | 0 | 8 | 125 | 0 | 0 | 0 | 96 | 7 | | | | | 0 | 66 | 0 | 8 | 310 | 1,388 | 0 | 0 | | 1 |
| 4:45 PM | 0 | 1 | 117 | 0 | 0 | 0 | 120 | 4 | | | | | 0 | 105 | 0 | 12 | 359 | 1,430 | 0 | 0 | | 0 |
| 5:00 PM | 0 | 4 | 167 | 0 | 0 | 0 | 134 | 5 | | | | | 0 | 55 | 0 | 14 | 379 | 1,368 | 0 | 0 | | 0 |
| 5:15 PM | 0 | 3 | 118 | 0 | 0 | 0 | 146 | 2 | | | | | 0 | 64 | 0 | 7 | 340 | | 0 | 0 | | 0 |
| 5:30 PM | 0 | 4 | 140 | 0 | 0 | 0 | 133 | 4 | | | | | 0 | 57 | 0 | 14 | 352 | | 0 | 0 | | 0 |
| 5:45 PM | 0 | 13 | 83 | 0 | 0 | 0 | 136 | 8 | | | | | 0 | 45 | 0 | 12 | 297 | | 0 | 0 | | 0 |

## Peak Rolling Hour Flow Rates

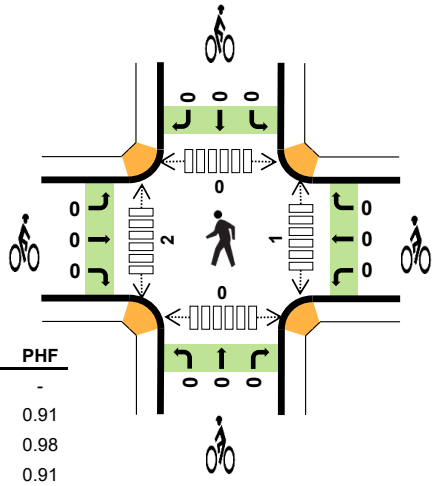
| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 | 0 | 0 |
| Lights | 0 | 11 | 533 | 0 | 0 | 0 | 523 | 15 | | | | | 0 | 277 | 0 | 46 | 1,405 |
| Mediums | 0 | 1 | 9 | 0 | 0 | 0 | 10 | 0 | | | | | 0 | 4 | 0 | 1 | 25 |
| Total | 0 | 12 | 542 | 0 | 0 | 0 | 533 | 15 | | | | | 0 | 281 | 0 | 47 | 1,430 |

# Lawrence Expy
# US-101 NB Ramps

Date: 05-23-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM




| | HV %: | PHF |
|---|---|---|
| EB | - | - |
| WB | 1.6% | 0.91 |
| NB | 2.1% | 0.98 |
| SB | 3.7% | 0.91 |
| TOTAL | 2.5% | 0.97 |




## Two-Hour Count Summaries

| Interval Start | US-101 NB On Ramp | | | | US-101 NB Ramps | | | | Lawrence Expy | | | | Lawrence Expy | | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 103 | 0 | 110 | 0 | 0 | 328 | 73 | 0 | 0 | 334 | 87 | 1,035 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 117 | 0 | 119 | 0 | 0 | 403 | 129 | 0 | 0 | 362 | 123 | 1,253 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 128 | 0 | 139 | 0 | 0 | 470 | 63 | 0 | 0 | 394 | 137 | 1,331 | 0 |
| **7:45 AM** | **0** | **0** | **0** | **0** | **0** | **173** | **0** | **180** | **0** | **0** | **564** | **130** | **0** | **0** | **366** | **124** | **1,537** | 5,156 |
| **8:00 AM** | **0** | **0** | **0** | **0** | **0** | **145** | **0** | **137** | **0** | **0** | **575** | **94** | **0** | **0** | **430** | **114** | **1,495** | 5,616 |
| **8:15 AM** | **0** | **0** | **0** | **0** | **0** | **155** | **0** | **167** | **0** | **0** | **526** | **142** | **0** | **0** | **405** | **69** | **1,464** | 5,827 |
| **8:30 AM** | **0** | **0** | **0** | **0** | **0** | **153** | **0** | **168** | **0** | **0** | **561** | **118** | **0** | **0** | **417** | **64** | **1,481** | **5,977** |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 172 | 0 | 136 | 0 | 0 | 526 | 111 | 0 | 0 | 422 | 81 | 1,448 | 5,888 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 1,146 | 0 | 1,156 | 0 | 0 | 3,953 | 860 | 0 | 0 | 3,130 | 799 | 11,044 | 0 |
| **Peak Hour All** | **0** | **0** | **0** | **0** | **0** | **626** | **0** | **652** | **0** | **0** | **2,226** | **484** | **0** | **0** | **1,618** | **371** | **5,977** | **0** |
| **Peak Hour HV** | **0** | **0** | **0** | **0** | **0** | **12** | **0** | **9** | **0** | **0** | **45** | **12** | **0** | **0** | **71** | **3** | **152** | **0** |
| **Peak Hour HV%** | **-** | **-** | **-** | **-** | **-** | **2%** | **-** | **1%** | **-** | **-** | **2%** | **2%** | **-** | **-** | **4%** | **1%** | **3%** | **0** |

*Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.*

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 7:00 AM | 0 | 8 | 11 | 21 | *40* | 0 | 0 | 0 | 0 | *0* | 1 | 1 | 0 | 0 | *2* |
| 7:15 AM | 0 | 6 | 12 | 16 | *34* | 0 | 0 | 0 | 0 | *0* | 0 | 0 | 0 | 0 | *0* |
| 7:30 AM | 0 | 7 | 11 | 27 | *45* | 0 | 0 | 0 | 0 | *0* | 0 | 1 | 0 | 0 | *1* |
| **7:45 AM** | **0** | **5** | **15** | **16** | ***36*** | **0** | **0** | **0** | **0** | ***0*** | **0** | **1** | **0** | **0** | *1* |
| **8:00 AM** | **0** | **3** | **13** | **16** | ***32*** | **0** | **0** | **0** | **0** | ***0*** | **0** | **0** | **0** | **0** | *0* |
| **8:15 AM** | **0** | **6** | **14** | **18** | ***38*** | **0** | **0** | **0** | **0** | ***0*** | **0** | **0** | **0** | **0** | *0* |
| **8:30 AM** | **0** | **7** | **15** | **24** | ***46*** | **0** | **0** | **0** | **0** | ***0*** | **1** | **1** | **0** | **0** | ***2*** |
| 8:45 AM | 0 | 10 | 14 | 12 | *36* | 0 | 0 | 0 | 1 | *1* | 0 | 0 | 0 | 0 | *0* |
| Count Total | 0 | 52 | 105 | 150 | *307* | 0 | 0 | 0 | 1 | *1* | 2 | 4 | 0 | 0 | *6* |
| **Peak Hour** | **0** | **21** | **57** | **74** | ***152*** | **0** | **0** | **0** | **0** | ***0*** | **1** | **2** | **0** | **0** | ***3*** |

## Two-Hour Count Summaries - Heavy Vehicles

| Interval Start | US-101 NB On Ramp | | | | US-101 NB Ramps | | | | Lawrence Expy | | | | Lawrence Expy | | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 0 | 10 | 1 | 0 | 0 | 21 | 0 | 40 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 10 | 2 | 0 | 0 | 15 | 1 | 34 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 0 | 9 | 2 | 0 | 0 | 22 | 5 | 45 | 0 |
| **7:45 AM** | **0** | **0** | **0** | **0** | **0** | **3** | **0** | **2** | **0** | **0** | **14** | **1** | **0** | **0** | **16** | **0** | **36** | 155 |
| **8:00 AM** | **0** | **0** | **0** | **0** | **0** | **2** | **0** | **1** | **0** | **0** | **9** | **4** | **0** | **0** | **15** | **1** | **32** | 147 |
| **8:15 AM** | **0** | **0** | **0** | **0** | **0** | **3** | **0** | **3** | **0** | **0** | **11** | **3** | **0** | **0** | **17** | **1** | **38** | 151 |
| **8:30 AM** | **0** | **0** | **0** | **0** | **0** | **4** | **0** | **3** | **0** | **0** | **11** | **4** | **0** | **0** | **23** | **1** | **46** | **152** |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 0 | 12 | 2 | 0 | 0 | 11 | 1 | 36 | 152 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 22 | 0 | 0 | 86 | 19 | 0 | 0 | 140 | 10 | 307 | 0 |
| **Peak Hour** | **0** | **0** | **0** | **0** | **0** | **12** | **0** | **9** | **0** | **0** | **45** | **12** | **0** | **0** | **71** | **3** | **152** | **0** |

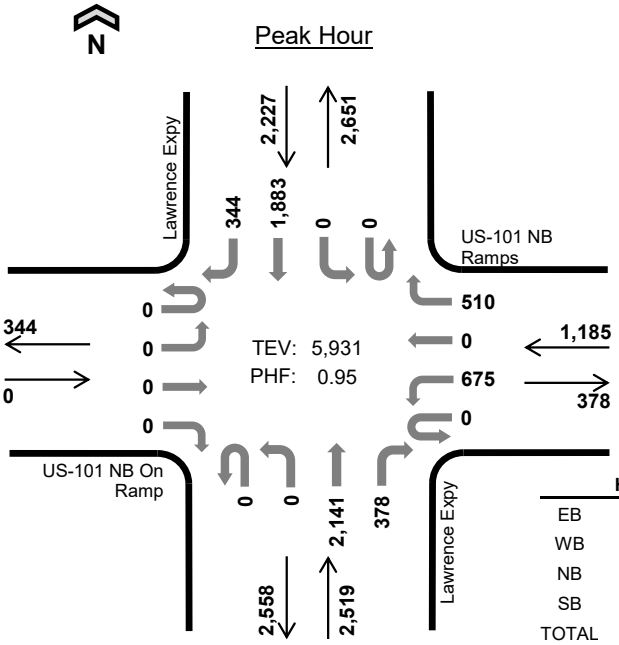
## Two-Hour Count Summaries - Bikes

| Interval Start | US-101 NB On Ramp | | | US-101 NB Ramps | | | Lawrence Expy | | | Lawrence Expy | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **7:45 AM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | 0 |
| **8:00 AM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | 0 |
| **8:15 AM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | 0 |
| **8:30 AM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| **Peak Hour** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |

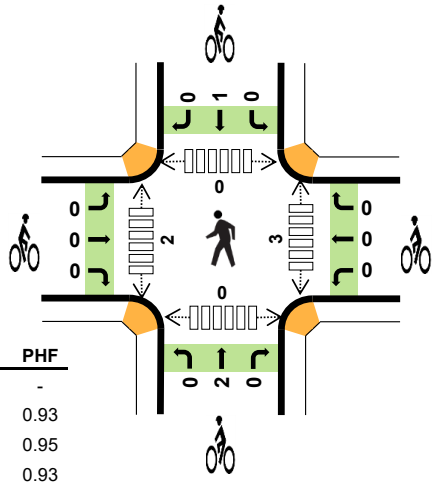
*Note: U-Turn volumes for bikes are included in Left-Turn, if any.*

# Lawrence Expy
# US-101 NB Ramps

**Date: 05-23-2019**
**Count Period: 4:00 PM to 6:00 PM**
**Peak Hour: 5:00 PM to 6:00 PM**




| | HV %: | PHF |
|---|---|---|
| EB | - | - |
| WB | 1.4% | 0.93 |
| NB | 1.2% | 0.95 |
| SB | 0.9% | 0.93 |
| TOTAL | 1.1% | 0.95 |




## Two-Hour Count Summaries

| Interval Start | US-101 NB On Ramp | | | | US-101 NB Ramps | | | | Lawrence Expy | | | | Lawrence Expy | | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 143 | 0 | 97 | 0 | 0 | 333 | 100 | 0 | 0 | 404 | 65 | 1,142 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 151 | 0 | 82 | 0 | 0 | 423 | 79 | 0 | 0 | 510 | 74 | 1,319 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 126 | 0 | 119 | 0 | 0 | 453 | 90 | 0 | 0 | 487 | 58 | 1,333 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 126 | 0 | 96 | 0 | 0 | 502 | 79 | 0 | 0 | 468 | 65 | 1,336 | 5,130 |
| **5:00 PM** | **0** | **0** | **0** | **0** | **0** | **171** | **0** | **148** | **0** | **0** | **528** | **102** | **0** | **0** | **490** | **83** | **1,522** | 5,510 |
| **5:15 PM** | **0** | **0** | **0** | **0** | **0** | **173** | **0** | **131** | **0** | **0** | **549** | **112** | **0** | **0** | **510** | **88** | **1,563** | 5,754 |
| **5:30 PM** | **0** | **0** | **0** | **0** | **0** | **154** | **0** | **114** | **0** | **0** | **554** | **70** | **0** | **0** | **465** | **91** | **1,448** | 5,869 |
| **5:45 PM** | **0** | **0** | **0** | **0** | **0** | **177** | **0** | **117** | **0** | **0** | **510** | **94** | **0** | **0** | **418** | **82** | **1,398** | **5,931** |
| Count Total | 0 | 0 | 0 | 0 | 0 | 1,221 | 0 | 904 | 0 | 0 | 3,852 | 726 | 0 | 0 | 3,752 | 606 | 11,061 | 0 |
| **Peak Hour All** | **0** | **0** | **0** | **0** | **0** | **675** | **0** | **510** | **0** | **0** | **2,141** | **378** | **0** | **0** | **1,883** | **344** | **5,931** | **0** |
| **Peak Hour HV** | **0** | **0** | **0** | **0** | **0** | **14** | **0** | **2** | **0** | **0** | **28** | **3** | **0** | **0** | **17** | **2** | **66** | **0** |
| **Peak Hour HV%** | **-** | **-** | **-** | **-** | **-** | **2%** | **-** | **0%** | **-** | **-** | **1%** | **1%** | **-** | **-** | **1%** | **1%** | **1%** | **0** |

*Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.*

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 4:00 PM | 0 | 5 | 12 | 9 | *26* | 0 | 0 | 0 | 0 | *0* | 0 | 0 | 0 | 0 | *0* |
| 4:15 PM | 0 | 8 | 12 | 5 | *25* | 0 | 0 | 0 | 0 | *0* | 1 | 0 | 0 | 0 | *1* |
| 4:30 PM | 0 | 9 | 15 | 1 | *25* | 0 | 0 | 0 | 0 | *0* | 2 | 0 | 0 | 0 | *2* |
| 4:45 PM | 0 | 5 | 5 | 2 | *12* | 0 | 0 | 1 | 0 | *1* | 1 | 0 | 0 | 0 | *1* |
| **5:00 PM** | **0** | **7** | **11** | **6** | ***24*** | **0** | **0** | **0** | **0** | ***0*** | **0** | **1** | **0** | **0** | *1* |
| **5:15 PM** | **0** | **4** | **15** | **5** | ***24*** | **0** | **0** | **1** | **1** | ***2*** | **0** | **1** | **0** | **0** | *1* |
| **5:30 PM** | **0** | **2** | **1** | **4** | ***7*** | **0** | **0** | **0** | **0** | ***0*** | **3** | **0** | **0** | **0** | *3* |
| **5:45 PM** | **0** | **3** | **4** | **4** | ***11*** | **0** | **0** | **1** | **0** | ***1*** | **0** | **0** | **0** | **0** | ***0*** |
| Count Total | 0 | 43 | 75 | 36 | *154* | 0 | 0 | 3 | 1 | *4* | 7 | 2 | 0 | 0 | *9* |
| **Peak Hour** | **0** | **16** | **31** | **19** | ***66*** | **0** | **0** | **2** | **1** | ***3*** | **3** | **2** | **0** | **0** | ***5*** |

## Two-Hour Count Summaries - Heavy Vehicles

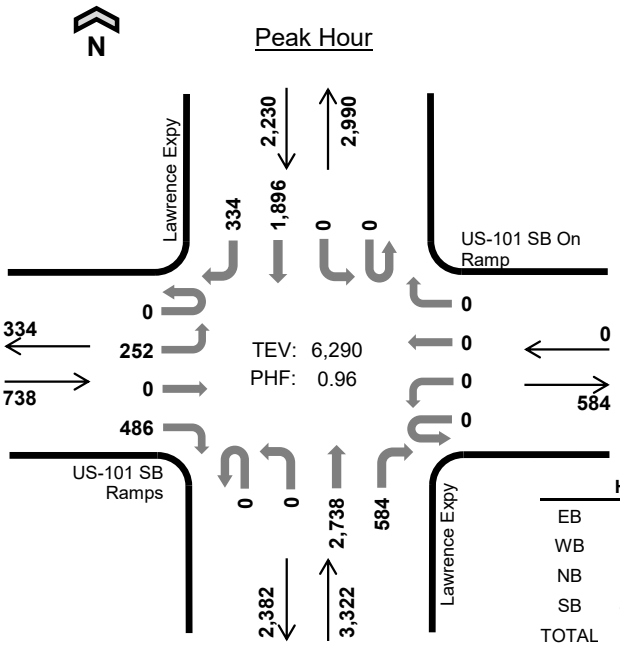
| Interval Start | US-101 NB On Ramp | | | | US-101 NB Ramps | | | | Lawrence Expy | | | | Lawrence Expy | | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 2 | 0 | 0 | 9 | 3 | 0 | 0 | 8 | 1 | 26 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 1 | 0 | 0 | 12 | 0 | 0 | 0 | 3 | 2 | 25 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 1 | 0 | 0 | 13 | 2 | 0 | 0 | 1 | 0 | 25 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 0 | 4 | 1 | 0 | 0 | 1 | 1 | 12 | 88 |
| **5:00 PM** | **0** | **0** | **0** | **0** | **0** | **6** | **0** | **1** | **0** | **0** | **10** | **1** | **0** | **0** | **6** | **0** | **24** | 86 |
| **5:15 PM** | **0** | **0** | **0** | **0** | **0** | **4** | **0** | **0** | **0** | **0** | **15** | **0** | **0** | **0** | **5** | **0** | **24** | 85 |
| **5:30 PM** | **0** | **0** | **0** | **0** | **0** | **2** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **3** | **1** | **7** | 67 |
| **5:45 PM** | **0** | **0** | **0** | **0** | **0** | **2** | **0** | **1** | **0** | **0** | **3** | **1** | **0** | **0** | **3** | **1** | **11** | **66** |
| Count Total | 0 | 0 | 0 | 0 | 0 | 36 | 0 | 7 | 0 | 0 | 66 | 9 | 0 | 0 | 30 | 6 | 154 | 0 |
| **Peak Hour** | **0** | **0** | **0** | **0** | **0** | **14** | **0** | **2** | **0** | **0** | **28** | **3** | **0** | **0** | **17** | **2** | **66** | **0** |

## Two-Hour Count Summaries - Bikes

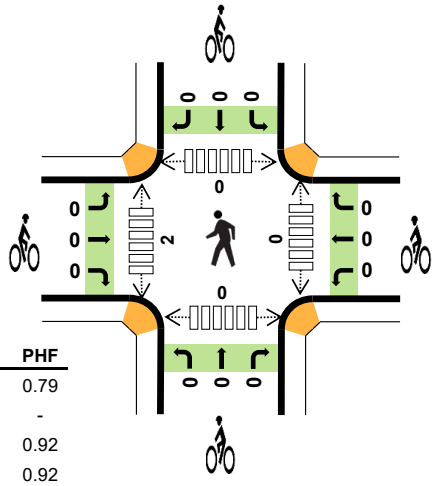
| Interval Start | US-101 NB On Ramp | | | US-101 NB Ramps | | | Lawrence Expy | | | Lawrence Expy | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| **5:00 PM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | 1 |
| **5:15 PM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **1** | **0** | **2** | 3 |
| **5:30 PM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | 3 |
| **5:45 PM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **0** | **0** | **1** | **3** |
| Count Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 4 | 0 |
| **Peak Hour** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **2** | **0** | **0** | **1** | **0** | **3** | **0** |

*Note: U-Turn volumes for bikes are included in Left-Turn, if any.*

# Lawrence Expy
# US-101 SB Ramps




**Date:** 05-23-2019
**Count Period:** 7:00 AM to 9:00 AM
**Peak Hour:** 7:45 AM to 8:45 AM



| | HV %: | PHF |
|---|---|---|
| EB | 1.1% | 0.79 |
| WB | - | - |
| NB | 2.1% | 0.92 |
| SB | 4.1% | 0.92 |
| TOTAL | 2.7% | 0.96 |

## Two-Hour Count Summaries

| Interval Start | US-101 SB Ramps | | | | US-101 SB On Ramp | | | | Lawrence Expy | | | | Lawrence Expy | | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | 0 | 28 | 0 | 93 | 0 | 0 | 0 | 0 | 0 | 0 | 364 | 69 | 0 | 0 | 355 | 60 | 969 | 0 |
| 7:15 AM | 0 | 42 | 0 | 109 | 0 | 0 | 0 | 0 | 0 | 0 | 520 | 127 | 0 | 0 | 405 | 71 | 1,274 | 0 |
| 7:30 AM | 0 | 68 | 0 | 103 | 0 | 0 | 0 | 0 | 0 | 0 | 515 | 137 | 0 | 0 | 428 | 97 | 1,348 | 0 |
| **7:45 AM** | **0** | **116** | **0** | **117** | **0** | **0** | **0** | **0** | **0** | **0** | **668** | **127** | **0** | **0** | **448** | **89** | **1,565** | 5,156 |
| **8:00 AM** | **0** | **60** | **0** | **108** | **0** | **0** | **0** | **0** | **0** | **0** | **652** | **139** | **0** | **0** | **518** | **90** | **1,567** | 5,754 |
| **8:15 AM** | **0** | **34** | **0** | **150** | **0** | **0** | **0** | **0** | **0** | **0** | **684** | **150** | **0** | **0** | **427** | **73** | **1,518** | 5,998 |
| **8:30 AM** | **0** | **42** | **0** | **111** | **0** | **0** | **0** | **0** | **0** | **0** | **734** | **168** | **0** | **0** | **503** | **82** | **1,640** | **6,290** |
| 8:45 AM | 0 | 57 | 0 | 130 | 0 | 0 | 0 | 0 | 0 | 0 | 601 | 146 | 0 | 0 | 501 | 78 | 1,513 | 6,238 |
| Count Total | 0 | 447 | 0 | 921 | 0 | 0 | 0 | 0 | 0 | 0 | 4,738 | 1,063 | 0 | 0 | 3,585 | 640 | 11,394 | 0 |
| **Peak Hour All** | **0** | **252** | **0** | **486** | **0** | **0** | **0** | **0** | **0** | **0** | **2,738** | **584** | **0** | **0** | **1,896** | **334** | **6,290** | **0** |
| **Peak Hour HV** | **0** | **0** | **0** | **8** | **0** | **0** | **0** | **0** | **0** | **0** | **53** | **16** | **0** | **0** | **77** | **15** | **169** | **0** |
| **Peak Hour HV%** | **-** | **0%** | **-** | **2%** | **-** | **-** | **-** | **-** | **-** | **-** | **2%** | **3%** | **-** | **-** | **4%** | **4%** | **3%** | **0** |

*Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.*

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 7:00 AM | 4 | 0 | 12 | 25 | *41* | 0 | 0 | 0 | 0 | *0* | 0 | 0 | 1 | 0 | *1* |
| 7:15 AM | 7 | 0 | 13 | 17 | *37* | 0 | 0 | 0 | 0 | *0* | 0 | 1 | 0 | 0 | *1* |
| 7:30 AM | 2 | 0 | 15 | 23 | *40* | 0 | 0 | 0 | 0 | *0* | 0 | 1 | 0 | 0 | *1* |
| **7:45 AM** | **4** | **0** | **16** | **24** | ***44*** | **0** | **0** | **0** | **0** | ***0*** | **0** | **1** | **0** | **0** | *1* |
| **8:00 AM** | **2** | **0** | **14** | **21** | ***37*** | **0** | **0** | **0** | **0** | ***0*** | **0** | **0** | **0** | **0** | *0* |
| **8:15 AM** | **1** | **0** | **19** | **18** | ***38*** | **0** | **0** | **0** | **0** | ***0*** | **0** | **0** | **0** | **0** | *0* |
| **8:30 AM** | **1** | **0** | **20** | **29** | ***50*** | **0** | **0** | **0** | **0** | ***0*** | **0** | **1** | **0** | **0** | ***1*** |
| 8:45 AM | 4 | 0 | 19 | 29 | *52* | 1 | 0 | 0 | 0 | *1* | 0 | 0 | 0 | 0 | *0* |
| Count Total | 25 | 0 | 128 | 186 | *339* | 1 | 0 | 0 | 0 | *1* | 0 | 4 | 1 | 0 | *5* |
| **Peak Hour** | **8** | **0** | **69** | **92** | ***169*** | **0** | **0** | **0** | **0** | ***0*** | **0** | **2** | **0** | **0** | ***2*** |

## Two-Hour Count Summaries - Heavy Vehicles

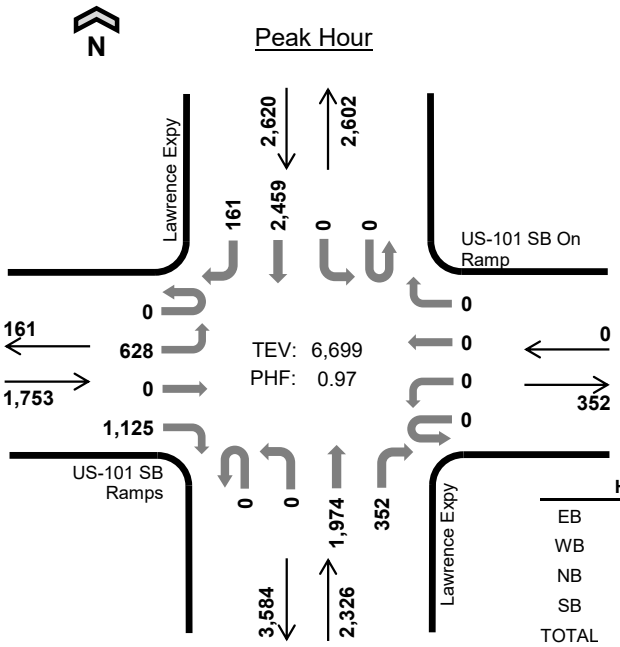
| Interval Start | US-101 SB Ramps | | | | US-101 SB On Ramp | | | | Lawrence Expy | | | | Lawrence Expy | | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 2 | 0 | 0 | 24 | 1 | 41 | 0 |
| 7:15 AM | 0 | 2 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 5 | 0 | 0 | 15 | 2 | 37 | 0 |
| 7:30 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 4 | 0 | 0 | 18 | 5 | 40 | 0 |
| **7:45 AM** | **0** | **0** | **0** | **4** | **0** | **0** | **0** | **0** | **0** | **0** | **14** | **2** | **0** | **0** | **21** | **3** | **44** | 162 |
| **8:00 AM** | **0** | **0** | **0** | **2** | **0** | **0** | **0** | **0** | **0** | **0** | **11** | **3** | **0** | **0** | **16** | **5** | **37** | 158 |
| **8:15 AM** | **0** | **0** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **14** | **5** | **0** | **0** | **16** | **2** | **38** | 159 |
| **8:30 AM** | **0** | **0** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **14** | **6** | **0** | **0** | **24** | **5** | **50** | **169** |
| 8:45 AM | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 9 | 0 | 0 | 23 | 6 | 52 | 177 |
| Count Total | 0 | 5 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 92 | 36 | 0 | 0 | 157 | 29 | 339 | 0 |
| **Peak Hour** | **0** | **0** | **0** | **8** | **0** | **0** | **0** | **0** | **0** | **0** | **53** | **16** | **0** | **0** | **77** | **15** | **169** | **0** |

## Two-Hour Count Summaries - Bikes

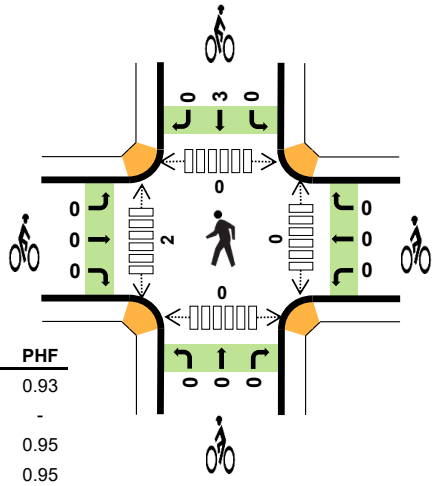
| Interval Start | US-101 SB Ramps | | | US-101 SB On Ramp | | | Lawrence Expy | | | Lawrence Expy | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **7:45 AM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | 0 |
| **8:00 AM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | 0 |
| **8:15 AM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | 0 |
| **8:30 AM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| 8:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Count Total | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| **Peak Hour** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |

*Note: U-Turn volumes for bikes are included in Left-Turn, if any.*

# Lawrence Expy
# US-101 SB Ramps




**Date:** 05-23-2019
**Count Period:** 4:00 PM to 6:00 PM
**Peak Hour:** 5:00 PM to 6:00 PM




| | HV %: | PHF |
|---|---|---|
| EB | 0.9% | 0.93 |
| WB | - | - |
| NB | 1.2% | 0.95 |
| SB | 1.1% | 0.95 |
| TOTAL | 1.1% | 0.97 |

## Two-Hour Count Summaries

| Interval Start | US-101 SB Ramps | | | | US-101 SB On Ramp | | | | Lawrence Expy | | | | Lawrence Expy | | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | 0 | 178 | 0 | 253 | 0 | 0 | 0 | 0 | 0 | 0 | 330 | 69 | 0 | 0 | 510 | 32 | 1,372 | 0 |
| 4:15 PM | 0 | 109 | 0 | 243 | 0 | 0 | 0 | 0 | 0 | 0 | 418 | 77 | 0 | 0 | 544 | 38 | 1,429 | 0 |
| 4:30 PM | 0 | 158 | 0 | 249 | 0 | 0 | 0 | 0 | 0 | 0 | 405 | 88 | 0 | 0 | 590 | 45 | 1,535 | 0 |
| 4:45 PM | 0 | 132 | 0 | 200 | 0 | 0 | 0 | 0 | 0 | 0 | 442 | 93 | 0 | 0 | 586 | 31 | 1,484 | 5,820 |
| **5:00 PM** | **0** | **172** | **0** | **233** | **0** | **0** | **0** | **0** | **0** | **0** | **478** | **89** | **0** | **0** | **640** | **52** | **1,664** | 6,112 |
| **5:15 PM** | **0** | **157** | **0** | **256** | **0** | **0** | **0** | **0** | **0** | **0** | **533** | **80** | **0** | **0** | **606** | **34** | **1,666** | 6,349 |
| **5:30 PM** | **0** | **145** | **0** | **324** | **0** | **0** | **0** | **0** | **0** | **0** | **498** | **94** | **0** | **0** | **617** | **41** | **1,719** | 6,533 |
| **5:45 PM** | **0** | **154** | **0** | **312** | **0** | **0** | **0** | **0** | **0** | **0** | **465** | **89** | **0** | **0** | **596** | **34** | **1,650** | **6,699** |
| Count Total | 0 | 1,205 | 0 | 2,070 | 0 | 0 | 0 | 0 | 0 | 0 | 3,569 | 679 | 0 | 0 | 4,689 | 307 | 12,519 | 0 |
| **Peak Hour All** | **0** | **628** | **0** | **1,125** | **0** | **0** | **0** | **0** | **0** | **0** | **1,974** | **352** | **0** | **0** | **2,459** | **161** | **6,699** | **0** |
| **Peak Hour HV** | **0** | **4** | **0** | **11** | **0** | **0** | **0** | **0** | **0** | **0** | **29** | **0** | **0** | **0** | **25** | **4** | **73** | **0** |
| **Peak Hour HV%** | **-** | **1%** | **-** | **1%** | **-** | **-** | **-** | **-** | **-** | **-** | **1%** | **0%** | **-** | **-** | **1%** | **2%** | **1%** | **0** |

*Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.*

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 4:00 PM | 3 | 0 | 11 | 10 | *24* | 0 | 0 | 0 | 0 | *0* | 0 | 0 | 0 | 0 | *0* |
| 4:15 PM | 4 | 0 | 7 | 9 | *20* | 0 | 0 | 0 | 0 | *0* | 0 | 0 | 0 | 0 | *0* |
| 4:30 PM | 5 | 0 | 9 | 10 | *24* | 0 | 0 | 0 | 0 | *0* | 0 | 0 | 0 | 0 | *0* |
| 4:45 PM | 3 | 0 | 5 | 6 | *14* | 0 | 0 | 0 | 0 | *0* | 0 | 1 | 0 | 0 | *1* |
| **5:00 PM** | **3** | **0** | **8** | **10** | ***21*** | **0** | **0** | **0** | **1** | ***1*** | **0** | **1** | **0** | **0** | *1* |
| **5:15 PM** | **6** | **0** | **12** | **8** | ***26*** | **0** | **0** | **0** | **1** | ***1*** | **0** | **1** | **0** | **0** | *1* |
| **5:30 PM** | **3** | **0** | **6** | **6** | ***15*** | **0** | **0** | **0** | **0** | ***0*** | **0** | **0** | **0** | **0** | *0* |
| **5:45 PM** | **3** | **0** | **3** | **5** | ***11*** | **0** | **0** | **0** | **1** | ***1*** | **0** | **0** | **0** | **0** | ***0*** |
| Count Total | 30 | 0 | 61 | 64 | *155* | 0 | 0 | 0 | 3 | *3* | 0 | 3 | 0 | 0 | *3* |
| **Peak Hour** | **15** | **0** | **29** | **29** | ***73*** | **0** | **0** | **0** | **3** | ***3*** | **0** | **2** | **0** | **0** | ***2*** |

## Two-Hour Count Summaries - Heavy Vehicles

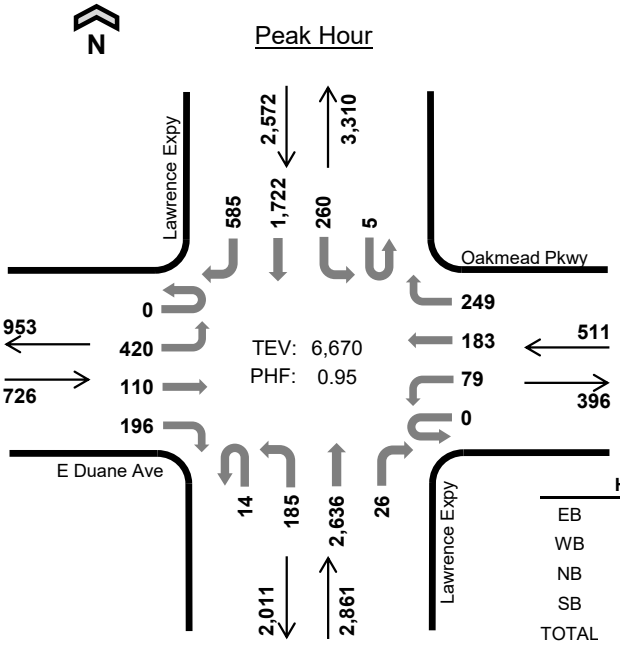
| Interval Start | US-101 SB Ramps | | | | US-101 SB On Ramp | | | | Lawrence Expy | | | | Lawrence Expy | | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 2 | 0 | 0 | 7 | 3 | 24 | 0 |
| 4:15 PM | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 9 | 0 | 20 | 0 |
| 4:30 PM | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 1 | 24 | 0 |
| 4:45 PM | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 6 | 0 | 14 | 82 |
| **5:00 PM** | **0** | **2** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **8** | **0** | **0** | **0** | **9** | **1** | **21** | 79 |
| **5:15 PM** | **0** | **2** | **0** | **4** | **0** | **0** | **0** | **0** | **0** | **0** | **12** | **0** | **0** | **0** | **7** | **1** | **26** | 85 |
| **5:30 PM** | **0** | **0** | **0** | **3** | **0** | **0** | **0** | **0** | **0** | **0** | **6** | **0** | **0** | **0** | **5** | **1** | **15** | 76 |
| **5:45 PM** | **0** | **0** | **0** | **3** | **0** | **0** | **0** | **0** | **0** | **0** | **3** | **0** | **0** | **0** | **4** | **1** | **11** | **73** |
| Count Total | 0 | 10 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 3 | 0 | 0 | 56 | 8 | 155 | 0 |
| **Peak Hour** | **0** | **4** | **0** | **11** | **0** | **0** | **0** | **0** | **0** | **0** | **29** | **0** | **0** | **0** | **25** | **4** | **73** | **0** |

## Two-Hour Count Summaries - Bikes

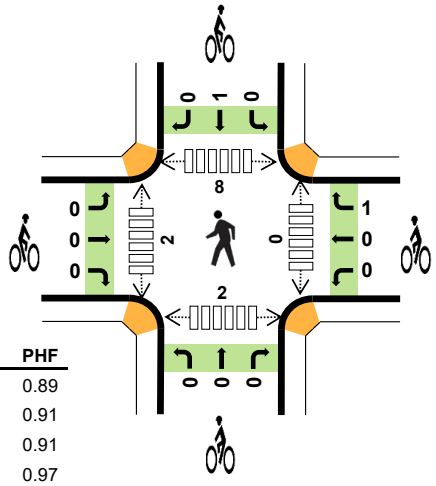
| Interval Start | US-101 SB Ramps | | | US-101 SB On Ramp | | | Lawrence Expy | | | Lawrence Expy | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **5:00 PM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **1** | 1 |
| **5:15 PM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **1** | 2 |
| **5:30 PM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | 2 |
| **5:45 PM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **1** | **3** |
| Count Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 |
| **Peak Hour** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **3** | **0** | **3** | **0** |

*Note: U-Turn volumes for bikes are included in Left-Turn, if any.*

# Lawrence Expy
# E Duane Ave




**Date:** 05-23-2019
**Count Period:** 7:00 AM to 9:00 AM
**Peak Hour:** 8:00 AM to 9:00 AM



| | HV %: | PHF |
|---|---|---|
| EB | 1.4% | 0.89 |
| WB | 0.8% | 0.91 |
| NB | 2.4% | 0.91 |
| SB | 3.3% | 0.97 |
| TOTAL | 2.5% | 0.95 |

## Two-Hour Count Summaries

| Interval Start | E Duane Ave Eastbound | | | | Oakmead Pkwy Westbound | | | | Lawrence Expy Northbound | | | | Lawrence Expy Southbound | | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | 0 | 24 | 12 | 10 | 1 | 4 | 11 | 29 | 2 | 27 | 445 | 5 | 1 | 60 | 262 | 82 | 975 | 0 |
| 7:15 AM | 0 | 49 | 14 | 32 | 0 | 12 | 13 | 40 | 3 | 28 | 544 | 10 | 2 | 44 | 372 | 92 | 1,255 | 0 |
| 7:30 AM | 0 | 64 | 13 | 36 | 0 | 5 | 30 | 43 | 1 | 16 | 594 | 16 | 1 | 41 | 399 | 84 | 1,343 | 0 |
| 7:45 AM | 0 | 79 | 17 | 42 | 0 | 10 | 41 | 38 | 1 | 42 | 703 | 5 | 0 | 51 | 406 | 149 | 1,584 | 5,157 |
| **8:00 AM** | **0** | **87** | **18** | **62** | **0** | **15** | **48** | **59** | **5** | **58** | **656** | **6** | **2** | **70** | **418** | **167** | **1,671** | 5,853 |
| **8:15 AM** | **0** | **124** | **34** | **45** | **0** | **16** | **56** | **52** | **3** | **45** | **641** | **3** | **0** | **68** | **368** | **161** | **1,616** | 6,214 |
| **8:30 AM** | **0** | **105** | **26** | **52** | **0** | **19** | **49** | **72** | **2** | **40** | **737** | **9** | **3** | **54** | **449** | **146** | **1,763** | 6,634 |
| **8:45 AM** | **0** | **104** | **32** | **37** | **0** | **29** | **30** | **66** | **4** | **42** | **602** | **8** | **0** | **68** | **487** | **111** | **1,620** | **6,670** |
| Count Total | 0 | 636 | 166 | 316 | 1 | 110 | 278 | 399 | 21 | 298 | 4,922 | 62 | 9 | 456 | 3,161 | 992 | 11,827 | 0 |
| **Peak Hour All** | **0** | **420** | **110** | **196** | **0** | **79** | **183** | **249** | **14** | **185** | **2,636** | **26** | **5** | **260** | **1,722** | **585** | **6,670** | **0** |
| **Peak Hour HV** | **0** | **9** | **0** | **1** | **0** | **1** | **0** | **3** | **0** | **0** | **67** | **1** | **0** | **9** | **59** | **18** | **168** | **0** |
| **Peak Hour HV%** | **-** | **2%** | **0%** | **1%** | **-** | **1%** | **0%** | **1%** | **0%** | **0%** | **3%** | **4%** | **0%** | **3%** | **3%** | **3%** | **3%** | **0** |

*Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.*

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 7:00 AM | 1 | 2 | 13 | 24 | *40* | 0 | 0 | 0 | 1 | *1* | 0 | 1 | 1 | 1 | *3* |
| 7:15 AM | 2 | 1 | 12 | 22 | *37* | 0 | 0 | 1 | 0 | *1* | 0 | 1 | 3 | 0 | *4* |
| 7:30 AM | 3 | 2 | 10 | 23 | *38* | 0 | 0 | 0 | 0 | *0* | 0 | 1 | 3 | 2 | *6* |
| 7:45 AM | 3 | 2 | 11 | 22 | *38* | 0 | 0 | 0 | 1 | *1* | 0 | 1 | 3 | 1 | *5* |
| **8:00 AM** | **3** | **0** | **14** | **18** | ***35*** | **0** | **0** | **0** | **0** | ***0*** | **0** | **1** | **2** | **0** | *3* |
| **8:15 AM** | **4** | **0** | **14** | **20** | ***38*** | **0** | **0** | **0** | **0** | ***0*** | **0** | **0** | **3** | **0** | *3* |
| **8:30 AM** | **0** | **1** | **21** | **19** | ***41*** | **0** | **1** | **0** | **0** | ***1*** | **0** | **0** | **2** | **0** | *2* |
| **8:45 AM** | **3** | **3** | **19** | **29** | ***54*** | **0** | **0** | **0** | **1** | ***1*** | **0** | **1** | **1** | **2** | ***4*** |
| Count Total | 19 | 11 | 114 | 177 | *321* | 0 | 1 | 1 | 3 | *5* | 0 | 6 | 18 | 6 | *30* |
| **Peak Hour** | **10** | **4** | **68** | **86** | ***168*** | **0** | **1** | **0** | **1** | ***2*** | **0** | **2** | **8** | **2** | ***12*** |

## Two-Hour Count Summaries - Heavy Vehicles

| Interval Start | E Duane Ave | | | | Oakmead Pkwy | | | | Lawrence Expy | | | | Lawrence Expy | | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 13 | 0 | 0 | 0 | 21 | 3 | 40 | 0 |
| 7:15 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 11 | 0 | 0 | 1 | 19 | 2 | 37 | 0 |
| 7:30 AM | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 10 | 0 | 0 | 1 | 17 | 5 | 38 | 0 |
| 7:45 AM | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 11 | 0 | 0 | 1 | 18 | 3 | 38 | 153 |
| **8:00 AM** | **0** | **2** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **14** | **0** | **0** | **1** | **11** | **6** | **35** | 148 |
| **8:15 AM** | **0** | **4** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **14** | **0** | **0** | **4** | **11** | **5** | **38** | 149 |
| **8:30 AM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **21** | **0** | **0** | **2** | **15** | **2** | **41** | 152 |
| **8:45 AM** | **0** | **3** | **0** | **0** | **0** | **1** | **0** | **2** | **0** | **0** | **18** | **1** | **0** | **2** | **22** | **5** | **54** | **168** |
| Count Total | 0 | 16 | 2 | 1 | 0 | 2 | 1 | 8 | 1 | 0 | 112 | 1 | 0 | 12 | 134 | 31 | 321 | 0 |
| **Peak Hour** | **0** | **9** | **0** | **1** | **0** | **1** | **0** | **3** | **0** | **0** | **67** | **1** | **0** | **9** | **59** | **18** | **168** | **0** |

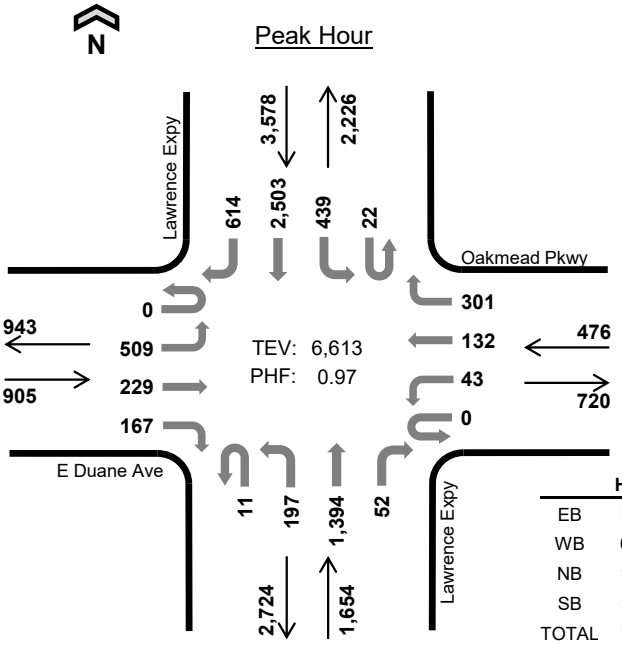
## Two-Hour Count Summaries - Bikes

| Interval Start | E Duane Ave | | | Oakmead Pkwy | | | Lawrence Expy | | | Lawrence Expy | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 |
| **8:00 AM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | 2 |
| **8:15 AM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | 1 |
| **8:30 AM** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | 2 |
| **8:45 AM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **1** | **2** |
| Count Total | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 3 | 0 | 5 | 0 |
| **Peak Hour** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **0** | **0** | **1** | **0** | **2** | **0** |

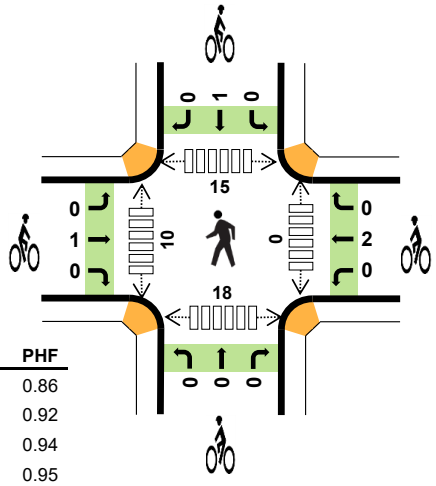
*Note: U-Turn volumes for bikes are included in Left-Turn, if any.*

# Lawrence Expy
# E Duane Ave

Date: 05-23-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM




| | HV %: | PHF |
|---|---|---|
| EB | 1.0% | 0.86 |
| WB | 0.6% | 0.92 |
| NB | 1.3% | 0.94 |
| SB | 1.0% | 0.95 |
| TOTAL | 1.1% | 0.97 |




## Two-Hour Count Summaries

| Interval Start | | E Duane Ave Eastbound | | | | Oakmead Pkwy Westbound | | | | Lawrence Expy Northbound | | | | Lawrence Expy Southbound | | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | | 0 | 82 | 36 | 46 | 0 | 12 | 13 | 67 | 3 | 43 | 272 | 9 | 2 | 80 | 701 | 79 | 1,445 | 0 |
| 4:15 PM | | 0 | 90 | 40 | 47 | 1 | 9 | 14 | 54 | 1 | 40 | 312 | 5 | 1 | 75 | 716 | 95 | 1,500 | 0 |
| 4:30 PM | | 0 | 91 | 39 | 45 | 0 | 17 | 10 | 58 | 4 | 38 | 355 | 10 | 4 | 65 | 758 | 111 | 1,605 | 0 |
| 4:45 PM | | 0 | 107 | 45 | 43 | 0 | 13 | 23 | 43 | 7 | 51 | 344 | 13 | 1 | 69 | 668 | 105 | 1,532 | 6,082 |
| **5:00 PM** | | **0** | **148** | **68** | **48** | **0** | **8** | **31** | **91** | **8** | **48** | **302** | **6** | **0** | **90** | **629** | **131** | **1,608** | 6,245 |
| **5:15 PM** | | **0** | **134** | **60** | **45** | **0** | **15** | **32** | **76** | **2** | **46** | **357** | **19** | **5** | **94** | **705** | **116** | **1,706** | 6,451 |
| **5:30 PM** | | **0** | **111** | **46** | **44** | **0** | **11** | **28** | **64** | **0** | **52** | **376** | **14** | **11** | **124** | **626** | **178** | **1,685** | 6,531 |
| **5:45 PM** | | **0** | **116** | **55** | **30** | **0** | **9** | **41** | **70** | **1** | **51** | **359** | **13** | **6** | **131** | **543** | **189** | **1,614** | **6,613** |
| Count Total | | 0 | 879 | 389 | 348 | 1 | 94 | 192 | 523 | 26 | 369 | 2,677 | 89 | 30 | 728 | 5,346 | 1,004 | 12,695 | 0 |
| **Peak Hour** | **All** | **0** | **509** | **229** | **167** | **0** | **43** | **132** | **301** | **11** | **197** | **1,394** | **52** | **22** | **439** | **2,503** | **614** | **6,613** | **0** |
| | **HV** | **0** | **8** | **1** | **0** | **0** | **0** | **0** | **3** | **0** | **0** | **22** | **0** | **0** | **3** | **23** | **11** | **71** | **0** |
| | **HV%** | **-** | **2%** | **0%** | **0%** | **-** | **0%** | **0%** | **1%** | **0%** | **0%** | **2%** | **0%** | **0%** | **1%** | **1%** | **2%** | **1%** | **0** |

*Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.*

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 4:00 PM | 3 | 2 | 9 | 7 | *21* | 0 | 0 | 0 | 0 | *0* | 0 | 0 | 7 | 2 | *9* |
| 4:15 PM | 2 | 1 | 4 | 14 | *21* | 0 | 0 | 0 | 0 | *0* | 0 | 3 | 4 | 0 | *7* |
| 4:30 PM | 5 | 2 | 4 | 10 | *21* | 0 | 0 | 0 | 0 | *0* | 0 | 3 | 1 | 9 | *13* |
| 4:45 PM | 1 | 0 | 5 | 7 | *13* | 0 | 1 | 0 | 0 | *1* | 0 | 0 | 2 | 1 | *3* |
| **5:00 PM** | **3** | **1** | **7** | **10** | ***21*** | **1** | **0** | **0** | **1** | ***2*** | **0** | **1** | **2** | **1** | *4* |
| **5:15 PM** | **3** | **1** | **7** | **12** | ***23*** | **0** | **1** | **0** | **0** | ***1*** | **0** | **5** | **6** | **1** | *12* |
| **5:30 PM** | **2** | **0** | **5** | **9** | ***16*** | **0** | **0** | **0** | **0** | ***0*** | **0** | **2** | **5** | **5** | *12* |
| **5:45 PM** | **1** | **1** | **3** | **6** | ***11*** | **0** | **1** | **0** | **0** | ***1*** | **0** | **2** | **2** | **11** | ***15*** |
| Count Total | 20 | 8 | 44 | 75 | *147* | 1 | 3 | 0 | 1 | *5* | 0 | 16 | 29 | 30 | *75* |
| **Peak Hour** | **9** | **3** | **22** | **37** | ***71*** | **1** | **2** | **0** | **1** | ***4*** | **0** | **10** | **15** | **18** | ***43*** |

## Two-Hour Count Summaries - Heavy Vehicles

| Interval Start | E Duane Ave | | | | Oakmead Pkwy | | | | Lawrence Expy | | | | Lawrence Expy | | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 9 | 0 | 0 | 2 | 4 | 1 | 21 | 0 |
| 4:15 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 2 | 10 | 2 | 21 | 0 |
| 4:30 PM | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | 0 | 0 | 1 | 6 | 3 | 21 | 0 |
| 4:45 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 5 | 2 | 13 | 76 |
| **5:00 PM** | **0** | **3** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **7** | **0** | **0** | **0** | **9** | **1** | **21** | 76 |
| **5:15 PM** | **0** | **3** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **7** | **0** | **0** | **1** | **6** | **5** | **23** | 78 |
| **5:30 PM** | **0** | **1** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **5** | **0** | **0** | **2** | **5** | **2** | **16** | 73 |
| **5:45 PM** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **3** | **0** | **0** | **0** | **3** | **3** | **11** | **71** |
| Count Total | 0 | 19 | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 2 | 42 | 0 | 0 | 8 | 48 | 19 | 147 | 0 |
| **Peak Hour** | **0** | **8** | **1** | **0** | **0** | **0** | **0** | **3** | **0** | **0** | **22** | **0** | **0** | **3** | **23** | **11** | **71** | **0** |

## Two-Hour Count Summaries - Bikes

| Interval Start | E Duane Ave | | | Oakmead Pkwy | | | Lawrence Expy | | | Lawrence Expy | | | 15-min Total | Rolling One Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| **5:00 PM** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **2** | 3 |
| **5:15 PM** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | 4 |
| **5:30 PM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | 4 |
| **5:45 PM** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **4** |
| Count Total | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 0 |
| **Peak Hour** | **0** | **1** | **0** | **0** | **2** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **4** | **0** |

*Note: U-Turn volumes for bikes are included in Left-Turn, if any.*

# National Data and Surveying Services

City of Sunnyvale
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(323) 782-0090
info@ndsdata.com

File Name : 17-7255-028 Lawrence Expy & Arques Ave
Date : 4/4/2017

**Unshifted Count = All Vehicles & Uturns**

| | Lawrence Expy Southbound | | | | | Arques Ave Westbound | | | | | Lawrence Expy Northbound | | | | | Arques Ave Eastbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total | Uturns Total |
| 7:00 | 5 | 302 | 78 | 4 | 389 | 16 | 37 | 10 | 0 | 63 | 26 | 419 | 17 | 3 | 465 | 20 | 16 | 27 | 0 | 63 | 980 | 7 |
| 7:15 | 17 | 375 | 55 | 6 | 453 | 17 | 42 | 22 | 0 | 81 | 54 | 515 | 34 | 2 | 605 | 19 | 12 | 19 | 1 | 51 | 1190 | 9 |
| 7:30 | 17 | 347 | 44 | 4 | 412 | 37 | 52 | 21 | 1 | 111 | 49 | 649 | 52 | 5 | 755 | 42 | 26 | 24 | 0 | 92 | 1370 | 10 |
| 7:45 | 22 | 347 | 75 | 6 | 450 | 28 | 98 | 30 | 0 | 156 | 55 | 727 | 68 | 0 | 850 | 34 | 29 | 38 | 0 | 101 | 1557 | 6 |
| Total | 61 | 1371 | 252 | 20 | 1704 | 98 | 229 | 83 | 1 | 411 | 184 | 2310 | 171 | 10 | 2675 | 115 | 83 | 108 | 1 | 307 | 5097 | 32 |
| 8:00 | 19 | 371 | 74 | 5 | 469 | 35 | 86 | 11 | 0 | 132 | 88 | 746 | 88 | 6 | 928 | 31 | 31 | 41 | 0 | 103 | 1632 | 11 |
| 8:15 | 21 | 328 | 75 | 1 | 425 | 25 | 85 | 17 | 0 | 127 | 80 | 709 | 95 | 6 | 890 | 34 | 45 | 40 | 0 | 119 | 1561 | 7 |
| 8:30 | 17 | 318 | 90 | 0 | 425 | 32 | 77 | 15 | 0 | 124 | 90 | 796 | 64 | 2 | 952 | 36 | 35 | 38 | 0 | 109 | 1610 | 2 |
| 8:45 | 29 | 277 | 84 | 5 | 395 | 33 | 84 | 16 | 0 | 133 | 79 | 756 | 54 | 3 | 892 | 36 | 44 | 34 | 0 | 114 | 1534 | 8 |
| Total | 86 | 1294 | 323 | 11 | 1714 | 125 | 332 | 59 | 0 | 516 | 337 | 3007 | 301 | 17 | 3662 | 137 | 155 | 153 | 0 | 445 | 6337 | 28 |
| 9:00 | 26 | 305 | 101 | 10 | 442 | 28 | 67 | 11 | 0 | 106 | 108 | 787 | 111 | 3 | 1009 | 42 | 25 | 37 | 1 | 105 | 1662 | 14 |
| 9:15 | 21 | 310 | 103 | 5 | 439 | 34 | 79 | 12 | 1 | 126 | 123 | 800 | 103 | 6 | 1032 | 56 | 36 | 35 | 0 | 127 | 1724 | 12 |
| 9:30 | 24 | 315 | 113 | 7 | 459 | 32 | 53 | 25 | 0 | 110 | 137 | 686 | 83 | 9 | 915 | 45 | 48 | 51 | 0 | 144 | 1628 | 16 |
| 9:45 | 20 | 303 | 105 | 11 | 439 | 33 | 73 | 24 | 0 | 130 | 120 | 623 | 101 | 1 | 845 | 48 | 32 | 49 | 0 | 129 | 1543 | 12 |
| Total | 91 | 1233 | 422 | 33 | 1779 | 127 | 272 | 72 | 1 | 472 | 488 | 2896 | 398 | 19 | 3801 | 191 | 141 | 172 | 1 | 505 | 6557 | 54 |
| 16:00 | 26 | 638 | 42 | 4 | 710 | 51 | 48 | 16 | 1 | 116 | 44 | 298 | 38 | 5 | 385 | 60 | 77 | 146 | 2 | 285 | 1496 | 12 |
| 16:15 | 16 | 696 | 41 | 10 | 763 | 71 | 41 | 17 | 0 | 129 | 53 | 262 | 33 | 4 | 352 | 42 | 94 | 129 | 0 | 265 | 1509 | 14 |
| 16:30 | 32 | 713 | 37 | 12 | 794 | 96 | 47 | 28 | 0 | 171 | 53 | 302 | 28 | 5 | 388 | 80 | 112 | 157 | 0 | 349 | 1702 | 17 |
| 16:45 | 18 | 656 | 47 | 11 | 732 | 79 | 48 | 25 | 0 | 152 | 50 | 345 | 41 | 6 | 442 | 80 | 96 | 160 | 0 | 336 | 1662 | 17 |
| Total | 92 | 2703 | 167 | 37 | 2999 | 297 | 184 | 86 | 1 | 568 | 200 | 1207 | 140 | 20 | 1567 | 262 | 379 | 592 | 2 | 1235 | 6369 | 60 |
| 17:00 | 21 | 694 | 49 | 8 | 772 | 93 | 39 | 31 | 0 | 163 | 63 | 323 | 29 | 7 | 422 | 88 | 93 | 199 | 0 | 380 | 1737 | 15 |
| 17:15 | 26 | 741 | 43 | 14 | 824 | 114 | 55 | 27 | 0 | 196 | 36 | 330 | 36 | 4 | 406 | 63 | 126 | 192 | 1 | 382 | 1808 | 19 |
| 17:30 | 25 | 617 | 49 | 10 | 701 | 107 | 72 | 32 | 1 | 212 | 67 | 344 | 31 | 9 | 451 | 73 | 113 | 174 | 0 | 360 | 1724 | 20 |
| 17:45 | 15 | 544 | 44 | 12 | 615 | 108 | 59 | 29 | 1 | 197 | 57 | 356 | 41 | 3 | 457 | 68 | 134 | 158 | 0 | 360 | 1629 | 16 |
| Total | 87 | 2596 | 185 | 44 | 2912 | 422 | 225 | 119 | 2 | 768 | 223 | 1353 | 137 | 23 | 1736 | 292 | 466 | 723 | 1 | 1482 | 6898 | 70 |
| 18:00 | 25 | 664 | 57 | 8 | 754 | 71 | 45 | 32 | 1 | 149 | 57 | 369 | 32 | 2 | 460 | 90 | 80 | 156 | 0 | 326 | 1689 | 11 |
| 18:15 | 40 | 685 | 44 | 18 | 787 | 90 | 59 | 26 | 1 | 176 | 49 | 344 | 42 | 3 | 438 | 57 | 121 | 147 | 0 | 325 | 1726 | 22 |
| 18:30 | 11 | 584 | 45 | 18 | 658 | 98 | 56 | 21 | 1 | 176 | 47 | 319 | 26 | 7 | 399 | 81 | 96 | 145 | 0 | 322 | 1555 | 26 |
| 18:45 | 15 | 648 | 51 | 13 | 727 | 66 | 37 | 16 | 0 | 119 | 64 | 349 | 18 | 7 | 438 | 86 | 92 | 134 | 0 | 312 | 1596 | 20 |
| Total | 91 | 2581 | 197 | 57 | 2926 | 325 | 197 | 95 | 3 | 620 | 217 | 1381 | 118 | 19 | 1735 | 314 | 389 | 582 | 0 | 1285 | 6566 | 79 |
| Grand Total | 508 | 11778 | 1546 | 202 | 14034 | 1394 | 1439 | 514 | 8 | 3355 | 1649 | 12154 | 1265 | 108 | 15176 | 1311 | 1613 | 2330 | 5 | 5259 | 37824 | 323 |
| Apprch % | 3.6% | 83.9% | 11.0% | 1.4% | | 41.5% | 42.9% | 15.3% | 0.2% | | 10.9% | 80.1% | 8.3% | 0.7% | | 24.9% | 30.7% | 44.3% | 0.1% | | | |
| Total % | 1.3% | 31.1% | 4.1% | 0.5% | 37.1% | 3.7% | 3.8% | 1.4% | 0.0% | 8.9% | 4.4% | 32.1% | 3.3% | 0.3% | 40.1% | 3.5% | 4.3% | 6.2% | 0.0% | 13.9% | 100.0% | |

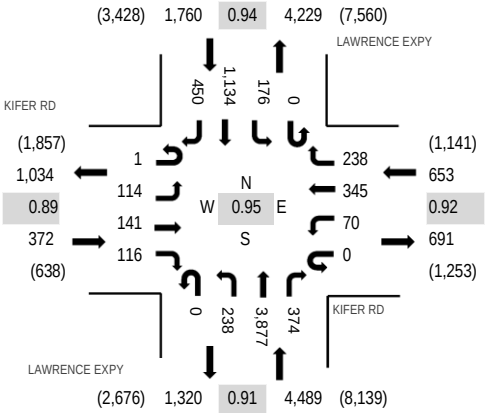
| **AM PEAK HOUR** | Lawrence Expy Southbound | | | | | Arques Ave Westbound | | | | | Lawrence Expy Northbound | | | | | Arques Ave Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 09:00 to 10:00 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour For Entire Intersection Begins at 09:00 | | | | | | | | | | | | | | | | | | | | | |
| 9:00 | 26 | 305 | 101 | 10 | 442 | 28 | 67 | 11 | 0 | 106 | 108 | 787 | 111 | 3 | 1009 | 42 | 25 | 37 | 1 | 105 | 1662 |
| 9:15 | 21 | 310 | 103 | 5 | 439 | 34 | 79 | 12 | 1 | 126 | 123 | 800 | 103 | 6 | 1032 | 56 | 36 | 35 | 0 | 127 | 1724 |
| 9:30 | 24 | 315 | 113 | 7 | 459 | 32 | 53 | 25 | 0 | 110 | 137 | 686 | 83 | 9 | 915 | 45 | 48 | 51 | 0 | 144 | 1628 |
| 9:45 | 20 | 303 | 105 | 11 | 439 | 33 | 73 | 24 | 0 | 130 | 120 | 623 | 101 | 1 | 845 | 48 | 32 | 49 | 0 | 129 | 1543 |
| Total Volume | 91 | 1233 | 422 | 33 | 1779 | 127 | 272 | 72 | 1 | 472 | 488 | 2896 | 398 | 19 | 3801 | 191 | 141 | 172 | 1 | 505 | 6557 |
| % App Total | 5.1% | 69.3% | 23.7% | 1.9% | | 26.9% | 57.6% | 15.3% | 0.2% | | 12.8% | 76.2% | 10.5% | 0.5% | | 37.8% | 27.9% | 34.1% | 0.2% | | |
| PHF | .875 | .979 | .934 | .750 | .969 | .934 | .861 | .720 | .250 | .908 | .891 | .905 | .896 | .528 | .921 | .853 | .734 | .843 | .250 | .877 | .951 |

| **PM PEAK HOUR** | Lawrence Expy Southbound | | | | | Arques Ave Westbound | | | | | Lawrence Expy Northbound | | | | | Arques Ave Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 16:45 to 17:45 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour For Entire Intersection Begins at 16:45 | | | | | | | | | | | | | | | | | | | | | |
| 16:45 | 18 | 656 | 47 | 11 | 732 | 79 | 48 | 25 | 0 | 152 | 50 | 345 | 41 | 6 | 442 | 80 | 96 | 160 | 0 | 336 | 1662 |
| 17:00 | 21 | 694 | 49 | 8 | 772 | 93 | 39 | 31 | 0 | 163 | 63 | 323 | 29 | 7 | 422 | 88 | 93 | 199 | 0 | 380 | 1737 |
| 17:15 | 26 | 741 | 43 | 14 | 824 | 114 | 55 | 27 | 0 | 196 | 36 | 330 | 36 | 4 | 406 | 63 | 126 | 192 | 1 | 382 | 1808 |
| 17:30 | 25 | 617 | 49 | 10 | 701 | 107 | 72 | 32 | 1 | 212 | 67 | 344 | 31 | 9 | 451 | 73 | 113 | 174 | 0 | 360 | 1724 |
| Total Volume | 90 | 2708 | 188 | 43 | 3029 | 393 | 214 | 115 | 1 | 723 | 216 | 1342 | 137 | 26 | 1721 | 304 | 428 | 725 | 1 | 1458 | 6931 |
| % App Total | 3.0% | 89.4% | 6.2% | 1.4% | | 54.4% | 29.6% | 15.9% | 0.1% | | 12.6% | 78.0% | 8.0% | 1.5% | | 20.9% | 29.4% | 49.7% | 0.1% | | |
| PHF | .865 | .914 | .959 | .768 | .919 | .862 | .743 | .898 | .250 | .853 | .806 | .972 | .835 | .722 | .954 | .864 | .849 | .911 | .250 | .954 | .958 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

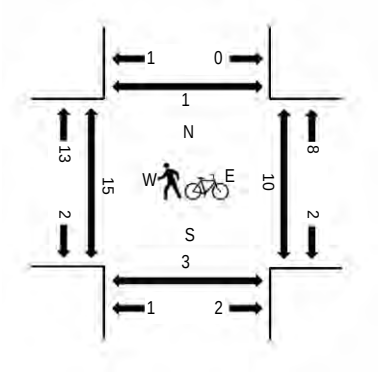
**Location:** 1 LAWRENCE EXPY & KIFER RD AM
**Date and Start Time:** Wednesday, March 7, 2018
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:45 AM - 09:00 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | KIFER RD Eastbound | | | | KIFER RD Westbound | | | | LAWRENCE EXPY Northbound | | | | LAWRENCE EXPY Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 10 | 14 | 38 | 0 | 11 | 43 | 32 | 0 | 44 | 531 | 80 | 1 | 34 | 278 | 82 | 1,198 | 6,072 | 1 | 0 | 0 | 0 |
| 7:15 AM | 0 | 16 | 12 | 34 | 0 | 16 | 54 | 33 | 0 | 51 | 661 | 82 | 2 | 35 | 276 | 78 | 1,350 | 6,621 | 0 | 2 | 0 | 0 |
| 7:30 AM | 0 | 26 | 17 | 23 | 0 | 18 | 85 | 47 | 0 | 44 | 937 | 108 | 2 | 33 | 284 | 92 | 1,716 | 7,059 | 3 | 1 | 0 | 0 |
| 7:45 AM | 0 | 22 | 28 | 26 | 0 | 18 | 83 | 48 | 0 | 61 | 962 | 89 | 1 | 30 | 334 | 106 | 1,808 | 7,167 | 0 | 0 | 0 | 0 |
| 8:00 AM | 1 | 21 | 29 | 29 | 0 | 24 | 77 | 46 | 0 | 69 | 879 | 91 | 0 | 56 | 319 | 106 | 1,747 | 7,274 | 5 | 5 | 0 | 0 |
| 8:15 AM | 0 | 33 | 39 | 33 | 0 | 19 | 86 | 60 | 0 | 52 | 975 | 77 | 0 | 43 | 275 | 96 | 1,788 | | 3 | 3 | 0 | 1 |
| 8:30 AM | 0 | 28 | 36 | 26 | 0 | 21 | 88 | 68 | 0 | 51 | 946 | 112 | 0 | 33 | 292 | 123 | 1,824 | | 0 | 1 | 0 | 0 |
| 8:45 AM | 0 | 32 | 37 | 28 | 0 | 6 | 94 | 64 | 0 | 66 | 1,077 | 94 | 0 | 44 | 248 | 125 | 1,915 | | 4 | 1 | 2 | 0 |

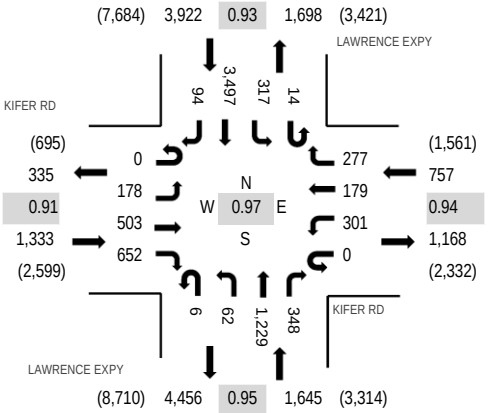
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 5 | 1 | 0 | 0 | 5 | 0 | 15 |
| Lights | 1 | 107 | 137 | 112 | 0 | 60 | 338 | 230 | 0 | 237 | 3,851 | 371 | 0 | 175 | 1,095 | 438 | 7,152 |
| Mediums | 0 | 4 | 4 | 4 | 0 | 10 | 7 | 7 | 0 | 1 | 21 | 2 | 0 | 1 | 34 | 12 | 107 |
| Total | 1 | 114 | 141 | 116 | 0 | 70 | 345 | 238 | 0 | 238 | 3,877 | 374 | 0 | 176 | 1,134 | 450 | 7,274 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

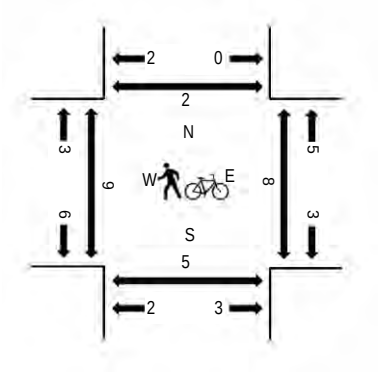
**Location:** 1 LAWRENCE EXPY & KIFER RD PM
**Date and Start Time:** Wednesday, March 7, 2018
**Peak Hour:** 04:15 PM - 05:15 PM
**Peak 15-Minutes:** 04:30 PM - 04:45 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | KIFER RD Eastbound | | | | KIFER RD Westbound | | | | LAWRENCE EXPY Northbound | | | | LAWRENCE EXPY Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 37 | 162 | 185 | 0 | 67 | 38 | 74 | 2 | 16 | 289 | 97 | 0 | 69 | 782 | 30 | 1,848 | 7,572 | 3 | 1 | 2 | 0 |
| 4:15 PM | 0 | 37 | 114 | 156 | 0 | 63 | 40 | 75 | 2 | 7 | 356 | 99 | 2 | 94 | 845 | 27 | 1,917 | 7,657 | 1 | 1 | 0 | 0 |
| 4:30 PM | 0 | 48 | 130 | 161 | 0 | 74 | 28 | 68 | 1 | 13 | 300 | 90 | 5 | 87 | 935 | 28 | 1,968 | 7,650 | 1 | 0 | 2 | 1 |
| 4:45 PM | 0 | 45 | 147 | 175 | 0 | 77 | 48 | 57 | 2 | 20 | 272 | 66 | 3 | 68 | 838 | 21 | 1,839 | 7,542 | 3 | 1 | 1 | 1 |
| 5:00 PM | 0 | 48 | 112 | 160 | 0 | 87 | 63 | 77 | 1 | 22 | 301 | 93 | 4 | 68 | 879 | 18 | 1,933 | 7,586 | 1 | 2 | 0 | 0 |
| 5:15 PM | 0 | 38 | 117 | 139 | 0 | 66 | 66 | 80 | 0 | 10 | 344 | 87 | 4 | 60 | 879 | 20 | 1,910 | | 5 | 1 | 2 | 0 |
| 5:30 PM | 0 | 38 | 110 | 133 | 0 | 71 | 48 | 82 | 1 | 11 | 297 | 102 | 2 | 74 | 857 | 34 | 1,860 | | 4 | 4 | 0 | 0 |
| 5:45 PM | 0 | 47 | 131 | 129 | 0 | 75 | 55 | 82 | 0 | 15 | 303 | 95 | 6 | 60 | 868 | 17 | 1,883 | | 3 | 2 | 2 | 0 |

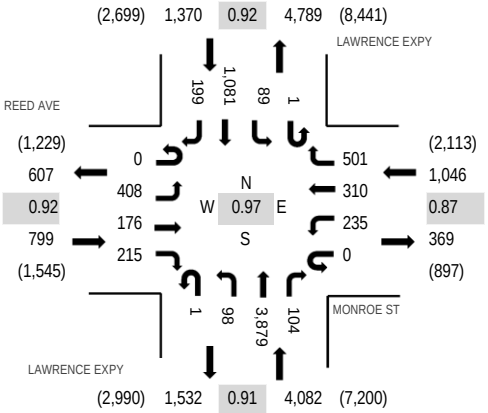
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 9 |
| Lights | 0 | 175 | 499 | 651 | 0 | 301 | 175 | 273 | 6 | 62 | 1,214 | 339 | 14 | 315 | 3,475 | 86 | 7,585 |
| Mediums | 0 | 2 | 3 | 1 | 0 | 0 | 4 | 3 | 0 | 0 | 12 | 9 | 0 | 2 | 19 | 8 | 63 |
| Total | 0 | 178 | 503 | 652 | 0 | 301 | 179 | 277 | 6 | 62 | 1,229 | 348 | 14 | 317 | 3,497 | 94 | 7,657 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

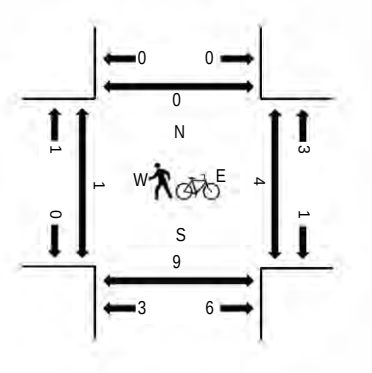
**Location:** 2 LAWRENCE EXPY & MONROE ST AM
**Date and Start Time:** Wednesday, March 7, 2018
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:45 AM - 09:00 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | REED AVE Eastbound | | | | MONROE ST Westbound | | | | LAWRENCE EXPY Northbound | | | | LAWRENCE EXPY Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 52 | 76 | 39 | 0 | 33 | 54 | 106 | 1 | 28 | 510 | 39 | 1 | 47 | 175 | 41 | 1,202 | 6,260 | 1 | 0 | 7 | 0 |
| 7:15 AM | 0 | 88 | 99 | 27 | 0 | 69 | 110 | 143 | 0 | 21 | 612 | 66 | 0 | 32 | 266 | 38 | 1,571 | 6,936 | 0 | 4 | 4 | 0 |
| 7:30 AM | 0 | 85 | 34 | 44 | 0 | 83 | 82 | 116 | 0 | 43 | 854 | 22 | 0 | 26 | 329 | 37 | 1,755 | 7,193 | 0 | 1 | 1 | 0 |
| 7:45 AM | 0 | 112 | 33 | 57 | 0 | 55 | 90 | 126 | 1 | 48 | 847 | 26 | 0 | 28 | 279 | 30 | 1,732 | 7,140 | 1 | 0 | 3 | 0 |
| 8:00 AM | 0 | 111 | 44 | 65 | 0 | 53 | 82 | 106 | 1 | 31 | 988 | 26 | 0 | 25 | 302 | 44 | 1,878 | 7,297 | 0 | 0 | 1 | 0 |
| 8:15 AM | 0 | 78 | 42 | 62 | 0 | 57 | 78 | 129 | 0 | 28 | 987 | 33 | 0 | 34 | 249 | 51 | 1,828 | | 0 | 1 | 2 | 0 |
| 8:30 AM | 0 | 130 | 50 | 44 | 0 | 67 | 71 | 152 | 0 | 19 | 829 | 19 | 1 | 14 | 259 | 47 | 1,702 | | 0 | 3 | 2 | 0 |
| 8:45 AM | 0 | 89 | 40 | 44 | 0 | 58 | 79 | 114 | 0 | 20 | 1,075 | 26 | 0 | 16 | 271 | 57 | 1,889 | | 1 | 0 | 1 | 0 |

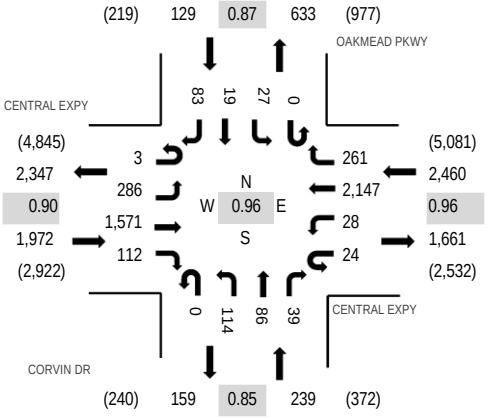
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 4 | 5 | 19 |
| Lights | 0 | 401 | 173 | 210 | 0 | 231 | 304 | 496 | 1 | 95 | 3,860 | 100 | 1 | 89 | 1,039 | 190 | 7,190 |
| Mediums | 0 | 5 | 3 | 3 | 0 | 4 | 6 | 3 | 0 | 1 | 17 | 4 | 0 | 0 | 38 | 4 | 88 |
| Total | 0 | 408 | 176 | 215 | 0 | 235 | 310 | 501 | 1 | 98 | 3,879 | 104 | 1 | 89 | 1,081 | 199 | 7,297 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

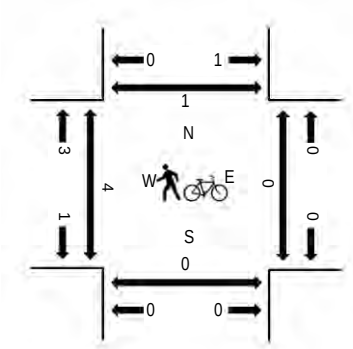
**Location:** 19 CORVIN DR & CENTRAL EXPY AM
**Date and Start Time:** Wednesday, November 15, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:45 AM - 09:00 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | CENTRAL EXPY Eastbound | | | | CENTRAL EXPY Westbound | | | | CORVIN DR Northbound | | | | OAKMEAD PKWY Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 1 | 9 | 139 | 5 | 6 | 10 | 565 | 40 | 0 | 8 | 4 | 7 | 0 | 2 | 4 | 6 | 806 | 3,794 | 0 | 0 | 0 | 0 |
| 7:15 AM | 1 | 20 | 169 | 6 | 6 | 6 | 626 | 47 | 0 | 5 | 9 | 13 | 0 | 5 | 3 | 11 | 927 | 4,162 | 0 | 1 | 0 | 0 |
| 7:30 AM | 1 | 28 | 218 | 14 | 4 | 6 | 618 | 48 | 0 | 15 | 8 | 9 | 0 | 4 | 1 | 12 | 986 | 4,449 | 1 | 0 | 0 | 0 |
| 7:45 AM | 3 | 44 | 274 | 18 | 4 | 2 | 565 | 68 | 0 | 30 | 19 | 6 | 0 | 5 | 6 | 31 | 1,075 | 4,622 | 4 | 0 | 0 | 0 |
| 8:00 AM | 1 | 70 | 351 | 20 | 8 | 4 | 569 | 57 | 0 | 23 | 16 | 14 | 0 | 8 | 2 | 31 | 1,174 | 4,800 | 0 | 0 | 0 | 0 |
| 8:15 AM | 2 | 71 | 395 | 32 | 3 | 5 | 546 | 55 | 0 | 36 | 25 | 6 | 0 | 9 | 5 | 24 | 1,214 | | 1 | 0 | 0 | 0 |
| 8:30 AM | 0 | 73 | 391 | 19 | 7 | 11 | 509 | 75 | 0 | 20 | 18 | 11 | 0 | 3 | 8 | 14 | 1,159 | | 2 | 0 | 0 | 1 |
| 8:45 AM | 0 | 72 | 434 | 41 | 6 | 8 | 523 | 74 | 0 | 35 | 27 | 8 | 0 | 7 | 4 | 14 | 1,253 | | 1 | 0 | 0 | 0 |

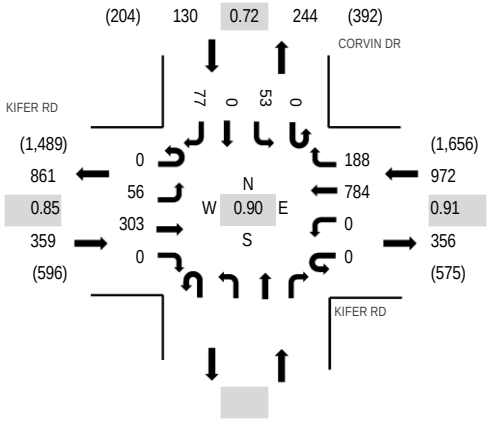
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 5 | 1 | 0 | 0 | 10 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 19 |
| Lights | 3 | 283 | 1,542 | 111 | 24 | 28 | 2,094 | 259 | 0 | 113 | 81 | 37 | 0 | 26 | 17 | 83 | 4,701 |
| Mediums | 0 | 3 | 24 | 0 | 0 | 0 | 43 | 2 | 0 | 1 | 4 | 0 | 0 | 1 | 2 | 0 | 80 |
| Total | 3 | 286 | 1,571 | 112 | 24 | 28 | 2,147 | 261 | 0 | 114 | 86 | 39 | 0 | 27 | 19 | 83 | 4,800 |

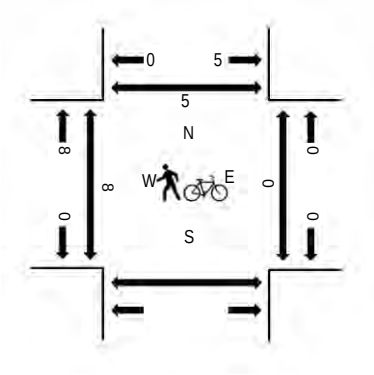
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

**Location:** 20 CORVIN DR & KIFER RD AM
**Date and Start Time:** Wednesday, November 15, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:45 AM - 09:00 AM

## Peak Hour - All Vehicles




## Peak Hour - Pedestrians/Bicycles in Crosswalk




Note: Total study counts contained in parentheses.

## Traffic Counts

| Interval Start Time | KIFER RD Eastbound | | | | KIFER RD Westbound | | | | Northbound | | | | CORVIN DR Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 5 | 41 | 0 | 0 | 0 | 92 | 18 | | | | | 0 | 4 | 0 | 10 | 170 | 995 | 0 | 0 | | 0 |
| 7:15 AM | 0 | 9 | 50 | 0 | 0 | 0 | 98 | 15 | | | | | 0 | 4 | 0 | 7 | 183 | 1,147 | 0 | 0 | | 0 |
| 7:30 AM | 0 | 15 | 41 | 0 | 0 | 0 | 170 | 30 | | | | | 0 | 6 | 0 | 13 | 275 | 1,323 | 1 | 0 | | 0 |
| 7:45 AM | 0 | 16 | 60 | 0 | 0 | 0 | 221 | 40 | | | | | 0 | 13 | 0 | 17 | 367 | 1,424 | 0 | 0 | | 0 |
| 8:00 AM | 0 | 13 | 57 | 0 | 0 | 0 | 180 | 49 | | | | | 0 | 11 | 0 | 12 | 322 | 1,461 | 1 | 0 | | 0 |
| 8:15 AM | 0 | 13 | 79 | 0 | 0 | 0 | 187 | 40 | | | | | 0 | 16 | 0 | 24 | 359 | | 6 | 0 | | 4 |
| 8:30 AM | 0 | 19 | 87 | 0 | 0 | 0 | 208 | 40 | | | | | 0 | 7 | 0 | 15 | 376 | | 0 | 0 | | 0 |
| 8:45 AM | 0 | 11 | 80 | 0 | 0 | 0 | 209 | 59 | | | | | 0 | 19 | 0 | 26 | 404 | | 0 | 0 | | 0 |

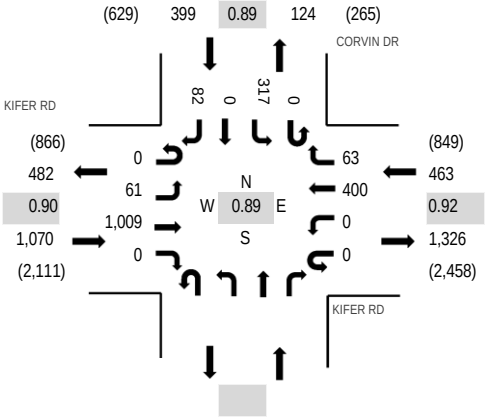
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 1 | 4 | 0 | 0 | 0 | 6 | 2 | | | | | 0 | 0 | 0 | 1 | 14 |
| Lights | 0 | 54 | 291 | 0 | 0 | 0 | 763 | 183 | | | | | 0 | 53 | 0 | 73 | 1,417 |
| Mediums | 0 | 1 | 8 | 0 | 0 | 0 | 15 | 3 | | | | | 0 | 0 | 0 | 3 | 30 |
| Total | 0 | 56 | 303 | 0 | 0 | 0 | 784 | 188 | | | | | 0 | 53 | 0 | 77 | 1,461 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

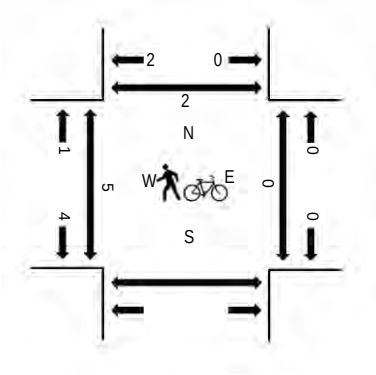
**Location:** 20 CORVIN DR & KIFER RD PM
**Date and Start Time:** Wednesday, November 15, 2017
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:00 PM - 05:15 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | KIFER RD Eastbound | | | | KIFER RD Westbound | | | | Northbound | | | | CORVIN DR Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 13 | 222 | 0 | 0 | 0 | 87 | 16 | | | | | 0 | 41 | 0 | 11 | 390 | 1,657 | 2 | 0 | | 0 |
| 4:15 PM | 0 | 14 | 237 | 0 | 0 | 0 | 68 | 11 | | | | | 0 | 33 | 0 | 13 | 376 | 1,809 | 0 | 0 | | 0 |
| 4:30 PM | 0 | 26 | 242 | 0 | 0 | 0 | 85 | 16 | | | | | 0 | 47 | 0 | 12 | 428 | 1,892 | 2 | 0 | | 2 |
| 4:45 PM | 0 | 29 | 258 | 0 | 0 | 0 | 87 | 16 | | | | | 0 | 52 | 0 | 21 | 463 | 1,922 | 0 | 0 | | 0 |
| 5:00 PM | 0 | 21 | 291 | 0 | 0 | 0 | 107 | 19 | | | | | 0 | 86 | 0 | 18 | 542 | 1,932 | 2 | 0 | | 1 |
| 5:15 PM | 0 | 5 | 235 | 0 | 0 | 0 | 110 | 13 | | | | | 0 | 73 | 0 | 23 | 459 | | 2 | 0 | | 0 |
| 5:30 PM | 0 | 20 | 258 | 0 | 0 | 0 | 80 | 13 | | | | | 0 | 71 | 0 | 16 | 458 | | 1 | 0 | | 0 |
| 5:45 PM | 0 | 15 | 225 | 0 | 0 | 0 | 103 | 18 | | | | | 0 | 87 | 0 | 25 | 473 | | 0 | 0 | | 0 |

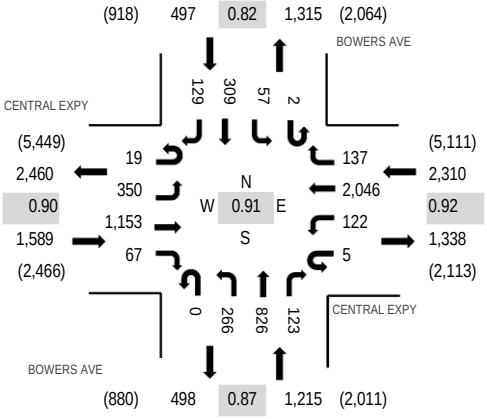
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 | 1 | 2 |
| Lights | 0 | 59 | 1,005 | 0 | 0 | 0 | 393 | 60 | | | | | 0 | 315 | 0 | 80 | 1,912 |
| Mediums | 0 | 1 | 4 | 0 | 0 | 0 | 7 | 3 | | | | | 0 | 2 | 0 | 1 | 18 |
| Total | 0 | 61 | 1,009 | 0 | 0 | 0 | 400 | 63 | | | | | 0 | 317 | 0 | 82 | 1,932 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

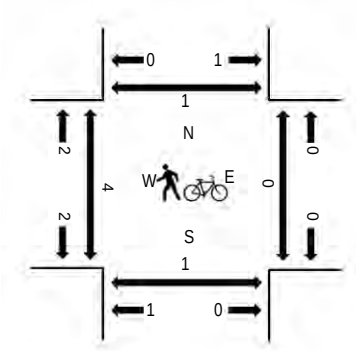
**Location:** 23 BOWERS AVE & CENTRAL EXPY AM
**Date and Start Time:** Wednesday, November 15, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:45 AM - 09:00 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | CENTRAL EXPY Eastbound | | | | CENTRAL EXPY Westbound | | | | BOWERS AVE Northbound | | | | BOWERS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 1 | 16 | 117 | 8 | 4 | 30 | 686 | 44 | 0 | 34 | 78 | 17 | 0 | 5 | 44 | 17 | 1,101 | 4,895 | 0 | 0 | 0 | 0 |
| 7:15 AM | 6 | 30 | 127 | 13 | 1 | 27 | 640 | 41 | 0 | 61 | 100 | 21 | 0 | 10 | 40 | 47 | 1,164 | 5,015 | 0 | 0 | 0 | 0 |
| 7:30 AM | 9 | 37 | 185 | 16 | 2 | 25 | 636 | 21 | 0 | 80 | 114 | 19 | 0 | 7 | 43 | 60 | 1,254 | 5,243 | 0 | 0 | 0 | 0 |
| 7:45 AM | 9 | 56 | 220 | 27 | 1 | 26 | 583 | 34 | 0 | 69 | 178 | 25 | 0 | 14 | 83 | 51 | 1,376 | 5,445 | 1 | 0 | 0 | 0 |
| 8:00 AM | 2 | 63 | 255 | 19 | 2 | 24 | 487 | 25 | 0 | 60 | 154 | 25 | 0 | 13 | 66 | 26 | 1,221 | 5,611 | 1 | 0 | 1 | 0 |
| 8:15 AM | 3 | 92 | 311 | 21 | 2 | 34 | 504 | 31 | 0 | 67 | 190 | 27 | 1 | 10 | 70 | 29 | 1,392 | | 1 | 0 | 0 | 1 |
| 8:30 AM | 7 | 93 | 271 | 13 | 0 | 37 | 524 | 38 | 0 | 75 | 226 | 41 | 1 | 16 | 77 | 37 | 1,456 | | 1 | 0 | 0 | 0 |
| 8:45 AM | 7 | 102 | 316 | 14 | 1 | 27 | 531 | 43 | 0 | 64 | 256 | 30 | 0 | 18 | 96 | 37 | 1,542 | | 1 | 0 | 0 | 0 |

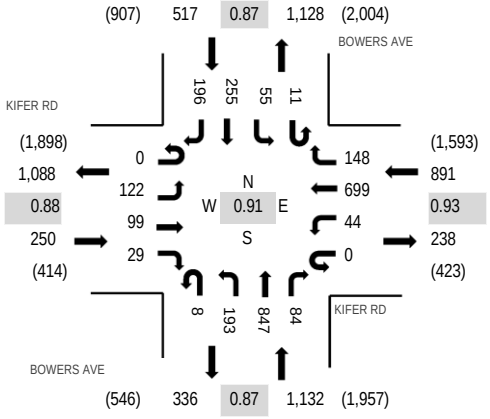
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 6 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 5 | 2 | 0 | 0 | 2 | 0 | 22 |
| Lights | 19 | 349 | 1,124 | 66 | 5 | 119 | 1,997 | 136 | 0 | 265 | 801 | 119 | 2 | 47 | 295 | 125 | 5,469 |
| Mediums | 0 | 1 | 23 | 1 | 0 | 3 | 42 | 1 | 0 | 1 | 20 | 2 | 0 | 10 | 12 | 4 | 120 |
| Total | 19 | 350 | 1,153 | 67 | 5 | 122 | 2,046 | 137 | 0 | 266 | 826 | 123 | 2 | 57 | 309 | 129 | 5,611 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

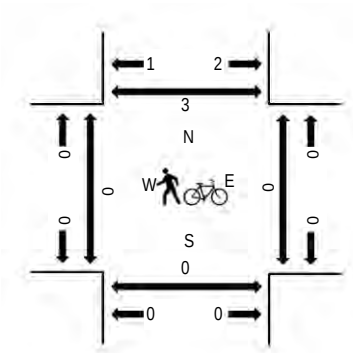
**Location:** 24 BOWERS AVE & KIFER RD AM
**Date and Start Time:** Wednesday, November 15, 2017
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:30 AM - 08:45 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | KIFER RD Eastbound | | | | KIFER RD Westbound | | | | BOWERS AVE Northbound | | | | BOWERS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 19 | 16 | 3 | 0 | 2 | 83 | 15 | 1 | 14 | 134 | 11 | 0 | 14 | 30 | 39 | 381 | 2,081 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 20 | 20 | 5 | 0 | 3 | 105 | 21 | 1 | 21 | 154 | 6 | 0 | 18 | 38 | 28 | 440 | 2,314 | 2 | 0 | 2 | 0 |
| 7:30 AM | 0 | 12 | 12 | 6 | 0 | 6 | 175 | 40 | 3 | 31 | 194 | 12 | 5 | 12 | 40 | 41 | 589 | 2,553 | 1 | 0 | 0 | 2 |
| 7:45 AM | 0 | 16 | 27 | 8 | 0 | 7 | 197 | 48 | 2 | 30 | 198 | 13 | 0 | 24 | 55 | 46 | 671 | 2,732 | 2 | 1 | 2 | 3 |
| 8:00 AM | 0 | 30 | 14 | 5 | 0 | 9 | 195 | 40 | 1 | 33 | 159 | 19 | 2 | 13 | 55 | 39 | 614 | 2,790 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 32 | 30 | 9 | 0 | 9 | 161 | 29 | 4 | 36 | 228 | 14 | 3 | 13 | 59 | 52 | 679 | | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 30 | 30 | 7 | 0 | 14 | 185 | 44 | 1 | 65 | 234 | 25 | 3 | 13 | 71 | 46 | 768 | | 0 | 0 | 0 | 3 |
| 8:45 AM | 0 | 30 | 25 | 8 | 0 | 12 | 158 | 35 | 2 | 59 | 226 | 26 | 3 | 16 | 70 | 59 | 729 | | 0 | 0 | 0 | 0 |

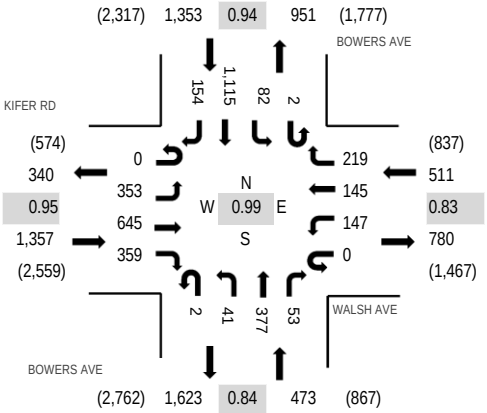
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 3 | 1 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 14 |
| Lights | 0 | 112 | 95 | 29 | 0 | 42 | 685 | 138 | 8 | 192 | 837 | 83 | 11 | 51 | 250 | 188 | 2,721 |
| Mediums | 0 | 7 | 3 | 0 | 0 | 2 | 10 | 9 | 0 | 1 | 8 | 1 | 0 | 4 | 5 | 5 | 55 |
| Total | 0 | 122 | 99 | 29 | 0 | 44 | 699 | 148 | 8 | 193 | 847 | 84 | 11 | 55 | 255 | 196 | 2,790 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

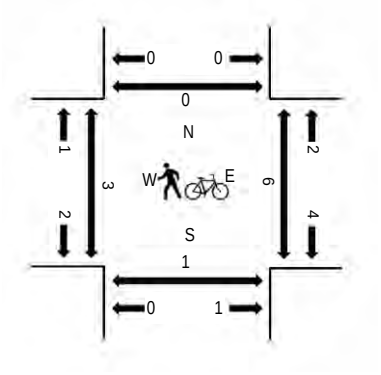
**Location:** 8 BOWERS AVE & WALSH AVE PM
**Date and Start Time:** Wednesday, March 7, 2018
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:30 PM - 05:45 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles in Crosswalk




## Traffic Counts

| Interval Start Time | KIFER RD Eastbound | | | | WALSH AVE Westbound | | | | BOWERS AVE Northbound | | | | BOWERS AVE Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 97 | 123 | 57 | 0 | 17 | 25 | 24 | 2 | 4 | 85 | 11 | 1 | 9 | 150 | 14 | 619 | 2,886 | 0 | 0 | 1 | 1 |
| 4:15 PM | 0 | 97 | 124 | 46 | 0 | 18 | 30 | 22 | 1 | 8 | 85 | 8 | 2 | 14 | 199 | 18 | 672 | 3,190 | 1 | 0 | 1 | 0 |
| 4:30 PM | 0 | 89 | 169 | 71 | 3 | 12 | 30 | 45 | 1 | 11 | 72 | 6 | 0 | 21 | 198 | 21 | 749 | 3,443 | 0 | 0 | 1 | 0 |
| 4:45 PM | 0 | 97 | 153 | 79 | 1 | 26 | 37 | 36 | 1 | 11 | 74 | 14 | 0 | 31 | 261 | 25 | 846 | 3,626 | 0 | 1 | 0 | 1 |
| 5:00 PM | 0 | 92 | 176 | 77 | 0 | 36 | 41 | 76 | 1 | 9 | 87 | 17 | 0 | 17 | 260 | 34 | 923 | 3,694 | 0 | 2 | 0 | 0 |
| 5:15 PM | 0 | 96 | 169 | 96 | 0 | 43 | 49 | 49 | 1 | 14 | 71 | 10 | 1 | 24 | 273 | 29 | 925 | | 1 | 1 | 0 | 0 |
| 5:30 PM | 0 | 78 | 171 | 88 | 0 | 30 | 28 | 41 | 0 | 10 | 116 | 15 | 1 | 20 | 292 | 42 | 932 | | 0 | 2 | 1 | 0 |
| 5:45 PM | 0 | 87 | 129 | 98 | 0 | 38 | 27 | 53 | 0 | 8 | 103 | 11 | 0 | 21 | 290 | 49 | 914 | | 2 | 0 | 0 | 0 |

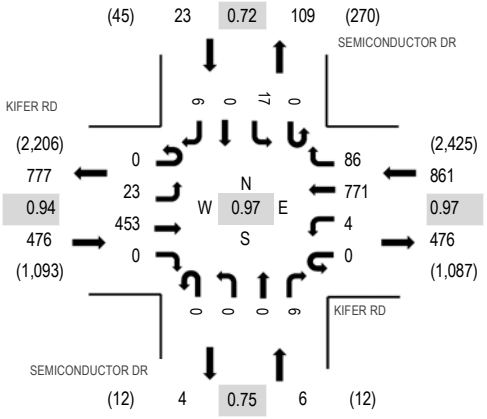
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lights | 0 | 349 | 643 | 359 | 0 | 145 | 143 | 218 | 2 | 41 | 370 | 52 | 2 | 81 | 1,111 | 151 | 3,667 |
| Mediums | 0 | 3 | 2 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 7 | 1 | 0 | 1 | 4 | 3 | 26 |
| Total | 0 | 353 | 645 | 359 | 0 | 147 | 145 | 219 | 2 | 41 | 377 | 53 | 2 | 82 | 1,115 | 154 | 3,694 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

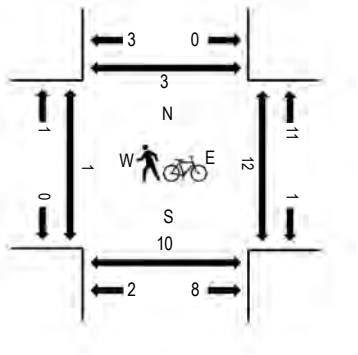
**Location:** 1 SEMICONDUCTOR DR & KIFER RD AM
**Date:** Tuesday, September 11, 2018
**Peak Hour:** 08:45 AM - 09:45 AM
**Peak 15-Minutes:** 08:45 AM - 09:00 AM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles on Crosswalk



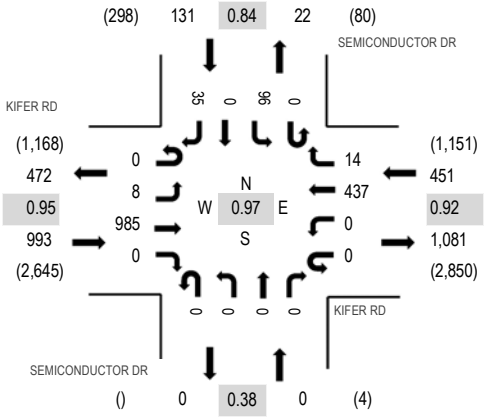

## Traffic Counts

| Interval Start Time | KIFER RD Eastbound | | | | KIFER RD Westbound | | | | SEMICONDUCTOR DR Northbound | | | | SEMICONDUCTOR DR Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 0 | 26 | 1 | 0 | 0 | 121 | 10 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 162 | 966 | 1 | 0 | 4 | 0 |
| 7:15 AM | 0 | 2 | 42 | 0 | 0 | 1 | 168 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 228 | 1,123 | 0 | 5 | 3 | 1 |
| 7:30 AM | 0 | 2 | 62 | 0 | 0 | 1 | 184 | 15 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 268 | 1,196 | 0 | 1 | 3 | 2 |
| 7:45 AM | 0 | 1 | 65 | 0 | 0 | 0 | 220 | 16 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 308 | 1,225 | 0 | 1 | 2 | 0 |
| 8:00 AM | 0 | 7 | 90 | 1 | 0 | 0 | 192 | 26 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 319 | 1,269 | 1 | 1 | 0 | 0 |
| 8:15 AM | 0 | 6 | 93 | 1 | 0 | 1 | 184 | 14 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 301 | 1,290 | 1 | 4 | 1 | 1 |
| 8:30 AM | 0 | 5 | 84 | 0 | 0 | 0 | 190 | 15 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 297 | 1,324 | 0 | 1 | 1 | 3 |
| 8:45 AM | 0 | 7 | 112 | 0 | 0 | 2 | 200 | 21 | 0 | 0 | 0 | 2 | 0 | 7 | 0 | 1 | 352 | 1,366 | 1 | 1 | 2 | 0 |
| 9:00 AM | 0 | 7 | 118 | 0 | 0 | 1 | 188 | 22 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 340 | 1,340 | 0 | 8 | 0 | 3 |
| 9:15 AM | 0 | 4 | 112 | 0 | 0 | 1 | 191 | 19 | 0 | 0 | 0 | 1 | 0 | 5 | 0 | 2 | 335 | | 0 | 1 | 0 | 0 |
| 9:30 AM | 0 | 5 | 111 | 0 | 0 | 0 | 192 | 24 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 2 | 339 | | 0 | 2 | 5 | 0 |
| 9:45 AM | 0 | 2 | 127 | 0 | 0 | 2 | 164 | 26 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 326 | | 1 | 3 | 6 | 0 |
| Count Total | 0 | 48 | 1,042 | 3 | 0 | 9 | 2,194 | 222 | 0 | 0 | 0 | 12 | 0 | 33 | 0 | 12 | 3,575 | | 5 | 28 | 27 | 10 |
| Peak Hour | 0 | 23 | 453 | 0 | 0 | 4 | 771 | 86 | 0 | 0 | 0 | 6 | 0 | 17 | 0 | 6 | ##### | | 1 | 12 | 7 | 3 |

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

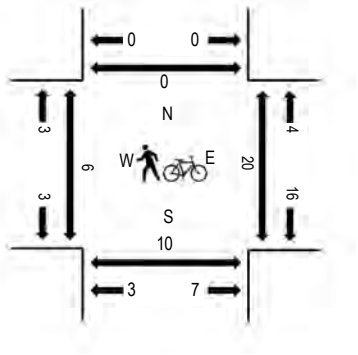
**Location:** 1 SEMICONDUCTOR DR & KIFER RD PM
**Date:** Tuesday, September 11, 2018
**Peak Hour:** 04:45 PM - 05:45 PM
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

## Peak Hour - All Vehicles




Note: Total study counts contained in parentheses.

## Peak Hour - Pedestrians/Bicycles on Crosswalk




## Traffic Counts

| Interval Start Time | KIFER RD Eastbound | | | | KIFER RD Westbound | | | | SEMICONDUCTOR DR Northbound | | | | SEMICONDUCTOR DR Southbound | | | | | Rolling Hour | Pedestrain Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 0 | 236 | 0 | 1 | 0 | 85 | 4 | 0 | 1 | 0 | 1 | 0 | 24 | 0 | 3 | 355 | 1,426 | 4 | 6 | 7 | 0 |
| 4:15 PM | 0 | 2 | 238 | 0 | 0 | 0 | 82 | 2 | 0 | 0 | 0 | 1 | 0 | 14 | 0 | 1 | 340 | 1,462 | 0 | 4 | 3 | 0 |
| 4:30 PM | 0 | 1 | 235 | 0 | 0 | 0 | 89 | 8 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 5 | 352 | 1,530 | 1 | 6 | 2 | 1 |
| 4:45 PM | 0 | 3 | 235 | 0 | 0 | 0 | 111 | 2 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 7 | 379 | 1,575 | 2 | 1 | 1 | 0 |
| 5:00 PM | 0 | 1 | 236 | 0 | 0 | 0 | 114 | 1 | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 12 | 391 | 1,545 | 1 | 8 | 2 | 0 |
| 5:15 PM | 0 | 3 | 257 | 0 | 0 | 0 | 117 | 5 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 7 | 408 | 1,489 | 0 | 5 | 0 | 0 |
| 5:30 PM | 0 | 1 | 257 | 0 | 0 | 0 | 95 | 6 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 9 | 397 | 1,363 | 3 | 5 | 4 | 0 |
| 5:45 PM | 0 | 1 | 237 | 0 | 0 | 0 | 83 | 9 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 7 | 349 | 1,247 | 1 | 2 | 2 | 0 |
| 6:00 PM | 1 | 3 | 206 | 0 | 0 | 0 | 90 | 11 | 0 | 0 | 0 | 1 | 0 | 17 | 0 | 6 | 335 | 1,127 | 2 | 5 | 3 | 1 |
| 6:15 PM | 0 | 0 | 173 | 0 | 0 | 0 | 84 | 8 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 4 | 282 | | 0 | 1 | 0 | 0 |
| 6:30 PM | 0 | 1 | 171 | 0 | 0 | 0 | 76 | 8 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 8 | 281 | | 1 | 6 | 2 | 2 |
| 6:45 PM | 0 | 0 | 147 | 0 | 0 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 11 | 229 | | 0 | 1 | 1 | 0 |
| Count Total | 1 | 16 | 2,628 | 0 | 1 | 0 | 1,086 | 64 | 0 | 1 | 0 | 3 | 0 | 218 | 0 | 80 | 4,098 | | 15 | 50 | 27 | 4 |
| Peak Hour | 0 | 8 | 985 | 0 | 0 | 0 | 437 | 14 | 0 | 0 | 0 | 0 | 0 | 96 | 0 | 35 | ##### | | 6 | 19 | 7 | 0 |

# Appendix B
## Volume Summary

Intersection Number: 1
Traffix Node Number: 5320
Intersection Name: Mary Avenue & Central Expressway
Peak Hour: AM
Count Date: 11/14/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| INDEX | 7 | 6 | 5 | 13 | 12 | 11 | 4 | 3 | 2 | 10 | 9 | 8 | |
| PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Volume Adjustment | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Existing Conditions | 110 | 104 | 58 | 161 | 1770 | 181 | 463 | 378 | 613 | 163 | 713 | 90 | 4804 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| | | | | | | | | | | | | | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | 3 | | | | | | 3 | | 6 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | | | 8 | | | | | | 23 | | 31 |
| 830 W Evelyn Ave | | | | | | | | | 1 | 1 | | | 2 |
| 1081 Innovation Way | | | | | 1 | | | | | | 60 | | 61 |
| 1111 Lockheed Martin Way | | | | | 2 | | | | | | 6 | | 8 |
| 1152 Bordeaux Dr | | | | | 3 | | | | | | 14 | | 17 |
| 1194 N. Mathilda Ave | | | | | 1 | 1 | 7 | | | | 4 | | 13 |
| 1230 Oakmead Pkwy | | | | | | | | | | | 2 | | 2 |
| 1260 N Mathilda Ave | | | | | | | 1 | | | | 1 | | 2 |
| 215 Moffett Park Dr | | | | | 2 | | | | | | 5 | | 7 |
| 265 Sobrante Way | | 1 | 1 | | | | 1 | 1 | 2 | 4 | 6 | | 16 |
| 275 N Mathilda Ave | | | | | | | | | 1 | | | 5 | 6 |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | 3 | 2 | 7 | 36 | | | | 12 | | | | 12 | 72 |
| 589 W. Java Dr | | 2 | | | | | | 12 | | | | | 14 |
| 610 N Mary Ave | 26 | 20 | 45 | 258 | | | | 117 | | | | 147 | 613 |
| 615 N. Mathilda Ave | -4 | -4 | | | -5 | | | 10 | | | 2 | 22 | 21 |
| 623 N Pastoria Ave | 1 | | | | | | | | | | | 5 | 6 |
| 684 W. Maude Ave | | 4 | | | 10 | | | 28 | | | 25 | 48 | 115 |
| 810 W Maude Ave | | 2 | | | 6 | | | 17 | | | 15 | 30 | 70 |
| 901 Kifer Rd | | | | | 1 | | | | | | | | 1 |
| 1120 Kifer Rd | | | | | 13 | | | | | | | | 13 |
| 1155 Aster Ave | | | | | 15 | | | | | | 2 | | 17 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | 3 | | | | | | 1 | | 4 |
| 520 Almanor Ave | 3 | 2 | | | 1 | | | 10 | | | 5 | 20 | 41 |
| 675 Almanor Avenue | | 2 | | | | | | 8 | | | | | 10 |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | 3 | | | | | | 1 | | 4 |
| 223 N Mathilda Ave | | | | | | | | | 3 | | 12 | | 15 |
| 456 W Olive Ave | | | | | -4 | | | | | | -13 | | -17 |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | 2 | | | | | | | | | | | -3 | -1 |
| 1 AMD Place | | | | | 19 | | | | | | -5 | | 14 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | 6 | | | -1 | | | -1 | | 4 |
| 915 De Guigne Dr | | | | | 3 | | | | | | -7 | | -4 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | 6 | | | | | | 28 | | 34 |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | 24 | | 24 |
| 2620-2727 Augustine Dr | | | | | 73 | | | | | | -48 | | 25 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | 12 | | | | | | 98 | | 110 |
| 5010 Old Ironsides Dr | | | | | 18 | | | | | | 139 | | 157 |
| 3000 Bowers Ave | | | | | 3 | | | | | | 37 | | 40 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | 4 | | | | | | 5 | | 9 |
| 3607 Kifer Rd | | | | | 1 | | | | | | 6 | | 7 |
| City Place | | | | | 11 | | | | | | 10 | | 21 |
| 3226 Scott Blvd | | | | | 1 | | | | | | 5 | | 6 |
| 2041 Mission College Blvd | | | | | 3 | | | | | | 4 | | 7 |
| 3100-3200 Coronado Dr | | | | | 3 | | | | | | 19 | | 22 |
| 1 Great America Pkwy | | | | | 1 | | | | | | 2 | | 3 |
| 3375 Scott Blvd | | | | | 4 | | | | | | 23 | | 27 |
| 3001 Tasman Dr | | | | | 1 | | | | | | 5 | | 6 |
| Santa Clara LSAP | | | | 4 | 19 | 4 | | | | | -1 | | 26 |
| 2350 & 2305 Mission College Blvd | | | | | 6 | | | | | | 28 | | 34 |
| 3625 Peterson Way | | | | | 5 | | | | | | 28 | | 33 |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | 2 | | | | | | 1 | | 3 |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 31 | 31 | 53 | 298 | 264 | 5 | 9 | 214 | 7 | 5 | 574 | 286 | 1777 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 141 | 135 | 111 | 459 | 2034 | 186 | 472 | 592 | 620 | 168 | 1287 | 376 | 6581 |
| **Project Trips** | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 64 |
| Existing + Project | 110 | 104 | 58 | 161 | 1780 | 181 | 463 | 378 | 613 | 163 | 767 | 90 | 4868 |
| Background + Project | 141 | 135 | 111 | 459 | 2044 | 186 | 472 | 592 | 620 | 168 | 1341 | 376 | 6645 |

Traffix Node Number: 57
Intersection Name: Fair Oaks Avenue & US 101 NB Ramps
Peak Hour: AM
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| INDEX | 7 | 6 | 5 | 13 | 12 | 11 | 4 | 3 | 2 | 10 | 9 | 8 | |
| PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Volume Adjustment | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Future Volume Reduction | 148 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Existing Conditions | 522 | 747 | 0 | 181 | 4 | 229 | 0 | 822 | 537 | 0 | 0 | 0 | 3042 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| | | | | | | | | | | | | | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 3 | | | | | | 8 | | | | | 11 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | 15 | | 14 | | | | | | | | | 29 |
| 590 W El Camino Real | | 3 | | | | | | 2 | | | | | 5 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | 4 | | | 3 | | | | 7 |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | 5 | | | 4 | | | | 9 |
| 1050 Kifer Rd | | | | | | | | | 11 | | | | 11 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | 53 | | | | 53 |
| 1111 Lockheed Martin Way | | 6 | | | | | | 21 | | | | | 27 |
| 1152 Bordeaux Dr | | 7 | | | | | | 35 | | | | | 42 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 4 | | | | | 6 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 16 | | | | | | 18 | | | | | 34 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 7 | | 17 | | | | 17 | | | | | 41 |
| 610 N Mary Ave | 10 | 4 | | | | | | 2 | | | | | 16 |
| 615 N. Mathilda Ave | | 3 | | | | | | -2 | | | | | 1 |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | 7 | | | | | | 1 | | | | | 8 |
| 810 W Maude Ave | | 4 | | | | | | 1 | | | | | 5 |
| 901 Kifer Rd | | | | | | | | | 1 | | | | 1 |
| 1120 Kifer Rd | | 6 | | | | | | 20 | 11 | | | | 37 |
| 1155 Aster Ave | | 2 | | | | | | 15 | 23 | | | | 40 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | 10 | | | | 8 | | 7 | | | | | 25 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 1 | | | | 1 | | 4 | 4 | | | | 10 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | 1 | 1 | | -1 | | | | -1 | | | | | |
| 1111, 1139 Karlstad Dr | 27 | 47 | | -20 | | | | -29 | | | | | 25 |
| 1122 Aster Ave | | 2 | | | | | | 6 | | | | | 8 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | 2 | 3 | | -2 | | | | -3 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 5 | | | | | | 42 | 41 | | | | 88 |
| 617 E. Evelyn Ave | | 2 | | | | | | 8 | | | | | 10 |
| 625 E. Taylor Ave | | -2 | | | | -1 | | 2 | 1 | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | | | | |
| 915 De Guigne Dr | | -15 | | | | | | 13 | 20 | | | | 18 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 4 | | | | | | 10 | | | | | 14 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | | 5 | | | | | | 1 | | | | | 6 |
| City Place | 4 | 8 | | 3 | 8 | 8 | | 17 | 5 | | | | 53 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | | 4 | | | | 4 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 44 | 156 | 0 | 11 | 8 | 25 | 0 | 219 | 181 | 0 | 0 | 0 | 644 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| | | | | | | | | | | | | | |
| Future Volume Reduction | 165 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Background Conditions | 566 | 903 | 0 | 192 | 12 | 254 | 0 | 1041 | 718 | 0 | 0 | 0 | 3686 |
| **Background Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| | | | | | | | | | | | | | |
| **Project Trips** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 7 |
| | | | | | | | | | | | | | |
| Future Volume Reduction | 148 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Existing + Project | 522 | 747 | 0 | 181 | 4 | 229 | 0 | 822 | 544 | 0 | 0 | 0 | 3049 |
| Future Volume Reduction | 165 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Background + Project | 566 | 903 | 0 | 192 | 12 | 254 | 0 | 1041 | 725 | 0 | 0 | 0 | 3693 |
| **Existing + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Background + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |

Traffix Node Number: 91
Intersection Name: Fair Oaks Avenue & Ahwanee Avenue
Peak Hour: AM
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 266 | 733 | 37 | 234 | 65 | 30 | 13 | 1376 | 66 | 51 | 16 | 212 | 3099 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 3 | | | | | | 5 | | | | | 8 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | 3 | | | | | | 2 | | | | | 5 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | 7 | | | | | | 5 | | | | | 12 |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | 9 | | | | | | 7 | | | | | 16 |
| 1050 Kifer Rd | | 69 | | | | | | 11 | | | | | 80 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 1 | | | | | | 53 | | | | | 54 |
| 1111 Lockheed Martin Way | | 6 | | | | | | 21 | | | | | 27 |
| 1152 Bordeaux Dr | | 7 | | | | | | 35 | | | | | 42 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 4 | | | | | 6 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 16 | | | | 8 | | | | 48 | 7 | 18 | 97 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 4 | | | | | | 17 | | | | | 21 |
| 610 N Mary Ave | | 4 | | | | | | 2 | | | | | 6 |
| 615 N. Mathilda Ave | | 3 | | | | | | -2 | | | | | 1 |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | 7 | | | | | | 1 | | | | | 8 |
| 810 W Maude Ave | | 4 | | | | | | 1 | | | | | 5 |
| 901 Kifer Rd | | 9 | | | | | | 1 | | | | | 10 |
| 1120 Kifer Rd | | 4 | | | | | | 30 | | | | | 34 |
| 1155 Aster Ave | | 6 | | | | | | 38 | | | | | 44 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | 18 | | | | | | 20 | | | | | 38 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | 2 | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 3 | | | | | | 11 | | | | | 14 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 17 | | | | | | -11 | | | | | 6 |
| 1122 Aster Ave | | 2 | | | | | | 6 | | | | | 8 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | 1 | | | | | | -1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 11 | | | | | | 83 | | | | | 94 |
| 617 E. Evelyn Ave | | 2 | | | | | | 8 | | | | | 10 |
| 625 E. Taylor Ave | | -4 | | | | | | 4 | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | 1 | 4 | | | 5 |
| 915 De Guigne Dr | | -37 | | | | | | 33 | | | | | -4 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 4 | | | | | | 10 | | | | | 14 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | 5 | | | | | | 1 | | | | | 6 |
| City Place | | 1 | 3 | | 2 | 3 | 2 | 2 | | 5 | 5 | | 23 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | 4 | | | | | 4 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 187 | 3 | 0 | 2 | 11 | 2 | 401 | 3 | 57 | 12 | 18 | 696 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 266 | 920 | 40 | 234 | 67 | 41 | 15 | 1777 | 69 | 108 | 28 | 230 | 3795 |
| **Background Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Project Trips** | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 47 |
| Existing + Project | 266 | 773 | 37 | 234 | 65 | 30 | 13 | 1383 | 66 | 51 | 16 | 212 | 3146 |
| Background + Project | 266 | 960 | 40 | 234 | 67 | 41 | 15 | 1784 | 69 | 108 | 28 | 230 | 3842 |
| **Existing + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Background + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |

Intersection Number: 4
Traffix Node Number: 41
Intersection Name: Fair Oaks Avenue & Duane Avenue
Peak Hour: AM
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019

Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| INDEX | 7 | 6 | 5 | 13 | 12 | 11 | 4 | 3 | 2 | 10 | 9 | 8 | |
| PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Volume Adjustment | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Existing Conditions | 48 | 700 | 153 | 237 | 121 | 167 | 201 | 943 | 6 | 13 | 102 | 99 | 2790 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 3 | | | | | | 5 | | | | | 8 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | 3 | | | | | | 2 | | | | | 5 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | 7 | | | | | | 5 | | | | | 12 |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | 9 | | | | | | 7 | | | | | 16 |
| 1050 Kifer Rd | | 69 | | | | | | 11 | | | | | 80 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 1 | | | | | | 53 | | | | | 54 |
| 1111 Lockheed Martin Way | 2 | 4 | | | | | | 14 | | | | 7 | 27 |
| 1152 Bordeaux Dr | | 7 | | | | | | 35 | | | | | 42 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 4 | | | | | 6 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 72 | | | | 8 | | | | | 7 | | 87 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 4 | | | | | | 17 | | | | | 21 |
| 610 N Mary Ave | | 4 | | | | | | 2 | | | | | 6 |
| 615 N. Mathilda Ave | | 3 | | | | | | -2 | | | | | 1 |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | 7 | | | | | | 1 | | | | | 8 |
| 810 W Maude Ave | | 4 | | | | | | 1 | | | | | 5 |
| 901 Kifer Rd | | 9 | | | | | | 1 | | | | | 10 |
| 1120 Kifer Rd | | 4 | | | | | | 30 | | | | | 34 |
| 1155 Aster Ave | | 6 | | | | | | 38 | | | | | 44 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | 18 | | | | 5 | 3 | 20 | | | | | 46 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | 1 | | | | 1 | | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 3 | | | | | | 11 | | | | | 14 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 17 | | | | | | -11 | | | | | 6 |
| 1122 Aster Ave | | 2 | | | | | | 6 | | | | | 8 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | 1 | | | | | | -1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | -3 | 14 | 62 | | 26 | 6 | 21 | | -1 | -1 | | 124 |
| 617 E. Evelyn Ave | | 2 | | | | | | 8 | | | | | 10 |
| 625 E. Taylor Ave | | -4 | | | | | | 4 | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 2 | 2 | | | | | 1 | | | | | 5 |
| 915 De Guigne Dr | | -16 | -21 | 22 | | | | 11 | | | | | -4 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 4 | | | | | | 10 | | | | | 14 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | | 5 | | | | | | 1 | | | | | 6 |
| City Place | 6 | 4 | 6 | 1 | 7 | 2 | 9 | 7 | 7 | 7 | 3 | 4 | 63 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | 4 | | | | | 4 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 8 | 253 | 1 | 86 | 7 | 41 | 18 | 317 | 7 | 6 | 9 | 11 | 764 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 56 | 953 | 154 | 323 | 128 | 208 | 219 | 1260 | 13 | 19 | 111 | 110 | 3554 |
| **Project Trips** | 0 | 40 | 0 | 0 | 0 | 0 | 3 | 7 | 0 | 0 | 0 | 0 | 50 |
| Existing + Project | 48 | 740 | 153 | 237 | 121 | 167 | 204 | 950 | 6 | 13 | 102 | 99 | 2840 |
| Background + Project | 56 | 993 | 154 | 323 | 128 | 208 | 222 | 1267 | 13 | 19 | 111 | 110 | 3604 |

Traffix Node Number: 92
Intersection Name: Fair Oaks Avenue & Wolfe Road
Peak Hour: AM
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| INDEX | 7 | 6 | 5 | 13 | 12 | 11 | 4 | 3 | 2 | 10 | 9 | 8 | |
| PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Volume Adjustment | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Existing Conditions | 574 | 334 | 0 | 0 | 0 | 0 | 0 | 561 | 0 | 4 | 0 | 770 | 2243 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | 3 | | | | | | | | | | 5 | | 8 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | 3 | | | | | | | | | | 2 | | 5 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | 7 | | | | | | | | | | 5 | | 12 |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | 9 | | | | | | | | | | 7 | | 16 |
| 1050 Kifer Rd | | 69 | | | | | | 11 | | | | | 80 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 1 | | | | | | 53 | | | | | 54 |
| 1111 Lockheed Martin Way | | 4 | | | | | | 14 | | | | | 18 |
| 1152 Bordeaux Dr | 4 | 4 | | | | | | 18 | | | 18 | | 44 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | 1 | 1 | | | | | | 2 | | | 2 | | 6 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | 56 | 24 | | | | | | | | | | | 80 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | 4 | | | | | | | | | | 17 | | 21 |
| 610 N Mary Ave | 4 | | | | | | | | | | 2 | | 6 |
| 615 N. Mathilda Ave | 3 | | | | | | | | | | -2 | | 1 |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | 7 | | | | | | | | | | 1 | | 8 |
| 810 W Maude Ave | 4 | | | | | | | | | | 1 | | 5 |
| 901 Kifer Rd | | 9 | | | | | | 1 | | | | | 10 |
| 1120 Kifer Rd | | 4 | | | | | | 30 | | | | | 34 |
| 1155 Aster Ave | | 6 | | | | | | 38 | | | | | 44 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | 24 | | | | | | | | | | 23 | | 47 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | 1 | | | | | 1 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | 2 | 1 | | | | | | 4 | | | 7 | | 14 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | 11 | 6 | | | | | | -4 | | | -7 | | 6 |
| 1122 Aster Ave | | 2 | | | | | | 6 | | | | | 8 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | 1 | | | | | | | | | | -1 | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | 26 | -4 | | | | | | 21 | | | 6 | | 49 |
| 617 E. Evelyn Ave | 2 | | | | | | | | | | 8 | | 10 |
| 625 E. Taylor Ave | -4 | | | | | | | | | | 4 | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 2 | | | | | | 1 | | | | | 3 |
| 915 De Guigne Dr | | -16 | | | | | | 11 | | | | | -5 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 4 | | | | | | 10 | | | | | 14 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | 5 | | | | | | | | | | | 1 | 6 |
| City Place | | 2 | | | | | | 5 | | | | 5 | 12 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | 4 | | | | | 4 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 172 | 119 | 0 | 0 | 0 | 0 | 0 | 226 | 0 | 0 | 0 | 104 | 621 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 746 | 453 | 0 | 0 | 0 | 0 | 0 | 787 | 0 | 4 | 0 | 874 | 2864 |
| **Background Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Project Trips** | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 50 |
| Existing + Project | 574 | 374 | 0 | 0 | 0 | 0 | 0 | 571 | 0 | 4 | 0 | 770 | 2293 |
| Background + Project | 746 | 493 | 0 | 0 | 0 | 0 | 0 | 797 | 0 | 4 | 0 | 874 | 2914 |
| **Existing + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Background + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |

Traffix Node Number: 42
Intersection Name: Fair Oaks Avenue & Arques Avenue
Peak Hour: AM
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 99 | 495 | 20 | 47 | 187 | 188 | 165 | 717 | 230 | 66 | 89 | 60 | 2363 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 3 | | | | | | 5 | | | | | 8 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | 3 | | | | | | 2 | | | | | 5 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | 2 | | | | | | 2 | | 4 |
| 830 E. El Camino Real | | 7 | | | | | | 5 | | | | | 12 |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | 9 | | | | | | 7 | | | | | 16 |
| 1050 Kifer Rd | | | | | | | | | | | | | |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | 4 | | | | | | 18 | | | | | 22 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | 1 | | 1 |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 1 | | | | | | 2 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 24 | | | | | | 27 | | | | | 51 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 4 | | | | | | 17 | | | | | 21 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | | | | | | | | | |
| 1120 Kifer Rd | | | | | | | | | | | | | |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | 24 | | | | | | 23 | | | | | 47 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 2 | | | | | | 7 | | | | | 9 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 11 | | | | | | -7 | | | | | 4 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | 1 | | | | | | -1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 20 | | | 12 | | | 6 | | | -5 | | 33 |
| 617 E. Evelyn Ave | | 2 | | | | | | 8 | | | | | 10 |
| 625 E. Taylor Ave | | | 1 | -1 | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 1 | 1 | | | | | | | | | | 2 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | 2 | | | | | | 8 | | 10 |
| 4301, 4401, 4551 Great America Pkwy | | | | | 1 | | | | | | 8 | | 9 |
| 2620-2727 Augustine Dr | | | | | 17 | | | | | | -11 | | 6 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | 7 | | 7 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | 5 | | | | | | 1 | | | | | 6 |
| City Place | 7 | 5 | 1 | 7 | 7 | | 7 | 5 | 9 | 2 | 1 | 9 | 60 |
| 3226 Scott Blvd | | | | | 1 | | | | | | 5 | | 6 |
| 2041 Mission College Blvd | | | | | 1 | | | | | | 1 | | 2 |
| 3100-3200 Coronado Dr | | | | | 1 | | | | | | 5 | | 6 |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | 1 | | | | | | 4 | | 5 |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | 17 | | | | | | | | 17 |
| 2350 & 2305 Mission College Blvd | | | | | 2 | | | | | | 8 | | 10 |
| 3625 Peterson Way | | | | | 1 | | | | | | 8 | | 9 |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 7 | 126 | 3 | 6 | 65 | 0 | 7 | 125 | 9 | 2 | 42 | 9 | 401 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 106 | 621 | 23 | 53 | 252 | 188 | 172 | 842 | 239 | 68 | 131 | 69 | 2764 |
| **Project Trips** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 5 |
| Existing + Project | 99 | 495 | 20 | 47 | 187 | 188 | 165 | 717 | 235 | 66 | 89 | 60 | 2368 |
| Background + Project | 106 | 621 | 23 | 53 | 252 | 188 | 172 | 842 | 244 | 68 | 131 | 69 | 2769 |

Traffix Node Number: 95
Intersection Name: Fair Oaks Avenue & California Avenue
Peak Hour: AM
Count Date: 12/06/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 77 | 702 | 38 | 0 | 0 | 0 | 294 | 941 | 92 | 33 | 30 | 35 | 2242 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 3 | | | | | | 5 | | | | | 8 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | 3 | | | | | | 2 | | | | | 5 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | 7 | | | | | | 5 | | | | | 12 |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | 9 | | | | | | 7 | | | | | 16 |
| 1050 Kifer Rd | | | | | | | | | 4 | | | | 4 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | 4 | | | | | | 18 | | | | | 22 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 1 | | | | | | 2 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 24 | | | | | | 27 | | | | | 51 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 4 | | | | | | 17 | | | | | 21 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | | | | | | | | | |
| 1120 Kifer Rd | | | | | | | | | | | | | |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | 24 | | | | | | 23 | | | | | 47 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 2 | | | | | | 7 | | | | | 9 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 11 | | | | | | -7 | | | | | 4 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | 1 | | | | | | -1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 20 | | | | | | 6 | | | | | 26 |
| 617 E. Evelyn Ave | | 2 | | | | | | 8 | | | | | 10 |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 1 | | | | | | | | | | | 1 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | 5 | | | | | | 1 | | | | | 6 |
| City Place | | 7 | | | | | | 21 | | | | | 28 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 141 | 4 | 0 | 0 | 0 | 273 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 77 | 830 | 38 | 0 | 0 | 0 | 294 | 1082 | 96 | 33 | 30 | 35 | 2515 |
| **Project Trips** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 5 |
| Existing + Project | 77 | 702 | 38 | 0 | 0 | 0 | 294 | 946 | 92 | 33 | 30 | 35 | 2247 |
| Background + Project | 77 | 830 | 38 | 0 | 0 | 0 | 294 | 1087 | 96 | 33 | 30 | 35 | 2520 |

Traffix Node Number: 96
Intersection Name: Fair Oaks Avenue & Kifer Road
Peak Hour: AM
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 0 | 590 | 74 | 137 | 0 | 117 | 202 | 1363 | 0 | 0 | 0 | 0 | 2483 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 3 | | | | | | 5 | | | | | 8 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | 3 | | | | | | 2 | | | | | 5 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | 7 | | | | | | 5 | | | | | 12 |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | 9 | | | | | | 7 | | | | | 16 |
| 1050 Kifer Rd | | | | 4 | | 5 | 32 | | | | | | 41 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | 4 | | | | | | 18 | | | | | 22 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 1 | | | | | | 2 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 24 | | | | | | 27 | | | | | 51 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 4 | | | | | | 17 | | | | | 21 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | | | 4 | | | | | | 4 |
| 1120 Kifer Rd | | | | | | | | | | | | | |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | 24 | | | | | | 23 | | | | | 47 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 2 | | | | 1 | 1 | 7 | | | | | 11 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 11 | | | | | | -7 | | | | | 4 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | 1 | | | | | | -1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 20 | | | | | | 6 | | | | | 26 |
| 617 E. Evelyn Ave | | 2 | | | | | | 8 | | | | | 10 |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | 1 | | | | | | | | | | 1 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | 1 | | | | | | | 1 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | 5 | 1 | | | | | | | | | 6 |
| City Place | | 7 | | | | | | 21 | | | | | 28 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 122 | 6 | 5 | 0 | 7 | 37 | 140 | 0 | 0 | 0 | 0 | 317 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 0 | 712 | 80 | 142 | 0 | 124 | 239 | 1503 | 0 | 0 | 0 | 0 | 2800 |
| **Project Trips** | 0 | 0 | 0 | 5 | 0 | 11 | 59 | 0 | 0 | 0 | 0 | 0 | 75 |
| Existing + Project | 0 | 590 | 74 | 142 | 0 | 128 | 261 | 1363 | 0 | 0 | 0 | 0 | 2558 |
| Background + Project | 0 | 712 | 80 | 147 | 0 | 135 | 298 | 1503 | 0 | 0 | 0 | 0 | 2875 |

Traffix Node Number: 62
Intersection Name: Fair Oaks Avenue & Evelyn Avenue
Peak Hour: AM
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 129 | 567 | 29 | 233 | 337 | 26 | 45 | 1415 | 62 | 35 | 112 | 191 | 3181 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | 4 | | | | | | 4 | | | | | 8 |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 3 | | | | | | 5 | | | | | 8 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | 3 | | | | | | 2 | | | | | 5 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | 7 | | | | | | 5 | | | | | 12 |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | 9 | | | | | | 7 | | | | | 16 |
| 1050 Kifer Rd | 1 | 4 | | | | | | 28 | | | | 5 | 38 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | 4 | | | | | | 18 | | | | | 22 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 1 | | | | | | 2 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 24 | | | | | | 27 | | | | | 51 |
| 445 N Mary Ave | | | | | 1 | | | | | | | | 1 |
| 589 W. Java Dr | | 4 | | | | | | 17 | | | | | 21 |
| 610 N Mary Ave | | | | | 10 | | | | | | 2 | | 12 |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | 2 | | | | | | | | 2 |
| 810 W Maude Ave | | | | | 1 | | | | | | | | 1 |
| 901 Kifer Rd | | | | | | | | 4 | | | | | 4 |
| 1120 Kifer Rd | | | | | 17 | | | | | | -1 | | 16 |
| 1155 Aster Ave | | | | | 8 | | | | | | 1 | | 9 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | 24 | | | | | | | | | | | 23 | 47 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | 1 | | | | | | | | 1 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 3 | | | | | | 8 | | | | | 11 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 11 | | | | | | -7 | | | | | 4 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | 1 | | | | | | -1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 20 | | | | | | 6 | | | | | 26 |
| 617 E. Evelyn Ave | | | 2 | 8 | | | | | | | | | 10 |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | | | | |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | 1 | | | | | | | | | | | 1 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | 1 | | | | | | 5 | | 6 |
| City Place | 2 | 1 | 1 | 4 | 7 | 7 | 4 | 4 | 8 | 4 | 3 | 6 | 51 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 27 | 100 | 3 | 12 | 48 | 7 | 4 | 129 | 8 | 4 | 10 | 34 | 386 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 156 | 667 | 32 | 245 | 385 | 33 | 49 | 1544 | 70 | 39 | 122 | 225 | 3567 |
| **Project Trips** | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 0 | 0 | 0 | 70 |
| Existing + Project | 129 | 578 | 29 | 233 | 337 | 26 | 45 | 1474 | 62 | 35 | 112 | 191 | 3251 |
| Background + Project | 156 | 678 | 32 | 245 | 385 | 33 | 49 | 1603 | 70 | 39 | 122 | 225 | 3637 |

Traffix Node Number: 63
Intersection Name: Fair Oaks Avenue & Old SF Road
Peak Hour: AM
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 76 | 419 | 34 | 146 | 230 | 147 | 76 | 934 | 39 | 49 | 123 | 123 | 2396 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | 4 | | | | | | 4 | | | | | 8 |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 3 | | | | | | 5 | | | | | 8 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | 3 | | | | | | | | | | | 2 | 5 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | 7 | | | | | | 5 | | | | | 12 |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | 9 | | | | | | 7 | | | | | 16 |
| 1050 Kifer Rd | | 4 | | | | | | | | | | 28 | 32 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | 4 | | | | | | 18 | | | | | 22 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 1 | | | | | | 2 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 24 | | | | | | 27 | | | | | 51 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 4 | | | | | | 17 | | | | | 21 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | | | | 4 | | | | | 4 |
| 1120 Kifer Rd | | | | | | | | | | | -4 | | -4 |
| 1155 Aster Ave | | | | | 15 | | | | | | 2 | | 17 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 3 | | | | | | 8 | | | | | 11 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 11 | | | | | | -7 | | | | | 4 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | 6 | | | | | | 3 | | 9 |
| 160 Persian Dr | | 1 | | | | | | -1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 20 | | | | | | 6 | | | | | 26 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | | | | |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | 2 | | | | | | 8 | | 10 |
| 4301, 4401, 4551 Great America Pkwy | | | | | 16 | | | | | | 2 | | 18 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | 2 | | | | | | 16 | | 18 |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | 1 | | | | | | | | | | | 1 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | 2 | | | | | | 10 | | 12 |
| City Place | | 12 | | | | | | 16 | | | | | 28 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | 1 | | 1 |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | 7 | | | | | | | | 7 |
| 2350 & 2305 Mission College Blvd | | | | | 2 | | | | | | 8 | | 10 |
| 3625 Peterson Way | | | | | 1 | | | | | | 8 | | 9 |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 3 | 108 | 0 | 0 | 53 | 0 | 0 | 111 | 0 | 0 | 54 | 30 | 359 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 79 | 527 | 34 | 146 | 283 | 147 | 76 | 1045 | 39 | 49 | 177 | 153 | 2755 |
| **Project Trips** | 5 | 4 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 27 | 58 |
| Existing + Project | 81 | 423 | 34 | 146 | 230 | 147 | 76 | 956 | 39 | 49 | 123 | 150 | 2454 |
| Background + Project | 84 | 531 | 34 | 146 | 283 | 147 | 76 | 1067 | 39 | 49 | 177 | 180 | 2813 |

Traffix Node Number: 1404
Intersection Name: Fair Oaks Avenue & El Camino Real
Peak Hour: AM
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 152 | 469 | 104 | 142 | 1211 | 168 | 127 | 594 | 104 | 68 | 422 | 148 | 3709 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | 4 | | | | 4 | 4 | 4 | | | | | 16 |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 3 | | | | | | 5 | | | | | 8 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | 3 | | | | | | 2 | | 5 |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | 7 | 5 | 17 | 4 | 5 | | | | 22 | | 60 |
| 840 E El Camino Real | | | | | 2 | | | | | | 1 | | 3 |
| 861 E. El Camino Real | | | 9 | 7 | 21 | 5 | 6 | | | | 28 | | 76 |
| 1050 Kifer Rd | 4 | | | | | | | | | | | | 4 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | 6 | | | | | | 2 | | 8 |
| 1152 Bordeaux Dr | | 4 | | | | | | 18 | | | | | 22 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 1 | | | | | | 2 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 24 | | | | | | 27 | | | | | 51 |
| 445 N Mary Ave | | | | | 5 | | | | | | 1 | | 6 |
| 589 W. Java Dr | | 4 | | | | | | 17 | | | | | 21 |
| 610 N Mary Ave | | | | | 53 | | | | | | 9 | | 62 |
| 615 N. Mathilda Ave | | | | | 10 | | | | | | -4 | | 6 |
| 623 N Pastoria Ave | | | | | 2 | | | | | | | | 2 |
| 684 W. Maude Ave | | | | | 22 | | | | | | 4 | | 26 |
| 810 W Maude Ave | | | | | 14 | | | | | | 2 | | 16 |
| 901 Kifer Rd | | | | | | | | | | | | 4 | 4 |
| 1120 Kifer Rd | | | | | | | | | | | | | |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | 18 | | | | | | 20 | | 38 |
| 311 S Mathilda Ave | | | | | 1 | | | | | | 3 | | 4 |
| 520 Almanor Ave | | | | | 15 | | | | | | 2 | | 17 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | 2 | | | | | | 4 | | 6 |
| 871 and 895 E Fremont Ave | | 3 | | | | | | 8 | | | | | 11 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | -11 | | | | | | -4 | | -15 |
| 1008 E El Camino Real | | | | | 7 | | | | | | 3 | | 10 |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 11 | | | | | | -7 | | | | | 4 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | 4 | | | | | | 1 | | 5 |
| 160 Persian Dr | | 1 | | | | | | -1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 20 | | | | | | 6 | | | | | 26 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | -1 | | | | | | | | -1 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | 1 | | | | | | | | | | | 1 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | | | | | | | | | |
| City Place | | 12 | | | | | | 16 | | | | | 28 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | 9 | | | | | | 3 | | 12 |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 4 | 88 | 16 | 12 | 199 | 13 | 15 | 95 | 0 | 0 | 99 | 4 | 545 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 156 | 557 | 120 | 154 | 1410 | 181 | 142 | 689 | 104 | 68 | 521 | 152 | 4254 |
| **Project Trips** | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 26 |
| Existing + Project | 152 | 473 | 104 | 142 | 1211 | 168 | 127 | 616 | 104 | 68 | 422 | 148 | 3735 |
| Background + Project | 156 | 561 | 120 | 154 | 1410 | 181 | 142 | 711 | 104 | 68 | 521 | 152 | 4280 |

Traffix Node Number: 1402
Intersection Name: Sunnyvale-Saratoga & Remington Drive
Peak Hour: AM
Count Date: 11/14/17
Scenario: Intuitive Surgical 2019

Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 98 | 512 | 31 | 65 | 268 | 361 | 257 | 2376 | 150 | 87 | 298 | 170 | 4673 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | 4 | | 25 | | | 4 | | | 26 | | 59 |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | 3 | | | | | | 5 | | 8 |
| 1120 Innovation Way | | 25 | | | | | | 34 | | | | | 59 |
| 1235 Bordeaux Dr | | 15 | | | | | | 27 | | | | | 42 |
| 590 W El Camino Real | | 2 | | | | | | 3 | | | | | 5 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | 4 | 5 | | | | | | 9 |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | 5 | 6 | | | | | | 11 |
| 1050 Kifer Rd | | | | | | | | | | | | | |
| 830 W Evelyn Ave | | 1 | | | | | | 1 | | | | | 2 |
| 1081 Innovation Way | | 1 | | | | | | 75 | | | | | 76 |
| 1111 Lockheed Martin Way | | 2 | | | | | | 8 | | | | | 10 |
| 1152 Bordeaux Dr | | 10 | | | 4 | | | 49 | | | 18 | | 81 |
| 1194 N. Mathilda Ave | | 3 | | | | | | 13 | | | | | 16 |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | 1 | | | | | | 2 | | | | | 3 |
| 215 Moffett Park Dr | | | | | 1 | | | | | | 2 | | 3 |
| 265 Sobrante Way | | 2 | | | | | | 9 | | | | | 11 |
| 275 N Mathilda Ave | | 2 | | | | | | 8 | | | | | 10 |
| 824 San Aleso Ave | | 36 | | | 24 | | | 41 | | | 27 | | 128 |
| 445 N Mary Ave | | 2 | | | | | | 8 | | | | | 10 |
| 589 W. Java Dr | | 6 | | | 4 | | | 29 | | | 17 | | 56 |
| 610 N Mary Ave | | 26 | | | | | | 147 | | | | | 173 |
| 615 N. Mathilda Ave | | -8 | | | | | | 24 | | | | | 16 |
| 623 N Pastoria Ave | | | | | | | | 3 | | | | | 3 |
| 684 W. Maude Ave | | 10 | | | | | | 72 | | | | | 82 |
| 810 W Maude Ave | | 6 | | | | | | 44 | | | | | 50 |
| 901 Kifer Rd | | | | | | | | | | | | | |
| 1120 Kifer Rd | | | | | | | | -1 | | | | | -1 |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | 3 | | | | | | 1 | | | | | 4 |
| 520 Almanor Ave | | 4 | | | | | | 25 | | | | | 29 |
| 675 Almanor Avenue | | 2 | | | | | | 13 | | | | | 15 |
| 803 W El Camino Real | | 2 | | | | | | 1 | | | | | 3 |
| 871 and 895 E Fremont Ave | | 4 | | | | 3 | 8 | 12 | | | | | 27 |
| 223 N Mathilda Ave | | 3 | | | | | | 15 | | | | | 18 |
| 456 W Olive Ave | | -23 | | | | | | -75 | | | | | -98 |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 3 | | | 11 | | | -2 | | | -7 | | 5 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | 1 | | | | | | -1 | | |
| 370 San Aleso Ave | | 1 | | | | | | -2 | | | | | -1 |
| 1 AMD Place | | | | | 20 | | | | | | 6 | | 26 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 3 | | | | | | -1 | | | | | 2 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | 1 | | | | | | | | 1 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | | | | | | | | | |
| City Place | | | | | 12 | | | | | | 16 | | 28 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 144 | 4 | 0 | 106 | 12 | 19 | 587 | 0 | 0 | 109 | 0 | 981 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 98 | 656 | 35 | 65 | 374 | 373 | 276 | 2963 | 150 | 87 | 407 | 170 | 5654 |
| **Project Trips** | 0 | 0 | 0 | 0 | 0 | 4 | 22 | 0 | 0 | 0 | 0 | 0 | 26 |
| Existing + Project | 98 | 512 | 31 | 65 | 268 | 365 | 279 | 2376 | 150 | 87 | 298 | 170 | 4699 |
| Background + Project | 98 | 656 | 35 | 65 | 374 | 377 | 298 | 2963 | 150 | 87 | 407 | 170 | 5680 |

Traffix Node Number: 93
Intersection Name: Wolfe Road & Maude Avenue
Peak Hour: AM
Count Date: 12/06/17
Scenario: Intuitive Surgical 2019

Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 5 | 299 | 2 | 2 | 1 | 2 | 4 | 541 | 185 | 76 | 2 | 11 | 1130 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | 6 | 8 | | | 14 |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 69 | | | | | | 11 | | | | | 80 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 1 | | | | | | 53 | | | | | 54 |
| 1111 Lockheed Martin Way | | 4 | | | | | | 14 | | | | | 18 |
| 1152 Bordeaux Dr | | 4 | | | | | | 18 | | | | | 22 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 1 | | | | | | 2 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 24 | | | | | | | 14 | | | | 38 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | | | | | 13 | 2 | | | 15 |
| 615 N. Mathilda Ave | | | | | | | | | 1 | | | | 1 |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | 7 | 1 | | | 8 |
| 810 W Maude Ave | | | | | | | | | 4 | 1 | | | 5 |
| 901 Kifer Rd | | 9 | | | | | | 1 | | | | | 10 |
| 1120 Kifer Rd | | 4 | | | | | | 31 | | | | | 35 |
| 1155 Aster Ave | | 6 | | | | | | 38 | | | | | 44 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | 1 | 1 | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 1 | | | | | | 4 | | | | | 5 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 6 | | | | | | -4 | | | | | 2 |
| 1122 Aster Ave | | 2 | | | | | | 6 | | | | | 8 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | | | | | -2 | 2 | | | |
| 1 AMD Place | | -4 | | | | | | 21 | 26 | -2 | | | 41 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 2 | | | | | | 1 | | 3 | | | 6 |
| 915 De Guigne Dr | | -16 | | | | | | 11 | 20 | -22 | | | -7 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 4 | | | | | | 10 | | | | | 14 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | | | | | | | | | |
| City Place | | 2 | | | | | | 5 | | | | | 7 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | 4 | | | | | 4 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 119 | 0 | 0 | 0 | 0 | 0 | 227 | 90 | -7 | 0 | 0 | 429 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 5 | 418 | 2 | 2 | 1 | 2 | 4 | 768 | 275 | 69 | 2 | 11 | 1559 |
| **Project Trips** | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 50 |
| Existing + Project | 5 | 339 | 2 | 2 | 1 | 2 | 4 | 551 | 185 | 76 | 2 | 11 | 1180 |
| Background + Project | 5 | 458 | 2 | 2 | 1 | 2 | 4 | 778 | 275 | 69 | 2 | 11 | 1609 |

Traffix Node Number: 58
Intersection Name: Wolfe Road & Stewart Drive
Peak Hour: AM
Count Date: 11/15/17
Scenario: Intuitive Surgical 2019

Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 5 | 295 | 99 | 66 | 1 | 66 | 233 | 651 | 4 | 5 | 1 | 4 | 1430 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | 8 | 6 | | | | | | | | | 14 |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 69 | | | | 14 | 2 | 11 | | | | | 96 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 1 | | | | | | 53 | | | | | 54 |
| 1111 Lockheed Martin Way | | 4 | | | | | | 14 | | | | | 18 |
| 1152 Bordeaux Dr | | 4 | | | | | | 18 | | | | | 22 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 1 | | | | | | 2 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 24 | | | | | | 14 | | | | | 38 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | 2 | | | | | | 13 | | | | | 15 |
| 615 N. Mathilda Ave | | | | | | | | 1 | | | | | 1 |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | 1 | | | | | | 7 | | | | | 8 |
| 810 W Maude Ave | | 1 | | | | | | 4 | | | | | 5 |
| 901 Kifer Rd | | 9 | | | | 2 | | 1 | | | | | 12 |
| 1120 Kifer Rd | | 4 | | | | | | 31 | | | | | 35 |
| 1155 Aster Ave | | 6 | | | | 2 | 2 | 38 | | | | | 48 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | 2 | | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 1 | | | | | | 4 | | | | | 5 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 6 | | | | | | -4 | | | | | 2 |
| 1122 Aster Ave | | 2 | | | | | | 6 | | | | | 8 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | 2 | | | | | | -2 | | | | | |
| 1 AMD Place | | | -6 | 47 | | 22 | 2 | | | | | | 65 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 5 | | | | | | 1 | | | | | 6 |
| 915 De Guigne Dr | | | -38 | 31 | | 6 | -10 | | | | | | -11 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 4 | | | | | | 10 | | | | | 14 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | | | | | | | | | |
| City Place | | 2 | | | | | | 5 | | | | | 7 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | 3 | | | | | | 3 |
| Santa Clara LSAP | | | | | | | | 4 | | | | | 4 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 148 | -36 | 84 | 0 | 46 | -1 | 233 | 0 | 0 | 0 | 0 | 474 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 5 | 443 | 63 | 150 | 1 | 112 | 232 | 884 | 4 | 5 | 1 | 4 | 1904 |
| **Project Trips** | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 50 |
| Existing + Project | 5 | 335 | 99 | 66 | 1 | 66 | 233 | 661 | 4 | 5 | 1 | 4 | 1480 |
| Background + Project | 5 | 483 | 63 | 150 | 1 | 112 | 232 | 894 | 4 | 5 | 1 | 4 | 1954 |

Traffix Node Number: 43
Intersection Name: Wolfe Road & Arques Avenue
Peak Hour: AM
Count Date: 11/14/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 27 | 233 | 92 | 85 | 165 | 91 | 270 | 823 | 21 | 10 | 176 | 64 | 2057 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | 2 | | | | | | 2 | | 4 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 83 | | | | | | 13 | | | | | 96 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 1 | | | | | | 53 | | | | | 54 |
| 1111 Lockheed Martin Way | | 4 | | | | | | 14 | | | | | 18 |
| 1152 Bordeaux Dr | | 4 | | | | | | 18 | | | | | 22 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | 1 | | 1 |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 1 | | | | | | 2 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 24 | | | | | | 14 | | | | | 38 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | 2 | | | | | | 13 | | | | | 15 |
| 615 N. Mathilda Ave | | | | | | | | 1 | | | | | 1 |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | 1 | | | | | | 7 | | | | | 8 |
| 810 W Maude Ave | | 1 | | | | | | 4 | | | | | 5 |
| 901 Kifer Rd | | 11 | | | | | | 1 | | | | | 12 |
| 1120 Kifer Rd | | 4 | | | | | | 31 | | | | | 35 |
| 1155 Aster Ave | | 8 | | | | 2 | 2 | 40 | | | | | 52 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | 2 | | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 1 | | | | | | 4 | | | | | 5 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 6 | | | | | | -4 | | | | | 2 |
| 1122 Aster Ave | | 2 | | | | | | 6 | | | | | 8 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | 1 | 1 | -1 | | | | -1 | | | | | |
| 1 AMD Place | | 22 | | | 12 | 10 | | 2 | | | -5 | | 41 |
| 617 E. Evelyn Ave | | | | | | 1 | 3 | | | | | | 4 |
| 625 E. Taylor Ave | | | | | -1 | | | | | | 1 | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 4 | 1 | | | | | 1 | | | 1 | | 7 |
| 915 De Guigne Dr | | 6 | | | | 3 | -3 | -10 | | | | | -4 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | 2 | | | | | | 8 | | 10 |
| 4301, 4401, 4551 Great America Pkwy | | | | | 1 | | | | | | 8 | | 9 |
| 2620-2727 Augustine Dr | | | | | 17 | | | | | | -11 | | 6 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | 7 | | 7 |
| 3700 El Camino Real | | 4 | | | | | | 10 | | | | | 14 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | | | | | | | | | |
| City Place | | 2 | | | 14 | | | 5 | | | 9 | | 30 |
| 3226 Scott Blvd | | | | | 1 | | | | | | 5 | | 6 |
| 2041 Mission College Blvd | | | | | 1 | | | | | | 1 | | 2 |
| 3100-3200 Coronado Dr | | | | | 1 | | | | | | 5 | | 6 |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | 1 | | | | | | 4 | | 5 |
| 3001 Tasman Dr | | | | | | | | 3 | | | | | 3 |
| Santa Clara LSAP | | | | | 17 | | | 4 | | | | | 21 |
| 2350 & 2305 Mission College Blvd | | | | | 2 | | | | | | 8 | | 10 |
| 3625 Peterson Way | | | | | 1 | | | | | | 8 | | 9 |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 192 | 2 | -1 | 71 | 16 | 2 | 233 | 0 | 0 | 52 | 0 | 567 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 27 | 425 | 94 | 84 | 236 | 107 | 272 | 1056 | 21 | 10 | 228 | 64 | 2624 |
| **Project Trips** | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 50 |
| Existing + Project | 27 | 273 | 92 | 85 | 165 | 91 | 270 | 833 | 21 | 10 | 176 | 64 | 2107 |
| Background + Project | 27 | 465 | 94 | 84 | 236 | 107 | 272 | 1066 | 21 | 10 | 228 | 64 | 2674 |

Traffix Node Number: 97
Intersection Name: Wolfe Road & Central Expressway Ramps
Peak Hour: AM
Count Date: 12/06/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 229 | 362 | 29 | 98 | 2 | 123 | 458 | 1222 | 176 | 138 | 0 | 134 | 2971 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 83 | | | | | | 13 | 4 | 23 | | | 123 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 1 | | | | | | 53 | | | | | 54 |
| 1111 Lockheed Martin Way | | 4 | | | | | | 14 | | | | | 18 |
| 1152 Bordeaux Dr | | 4 | | | | | | 18 | | | | | 22 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 1 | | | | | | 2 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 12 | 12 | | | | | 14 | 14 | 12 | | | 64 |
| 445 N Mary Ave | | | | | | | | | 6 | 1 | | | 7 |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | 2 | | | | | | 13 | | | | | 15 |
| 615 N. Mathilda Ave | | | | | | | | 1 | | | | | 1 |
| 623 N Pastoria Ave | | | | | | | | | 2 | | | | 2 |
| 684 W. Maude Ave | | 1 | | | | | | 7 | | | | | 8 |
| 810 W Maude Ave | | 1 | | | | | | 4 | | | | | 5 |
| 901 Kifer Rd | | 11 | | | | | | 1 | 1 | | | | 13 |
| 1120 Kifer Rd | | 4 | | | | | 12 | 31 | 13 | | | | 60 |
| 1155 Aster Ave | | 11 | | | | | | 43 | 15 | 2 | | | 71 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | 2 | | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 1 | | | | 1 | 3 | 4 | 3 | 1 | | | 13 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 6 | | | | | | -4 | | | | | 2 |
| 1122 Aster Ave | | 2 | | | | | | 6 | | | | | 8 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | 1 | | | | | | -1 | -2 | 1 | | | -1 |
| 1 AMD Place | 7 | 17 | 8 | 1 | | | | 1 | | | | | 34 |
| 617 E. Evelyn Ave | | 1 | | | | | | 3 | | | | | 4 |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 4 | | | | | | 1 | | | | | 5 |
| 915 De Guigne Dr | 3 | 5 | | | | | | -6 | | | | -7 | -5 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | 10 | 1 | | | | | | 11 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 4 | | | | | | 10 | | | | | 14 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | | | | | 1 | 6 | | | 7 |
| City Place | | 2 | | | | | | 5 | | | | | 7 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | 3 | | | | | 3 |
| Santa Clara LSAP | | | | | | | | 4 | 16 | | | | 20 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 10 | 178 | 20 | 1 | 0 | 11 | 16 | 242 | 73 | 46 | 0 | -7 | 590 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 239 | 540 | 49 | 99 | 2 | 134 | 474 | 1464 | 249 | 184 | 0 | 127 | 3561 |
| **Project Trips** | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 10 | 5 | 0 | 0 | 0 | 55 |
| Existing + Project | 229 | 402 | 29 | 98 | 2 | 123 | 458 | 1232 | 181 | 138 | 0 | 134 | 3026 |
| Background + Project | 239 | 580 | 49 | 99 | 2 | 134 | 474 | 1474 | 254 | 184 | 0 | 127 | 3616 |

Traffix Node Number: 44
Intersection Name: Wolfe Road & Kifer Road
Peak Hour: AM
Count Date: 11/14/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 90 | 336 | 101 | 51 | 244 | 41 | 275 | 1882 | 114 | 30 | 142 | 29 | 3335 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 106 | | 17 | 9 | 7 | 46 | | | | 32 | | 217 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | 1 | | | | | | | 53 | | | | | 54 |
| 1111 Lockheed Martin Way | 4 | | | | | | | 14 | | | | | 18 |
| 1152 Bordeaux Dr | 4 | | | | | | | 18 | | | | | 22 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | 1 | | | | | | | 2 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | 24 | | | | | | | 28 | | | | | 52 |
| 445 N Mary Ave | 1 | | | | | | | 6 | | | | | 7 |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | 2 | | | | | | | 13 | | | | | 15 |
| 615 N. Mathilda Ave | | | | | | | | 1 | | | | | 1 |
| 623 N Pastoria Ave | | | | | | | | 2 | | | | | 2 |
| 684 W. Maude Ave | 1 | | | | | | | 7 | | | | | 8 |
| 810 W Maude Ave | 1 | | | | | | | 4 | | | | | 5 |
| 901 Kifer Rd | | 11 | | 2 | | 1 | 6 | | | | 4 | | 24 |
| 1120 Kifer Rd | | 2 | | 58 | | 36 | -4 | | | | | | 92 |
| 1155 Aster Ave | 13 | | | | | | | 58 | | | | | 71 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | 2 | | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | 3 | | | | | 1 | 2 | 9 | | | | | 15 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | 6 | | | | | | | -4 | | | | | 2 |
| 1122 Aster Ave | 2 | | | | | | | 6 | | | | | 8 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | 1 | 1 | | -1 | | | | -2 | | | | | -1 |
| 1 AMD Place | 17 | | | | | -1 | -6 | 1 | | | | | 11 |
| 617 E. Evelyn Ave | 1 | | | | | | | 3 | | | | | 4 |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | 3 | 1 | | | | | | 1 | | | 1 | | 6 |
| 915 De Guigne Dr | 5 | | | | | | | -6 | | | | | -1 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | 10 | | | | | | | 1 | | | | | 11 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | 4 | | 4 |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | 1 | | | | | | | | 1 |
| 3700 El Camino Real | 4 | | | | | | | 10 | | | | | 14 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | 6 | 1 | 1 | 2 | 16 | | | | 5 | | 31 |
| City Place | | 2 | | | 17 | | | 5 | | | 8 | | 32 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | 3 | | | | | 3 |
| Santa Clara LSAP | | | | 20 | | 21 | -1 | | | | | | 40 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 106 | 127 | 97 | 28 | 67 | 59 | 235 | 0 | 0 | 54 | 0 | 773 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 90 | 442 | 228 | 148 | 272 | 108 | 334 | 2117 | 114 | 30 | 196 | 29 | 4108 |
| **Project Trips** | 0 | 0 | 40 | 15 | 16 | 6 | 32 | 0 | 0 | 0 | 59 | 0 | 168 |
| Existing + Project | 90 | 336 | 141 | 66 | 260 | 47 | 307 | 1882 | 114 | 30 | 201 | 29 | 3503 |
| Background + Project | 90 | 442 | 268 | 163 | 288 | 114 | 366 | 2117 | 114 | 30 | 255 | 29 | 4276 |

Traffix Node Number: 64
Intersection Name: Wolfe Road & Evelyn Avenue
Peak Hour: AM
Count Date: 11/15/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 33 | 374 | 46 | 363 | 282 | 64 | 24 | 1757 | 65 | 100 | 105 | 70 | 3283 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 5 | 2 | 14 | | | | 32 | | | | | 53 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 1 | | | | | | 53 | | | | | 54 |
| 1111 Lockheed Martin Way | | 4 | | | | | | 14 | | | | | 18 |
| 1152 Bordeaux Dr | | 4 | | | | | | 18 | | | | | 22 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 1 | | | | | | 2 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 24 | | | | | | 28 | | | | | 52 |
| 445 N Mary Ave | | 1 | | | 1 | | | 6 | | | | | 8 |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | 2 | | | 10 | | | 13 | | | 2 | | 27 |
| 615 N. Mathilda Ave | | | | | | | | 1 | | | | | 1 |
| 623 N Pastoria Ave | | | | | | | | 2 | | | | | 2 |
| 684 W. Maude Ave | | 1 | | | 2 | | | 7 | | | | | 10 |
| 810 W Maude Ave | | 1 | | | 1 | | | 4 | | | | | 6 |
| 901 Kifer Rd | | 1 | | | | | | 6 | | | | | 7 |
| 1120 Kifer Rd | 17 | 19 | | | | | | -3 | | | | -1 | 32 |
| 1155 Aster Ave | | | 13 | 58 | 8 | | | | | | 1 | | 80 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | 1 | | | 2 | | | | | 3 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 4 | | | | | | 11 | | | | | 15 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 6 | | | | | | -4 | | | | | 2 |
| 1122 Aster Ave | | | 2 | 6 | | | | | | | | | 8 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | 1 | | | | | | -2 | | | | | -1 |
| 1 AMD Place | | 16 | | | | | | -5 | | | | | 11 |
| 617 E. Evelyn Ave | 1 | | | | | | | | | 1 | | 3 | 5 |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 3 | | | | | | 1 | | | | | 4 |
| 915 De Guigne Dr | | 5 | | | | | | -6 | | | | | -1 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | 10 | | | | | | 1 | | | | | 11 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 4 | | | | | | 10 | | | | | 14 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | 1 | 1 | | | | | | 11 | | | | 5 | 18 |
| City Place | | 2 | | | 18 | | | 5 | | | 8 | | 33 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | 3 | | | | | 3 |
| Santa Clara LSAP | | 21 | | | | | | -1 | | | | | 20 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 19 | 137 | 17 | 78 | 41 | 0 | 0 | 209 | 0 | 1 | 11 | 7 | 520 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 52 | 511 | 63 | 441 | 323 | 64 | 24 | 1966 | 65 | 101 | 116 | 77 | 3803 |
| **Project Trips** | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 38 |
| Existing + Project | 33 | 380 | 46 | 363 | 282 | 64 | 24 | 1789 | 65 | 100 | 105 | 70 | 3321 |
| Background + Project | 52 | 517 | 63 | 441 | 323 | 64 | 24 | 1998 | 65 | 101 | 116 | 77 | 3841 |

Traffix Node Number: 45
Intersection Name: Wolfe Road & Reed Avenue
Peak Hour: AM
Count Date: 11/14/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 80 | 398 | 27 | 90 | 329 | 100 | 61 | 1511 | 83 | 43 | 232 | 120 | 3074 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 5 | | | | | | 32 | | | | | 37 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 1 | | | | | | 53 | | | | | 54 |
| 1111 Lockheed Martin Way | | 4 | | | | | | 14 | | | | | 18 |
| 1152 Bordeaux Dr | | 4 | | | | | | 18 | | | | | 22 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 1 | | | | | | 2 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 24 | | | | | | 28 | | | | | 52 |
| 445 N Mary Ave | | 1 | | | | | | 6 | | | | | 7 |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | 2 | | | | | | 13 | | | | | 15 |
| 615 N. Mathilda Ave | | | | | | | | 1 | | | | | 1 |
| 623 N Pastoria Ave | | | | | | | | 2 | | | | | 2 |
| 684 W. Maude Ave | | 1 | | | | | | 7 | | | | | 8 |
| 810 W Maude Ave | | 1 | | | | | | 4 | | | | | 5 |
| 901 Kifer Rd | | 1 | | | | | | 6 | | | | | 7 |
| 1120 Kifer Rd | | 19 | | | | | | | | | | -4 | 15 |
| 1155 Aster Ave | | | | | 15 | 30 | 25 | | | | 2 | | 72 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | 2 | | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 4 | | | | | | 11 | | | | | 15 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | 6 | | | | | | -4 | | | | | 2 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | 6 | | | | | | 3 | | 9 |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | 1 | | | | | | -2 | | | | | -1 |
| 1 AMD Place | | 16 | | | | | | -5 | | | | | 11 |
| 617 E. Evelyn Ave | | 1 | | | | | | | | | | | 1 |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 3 | | | | | | 1 | | | | | 4 |
| 915 De Guigne Dr | | 5 | | | | | | -6 | | | | | -1 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | 2 | | | | | | 8 | | 10 |
| 4301, 4401, 4551 Great America Pkwy | 10 | | | | 6 | | | | | | 1 | 1 | 18 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | 2 | | | | | | 16 | | 18 |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 4 | | | | | | 10 | | | | | 14 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | 1 | 1 | | | 1 | 1 | 5 | 5 | | | 5 | 5 | 24 |
| City Place | | 2 | | | | | | 5 | | | | | 7 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | 1 | | 1 |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | 3 | | | | | 3 |
| Santa Clara LSAP | 5 | 15 | | | 2 | | | -1 | | | | | 21 |
| 2350 & 2305 Mission College Blvd | | | | | 2 | | | | | | 8 | | 10 |
| 3625 Peterson Way | | | | | 1 | | | | | | 8 | | 9 |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 16 | 122 | 0 | 0 | 37 | 31 | 30 | 205 | 0 | 0 | 52 | 2 | 495 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 96 | 520 | 27 | 90 | 366 | 131 | 91 | 1716 | 83 | 43 | 284 | 122 | 3569 |
| **Project Trips** | 0 | 3 | 3 | 16 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 38 |
| Existing + Project | 80 | 401 | 30 | 106 | 329 | 100 | 61 | 1527 | 83 | 43 | 232 | 120 | 3112 |
| Background + Project | 96 | 523 | 30 | 106 | 366 | 131 | 91 | 1732 | 83 | 43 | 284 | 122 | 3607 |

Traffix Node Number: 98
Intersection Name: Commercial Street & Kifer Road
Peak Hour: AM
Count Date: 12/06/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| INDEX | 7 | 6 | 5 | 13 | 12 | 11 | 4 | 3 | 2 | 10 | 9 | 8 | |
| PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Volume Adjustment | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Existing Conditions | 21 | 0 | 69 | 55 | 418 | 0 | 0 | 0 | 0 | 0 | 375 | 26 | 964 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| | | | | | | | | | | | | | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | 24 | | 33 | | | | | | 184 | | 241 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | | | | | | | | | | | | |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | | | | | | | | | | | | |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | 3 | | 3 | 35 | | | | | | | | 22 | 63 |
| 1120 Kifer Rd | | | | | 94 | | | | | | -2 | | 92 |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | 1 | | | | | | 2 | | 3 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | -1 | | | | | | 1 | | |
| 1 AMD Place | | | | | -1 | | | | | | -6 | | -7 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | 1 | | | | | | 2 | | 3 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | 4 | | 4 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | 1 | | | | | | | | 1 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | | | | | 4 | | | | | | 28 | | 32 |
| City Place | | | | | 17 | | | | | | 8 | | 25 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | 40 | | | | | | -1 | | 39 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 3 | 0 | 27 | 35 | 189 | 0 | 0 | 0 | 0 | 0 | 220 | 22 | 496 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 24 | 0 | 96 | 90 | 607 | 0 | 0 | 0 | 0 | 0 | 595 | 48 | 1460 |
| **Project Trips** | 0 | 26 | 28 | 1 | 4 | 171 | 46 | 9 | 33 | 64 | 68 | 0 | 450 |
| Driveway Volume Reduction | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| Existing + Project | 21 | 26 | 97 | 56 | 422 | 171 | 46 | 9 | 33 | 64 | 443 | 26 | 1414 |
| Background + Project | 24 | 26 | 124 | 91 | 611 | 171 | 46 | 9 | 33 | 64 | 663 | 48 | 1910 |
| **Existing + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Background + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |

Traffix Node Number: 67
Intersection Name: Lawrence Expressw & US 101 NB Ramps
Peak Hour: AM
Count Date: 05/23/19
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 371 | 1618 | 0 | 652 | 0 | 626 | 484 | 2226 | 0 | 0 | 0 | 0 | 5977 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | 11 | 4 | | | | | | 15 |
| 1101 Elko Dr | 2 | 3 | | 5 | | | | 11 | | | | | 21 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | 4 | | | | | 3 | 3 | | | | | 10 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 46 | | | | 69 | | 7 | | | | | 122 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | 15 | | | | | | 15 |
| 1111 Lockheed Martin Way | | 7 | | | | | | 23 | | | | | 30 |
| 1152 Bordeaux Dr | | 12 | | | | | | 47 | | | | | 59 |
| 1194 N. Mathilda Ave | | 2 | | | | | | 11 | | | | | 13 |
| 1230 Oakmead Pkwy | | 1 | | | | | 1 | | | | | | 2 |
| 1260 N Mathilda Ave | | | | | | | | 1 | | | | | 1 |
| 215 Moffett Park Dr | | 6 | | 6 | | | | 9 | | | | | 21 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 5 | | | | | | 25 | | | | | 30 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | 4 | | | | 6 | 1 | | | | | | 11 |
| 1120 Kifer Rd | | | | | | | 16 | 35 | | | | | 51 |
| 1155 Aster Ave | | 3 | | | | 2 | | 23 | | | | | 28 |
| 1250 Lakeside Dr | | 30 | | | | 18 | 39 | 39 | | | | | 126 |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | 2 | | | | | | | | | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 2 | | | | 1 | | 5 | | | | | 8 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | 1 | | | | | | 2 | | | | | 3 |
| 1142 Dahlia Ct | | 1 | | | | 2 | | 4 | | | | | 7 |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | -12 | | | | 10 | | 39 | | | | | 37 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | | | | |
| 915 De Guigne Dr | | -15 | | | | -30 | | 13 | | | | | -32 |
| 5402 & 5450 Great America Pkwy | | 3 | | | | | | 24 | | | | | 27 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | 1 | | | | | | 7 | | | | | 8 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | 14 | | | | | | 2 | | | | | 16 |
| 5010 Old Ironsides Dr | | 21 | | | | | | 190 | | | | | 211 |
| 3000 Bowers Ave | | 7 | | | | | | 1 | | | | | 8 |
| 3700 El Camino Real | | 12 | | | | | | 31 | | | | | 43 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2950 Lakeside Dr | | 8 | | | | | | 7 | | | | | 15 |
| 3607 Kifer Rd | | 17 | | | | 43 | 6 | 2 | | | | | 68 |
| City Place | 6 | 6 | | 5 | | 8 | 11 | 197 | | | | | 233 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | 1 | | | | | | | 1 |
| 3375 Scott Blvd | | 8 | | | | | | 6 | | | | | 14 |
| 3001 Tasman Dr | | 3 | | | | | | 20 | | | | | 23 |
| Santa Clara LSAP | | -1 | | | | | 74 | 26 | | | | | 99 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | 15 | | | | | 11 | 2 | | | | | 28 |
| 3402 El Camino Real | | | | | | | 5 | | | | | | 5 |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | 5 | | | | | 6 | 5 | | | | | 16 |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 10 | 219 | 0 | 16 | 0 | 141 | 192 | 817 | 0 | 0 | 0 | 0 | 1395 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 381 | 1837 | 0 | 668 | 0 | 767 | 676 | 3043 | 0 | 0 | 0 | 0 | 7372 |
| **Background Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Project Trips** | 0 | 54 | 0 | 0 | 0 | 40 | 0 | 10 | 0 | 0 | 0 | 0 | 104 |
| Existing + Project | 371 | 1672 | 0 | 652 | 0 | 666 | 484 | 2236 | 0 | 0 | 0 | 0 | 6081 |
| Background + Project | 381 | 1891 | 0 | 668 | 0 | 807 | 676 | 3053 | 0 | 0 | 0 | 0 | 7476 |
| **Existing + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Background + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |

Traffix Node Number: 68
Intersection Name: Lawrence Expressw & US 101 SB Ramps
Peak Hour: AM
Count Date: 05/23/19
Scenario: Intuitive Surgical 2019

Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 334 | 1896 | 0 | 0 | 0 | 0 | 584 | 2738 | 0 | 486 | 0 | 252 | 6290 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | 11 | | | | | 3 | 4 | | 11 | | | 29 |
| 1101 Elko Dr | 3 | | | | | | | 11 | | | | | 14 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | 4 | | | | | | 6 | | 4 | | | 14 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 115 | | | | | 11 | 7 | | | | | 133 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | 15 | | | | | 15 |
| 1111 Lockheed Martin Way | | 7 | | | | | | 23 | | | | | 30 |
| 1152 Bordeaux Dr | | 12 | | | | | | 56 | | | | | 68 |
| 1194 N. Mathilda Ave | | 2 | | | | | | 11 | | | | | 13 |
| 1230 Oakmead Pkwy | | 1 | | | | | | 1 | | 4 | | | 6 |
| 1260 N Mathilda Ave | | | | | | | | 1 | | | | | 1 |
| 215 Moffett Park Dr | | 4 | | | | | | 9 | | | | | 13 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 5 | | | | | | 25 | | | | | 30 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | 10 | | | | | 1 | 1 | | 6 | | | 18 |
| 1120 Kifer Rd | | -17 | | | | | 16 | 51 | | -4 | | | 46 |
| 1155 Aster Ave | | 6 | | | | | 15 | 23 | | | | | 44 |
| 1250 Lakeside Dr | | 47 | | | | | 23 | 77 | | 30 | | | 177 |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 3 | | | | | 2 | 5 | | | | | 10 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | 1 | | | | | | 2 | | | | | 3 |
| 1142 Dahlia Ct | | 3 | | | | | 4 | 8 | | 2 | | | 17 |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | -2 | | | | | 83 | 60 | | -2 | | | 139 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | | | | |
| 915 De Guigne Dr | | -45 | | | | | 27 | 13 | | | | | -5 |
| 5402 & 5450 Great America Pkwy | | 3 | | | | | | 24 | | | | | 27 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | 1 | | | | | | 7 | | | | | 8 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | 14 | | | | | | 2 | | | | | 16 |
| 5010 Old Ironsides Dr | | 21 | | | | | | 152 | | | | 38 | 211 |
| 3000 Bowers Ave | | 7 | | | | | | 1 | | | | | 8 |
| 3700 El Camino Real | | 12 | | | | | | 31 | | | | | 43 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2950 Lakeside Dr | | 8 | | | | | | 7 | | | | | 15 |
| 3607 Kifer Rd | | 60 | | | | | 6 | 8 | | 43 | | | 117 |
| City Place | 3 | 2 | | | | | 4 | 70 | | 6 | | 83 | 168 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | 1 | | | | | 2 | | | | | | 3 |
| 3375 Scott Blvd | | 41 | | | | | | 6 | | | | | 47 |
| 3001 Tasman Dr | | 3 | | | | | | 20 | | | | | 23 |
| Santa Clara LSAP | | -1 | | | | | | 100 | | -4 | | | 95 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | 15 | | | | | | 13 | | 63 | | | 91 |
| 3402 El Camino Real | | | | | | | | 5 | | 2 | | | 7 |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | 5 | | | | | | 11 | | 8 | | | 24 |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 6 | 359 | 0 | 0 | 0 | 0 | 197 | 866 | 0 | 169 | 0 | 121 | 1718 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 340 | 2255 | 0 | 0 | 0 | 0 | 781 | 3604 | 0 | 655 | 0 | 373 | 8008 |
| **Background Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Project Trips** | 0 | 94 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 40 | 0 | 0 | 151 |
| Existing + Project | 334 | 1990 | 0 | 0 | 0 | 0 | 584 | 2755 | 0 | 526 | 0 | 252 | 6441 |
| Background + Project | 340 | 2349 | 0 | 0 | 0 | 0 | 781 | 3621 | 0 | 695 | 0 | 373 | 8159 |
| **Existing + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Background + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |

Traffix Node Number: 49
Intersection Name: Lawrence Expressw & Oakmead Parkway
Peak Hour: AM
Count Date: 05/23/19
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 585 | 1722 | 265 | 249 | 183 | 79 | 26 | 2636 | 199 | 196 | 110 | 420 | 6670 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | 22 | | | | | | | | | 5 | | 7 | 34 |
| 1101 Elko Dr | | | | | | | | 11 | | | | | 11 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | 8 | 6 | 2 | 4 | 6 | | | | 2 | | 28 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 115 | | | | | | 18 | | | | | 133 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | 15 | | | | | 15 |
| 1111 Lockheed Martin Way | | 7 | | | | | | 23 | | | | | 30 |
| 1152 Bordeaux Dr | | 12 | | | | | | 56 | | | | | 68 |
| 1194 N. Mathilda Ave | | 2 | | | | | | 11 | | | | | 13 |
| 1230 Oakmead Pkwy | | | 5 | 1 | | 1 | 5 | | | | | | 12 |
| 1260 N Mathilda Ave | | | | | | | | 1 | | | | | 1 |
| 215 Moffett Park Dr | | 4 | | | | | | 9 | | | | | 13 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 5 | | | | | | 25 | | | | | 30 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | 16 | | | | | | 2 | | | | | 18 |
| 1120 Kifer Rd | | -21 | | | | | | 68 | | | | | 47 |
| 1155 Aster Ave | | 6 | | | | | | 38 | | | | | 44 |
| 1250 Lakeside Dr | | | 77 | 100 | | 48 | 37 | | | | | | 262 |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | 1 | | | | 1 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 3 | | | | | | 7 | | | | | 10 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | 1 | | | | | | 2 | | | | | 3 |
| 1142 Dahlia Ct | | 5 | | | | | | 12 | | | | | 17 |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | -6 | 2 | | | -4 | | | 18 | -3 | 56 | 4 | 126 | 193 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | 2 | | | 2 |
| 915 De Guigne Dr | -30 | -15 | | | -4 | | | 4 | -9 | 8 | 3 | 36 | -7 |
| 5402 & 5450 Great America Pkwy | | 3 | | | | | | 24 | | | | | 27 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | 1 | | | | | | | | 1 | 8 | | 7 | 17 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | 14 | | | | | | 2 | | | | | 16 |
| 5010 Old Ironsides Dr | 2 | 17 | 2 | 13 | | | | 126 | | | | 13 | 173 |
| 3000 Bowers Ave | | 7 | | | | | | 1 | | | | | 8 |
| 3700 El Camino Real | | 12 | | | | | | 31 | | | | | 43 |
| 2950 Lakeside Dr | | | 8 | 7 | | | | | | | | | 15 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | 103 | | | | | | 14 | | | | | 117 |
| City Place | 5 | | 4 | 6 | 9 | 2 | 9 | 91 | 1 | 4 | 1 | 17 | 149 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | 1 | | | | | | | | | | | 2 | 3 |
| 3375 Scott Blvd | | 14 | 27 | 4 | | | | 2 | | | | | 47 |
| 3001 Tasman Dr | 1 | 2 | | | | | | 14 | | | | 6 | 23 |
| Santa Clara LSAP | | -4 | | | | | | 100 | | | | | 96 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | 23 | 54 | 9 | 1 | | | 4 | | | 8 | | 99 |
| 3402 El Camino Real | | 2 | | | | | | 5 | | | | | 7 |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | 13 | | | | | | 11 | | | | | 24 |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | -4 | 348 | 185 | 146 | 4 | 55 | 57 | 745 | -9 | 83 | 18 | 214 | 1842 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 581 | 2070 | 450 | 395 | 187 | 134 | 83 | 3381 | 190 | 279 | 128 | 634 | 8512 |
| **Project Trips** | 0 | 135 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 16 | 0 | 0 | 175 |
| Existing + Project | 585 | 1857 | 265 | 249 | 183 | 79 | 26 | 2660 | 199 | 212 | 110 | 420 | 6845 |
| Background + Project | 581 | 2205 | 450 | 395 | 187 | 134 | 83 | 3405 | 190 | 295 | 128 | 634 | 8687 |

Traffix Node Number: 5611
Intersection Name: Lawrence Expressw & Arques Avenue
Peak Hour: AM
Count Date: 04/04/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| INDEX | 7 | 6 | 5 | 13 | 12 | 11 | 4 | 3 | 2 | 10 | 9 | 8 | |
| PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Volume Adjustment | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Existing Conditions | 314 | 1364 | 91 | 73 | 346 | 120 | 315 | 2978 | 327 | 157 | 140 | 135 | 6360 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | 5 | | | | | | | 11 | | | | 16 |
| 1101 Elko Dr | | | | | | | | 11 | | | | | 11 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | 4 | | | 2 | | | 6 | | | 2 | | 14 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 115 | | | | | | 18 | | | | | 133 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | 15 | | | | | 15 |
| 1111 Lockheed Martin Way | | 4 | 2 | 8 | | | | 14 | | | | | 28 |
| 1152 Bordeaux Dr | | 7 | 4 | 21 | | | | 35 | | | | | 67 |
| 1194 N. Mathilda Ave | | 2 | | | | | | 11 | | | | | 13 |
| 1230 Oakmead Pkwy | | 1 | | | | | | 4 | | | | 1 | 6 |
| 1260 N Mathilda Ave | | | | | | | | 1 | | | | | 1 |
| 215 Moffett Park Dr | | 4 | | | | | | 9 | | | | | 13 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 5 | | | | | | 25 | | | | | 30 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | 16 | | | | | | 2 | | | | | 18 |
| 1120 Kifer Rd | | -21 | | | | | | 68 | | | | | 47 |
| 1155 Aster Ave | | 6 | | | | | | 38 | | | | | 44 |
| 1250 Lakeside Dr | | 48 | | | | 10 | 7 | 37 | | | | | 102 |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | 1 | | | | | 1 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 3 | | | | | | 7 | | | | | 10 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | 1 | | | | | | 2 | | | | | 3 |
| 1142 Dahlia Ct | | 5 | | | | | | 12 | | | | | 17 |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | -1 | | | | | | 1 | | |
| 1 AMD Place | 2 | 32 | 24 | 1 | -1 | | | -4 | | 10 | 14 | 18 | 96 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | -1 | | | | | | 1 | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 2 | | | 1 | | | | | | 2 | | 5 |
| 915 De Guigne Dr | -15 | 8 | | | -4 | | | -9 | -4 | 13 | 3 | 4 | -4 |
| 5402 & 5450 Great America Pkwy | | 3 | | | | | | 24 | | | | | 27 |
| 2350 & 2305 Mission College Blvd | | | | | 2 | | | | | | 8 | | 10 |
| 4301, 4401, 4551 Great America Pkwy | | | 8 | 1 | 1 | 2 | 12 | | | | 8 | | 32 |
| 2620-2727 Augustine Dr | | | | | 17 | 40 | -26 | | | | -11 | | 20 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | 15 | | | | | | 2 | | | | | 17 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5010 Old Ironsides Dr | | 17 | | | | | | 126 | | | | | 143 |
| 3000 Bowers Ave | | 7 | | | | | | 1 | | | 7 | | 15 |
| 3700 El Camino Real | | 12 | | | | | | 31 | | | | | 43 |
| 2950 Lakeside Dr | | | | | | 9 | 11 | | | | | | 20 |
| 3607 Kifer Rd | | 103 | | | | | | 14 | | | | | 117 |
| City Place | 4 | 9 | 9 | 5 | 1 | 9 | 6 | 9 | 6 | 1 | 8 | 4 | 71 |
| 3226 Scott Blvd | | | | | 1 | | | | | | 5 | | 6 |
| 2041 Mission College Blvd | | | | | 1 | | | | | | 1 | | 2 |
| 3100-3200 Coronado Dr | | | | | 1 | | | | | | 5 | | 6 |
| 1 Great America Pkwy | | | | | | 1 | 1 | | | | | | 2 |
| 3375 Scott Blvd | | | 14 | 2 | 1 | 3 | 19 | | | | 4 | | 43 |
| 3001 Tasman Dr | | 2 | | | | | 1 | 14 | | | | | 17 |
| Santa Clara LSAP | | -4 | | | | | | 100 | 17 | | | | 113 |
| 2350 & 2305 Mission College Blvd | | | | | 2 | | | | | | 8 | | 10 |
| 3625 Peterson Way | | | 23 | 4 | 1 | 6 | 33 | | | | 8 | | 75 |
| 3402 El Camino Real | | 2 | | | | | | 5 | | | | | 7 |
| 3045 Stender Way | | | | | | | 1 | | | | | | 1 |
| 2931 El Camino Real | | 13 | | | | | | 11 | | | | | 24 |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | -9 | 426 | 84 | 42 | 24 | 80 | 65 | 640 | 30 | 24 | 74 | 27 | 1507 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 305 | 1790 | 175 | 115 | 370 | 200 | 380 | 3618 | 357 | 181 | 214 | 162 | 7867 |
| **Background Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Project Trips** | 0 | 151 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 175 |
| Existing + Project | 314 | 1515 | 91 | 73 | 346 | 120 | 315 | 3002 | 327 | 157 | 140 | 135 | 6535 |
| Background + Project | 305 | 1941 | 175 | 115 | 370 | 200 | 380 | 3642 | 357 | 181 | 214 | 162 | 8042 |

Traffix Node Number: 51
Intersection Name: Lawrence Expressw& Kifer Road
Peak Hour: AM
Count Date: 03/07/18
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 450 | 1134 | 176 | 238 | 345 | 70 | 374 | 3877 | 238 | 116 | 141 | 115 | 7274 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | 5 | | | | | | 11 | | | | | 16 |
| 1101 Elko Dr | | | | | | | | 11 | | | | | 11 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | 4 | | | | | | 6 | | | | | 10 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | 87 | | 74 | | 9 | | 38 | | 45 | 13 | 1 | 26 | 293 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | 15 | | | | | 15 |
| 1111 Lockheed Martin Way | | 4 | | | | | | 14 | | | | | 18 |
| 1152 Bordeaux Dr | | 4 | | | | | | 21 | | | | | 25 |
| 1194 N. Mathilda Ave | | 2 | | | | | | 11 | | | | | 13 |
| 1230 Oakmead Pkwy | | 1 | | | | | | 3 | | | | | 4 |
| 1260 N Mathilda Ave | | | | | | | | 1 | | | | | 1 |
| 215 Moffett Park Dr | | 4 | | | | | | 9 | | | | | 13 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | 1 | | | | | | 6 | | | | | 7 |
| 589 W. Java Dr | | 5 | | | | | | 25 | | | | | 30 |
| 610 N Mary Ave | | 12 | | | | | | 70 | | | | | 82 |
| 615 N. Mathilda Ave | | -5 | | | | | | 13 | | | | | 8 |
| 623 N Pastoria Ave | | | | | | | | 2 | | | | | 2 |
| 684 W. Maude Ave | | 6 | | | | | | 42 | | | | | 48 |
| 810 W Maude Ave | | 4 | | | | | | 26 | | | | | 30 |
| 901 Kifer Rd | 22 | | | | 1 | | | | 11 | 1 | | 2 | 37 |
| 1120 Kifer Rd | -18 | | | | | -12 | -26 | | 3 | 10 | | 78 | 35 |
| 1155 Aster Ave | | 11 | | | | | | 46 | | | | | 57 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1250 Lakeside Dr | | 39 | | | | | | 30 | | | | | 69 |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | 1 | | | | | | 8 | | | | | 9 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 3 | | | | | | 7 | | | | | 10 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | 1 | | | | | | 2 | | | | | 3 |
| 1142 Dahlia Ct | | 5 | | | | | | 12 | | | | | 17 |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | 1 | | | -1 | | | -2 | | | 1 | | -1 |
| 1 AMD Place | -1 | 25 | | | | | | 1 | | | | -6 | 19 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 3 | | | 1 | | | | | | 2 | | 6 |
| 915 De Guigne Dr | | 21 | | | | | | -13 | | | | | 8 |
| 5402 & 5450 Great America Pkwy | | 3 | | | | | | 24 | | | | | 27 |
| 2350 & 2305 Mission College Blvd | | 3 | | | | | | 16 | | | | | 19 |
| 4301, 4401, 4551 Great America Pkwy | | 4 | | | | 2 | 12 | 29 | | | | | 47 |
| 2620-2727 Augustine Dr | | 40 | | | | | | -26 | | | | | 14 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | 2 | 2 | | | 1 | 6 | 33 | | | 2 | 2 | 48 |
| 5010 Old Ironsides Dr | | 17 | | | | | | 126 | | | | | 143 |
| 3000 Bowers Ave | | | | 2 | 1 | 2 | 14 | | | | | | 19 |
| 3700 El Camino Real | | 12 | | | | | | 31 | | | | | 43 |
| 2950 Lakeside Dr | | 9 | | | | | | 11 | | | | | 20 |
| 3607 Kifer Rd | 133 | | | | 17 | | | | 36 | 5 | 3 | 16 | 210 |
| City Place | 7 | 1 | 1 | 3 | 9 | 9 | 2 | 6 | 1 | 8 | | | 47 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | 2 | | | | | 1 | 3 | | | | | 6 |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | 2 | | | | | | 2 | | | | | 4 |
| 3375 Scott Blvd | | 3 | | | | | | 24 | | | | | 27 |
| 3001 Tasman Dr | | 1 | | | | | | 9 | | | | | 10 |
| Santa Clara LSAP | | | 4 | 88 | 40 | 37 | -2 | | | | -2 | | 165 |
| 2350 & 2305 Mission College Blvd | | 3 | | | | | | 16 | | | | | 19 |
| 3625 Peterson Way | | 8 | | | | | | 46 | | | | | 54 |
| 3402 El Camino Real | | 2 | | | | | | 5 | | | | | 7 |
| 3045 Stender Way | | | | | | | | 1 | | | | | 1 |
| 2931 El Camino Real | | 13 | | | | | | 11 | | | | | 24 |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 230 | 282 | 81 | 93 | 77 | 39 | 45 | 744 | 96 | 37 | 7 | 118 | 1849 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 680 | 1416 | 257 | 331 | 422 | 109 | 419 | 4621 | 334 | 153 | 148 | 233 | 9123 |
| **Project Trips** | 205 | 0 | 0 | 0 | 51 | 0 | 0 | 0 | 97 | 18 | 9 | 24 | 404 |
| Existing + Project | 655 | 1134 | 176 | 238 | 396 | 70 | 374 | 3877 | 335 | 134 | 150 | 139 | 7678 |
| Background + Project | 885 | 1416 | 257 | 331 | 473 | 109 | 419 | 4621 | 431 | 171 | 157 | 257 | 9527 |

Traffix Node Number: 5613
Intersection Name: Lawrence Expressw & Monroe Street
Peak Hour: AM
Date of Analysis: 10/17/19
Count Date: 03/07/18
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| INDEX | 7 | 6 | 5 | 13 | 12 | 11 | 4 | 3 | 2 | 10 | 9 | 8 | |
| PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Volume Adjustment | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Existing Conditions | 199 | 1081 | 90 | 501 | 310 | 235 | 104 | 3879 | 99 | 215 | 176 | 408 | 7297 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | 5 | | | | | | 11 | | | | | 16 |
| 1101 Elko Dr | | | | | | | | 11 | | | | | 11 |
| 1120 Innovation Way | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1235 Bordeaux Dr | | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | | |
| 750 Lakeway Dr | | 4 | | | | | | 6 | | | | | | 10 |
| 830 E. El Camino Real | | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 13 | | | | | | 83 | | | | | | 96 |
| 830 W Evelyn Ave | | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | 15 | | | | | | 15 |
| 1111 Lockheed Martin Way | | 4 | | | | | | 14 | | | | | | 18 |
| 1152 Bordeaux Dr | | 4 | | | | | | 21 | | | | | | 25 |
| 1194 N. Mathilda Ave | | 2 | | | | | | 11 | | | | | | 13 |
| 1230 Oakmead Pkwy | | 1 | | | | | | 3 | | | | | | 4 |
| 1260 N Mathilda Ave | | | | | | | | 1 | | | | | | 1 |
| 215 Moffett Park Dr | | 4 | | | | | | 9 | | | | | | 13 |
| 265 Sobrante Way | | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | | |
| 445 N Mary Ave | | 1 | | | 1 | | | 6 | | | | | | 8 |
| 589 W. Java Dr | | 5 | | | | | | 25 | | | | | | 30 |
| 610 N Mary Ave | | 12 | 1 | 4 | 10 | | | 66 | | | 2 | | | 95 |
| 615 N. Mathilda Ave | | -4 | -1 | 2 | | | | 11 | | | | | | 8 |
| 623 N Pastoria Ave | | | | | | | | 2 | | | | | | 2 |
| 684 W. Maude Ave | | 5 | 1 | 5 | 2 | | | 37 | | | | | | 50 |
| 810 W Maude Ave | | 3 | 1 | 3 | 1 | | | 23 | | | | | | 31 |
| 901 Kifer Rd | | 1 | | | | | | 11 | | | | | | 12 |
| 1120 Kifer Rd | | 5 | | | | | | -23 | | | | | | -18 |
| 1155 Aster Ave | 11 | | | | 7 | | | | 3 | | 23 | 17 | 46 | 107 |
| 1250 Lakeside Dr | | 39 | | | | | | 30 | | | | | | 69 |
| 2502 Town Center Ln | | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | | |
| 520 Almanor Ave | | 1 | | 2 | 1 | | | 6 | | | | | | 10 |
| 675 Almanor Avenue | | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 3 | | | | | | 7 | | | | | | 10 |
| 223 N Mathilda Ave | | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | | |
| 1122 Aster Ave | 1 | | | | | | | | | 1 | | | 2 | 4 |
| 1142 Dahlia Ct | 5 | | | | 1 | | | 1 | | | | 2 | 11 | 20 |
| 160 Persian Dr | | | | | | | | | | | | | | |
| 370 San Aleso Ave | | 1 | | | | | | -2 | | | | | | -1 |
| 1 AMD Place | | 25 | | | | | | 1 | | | | | | 26 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 3 | | | | | | | | | | | | 3 |
| 915 De Guigne Dr | | 21 | | | | | | -13 | | | | | | 8 |
| 5402 & 5450 Great America Pkwy | | 3 | | | | | | 24 | | | | | | 27 |
| 2350 & 2305 Mission College Blvd | | 3 | | | 2 | | | 16 | | | | 8 | | 29 |
| 4301, 4401, 4551 Great America Pkwy | | 6 | | | 6 | | | 41 | | | | 1 | | 54 |
| 2620-2727 Augustine Dr | | 40 | | | | | | -26 | | | | | | 14 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | 3 | | | 2 | | | 39 | | | | 16 | | 60 |
| 5010 Old Ironsides Dr | | 17 | | | | | | 126 | | | | | | 143 |
| 3000 Bowers Ave | | 2 | | | | | | 14 | | | | | | 16 |
| 3700 El Camino Real | | 12 | | | | | | 31 | | | | | | 43 |
| 2950 Lakeside Dr | | 9 | | | | | | 11 | | | | | | 20 |
| 3607 Kifer Rd | 1 | 3 | 1 | 4 | | | | 21 | | | | | 11 | 41 |
| City Place | | 4 | 9 | 11 | 4 | 5 | 9 | 148 | 2 | | 5 | 6 | 29 | 232 |
| 3226 Scott Blvd | | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | 2 | | | | | | 3 | | | | 1 | | 6 |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | | |
| 1 Great America Pkwy | | 2 | | | | | | 2 | | | | | | 4 |
| 3375 Scott Blvd | | 3 | | | | | | 24 | | | | | | 27 |
| 3001 Tasman Dr | | 1 | | | | | | 9 | | | | | | 10 |
| Santa Clara LSAP | 2 | 36 | | | | | | -2 | | | | | | 36 |
| 2350 & 2305 Mission College Blvd | | 3 | | | 2 | | | 16 | | | | 8 | | 29 |
| 3625 Peterson Way | 1 | 6 | | | | | | 38 | | | | | 8 | 53 |
| 3402 El Camino Real | | 2 | | | | | | 5 | | | | | | 7 |
| 3045 Stender Way | | | | | | | | 1 | | | | | | 1 |
| 2931 El Camino Real | | 13 | | | | | | 11 | | | | | | 24 |
| 2343 Calle Del Mundo | | | | | | | | | | | | | | |
| *Total Approved Trips* | 21 | 328 | 12 | 31 | 39 | 5 | 9 | 925 | 5 | | 29 | 61 | 107 | 1572 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 220 | 1409 | 102 | 532 | 349 | 240 | 113 | 4804 | 104 | 244 | 237 | 515 | 8869 |
| **Project Trips** | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 97 | 0 | 0 | 0 | 0 | 115 |
| Existing + Project | 199 | 1099 | 90 | 501 | 310 | 235 | 104 | 3976 | 99 | 215 | 176 | 408 | 7412 |
| Background + Project | 220 | 1427 | 102 | 532 | 349 | 240 | 113 | 4901 | 104 | 244 | 237 | 515 | 8984 |

Traffix Node Number: 5325
Intersection Name: Oakmead Parkway & Central Expressway
Peak Hour: AM
Date of Analysis: 10/17/19
Count Date: 11/15/17
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 83 | 19 | 27 | 261 | 2147 | 52 | 39 | 86 | 114 | 112 | 1571 | 289 | 4800 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | 1 | | 2 | 3 | | | | | | | | 1 | 7 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | | | 46 | | | | | | 8 | | 54 |
| 830 W Evelyn Ave | | | | | 1 | | | | | | 1 | | 2 |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | 6 | | | | | | 2 | | 8 |
| 1152 Bordeaux Dr | | | | | 28 | | | | | | 6 | | 34 |
| 1194 N. Mathilda Ave | | | | | 9 | | | | | | 2 | | 11 |
| 1230 Oakmead Pkwy | | | | 2 | | | | 1 | | | | | 3 |
| 1260 N Mathilda Ave | | | | | 1 | | | | | | | | 1 |
| 215 Moffett Park Dr | | | | | 2 | | | | | | 1 | | 3 |
| 265 Sobrante Way | | | | | 55 | | | | | | 10 | | 65 |
| 275 N Mathilda Ave | | | | | 5 | | | | | | 1 | | 6 |
| 824 San Aleso Ave | | | | | 27 | | | | | | 24 | | 51 |
| 445 N Mary Ave | | | | | 16 | | | | | | 3 | | 19 |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | 187 | | | | | | 33 | | 220 |
| 615 N. Mathilda Ave | | | | | 31 | | | | | | -11 | | 20 |
| 623 N Pastoria Ave | | | | | 6 | | | | | | 1 | | 7 |
| 684 W. Maude Ave | | | | | 91 | | | | | | 13 | | 104 |
| 810 W Maude Ave | | | | | 56 | | | | | | 8 | | 64 |
| 901 Kifer Rd | | | | | 6 | | | | | | 1 | | 7 |
| 1120 Kifer Rd | | | | | 3 | | | | | | 10 | | 13 |
| 1155 Aster Ave | | | | | 5 | | | | | | 8 | | 13 |
| 1250 Lakeside Dr | | | 19 | 15 | | | | | | | | | 34 |
| 2502 Town Center Ln | | | | | 18 | | | | | | 20 | | 38 |
| 311 S Mathilda Ave | | | | | 1 | | | | | | 3 | | 4 |
| 520 Almanor Ave | | | | | 32 | | | | | | 5 | | 37 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | 1 | | | | | | 3 | | 4 |
| 223 N Mathilda Ave | | | | | 10 | | | | | | 2 | | 12 |
| 456 W Olive Ave | | | | | -13 | | | | | | -4 | | -17 |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | | 2 | -4 | 3 | | | | | | 19 | | 20 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | | | | |
| 915 De Guigne Dr | | | 3 | -4 | | | | | | | | | -1 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | 7 | | | | | | 36 | | 43 |
| 4301, 4401, 4551 Great America Pkwy | | | | 6 | | | | | | 41 | | 47 |
| 2620-2727 Augustine Dr | | | | 56 | | | | | | -37 | | 19 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | 2 | 14 | | | | | | 131 | | 147 |
| 5010 Old Ironsides Dr | 3 | | | 15 | | | | | | 114 | 25 | 157 |
| 3000 Bowers Ave | | | 3 | 2 | | | | 1 | | 37 | | 43 |
| 3700 El Camino Real | | | | | | | | | | | | |
| 2950 Lakeside Dr | 4 | | | | | | | | | | 5 | 9 |
| 3607 Kifer Rd | | | | 21 | | 1 | | | | 2 | | 24 |
| City Place | | | | 11 | | | | | | 10 | | 21 |
| 3226 Scott Blvd | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | 4 | | | | | | 6 | | 10 |
| 3100-3200 Coronado Dr | | | | 2 | | | | | | 14 | | 16 |
| 1 Great America Pkwy | | | | 2 | | | | | | 3 | | 5 |
| 3375 Scott Blvd | 3 | | | | | | | | | | 19 | 22 |
| 3001 Tasman Dr | | | | | | | | | | | | |
| Santa Clara LSAP | | -2 | | | -3 | 9 | 6 | | | 46 | 44 | 100 |
| 2350 & 2305 Mission College Blvd | | | | 7 | | | | | | 36 | | 43 |
| 3625 Peterson Way | 6 | | | | | | | | | | 33 | 39 |
| 3402 El Camino Real | | | | | | | | | | | | |
| 3045 Stender Way | | | | 2 | | | | | | 1 | | 3 |
| 2931 El Camino Real | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | |
| *Total Approved Trips* | 17 | -2 | 31 | 12 | 782 | -3 | 10 | 7 | 1 | 0 | 609 | 127 | 1591 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 100 | 17 | 58 | 273 | 2929 | 49 | 49 | 93 | 115 | 112 | 2180 | 416 | 6391 |
| **Project Trips** | 0 | 0 | 0 | 0 | 54 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 64 |
| Existing + Project | 83 | 19 | 27 | 261 | 2201 | 52 | 39 | 86 | 114 | 112 | 1581 | 289 | 4864 |
| Background + Project | 100 | 17 | 58 | 273 | 2983 | 49 | 49 | 93 | 115 | 112 | 2190 | 416 | 6455 |

Traffix Node Number: 85
Intersection Name: Corvin Drive & Kifer Road
Peak Hour: AM
Date of Analysis: 10/17/19
Count Date: 11/15/17
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| INDEX | 7 | 6 | 5 | 13 | 12 | 11 | 4 | 3 | 2 | 10 | 9 | 8 | |
| PHF | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | |
| Volume Adjustment | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Existing Conditions | 77 | 0 | 53 | 188 | 784 | 0 | 0 | 0 | 0 | 0 | 303 | 56 | 1461 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | | | 9 | | | | | | 1 | | 10 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | | | | | | | | | | | | |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | 1 | | | | | | | | | 1 |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | | | | | | | | | | | | |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | 1 | | | | | | | | 1 |
| 1120 Kifer Rd | | | | | -12 | | | | | | -26 | | -38 |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | | | | | | | | | |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | -1 | | | | | | 1 | | |
| 1 AMD Place | | | | | | | | | | | | | |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | 1 | | | | | | 2 | | 3 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | 2 | | | | | | 12 | | 14 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | 1 | | | | | | 10 | | 11 |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | 7 | | 8 | 37 | | | | | | | | 27 | 79 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | | | | | 17 | | | | | | 3 | 1 | 21 |
| City Place | | | | | 21 | | | | | | 3 | | 24 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | 1 | | 1 |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | 3 | | 2 | | -3 | | | | | | 68 | 9 | 79 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 10 | 0 | 10 | 38 | 36 | 0 | 0 | 0 | 0 | 0 | 75 | 37 | 206 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 87 | 0 | 63 | 226 | 820 | 0 | 0 | 0 | 0 | 0 | 378 | 93 | 1667 |
| **Project Trips** | 0 | 0 | 0 | 0 | 51 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 60 |
| Existing + Project | 77 | 0 | 53 | 188 | 835 | 0 | 0 | 0 | 0 | 0 | 312 | 56 | 1521 |
| Background + Project | 87 | 0 | 63 | 226 | 871 | 0 | 0 | 0 | 0 | 0 | 387 | 93 | 1727 |

Traffix Node Number: 5329
Intersection Name: Bowers Avenue & Central Expressway
Peak Hour: AM
Date of Analysis: 10/17/19
Count Date: 11/15/17
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 129 | 309 | 59 | 137 | 2046 | 127 | 123 | 826 | 266 | 67 | 1153 | 369 | 5611 |

**Approved Project Trips**
1040 Sunnyvale-Saratoga Rd

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1080 Stewart Dr | | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | 3 | | | | | | 2 | | 5 | |
| 830 E. El Camino Real | | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | | | 46 | | | | | | 8 | | 54 | |
| 830 W Evelyn Ave | | | | | 1 | | | | | | 1 | | 2 | |
| 1081 Innovation Way | | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | 6 | | | | | | 2 | | 8 | |
| 1152 Bordeaux Dr | | | | | 28 | | | | | | 6 | | 34 | |
| 1194 N. Mathilda Ave | | | | | 9 | | | | | | 2 | | 11 | |
| 1230 Oakmead Pkwy | | | | | 2 | | | | | | | | 2 | |
| 1260 N Mathilda Ave | | | | | 1 | | | | | | | | 1 | |
| 215 Moffett Park Dr | | | | | 2 | | | | | | 1 | | 3 | |
| 265 Sobrante Way | | | | | 55 | | | | | | 10 | | 65 | |
| 275 N Mathilda Ave | | | | | 5 | | | | | | 1 | | 6 | |
| 824 San Aleso Ave | | | | | 27 | | | | | | 24 | | 51 | |
| 445 N Mary Ave | | | | | 16 | | | | | | 3 | | 19 | |
| 589 W. Java Dr | | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | 187 | | | | | | 33 | | 220 | |
| 615 N. Mathilda Ave | | | | | 31 | | | | | | -11 | | 20 | |
| 623 N Pastoria Ave | | | | | 6 | | | | | | 1 | | 7 | |
| 684 W. Maude Ave | | | | | 91 | | | | | | 13 | | 104 | |
| 810 W Maude Ave | | | | | 56 | | | | | | 8 | | 64 | |
| 901 Kifer Rd | | | | | 6 | | | | | | 1 | | 7 | |
| 1120 Kifer Rd | | | | | 3 | | | | | | 10 | | 13 | |
| 1155 Aster Ave | | | | | 5 | | | | | | 8 | | 13 | |
| 1250 Lakeside Dr | | | | | 15 | | | | | | 19 | | 34 | |
| 2502 Town Center Ln | | | | | 18 | | | | | | 20 | | 38 | |
| 311 S Mathilda Ave | | | | | 1 | | | | | | 3 | | 4 | |
| 520 Almanor Ave | | | | | 32 | | | | | | 5 | | 37 | |
| 675 Almanor Avenue | | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | 1 | | | | | | 3 | | 4 | |
| 223 N Mathilda Ave | | | | | 10 | | | | | | 2 | | 12 | |
| 456 W Olive Ave | | | | | -13 | | | | | | -4 | | -17 | |
| 1008 E El Camino Real | | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | | |
| 1 AMD Place | | 8 | | | | | | -1 | | | 20 | | 27 | |
| 617 E. Evelyn Ave | | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | | | | | |
| 915 De Guigne Dr | | | | | -4 | | | | | | 3 | | -1 | |
| 5402 & 5450 Great America Pkwy | | 3 | | | | | | 24 | | | | | 27 | |
| 2350 & 2305 Mission College Blvd | 7 | 3 | | | | | | 16 | | | | 36 | 62 | |
| 4301, 4401, 4551 Great America Pkwy | 6 | 7 | 2 | 16 | | | | 53 | | | | 41 | 125 | |
| 2620-2727 Augustine Dr | 56 | 28 | | | | | | -18 | | | | -37 | 29 | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | 17 | 29 | 2 | 12 | | 7 | 3 | 3 | | 133 | | 206 | |
| 5010 Old Ironsides Dr | 15 | 20 | 22 | 158 | | | | 145 | | | | 114 | 474 | |
| 3000 Bowers Ave | | 140 | | | | 70 | 1 | 14 | | | 5 | 7 | 237 | |
| 3700 El Camino Real | | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | 3 | 4 | | | | | | | | | 7 | |
| 3607 Kifer Rd | | | | | 21 | | 1 | | | | 2 | | 24 | |
| City Place | 6 | 2 | 5 | 30 | 2 | 9 | 9 | 47 | 3 | 3 | 3 | 4 | 123 | |
| 3226 Scott Blvd | | | | | | | | 24 | | | | | 24 | |
| 2041 Mission College Blvd | | 1 | | | 4 | | | 1 | | | 5 | 1 | 12 | |
| 3100-3200 Coronado Dr | | | | | 2 | 4 | | 32 | | | | 14 | 52 | |
| 1 Great America Pkwy | 2 | 2 | 1 | 1 | | | | 2 | | | | 3 | 11 | |
| 3375 Scott Blvd | | 1 | | | 17 | | | 3 | 3 | | | | 24 | |
| 3001 Tasman Dr | | 2 | | 1 | | | | 12 | | | | | 15 | |
| Santa Clara LSAP | -1 | -1 | | | -2 | | 4 | 17 | | | 45 | 11 | 73 | |
| 2350 & 2305 Mission College Blvd | 7 | 3 | | | | | | 16 | | | | 36 | 62 | |
| 3625 Peterson Way | | 2 | | 27 | | | | 13 | | | | | 42 | |
| 3402 El Camino Real | | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | 2 | | | | | | | 1 | 3 | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2931 El Camino Real | | 10 | | | | | | 9 | | | | | 19 |
| 2343 Calle Del Mundo | | 2 | | | | | | | | | | | 2 |
| *Total Approved Trips* | 98 | 250 | 62 | 239 | 704 | 83 | 22 | 412 | 9 | 3 | 387 | 231 | 2500 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 227 | 559 | 121 | 376 | 2750 | 210 | 145 | 1238 | 275 | 70 | 1540 | 600 | 8111 |
| **Project Trips** | 0 | 0 | 0 | 0 | 54 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 64 |
| Existing + Project | 129 | 309 | 59 | 137 | 2100 | 127 | 123 | 826 | 266 | 67 | 1163 | 369 | 5675 |
| Background + Project | 227 | 559 | 121 | 376 | 2804 | 210 | 145 | 1238 | 275 | 70 | 1550 | 600 | 8175 |

Traffix Node Number: 84
Intersection Name: Bowers Avenue & Kifer Road
Peak Hour: AM
Count Date: 11/15/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| INDEX | 7 | 6 | 5 | 13 | 12 | 11 | 4 | 3 | 2 | 10 | 9 | 8 | |
| PHF | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | |
| Volume Adjustment | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Existing Conditions | 196 | 255 | 66 | 148 | 699 | 44 | 84 | 847 | 201 | 29 | 99 | 122 | 2790 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | | | 9 | | | | | | 1 | | 10 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | | | | | | | | | | | | |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | 1 | | | | 1 |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | | | | | | | | | | | | |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | 1 | | | | | | | | 1 |
| 1120 Kifer Rd | | | | | -12 | | | | | | -26 | | -38 |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | | | | | | | | | |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 8 | | | | | | -1 | | | | | 7 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | 1 | | | | | | 2 | | 3 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | 3 | | | | | | 24 | | | | | 27 |
| 2350 & 2305 Mission College Blvd | | 3 | | | | | | 16 | | | | | 19 |
| 4301, 4401, 4551 Great America Pkwy | 2 | 6 | | | | | | 41 | | | | 12 | 61 |
| 2620-2727 Augustine Dr | | 28 | | | | | | -18 | | | | | 10 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | 17 | 6 | 1 | 3 | 20 | 7 | | | 10 | | 64 |
| 5010 Old Ironsides Dr | | 20 | | | | | | 145 | | | | | 165 |
| 3000 Bowers Ave | | 4 | 7 | | 10 | | | | 47 | 2 | 3 | 9 | 82 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | | | | | 11 | | | | 6 | 1 | 1 | 1 | 20 |
| City Place | 7 | 1 | 2 | 8 | 3 | 6 | | 43 | 4 | 6 | 6 | 2 | 88 |
| 3226 Scott Blvd | | | | | | | | 24 | | | | | 24 |
| 2041 Mission College Blvd | | | | | | | | 1 | | | | 1 | 2 |
| 3100-3200 Coronado Dr | | 4 | | | | | | 32 | | | | | 36 |
| 1 Great America Pkwy | | 2 | | | | | | 2 | | | | | 4 |
| 3375 Scott Blvd | | 1 | | | | | | 6 | | | | | 7 |
| 3001 Tasman Dr | | 1 | | 3 | | | | 9 | | | | | 13 |
| Santa Clara LSAP | -1 | | | | -1 | | | | -2 | 30 | 19 | 21 | 66 |
| 2350 & 2305 Mission College Blvd | | 3 | | | | | | 16 | | | | | 19 |
| 3625 Peterson Way | | 2 | | | | | | 13 | | | | | 15 |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | 10 | | | | | | 9 | | | | | 19 |
| 2343 Calle Del Mundo | | 2 | | | | | | | | | | | 2 |
| *Total Approved Trips* | 8 | 98 | 26 | 17 | 23 | 9 | 20 | 369 | 56 | 39 | 16 | 46 | 727 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 204 | 353 | 92 | 165 | 722 | 53 | 104 | 1216 | 257 | 68 | 115 | 168 | 3517 |
| **Background Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Project Trips** | 0 | 0 | 0 | 0 | 51 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 60 |
| Existing + Project | 196 | 255 | 66 | 148 | 750 | 44 | 84 | 847 | 201 | 29 | 108 | 122 | 2850 |
| Background + Project | 204 | 353 | 92 | 165 | 773 | 53 | 104 | 1216 | 257 | 68 | 124 | 168 | 3577 |

Traffix Node Number: 99
Intersection Name: Semiconductor Drive & Kifer Road
Peak Hour: AM
Date of Analysis: 10/17/19
Count Date: 09/11/18
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 6 | 0 | 17 | 86 | 771 | 4 | 6 | 0 | 0 | 0 | 453 | 23 | 1366 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | | | 141 | | | | | | 34 | | 175 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | | | | | | | | | | | | |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | | | | | | | | | | | | |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | 35 | | | | | | 3 | | 38 |
| 1120 Kifer Rd | | | | | 4 | 23 | 42 | | 100 | 14 | | | 183 |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | | | | | | | | | |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | -1 | | | | | | 1 | | |
| 1 AMD Place | | | | | -1 | | | | | | -6 | | -7 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | 1 | | | | | | 2 | | 3 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | 4 | | 4 |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | 1 | | | | | | | | 1 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | 4 | | 17 | 19 | 1 | | | | | | 3 | 25 | 69 |
| City Place | | | | | 17 | | | | | | 8 | | 25 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | 40 | | | | | | -1 | | 39 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 4 | 0 | 17 | 19 | 238 | 23 | 42 | 0 | 100 | 14 | 48 | 25 | 530 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 10 | 0 | 34 | 105 | 1009 | 27 | 48 | 0 | 100 | 14 | 501 | 48 | 1896 |
| **Project Trips** | 0 | 0 | 0 | 0 | 353 | 0 | 0 | 0 | 0 | 0 | 51 | 0 | 404 |
| Existing + Project | 6 | 0 | 17 | 86 | 1124 | 4 | 6 | 0 | 0 | 0 | 504 | 23 | 1770 |
| Background + Project | 10 | 0 | 34 | 105 | 1362 | 27 | 48 | 0 | 100 | 14 | 552 | 48 | 2300 |

Traffix Node Number: 100
Intersection Name: 1020 Kifer Rd Driveway & Kifer Road
Peak Hour: AM
Date of Analysis: 10/17/19
Count Date: 01/00/00
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Existing Conditions | 0 | 0 | 0 | 0 | 473 | 0 | 0 | 0 | 0 | 0 | 444 | 0 | 917 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | | | | 181 | 14 | | 34 | 172 | | | 401 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | | | | | | | | | | | | |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | | | | | | | | | | | | |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | | | | | | | | | |
| 1120 Kifer Rd | | | | | 94 | | | | | | -2 | | 92 |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | | | | | | | | | |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | -1 | | | | | | 1 | | |
| 1 AMD Place | | | | | -1 | | | | | | -6 | | -7 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | 1 | | | | | | 2 | | 3 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | 4 | | 4 |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | 1 | | | | | | | | 1 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | | | | | 4 | | | | | | 28 | | 32 |
| City Place | | | | | 17 | | | | | | 8 | | 25 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | 40 | | | | | | -1 | | 39 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2350 & 2305 Mission College Blvd<br>3625 Peterson Way<br>3402 El Camino Real<br>3045 Stender Way<br>2931 El Camino Real<br>2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 0 | 0 | 0 | 155 | 181 | 14 | 0 | 34 | 172 | 34 | 0 | 590 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 0 | 0 | 0 | 0 | 628 | 181 | 14 | 0 | 34 | 172 | 478 | 0 | 1507 |
| **Project Trips** | 27 | 0 | 30 | 229 | 124 | 0 | 0 | 0 | 0 | 0 | 22 | 120 | 552 |
| Existing + Project | 27 | 0 | 30 | 229 | 597 | 0 | 0 | 0 | 0 | 0 | 466 | 120 | 1469 |
| Background + Project | 27 | 0 | 30 | 229 | 752 | 181 | 14 | 0 | 34 | 172 | 500 | 120 | 2059 |

Traffix Node Number: 5320
Intersection Name: Mary Avenue & Central Expressway
Peak Hour: PM
Count Date: 11/14/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| INDEX | 7 | 6 | 5 | 13 | 12 | 11 | 4 | 3 | 2 | 10 | 9 | 8 | |
| PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Volume Adjustment | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Existing Conditions | 200 | 625 | 466 | 86 | 1165 | 657 | 633 | 141 | 199 | 606 | 1464 | 34 | 6276 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | 2 | | | | | | 3 | | 5 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | | | 42 | | | | | | 4 | | 46 |
| 830 W Evelyn Ave | | | | | | | | | 1 | 1 | | | 2 |
| 1081 Innovation Way | | | | | 38 | | | | | | 9 | | 47 |
| 1111 Lockheed Martin Way | | | | | 4 | | | | | | 1 | | 5 |
| 1152 Bordeaux Dr | | | | | 14 | | | | | | 2 | | 16 |
| 1194 N. Mathilda Ave | | | | | 4 | 6 | 1 | | | | 1 | | 12 |
| 1230 Oakmead Pkwy | | | | | 1 | | | | | | | | 1 |
| 1260 N Mathilda Ave | | | | | 1 | 1 | | | | | | | 2 |
| 215 Moffett Park Dr | | | | | 4 | | | | | | 2 | | 6 |
| 265 Sobrante Way | | | | | | | | 2 | 9 | 1 | 1 | | 13 |
| 275 N Mathilda Ave | | | | | | | | | 5 | | | 1 | 6 |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | 13 | 12 | 37 | 7 | | | | 2 | | | | 2 | 73 |
| 589 W. Java Dr | | 11 | | | | | | 2 | | | | | 13 |
| 610 N Mary Ave | 127 | 103 | 223 | 43 | | | | 20 | | | | 25 | 541 |
| 615 N. Mathilda Ave | 12 | 11 | | | 14 | | | | | | | | 37 |
| 623 N Pastoria Ave | 5 | | | | | | | | | | | 1 | 6 |
| 684 W. Maude Ave | | 23 | | | 59 | | | 4 | | | 4 | 8 | 98 |
| 810 W Maude Ave | | 14 | | | 36 | | | 2 | | | 2 | 5 | 59 |
| 901 Kifer Rd | | | | | 7 | | | | | | | | 7 |
| 1120 Kifer Rd | | | | | 5 | | | | | | 3 | | 8 |
| 1155 Aster Ave | | | | | 9 | | | | | | 17 | | 26 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | 2 | | | | | | 4 | | 6 |
| 520 Almanor Ave | 18 | 9 | | | 4 | | | 1 | | | 1 | 3 | 36 |
| 675 Almanor Avenue | | 7 | | | | | | 1 | | | | | 8 |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | 2 | | | | | | 3 | | 5 |
| 223 N Mathilda Ave | | | | | | | | | 13 | | 2 | | 15 |
| 456 W Olive Ave | | | | | -15 | | | | | | -7 | | -22 |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | -2 | | | | | | | | | | | 2 | |
| 1 AMD Place | | | | | -5 | | | | | | 19 | | 14 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | -1 | | | | | | | | | 5 | | 4 |
| 915 De Guigne Dr | | | | | -3 | | | | | | 7 | | 4 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | 25 | | | | | | 6 | | 31 |
| 4301, 4401, 4551 Great America Pkwy | | | | | 11 | | | | | | 3 | | 14 |
| 2620-2727 Augustine Dr | | | | | -10 | | | | | | 77 | | 67 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | 115 | | | | | | 24 | | 139 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5010 Old Ironsides Dr | | | | | 160 | | | | | | 33 | | 193 |
| 3000 Bowers Ave | | | | | 21 | | | | | | 6 | | 27 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | 1 | | | | | | 1 | | 2 |
| 3607 Kifer Rd | | | | | 9 | | | | | | 1 | | 10 |
| City Place | | | | | 89 | | | | | | 14 | | 103 |
| 3226 Scott Blvd | | | | | 4 | | | | | | 1 | | 5 |
| 2041 Mission College Blvd | | | | | 5 | | | | | | 7 | | 12 |
| 3100-3200 Coronado Dr | | | | | 17 | | | | | | 4 | | 21 |
| 1 Great America Pkwy | | | | | 3 | | | | | | 4 | | 7 |
| 3375 Scott Blvd | | | | | 21 | | | | | | 5 | | 26 |
| 3001 Tasman Dr | | | | | 4 | | | | | | 1 | | 5 |
| Santa Clara LSAP | | | 5 | 2 | 8 | 2 | 5 | | | | 21 | | 43 |
| 2350 & 2305 Mission College Blvd | | | | | 25 | | | | | | 6 | | 31 |
| 3625 Peterson Way | | | | | 32 | | | | | | 6 | | 38 |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | 2 | | | | | | 1 | | 3 |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 173 | 189 | 265 | 52 | 767 | 9 | 6 | 34 | 28 | 2 | 304 | 47 | 1876 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 373 | 814 | 731 | 138 | 1932 | 666 | 639 | 175 | 227 | 608 | 1768 | 81 | 8152 |
| **Project Trips** | 0 | 0 | 0 | 0 | 62 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 68 |
| Existing + Project | 200 | 625 | 466 | 86 | 1227 | 657 | 633 | 141 | 199 | 606 | 1470 | 34 | 6344 |
| Background + Project | 373 | 814 | 731 | 138 | 1994 | 666 | 639 | 175 | 227 | 608 | 1774 | 81 | 8220 |

Traffix Node Number: 57
Intersection Name: Fair Oaks Avenue & US 101 NB Ramps
Peak Hour: PM
Date of Analysis: 10/17/19
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| INDEX | 7 | 6 | 5 | 13 | 12 | 11 | 4 | 3 | 2 | 10 | 9 | 8 | |
| PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Volume Adjustment | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Existing Conditions | 190 | 1209 | 0 | 270 | 0 | 624 | 0 | 1042 | 231 | 0 | 0 | 0 | 3566 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | -1 | 7 | | | | | | 11 | | | | | 17 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | 19 | | 12 | | | | | | | | | 31 |
| 590 W El Camino Real | | 3 | | | | | | 3 | | | | | 6 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | 3 | | | 3 | | | | 6 |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | 4 | | | 4 | | | | 8 |
| 1050 Kifer Rd | | | | | | | | | 62 | | | | 62 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | 7 | | | | 7 |
| 1111 Lockheed Martin Way | | 16 | | | | | | 5 | | | | | 21 |
| 1152 Bordeaux Dr | | 34 | | | | | | 4 | | | | | 38 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 4 | | | | | | 2 | | | | | 6 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 3 | | | | | | 5 | | | | | 8 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 34 | | 3 | | | | 3 | | | | | 40 |
| 610 N Mary Ave | 2 | 1 | | | | | | 12 | | | | | 15 |
| 615 N. Mathilda Ave | | | | | | | | 3 | | | | | 3 |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | 1 | | | | | | 6 | | | | | 7 |
| 810 W Maude Ave | | 1 | | | | | | 4 | | | | | 5 |
| 901 Kifer Rd | | | | | | | | | 11 | | | | 11 |
| 1120 Kifer Rd | | 21 | | | | | | 12 | 4 | | | | 37 |
| 1155 Aster Ave | | 17 | | | | | | 9 | 14 | | | | 40 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | 45 | | | | 14 | | 49 | | | | | 108 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 5 | | | | 4 | | 3 | 3 | | | | 15 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | -4 | -8 | | -10 | | | | -14 | | | | | -36 |
| 1111, 1139 Karlstad Dr | -11 | -19 | | 29 | | | | 44 | | | | | 43 |
| 1122 Aster Ave | | 6 | | | | | | 4 | | | | | 10 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | -1 | -2 | | 2 | | | | 3 | | | | | 2 |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 38 | | | | | | 12 | 15 | | | | 65 |
| 617 E. Evelyn Ave | | 4 | | | | | | 3 | | | | | 7 |
| 625 E. Taylor Ave | | 2 | | | | 1 | | -1 | -1 | | | | 1 |
| 669 Old San Francisco Rd | | 1 | | | | | | | | | | | 1 |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | 3 | | | | | | | 3 |
| 915 De Guigne Dr | | 14 | | | | | | -11 | -16 | | | | -13 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 10 | | | | | | 7 | | | | | 17 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | | 1 | | | | | | 6 | | | | | 7 |
| City Place | | 27 | | 5 | 9 | 7 | | 27 | 5 | | | | 80 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | | 2 | | | | 2 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | -15 | 285 | 0 | 41 | 9 | 36 | 0 | 211 | 113 | 0 | 0 | 0 | 680 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 175 | 1494 | 0 | 311 | 9 | 660 | 0 | 1253 | 344 | 0 | 0 | 0 | 4246 |
| **Project Trips** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 47 |
| Existing + Project | 190 | 1209 | 0 | 270 | 0 | 624 | 0 | 1042 | 278 | 0 | 0 | 0 | 3613 |
| Background + Project | 175 | 1494 | 0 | 311 | 9 | 660 | 0 | 1253 | 391 | 0 | 0 | 0 | 4293 |

Traffix Node Number: 91
Intersection Name: Fair Oaks Avenue & Ahwanee Avenue
Peak Hour: PM
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| INDEX | 7 | 6 | 5 | 13 | 12 | 11 | 4 | 3 | 2 | 10 | 9 | 8 | |
| PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Volume Adjustment | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Existing Conditions | 150 | 2339 | 71 | 58 | 12 | 26 | 36 | 831 | 43 | 74 | 48 | 102 | 3790 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 7 | | | | | | 6 | | | | | 13 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | 3 | | | | | | 3 | | | | | 6 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | 7 | | | | | | 7 | | | | | 14 |
| 840 E El Camino Real | | 2 | | | | | | 2 | | | | | 4 |
| 861 E. El Camino Real | | 8 | | | | | | 9 | | | | | 17 |
| 1050 Kifer Rd | | 12 | | | | | | 62 | | | | | 74 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 33 | | | | | | 7 | | | | | 40 |
| 1111 Lockheed Martin Way | | 16 | | | | | | 5 | | | | | 21 |
| 1152 Bordeaux Dr | | 34 | | | | | | 4 | | | | | 38 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 4 | | | | | | 2 | | | | | 6 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 3 | | | | 2 | | | | 12 | 2 | 5 | 24 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 17 | | | | | | 3 | | | | | 20 |
| 610 N Mary Ave | | 1 | | | | | | 12 | | | | | 13 |
| 615 N. Mathilda Ave | | | | | | | | 3 | | | | | 3 |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | 1 | | | | | | 6 | | | | | 7 |
| 810 W Maude Ave | | 1 | | | | | | 4 | | | | | 5 |
| 901 Kifer Rd | | 2 | | | | | | 11 | | | | | 13 |
| 1120 Kifer Rd | | 33 | | | | | | 16 | | | | | 49 |
| 1155 Aster Ave | | 43 | | | | | | 24 | | | | | 67 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | 59 | | | | | | 59 | | | | | 118 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | 2 | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 12 | | | | | | 7 | | | | | 19 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | -3 | | | | | | -5 | | | | | -8 |
| 1111, 1139 Karlstad Dr | | -6 | | | | | | 17 | | | | | 11 |
| 1122 Aster Ave | | 6 | | | | | | 4 | | | | | 10 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | -1 | | | | | | 1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 76 | | | | | | 28 | -1 | | | | 103 |
| 617 E. Evelyn Ave | | 4 | | | | | | 3 | | | | | 7 |
| 625 E. Taylor Ave | | 4 | | | | | | -3 | | | | | 1 |
| 669 Old San Francisco Rd | | 1 | | | | | | | | | | | 1 |
| 728, 740, 750, 760, and 814 San Aleso Ave | 3 | | | | | | | | 4 | 2 | | | 9 |
| 915 De Guigne Dr | | 34 | | | | | | -26 | | | | | 8 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 10 | | | | | | 7 | | | | | 17 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | | 1 | | | | | | 6 | | | | | 7 |
| City Place | 3 | 20 | 5 | 6 | 8 | 1 | 9 | 6 | 3 | 4 | 8 | 7 | 80 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | 4 | | | | | | 2 | | | | | 6 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 6 | 448 | 5 | 6 | 8 | 3 | 9 | 292 | 6 | 20 | 10 | 12 | 825 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 156 | 2787 | 76 | 64 | 20 | 29 | 45 | 1123 | 49 | 94 | 58 | 114 | 4615 |
| **Background Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Project Trips** | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 0 | 52 |
| Existing + Project | 150 | 2344 | 71 | 58 | 12 | 26 | 36 | 878 | 43 | 74 | 48 | 102 | 3842 |
| Background + Project | 156 | 2792 | 76 | 64 | 20 | 29 | 45 | 1170 | 49 | 94 | 58 | 114 | 4667 |
| **Existing + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Background + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |

Intersection Number: 4
Traffix Node Number: 41
Intersection Name: Fair Oaks Avenue & Duane Avenue
Peak Hour: PM
Date of Analysis: 10/17/19
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| INDEX | 7 | 6 | 5 | 13 | 12 | 11 | 4 | 3 | 2 | 10 | 9 | 8 | |
| PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Volume Adjustment | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Existing Conditions | 94 | 1921 | 225 | 143 | 110 | 228 | 179 | 692 | 4 | 26 | 99 | 63 | 3784 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 7 | | | | | | 6 | | | | | 13 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | 3 | | | | | | 3 | | | | | 6 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | 7 | | | | | | 7 | | | | | 14 |
| 840 E El Camino Real | | 2 | | | | | | 2 | | | | | 4 |
| 861 E. El Camino Real | | 8 | | | | | | 9 | | | | | 17 |
| 1050 Kifer Rd | | 12 | | | | | | 62 | | | | | 74 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 33 | | | | | | 7 | | | | | 40 |
| 1111 Lockheed Martin Way | 6 | 10 | | | | | | 4 | | | | 1 | 21 |
| 1152 Bordeaux Dr | | 34 | | | | | | 4 | | | | | 38 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 4 | | | | | | 2 | | | | | 6 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 17 | | | | 2 | | | | | 2 | | 21 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 17 | | | | | | 3 | | | | | 20 |
| 610 N Mary Ave | | 1 | | | | | | 12 | | | | | 13 |
| 615 N. Mathilda Ave | | | | | | | | 3 | | | | | 3 |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | 1 | | | | | | 6 | | | | | 7 |
| 810 W Maude Ave | | 1 | | | | | | 4 | | | | | 5 |
| 901 Kifer Rd | | 2 | | | | | | 11 | | | | | 13 |
| 1120 Kifer Rd | | 33 | | | | | | 16 | | | | | 49 |
| 1155 Aster Ave | | 43 | | | | | | 24 | | | | | 67 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | 59 | | | | 23 | 25 | 59 | | | | | 166 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | 1 | 1 | | | | | | | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 12 | | | | | | 7 | | | | | 19 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | -3 | | | | | | -5 | | | | | -8 |
| 1111, 1139 Karlstad Dr | | -6 | | | | | | 17 | | | | | 11 |
| 1122 Aster Ave | | 6 | | | | | | 4 | | | | | 10 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | -1 | | | | | | 1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 17 | 58 | 29 | -1 | 13 | 25 | -3 | -2 | | | | 136 |
| 617 E. Evelyn Ave | | 4 | | | | | | 3 | | | | | 7 |
| 625 E. Taylor Ave | | 4 | | | | | | -3 | | | | | 1 |
| 669 Old San Francisco Rd | | 1 | | | | | | | | | | | 1 |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 1 | 1 | 2 | | | | 2 | | | | | 6 |
| 915 De Guigne Dr | | 15 | 19 | -17 | | | | -9 | | | | | 8 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 10 | | | | | | 7 | | | | | 17 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | | 1 | | | | | | 6 | | | | | 7 |
| City Place | 13 | 39 | 8 | 3 | 8 | 4 | 3 | 5 | 9 | 5 | 4 | 1 | 102 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | 4 | | | | | | 2 | | | | | 6 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 19 | 399 | 87 | 17 | 7 | 42 | 53 | 278 | 7 | 5 | 6 | 2 | 922 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 113 | 2320 | 312 | 160 | 117 | 270 | 232 | 970 | 11 | 31 | 105 | 65 | 4706 |
| **Project Trips** | 0 | 5 | 0 | 0 | 0 | 0 | 19 | 47 | 0 | 0 | 0 | 0 | 71 |
| Existing + Project | 94 | 1926 | 225 | 143 | 110 | 228 | 198 | 739 | 4 | 26 | 99 | 63 | 3855 |
| Background + Project | 113 | 2325 | 312 | 160 | 117 | 270 | 251 | 1017 | 11 | 31 | 105 | 65 | 4777 |

Traffix Node Number: 92
Intersection Name: Fair Oaks Avenue & Wolfe Road
Peak Hour: PM
Date of Analysis: 10/17/19
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 1080 | 1043 | 0 | 0 | 0 | 0 | 0 | 399 | 0 | 6 | 0 | 581 | 3109 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | 7 | | | | | | | | | | | 6 | 13 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | 3 | | | | | | | | | | | 3 | 6 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | 7 | | | | | | | | | | | 7 | 14 |
| 840 E El Camino Real | 2 | | | | | | | | | | | 2 | 4 |
| 861 E. El Camino Real | 8 | | | | | | | | | | | 9 | 17 |
| 1050 Kifer Rd | | 12 | | | | | | 62 | | | | | 74 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 33 | | | | | | 7 | | | | | 40 |
| 1111 Lockheed Martin Way | | 10 | | | | | | 4 | | | | | 14 |
| 1152 Bordeaux Dr | 17 | 17 | | | | | | 2 | | | | 2 | 38 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | 2 | 2 | | | | | | 1 | | | | 1 | 6 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | 12 | 6 | | | | | | | | | | | 18 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | 17 | | | | | | | | | | | 3 | 20 |
| 610 N Mary Ave | 1 | | | | | | | | | | | 12 | 13 |
| 615 N. Mathilda Ave | | | | | | | | | | | | 3 | 3 |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | 1 | | | | | | | | | | | 6 | 7 |
| 810 W Maude Ave | 1 | | | | | | | | | | | 4 | 5 |
| 901 Kifer Rd | | 2 | | | | | | 11 | | | | | 13 |
| 1120 Kifer Rd | | 33 | | | | | | 16 | | | | | 49 |
| 1155 Aster Ave | | 43 | | | | | | 24 | | | | | 67 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | 82 | | | | | | | | | | | 84 | 166 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | 1 | | | | | | | | | | | 1 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | 7 | 5 | | | | | | 3 | | | | 5 | 20 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | -2 | -1 | | | | | | -2 | | | | -4 | -9 |
| 1111, 1139 Karlstad Dr | -4 | -2 | | | | | | 6 | | | | 11 | 11 |
| 1122 Aster Ave | | 6 | | | | | | 4 | | | | | 10 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | -1 | | | | | | | | | | | 1 | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | 13 | 17 | | | | | | -5 | | | | 25 | 50 |
| 617 E. Evelyn Ave | 4 | | | | | | | | | | | 3 | 7 |
| 625 E. Taylor Ave | 4 | | | | | | | | | | | -3 | 1 |
| 669 Old San Francisco Rd | 1 | | | | | | | | | | | | 1 |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 1 | | | | | | 2 | | | | | 3 |
| 915 De Guigne Dr | | 15 | | | | | | -9 | | | | | 6 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 10 | | | | | | 7 | | | | | 17 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | 1 | | | | | | | | | | | 6 | 7 |
| City Place | 9 | 36 | | | | | | 5 | | 4 | | 2 | 56 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | 4 | | | | | | 2 | | | | | 6 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 192 | 250 | 0 | 0 | 0 | 0 | 0 | 140 | 0 | 4 | 0 | 188 | 774 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 1272 | 1293 | 0 | 0 | 0 | 0 | 0 | 539 | 0 | 10 | 0 | 769 | 3883 |
| **Project Trips** | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 0 | 0 | 0 | 70 |
| Existing + Project | 1080 | 1048 | 0 | 0 | 0 | 0 | 0 | 464 | 0 | 6 | 0 | 581 | 3179 |
| Background + Project | 1272 | 1298 | 0 | 0 | 0 | 0 | 0 | 604 | 0 | 10 | 0 | 769 | 3953 |

Traffix Node Number: 42
Intersection Name: Fair Oaks Avenue & Arques Avenue
Peak Hour: PM
Date of Analysis: 10/17/19
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 104 | 1000 | 55 | 50 | 182 | 440 | 151 | 466 | 150 | 167 | 131 | 106 | 3002 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 7 | | | | | | 6 | | | | | 13 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | 3 | | | | | | 3 | | | | | 6 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | 1 | | | | | | 2 | | 3 |
| 830 E. El Camino Real | | 7 | | | | | | 7 | | | | | 14 |
| 840 E El Camino Real | | 2 | | | | | | 2 | | | | | 4 |
| 861 E. El Camino Real | | 8 | | | | | | 9 | | | | | 17 |
| 1050 Kifer Rd | | | | | | | | | | | | | |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | 17 | | | | | | 2 | | | | | 19 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 1 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 6 | | | | | | 5 | | | | | 11 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 17 | | | | | | 3 | | | | | 20 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | | | | | | | | | |
| 1120 Kifer Rd | | | | | | | | | | | | | |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | 82 | | | | | | 84 | | | | | 166 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 7 | | | | | | 5 | | | | | 12 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | -2 | | | | | | -4 | | | | | -6 |
| 1111, 1139 Karlstad Dr | | -4 | | | | | | 11 | | | | | 7 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | -1 | | | | | | 1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 5 | | | -7 | | | 25 | | | 12 | | 35 |
| 617 E. Evelyn Ave | | 4 | | | | | | 3 | | | | | 7 |
| 625 E. Taylor Ave | | | | 1 | | | | | | | | | 1 |
| 669 Old San Francisco Rd | | 1 | | | | | | | | | | | 1 |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 1 | | 1 | | | | 1 | | | 1 | | 4 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | 7 | | | | | | 2 | | 9 |
| 4301, 4401, 4551 Great America Pkwy | | | | | 7 | | | | | | 2 | | 9 |
| 2620-2727 Augustine Dr | | | | | -2 | | | | | | 18 | | 16 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | 2 | | | | | | 1 | | 3 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | 1 | | | | | | 6 | | | | | 7 |
| City Place | 6 | 4 | 1 | 6 | 6 | 4 | | 8 | 4 | 2 | 2 | 3 | 46 |
| 3226 Scott Blvd | | | | | 4 | | | | | | 1 | | 5 |
| 2041 Mission College Blvd | | | | | 2 | | | | | | 2 | | 4 |
| 3100-3200 Coronado Dr | | | | | 4 | | | | | | 1 | | 5 |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | 4 | | | | | | 1 | | 5 |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | 7 | | | | | | | | 7 |
| 2350 & 2305 Mission College Blvd | | | | | 7 | | | | | | 2 | | 9 |
| 3625 Peterson Way | | | | | 9 | | | | | | 2 | | 11 |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 6 | 167 | 1 | 8 | 51 | 4 | 0 | 178 | 4 | 2 | 49 | 3 | 473 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 110 | 1167 | 56 | 58 | 233 | 444 | 151 | 644 | 154 | 169 | 180 | 109 | 3475 |
| **Project Trips** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 31 |
| Existing + Project | 104 | 1000 | 55 | 50 | 182 | 440 | 151 | 466 | 181 | 167 | 131 | 106 | 3033 |
| Background + Project | 110 | 1167 | 56 | 58 | 233 | 444 | 151 | 644 | 185 | 169 | 180 | 109 | 3506 |

Traffix Node Number: 95
Intersection Name: Fair Oaks Avenue & California Avenue
Peak Hour: PM Date of Analysis: 10/17/19
Count Date: 12/06/17
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 116 | 1438 | 38 | 0 | 0 | 0 | 64 | 743 | 49 | 182 | 70 | 76 | 2776 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 7 | | | | | | 6 | | | | | 13 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | 3 | | | | | | 3 | | | | | 6 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | 7 | | | | | | 7 | | | | | 14 |
| 840 E El Camino Real | | 2 | | | | | | 2 | | | | | 4 |
| 861 E. El Camino Real | | 8 | | | | | | 9 | | | | | 17 |
| 1050 Kifer Rd | | | | | | | | | 21 | | | | 21 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | 17 | | | | | | 2 | | | | | 19 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 1 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 6 | | | | | | 5 | | | | | 11 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 17 | | | | | | 3 | | | | | 20 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | | | | | | | | | |
| 1120 Kifer Rd | | | | | | | | | | | | | |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | 82 | | | | | | 84 | | | | | 166 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 7 | | | | | | 5 | | | | | 12 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | -2 | | | | | | -4 | | | | | -6 |
| 1111, 1139 Karlstad Dr | | -4 | | | | | | 11 | | | | | 7 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | -1 | | | | | | 1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 5 | | | | | | 25 | | | | | 30 |
| 617 E. Evelyn Ave | | 4 | | | | | | 3 | | | | | 7 |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | 1 | | | | | | | | | | | 1 |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 1 | | | | | | 1 | | | | | 2 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | 1 | | | | | | 6 | | | | | 7 |
| City Place | | 10 | | | | | | 12 | | | | | 22 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 173 | 0 | 0 | 0 | 0 | 0 | 182 | 21 | 0 | 0 | 0 | 376 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 116 | 1611 | 38 | 0 | 0 | 0 | 64 | 925 | 70 | 182 | 70 | 76 | 3152 |
| **Project Trips** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 31 |
| Existing + Project | 116 | 1438 | 38 | 0 | 0 | 0 | 64 | 774 | 49 | 182 | 70 | 76 | 2807 |
| Background + Project | 116 | 1611 | 38 | 0 | 0 | 0 | 64 | 956 | 70 | 182 | 70 | 76 | 3183 |

Traffix Node Number: 96
Intersection Name: Fair Oaks Avenue & Kifer Road
Peak Hour: PM
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019

Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 0 | 1455 | 125 | 161 | 0 | 201 | 136 | 650 | 0 | 0 | 0 | 0 | 2728 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 7 | | | | | | 6 | | | | | 13 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | 3 | | | | | | 3 | | | | | 6 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | 7 | | | | | | 7 | | | | | 14 |
| 840 E El Camino Real | | 2 | | | | | | 2 | | | | | 4 |
| 861 E. El Camino Real | | 8 | | | | | | 9 | | | | | 17 |
| 1050 Kifer Rd | | | | 21 | | 29 | 6 | | | | | | 56 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | 17 | | | | | | 2 | | | | | 19 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 1 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 6 | | | | | | 5 | | | | | 11 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 17 | | | | | | 3 | | | | | 20 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | | 5 | 1 | | | | | | 6 |
| 1120 Kifer Rd | | | | | | | | | | | | | |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | 82 | | | | | | 84 | | | | | 166 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 7 | | | | 1 | 1 | 5 | | | | | 14 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | -2 | | | | | | -4 | | | | | -6 |
| 1111, 1139 Karlstad Dr | | -4 | | | | | | 11 | | | | | 7 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | -1 | | | | | | 1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 5 | | | | | | 25 | | | | | 30 |
| 617 E. Evelyn Ave | | 4 | | | | | | 3 | | | | | 7 |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | 1 | | | | | | | | | | | 1 |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | 1 | 1 | | | | | | | | | 2 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | 4 | 1 | | | | | | 5 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | 1 | 6 | | | | | | | | | 7 |
| City Place | | 10 | | | | | | 12 | | | | | 22 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 171 | 2 | 28 | 0 | 39 | 9 | 175 | 0 | 0 | 0 | 0 | 424 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 0 | 1626 | 127 | 189 | 0 | 240 | 145 | 825 | 0 | 0 | 0 | 0 | 3152 |
| **Project Trips** | 0 | 0 | 0 | 31 | 0 | 69 | 7 | 0 | 0 | 0 | 0 | 0 | 107 |
| Existing + Project | 0 | 1455 | 125 | 192 | 0 | 270 | 143 | 650 | 0 | 0 | 0 | 0 | 2835 |
| Background + Project | 0 | 1626 | 127 | 220 | 0 | 309 | 152 | 825 | 0 | 0 | 0 | 0 | 3259 |

Traffix Node Number: 62
Intersection Name: Fair Oaks Avenue & Evelyn Avenue
Peak Hour: PM
Date of Analysis: 10/17/19
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 244 | 1280 | 89 | 46 | 186 | 48 | 86 | 638 | 54 | 67 | 413 | 146 | 3297 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 7 | | | | | | 6 | | | | | 13 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | 3 | | | | | | 3 | | | | | 6 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | 7 | | | | | | 7 | | | | | 14 |
| 840 E El Camino Real | | 2 | | | | | | 2 | | | | | 4 |
| 861 E. El Camino Real | | 8 | | | | | | 9 | | | | | 17 |
| 1050 Kifer Rd | 4 | 25 | | | | | | 5 | | | | 1 | 35 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | 17 | | | | | | 2 | | | | | 19 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 1 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 6 | | | | | | 5 | | | | | 11 |
| 445 N Mary Ave | | | | | | | | | | | 1 | | 1 |
| 589 W. Java Dr | | 17 | | | | | | 3 | | | | | 20 |
| 610 N Mary Ave | | | | | 2 | | | | | | 9 | | 11 |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | 2 | | 2 |
| 810 W Maude Ave | | | | | | | | | | | 1 | | 1 |
| 901 Kifer Rd | | 5 | | | | | | 1 | | | | | 6 |
| 1120 Kifer Rd | | | | | 3 | | | | | | 6 | | 9 |
| 1155 Aster Ave | | | | | 5 | | | | | | 9 | | 14 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | 82 | | | | | | | | | | | 84 | 166 |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | 1 | | 1 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 8 | | | | | | 5 | | | | | 13 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | -2 | | | | | | -4 | | | | | -6 |
| 1111, 1139 Karlstad Dr | | -4 | | | | | | 11 | | | | | 7 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | -1 | | | | | | 1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 5 | | | | | | 25 | | | | | 30 |
| 617 E. Evelyn Ave | | | 4 | 3 | | | | | | | | | 7 |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | 1 | | | | | | | | | | | 1 |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | | | | |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | 4 | | | | | | 1 | | | | | 5 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | 5 | | | | | | 1 | | 6 |
| City Place | 3 | 18 | 5 | 9 | 9 | 8 | | 6 | | 3 | 1 | 3 | 65 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 89 | 128 | 9 | 12 | 24 | 8 | 0 | 89 | 0 | 3 | 31 | 88 | 481 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 333 | 1408 | 98 | 58 | 210 | 56 | 86 | 727 | 54 | 70 | 444 | 234 | 3778 |
| **Project Trips** | 0 | 69 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 76 |
| Existing + Project | 244 | 1349 | 89 | 46 | 186 | 48 | 86 | 645 | 54 | 67 | 413 | 146 | 3373 |
| Background + Project | 333 | 1477 | 98 | 58 | 210 | 56 | 86 | 734 | 54 | 70 | 444 | 234 | 3854 |

Traffix Node Number: 63
Intersection Name: Fair Oaks Avenue & Old SF Road
Peak Hour: PM
Count Date: 05/08/18
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 158 | 941 | 125 | 107 | 188 | 127 | 198 | 507 | 45 | 48 | 366 | 114 | 2924 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 7 | | | | | | 6 | | | | | 13 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | 3 | | | | | | | | | | | 3 | 6 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | 7 | | | | | | 7 | | | | | 14 |
| 840 E El Camino Real | | 2 | | | | | | 2 | | | | | 4 |
| 861 E. El Camino Real | | 8 | | | | | | 9 | | | | | 17 |
| 1050 Kifer Rd | | 25 | | | | | | | | | | 5 | 30 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | 17 | | | | | | 2 | | | | | 19 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 1 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 6 | | | | | | 5 | | | | | 11 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 17 | | | | | | 3 | | | | | 20 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | 5 | | | | | | 1 | | | | | 6 |
| 1120 Kifer Rd | | | | | | | | | | | 13 | | 13 |
| 1155 Aster Ave | | | | | 9 | | | | | | 17 | | 26 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 8 | | | | | | 5 | | | | | 13 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | -2 | | | | | | -4 | | | | | -6 |
| 1111, 1139 Karlstad Dr | | -4 | | | | | | 11 | | | | | 7 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | 4 | | | | | | 7 | | 11 |
| 160 Persian Dr | | -1 | | | | | | 1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 5 | | | | | | 25 | | | | | 30 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | 1 | | | | | | | | | | 1 |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | | | | |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | 7 | | | | | | 2 | | 9 |
| 4301, 4401, 4551 Great America Pkwy | | | | | 3 | | | | | | 15 | | 18 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | 19 | | | | | | 4 | | 23 |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | 4 | | | | | | 1 | | | | | 5 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | 10 | | | | | | 2 | | 12 |
| City Place | | 29 | | | | | | 6 | | | | | 35 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | 1 | | | | | | 1 | | 2 |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | 3 | | | | | | 8 | | 11 |
| 2350 & 2305 Mission College Blvd | | | | | 7 | | | | | | 2 | | 9 |
| 3625 Peterson Way | | | | | 9 | | | | | | 2 | | 11 |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 3 | 135 | 1 | 0 | 72 | 0 | 0 | 81 | 0 | 0 | 73 | 8 | 373 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 161 | 1076 | 126 | 107 | 260 | 127 | 198 | 588 | 45 | 48 | 439 | 122 | 3297 |
| **Project Trips** | 31 | 25 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 61 |
| Existing + Project | 189 | 966 | 125 | 107 | 188 | 127 | 198 | 509 | 45 | 48 | 366 | 117 | 2985 |
| Background + Project | 192 | 1101 | 126 | 107 | 260 | 127 | 198 | 590 | 45 | 48 | 439 | 125 | 3358 |

| | |
|---|---|
| Traffix Node Number: | 1404 |
| Intersection Name: | Fair Oaks Avenue & El Camino Real |
| Peak Hour: | PM |
| Count Date: | 05/08/18 |
| Scenario: | Intuitive Surgical 2019 |

Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 145 | 736 | 161 | 173 | 773 | 181 | 258 | 554 | 119 | 189 | 1515 | 237 | 5041 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | 7 | | | | | | 6 | | | | | 13 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | 9 | | | | | | 10 | | 19 |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | 7 | 7 | 21 | 5 | 4 | | | | 19 | | 63 |
| 840 E El Camino Real | | | 2 | 2 | 5 | | | | | | 5 | | 14 |
| 861 E. El Camino Real | | | 8 | 9 | 26 | 6 | 6 | | | | 25 | | 80 |
| 1050 Kifer Rd | 25 | | | | | | | | | | | | 25 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | 1 | | | | | | 4 | | 5 |
| 1152 Bordeaux Dr | | 17 | | | | | | 2 | | | | | 19 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 1 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 6 | | | | | | 5 | | | | | 11 |
| 445 N Mary Ave | | | | | 1 | | | | | | 5 | | 6 |
| 589 W. Java Dr | | 17 | | | | | | 3 | | | | | 20 |
| 610 N Mary Ave | | | | | 9 | | | | | | 47 | | 56 |
| 615 N. Mathilda Ave | | | | | | | | | | | 11 | | 11 |
| 623 N Pastoria Ave | | | | | | | | | | | 2 | | 2 |
| 684 W. Maude Ave | | | | | 4 | | | | | | 22 | | 26 |
| 810 W Maude Ave | | | | | 2 | | | | | | 14 | | 16 |
| 901 Kifer Rd | 5 | | | | | | | | | | | 1 | 6 |
| 1120 Kifer Rd | | | | | | | | | | | | | |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | 59 | | | | | | 59 | | 118 |
| 311 S Mathilda Ave | | | | | 4 | | | | | | 2 | | 6 |
| 520 Almanor Ave | | | | | 2 | | | | | | 13 | | 15 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | -1 | | | | | | -2 | | -3 |
| 871 and 895 E Fremont Ave | | 8 | | | | | | 5 | | | | | 13 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | -11 | | | | | | -16 | | -27 |
| 1008 E El Camino Real | | | | | 4 | | | | | | 6 | | 10 |
| 1023 N Fair Oaks Ave | | -2 | | | | | | -4 | | | | | -6 |
| 1111, 1139 Karlstad Dr | | -4 | | | | | | 11 | | | | | 7 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | 3 | | | | | | 5 | | 8 |
| 160 Persian Dr | | -1 | | | | | | 1 | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 5 | | | | | | 25 | | | | | 30 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | | -1 | | -1 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | 4 | | | | | | 1 | | | | | 5 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | | | | | | | | | |
| City Place | | 29 | | | | | | 6 | | | | | 35 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | 7 | | | | | | 9 | | 16 |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 30 | 88 | 17 | 18 | 145 | 11 | 10 | 62 | 0 | 0 | 239 | 1 | 621 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 175 | 824 | 178 | 191 | 918 | 192 | 268 | 616 | 119 | 189 | 1754 | 238 | 5662 |
| **Project Trips** | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 27 |
| Existing + Project | 145 | 761 | 161 | 173 | 773 | 181 | 258 | 556 | 119 | 189 | 1515 | 237 | 5068 |
| Background + Project | 175 | 849 | 178 | 191 | 918 | 192 | 268 | 618 | 119 | 189 | 1754 | 238 | 5689 |

Traffix Node Number: 1402
Intersection Name: Sunnyvale-Saratoga & Remington Drive
Peak Hour: PM
Count Date: 11/14/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 134 | 1906 | 141 | 40 | 274 | 372 | 336 | 942 | 162 | 138 | 401 | 162 | 5008 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | 1 | | | | | | 2 | | 3 |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | 7 | | | | | | 6 | | 13 |
| 1120 Innovation Way | | 32 | | | | | | 35 | | | | | 67 |
| 1235 Bordeaux Dr | | 19 | | | | | | 24 | | | | | 43 |
| 590 W El Camino Real | | 3 | | | | | | 3 | | | | | 6 |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | 5 | 4 | | | | | | 9 |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | 6 | 6 | | | | | | 12 |
| 1050 Kifer Rd | | | | | | | | | | | | | |
| 830 W Evelyn Ave | | 1 | | | | | | 1 | | | | | 2 |
| 1081 Innovation Way | | 47 | | | | | | 11 | | | | | 58 |
| 1111 Lockheed Martin Way | | 6 | | | | | | 2 | | | | | 8 |
| 1152 Bordeaux Dr | | 48 | | | 17 | | | 6 | | | 2 | | 73 |
| 1194 N. Mathilda Ave | | 12 | | | | | | 2 | | | | | 14 |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | 2 | | | | | | 1 | | | | | 3 |
| 215 Moffett Park Dr | | | | | 2 | | | | | | 1 | | 3 |
| 265 Sobrante Way | | 8 | | | | | | 1 | | | | | 9 |
| 275 N Mathilda Ave | | 8 | | | | | | 2 | | | | | 10 |
| 824 San Aleso Ave | | 9 | | | 6 | | | 8 | | | 5 | | 28 |
| 445 N Mary Ave | | 8 | | | | | | 2 | | | | | 10 |
| 589 W. Java Dr | | 28 | | | 17 | | | 5 | | | 3 | | 53 |
| 610 N Mary Ave | | 127 | | | | | | 25 | | | | | 152 |
| 615 N. Mathilda Ave | | 28 | | | | | | -1 | | | | | 27 |
| 623 N Pastoria Ave | | 3 | | | | | | | | | | | 3 |
| 684 W. Maude Ave | | 59 | | | | | | 11 | | | | | 70 |
| 810 W Maude Ave | | 36 | | | | | | 7 | | | | | 43 |
| 901 Kifer Rd | | | | | | | | | | | | | |
| 1120 Kifer Rd | | | | | | | | 6 | | | | | 6 |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | 2 | | | | | | 4 | | | | | 6 |
| 520 Almanor Ave | | 22 | | | | | | 3 | | | | | 25 |
| 675 Almanor Avenue | | 12 | | | | | | 2 | | | | | 14 |
| 803 W El Camino Real | | -1 | | | | | | | | | | | -1 |
| 871 and 895 E Fremont Ave | | 14 | | | | 8 | 5 | 8 | | | | | 35 |
| 223 N Mathilda Ave | | 16 | | | | | | 3 | | | | | 19 |
| 456 W Olive Ave | | -77 | | | | | | -33 | | | | | -110 |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | -2 | | | -1 | | | -4 | | -7 |
| 1111, 1139 Karlstad Dr | | -1 | | | -4 | | | 3 | | | 11 | | 9 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | -1 | | | | | | 1 | | |
| 370 San Aleso Ave | | -1 | | | | | | 1 | | | | | |
| 1 AMD Place | | | | | 5 | | | | | | 25 | | 30 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | -1 | | | | | | 2 | | | | | 1 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | 4 | | | | | | 1 | | 5 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | | | | | | | | | |
| City Place | | | | | 29 | | | | | | 6 | | 35 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 469 | 0 | 0 | 81 | 19 | 15 | 143 | 0 | 0 | 59 | 0 | 786 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 134 | 2375 | 141 | 40 | 355 | 391 | 351 | 1085 | 162 | 138 | 460 | 162 | 5794 |
| **Project Trips** | 0 | 0 | 0 | 0 | 0 | 25 | 2 | 0 | 0 | 0 | 0 | 0 | 27 |
| Existing + Project | 134 | 1906 | 141 | 40 | 274 | 397 | 338 | 942 | 162 | 138 | 401 | 162 | 5035 |
| Background + Project | 134 | 2375 | 141 | 40 | 355 | 416 | 353 | 1085 | 162 | 138 | 460 | 162 | 5821 |

Traffix Node Number: 93
Intersection Name: Wolfe Road & Maude Avenue
Peak Hour: PM
Count Date: 12/06/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 7 | 998 | 9 | 10 | 3 | 3 | 5 | 384 | 148 | 251 | 4 | 8 | 1830 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | 8 | 7 | | | 15 |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 12 | | | | | | 62 | | | | | 74 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 33 | | | | | | 7 | | | | | 40 |
| 1111 Lockheed Martin Way | | 10 | | | | | | 4 | | | | | 14 |
| 1152 Bordeaux Dr | | 17 | | | | | | 2 | | | | | 19 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 1 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 6 | | | | | | | 3 | | | | 9 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | | | | | 2 | 12 | | | 14 |
| 615 N. Mathilda Ave | | | | | | | | | | 1 | | | 1 |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | 1 | 6 | | | 7 |
| 810 W Maude Ave | | | | | | | | | 1 | 4 | | | 5 |
| 901 Kifer Rd | | 2 | | | | | | 11 | | | | | 13 |
| 1120 Kifer Rd | | 33 | | | | | | 15 | | | | | 48 |
| 1155 Aster Ave | | 43 | | | | | | 24 | | | | | 67 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | 1 | | | | | | | | 1 | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 5 | | | | | | 3 | | | | | 8 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | -1 | | | | | | -2 | | | | | -3 |
| 1111, 1139 Karlstad Dr | | -2 | | | | | | 6 | | | | | 4 |
| 1122 Aster Ave | | 6 | | | | | | 4 | | | | | 10 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | | | | | 2 | -2 | | | |
| 1 AMD Place | | 17 | | | | | | -5 | 1 | 23 | | | 36 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 1 | | | | | | 2 | 3 | 1 | | | 7 |
| 915 De Guigne Dr | | 15 | | | | | | -9 | -16 | 21 | | | 11 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 10 | | | | | | 7 | | | | | 17 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd<br>City Place<br>3226 Scott Blvd<br>2041 Mission College Blvd<br>3100-3200 Coronado Dr<br>1 Great America Pkwy<br>3375 Scott Blvd<br>3001 Tasman Dr<br>Santa Clara LSAP<br>2350 & 2305 Mission College Blvd<br>3625 Peterson Way<br>3402 El Camino Real<br>3045 Stender Way<br>2931 El Camino Real<br>2343 Calle Del Mundo | | 40 | | | | | | 5 | | | | | 45 |
| | | 4 | | | | | | 2 | | | | | 6 |
| *Total Approved Trips* | 0 | 254 | 0 | 0 | 0 | 0 | 0 | 139 | 5 | 74 | 0 | 0 | 472 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 7 | 1252 | 9 | 10 | 3 | 3 | 5 | 523 | 153 | 325 | 4 | 8 | 2302 |
| **Project Trips** | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 0 | 0 | 0 | 70 |
| Existing + Project | 7 | 1003 | 9 | 10 | 3 | 3 | 5 | 449 | 148 | 251 | 4 | 8 | 1900 |
| Background + Project | 7 | 1257 | 9 | 10 | 3 | 3 | 5 | 588 | 153 | 325 | 4 | 8 | 2372 |

| | |
|---|---|
| Traffix Node Number: | 58 |
| Intersection Name: | Wolfe Road & Stewart Drive |
| Peak Hour: | PM |
| Count Date: | 11/15/17 |
| Scenario: | Intuitive Surgical 2019 |

Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 10 | 1095 | 177 | 95 | 7 | 243 | 170 | 380 | 20 | 5 | 1 | 4 | 2207 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | 7 | 8 | | | | | | | | | 15 |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 12 | | | | 2 | 12 | 62 | | | | | 88 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 33 | | | | | | 7 | | | | | 40 |
| 1111 Lockheed Martin Way | | 10 | | | | | | 4 | | | | | 14 |
| 1152 Bordeaux Dr | | 17 | | | | | | 2 | | | | | 19 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 1 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 6 | | | | | | 3 | | | | | 9 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | 12 | | | | | | 2 | | | | | 14 |
| 615 N. Mathilda Ave | | 1 | | | | | | | | | | | 1 |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | 6 | | | | | | 1 | | | | | 7 |
| 810 W Maude Ave | | 4 | | | | | | 1 | | | | | 5 |
| 901 Kifer Rd | | 2 | | | | | 2 | 11 | | | | | 15 |
| 1120 Kifer Rd | | 33 | | | | | | 15 | | | | | 48 |
| 1155 Aster Ave | | 43 | | | | 1 | 1 | 24 | | | | | 69 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | 2 | | | | | | | | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 5 | | | | | | 3 | | | | | 8 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | -1 | | | | | | -2 | | | | | -3 |
| 1111, 1139 Karlstad Dr | | -2 | | | | | | 6 | | | | | 4 |
| 1122 Aster Ave | | 6 | | | | | | 4 | | | | | 10 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | -2 | | | | | | 2 | | | | | |
| 1 AMD Place | | | 40 | -4 | | 6 | 22 | | | | | | 64 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 2 | | | | | | 5 | | | | | 7 |
| 915 De Guigne Dr | | | 35 | -25 | | -5 | 10 | | | | | | 15 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 10 | | | | | | 7 | | | | | 17 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | | | | | | | | | |
| City Place | | 40 | | | | | | 5 | | | | | 45 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | 2 | 1 | | | | | | 3 |
| Santa Clara LSAP | | 4 | | | | | | 2 | | | | | 6 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 245 | 82 | -21 | 0 | 6 | 48 | 165 | 0 | 0 | 0 | 0 | 525 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 10 | 1340 | 259 | 74 | 7 | 249 | 218 | 545 | 20 | 5 | 1 | 4 | 2732 |
| **Project Trips** | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 0 | 0 | 0 | 70 |
| Existing + Project | 10 | 1100 | 177 | 95 | 7 | 243 | 170 | 445 | 20 | 5 | 1 | 4 | 2277 |
| Background + Project | 10 | 1345 | 259 | 74 | 7 | 249 | 218 | 610 | 20 | 5 | 1 | 4 | 2802 |

| | | | |
|---|---|---|---|
| Traffix Node Number: | 43 | | |
| Intersection Name: | Wolfe Road | & Arques Avenue | |
| Peak Hour: | PM | Date of Analysis: | 10/17/19 |
| Count Date: | 11/14/17 | | |
| Scenario: | Intuitive Surgical 2019 | | |

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 35 | 1104 | 134 | 103 | 492 | 147 | 127 | 425 | 25 | 37 | 262 | 85 | 2976 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | 1 | | | | | | 2 | | 3 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 14 | | | | | | 75 | | | | | 89 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 33 | | | | | | 7 | | | | | 40 |
| 1111 Lockheed Martin Way | | 10 | | | | | | 4 | | | | | 14 |
| 1152 Bordeaux Dr | | 17 | | | | | | 2 | | | | | 19 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 1 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 6 | | | | | | 3 | | | | | 9 |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | 12 | | | | | | 2 | | | | | 14 |
| 615 N. Mathilda Ave | | 1 | | | | | | | | | | | 1 |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | 6 | | | | | | 1 | | | | | 7 |
| 810 W Maude Ave | | 4 | | | | | | 1 | | | | | 5 |
| 901 Kifer Rd | | 2 | | | | | | 13 | | | | | 15 |
| 1120 Kifer Rd | | 33 | | | | | | 15 | | | | | 48 |
| 1155 Aster Ave | | 44 | | | | 1 | 1 | 24 | | | | | 70 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | 2 | | | | | | | | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 5 | | | | | | 3 | | | | | 8 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | -1 | | | | | | -2 | | | | | -3 |
| 1111, 1139 Karlstad Dr | | -2 | | | | | | 6 | | | | | 4 |
| 1122 Aster Ave | | 6 | | | | | | 4 | | | | | 10 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | -1 | -1 | 1 | | | | 1 | | | | | |
| 1 AMD Place | | 6 | | | -7 | 4 | 2 | 22 | | | 12 | | 39 |
| 617 E. Evelyn Ave | | | | | | 1 | 1 | | | | | | 2 |
| 625 E. Taylor Ave | | | | | 1 | | | | | | | | 1 |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 2 | 1 | 1 | 1 | | | 4 | | | 1 | | 10 |
| 915 De Guigne Dr | | -5 | | | | -2 | 3 | 10 | | | | | 6 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | 7 | | | | | | 2 | | 9 |
| 4301, 4401, 4551 Great America Pkwy | | | | | 7 | | | | | | 2 | | 9 |
| 2620-2727 Augustine Dr | | | | | -2 | | | | | | 18 | | 16 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | 2 | | | | | | 1 | | 3 |
| 3700 El Camino Real | | 10 | | | | | | 7 | | | | | 17 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | | | | | | | | | |
| City Place | | 40 | | | 16 | | | 5 | | | 3 | | 64 |
| 3226 Scott Blvd | | | | | 4 | | | | | | 1 | | 5 |
| 2041 Mission College Blvd | | | | | 2 | | | | | | 2 | | 4 |
| 3100-3200 Coronado Dr | | | | | 4 | | | | | | 1 | | 5 |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | 4 | | | | | | 1 | | 5 |
| 3001 Tasman Dr | | 2 | | | | | | 1 | | | | | 3 |
| Santa Clara LSAP | | 4 | | | 7 | | | 2 | | | | | 13 |
| 2350 & 2305 Mission College Blvd | | | | | 7 | | | | | | 2 | | 9 |
| 3625 Peterson Way | | | | | 9 | | | | | | 2 | | 11 |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 252 | 0 | 2 | 63 | 4 | 7 | 211 | 0 | 0 | 50 | 0 | 589 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 35 | 1356 | 134 | 105 | 555 | 151 | 134 | 636 | 25 | 37 | 312 | 85 | 3565 |
| **Project Trips** | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 0 | 0 | 0 | 70 |
| Existing + Project | 35 | 1109 | 134 | 103 | 492 | 147 | 127 | 490 | 25 | 37 | 262 | 85 | 3046 |
| Background + Project | 35 | 1361 | 134 | 105 | 555 | 151 | 134 | 701 | 25 | 37 | 312 | 85 | 3635 |

Traffix Node Number: 97
Intersection Name: Wolfe Road & Central Expressway Ramps
Peak Hour: PM Date of Analysis: 10/17/19
Count Date: 12/06/17
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 82 | 1333 | 59 | 55 | 0 | 520 | 63 | 500 | 114 | 693 | 4 | 75 | 3498 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 14 | | | | | | 75 | 21 | 4 | | | 114 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 33 | | | | | | 7 | | | | | 40 |
| 1111 Lockheed Martin Way | | 10 | | | | | | 4 | | | | | 14 |
| 1152 Bordeaux Dr | | 17 | | | | | | 2 | | | | | 19 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 1 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 3 | 3 | | | | | 3 | 3 | 3 | | | 15 |
| 445 N Mary Ave | | | | | | | | | 1 | 6 | | | 7 |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | 12 | | | | | | 2 | | | | | 14 |
| 615 N. Mathilda Ave | | 1 | | | | | | | | | | | 1 |
| 623 N Pastoria Ave | | | | | | | | | | 2 | | | 2 |
| 684 W. Maude Ave | | 6 | | | | | | 1 | | | | | 7 |
| 810 W Maude Ave | | 4 | | | | | | 1 | | | | | 5 |
| 901 Kifer Rd | | 2 | | | | | | 13 | 7 | | | | 22 |
| 1120 Kifer Rd | | 33 | | | | 3 | 5 | 15 | 5 | 3 | | | 64 |
| 1155 Aster Ave | | 45 | | | | | | 25 | 9 | 17 | | | 96 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | 2 | | | | | | | | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 5 | | | | 3 | 2 | 3 | 2 | 3 | | | 18 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | -1 | | | | | | -2 | | | | | -3 |
| 1111, 1139 Karlstad Dr | | -2 | | | | | | 6 | | | | | 4 |
| 1122 Aster Ave | | 6 | | | | | | 4 | | | | | 10 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | -1 | | | | | | 1 | 1 | -1 | | | |
| 1 AMD Place | 2 | 4 | 4 | 3 | | | | 15 | | | | 7 | 35 |
| 617 E. Evelyn Ave | | 1 | | | | | | 1 | | | | | 2 |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 2 | | | | | | 4 | | | | | 6 |
| 915 De Guigne Dr | -3 | -4 | | | | | | 5 | | | | 7 | 5 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | 2 | 9 | | | | | | 11 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 10 | | | | | | 7 | | | | | 17 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | | | | | | | | | 9 | 1 | | | 10 |
| City Place | | 40 | | | | | | 5 | | | | | 45 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | 2 | | | | | | 1 | | | | | 3 |
| Santa Clara LSAP | | 4 | | | | | | 2 | 7 | | | | 13 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | -1 | 250 | 7 | 3 | 0 | 8 | 16 | 201 | 65 | 38 | 0 | 14 | 601 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 81 | 1583 | 66 | 58 | 0 | 528 | 79 | 701 | 179 | 731 | 4 | 89 | 4099 |
| **Background Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Project Trips** | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 65 | 31 | 0 | 0 | 0 | 101 |
| Existing + Project | 82 | 1338 | 59 | 55 | 0 | 520 | 63 | 565 | 145 | 693 | 4 | 75 | 3599 |
| Background + Project | 81 | 1588 | 66 | 58 | 0 | 528 | 79 | 766 | 210 | 731 | 4 | 89 | 4200 |
| **Existing + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Background + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |

Traffix Node Number: 44
Intersection Name: Wolfe Road & Kifer Road
Peak Hour: PM
Count Date: 11/14/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 49 | 2367 | 140 | 139 | 301 | 220 | 58 | 402 | 50 | 223 | 298 | 63 | 4310 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | 18 | 96 | 50 | 42 | 8 | | | | 6 | | 220 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 33 | | | | | | 7 | | | | | 40 |
| 1111 Lockheed Martin Way | | 10 | | | | | | 4 | | | | | 14 |
| 1152 Bordeaux Dr | | 17 | | | | | | 2 | | | | | 19 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 1 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 6 | | | | | | 6 | | | | | 12 |
| 445 N Mary Ave | | 6 | | | | | | 1 | | | | | 7 |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | 12 | | | | | | 2 | | | | | 14 |
| 615 N. Mathilda Ave | | 1 | | | | | | | | | | | 1 |
| 623 N Pastoria Ave | | 2 | | | | | | | | | | | 2 |
| 684 W. Maude Ave | | 6 | | | | | | 1 | | | | | 7 |
| 810 W Maude Ave | | 4 | | | | | | 1 | | | | | 5 |
| 901 Kifer Rd | | | 2 | 21 | 5 | 7 | 1 | | | | 1 | | 37 |
| 1120 Kifer Rd | | | 63 | 25 | | 11 | 39 | | | | | | 138 |
| 1155 Aster Ave | | 62 | | | | | | 34 | | | | | 96 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | 2 | | | | | | | | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 10 | | | | 2 | 1 | 6 | | | | | 19 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | -1 | | | | | | -2 | | | | | -3 |
| 1111, 1139 Karlstad Dr | | -2 | | | | | | 6 | | | | | 4 |
| 1122 Aster Ave | | 6 | | | | | | 4 | | | | | 10 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | -1 | -1 | 1 | | | | 1 | | | | | |
| 1 AMD Place | | 4 | | | | -9 | -2 | 15 | | | | | 8 |
| 617 E. Evelyn Ave | | 1 | | | | | | 1 | | | | | 2 |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 1 | 1 | 1 | 1 | | | 3 | | | 1 | | 8 |
| 915 De Guigne Dr | | -4 | | | | | | 5 | | | | | 1 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | 2 | | | | | | 9 | | | | | 11 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | 5 | | | | | | 1 | | 6 |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | 4 | | | | | | 1 | | 5 |
| 3700 El Camino Real | | 10 | | | | | | 7 | | | | | 17 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | 1 | 9 | 6 | 14 | 3 | | | | 1 | | 34 |
| City Place | | 40 | | | 16 | | | 5 | | | 1 | | 62 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | 2 | | | | | | 1 | | | | | 3 |
| Santa Clara LSAP | | | 4 | 9 | | 9 | 20 | | | | | | 42 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 231 | 88 | 162 | 87 | 76 | 70 | 120 | 0 | 0 | 12 | 0 | 846 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 49 | 2598 | 228 | 301 | 388 | 296 | 128 | 522 | 50 | 223 | 310 | 63 | 5156 |
| **Project Trips** | 0 | 0 | 5 | 97 | 100 | 37 | 4 | 0 | 0 | 0 | 7 | 0 | 250 |
| Existing + Project | 49 | 2367 | 145 | 236 | 401 | 257 | 62 | 402 | 50 | 223 | 305 | 63 | 4560 |
| Background + Project | 49 | 2598 | 233 | 398 | 488 | 333 | 132 | 522 | 50 | 223 | 317 | 63 | 5406 |

Traffix Node Number: 64
Intersection Name: Wolfe Road & Evelyn Avenue
Peak Hour: PM Date of Analysis: 10/17/19
Count Date: 11/15/17
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 102 | 2001 | 535 | 85 | 127 | 29 | 53 | 400 | 93 | 114 | 493 | 35 | 4067 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 29 | 12 | 2 | | | | 6 | | | | | 49 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 33 | | | | | | 7 | | | | | 40 |
| 1111 Lockheed Martin Way | | 10 | | | | | | 4 | | | | | 14 |
| 1152 Bordeaux Dr | | 17 | | | | | | 2 | | | | | 19 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 1 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 6 | | | | | | 6 | | | | | 12 |
| 445 N Mary Ave | | 6 | | | | | | 1 | | | 1 | | 8 |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | 12 | | | 2 | | | 2 | | | 9 | | 25 |
| 615 N. Mathilda Ave | | 1 | | | | | | | | | | | 1 |
| 623 N Pastoria Ave | | 2 | | | | | | | | | | | 2 |
| 684 W. Maude Ave | | 6 | | | | | | 1 | | | 2 | | 9 |
| 810 W Maude Ave | | 4 | | | | | | 1 | | | 1 | | 6 |
| 901 Kifer Rd | | 7 | | | | | | 1 | | | | | 8 |
| 1120 Kifer Rd | 17 | 19 | | | | | | 33 | | | | 6 | 75 |
| 1155 Aster Ave | | | 62 | 34 | 5 | | | | | | 9 | | 110 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | 2 | | | | | | | | | 1 | | 3 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 12 | | | | | | 7 | | | | | 19 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | -1 | | | | | | -2 | | | | | -3 |
| 1111, 1139 Karlstad Dr | | -2 | | | | | | 6 | | | | | 4 |
| 1122 Aster Ave | | | 6 | 4 | | | | | | | | | 10 |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | -1 | | | | | | 1 | | | | | |
| 1 AMD Place | | -5 | | | | | | 13 | | | | | 8 |
| 617 E. Evelyn Ave | 1 | | | | | | | | 1 | | | 1 | 3 |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 1 | | | | | | 3 | | | | | 4 |
| 915 De Guigne Dr | | -4 | | | | | | 5 | | | | | 1 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | 2 | | | | | | 9 | | | | | 11 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | | | | | | | | | |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 10 | | | | | | 7 | | | | | 17 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | 5 | 10 | | | | | | 2 | | | | 1 | 18 |
| City Place | | 40 | | | 26 | | | 5 | | | 6 | | 77 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | 2 | | | | | | 1 | | | | | 3 |
| Santa Clara LSAP | | 9 | | | | | | 20 | | | | | 29 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 23 | 229 | 80 | 40 | 33 | 0 | 0 | 142 | 1 | 0 | 29 | 8 | 585 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 125 | 2230 | 615 | 125 | 160 | 29 | 53 | 542 | 94 | 114 | 522 | 43 | 4652 |
| **Project Trips** | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 41 |
| Existing + Project | 102 | 2038 | 535 | 85 | 127 | 29 | 53 | 404 | 93 | 114 | 493 | 35 | 4108 |
| Background + Project | 125 | 2267 | 615 | 125 | 160 | 29 | 53 | 546 | 94 | 114 | 522 | 43 | 4693 |

Traffix Node Number: 45
Intersection Name: Wolfe Road & Reed Avenue
Peak Hour: PM Date of Analysis: 10/17/19
Count Date: 11/14/17
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 192 | 1734 | 191 | 38 | 217 | 102 | 117 | 370 | 99 | 65 | 498 | 76 | 3699 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 29 | | | | | | 6 | | | | | 35 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 33 | | | | | | 7 | | | | | 40 |
| 1111 Lockheed Martin Way | | 10 | | | | | | 4 | | | | | 14 |
| 1152 Bordeaux Dr | | 17 | | | | | | 2 | | | | | 19 |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | 2 | | | | | | 1 | | | | | 3 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | 6 | | | | | | 6 | | | | | 12 |
| 445 N Mary Ave | | 6 | | | | | | 1 | | | | | 7 |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | 12 | | | | | | 2 | | | | | 14 |
| 615 N. Mathilda Ave | | 1 | | | | | | | | | | | 1 |
| 623 N Pastoria Ave | | 2 | | | | | | | | | | | 2 |
| 684 W. Maude Ave | | 6 | | | | | | 1 | | | | | 7 |
| 810 W Maude Ave | | 4 | | | | | | 1 | | | | | 5 |
| 901 Kifer Rd | | 7 | | | | | | 1 | | | | | 8 |
| 1120 Kifer Rd | | 8 | | | | | | 20 | | | | 13 | 41 |
| 1155 Aster Ave | | | | | 9 | 13 | 17 | | | | 17 | | 56 |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | 2 | | | | | | | | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 12 | | | | | | 7 | | | | | 19 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | -1 | | | | | | -2 | | | | | -3 |
| 1111, 1139 Karlstad Dr | | -2 | | | | | | 6 | | | | | 4 |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | 4 | | | | | | 7 | | 11 |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | -1 | | | | | | 1 | | | | | |
| 1 AMD Place | | -5 | | | | | | 13 | | | | | 8 |
| 617 E. Evelyn Ave | | | | | | | | 1 | | | | | 1 |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 1 | | | | | | 3 | | | | | 4 |
| 915 De Guigne Dr | | -4 | | | | | | 5 | | | | | 1 |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | 7 | | | | | | 2 | | 9 |
| 4301, 4401, 4551 Great America Pkwy | 2 | | | | 1 | | | | | | 6 | 9 | 18 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | 19 | | | | | | 4 | | 23 |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | | | | | | | | | |
| 3700 El Camino Real | | 10 | | | | | | 7 | | | | | 17 |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | 5 | 5 | | | 5 | 5 | 1 | 1 | | | 1 | 1 | 24 |
| City Place | | 40 | | | | | | 5 | | | | | 45 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | 1 | | | | | | 1 | | 2 |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | 2 | | | | | | 1 | | | | | 3 |
| Santa Clara LSAP | 2 | 6 | | | 1 | | | 17 | | | 6 | 3 | 35 |
| 2350 & 2305 Mission College Blvd | | | | | 7 | | | | | | 2 | | 9 |
| 3625 Peterson Way | | | | | 9 | | | | | | 2 | | 11 |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 9 | 208 | 0 | 0 | 63 | 18 | 18 | 117 | 0 | 0 | 48 | 26 | 507 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 201 | 1942 | 191 | 38 | 280 | 120 | 135 | 487 | 99 | 65 | 546 | 102 | 4206 |
| **Project Trips** | 0 | 19 | 19 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 42 |
| Existing + Project | 192 | 1753 | 210 | 40 | 217 | 102 | 117 | 372 | 99 | 65 | 498 | 76 | 3741 |
| Background + Project | 201 | 1961 | 210 | 40 | 280 | 120 | 135 | 489 | 99 | 65 | 546 | 102 | 4248 |

| | |
|---|---|
| Traffix Node Number: | 98 |
| Intersection Name: | Commercial Street & Kifer Road |
| Peak Hour: | PM |
| Count Date: | 12/06/17 |
| Scenario: | Intuitive Surgical 2019 |

Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 47 | 0 | 281 | 15 | 533 | 0 | 0 | 0 | 0 | 0 | 542 | 12 | 1430 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | 4 | | 187 | | | | | | 32 | | 223 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | | | | | | | | | | | | |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | | | | | | | | | | | | |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | 33 | | 33 | 6 | | | | | | | | 4 | 76 |
| 1120 Kifer Rd | | | | | 36 | | | | | | 102 | | 138 |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | 2 | | | | | | 1 | | 3 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | 1 | | | | | | -1 | | |
| 1 AMD Place | | | | | -9 | | | | | | -2 | | -11 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | 2 | | | | | | 1 | | 3 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | 5 | | | | | | 1 | | 6 |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | 4 | | | | | | 1 | | 5 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | | | | 29 | | | | | | 6 | | 35 |
| City Place | | | | | 16 | | | | | | 1 | | 17 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | 17 | | | | | | 24 | | 41 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 33 | 0 | 37 | 6 | 290 | 0 | 0 | 0 | 0 | 0 | 166 | 4 | 536 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 80 | 0 | 318 | 21 | 823 | 0 | 0 | 0 | 0 | 0 | 708 | 16 | 1966 |
| **Project Trips** | 0 | 6 | 0 | 28 | 104 | 40 | 181 | 35 | 129 | 15 | 0 | 0 | 538 |
| Existing + Project | 47 | 6 | 281 | 43 | 637 | 40 | 181 | 35 | 129 | 15 | 542 | 12 | 1968 |
| Background + Project | 80 | 6 | 318 | 49 | 927 | 40 | 181 | 35 | 129 | 15 | 708 | 16 | 2504 |
| **Existing + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Background + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |

Traffix Node Number: 67
Intersection Name: Lawrence Expressw & US 101 NB Ramps
Peak Hour: PM
Count Date: 05/23/19
Scenario: Intuitive Surgical 2019

Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 344 | 1883 | 0 | 510 | 0 | 675 | 378 | 2141 | 0 | 0 | 0 | 0 | 5931 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | 10 | 5 | | | | | | 15 |
| 1101 Elko Dr | 1 | 9 | | 6 | | | | 9 | | | | | 25 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | 4 | | | | | 4 | 4 | | | | | 12 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 8 | | | | 12 | | 42 | | | | | 62 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | 2 | | | | | | 2 |
| 1111 Lockheed Martin Way | | 16 | | | | | | 6 | | | | | 22 |
| 1152 Bordeaux Dr | -29 | 46 | | | | | | 6 | | | | | 23 |
| 1194 N. Mathilda Ave | | 10 | | | | | | 2 | | | | | 12 |
| 1230 Oakmead Pkwy | | | | | | 1 | 4 | 1 | | | | | 6 |
| 1260 N Mathilda Ave | | 1 | | | | | | 1 | | | | | 2 |
| 215 Moffett Park Dr | | 13 | | 3 | | | | 4 | | | | | 20 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 23 | | | | | | 4 | | | | | 27 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | 1 | | | | 1 | 7 | 5 | | | | | 14 |
| 1120 Kifer Rd | | 20 | | | | 27 | 4 | 8 | | | | | 59 |
| 1155 Aster Ave | | 26 | | | | 17 | | 14 | | | | | 57 |
| 1250 Lakeside Dr | | 42 | | | | 25 | 32 | 32 | | | | | 131 |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | 2 | | | | | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 5 | | | | 3 | | 3 | | | | | 11 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | 2 | | | | | | 1 | | | | | 3 |
| 1142 Dahlia Ct | | 3 | | | | 5 | | 2 | | | | | 10 |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 32 | | | | 76 | | -14 | | | | | 94 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | | | | |
| 915 De Guigne Dr | | 14 | | | | 27 | | -11 | | | | | 30 |
| 5402 & 5450 Great America Pkwy | | 20 | | | | | | 4 | | | | | 24 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | 6 | | | | | | 1 | | | | | 7 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | 3 | | | | | | 19 | | | | | 22 |
| 5010 Old Ironsides Dr | | 175 | | | | | | 45 | | | | | 220 |
| 3000 Bowers Ave | | 1 | | | | | | 6 | | | | | 7 |
| 3700 El Camino Real | | 31 | | | | | | 20 | | | | | 51 |
| 2950 Lakeside Dr | | 1 | | | | | | 2 | | | | | 3 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | 3 | | | | 8 | 39 | 15 | | | | | 65 |
| City Place | 235 | 150 | | 9 | | 75 | 3 | 56 | | | | | 528 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | 1 | | | | | | | | | | | 1 |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | 3 | | | | | | | 3 |
| 3375 Scott Blvd | | 5 | | | | | | 17 | | | | | 22 |
| 3001 Tasman Dr | | 17 | | | | | | 4 | | | | | 21 |
| Santa Clara LSAP | | 29 | | | | | 33 | 11 | | | | | 73 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | 3 | | | | | 67 | 16 | | | | | 86 |
| 3402 El Camino Real | | | | | | | 4 | | | | | | 4 |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | 5 | | | | | 8 | 5 | | | | | 18 |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 207 | 725 | 0 | 18 | 0 | 290 | 212 | 342 | 0 | 0 | 0 | 0 | 1794 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 551 | 2608 | 0 | 528 | 0 | 965 | 590 | 2483 | 0 | 0 | 0 | 0 | 7725 |
| **Project Trips** | 0 | 6 | 0 | 0 | 0 | 5 | 0 | 62 | 0 | 0 | 0 | 0 | 73 |
| Existing + Project | 344 | 1889 | 0 | 510 | 0 | 680 | 378 | 2203 | 0 | 0 | 0 | 0 | 6004 |
| Background + Project | 551 | 2614 | 0 | 528 | 0 | 970 | 590 | 2545 | 0 | 0 | 0 | 0 | 7798 |

Traffix Node Number: 68
Intersection Name: Lawrence Expressw & US 101 SB Ramps
Peak Hour: PM
Count Date: 05/23/19
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 161 | 2459 | 0 | 0 | 0 | 0 | 352 | 1974 | 0 | 1125 | 0 | 628 | 6699 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | 10 | | | | | 5 | 5 | | 10 | | | 30 |
| 1101 Elko Dr | 9 | | | | | | | 9 | | | | | 18 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | 4 | | | | | | 8 | | 4 | | | 16 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 20 | | | | | 62 | 42 | | | | | 124 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | 2 | | 9 | | | 11 |
| 1111 Lockheed Martin Way | | 16 | | | | | | 6 | | | | | 22 |
| 1152 Bordeaux Dr | | 55 | | | | | | 7 | | | | | 62 |
| 1194 N. Mathilda Ave | | 10 | | | | | | 2 | | | | | 12 |
| 1230 Oakmead Pkwy | | 1 | | | | | | 5 | | 1 | | | 7 |
| 1260 N Mathilda Ave | | 1 | | | | | | 1 | | | | | 2 |
| 215 Moffett Park Dr | | 8 | | | | | | 4 | | | | | 12 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 23 | | | | | | 4 | | | | | 27 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | 2 | | | | | 7 | 12 | | 1 | | | 22 |
| 1120 Kifer Rd | | 47 | | | | | -1 | 12 | | 27 | | | 85 |
| 1155 Aster Ave | | 43 | | | | | 9 | 14 | | | | | 66 |
| 1250 Lakeside Dr | | 68 | | | | | 19 | 64 | | 42 | | | 193 |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | 2 | 2 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 8 | | | | | 2 | 3 | | | | | 13 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | 2 | | | | | | 1 | | | | | 3 |
| 1142 Dahlia Ct | | 8 | | | | | 3 | 5 | | 5 | | | 21 |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | 107 | | | | | 25 | -15 | | 18 | | | 135 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | | | | |
| 915 De Guigne Dr | | 41 | | | | | -21 | -11 | | | | | 9 |
| 5402 & 5450 Great America Pkwy | | 20 | | | | | | 4 | | | | | 24 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | 6 | | | | | | 1 | | | | | 7 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | 3 | | | | | | 19 | | | | | 22 |
| 5010 Old Ironsides Dr | | 175 | | | | | | 36 | | | | 9 | 220 |
| 3000 Bowers Ave | | 1 | | | | | | 6 | | | | | 7 |
| 3700 El Camino Real | | 31 | | | | | | 20 | | | | | 51 |
| 2950 Lakeside Dr | | 1 | | | | | | 2 | | | | | 3 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | 11 | | | | | 39 | 54 | | 8 | | | 112 |
| City Place | 8 | 280 | | | | | 11 | 76 | | 4 | | 8 | 387 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | 1 | | | | | | | | | | | 1 |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | 3 | | | | | 5 | | | | | | 8 |
| 3375 Scott Blvd | | 27 | | | | | | 17 | | | | | 44 |
| 3001 Tasman Dr | | 17 | | | | | | 4 | | | | | 21 |
| Santa Clara LSAP | | 29 | | | | | | 44 | | 85 | | | 158 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | 3 | | | | | | 83 | | 14 | | | 100 |
| 3402 El Camino Real | | | | | | | | 4 | | 5 | | | 9 |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | 5 | | | | | | 13 | | 7 | | | 25 |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 17 | 1087 | 0 | 0 | 0 | 0 | 165 | 563 | 0 | 240 | 0 | 19 | 2091 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 178 | 3546 | 0 | 0 | 0 | 0 | 517 | 2537 | 0 | 1365 | 0 | 647 | 8790 |
| **Background Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Project Trips** | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 109 | 0 | 5 | 0 | 0 | 125 |
| Existing + Project | 161 | 2470 | 0 | 0 | 0 | 0 | 352 | 2083 | 0 | 1130 | 0 | 628 | 6824 |
| Background + Project | 178 | 3557 | 0 | 0 | 0 | 0 | 517 | 2646 | 0 | 1370 | 0 | 647 | 8915 |
| **Existing + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Background + Project Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |

Traffix Node Number: 49
Intersection Name: Lawrence Expressw & Oakmead Parkway
Peak Hour: PM
Count Date: 05/23/19
Scenario: Intuitive Surgical 2019

Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 614 | 2503 | 461 | 301 | 132 | 43 | 52 | 1394 | 208 | 167 | 229 | 509 | 6613 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | 20 | | | | | | | | | 6 | | 10 | 36 |
| 1101 Elko Dr | | | | | | | | 9 | | | | | 9 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | 8 | 8 | 2 | 6 | 6 | | | | 2 | | 32 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 20 | | | | | | 104 | | | | | 124 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 9 | | | | | | 2 | | | | | 11 |
| 1111 Lockheed Martin Way | | 16 | | | | | | 6 | | | | | 22 |
| 1152 Bordeaux Dr | | 55 | | | | | | 7 | | | | | 62 |
| 1194 N. Mathilda Ave | | 10 | | | | | | 2 | | | | | 12 |
| 1230 Oakmead Pkwy | | | 2 | 5 | | 3 | 1 | | | | | | 11 |
| 1260 N Mathilda Ave | | 1 | | | | | | 1 | | | | | 2 |
| 215 Moffett Park Dr | | 8 | | | | | | 4 | | | | | 12 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 23 | | | | | | 4 | | | | | 27 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | 3 | | | | | | 19 | | | | | 22 |
| 1120 Kifer Rd | | 75 | | | | | | 11 | | | | | 86 |
| 1155 Aster Ave | | 43 | | | | | | 23 | | | | | 66 |
| 1250 Lakeside Dr | | | 110 | 84 | | 40 | 53 | | | | | | 287 |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | 1 | | | 1 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 8 | | | | | | 5 | | | | | 13 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | 2 | | | | | | 1 | | | | | 3 |
| 1142 Dahlia Ct | | 13 | | | | | | 8 | | | | | 21 |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | 109 | 16 | | | 3 | | | 6 | 49 | 1 | -5 | 4 | 183 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | 2 | 1 | | | 3 |
| 915 De Guigne Dr | 27 | 14 | | | 3 | | | -4 | 9 | -7 | -3 | -28 | 11 |
| 5402 & 5450 Great America Pkwy | | 20 | | | | | | 4 | | | | | 24 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | 6 | | | | | | | | 7 | 2 | | 1 | 16 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | 3 | | | 1 | | | 19 | 4 | | 1 | | 28 |
| 5010 Old Ironsides Dr | 15 | 146 | 15 | 3 | | | | 30 | | | | 3 | 212 |
| 3000 Bowers Ave | | 1 | | | | | | 6 | | | | | 7 |
| 3700 El Camino Real | | 31 | | | | | | 20 | | | | | 51 |
| 2950 Lakeside Dr | | | 1 | 2 | | | | | | | | | 3 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | 19 | | | | | | 93 | | | | | 112 |
| City Place | 20 | 350 | 9 | 2 | 9 | | 2 | 100 | 9 | 6 | 1 | 8 | 516 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | 1 | | | | | | | | | | | 1 |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | 3 | | | | | | | | | | | 5 | 8 |
| 3375 Scott Blvd | | 3 | 24 | 5 | | | | 12 | | | | | 44 |
| 3001 Tasman Dr | 5 | 12 | | | | | | 3 | | | | 1 | 21 |
| Santa Clara LSAP | | 114 | | | | | | 44 | | | | | 158 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | 5 | 12 | 58 | 9 | | | 25 | | | 2 | | 111 |
| 3402 El Camino Real | | 5 | | | | | | 4 | | | | | 9 |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | 11 | | | | | | 13 | | | | | 24 |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 205 | 1037 | 181 | 167 | 27 | 49 | 62 | 581 | 80 | 10 | -2 | 4 | 2401 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 819 | 3540 | 642 | 468 | 159 | 92 | 114 | 1975 | 288 | 177 | 227 | 513 | 9014 |
| **Background Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Project Trips** | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 156 | 0 | 2 | 0 | 0 | 174 |
| Existing + Project | 614 | 2519 | 461 | 301 | 132 | 43 | 52 | 1550 | 208 | 169 | 229 | 509 | 6787 |
| Background + Project | 819 | 3556 | 642 | 468 | 159 | 92 | 114 | 2131 | 288 | 179 | 227 | 513 | 9188 |

Traffix Node Number: 5611
Intersection Name: Lawrence Expressw & Arques Avenue
Peak Hour: PM
Count Date: 04/04/17
Scenario: Intuitive Surgical 2019
Date of Analysis: 10/17/19

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 140 | 2612 | 137 | 87 | 200 | 360 | 162 | 1276 | 234 | 748 | 544 | 347 | 6847 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | 6 | | | | | | | 10 | | | | 16 |
| 1101 Elko Dr | | | | | | | | 9 | | | | | 9 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | 6 | | | 1 | | | 6 | | | 2 | | 15 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 20 | | | | | | 104 | | | | | 124 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 9 | | | | | | 2 | | | | | 11 |
| 1111 Lockheed Martin Way | | 10 | 6 | 2 | | | | 4 | | | | | 22 |
| 1152 Bordeaux Dr | | 34 | 21 | 3 | | | | 4 | | | | | 62 |
| 1194 N. Mathilda Ave | | 10 | | | | | | 2 | | | | | 12 |
| 1230 Oakmead Pkwy | | 3 | | | | | | 1 | | | | | 4 |
| 1260 N Mathilda Ave | | 1 | | | | | | 1 | | | | | 2 |
| 215 Moffett Park Dr | | 8 | | | | | | 4 | | | | | 12 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | 23 | | | | | | 4 | | | | | 27 |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | 3 | | | | | | 19 | | | | | 22 |
| 1120 Kifer Rd | | 75 | | | | | | 11 | | | | | 86 |
| 1155 Aster Ave | | 43 | | | | | | 23 | | | | | 66 |
| 1250 Lakeside Dr | | 40 | | | | 8 | 11 | 53 | | | | | 112 |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | 1 | | | | | | | | | | | 1 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 8 | | | | | | 5 | | | | | 13 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | 2 | | | | | | 1 | | | | | 3 |
| 1142 Dahlia Ct | | 13 | | | | | | 8 | | | | | 21 |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | 1 | | | | | | -1 | | |
| 1 AMD Place | 16 | -3 | 4 | 22 | 12 | | | 27 | 8 | 1 | | 6 | 93 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | 1 | | | | | | | | 1 |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | 1 | | | 2 | | | 2 | | | 1 | | 6 |
| 915 De Guigne Dr | 14 | -7 | | | 3 | | | 9 | 4 | -10 | -3 | -4 | 6 |
| 5402 & 5450 Great America Pkwy | | 20 | | | | | | 4 | | | | | 24 |
| 2350 & 2305 Mission College Blvd | | | | | 7 | | | | | | 2 | | 9 |
| 4301, 4401, 4551 Great America Pkwy | | | 2 | 7 | 7 | 11 | 2 | | | | 2 | | 31 |
| 2620-2727 Augustine Dr | | | | | -2 | -6 | 42 | | | | 18 | | 52 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | 4 | | | | | | 22 | | | | | 26 |
| 5010 Old Ironsides Dr | | 146 | | | | | | 30 | | | | | 176 |
| 3000 Bowers Ave | | 1 | | | 2 | | | 6 | 2 | | 1 | | 12 |
| 3700 El Camino Real | | 31 | | | | | | 20 | | | | | 51 |
| 2950 Lakeside Dr | | | | | | 2 | 1 | | | | | | 3 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3607 Kifer Rd | | 19 | | | | | | 93 | | | | | 112 |
| City Place | 6 | 385 | 1 | 2 | 1 | 4 | 6 | 80 | 2 | | 5 | 7 | 499 |
| 3226 Scott Blvd | | | | | 4 | | | | | | 1 | | 5 |
| 2041 Mission College Blvd | | 1 | | | 2 | | | | | | 2 | | 5 |
| 3100-3200 Coronado Dr | | | | | 4 | | | | | | 1 | | 5 |
| 1 Great America Pkwy | | | | | | 2 | 4 | | | | | | 6 |
| 3375 Scott Blvd | | | 3 | 12 | 4 | 17 | 4 | | | | 1 | | 41 |
| 3001 Tasman Dr | | 12 | | | | 1 | | 3 | | | | | 16 |
| Santa Clara LSAP | | 114 | | | | | | 44 | 7 | | | | 165 |
| 2350 & 2305 Mission College Blvd | | | | | 7 | | | | | | 2 | | 9 |
| 3625 Peterson Way | | | 5 | 25 | 9 | 36 | 7 | | | | 2 | | 84 |
| 3402 El Camino Real | | 5 | | | | | | 4 | | | | | 9 |
| 3045 Stender Way | | | | | | | 1 | | | | | | 1 |
| 2931 El Camino Real | | 11 | | | | | | 13 | | | | | 24 |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 36 | 1055 | 42 | 73 | 65 | 75 | 78 | 618 | 33 | -9 | 36 | 9 | 2111 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 176 | 3667 | 179 | 160 | 265 | 435 | 240 | 1894 | 267 | 739 | 580 | 356 | 8958 |
| **Project Trips** | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 156 | 0 | 0 | 0 | 0 | 173 |
| Existing + Project | 140 | 2629 | 137 | 87 | 200 | 360 | 162 | 1432 | 234 | 748 | 544 | 347 | 7020 |
| Background + Project | 176 | 3684 | 179 | 160 | 265 | 435 | 240 | 2050 | 267 | 739 | 580 | 356 | 9131 |

Traffix Node Number: 51
Intersection Name: Lawrence Expressw & Kifer Road
Peak Hour: PM
Date of Analysis: 10/17/19
Count Date: 03/07/18
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| INDEX | 7 | 6 | 5 | 13 | 12 | 11 | 4 | 3 | 2 | 10 | 9 | 8 | |
| PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Volume Adjustment | 1.00 | 0.79 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Existing Conditions | 94 | 3497 | 331 | 277 | 179 | 301 | 348 | 1229 | 68 | 652 | 503 | 178 | 7657 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | 6 | | | | | | 10 | | | | | 16 |
| 1101 Elko Dr | | | | | | | | 9 | | | | | 9 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | 6 | | | | | | 6 | | | | | 12 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | 15 | | 13 | | 2 | | 7 | | 8 | 75 | 8 | 146 | 274 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | 9 | | | | | | 2 | | | | | 11 |
| 1111 Lockheed Martin Way | | 10 | | | | | | 4 | | | | | 14 |
| 1152 Bordeaux Dr | | 21 | | | | | | 3 | | | | | 24 |
| 1194 N. Mathilda Ave | | 10 | | | | | | 2 | | | | | 12 |
| 1230 Oakmead Pkwy | | 3 | | | | | | 1 | | | | | 4 |
| 1260 N Mathilda Ave | | 1 | | | | | | 1 | | | | | 2 |
| 215 Moffett Park Dr | | 8 | | | | | | 4 | | | | | 12 |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | 6 | | | | | | 1 | | | | | 7 |
| 589 W. Java Dr | | 23 | | | | | | 4 | | | | | 27 |
| 610 N Mary Ave | | 60 | | | | | | 12 | | | | | 72 |
| 615 N. Mathilda Ave | | 14 | | | | | | | | | | | 14 |
| 623 N Pastoria Ave | | 2 | | | | | | | | | | | 2 |
| 684 W. Maude Ave | | 30 | | | | | | 7 | | | | | 37 |
| 810 W Maude Ave | | 18 | | | | | | 4 | | | | | 22 |
| 901 Kifer Rd | 4 | | | | | | | | 2 | 13 | 1 | 19 | 39 |
| 1120 Kifer Rd | 85 | | | | | -28 | -4 | | 10 | 6 | | 17 | 86 |
| 1155 Aster Ave | | 49 | | | | | | 27 | | | | | 76 |
| 1250 Lakeside Dr | | 32 | | | | | | 42 | | | | | 74 |
| 2502 Town Center Ln | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | 6 | | | | | | 1 | | | | | 7 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 8 | | | | | | 5 | | | | | 13 |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | 2 | | | | | | 1 | | | | | 3 |
| 1142 Dahlia Ct | | 13 | | | | | | 8 | | | | | 21 |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | -1 | | | 1 | | | 1 | | | -1 | | |
| 1 AMD Place | -9 | 4 | | | | | | 22 | | | | -2 | 15 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | 2 | | | 3 | | | 1 | | 6 |
| 915 De Guigne Dr | | -17 | | | | | | 13 | | | | | -4 |
| 5402 & 5450 Great America Pkwy | | 20 | | | | | | 4 | | | | | 24 |
| 2350 & 2305 Mission College Blvd | | 14 | | | | | | 3 | | | | | 17 |
| 4301, 4401, 4551 Great America Pkwy | | 26 | | | | 11 | 2 | 5 | | | | | 44 |
| 2620-2727 Augustine Dr | | -6 | | | | | | 42 | | | | | 36 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | 2 | 24 | | 4 | 2 | 8 | 1 | 8 | | | | | 49 |
| 5010 Old Ironsides Dr | | 146 | | | | | | 30 | | | | | 176 |
| 3000 Bowers Ave | | | | 12 | 4 | 10 | 2 | | | | 1 | | 29 |
| 3700 El Camino Real | | 31 | | | | | | 20 | | | | | 51 |
| 2950 Lakeside Dr | | 2 | | | | | | 1 | | | | | 3 |
| 3607 Kifer Rd | 24 | | | | 3 | | | | 7 | 33 | 23 | 107 | 197 |
| City Place | 7 | 120 | 4 | 8 | | 8 | 5 | 109 | 9 | | | 1 | 271 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | 4 | | | | 1 | 1 | 3 | | | | | 9 |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | 4 | | | | | | 8 | | | | | 12 |
| 3375 Scott Blvd | | 22 | | | | | | 5 | | | | | 27 |
| 3001 Tasman Dr | | 8 | | | | | | 2 | | | | | 10 |
| Santa Clara LSAP | | | 136 | 42 | 17 | 17 | 39 | 5 | | | 41 | 5 | 302 |
| 2350 & 2305 Mission College Blvd | | 14 | | | | | | 3 | | | | | 17 |
| 3625 Peterson Way | | 49 | | | | | | 10 | | | | | 59 |
| 3402 El Camino Real | | 5 | | | | | | 4 | | | | | 9 |
| 3045 Stender Way | | | | | | | | 1 | | | | | 1 |
| 2931 El Camino Real | | 11 | | | | | | 13 | | | | | 24 |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 128 | 817 | 153 | 66 | 31 | 27 | 53 | 469 | 36 | 127 | 74 | 293 | 2274 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 222 | 4314 | 484 | 343 | 210 | 328 | 401 | 1698 | 104 | 779 | 577 | 471 | 9931 |
| **Project Trips** | 24 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 11 | 112 | 59 | 156 | 368 |
| Existing + Project | 118 | 3497 | 331 | 277 | 185 | 301 | 348 | 1229 | 79 | 764 | 562 | 334 | 8025 |
| Background + Project | 246 | 4314 | 484 | 343 | 216 | 328 | 401 | 1698 | 115 | 891 | 636 | 627 | 10299 |

Traffix Node Number: 5613
Intersection Name: Lawrence Expressw& Monroe Street
Peak Hour: PM
Date of Analysis: 10/17/19
Count Date: 03/07/18
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 353 | 3216 | 366 | 195 | 223 | 151 | 202 | 1245 | 161 | 673 | 488 | 240 | 7513 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | 6 | | | | | | 10 | | | | | 16 |
| 1101 Elko Dr | | | | | | | | 9 | | | | | 9 |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | 6 | | | | | | 6 | | | | | 12 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 861 E. El Camino Real | | | | | | | | | | | | | | |
| 1050 Kifer Rd | | 75 | | | | | | 14 | | | | | | 89 |
| 830 W Evelyn Ave | | | | | | | | | | | | | | |
| 1081 Innovation Way | | 9 | | | | | | 2 | | | | | | 11 |
| 1111 Lockheed Martin Way | | 10 | | | | | | 4 | | | | | | 14 |
| 1152 Bordeaux Dr | | 21 | | | | | | 3 | | | | | | 24 |
| 1194 N. Mathilda Ave | | 10 | | | | | | 2 | | | | | | 12 |
| 1230 Oakmead Pkwy | | 3 | | | | | | 1 | | | | | | 4 |
| 1260 N Mathilda Ave | | 1 | | | | | | 1 | | | | | | 2 |
| 215 Moffett Park Dr | | 8 | | | | | | 4 | | | | | | 12 |
| 265 Sobrante Way | | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | | |
| 445 N Mary Ave | | 6 | | | | | | 1 | | | | 1 | | 8 |
| 589 W. Java Dr | | 23 | | | | | | 4 | | | | | | 27 |
| 610 N Mary Ave | | 57 | 3 | 1 | 2 | | | 11 | | | | 9 | | 83 |
| 615 N. Mathilda Ave | | 12 | 2 | | | | | | | | | | | 14 |
| 623 N Pastoria Ave | | 2 | | | | | | | | | | | | 2 |
| 684 W. Maude Ave | | 27 | 4 | 1 | | | | 6 | | | | 2 | | 40 |
| 810 W Maude Ave | | 17 | 2 | 1 | | | | 4 | | | | 1 | | 25 |
| 901 Kifer Rd | | 13 | | | | | | 2 | | | | | | 15 |
| 1120 Kifer Rd | | -17 | | | | | | 7 | | | | | | -10 |
| 1155 Aster Ave | 49 | | | | 2 | | | | 26 | | 14 | 7 | 27 | 125 |
| 1250 Lakeside Dr | | 32 | | | | | | 42 | | | | | | 74 |
| 2502 Town Center Ln | | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | | |
| 520 Almanor Ave | | 5 | 2 | | | | | 1 | | | | 1 | | 9 |
| 675 Almanor Avenue | | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | 8 | | | | | | 5 | | | | | | 13 |
| 223 N Mathilda Ave | | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | | |
| 1122 Aster Ave | 2 | | | | | | | | 1 | | 1 | | 1 | 5 |
| 1142 Dahlia Ct | 12 | 1 | | | 2 | | | 1 | | | | 1 | 7 | 24 |
| 160 Persian Dr | | | | | | | | | | | | | | |
| 370 San Aleso Ave | | -1 | | | | | | 1 | | | | | | |
| 1 AMD Place | | 4 | | | | | | 22 | | | | | | 26 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | 3 | | | | | | 3 |
| 915 De Guigne Dr | | -17 | | | | | | 13 | | | | | | -4 |
| 5402 & 5450 Great America Pkwy | | 20 | | | | | | 4 | | | | | | 24 |
| 2350 & 2305 Mission College Blvd | | 14 | | | 7 | | | 3 | | | | 2 | | 26 |
| 4301, 4401, 4551 Great America Pkwy | | 37 | | | | | | 7 | | | | | | 44 |
| 2620-2727 Augustine Dr | | -6 | | | | | | 42 | | | | | | 36 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | 32 | | | 19 | | | 9 | | | | 4 | | 64 |
| 5010 Old Ironsides Dr | | 146 | | | | | | 30 | | | | | | 176 |
| 3000 Bowers Ave | | 10 | | | | | | 2 | | | | | | 12 |
| 3700 El Camino Real | | 31 | | | | | | 20 | | | | | | 51 |
| 2950 Lakeside Dr | | 2 | | | | | | 1 | | | | | | 3 |
| 3607 Kifer Rd | 10 | 19 | 4 | 1 | | | | 4 | | | | | 2 | 40 |
| City Place | 20 | 101 | 5 | 4 | 6 | | 6 | 59 | 9 | | 2 | 3 | 4 | 219 |
| 3226 Scott Blvd | | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | 4 | | | 1 | | | 4 | | | | 1 | | 10 |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | | |
| 1 Great America Pkwy | | 4 | | | | | | 8 | | | | | | 12 |
| 3375 Scott Blvd | | 22 | | | | | | 5 | | | | | | 27 |
| 3001 Tasman Dr | | 8 | | | | | | 2 | | | | | | 10 |
| Santa Clara LSAP | 1 | 16 | | | | | | 40 | | | | | 6 | 63 |
| 2350 & 2305 Mission College Blvd | | 14 | | | 7 | | | 3 | | | | 2 | | 26 |
| 3625 Peterson Way | 9 | 40 | | | | | | 8 | | | | | 2 | 59 |
| 3402 El Camino Real | | 5 | | | | | | 4 | | | | | | 9 |
| 3045 Stender Way | | | | | | | | 1 | | | | | | 1 |
| 2931 El Camino Real | | 11 | | | | | | 13 | | | | | | 24 |
| 2343 Calle Del Mundo | | | | | | | | | | | | | | |
| *Total Approved Trips* | 103 | 851 | 22 | 8 | 46 | 0 | 6 | 448 | 36 | | 17 | 34 | 49 | 1620 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | | **0** | **0** | **0** | |
| Background Conditions | 456 | 4067 | 388 | 203 | 269 | 151 | 208 | 1693 | 197 | | 690 | 522 | 289 | 9133 |
| **Project Trips** | 0 | 112 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | | 0 | 0 | 0 | 123 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Existing + Project | 353 | 3328 | 366 | 195 | 223 | 151 | 202 | 1256 | 161 | 673 | 488 | 240 | 7636 |
| Background + Project | 456 | 4179 | 388 | 203 | 269 | 151 | 208 | 1704 | 197 | 690 | 522 | 289 | 9256 |

Traffix Node Number: 5325
Intersection Name: Oakmead Parkway & Central Expressway
Peak Hour: PM
Date of Analysis: 10/17/19
Count Date: 11/15/17
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 222 | 293 | 274 | 81 | 1860 | 133 | 105 | 51 | 44 | 83 | 2233 | 32 | 5411 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | 1 | | 4 | 3 | | | | | | | | 1 | 9 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | | | 8 | | | | | | 42 | | 50 |
| 830 W Evelyn Ave | | | | | 1 | | | | | | 1 | | 2 |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | 1 | | | | | | 4 | | 5 |
| 1152 Bordeaux Dr | | | | | 3 | | | | | | 27 | | 30 |
| 1194 N. Mathilda Ave | | | | | 1 | | | | | | 8 | | 9 |
| 1230 Oakmead Pkwy | 1 | | 4 | | | | | | | | | | 5 |
| 1260 N Mathilda Ave | | | | | 1 | | | | | | 1 | | 2 |
| 215 Moffett Park Dr | | | | | 1 | | | | | | 2 | | 3 |
| 265 Sobrante Way | | | | | 9 | | | | | | 49 | | 58 |
| 275 N Mathilda Ave | | | | | 1 | | | | | | 5 | | 6 |
| 824 San Aleso Ave | | | | | 5 | | | | | | 6 | | 11 |
| 445 N Mary Ave | | | | | 3 | | | | | | 17 | | 20 |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | 31 | | | | | | 162 | | 193 |
| 615 N. Mathilda Ave | | | | | -1 | | | | | | 35 | | 34 |
| 623 N Pastoria Ave | | | | | 1 | | | | | | 6 | | 7 |
| 684 W. Maude Ave | | | | | 14 | | | | | | 75 | | 89 |
| 810 W Maude Ave | | | | | 9 | | | | | | 46 | | 55 |
| 901 Kifer Rd | | | | | 1 | | | | | | 7 | | 8 |
| 1120 Kifer Rd | | | | | 10 | | | | | | 6 | | 16 |
| 1155 Aster Ave | | | | | 6 | | | | | | 4 | | 10 |
| 1250 Lakeside Dr | | | 16 | 21 | | | | | | | | | 37 |
| 2502 Town Center Ln | | | | | 59 | | | | | | 59 | | 118 |
| 311 S Mathilda Ave | | | | | 4 | | | | | | 2 | | 6 |
| 520 Almanor Ave | | | | | 4 | | | | | | 29 | | 33 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | 3 | | | | | | 2 | | 5 |
| 223 N Mathilda Ave | | | | | 2 | | | | | | 10 | | 12 |
| 456 W Olive Ave | | | | | -7 | | | | | | -15 | | -22 |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | | -5 | 1 | 17 | | | | | | 7 | | 20 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | | | | |
| 915 De Guigne Dr | | | -3 | 3 | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | 32 | | | | | | 7 | | 39 |
| 4301, 4401, 4551 Great America Pkwy | | | | | 37 | | | | | | 8 | | 45 |
| 2620-2727 Augustine Dr | | | | | -8 | | | | | | 59 | | 51 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | 139 | | | | | | 32 | | 171 |
| 5010 Old Ironsides Dr | 29 | | | | 131 | | | | | | 27 | 6 | 193 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3000 Bowers Ave | | | 1 | | 13 | | | 3 | 6 | | 6 | | 29 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | 1 | | | | | | | | | | | 1 | 2 |
| 3607 Kifer Rd | | | | | 4 | | 4 | | | | 12 | | 20 |
| City Place | | | | | 89 | | | | | | 14 | | 103 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | 7 | | | | | | 8 | | 15 |
| 3100-3200 Coronado Dr | | | | | 13 | | | | | | 3 | | 16 |
| 1 Great America Pkwy | | | | | 5 | | | | | | 8 | | 13 |
| 3375 Scott Blvd | 17 | | | | | | | | | | | 4 | 21 |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | 57 | | | | 63 | 3 | 2 | | | 22 | 20 | 167 |
| 2350 & 2305 Mission College Blvd | | | | | 32 | | | | | | 7 | | 39 |
| 3625 Peterson Way | 36 | | | | | | | | | | | 7 | 43 |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | 2 | | | | | | 1 | | 3 |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 85 | 57 | 17 | 28 | 683 | 63 | 7 | 5 | 6 | 0 | 811 | 39 | 1801 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 307 | 350 | 291 | 109 | 2543 | 196 | 112 | 56 | 50 | 83 | 3044 | 71 | 7212 |
| **Project Trips** | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 62 | 0 | 68 |
| Existing + Project | 222 | 293 | 274 | 81 | 1866 | 133 | 105 | 51 | 44 | 83 | 2295 | 32 | 5479 |
| Background + Project | 307 | 350 | 291 | 109 | 2549 | 196 | 112 | 56 | 50 | 83 | 3106 | 71 | 7280 |

Traffix Node Number: 85
Intersection Name: Corvin Drive & Kifer Road
Peak Hour: PM
Date of Analysis: 10/17/19
Count Date: 11/15/17
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 82 | 0 | 317 | 63 | 400 | 0 | 0 | 0 | 0 | 0 | 1009 | 61 | 1932 |

**Approved Project Trips**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | | | 2 | | | | | | 8 | | 10 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | | | | | | | | | | | | |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | | | | | | | | | | | | |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | | | | | | | 1 | | 1 |
| 1120 Kifer Rd | | | | | -28 | | | | | | -4 | | -32 |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | | | | | | | | | |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | 1 | | | | | | -1 | | |
| 1 AMD Place | | | | | | | | | | | | | |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | 2 | | | | | | 1 | | 3 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | 11 | | | | | | 2 | | 13 |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | 14 | | | | | | 2 | | 16 |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | 47 | | 52 | 6 | | | | | | | | 5 | 110 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | | | | | 3 | | | | | | 19 | 4 | 26 |
| City Place | | | | | 16 | | | | | | 9 | | 25 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | 1 | | | | | | 1 | | 2 |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | 53 | | 1 | 2 | 78 | | | | | | 30 | 7 | 171 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 100 | 0 | 53 | 8 | 100 | 0 | 0 | 0 | 0 | 0 | 68 | 16 | 345 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 182 | 0 | 370 | 71 | 500 | 0 | 0 | 0 | 0 | 0 | 1077 | 77 | 2277 |
| **Project Trips** | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 65 |
| Existing + Project | 82 | 0 | 317 | 63 | 406 | 0 | 0 | 0 | 0 | 0 | 1068 | 61 | 1997 |
| Background + Project | 182 | 0 | 370 | 71 | 506 | 0 | 0 | 0 | 0 | 0 | 1136 | 77 | 2342 |

Traffix Node Number: 5329
Intersection Name: Bowers Avenue & Central Expressway
Peak Hour: PM
Date of Analysis: 10/17/19
Count Date: 11/15/17
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 276 | 885 | 179 | 83 | 1300 | 161 | 327 | 453 | 125 | 187 | 2402 | 135 | 6513 |
| **Existing Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |

**Approved Project Trips**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | 3 | | | | | | 4 | | 7 |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | | | 8 | | | | | | 42 | | 50 |
| 830 W Evelyn Ave | | | | | 1 | | | | | | 1 | | 2 |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | 1 | | | | | | 4 | | 5 |
| 1152 Bordeaux Dr | | | | | 3 | | | | | | 27 | | 30 |
| 1194 N. Mathilda Ave | | | | | 1 | | | | | | 8 | | 9 |
| 1230 Oakmead Pkwy | | | | | | | | | | 1 | 3 | | 4 |
| 1260 N Mathilda Ave | | | | | 1 | | | | | | 1 | | 2 |
| 215 Moffett Park Dr | | | | | 1 | | | | | | 2 | | 3 |
| 265 Sobrante Way | | | | | 9 | | | | | | 49 | | 58 |
| 275 N Mathilda Ave | | | | | 1 | | | | | | 5 | | 6 |
| 824 San Aleso Ave | | | | | 5 | | | | | | 6 | | 11 |
| 445 N Mary Ave | | | | | 3 | | | | | | 17 | | 20 |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | 31 | | | | | | 162 | | 193 |
| 615 N. Mathilda Ave | | | | | -1 | | | | | | 35 | | 34 |
| 623 N Pastoria Ave | | | | | 1 | | | | | | 6 | | 7 |
| 684 W. Maude Ave | | | | | 14 | | | | | | 75 | | 89 |
| 810 W Maude Ave | | | | | 9 | | | | | | 46 | | 55 |
| 901 Kifer Rd | | | | | 1 | | | | | | 7 | | 8 |
| 1120 Kifer Rd | | | | | 10 | | | | | | 6 | | 16 |
| 1155 Aster Ave | | | | | 6 | | | | | | 4 | | 10 |
| 1250 Lakeside Dr | | | | | 21 | | | | | | 16 | | 37 |
| 2502 Town Center Ln | | | | | 59 | | | | | | 59 | | 118 |
| 311 S Mathilda Ave | | | | | 4 | | | | | | 2 | | 6 |
| 520 Almanor Ave | | | | | 4 | | | | | | 29 | | 33 |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | 3 | | | | | | 2 | | 5 |
| 223 N Mathilda Ave | | | | | 2 | | | | | | 10 | | 12 |
| 456 W Olive Ave | | | | | -7 | | | | | | -15 | | -22 |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | -1 | | | 18 | | | 7 | | | 2 | | 26 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | | | | | | | | | |
| 915 De Guigne Dr | | | | | 3 | | | | | | -3 | | |
| 5402 & 5450 Great America Pkwy | | 20 | | | | | | 4 | | | | | 24 |
| 2350 & 2305 Mission College Blvd | 32 | 14 | | | | | | 3 | | | | 7 | 56 |
| 4301, 4401, 4551 Great America Pkwy | 37 | 48 | 15 | 3 | | | | 10 | | | | 8 | 121 |
| 2620-2727 Augustine Dr | -8 | | | | | -4 | | 29 | | | | 59 | 76 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | 4 | 7 | 20 | 111 | | 2 | 27 | 28 | | 32 | | 231 |
| 5010 Old Ironsides Dr | 131 | 168 | 182 | 37 | | | | 34 | | | | 27 | 579 |
| 3000 Bowers Ave | | 24 | | | | 12 | 7 | 85 | | | 32 | 44 | 204 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | 1 | 1 | | | | | | | | | 2 |
| 3607 Kifer Rd | | | | | 4 | | 4 | | | | 15 | | 23 |
| City Place | 3 | 87 | 85 | 8 | 82 | 1 | | 24 | 4 | 5 | 6 | 3 | 308 |
| 3226 Scott Blvd | | | | | | | | 4 | | | | | 4 |
| 2041 Mission College Blvd | | 1 | | | 7 | | | 2 | | | 6 | 1 | 17 |
| 3100-3200 Coronado Dr | | | | | 13 | 29 | | 6 | | | | 3 | 51 |
| 1 Great America Pkwy | 5 | 4 | 1 | 2 | | | | 8 | | | | 8 | 28 |
| 3375 Scott Blvd | | 6 | | | 3 | | | 1 | 1 | | | | 11 |
| 3001 Tasman Dr | | 11 | 1 | | | | | 2 | | | | | 14 |
| Santa Clara LSAP | 13 | 19 | | | 51 | 5 | 2 | 7 | | | 19 | 5 | 121 |
| 2350 & 2305 Mission College Blvd | 32 | 14 | | | | | | 3 | | | | 7 | 56 |
| 3625 Peterson Way | | 13 | | 6 | | | | 3 | | | | | 22 |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | 2 | | | | | | | 1 | 3 |
| 2931 El Camino Real | | 9 | | | | | | 10 | | | | | 19 |
| 2343 Calle Del Mundo | | 1 | | | | | | 2 | | | | | 3 |
| *Total Approved Trips* | 245 | 442 | 292 | 77 | 488 | 43 | 15 | 271 | 33 | 6 | 722 | 173 | 2807 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 521 | 1327 | 471 | 160 | 1788 | 204 | 342 | 724 | 158 | 193 | 3124 | 308 | 9320 |
| **Project Trips** | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 62 | 0 | 68 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Existing + Project | 276 | 885 | 179 | 83 | 1306 | 161 | 327 | 453 | 125 | 187 | 2464 | 135 | 6581 |
| Background + Project | 521 | 1327 | 471 | 160 | 1794 | 204 | 342 | 724 | 158 | 193 | 3186 | 308 | 9388 |

Traffix Node Number: 84
Intersection Name: Bowers Avenue & Kifer Road
Peak Hour: PM
Date of Analysis: 10/17/19
Count Date: 11/15/17
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 154 | 1115 | 84 | 219 | 145 | 147 | 53 | 377 | 43 | 359 | 645 | 353 | 3694 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | | | 2 | | | | | | 8 | | 10 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | | | | | | | | | | | | |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | 1 | | | | | | | | | | | 1 |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | | | | | | | | | | | | |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | | | | | | | 1 | | 1 |
| 1120 Kifer Rd | | | | | -28 | | | | | | -4 | | -32 |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | | | | | | | | | |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | | | | | | | | | |
| 1 AMD Place | | -1 | | | | | | 7 | | | | | 6 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | 2 | | | | | | 1 | | 3 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | 20 | | | | | | 4 | | | | | 24 |
| 2350 & 2305 Mission College Blvd | | 14 | | | | | | 3 | | | | | 17 |
| 4301, 4401, 4551 Great America Pkwy | 11 | 37 | | | | | | 8 | | | | 2 | 58 |
| 2620-2727 Augustine Dr | | -4 | | | | | | 29 | | | | | 25 |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | 4 | 55 | 14 | 29 | 5 | 2 | | | 2 | | 111 |
| 5010 Old Ironsides Dr | | 168 | | | | | | 34 | | | | | 202 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3000 Bowers Ave | | 24 | 42 | | 2 | | | | 8 | 15 | 20 | 58 | 169 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | | | | | 2 | | | | 1 | 6 | 10 | 4 | 23 |
| City Place | 9 | 50 | | 6 | 5 | 2 | | 14 | | 9 | | 4 | 99 |
| 3226 Scott Blvd | | | | | | | | 4 | | | | | 4 |
| 2041 Mission College Blvd | 1 | 1 | | | | | | 1 | | | | 1 | 4 |
| 3100-3200 Coronado Dr | | 29 | | | | | | 6 | | | | | 35 |
| 1 Great America Pkwy | | 4 | | | | | | 8 | | | | | 12 |
| 3375 Scott Blvd | | 6 | | | | | | 2 | | | | | 8 |
| 3001 Tasman Dr | | 8 | 2 | 1 | | | | 2 | | | | | 13 |
| Santa Clara LSAP | 23 | | | | 22 | | | | 34 | 14 | 8 | 9 | 110 |
| 2350 & 2305 Mission College Blvd | | 14 | | | | | | 3 | | | | | 17 |
| 3625 Peterson Way | | 13 | | | | | | 3 | | | | | 16 |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | 9 | | | | | | 10 | | | | | 19 |
| 2343 Calle Del Mundo | | 1 | | | | | | 2 | | | | | 3 |
| *Total Approved Trips* | 44 | 394 | 48 | 62 | 21 | 31 | 5 | 142 | 43 | 44 | 46 | 78 | 958 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 198 | 1509 | 132 | 281 | 166 | 178 | 58 | 519 | 86 | 403 | 691 | 431 | 4652 |
| **Background Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Project Trips** | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 65 |
| Existing + Project | 154 | 1115 | 84 | 219 | 151 | 147 | 53 | 377 | 43 | 359 | 704 | 353 | 3759 |
| Background + Project | 198 | 1509 | 132 | 281 | 172 | 178 | 58 | 519 | 86 | 403 | 750 | 431 | 4717 |

Traffix Node Number: 99
Intersection Name: Semiconductor Drive & Kifer Road
Peak Hour: PM
Date of Analysis: 10/17/19
Count Date: 09/11/18
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 35 | 0 | 96 | 14 | 437 | 0 | 0 | 0 | 0 | 0 | 985 | 8 | 1575 |
| **Approved Project Trips** | | | | | | | | | | | | | |
| 1040 Sunnyvale-Saratoga Rd | | | | | | | | | | | | | |
| 1080 Stewart Dr | | | | | | | | | | | | | |
| 1101 Elko Dr | | | | | | | | | | | | | |
| 1120 Innovation Way | | | | | | | | | | | | | |
| 1235 Bordeaux Dr | | | | | | | | | | | | | |
| 590 W El Camino Real | | | | | | | | | | | | | |
| 696 W El Camino Real | | | | | | | | | | | | | |
| 750 Lakeway Dr | | | | | | | | | | | | | |
| 830 E. El Camino Real | | | | | | | | | | | | | |
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | | | 24 | | | | | | 191 | | 215 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | | | | | | | | | | | | |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | | | | | | | | | | | | |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | 6 | | | | | | 33 | | 39 |
| 1120 Kifer Rd | | | | | 15 | 102 | 37 | | 64 | 53 | | | 271 |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | | | | | | | | | |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | 1 | | | | | | -1 | | |
| 1 AMD Place | | | | | -9 | | | | | | -2 | | -11 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | 2 | | | | | | 1 | | 3 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | 5 | | | | | | 1 | | 6 |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | 4 | | | | | | 1 | | 5 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | 24 | | 114 | 3 | 6 | | | | | | 1 | 5 | 153 |
| City Place | | | | | 16 | | | | | | 1 | | 17 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | 17 | | | | | | 24 | | 41 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 24 | 0 | 114 | 3 | 87 | 102 | 37 | 0 | 64 | 53 | 250 | 5 | 739 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 59 | 0 | 210 | 17 | 524 | 102 | 37 | 0 | 64 | 53 | 1235 | 13 | 2314 |
| **Background Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| **Project Trips** | 0 | 0 | 0 | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 327 | 0 | 368 |
| Existing + Project | 35 | 0 | 96 | 14 | 478 | 0 | 0 | 0 | 0 | 0 | 1312 | 8 | 1943 |
| Background + Project | 59 | 0 | 210 | 17 | 565 | 102 | 37 | 0 | 64 | 53 | 1562 | 13 | 2682 |

Traffix Node Number: 100
Intersection Name: 1020 Kifer Rd Driveway & Kifer Road
Peak Hour: PM
Date of Analysis: 10/17/19
Count Date: 01/00/00
Scenario: Intuitive Surgical 2019

| | Movements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Approach | | | East Approach | | | South Approach | | | West Approach | | | |
| Scenario: | RT | TH | LT | RT | TH | LT | RT | TH | LT | RT | TH | LT | *Total* |
| Existing Conditions | 0 | 0 | 0 | 0 | 548 | 0 | 0 | 0 | 0 | 0 | 823 | 0 | 1371 |

**Approved Project Trips**

1040 Sunnyvale-Saratoga Rd
1080 Stewart Dr
1101 Elko Dr
1120 Innovation Way
1235 Bordeaux Dr
590 W El Camino Real
696 W El Camino Real
750 Lakeway Dr
830 E. El Camino Real

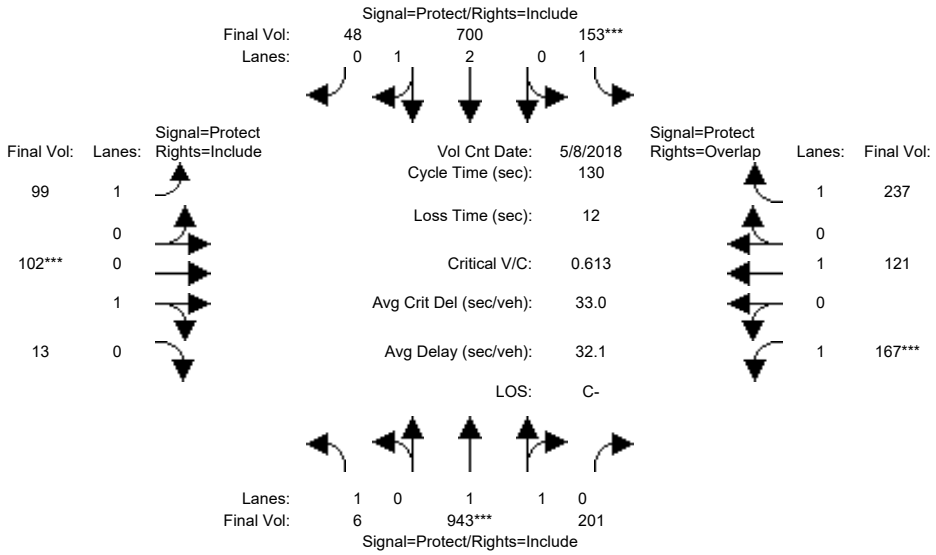
| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 840 E El Camino Real | | | | | | | | | | | | | |
| 861 E. El Camino Real | | | | | | | | | | | | | |
| 1050 Kifer Rd | | | | | | 24 | 144 | | 205 | 29 | | | 402 |
| 830 W Evelyn Ave | | | | | | | | | | | | | |
| 1081 Innovation Way | | | | | | | | | | | | | |
| 1111 Lockheed Martin Way | | | | | | | | | | | | | |
| 1152 Bordeaux Dr | | | | | | | | | | | | | |
| 1194 N. Mathilda Ave | | | | | | | | | | | | | |
| 1230 Oakmead Pkwy | | | | | | | | | | | | | |
| 1260 N Mathilda Ave | | | | | | | | | | | | | |
| 215 Moffett Park Dr | | | | | | | | | | | | | |
| 265 Sobrante Way | | | | | | | | | | | | | |
| 275 N Mathilda Ave | | | | | | | | | | | | | |
| 824 San Aleso Ave | | | | | | | | | | | | | |
| 445 N Mary Ave | | | | | | | | | | | | | |
| 589 W. Java Dr | | | | | | | | | | | | | |
| 610 N Mary Ave | | | | | | | | | | | | | |
| 615 N. Mathilda Ave | | | | | | | | | | | | | |
| 623 N Pastoria Ave | | | | | | | | | | | | | |
| 684 W. Maude Ave | | | | | | | | | | | | | |
| 810 W Maude Ave | | | | | | | | | | | | | |
| 901 Kifer Rd | | | | | | | | | | | | | |
| 1120 Kifer Rd | | | | | 36 | | | | | | 102 | | 138 |
| 1155 Aster Ave | | | | | | | | | | | | | |
| 1250 Lakeside Dr | | | | | | | | | | | | | |
| 2502 Town Center Ln | | | | | | | | | | | | | |
| 311 S Mathilda Ave | | | | | | | | | | | | | |
| 520 Almanor Ave | | | | | | | | | | | | | |
| 675 Almanor Avenue | | | | | | | | | | | | | |
| 803 W El Camino Real | | | | | | | | | | | | | |
| 871 and 895 E Fremont Ave | | | | | | | | | | | | | |
| 223 N Mathilda Ave | | | | | | | | | | | | | |
| 456 W Olive Ave | | | | | | | | | | | | | |
| 1008 E El Camino Real | | | | | | | | | | | | | |
| 1023 N Fair Oaks Ave | | | | | | | | | | | | | |
| 1111, 1139 Karlstad Dr | | | | | | | | | | | | | |
| 1122 Aster Ave | | | | | | | | | | | | | |
| 1142 Dahlia Ct | | | | | | | | | | | | | |
| 160 Persian Dr | | | | | | | | | | | | | |
| 370 San Aleso Ave | | | | | 1 | | | | | | -1 | | |
| 1 AMD Place | | | | | -9 | | | | | | -2 | | -11 |
| 617 E. Evelyn Ave | | | | | | | | | | | | | |
| 625 E. Taylor Ave | | | | | | | | | | | | | |
| 669 Old San Francisco Rd | | | | | | | | | | | | | |
| 728, 740, 750, 760, and 814 San Aleso Ave | | | | | 2 | | | | | | 1 | | 3 |
| 915 De Guigne Dr | | | | | | | | | | | | | |
| 5402 & 5450 Great America Pkwy | | | | | | | | | | | | | |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 4301, 4401, 4551 Great America Pkwy | | | | | | | | | | | | | |
| 2620-2727 Augustine Dr | | | | | | | | | | | | | |
| 2600, 2800 San Tomas Expy & 2400 Condensa St | | | | | 5 | | | | | | 1 | | 6 |
| 5010 Old Ironsides Dr | | | | | | | | | | | | | |
| 3000 Bowers Ave | | | | | 4 | | | | | | 1 | | 5 |
| 3700 El Camino Real | | | | | | | | | | | | | |
| 2950 Lakeside Dr | | | | | | | | | | | | | |
| 3607 Kifer Rd | | | | | 29 | | | | | | 6 | | 35 |
| City Place | | | | | 16 | | | | | | 1 | | 17 |
| 3226 Scott Blvd | | | | | | | | | | | | | |
| 2041 Mission College Blvd | | | | | | | | | | | | | |
| 3100-3200 Coronado Dr | | | | | | | | | | | | | |
| 1 Great America Pkwy | | | | | | | | | | | | | |
| 3375 Scott Blvd | | | | | | | | | | | | | |
| 3001 Tasman Dr | | | | | | | | | | | | | |
| Santa Clara LSAP | | | | | 17 | | | | | | 24 | | 41 |
| 2350 & 2305 Mission College Blvd | | | | | | | | | | | | | |
| 3625 Peterson Way | | | | | | | | | | | | | |
| 3402 El Camino Real | | | | | | | | | | | | | |
| 3045 Stender Way | | | | | | | | | | | | | |
| 2931 El Camino Real | | | | | | | | | | | | | |
| 2343 Calle Del Mundo | | | | | | | | | | | | | |
| *Total Approved Trips* | 0 | 0 | 0 | 0 | 101 | 24 | 144 | 0 | 205 | 29 | 133 | 0 | 636 |
| **Approved Trips Check** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | |
| Background Conditions | 0 | 0 | 0 | 0 | 649 | 24 | 144 | 0 | 205 | 29 | 956 | 0 | 2007 |
| **Project Trips** | 161 | 0 | 177 | 42 | -1 | 0 | 0 | 0 | 0 | 0 | 150 | 22 | 551 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Existing + Project | 161 | 0 | 177 | 42 | 547 | 0 | 0 | 0 | 0 | 0 | 973 | 22 | 1922 |
| Background + Project | 161 | 0 | 177 | 42 | 648 | 24 | 144 | 0 | 205 | 29 | 1106 | 22 | 2558 |

# Appendix C
## Level of Service Calculations

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

Intersection #41: Fair Oaks Ave & Duane Ave

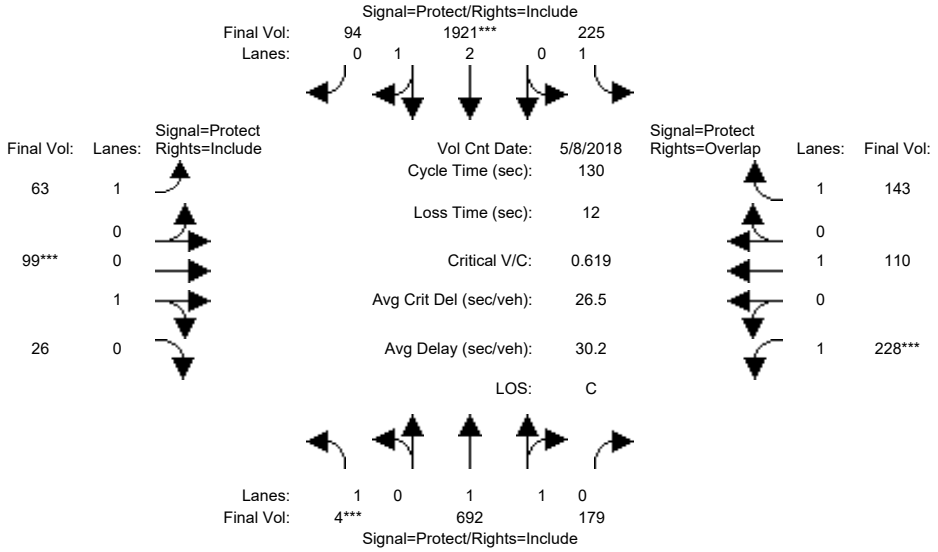



| Street Name: | Fair Oaks Ave | | | | | | Duane Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 6 | 943 | 201 | 153 | 700 | 48 | 99 | 102 | 13 | 167 | 121 | 237 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 6 | 943 | 201 | 153 | 700 | 48 | 99 | 102 | 13 | 167 | 121 | 237 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 6 | 943 | 201 | 153 | 700 | 48 | 99 | 102 | 13 | 167 | 121 | 237 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 6 | 943 | 201 | 153 | 700 | 48 | 99 | 102 | 13 | 167 | 121 | 237 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 6 | 943 | 201 | 153 | 700 | 48 | 99 | 102 | 13 | 167 | 121 | 237 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 6 | 943 | 201 | 153 | 700 | 48 | 99 | 102 | 13 | 167 | 121 | 237 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.64 | 0.36 | 1.00 | 2.80 | 0.20 | 1.00 | 0.89 | 0.11 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 3049 | 650 | 1750 | 5240 | 359 | 1750 | 1597 | 203 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.31 | 0.31 | 0.09 | 0.13 | 0.13 | 0.06 | 0.06 | 0.06 | 0.10 | 0.06 | 0.14 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 24.2 | 65.6 | 65.6 | 18.6 | 60.0 | 60.0 | 14.3 | 13.6 | 13.6 | 20.3 | 19.5 | 38.0 |
| Volume/Cap: | 0.02 | 0.61 | 0.61 | 0.61 | 0.29 | 0.29 | 0.51 | 0.61 | 0.61 | 0.61 | 0.42 | 0.46 |
| Uniform Del: | 43.2 | 23.1 | 23.1 | 52.3 | 21.8 | 21.8 | 54.5 | 55.7 | 55.7 | 51.2 | 50.2 | 37.6 |
| IncremntDel: | 0.0 | 0.6 | 0.6 | 4.4 | 0.1 | 0.1 | 2.3 | 5.9 | 5.9 | 4.1 | 1.0 | 0.7 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 43.2 | 23.7 | 23.7 | 56.8 | 21.8 | 21.8 | 56.9 | 61.6 | 61.6 | 55.3 | 51.2 | 38.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 43.2 | 23.7 | 23.7 | 56.8 | 21.8 | 21.8 | 56.9 | 61.6 | 61.6 | 55.3 | 51.2 | 38.3 |
| LOS by Move: | D | C | C | E+ | C+ | C+ | E+ | E | E | E+ | D- | D+ |
| HCM2kAvgQ: | 0 | 16 | 16 | 6 | 6 | 6 | 5 | 6 | 6 | 8 | 5 | 8 |

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

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

Intersection #41: Fair Oaks Ave & Duane Ave

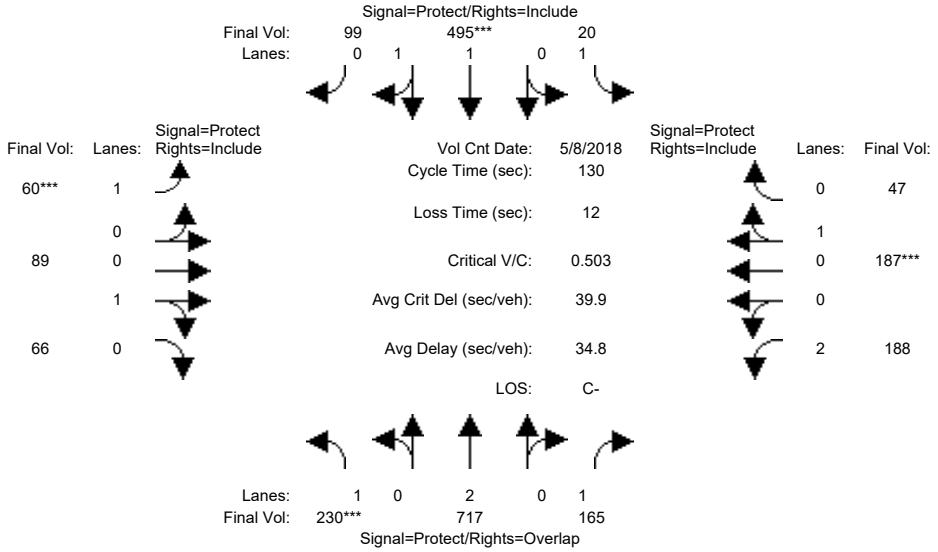



| Street Name: | Fair Oaks Ave | | | | | | Duane Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 4 | 692 | 179 | 225 | 1921 | 94 | 63 | 99 | 26 | 228 | 110 | 143 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 4 | 692 | 179 | 225 | 1921 | 94 | 63 | 99 | 26 | 228 | 110 | 143 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 4 | 692 | 179 | 225 | 1921 | 94 | 63 | 99 | 26 | 228 | 110 | 143 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 4 | 692 | 179 | 225 | 1921 | 94 | 63 | 99 | 26 | 228 | 110 | 143 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 4 | 692 | 179 | 225 | 1921 | 94 | 63 | 99 | 26 | 228 | 110 | 143 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 4 | 692 | 179 | 225 | 1921 | 94 | 63 | 99 | 26 | 228 | 110 | 143 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.58 | 0.42 | 1.00 | 2.85 | 0.15 | 1.00 | 0.79 | 0.21 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 2939 | 760 | 1750 | 5338 | 261 | 1750 | 1426 | 374 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.24 | 0.24 | 0.13 | 0.36 | 0.36 | 0.04 | 0.07 | 0.07 | 0.13 | 0.06 | 0.08 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.0 | 50.7 | 50.7 | 27.7 | 71.4 | 71.4 | 16.3 | 13.8 | 13.8 | 25.8 | 23.3 | 51.0 |
| Volume/Cap: | 0.04 | 0.60 | 0.60 | 0.60 | 0.66 | 0.66 | 0.29 | 0.66 | 0.66 | 0.66 | 0.32 | 0.21 |
| Uniform Del: | 58.3 | 31.6 | 31.6 | 46.2 | 20.6 | 20.6 | 51.6 | 55.8 | 55.8 | 48.0 | 46.5 | 26.1 |
| IncremntDel: | 0.2 | 0.7 | 0.7 | 2.8 | 0.5 | 0.5 | 0.7 | 8.0 | 8.0 | 4.5 | 0.6 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 58.5 | 32.4 | 32.4 | 49.0 | 21.2 | 21.2 | 52.3 | 63.8 | 63.8 | 52.5 | 47.0 | 26.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 58.5 | 32.4 | 32.4 | 49.0 | 21.2 | 21.2 | 52.3 | 63.8 | 63.8 | 52.5 | 47.0 | 26.3 |
| LOS by Move: | E+ | C- | C- | D | C+ | C+ | D- | E | E | D- | D | C |
| HCM2kAvgQ: | 0 | 14 | 14 | 9 | 19 | 19 | 3 | 6 | 6 | 10 | 4 | 4 |

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

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

Intersection #42: Fair Oaks Ave & Arques Ave

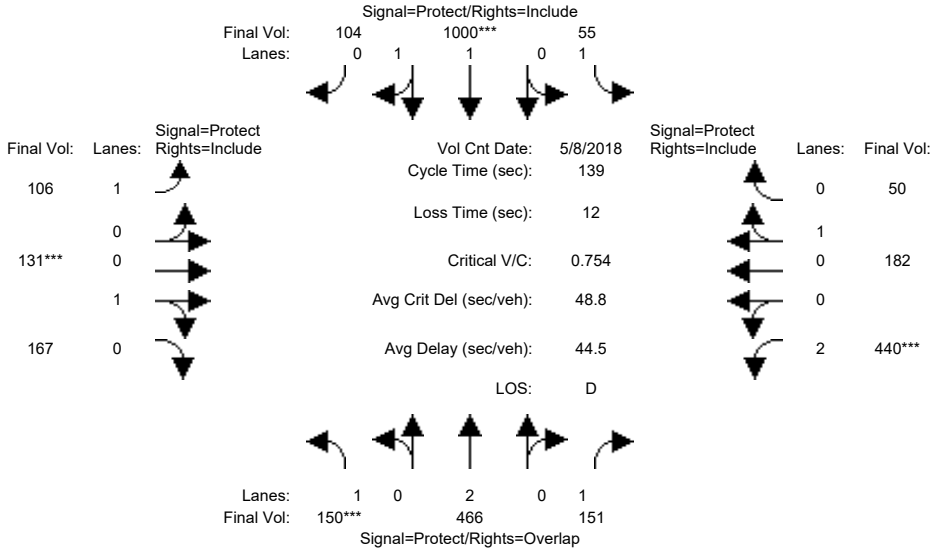



| Street Name: | Fair Oaks Ave | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:15 AM - 9:15 AM | | | | | | | | | | | | |
| Base Vol: | 230 | 717 | 165 | 20 | 495 | 99 | 60 | 89 | 66 | 188 | 187 | 47 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 230 | 717 | 165 | 20 | 495 | 99 | 60 | 89 | 66 | 188 | 187 | 47 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 230 | 717 | 165 | 20 | 495 | 99 | 60 | 89 | 66 | 188 | 187 | 47 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 230 | 717 | 165 | 20 | 495 | 99 | 60 | 89 | 66 | 188 | 187 | 47 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 230 | 717 | 165 | 20 | 495 | 99 | 60 | 89 | 66 | 188 | 187 | 47 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 230 | 717 | 165 | 20 | 495 | 99 | 60 | 89 | 66 | 188 | 187 | 47 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.83 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 1.66 | 0.34 | 1.00 | 0.57 | 0.43 | 2.00 | 0.80 | 0.20 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3083 | 617 | 1750 | 1034 | 766 | 3150 | 1438 | 362 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.19 | 0.09 | 0.01 | 0.16 | 0.16 | 0.03 | 0.09 | 0.09 | 0.06 | 0.13 | 0.13 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 34.0 | 58.7 | 76.1 | 16.8 | 41.5 | 41.5 | 8.9 | 25.1 | 25.1 | 17.4 | 33.6 | 33.6 |
| Volume/Cap: | 0.50 | 0.42 | 0.16 | 0.09 | 0.50 | 0.50 | 0.50 | 0.45 | 0.45 | 0.45 | 0.50 | 0.50 |
| Uniform Del: | 40.8 | 24.1 | 12.3 | 49.9 | 35.9 | 35.9 | 58.4 | 46.3 | 46.3 | 51.9 | 41.1 | 41.1 |
| IncremntDel: | 0.9 | 0.2 | 0.1 | 0.2 | 0.3 | 0.3 | 3.4 | 0.9 | 0.9 | 0.8 | 0.9 | 0.9 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 41.7 | 24.2 | 12.4 | 50.1 | 36.2 | 36.2 | 61.8 | 47.2 | 47.2 | 52.6 | 41.9 | 41.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 41.7 | 24.2 | 12.4 | 50.1 | 36.2 | 36.2 | 61.8 | 47.2 | 47.2 | 52.6 | 41.9 | 41.9 |
| LOS by Move: | D | C | B | D | D+ | D+ | E | D | D | D- | D | D |
| HCM2kAvgQ: | 8 | 9 | 3 | 1 | 10 | 10 | 3 | 6 | 6 | 4 | 8 | 8 |

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

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

Intersection #42: Fair Oaks Ave & Arques Ave

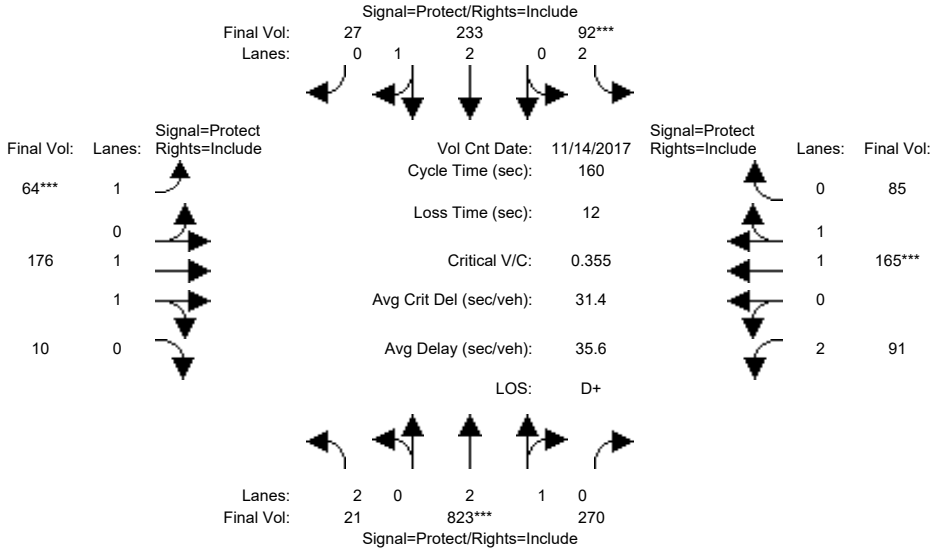



| Street Name: | Fair Oaks Ave | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 150 | 466 | 151 | 55 | 1000 | 104 | 106 | 131 | 167 | 440 | 182 | 50 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 150 | 466 | 151 | 55 | 1000 | 104 | 106 | 131 | 167 | 440 | 182 | 50 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 150 | 466 | 151 | 55 | 1000 | 104 | 106 | 131 | 167 | 440 | 182 | 50 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 150 | 466 | 151 | 55 | 1000 | 104 | 106 | 131 | 167 | 440 | 182 | 50 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 150 | 466 | 151 | 55 | 1000 | 104 | 106 | 131 | 167 | 440 | 182 | 50 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 150 | 466 | 151 | 55 | 1000 | 104 | 106 | 131 | 167 | 440 | 182 | 50 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.83 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 1.81 | 0.19 | 1.00 | 0.44 | 0.56 | 2.00 | 0.78 | 0.22 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3351 | 349 | 1750 | 791 | 1009 | 3150 | 1412 | 388 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.12 | 0.09 | 0.03 | 0.30 | 0.30 | 0.06 | 0.17 | 0.17 | 0.14 | 0.13 | 0.13 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 15.8 | 50.2 | 75.9 | 20.6 | 55.0 | 55.0 | 18.0 | 30.5 | 30.5 | 25.7 | 38.3 | 38.3 |
| Volume/Cap: | 0.75 | 0.34 | 0.16 | 0.21 | 0.75 | 0.75 | 0.47 | 0.75 | 0.75 | 0.75 | 0.47 | 0.47 |
| Uniform Del: | 59.7 | 32.4 | 15.7 | 52.1 | 36.2 | 36.2 | 56.1 | 50.7 | 50.7 | 53.6 | 41.9 | 41.9 |
| IncremntDel: | 15.1 | 0.1 | 0.1 | 0.4 | 2.3 | 2.3 | 1.5 | 8.0 | 8.0 | 5.6 | 0.7 | 0.7 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 74.8 | 32.5 | 15.8 | 52.5 | 38.5 | 38.5 | 57.6 | 58.8 | 58.8 | 59.2 | 42.6 | 42.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 74.8 | 32.5 | 15.8 | 52.5 | 38.5 | 38.5 | 57.6 | 58.8 | 58.8 | 59.2 | 42.6 | 42.6 |
| LOS by Move: | E | C- | B | D- | D+ | D+ | E+ | E+ | E+ | E+ | D | D |
| HCM2kAvgQ: | 7 | 7 | 3 | 2 | 22 | 22 | 5 | 14 | 14 | 11 | 8 | 8 |

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

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

Intersection #43: Wolfe Rd & Arques Ave

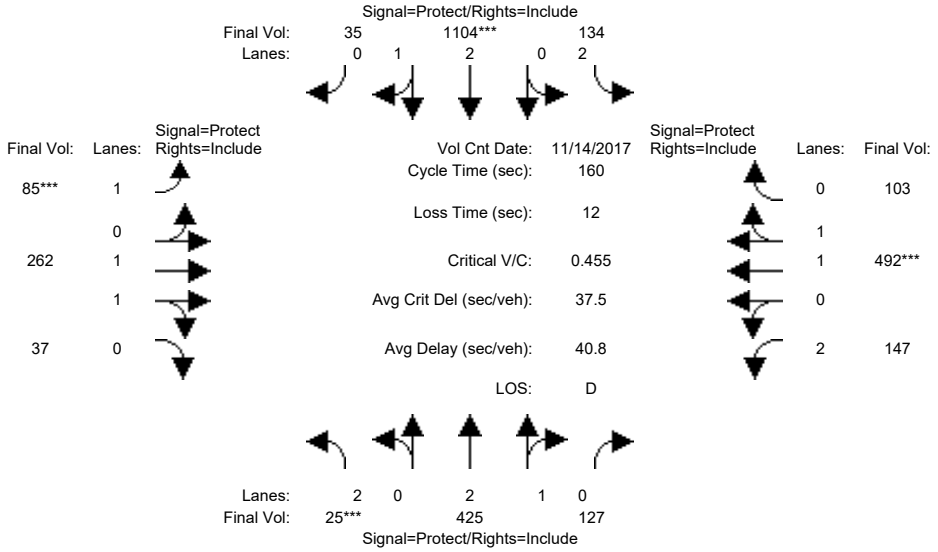



| Street Name: | Wolfe Rd | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 21 | 823 | 270 | 92 | 233 | 27 | 64 | 176 | 10 | 91 | 165 | 85 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 21 | 823 | 270 | 92 | 233 | 27 | 64 | 176 | 10 | 91 | 165 | 85 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 21 | 823 | 270 | 92 | 233 | 27 | 64 | 176 | 10 | 91 | 165 | 85 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 21 | 823 | 270 | 92 | 233 | 27 | 64 | 176 | 10 | 91 | 165 | 85 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 21 | 823 | 270 | 92 | 233 | 27 | 64 | 176 | 10 | 91 | 165 | 85 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 21 | 823 | 270 | 92 | 233 | 27 | 64 | 176 | 10 | 91 | 165 | 85 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 |
| Lanes: | 2.00 | 2.23 | 0.77 | 2.00 | 2.68 | 0.32 | 1.00 | 1.89 | 0.11 | 2.00 | 1.30 | 0.70 |
| Final Sat.: | 3150 | 4215 | 1383 | 3150 | 5018 | 581 | 1750 | 3501 | 199 | 3150 | 2441 | 1258 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.20 | 0.20 | 0.03 | 0.05 | 0.05 | 0.04 | 0.05 | 0.05 | 0.03 | 0.07 | 0.07 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 41.6 | 87.9 | 87.9 | 13.2 | 59.5 | 59.5 | 16.5 | 27.6 | 27.6 | 19.3 | 30.4 | 30.4 |
| Volume/Cap: | 0.03 | 0.36 | 0.36 | 0.36 | 0.12 | 0.12 | 0.36 | 0.29 | 0.29 | 0.24 | 0.36 | 0.36 |
| Uniform Del: | 44.1 | 20.2 | 20.2 | 69.4 | 33.1 | 33.1 | 66.8 | 57.7 | 57.7 | 63.7 | 56.3 | 56.3 |
| IncremntDel: | 0.0 | 0.1 | 0.1 | 0.8 | 0.0 | 0.0 | 1.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 44.1 | 20.2 | 20.2 | 70.3 | 33.2 | 33.2 | 68.0 | 57.9 | 57.9 | 64.0 | 56.6 | 56.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 44.1 | 20.2 | 20.2 | 70.3 | 33.2 | 33.2 | 68.0 | 57.9 | 57.9 | 64.0 | 56.6 | 56.6 |
| LOS by Move: | D | C+ | C+ | E | C- | C- | E | E+ | E+ | E | E+ | E+ |
| HCM2kAvgQ: | 0 | 10 | 10 | 3 | 3 | 3 | 3 | 4 | 4 | 2 | 5 | 5 |

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

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

Intersection #43: Wolfe Rd & Arques Ave

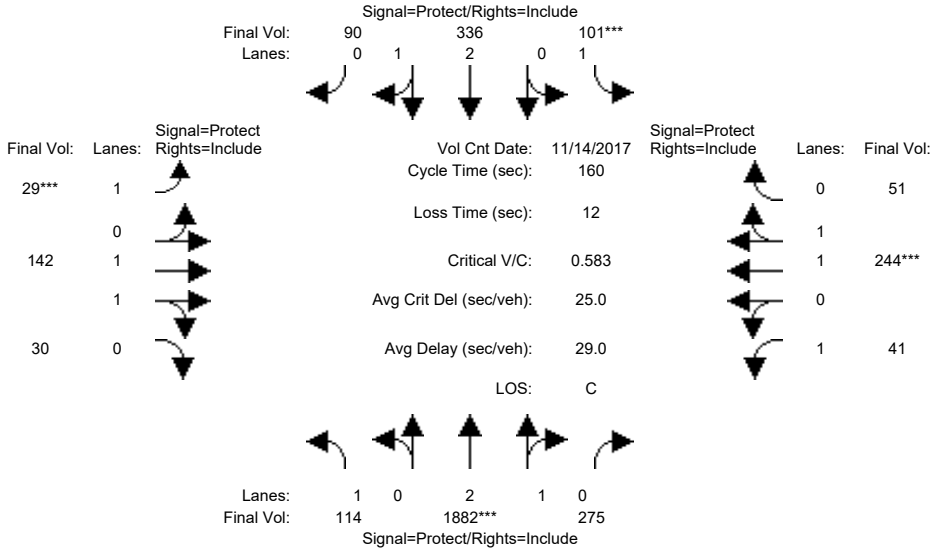



| Street Name: | Wolfe Rd | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 25 | 425 | 127 | 134 | 1104 | 35 | 85 | 262 | 37 | 147 | 492 | 103 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 25 | 425 | 127 | 134 | 1104 | 35 | 85 | 262 | 37 | 147 | 492 | 103 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 25 | 425 | 127 | 134 | 1104 | 35 | 85 | 262 | 37 | 147 | 492 | 103 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 25 | 425 | 127 | 134 | 1104 | 35 | 85 | 262 | 37 | 147 | 492 | 103 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 25 | 425 | 127 | 134 | 1104 | 35 | 85 | 262 | 37 | 147 | 492 | 103 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 25 | 425 | 127 | 134 | 1104 | 35 | 85 | 262 | 37 | 147 | 492 | 103 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 0.98 | 0.95 |
| Lanes: | 2.00 | 2.28 | 0.72 | 2.00 | 2.90 | 0.10 | 1.00 | 1.75 | 0.25 | 2.00 | 1.64 | 0.36 |
| Final Sat.: | 3150 | 4310 | 1288 | 3150 | 5428 | 172 | 1750 | 3242 | 458 | 3150 | 3059 | 640 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.10 | 0.10 | 0.04 | 0.20 | 0.20 | 0.05 | 0.08 | 0.08 | 0.05 | 0.16 | 0.16 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 7.0 | 53.0 | 53.0 | 23.5 | 69.5 | 69.5 | 16.6 | 45.3 | 45.3 | 26.2 | 54.9 | 54.9 |
| Volume/Cap: | 0.18 | 0.30 | 0.30 | 0.29 | 0.47 | 0.47 | 0.47 | 0.29 | 0.29 | 0.29 | 0.47 | 0.47 |
| Uniform Del: | 73.7 | 39.7 | 39.7 | 60.8 | 32.1 | 32.1 | 67.6 | 44.7 | 44.7 | 58.7 | 41.1 | 41.1 |
| IncremntDel: | 0.6 | 0.1 | 0.1 | 0.3 | 0.1 | 0.1 | 1.9 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 74.4 | 39.8 | 39.8 | 61.2 | 32.3 | 32.3 | 69.5 | 44.8 | 44.8 | 59.0 | 41.4 | 41.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 74.4 | 39.8 | 39.8 | 61.2 | 32.3 | 32.3 | 69.5 | 44.8 | 44.8 | 59.0 | 41.4 | 41.4 |
| LOS by Move: | E | D | D | E | C- | C- | E | D | D | E+ | D | D |
| HCM2kAvgQ: | 1 | 6 | 6 | 3 | 13 | 13 | 4 | 5 | 5 | 4 | 11 | 11 |

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

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

Intersection #44: Wolfe Rd & Kifer Rd

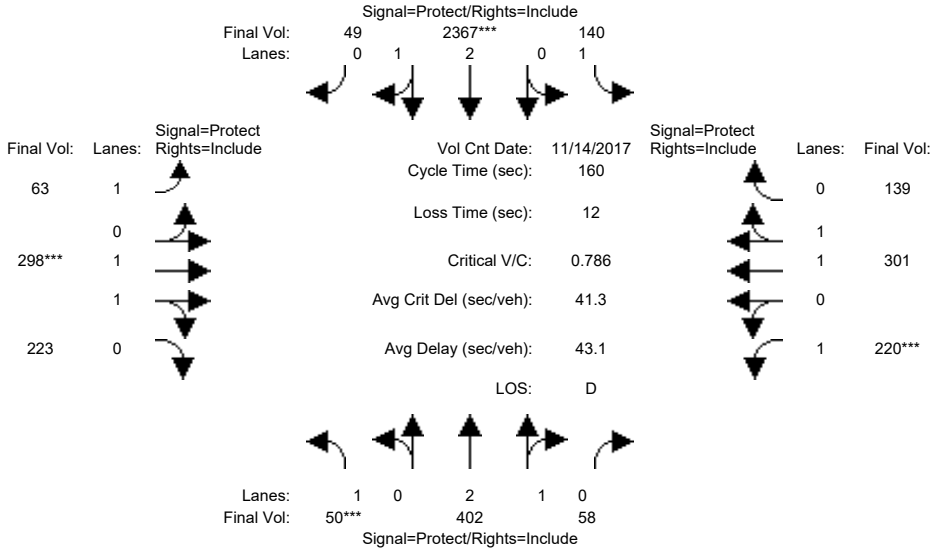



| Street Name: | Wolfe Rd | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00AM | | | | | | | | | | | | |
| Base Vol: | 114 | 1882 | 275 | 101 | 336 | 90 | 29 | 142 | 30 | 41 | 244 | 51 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 114 | 1882 | 275 | 101 | 336 | 90 | 29 | 142 | 30 | 41 | 244 | 51 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 114 | 1882 | 275 | 101 | 336 | 90 | 29 | 142 | 30 | 41 | 244 | 51 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 114 | 1882 | 275 | 101 | 336 | 90 | 29 | 142 | 30 | 41 | 244 | 51 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 114 | 1882 | 275 | 101 | 336 | 90 | 29 | 142 | 30 | 41 | 244 | 51 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 114 | 1882 | 275 | 101 | 336 | 90 | 29 | 142 | 30 | 41 | 244 | 51 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 1.00 | 2.60 | 0.40 | 1.00 | 2.34 | 0.66 | 1.00 | 1.64 | 0.36 | 1.00 | 1.64 | 0.36 |
| Final Sat.: | 1750 | 4885 | 714 | 1750 | 4415 | 1183 | 1750 | 3054 | 645 | 1750 | 3060 | 640 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.39 | 0.39 | 0.06 | 0.08 | 0.08 | 0.02 | 0.05 | 0.05 | 0.02 | 0.08 | 0.08 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 55.1 | 104 | 103.9 | 15.6 | 64.4 | 64.4 | 7.0 | 16.8 | 16.8 | 11.7 | 21.5 | 21.5 |
| Volume/Cap: | 0.19 | 0.59 | 0.59 | 0.59 | 0.19 | 0.19 | 0.38 | 0.44 | 0.44 | 0.32 | 0.59 | 0.59 |
| Uniform Del: | 36.8 | 16.0 | 16.0 | 69.2 | 30.9 | 30.9 | 74.4 | 67.2 | 67.2 | 70.3 | 65.1 | 65.1 |
| IncremntDel: | 0.2 | 0.3 | 0.3 | 5.5 | 0.0 | 0.0 | 3.1 | 0.8 | 0.8 | 1.4 | 1.9 | 1.9 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 36.9 | 16.3 | 16.3 | 74.7 | 31.0 | 31.0 | 77.5 | 68.0 | 68.0 | 71.8 | 67.1 | 67.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 36.9 | 16.3 | 16.3 | 74.7 | 31.0 | 31.0 | 77.5 | 68.0 | 68.0 | 71.8 | 67.1 | 67.1 |
| LOS by Move: | D+ | B | B | E | C | C | E- | E | E | E | E | E |
| HCM2kAvgQ: | 4 | 20 | 20 | 5 | 4 | 4 | 1 | 4 | 4 | 2 | 7 | 7 |

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

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

Intersection #44: Wolfe Rd & Kifer Rd

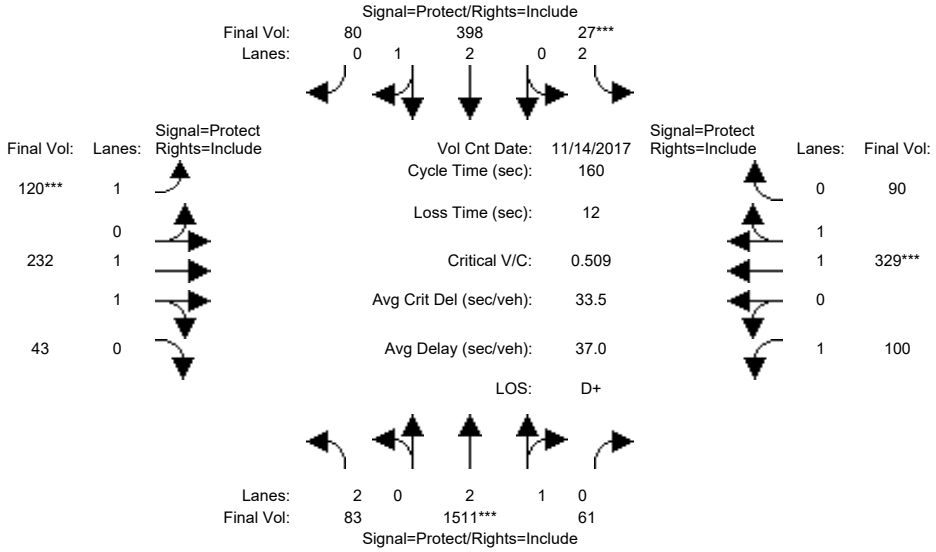



| Street Name: | Wolfe Rd | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 50 | 402 | 58 | 140 | 2367 | 49 | 63 | 298 | 223 | 220 | 301 | 139 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 50 | 402 | 58 | 140 | 2367 | 49 | 63 | 298 | 223 | 220 | 301 | 139 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 50 | 402 | 58 | 140 | 2367 | 49 | 63 | 298 | 223 | 220 | 301 | 139 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 50 | 402 | 58 | 140 | 2367 | 49 | 63 | 298 | 223 | 220 | 301 | 139 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 50 | 402 | 58 | 140 | 2367 | 49 | 63 | 298 | 223 | 220 | 301 | 139 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 50 | 402 | 58 | 140 | 2367 | 49 | 63 | 298 | 223 | 220 | 301 | 139 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 2.61 | 0.39 | 1.00 | 2.94 | 0.06 | 1.00 | 1.12 | 0.88 | 1.00 | 1.35 | 0.65 |
| Final Sat.: | 1750 | 4893 | 706 | 1750 | 5486 | 114 | 1750 | 2115 | 1583 | 1750 | 2530 | 1168 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.08 | 0.08 | 0.08 | 0.43 | 0.43 | 0.04 | 0.14 | 0.14 | 0.13 | 0.12 | 0.12 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 7.0 | 47.7 | 47.7 | 46.4 | 87.1 | 87.1 | 14.5 | 28.5 | 28.5 | 25.4 | 39.4 | 39.4 |
| Volume/Cap: | 0.65 | 0.28 | 0.28 | 0.28 | 0.79 | 0.79 | 0.40 | 0.79 | 0.79 | 0.79 | 0.48 | 0.48 |
| Uniform Del: | 75.3 | 42.9 | 42.9 | 43.8 | 29.2 | 29.2 | 68.6 | 62.9 | 62.9 | 64.8 | 51.6 | 51.6 |
| IncremntDel: | 18.4 | 0.1 | 0.1 | 0.3 | 1.5 | 1.5 | 1.6 | 6.5 | 6.5 | 14.3 | 0.4 | 0.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 93.7 | 43.0 | 43.0 | 44.1 | 30.7 | 30.7 | 70.3 | 69.5 | 69.5 | 79.1 | 52.0 | 52.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 93.7 | 43.0 | 43.0 | 44.1 | 30.7 | 30.7 | 70.3 | 69.5 | 69.5 | 79.1 | 52.0 | 52.0 |
| LOS by Move: | F | D | D | D | C | C | E | E | E | E- | D- | D- |
| HCM2kAvgQ: | 3 | 6 | 6 | 5 | 30 | 30 | 3 | 13 | 13 | 12 | 9 | 9 |

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

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

Intersection #45: Wolfe Rd & Reed Ave

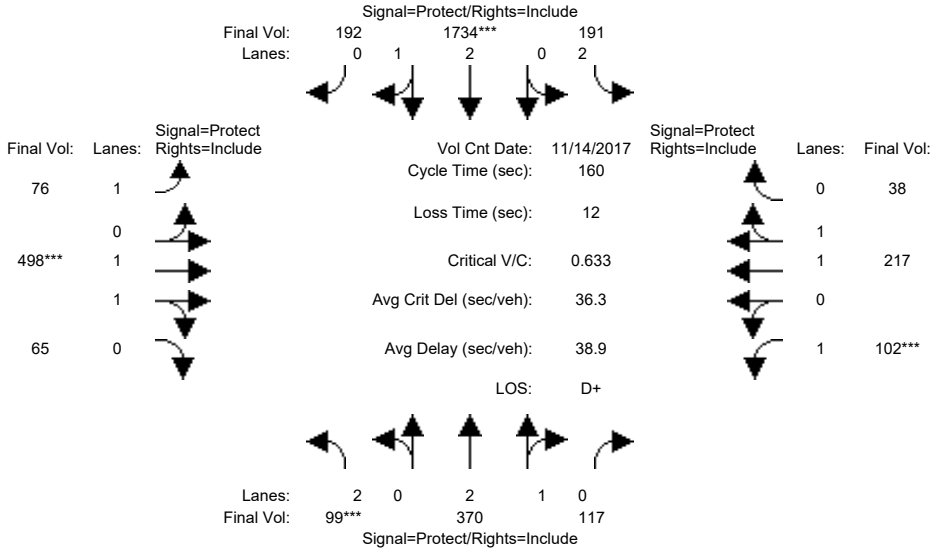



| Street Name: | Wolfe Rd | | | | | | Reed Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 83 | 1511 | 61 | 27 | 398 | 80 | 120 | 232 | 43 | 100 | 329 | 90 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 83 | 1511 | 61 | 27 | 398 | 80 | 120 | 232 | 43 | 100 | 329 | 90 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 83 | 1511 | 61 | 27 | 398 | 80 | 120 | 232 | 43 | 100 | 329 | 90 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 83 | 1511 | 61 | 27 | 398 | 80 | 120 | 232 | 43 | 100 | 329 | 90 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 83 | 1511 | 61 | 27 | 398 | 80 | 120 | 232 | 43 | 100 | 329 | 90 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 83 | 1511 | 61 | 27 | 398 | 80 | 120 | 232 | 43 | 100 | 329 | 90 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 2.00 | 2.88 | 0.12 | 2.00 | 2.48 | 0.52 | 1.00 | 1.68 | 0.32 | 1.00 | 1.56 | 0.44 |
| Final Sat.: | 3150 | 5382 | 217 | 3150 | 4662 | 937 | 1750 | 3121 | 578 | 1750 | 2905 | 795 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.28 | 0.28 | 0.01 | 0.09 | 0.09 | 0.07 | 0.07 | 0.07 | 0.06 | 0.11 | 0.11 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 31.4 | 85.6 | 85.6 | 7.0 | 61.2 | 61.2 | 20.9 | 31.3 | 31.3 | 24.1 | 34.5 | 34.5 |
| Volume/Cap: | 0.13 | 0.52 | 0.52 | 0.20 | 0.22 | 0.22 | 0.52 | 0.38 | 0.38 | 0.38 | 0.52 | 0.52 |
| Uniform Del: | 53.1 | 24.1 | 24.1 | 73.8 | 33.3 | 33.3 | 64.9 | 55.9 | 55.9 | 61.2 | 55.5 | 55.5 |
| IncremntDel: | 0.1 | 0.2 | 0.2 | 0.7 | 0.1 | 0.1 | 2.2 | 0.3 | 0.3 | 0.9 | 0.6 | 0.6 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 53.2 | 24.2 | 24.2 | 74.5 | 33.4 | 33.4 | 67.2 | 56.2 | 56.2 | 62.1 | 56.1 | 56.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 53.2 | 24.2 | 24.2 | 74.5 | 33.4 | 33.4 | 67.2 | 56.2 | 56.2 | 62.1 | 56.1 | 56.1 |
| LOS by Move: | D- | C | C | E | C- | C- | E | E+ | E+ | E | E+ | E+ |
| HCM2kAvgQ: | 2 | 16 | 16 | 1 | 5 | 5 | 6 | 6 | 6 | 5 | 9 | 9 |

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

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

Intersection #45: Wolfe Rd & Reed Ave

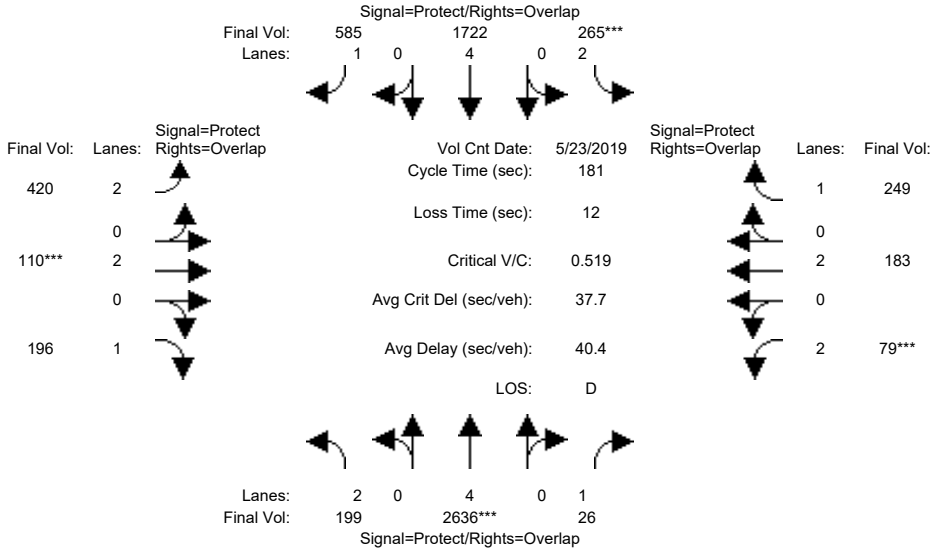



| Street Name: | Wolfe Rd | | | | | | Reed Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 99 | 370 | 117 | 191 | 1734 | 192 | 76 | 498 | 65 | 102 | 217 | 38 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 99 | 370 | 117 | 191 | 1734 | 192 | 76 | 498 | 65 | 102 | 217 | 38 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 99 | 370 | 117 | 191 | 1734 | 192 | 76 | 498 | 65 | 102 | 217 | 38 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 99 | 370 | 117 | 191 | 1734 | 192 | 76 | 498 | 65 | 102 | 217 | 38 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 99 | 370 | 117 | 191 | 1734 | 192 | 76 | 498 | 65 | 102 | 217 | 38 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 99 | 370 | 117 | 191 | 1734 | 192 | 76 | 498 | 65 | 102 | 217 | 38 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 2.00 | 2.25 | 0.75 | 2.00 | 2.69 | 0.31 | 1.00 | 1.76 | 0.24 | 1.00 | 1.69 | 0.31 |
| Final Sat.: | 3150 | 4253 | 1345 | 3150 | 5041 | 558 | 1750 | 3273 | 427 | 1750 | 3148 | 551 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.09 | 0.09 | 0.06 | 0.34 | 0.34 | 0.04 | 0.15 | 0.15 | 0.06 | 0.07 | 0.07 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.9 | 55.9 | 55.9 | 38.9 | 86.9 | 86.9 | 20.6 | 38.4 | 38.4 | 14.7 | 32.5 | 32.5 |
| Volume/Cap: | 0.63 | 0.25 | 0.25 | 0.25 | 0.63 | 0.63 | 0.34 | 0.63 | 0.63 | 0.63 | 0.34 | 0.34 |
| Uniform Del: | 74.6 | 37.1 | 37.1 | 48.7 | 25.5 | 25.5 | 63.4 | 54.5 | 54.5 | 70.0 | 54.5 | 54.5 |
| IncremntDel: | 8.2 | 0.1 | 0.1 | 0.2 | 0.4 | 0.4 | 0.9 | 1.5 | 1.5 | 8.0 | 0.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 82.8 | 37.2 | 37.2 | 48.9 | 25.9 | 25.9 | 64.3 | 56.0 | 56.0 | 78.0 | 54.8 | 54.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 82.8 | 37.2 | 37.2 | 48.9 | 25.9 | 25.9 | 64.3 | 56.0 | 56.0 | 78.0 | 54.8 | 54.8 |
| LOS by Move: | F | D+ | D+ | D | C | C | E | E+ | E+ | E- | D- | D- |
| HCM2kAvgQ: | 3 | 5 | 5 | 4 | 21 | 21 | 4 | 12 | 12 | 5 | 5 | 5 |

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

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

Intersection #49: Lawrence Expwy & Oakmead Pkwy

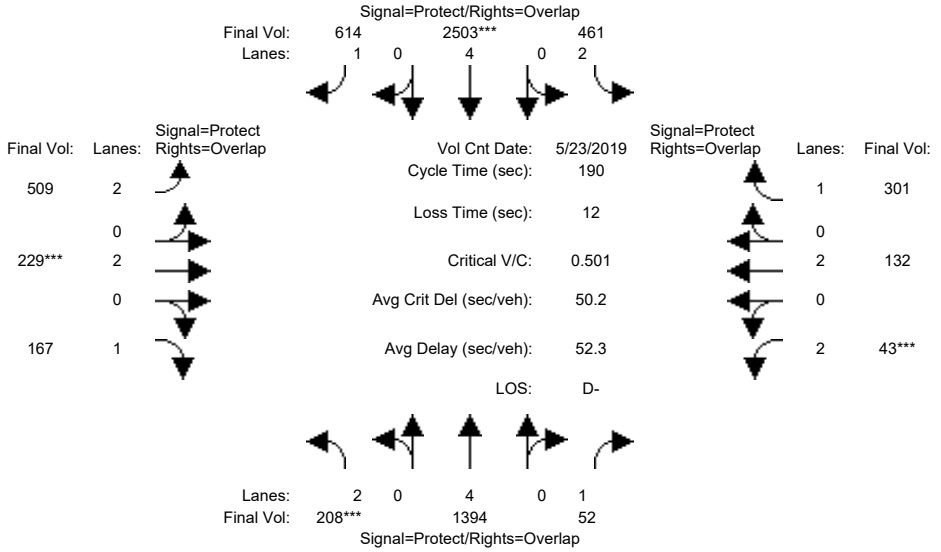



| Street Name: | Lawrence Expwy | | | | | | Oakmead Pkwy | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 17 | 86 | 86 | 20 | 89 | 89 | 23 | 39 | 39 | 10 | 20 | 25 |
| Y+R: | 6.4 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 | 5.6 | 5.5 | 5.5 | 5.6 | 5.6 | 5.6 |
| Volume Module: >> Count Date: 23 May 2019 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 199 | 2636 | 26 | 265 | 1722 | 585 | 420 | 110 | 196 | 79 | 183 | 249 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 199 | 2636 | 26 | 265 | 1722 | 585 | 420 | 110 | 196 | 79 | 183 | 249 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 199 | 2636 | 26 | 265 | 1722 | 585 | 420 | 110 | 196 | 79 | 183 | 249 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 199 | 2636 | 26 | 265 | 1722 | 585 | 420 | 110 | 196 | 79 | 183 | 249 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 199 | 2636 | 26 | 265 | 1722 | 585 | 420 | 110 | 196 | 79 | 183 | 249 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 199 | 2636 | 26 | 265 | 1722 | 585 | 420 | 110 | 196 | 79 | 183 | 249 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 4.00 | 1.00 | 2.00 | 4.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 7600 | 1750 | 3150 | 7600 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.35 | 0.01 | 0.08 | 0.23 | 0.33 | 0.13 | 0.03 | 0.11 | 0.03 | 0.05 | 0.14 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 17.2 | 86.9 | 97.4 | 20.3 | 89.9 | 113.7 | 23.8 | 39.3 | 56.5 | 10.5 | 25.9 | 46.2 |
| Volume/Cap: | 0.66 | 0.72 | 0.03 | 0.75 | 0.46 | 0.53 | 1.01 | 0.13 | 0.36 | 0.43 | 0.34 | 0.56 |
| Uniform Del: | 79.1 | 37.5 | 19.6 | 77.9 | 29.6 | 18.8 | 78.6 | 57.1 | 48.2 | 82.4 | 69.8 | 58.5 |
| IncremntDel: | 5.6 | 0.7 | 0.0 | 8.6 | 0.1 | 0.5 | 47.8 | 0.1 | 0.4 | 1.6 | 0.4 | 1.6 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.80 | 0.70 | 1.00 | 0.77 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 84.7 | 30.5 | 13.8 | 86.5 | 23.0 | 9.9 | 126.4 | 57.2 | 48.6 | 84.0 | 70.2 | 60.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 84.7 | 30.5 | 13.8 | 86.5 | 23.0 | 9.9 | 126.4 | 57.2 | 48.6 | 84.0 | 70.2 | 60.1 |
| LOS by Move: | F | C | B | F | C+ | A | F | E+ | D | F | E | E |
| HCM2kAvgQ: | 6 | 23 | 0 | 10 | 11 | 10 | 19 | 2 | 9 | 3 | 5 | 13 |

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

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

Intersection #49: Lawrence Expwy & Oakmead Pkwy

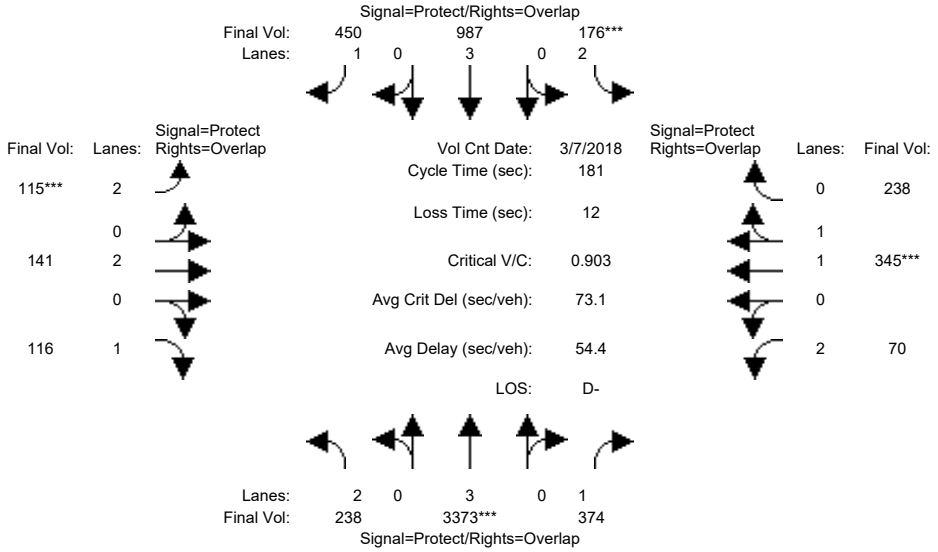



| Street Name: | Lawrence Expwy | | | | | | Oakmead Pkwy | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 20 | 71 | 71 | 31 | 82 | 82 | 34 | 53 | 53 | 10 | 29 | 29 |
| Y+R: | 6.4 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 | 5.6 | 5.5 | 5.5 | 5.6 | 5.6 | 5.6 |
| Volume Module: >> Count Date: 23 May 2019 << | | | | | | | | | | | | |
| Base Vol: | 208 | 1394 | 52 | 461 | 2503 | 614 | 509 | 229 | 167 | 43 | 132 | 301 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 208 | 1394 | 52 | 461 | 2503 | 614 | 509 | 229 | 167 | 43 | 132 | 301 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 208 | 1394 | 52 | 461 | 2503 | 614 | 509 | 229 | 167 | 43 | 132 | 301 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 208 | 1394 | 52 | 461 | 2503 | 614 | 509 | 229 | 167 | 43 | 132 | 301 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 208 | 1394 | 52 | 461 | 2503 | 614 | 509 | 229 | 167 | 43 | 132 | 301 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 208 | 1394 | 52 | 461 | 2503 | 614 | 509 | 229 | 167 | 43 | 132 | 301 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 4.00 | 1.00 | 2.00 | 4.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 7600 | 1750 | 3150 | 7600 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.18 | 0.03 | 0.15 | 0.33 | 0.35 | 0.16 | 0.06 | 0.10 | 0.01 | 0.03 | 0.17 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 20.1 | 71.0 | 81.0 | 31.6 | 82.4 | 116.8 | 34.4 | 53.5 | 73.6 | 10.0 | 29.0 | 60.6 |
| Volume/Cap: | 0.62 | 0.49 | 0.07 | 0.88 | 0.76 | 0.57 | 0.89 | 0.21 | 0.25 | 0.26 | 0.23 | 0.54 |
| Uniform Del: | 81.3 | 45.6 | 32.2 | 77.4 | 45.4 | 21.7 | 76.0 | 52.2 | 39.4 | 86.4 | 70.7 | 53.2 |
| IncremntDel: | 3.7 | 0.1 | 0.0 | 15.8 | 1.1 | 0.7 | 16.2 | 0.1 | 0.2 | 0.8 | 0.2 | 1.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.92 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 85.0 | 42.2 | 27.9 | 93.1 | 46.5 | 22.5 | 92.2 | 52.3 | 39.6 | 87.3 | 70.9 | 54.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 85.0 | 42.2 | 27.9 | 93.1 | 46.5 | 22.5 | 92.2 | 52.3 | 39.6 | 87.3 | 70.9 | 54.3 |
| LOS by Move: | F | D | C | F | D | C+ | F | D- | D | F | E | D- |
| HCM2kAvgQ: | 7 | 13 | 1 | 18 | 31 | 22 | 20 | 5 | 7 | 2 | 3 | 15 |

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

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

Intersection #51: Lawrence Expwy & Kifer Rd

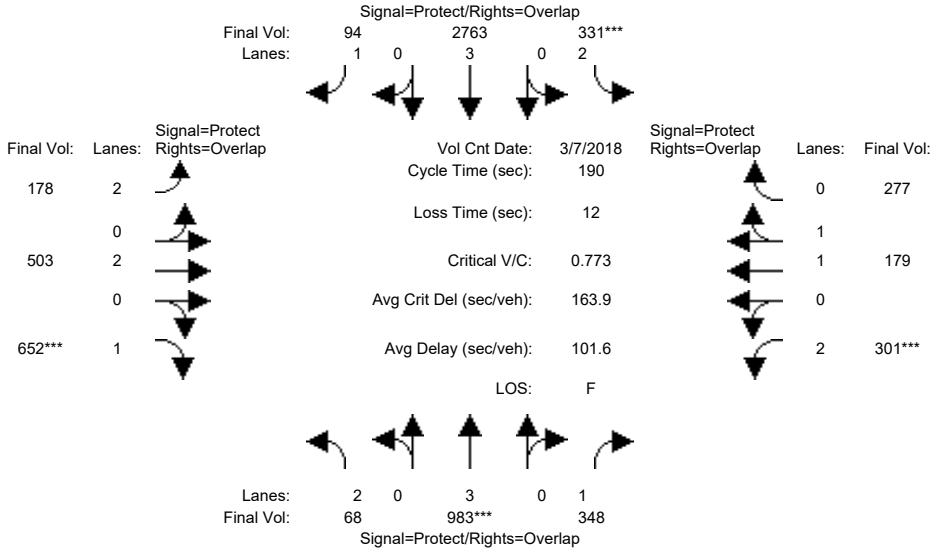



| Street Name: | Lawrence Expwy | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 25 | 101 | 101 | 17 | 93 | 93 | 13 | 29 | 29 | 11 | 27 | 27 |
| Y+R: | 5.9 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.8 | 5.5 | 5.5 | 5.9 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 7 Mar 2018 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 238 | 3877 | 374 | 176 | 1134 | 450 | 115 | 141 | 116 | 70 | 345 | 238 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 238 | 3877 | 374 | 176 | 1134 | 450 | 115 | 141 | 116 | 70 | 345 | 238 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 238 | 3877 | 374 | 176 | 1134 | 450 | 115 | 141 | 116 | 70 | 345 | 238 |
| User Adj: | 1.00 | 0.87 | 1.00 | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 238 | 3373 | 374 | 176 | 987 | 450 | 115 | 141 | 116 | 70 | 345 | 238 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 238 | 3373 | 374 | 176 | 987 | 450 | 115 | 141 | 116 | 70 | 345 | 238 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 238 | 3373 | 374 | 176 | 987 | 450 | 115 | 141 | 116 | 70 | 345 | 238 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 0.98 | 0.94 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.16 | 0.84 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 2173 | 1499 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.59 | 0.21 | 0.06 | 0.17 | 0.26 | 0.04 | 0.04 | 0.07 | 0.02 | 0.16 | 0.16 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 25.2 | 101 | 111.8 | 17.1 | 93.1 | 105.9 | 12.8 | 28.8 | 54.0 | 10.8 | 26.9 | 44.0 |
| Volume/Cap: | 0.54 | 1.06 | 0.35 | 0.59 | 0.34 | 0.44 | 0.52 | 0.23 | 0.22 | 0.37 | 1.07 | 0.65 |
| Uniform Del: | 72.5 | 40.0 | 16.8 | 78.6 | 25.8 | 21.0 | 81.1 | 66.5 | 47.7 | 81.8 | 77.1 | 61.6 |
| IncremntDel: | 1.4 | 34.9 | 0.2 | 3.1 | 0.1 | 0.3 | 2.1 | 0.2 | 0.2 | 1.2 | 58.1 | 1.7 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.67 | 0.53 | 1.00 | 0.74 | 0.61 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 73.9 | 61.6 | 9.1 | 81.7 | 19.3 | 13.1 | 83.2 | 66.7 | 47.9 | 83.1 | 135 | 63.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 73.9 | 61.6 | 9.1 | 81.7 | 19.3 | 13.1 | 83.2 | 66.7 | 47.9 | 83.1 | 135 | 63.4 |
| LOS by Move: | E | E | A | F | B- | B | F | E | D | F | F | E |
| HCM2kAvgQ: | 7 | 66 | 5 | 6 | 7 | 9 | 4 | 3 | 5 | 2 | 21 | 15 |

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

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

Intersection #51: Lawrence Expwy & Kifer Rd

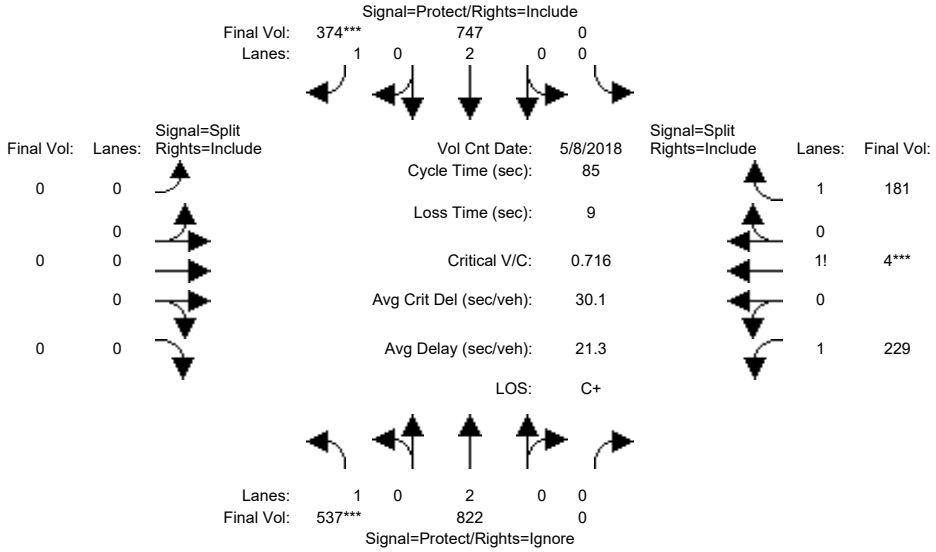



| Street Name: | Lawrence Expwy | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 9 | 85 | 85 | 27 | 103 | 103 | 16 | 33 | 33 | 22 | 39 | 39 |
| Y+R: | 5.9 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.8 | 5.5 | 5.5 | 5.9 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 7 Mar 2018 << 4:15 PM - 5:15 PM | | | | | | | | | | | | |
| Base Vol: | 68 | 1229 | 348 | 331 | 3497 | 94 | 178 | 503 | 652 | 301 | 179 | 277 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 68 | 1229 | 348 | 331 | 3497 | 94 | 178 | 503 | 652 | 301 | 179 | 277 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 68 | 1229 | 348 | 331 | 3497 | 94 | 178 | 503 | 652 | 301 | 179 | 277 |
| User Adj: | 1.00 | 0.80 | 1.00 | 1.00 | 0.79 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 68 | 983 | 348 | 331 | 2763 | 94 | 178 | 503 | 652 | 301 | 179 | 277 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 68 | 983 | 348 | 331 | 2763 | 94 | 178 | 503 | 652 | 301 | 179 | 277 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 68 | 983 | 348 | 331 | 2763 | 94 | 178 | 503 | 652 | 301 | 179 | 277 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.17 | 0.20 | 0.11 | 0.48 | 0.05 | 0.06 | 0.13 | 0.37 | 0.10 | 0.09 | 0.16 |
| Crit Moves: | | **** | | **** | | | | | **** | **** | | |
| Green Time: | 8.9 | 84.9 | 106.6 | 26.9 | 103 | 118.9 | 15.8 | 33.0 | 41.9 | 21.7 | 38.9 | 65.8 |
| Volume/Cap: | 0.46 | 0.39 | 0.35 | 0.74 | 0.89 | 0.09 | 0.68 | 0.76 | 1.69 | 0.84 | 0.46 | 0.46 |
| Uniform Del: | 88.2 | 35.1 | 22.9 | 78.2 | 38.6 | 14.1 | 84.6 | 74.8 | 74.1 | 82.4 | 66.3 | 48.2 |
| IncremntDel: | 2.3 | 0.1 | 0.2 | 6.6 | 3.7 | 0.0 | 7.0 | 5.2 | 321.4 | 15.6 | 0.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.03 | 1.54 | 1.85 | 1.11 | 1.79 | 2.11 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 93.4 | 54.1 | 42.5 | 93.4 | 72.8 | 29.8 | 91.7 | 80.0 | 395.4 | 98.0 | 66.7 | 48.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 93.4 | 54.1 | 42.5 | 93.4 | 72.8 | 29.8 | 91.7 | 80.0 | 395.4 | 98.0 | 66.7 | 48.6 |
| LOS by Move: | F | D- | D | F | E | C | F | E- | F | F | E | D |
| HCM2kAvgQ: | 2 | 16 | 18 | 13 | 53 | 4 | 6 | 14 | 75 | 11 | 9 | 13 |

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

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

Intersection #57: Fair Oaks Ave & US 101 NB Ramps

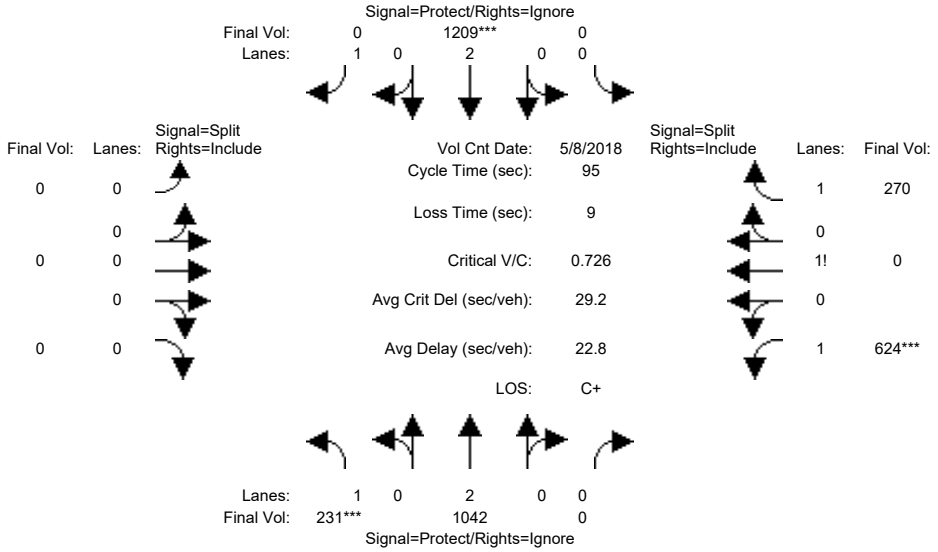



| Street Name: | Fair Oaks Ave | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 0 | 0 | 10 | 10 | 0 | 0 | 0 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 0.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 537 | 822 | 0 | 0 | 747 | 522 | 0 | 0 | 0 | 229 | 4 | 181 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 537 | 822 | 0 | 0 | 747 | 522 | 0 | 0 | 0 | 229 | 4 | 181 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 537 | 822 | 0 | 0 | 747 | 522 | 0 | 0 | 0 | 229 | 4 | 181 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 537 | 822 | 0 | 0 | 747 | 522 | 0 | 0 | 0 | 229 | 4 | 181 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 148 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 537 | 822 | 0 | 0 | 747 | 374 | 0 | 0 | 0 | 229 | 4 | 181 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 537 | 822 | 0 | 0 | 747 | 374 | 0 | 0 | 0 | 229 | 4 | 181 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.92 | 0.92 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.02 | 1.43 |
| Final Sat.: | 1750 | 3800 | 0 | 0 | 3800 | 1750 | 0 | 0 | 0 | 2709 | 33 | 2508 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.31 | 0.22 | 0.00 | 0.00 | 0.20 | 0.21 | 0.00 | 0.00 | 0.00 | 0.08 | 0.12 | 0.07 |
| Crit Moves: | **** | | | | | **** | | | | | **** | |
| Green Time: | 36.4 | 61.8 | 0.0 | 0.0 | 25.4 | 25.4 | 0.0 | 0.0 | 0.0 | 14.2 | 14.2 | 14.2 |
| Volume/Cap: | 0.72 | 0.30 | 0.00 | 0.00 | 0.66 | 0.72 | 0.00 | 0.00 | 0.00 | 0.51 | 0.72 | 0.43 |
| Uniform Del: | 20.0 | 4.0 | 0.0 | 0.0 | 26.0 | 26.6 | 0.0 | 0.0 | 0.0 | 32.2 | 33.5 | 31.8 |
| IncremntDel: | 3.3 | 0.1 | 0.0 | 0.0 | 1.4 | 4.7 | 0.0 | 0.0 | 0.0 | 0.5 | 4.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 23.3 | 4.1 | 0.0 | 0.0 | 27.5 | 31.3 | 0.0 | 0.0 | 0.0 | 32.7 | 37.8 | 32.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 23.3 | 4.1 | 0.0 | 0.0 | 27.5 | 31.3 | 0.0 | 0.0 | 0.0 | 32.7 | 37.8 | 32.1 |
| LOS by Move: | C | A | A | A | C | C | A | A | A | C- | D+ | C- |
| HCM2kAvgQ: | 14 | 4 | 0 | 0 | 9 | 10 | 0 | 0 | 0 | 4 | 7 | 4 |

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

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

Intersection #57: Fair Oaks Ave & US 101 NB Ramps

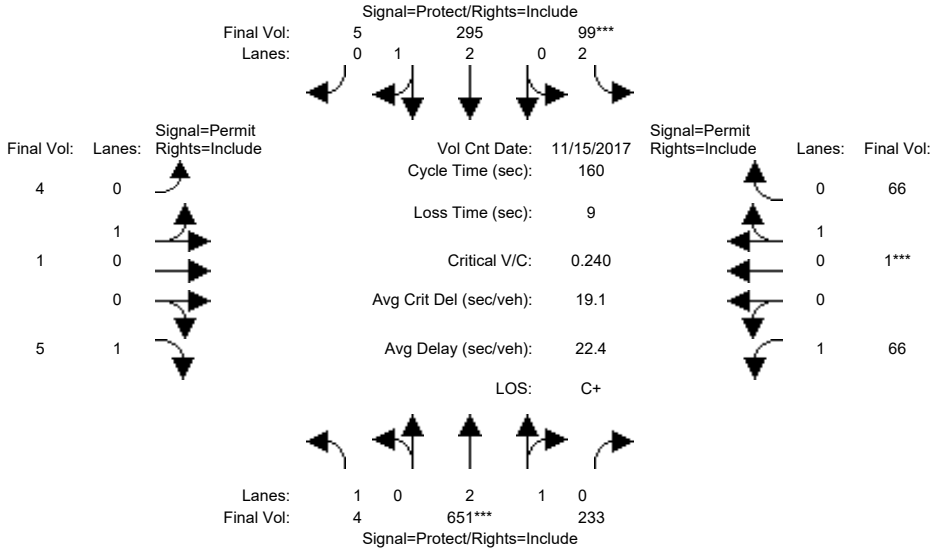



| Street Name: | Fair Oaks Ave | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 0 | 0 | 10 | 10 | 0 | 0 | 0 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 231 | 1042 | 0 | 0 | 1209 | 190 | 0 | 0 | 0 | 624 | 0 | 270 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 231 | 1042 | 0 | 0 | 1209 | 190 | 0 | 0 | 0 | 624 | 0 | 270 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 231 | 1042 | 0 | 0 | 1209 | 190 | 0 | 0 | 0 | 624 | 0 | 270 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 231 | 1042 | 0 | 0 | 1209 | 0 | 0 | 0 | 0 | 624 | 0 | 270 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 231 | 1042 | 0 | 0 | 1209 | 0 | 0 | 0 | 0 | 624 | 0 | 270 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 231 | 1042 | 0 | 0 | 1209 | 0 | 0 | 0 | 0 | 624 | 0 | 270 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.93 | 1.00 | 0.92 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.69 | 0.00 | 1.31 |
| Final Sat.: | 1750 | 3800 | 0 | 0 | 3800 | 1750 | 0 | 0 | 0 | 3009 | 0 | 2284 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.27 | 0.00 | 0.00 | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.00 | 0.12 |
| Crit Moves: | **** | | | | **** | | | | | **** | | |
| Green Time: | 17.3 | 58.9 | 0.0 | 0.0 | 41.6 | 0.0 | 0.0 | 0.0 | 0.0 | 27.1 | 0.0 | 27.1 |
| Volume/Cap: | 0.73 | 0.44 | 0.00 | 0.00 | 0.73 | 0.00 | 0.00 | 0.00 | 0.00 | 0.73 | 0.00 | 0.41 |
| Uniform Del: | 36.6 | 9.5 | 0.0 | 0.0 | 22.0 | 0.0 | 0.0 | 0.0 | 0.0 | 30.6 | 0.0 | 27.5 |
| IncremntDel: | 8.1 | 0.1 | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 0.0 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 44.8 | 9.6 | 0.0 | 0.0 | 23.6 | 0.0 | 0.0 | 0.0 | 0.0 | 32.8 | 0.0 | 27.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 44.8 | 9.6 | 0.0 | 0.0 | 23.6 | 0.0 | 0.0 | 0.0 | 0.0 | 32.8 | 0.0 | 27.6 |
| LOS by Move: | D | A | A | A | C | A | A | A | A | C- | A | C |
| HCM2kAvgQ: | 8 | 8 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 12 | 0 | 5 |

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

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

Intersection #58: Wolfe Rd & Stewart Dr

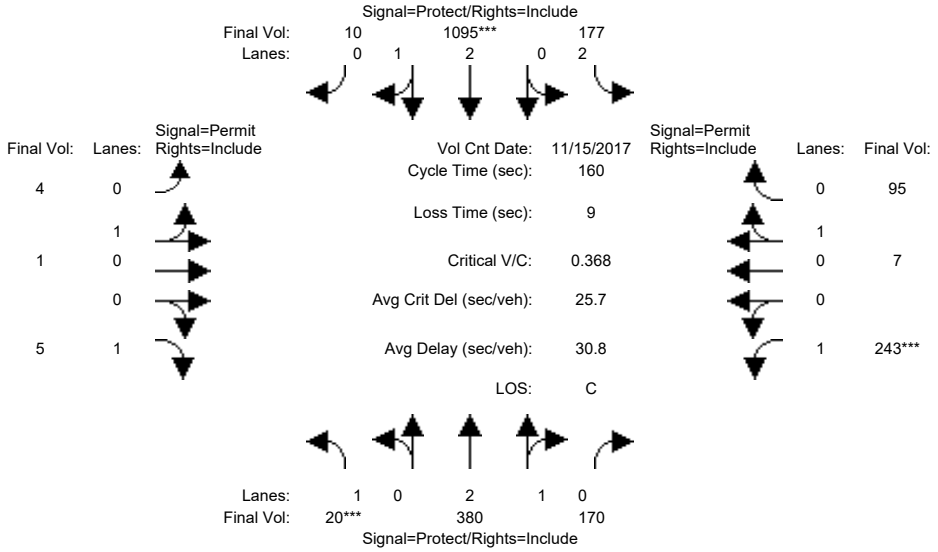



| Street Name: | Wolfe Rd | | | | | | Stewart Dr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 4 | 651 | 233 | 99 | 295 | 5 | 4 | 1 | 5 | 66 | 1 | 66 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 4 | 651 | 233 | 99 | 295 | 5 | 4 | 1 | 5 | 66 | 1 | 66 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 4 | 651 | 233 | 99 | 295 | 5 | 4 | 1 | 5 | 66 | 1 | 66 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 4 | 651 | 233 | 99 | 295 | 5 | 4 | 1 | 5 | 66 | 1 | 66 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 4 | 651 | 233 | 99 | 295 | 5 | 4 | 1 | 5 | 66 | 1 | 66 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 4 | 651 | 233 | 99 | 295 | 5 | 4 | 1 | 5 | 66 | 1 | 66 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.95 | 0.83 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.18 | 0.82 | 2.00 | 2.95 | 0.05 | 0.80 | 0.20 | 1.00 | 1.00 | 0.01 | 0.99 |
| Final Sat.: | 1750 | 4122 | 1475 | 3150 | 5507 | 93 | 1440 | 360 | 1750 | 1750 | 27 | 1773 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.16 | 0.16 | 0.03 | 0.05 | 0.05 | 0.00 | 0.00 | 0.00 | 0.04 | 0.04 | 0.04 |
| Crit Moves: | | **** | | **** | | | | | | | **** | |
| Green Time: | 52.0 | 105 | 105.2 | 20.9 | 74.2 | 74.2 | 24.8 | 24.8 | 24.8 | 24.8 | 24.8 | 24.8 |
| Volume/Cap: | 0.01 | 0.24 | 0.24 | 0.24 | 0.12 | 0.12 | 0.02 | 0.02 | 0.02 | 0.24 | 0.24 | 0.24 |
| Uniform Del: | 36.6 | 11.1 | 11.1 | 62.4 | 24.3 | 24.3 | 57.3 | 57.3 | 57.3 | 59.4 | 59.3 | 59.3 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.4 | 0.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 36.6 | 11.2 | 11.2 | 62.7 | 24.3 | 24.3 | 57.3 | 57.3 | 57.3 | 59.8 | 59.8 | 59.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 36.6 | 11.2 | 11.2 | 62.7 | 24.3 | 24.3 | 57.3 | 57.3 | 57.3 | 59.8 | 59.8 | 59.8 |
| LOS by Move: | D+ | B+ | B+ | E | C | C | E+ | E+ | E+ | E+ | E+ | E+ |
| HCM2kAvgQ: | 0 | 6 | 6 | 3 | 3 | 3 | 0 | 0 | 0 | 3 | 3 | 3 |

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

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

Intersection #58: Wolfe Rd & Stewart Dr

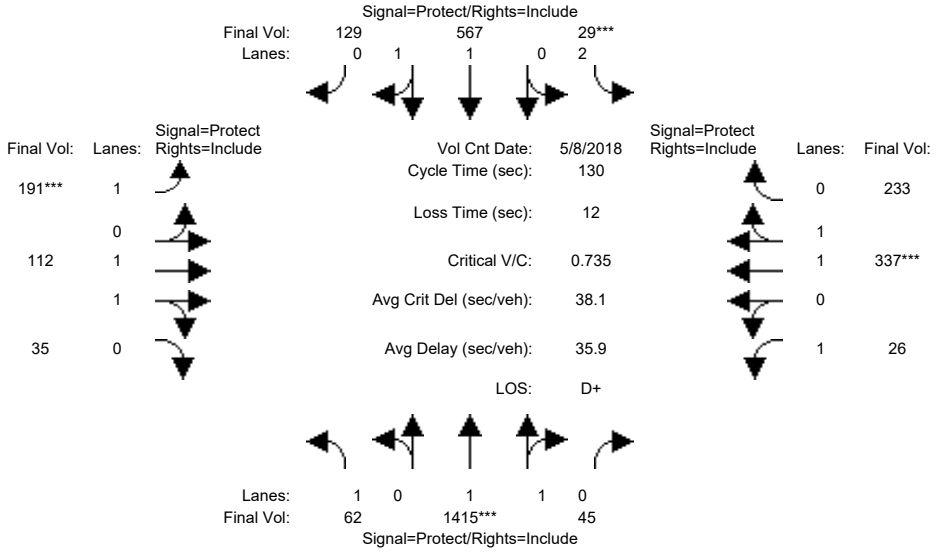



| Street Name: | Wolfe Rd | | | | | | Stewart Dr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 20 | 380 | 170 | 177 | 1095 | 10 | 4 | 1 | 5 | 243 | 7 | 95 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 20 | 380 | 170 | 177 | 1095 | 10 | 4 | 1 | 5 | 243 | 7 | 95 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 20 | 380 | 170 | 177 | 1095 | 10 | 4 | 1 | 5 | 243 | 7 | 95 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 20 | 380 | 170 | 177 | 1095 | 10 | 4 | 1 | 5 | 243 | 7 | 95 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 20 | 380 | 170 | 177 | 1095 | 10 | 4 | 1 | 5 | 243 | 7 | 95 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 20 | 380 | 170 | 177 | 1095 | 10 | 4 | 1 | 5 | 243 | 7 | 95 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.95 | 0.83 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.04 | 0.96 | 2.00 | 2.97 | 0.03 | 0.80 | 0.20 | 1.00 | 1.00 | 0.07 | 0.93 |
| Final Sat.: | 1750 | 3867 | 1730 | 3150 | 5549 | 51 | 1440 | 360 | 1750 | 1750 | 124 | 1676 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.10 | 0.10 | 0.06 | 0.20 | 0.20 | 0.00 | 0.00 | 0.00 | 0.14 | 0.06 | 0.06 |
| Crit Moves: | **** | | | | **** | | | | | **** | | |
| Green Time: | 7.0 | 58.2 | 58.2 | 33.3 | 84.5 | 84.5 | 59.5 | 59.5 | 59.5 | 59.5 | 59.5 | 59.5 |
| Volume/Cap: | 0.26 | 0.27 | 0.27 | 0.27 | 0.37 | 0.37 | 0.01 | 0.01 | 0.01 | 0.37 | 0.15 | 0.15 |
| Uniform Del: | 74.0 | 35.9 | 35.9 | 53.2 | 22.2 | 22.2 | 31.7 | 31.7 | 31.7 | 36.7 | 33.5 | 33.5 |
| IncremntDel: | 1.8 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.4 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 75.8 | 36.0 | 36.0 | 53.4 | 22.3 | 22.3 | 31.7 | 31.7 | 31.7 | 37.0 | 33.6 | 33.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 75.8 | 36.0 | 36.0 | 53.4 | 22.3 | 22.3 | 31.7 | 31.7 | 31.7 | 37.0 | 33.6 | 33.6 |
| LOS by Move: | E- | D+ | D+ | D- | C+ | C+ | C | C | C | D+ | C- | C- |
| HCM2kAvgQ: | 1 | 6 | 6 | 4 | 10 | 10 | 0 | 0 | 0 | 9 | 3 | 3 |

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

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

Intersection #62: Fair Oaks Ave & Evelyn Ave

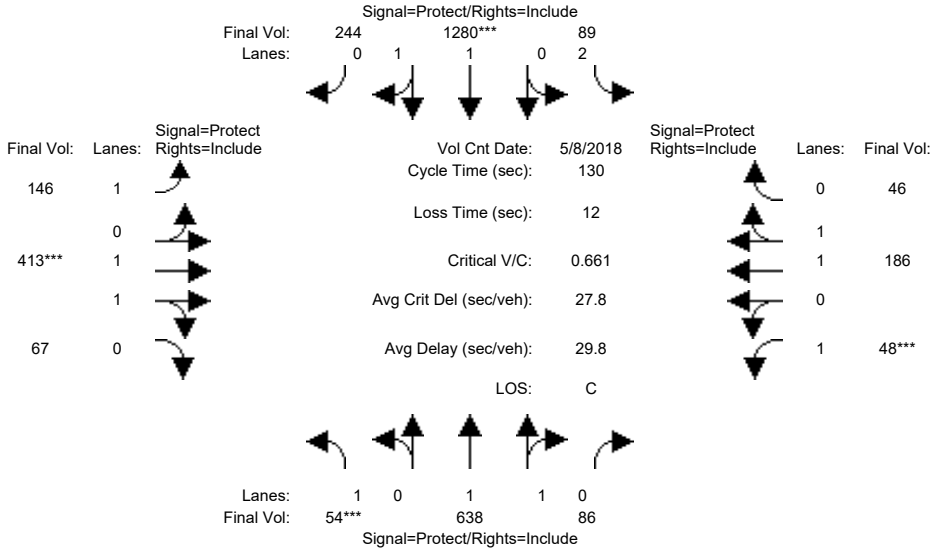



| Street Name: | Fair Oaks Ave | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:15 AM - 9:15 AM | | | | | | | | | | | | |
| Base Vol: | 62 | 1415 | 45 | 29 | 567 | 129 | 191 | 112 | 35 | 26 | 337 | 233 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 62 | 1415 | 45 | 29 | 567 | 129 | 191 | 112 | 35 | 26 | 337 | 233 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 62 | 1415 | 45 | 29 | 567 | 129 | 191 | 112 | 35 | 26 | 337 | 233 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 62 | 1415 | 45 | 29 | 567 | 129 | 191 | 112 | 35 | 26 | 337 | 233 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 62 | 1415 | 45 | 29 | 567 | 129 | 191 | 112 | 35 | 26 | 337 | 233 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 62 | 1415 | 45 | 29 | 567 | 129 | 191 | 112 | 35 | 26 | 337 | 233 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.94 | 0.06 | 2.00 | 1.62 | 0.38 | 1.00 | 1.51 | 0.49 | 1.00 | 1.16 | 0.84 |
| Final Sat.: | 1750 | 3586 | 114 | 3150 | 3014 | 686 | 1750 | 2818 | 881 | 1750 | 2186 | 1512 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.39 | 0.39 | 0.01 | 0.19 | 0.19 | 0.11 | 0.04 | 0.04 | 0.01 | 0.15 | 0.15 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 16.4 | 66.6 | 66.6 | 7.0 | 57.2 | 57.2 | 18.4 | 26.1 | 26.1 | 18.3 | 26.0 | 26.0 |
| Volume/Cap: | 0.28 | 0.77 | 0.77 | 0.17 | 0.43 | 0.43 | 0.77 | 0.20 | 0.20 | 0.11 | 0.77 | 0.77 |
| Uniform Del: | 51.5 | 25.6 | 25.6 | 58.7 | 25.1 | 25.1 | 53.8 | 43.2 | 43.2 | 48.7 | 49.2 | 49.2 |
| IncremntDel: | 0.7 | 2.0 | 2.0 | 0.5 | 0.2 | 0.2 | 13.7 | 0.1 | 0.1 | 0.2 | 5.0 | 5.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 52.2 | 27.6 | 27.6 | 59.2 | 25.3 | 25.3 | 67.5 | 43.3 | 43.3 | 48.9 | 54.2 | 54.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 52.2 | 27.6 | 27.6 | 59.2 | 25.3 | 25.3 | 67.5 | 43.3 | 43.3 | 48.9 | 54.2 | 54.2 |
| LOS by Move: | D- | C | C | E+ | C | C | E | D | D | D | D- | D- |
| HCM2kAvgQ: | 3 | 25 | 25 | 1 | 9 | 9 | 8 | 2 | 2 | 1 | 11 | 11 |

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

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

Intersection #62: Fair Oaks Ave & Evelyn Ave

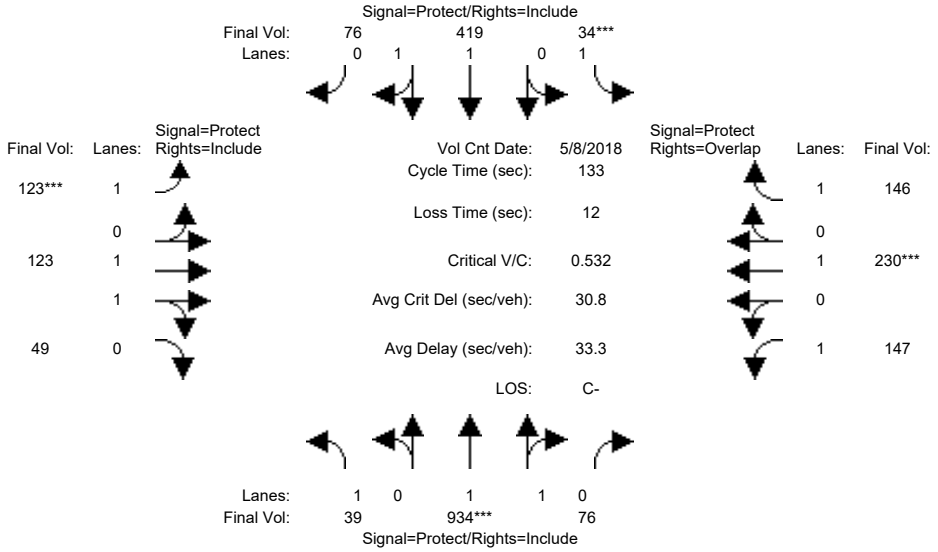



| Street Name: | Fair Oaks Ave | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 54 | 638 | 86 | 89 | 1280 | 244 | 146 | 413 | 67 | 48 | 186 | 46 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 54 | 638 | 86 | 89 | 1280 | 244 | 146 | 413 | 67 | 48 | 186 | 46 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 54 | 638 | 86 | 89 | 1280 | 244 | 146 | 413 | 67 | 48 | 186 | 46 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 54 | 638 | 86 | 89 | 1280 | 244 | 146 | 413 | 67 | 48 | 186 | 46 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 54 | 638 | 86 | 89 | 1280 | 244 | 146 | 413 | 67 | 48 | 186 | 46 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 54 | 638 | 86 | 89 | 1280 | 244 | 146 | 413 | 67 | 48 | 186 | 46 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 1.00 | 1.76 | 0.24 | 2.00 | 1.67 | 0.33 | 1.00 | 1.71 | 0.29 | 1.00 | 1.59 | 0.41 |
| Final Sat.: | 1750 | 3260 | 439 | 3150 | 3107 | 592 | 1750 | 3183 | 516 | 1750 | 2966 | 733 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.20 | 0.20 | 0.03 | 0.41 | 0.41 | 0.08 | 0.13 | 0.13 | 0.03 | 0.06 | 0.06 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.0 | 67.5 | 67.5 | 18.6 | 79.1 | 79.1 | 16.6 | 24.9 | 24.9 | 7.0 | 15.3 | 15.3 |
| Volume/Cap: | 0.57 | 0.38 | 0.38 | 0.20 | 0.68 | 0.68 | 0.65 | 0.68 | 0.68 | 0.51 | 0.53 | 0.53 |
| Uniform Del: | 60.0 | 18.7 | 18.7 | 49.1 | 17.0 | 17.0 | 54.0 | 48.8 | 48.8 | 59.8 | 54.0 | 54.0 |
| IncremntDel: | 8.3 | 0.1 | 0.1 | 0.2 | 0.8 | 0.8 | 6.8 | 2.6 | 2.6 | 4.6 | 1.3 | 1.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 68.3 | 18.8 | 18.8 | 49.4 | 17.8 | 17.8 | 60.7 | 51.4 | 51.4 | 64.4 | 55.3 | 55.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 68.3 | 18.8 | 18.8 | 49.4 | 17.8 | 17.8 | 60.7 | 51.4 | 51.4 | 64.4 | 55.3 | 55.3 |
| LOS by Move: | E | B- | B- | D | B | B | E | D- | D- | E | E+ | E+ |
| HCM2kAvgQ: | 3 | 9 | 9 | 2 | 20 | 20 | 6 | 9 | 9 | 2 | 4 | 4 |

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

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

Intersection #63: Fair Oaks Ave & Old SF Rd

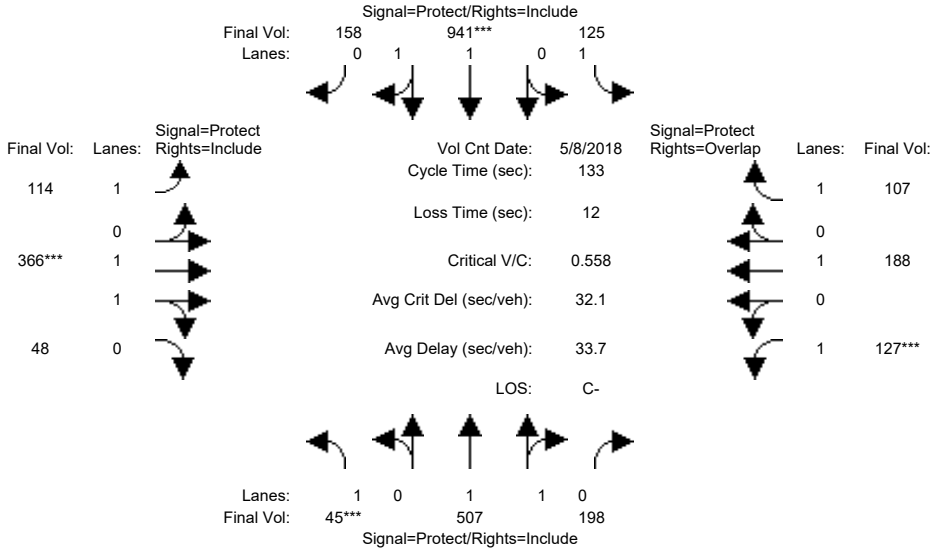



| Street Name: | Fair Oaks Ave | | | | | | Old SF Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:45 AM - 9:45 AM | | | | | | | | | | | | |
| Base Vol: | 39 | 934 | 76 | 34 | 419 | 76 | 123 | 123 | 49 | 147 | 230 | 146 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 39 | 934 | 76 | 34 | 419 | 76 | 123 | 123 | 49 | 147 | 230 | 146 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 39 | 934 | 76 | 34 | 419 | 76 | 123 | 123 | 49 | 147 | 230 | 146 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 39 | 934 | 76 | 34 | 419 | 76 | 123 | 123 | 49 | 147 | 230 | 146 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 39 | 934 | 76 | 34 | 419 | 76 | 123 | 123 | 49 | 147 | 230 | 146 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 39 | 934 | 76 | 34 | 419 | 76 | 123 | 123 | 49 | 147 | 230 | 146 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.85 | 0.15 | 1.00 | 1.68 | 0.32 | 1.00 | 1.41 | 0.59 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 3421 | 278 | 1750 | 3131 | 568 | 1750 | 2645 | 1054 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.27 | 0.27 | 0.02 | 0.13 | 0.13 | 0.07 | 0.05 | 0.05 | 0.08 | 0.12 | 0.08 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 20.9 | 67.0 | 67.0 | 7.0 | 53.1 | 53.1 | 17.3 | 22.2 | 22.2 | 24.8 | 29.7 | 36.7 |
| Volume/Cap: | 0.14 | 0.54 | 0.54 | 0.37 | 0.33 | 0.33 | 0.54 | 0.28 | 0.28 | 0.45 | 0.54 | 0.30 |
| Uniform Del: | 48.3 | 22.5 | 22.5 | 60.9 | 27.7 | 27.7 | 54.2 | 48.4 | 48.4 | 48.1 | 45.6 | 38.0 |
| IncremntDel: | 0.2 | 0.3 | 0.3 | 2.5 | 0.1 | 0.1 | 2.7 | 0.2 | 0.2 | 1.0 | 1.4 | 0.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 48.6 | 22.8 | 22.8 | 63.4 | 27.8 | 27.8 | 56.8 | 48.7 | 48.7 | 49.1 | 47.1 | 38.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 48.6 | 22.8 | 22.8 | 63.4 | 27.8 | 27.8 | 56.8 | 48.7 | 48.7 | 49.1 | 47.1 | 38.4 |
| LOS by Move: | D | C+ | C+ | E | C | C | E+ | D | D | D | D | D+ |
| HCM2kAvgQ: | 1 | 14 | 14 | 2 | 7 | 7 | 6 | 3 | 3 | 6 | 8 | 5 |

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

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

Intersection #63: Fair Oaks Ave & Old SF Rd

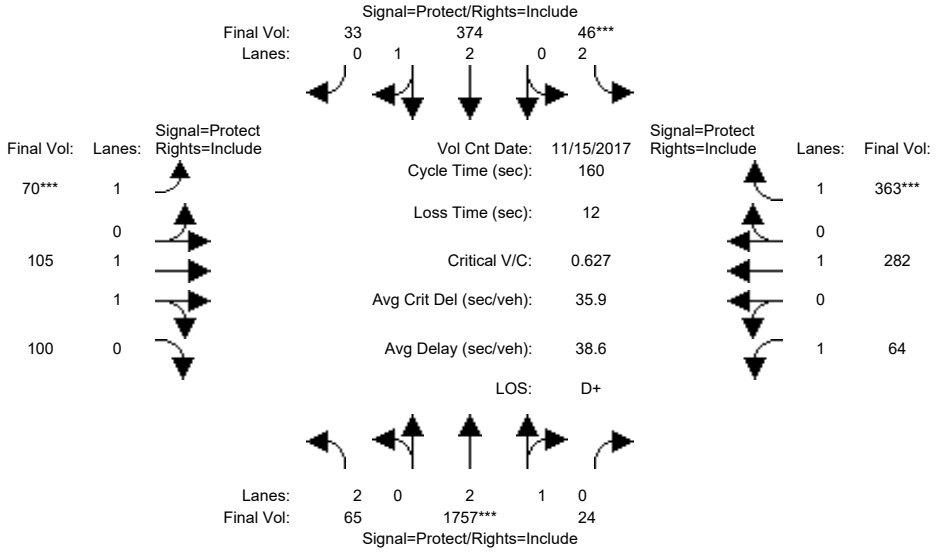



| Street Name: | Fair Oaks Ave | | | | | | Old SF Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 45 | 507 | 198 | 125 | 941 | 158 | 114 | 366 | 48 | 127 | 188 | 107 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 45 | 507 | 198 | 125 | 941 | 158 | 114 | 366 | 48 | 127 | 188 | 107 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 45 | 507 | 198 | 125 | 941 | 158 | 114 | 366 | 48 | 127 | 188 | 107 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 45 | 507 | 198 | 125 | 941 | 158 | 114 | 366 | 48 | 127 | 188 | 107 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 45 | 507 | 198 | 125 | 941 | 158 | 114 | 366 | 48 | 127 | 188 | 107 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 45 | 507 | 198 | 125 | 941 | 158 | 114 | 366 | 48 | 127 | 188 | 107 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.42 | 0.58 | 1.00 | 1.70 | 0.30 | 1.00 | 1.76 | 0.24 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 2660 | 1039 | 1750 | 3168 | 532 | 1750 | 3271 | 429 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.19 | 0.19 | 0.07 | 0.30 | 0.30 | 0.07 | 0.11 | 0.11 | 0.07 | 0.10 | 0.06 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.0 | 56.2 | 56.2 | 21.1 | 70.3 | 70.3 | 17.3 | 26.5 | 26.5 | 17.2 | 26.3 | 47.4 |
| Volume/Cap: | 0.49 | 0.45 | 0.45 | 0.45 | 0.56 | 0.56 | 0.50 | 0.56 | 0.56 | 0.56 | 0.50 | 0.17 |
| Uniform Del: | 61.3 | 27.4 | 27.4 | 50.7 | 21.0 | 21.0 | 53.8 | 48.0 | 48.0 | 54.4 | 47.5 | 29.3 |
| IncremntDel: | 4.0 | 0.2 | 0.2 | 1.2 | 0.4 | 0.4 | 1.7 | 1.0 | 1.0 | 3.2 | 1.0 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 65.3 | 27.6 | 27.6 | 51.9 | 21.4 | 21.4 | 55.5 | 49.0 | 49.0 | 57.6 | 48.5 | 29.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 65.3 | 27.6 | 27.6 | 51.9 | 21.4 | 21.4 | 55.5 | 49.0 | 49.0 | 57.6 | 48.5 | 29.5 |
| LOS by Move: | E | C | C | D- | C+ | C+ | E+ | D | D | E+ | D | C |
| HCM2kAvgQ: | 2 | 10 | 10 | 5 | 15 | 15 | 5 | 8 | 8 | 5 | 7 | 3 |

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

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

Intersection #64: Wolfe Rd & Evelyn Ave

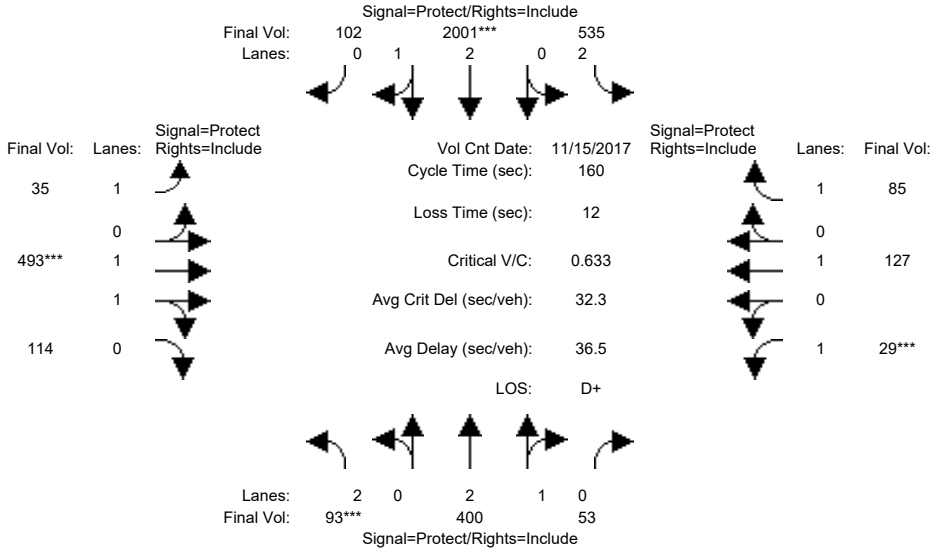



| Street Name: | Wolfe Rd | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 65 | 1757 | 24 | 46 | 374 | 33 | 70 | 105 | 100 | 64 | 282 | 363 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 65 | 1757 | 24 | 46 | 374 | 33 | 70 | 105 | 100 | 64 | 282 | 363 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 65 | 1757 | 24 | 46 | 374 | 33 | 70 | 105 | 100 | 64 | 282 | 363 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 65 | 1757 | 24 | 46 | 374 | 33 | 70 | 105 | 100 | 64 | 282 | 363 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 65 | 1757 | 24 | 46 | 374 | 33 | 70 | 105 | 100 | 64 | 282 | 363 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 65 | 1757 | 24 | 46 | 374 | 33 | 70 | 105 | 100 | 64 | 282 | 363 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 1.00 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.96 | 0.04 | 2.00 | 2.75 | 0.25 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 5524 | 75 | 3150 | 5145 | 454 | 1750 | 1898 | 1800 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.32 | 0.32 | 0.01 | 0.07 | 0.07 | 0.04 | 0.06 | 0.06 | 0.04 | 0.15 | 0.21 |
| Crit Moves: | | **** | | **** | | | **** | | | | | **** |
| Green Time: | 32.4 | 79.3 | 79.3 | 7.0 | 53.9 | 53.9 | 10.0 | 36.3 | 36.3 | 25.4 | 51.7 | 51.7 |
| Volume/Cap: | 0.10 | 0.64 | 0.64 | 0.33 | 0.22 | 0.22 | 0.64 | 0.24 | 0.24 | 0.23 | 0.46 | 0.64 |
| Uniform Del: | 51.9 | 29.8 | 29.8 | 74.2 | 38.0 | 38.0 | 73.3 | 50.6 | 50.6 | 58.8 | 43.0 | 46.2 |
| IncremntDel: | 0.1 | 0.5 | 0.5 | 1.4 | 0.1 | 0.1 | 12.3 | 0.2 | 0.2 | 0.4 | 0.5 | 2.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 52.0 | 30.4 | 30.4 | 75.7 | 38.0 | 38.0 | 85.5 | 50.8 | 50.8 | 59.2 | 43.6 | 48.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 52.0 | 30.4 | 30.4 | 75.7 | 38.0 | 38.0 | 85.5 | 50.8 | 50.8 | 59.2 | 43.6 | 48.7 |
| LOS by Move: | D- | C | C | E- | D+ | D+ | F | D | D | E+ | D | D |
| HCM2kAvgQ: | 1 | 21 | 21 | 1 | 5 | 5 | 4 | 4 | 4 | 3 | 11 | 17 |

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

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

Intersection #64: Wolfe Rd & Evelyn Ave

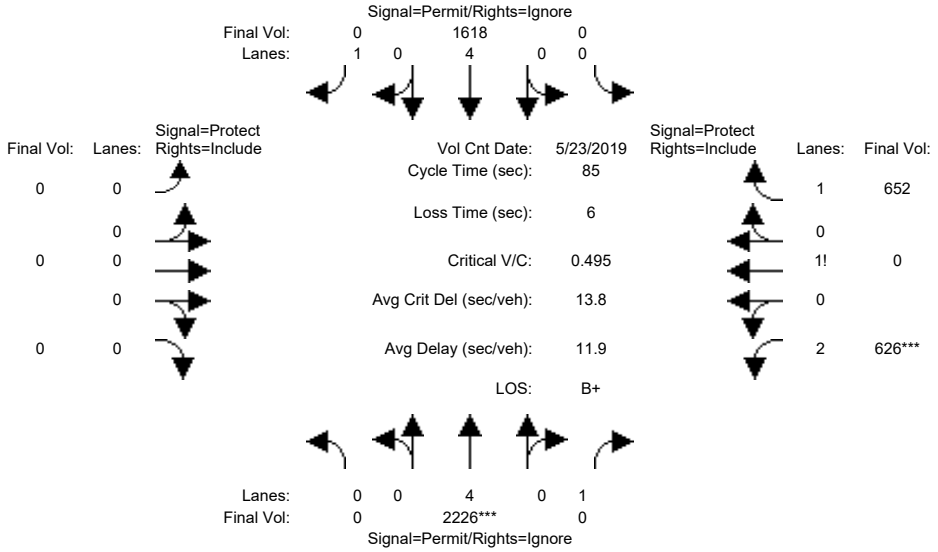



| Street Name: | Wolfe Rd | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 93 | 400 | 53 | 535 | 2001 | 102 | 35 | 493 | 114 | 29 | 127 | 85 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 93 | 400 | 53 | 535 | 2001 | 102 | 35 | 493 | 114 | 29 | 127 | 85 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 93 | 400 | 53 | 535 | 2001 | 102 | 35 | 493 | 114 | 29 | 127 | 85 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 93 | 400 | 53 | 535 | 2001 | 102 | 35 | 493 | 114 | 29 | 127 | 85 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 93 | 400 | 53 | 535 | 2001 | 102 | 35 | 493 | 114 | 29 | 127 | 85 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 93 | 400 | 53 | 535 | 2001 | 102 | 35 | 493 | 114 | 29 | 127 | 85 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.64 | 0.36 | 2.00 | 2.85 | 0.15 | 1.00 | 1.61 | 0.39 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 4944 | 655 | 3150 | 5328 | 272 | 1750 | 3005 | 695 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.08 | 0.08 | 0.17 | 0.38 | 0.38 | 0.02 | 0.16 | 0.16 | 0.02 | 0.07 | 0.05 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.3 | 32.4 | 32.4 | 68.0 | 93.0 | 93.0 | 18.8 | 40.6 | 40.6 | 7.0 | 28.8 | 28.8 |
| Volume/Cap: | 0.65 | 0.40 | 0.40 | 0.40 | 0.65 | 0.65 | 0.17 | 0.65 | 0.65 | 0.38 | 0.37 | 0.27 |
| Uniform Del: | 75.1 | 55.4 | 55.4 | 31.9 | 22.4 | 22.4 | 63.5 | 53.3 | 53.3 | 74.4 | 57.6 | 56.5 |
| IncremntDel: | 9.7 | 0.2 | 0.2 | 0.2 | 0.5 | 0.5 | 0.4 | 1.6 | 1.6 | 3.1 | 0.7 | 0.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 84.8 | 55.6 | 55.6 | 32.1 | 22.9 | 22.9 | 63.9 | 54.8 | 54.8 | 77.5 | 58.3 | 57.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 84.8 | 55.6 | 55.6 | 32.1 | 22.9 | 22.9 | 63.9 | 54.8 | 54.8 | 77.5 | 58.3 | 57.0 |
| LOS by Move: | F | E+ | E+ | C- | C+ | C+ | E | D- | D- | E- | E+ | E+ |
| HCM2kAvgQ: | 3 | 6 | 6 | 10 | 22 | 22 | 2 | 13 | 13 | 2 | 6 | 4 |

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

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

Intersection #67: Lawrence Expwy & US 101 NB Ramps

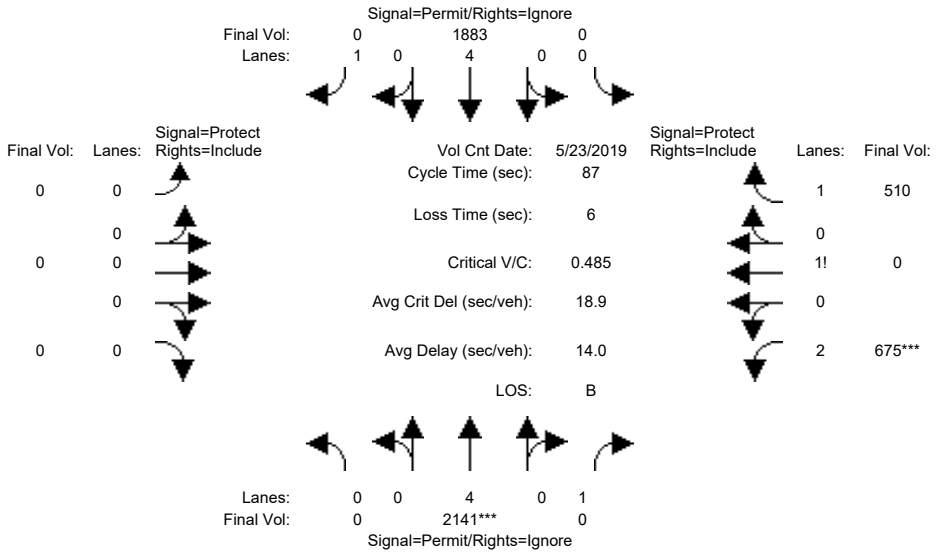



| Street Name: | Lawrence Expwy | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 51 | 0 | 0 | 51 | 0 | 0 | 0 | 0 | 22 | 22 | 22 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 0.0 | 5.0 |
| Volume Module: >> Count Date: 23 May 2019 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 2226 | 0 | 0 | 1618 | 371 | 0 | 0 | 0 | 626 | 0 | 652 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 2226 | 0 | 0 | 1618 | 371 | 0 | 0 | 0 | 626 | 0 | 652 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 2226 | 0 | 0 | 1618 | 371 | 0 | 0 | 0 | 626 | 0 | 652 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 2226 | 0 | 0 | 1618 | 0 | 0 | 0 | 0 | 626 | 0 | 652 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 2226 | 0 | 0 | 1618 | 0 | 0 | 0 | 0 | 626 | 0 | 652 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 2226 | 0 | 0 | 1618 | 0 | 0 | 0 | 0 | 626 | 0 | 652 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.81 | 1.00 | 0.95 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 0.00 | 0.00 | 0.00 | 2.43 | 0.00 | 1.57 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 0 | 0 | 0 | 3735 | 0 | 2829 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.29 | 0.00 | 0.00 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 | 0.23 |
| Crit Moves: | | **** | | | | | | | | **** | | |
| Green Time: | 0.0 | 51.0 | 0.0 | 0.0 | 51.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.7 | 22.7 | 22.7 |
| Volume/Cap: | 0.00 | 0.49 | 0.00 | 0.00 | 0.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.63 | 0.00 | 0.86 |
| Uniform Del: | 0.0 | 9.6 | 0.0 | 0.0 | 8.6 | 0.0 | 0.0 | 0.0 | 0.0 | 27.4 | 0.0 | 29.6 |
| IncremntDel: | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 5.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.58 | 0.00 | 0.00 | 0.58 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 5.6 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 28.0 | 0.0 | 35.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 5.6 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 28.0 | 0.0 | 35.1 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | C | A | D+ |
| HCM2kAvgQ: | 0 | 5 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 8 | 0 | 14 |

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

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

Intersection #67: Lawrence Expwy & US 101 NB Ramps

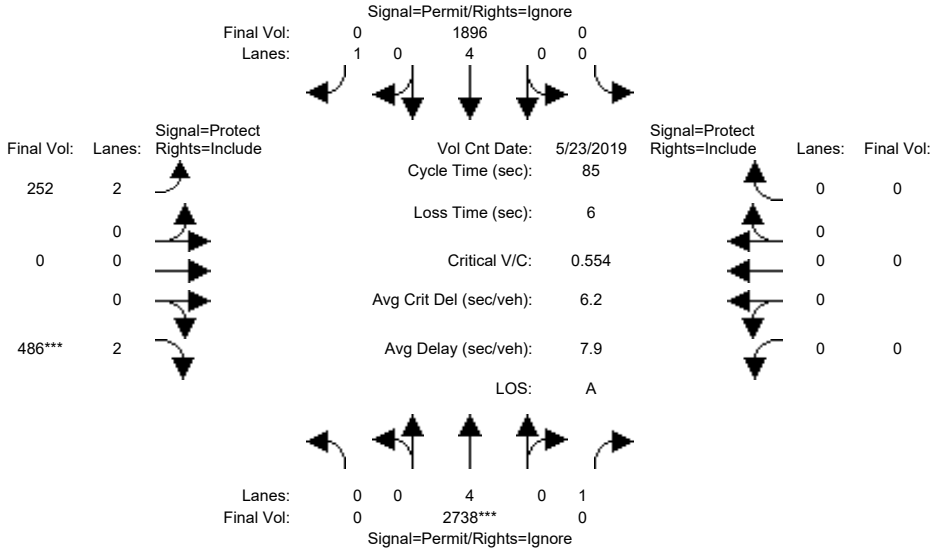



| Street Name: | Lawrence Expwy | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Min. Green: | 0 | 53 | 0 | 0 | 53 | 0 | 0 | 0 | 0 | 22 | 22 | 22 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 0.0 | 5.0 |
| Volume Module: >> Count Date: 23 May 2019 << 4:55 PM - 5:55 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 2141 | 0 | 0 | 1883 | 344 | 0 | 0 | 0 | 675 | 0 | 510 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 2141 | 0 | 0 | 1883 | 344 | 0 | 0 | 0 | 675 | 0 | 510 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 2141 | 0 | 0 | 1883 | 344 | 0 | 0 | 0 | 675 | 0 | 510 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 2141 | 0 | 0 | 1883 | 0 | 0 | 0 | 0 | 675 | 0 | 510 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 2141 | 0 | 0 | 1883 | 0 | 0 | 0 | 0 | 675 | 0 | 510 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 2141 | 0 | 0 | 1883 | 0 | 0 | 0 | 0 | 675 | 0 | 510 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.84 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 0.00 | 0.00 | 0.00 | 2.49 | 0.00 | 1.51 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 0 | 0 | 0 | 3978 | 0 | 2640 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.28 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 | 0.19 |
| Crit Moves: | | **** | | | | | | | | **** | | |
| Green Time: | 0.0 | 53.2 | 0.0 | 0.0 | 53.2 | 0.0 | 0.0 | 0.0 | 0.0 | 22.7 | 0.0 | 22.7 |
| Volume/Cap: | 0.00 | 0.46 | 0.00 | 0.00 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.65 | 0.00 | 0.74 |
| Uniform Del: | 0.0 | 9.1 | 0.0 | 0.0 | 8.7 | 0.0 | 0.0 | 0.0 | 0.0 | 28.6 | 0.0 | 29.5 |
| IncremntDel: | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 1.9 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.42 | 0.00 | 0.00 | 0.55 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 13.0 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 29.5 | 0.0 | 31.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 13.0 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 29.5 | 0.0 | 31.3 |
| LOS by Move: | A | B | A | A | A | A | A | A | A | C | A | C |
| HCM2kAvgQ: | 0 | 10 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 9 | 0 | 11 |

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

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

Intersection #68: Lawrence Expwy & US 101 SB Ramps

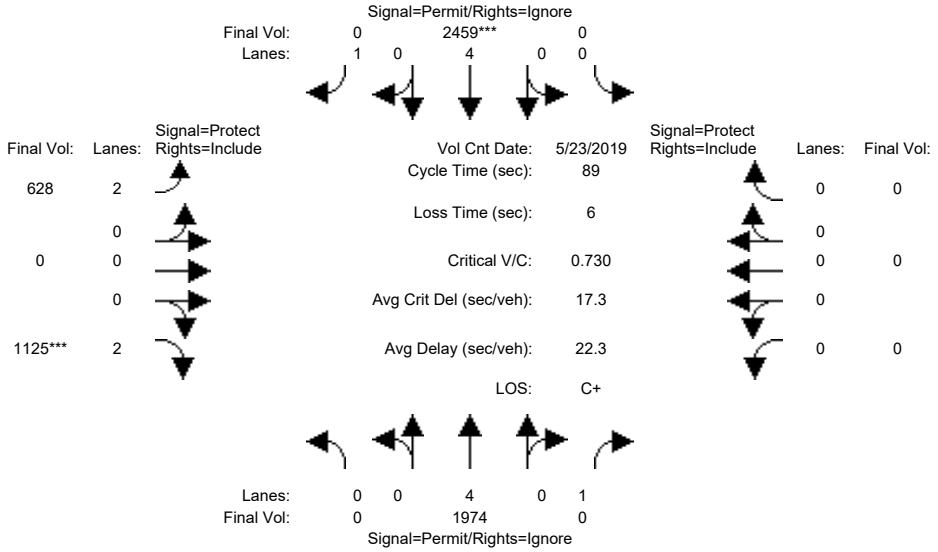



| Street Name: | Lawrence Expwy | | | | | | US 101 SB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Min. Green: | 0 | 60 | 0 | 0 | 60 | 0 | 14 | 14 | 14 | 0 | 0 | 0 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 5.5 | 0.0 | 5.5 | 0.0 | 0.0 | 0.0 |
| Volume Module: >> Count Date: 23 May 2019 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 2738 | 584 | 0 | 1896 | 0 | 252 | 0 | 486 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 2738 | 584 | 0 | 1896 | 0 | 252 | 0 | 486 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 2738 | 584 | 0 | 1896 | 0 | 252 | 0 | 486 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 2738 | 0 | 0 | 1896 | 0 | 252 | 0 | 486 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 2738 | 0 | 0 | 1896 | 0 | 252 | 0 | 486 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 2738 | 0 | 0 | 1896 | 0 | 252 | 0 | 486 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 2.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 3150 | 0 | 3150 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.36 | 0.00 | 0.00 | 0.25 | 0.00 | 0.08 | 0.00 | 0.15 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | | | | | | **** | | | |
| Green Time: | 0.0 | 60.4 | 0.0 | 0.0 | 47.6 | 0.0 | 12.6 | 12.6 | 18.6 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.51 | 0.00 | 0.00 | 0.45 | 0.00 | 0.54 | 0.00 | 0.71 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 5.6 | 0.0 | 0.0 | 11.0 | 0.0 | 33.5 | 0.0 | 30.7 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 1.3 | 0.0 | 3.3 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.21 | 0.00 | 0.00 | 0.66 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 1.2 | 0.0 | 0.0 | 7.3 | 0.0 | 34.8 | 0.0 | 34.0 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 1.2 | 0.0 | 0.0 | 7.3 | 0.0 | 34.8 | 0.0 | 34.0 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | A | A | A | A | A | C- | A | C- | A | A | A |
| HCM2kAvgQ: | 0 | 3 | 0 | 0 | 5 | 0 | 4 | 0 | 8 | 0 | 0 | 0 |

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

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

Intersection #68: Lawrence Expwy & US 101 SB Ramps

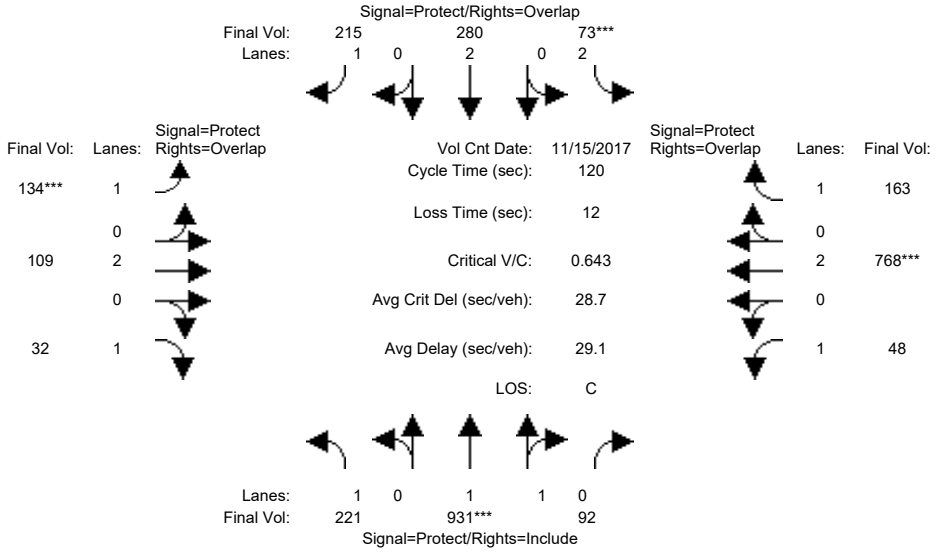



| Street Name: | Lawrence Expwy | | | | | | US 101 SB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Min. Green: | 0 | 61 | 0 | 0 | 44 | 0 | 15 | 18 | 15 | 0 | 0 | 0 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 5.5 | 0.0 | 5.5 | 0.0 | 0.0 | 0.0 |
| Volume Module: >> Count Date: 23 May 2019 << | | | | | | | | | | | | |
| Base Vol: | 0 | 1974 | 352 | 0 | 2459 | 0 | 628 | 0 | 1125 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1974 | 352 | 0 | 2459 | 0 | 628 | 0 | 1125 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 1974 | 352 | 0 | 2459 | 0 | 628 | 0 | 1125 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1974 | 0 | 0 | 2459 | 0 | 628 | 0 | 1125 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1974 | 0 | 0 | 2459 | 0 | 628 | 0 | 1125 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 1974 | 0 | 0 | 2459 | 0 | 628 | 0 | 1125 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 2.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 3150 | 0 | 3150 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.26 | 0.00 | 0.00 | 0.32 | 0.00 | 0.20 | 0.00 | 0.36 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | | | | **** | | | | **** | | | |
| Green Time: | 0.0 | 61.8 | 0.0 | 0.0 | 44.6 | 0.0 | 15.7 | 18.3 | 38.4 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.37 | 0.00 | 0.00 | 0.65 | 0.00 | 1.13 | 0.00 | 0.83 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 5.6 | 0.0 | 0.0 | 16.4 | 0.0 | 36.7 | 0.0 | 22.4 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 79.3 | 0.0 | 4.4 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.28 | 0.00 | 0.00 | 0.76 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 1.6 | 0.0 | 0.0 | 12.9 | 0.0 | 116.0 | 0.0 | 26.7 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 1.6 | 0.0 | 0.0 | 12.9 | 0.0 | 116.0 | 0.0 | 26.7 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | A | A | A | B | A | F | A | C | A | A | A |
| HCM2kAvgQ: | 0 | 2 | 0 | 0 | 11 | 0 | 19 | 0 | 19 | 0 | 0 | 0 |

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

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

Intersection #84: Bowers Ave & Kifer Rd

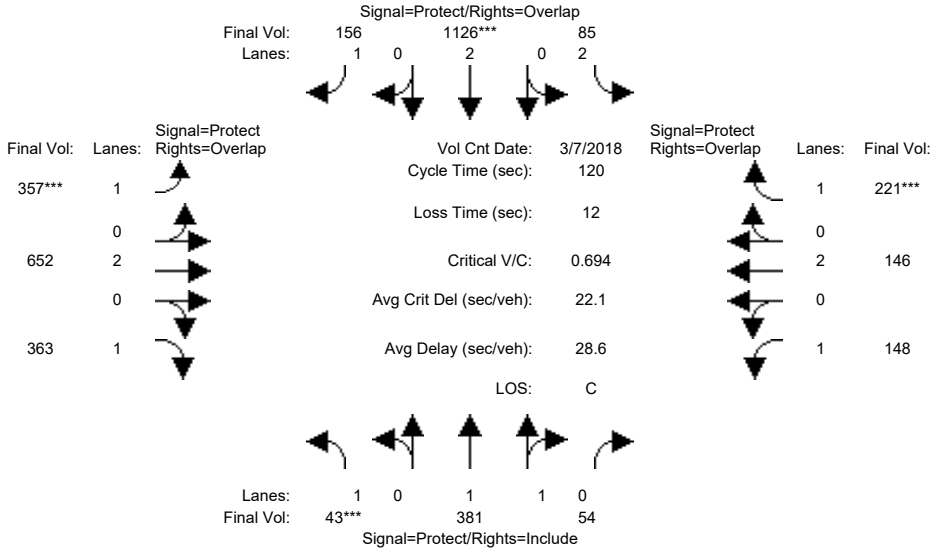



| Street Name: | Bowers Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 5 | 10 | 10 | 8 | 10 | 10 | 5 | 5 | 5 | 5 | 5 | 5 |
| Y+R: | 4.1 | 5.0 | 5.0 | 4.0 | 5.0 | 5.0 | 4.1 | 4.6 | 4.6 | 4.0 | 5.0 | 5.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 201 | 847 | 84 | 66 | 255 | 196 | 122 | 99 | 29 | 44 | 699 | 148 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 201 | 847 | 84 | 66 | 255 | 196 | 122 | 99 | 29 | 44 | 699 | 148 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 201 | 847 | 84 | 66 | 255 | 196 | 122 | 99 | 29 | 44 | 699 | 148 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| PHF Volume: | 221 | 931 | 92 | 73 | 280 | 215 | 134 | 109 | 32 | 48 | 768 | 163 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 221 | 931 | 92 | 73 | 280 | 215 | 134 | 109 | 32 | 48 | 768 | 163 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 221 | 931 | 92 | 73 | 280 | 215 | 134 | 109 | 32 | 48 | 768 | 163 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.81 | 0.19 | 2.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 3366 | 334 | 3150 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.28 | 0.28 | 0.02 | 0.07 | 0.12 | 0.08 | 0.03 | 0.02 | 0.03 | 0.20 | 0.09 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 34.8 | 49.8 | 49.8 | 8.0 | 23.0 | 36.8 | 13.8 | 25.1 | 59.9 | 25.1 | 36.4 | 44.4 |
| Volume/Cap: | 0.44 | 0.67 | 0.67 | 0.35 | 0.38 | 0.40 | 0.67 | 0.14 | 0.04 | 0.13 | 0.67 | 0.25 |
| Uniform Del: | 34.6 | 28.4 | 28.4 | 53.5 | 42.3 | 32.9 | 50.9 | 38.6 | 15.3 | 38.6 | 36.5 | 26.3 |
| IncremntDel: | 0.6 | 1.1 | 1.1 | 1.0 | 0.3 | 0.5 | 8.2 | 0.1 | 0.0 | 0.2 | 1.5 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.73 | 0.53 | 0.53 | 0.95 | 0.84 | 0.71 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 25.8 | 16.1 | 16.1 | 51.9 | 36.0 | 23.7 | 59.1 | 38.7 | 15.3 | 38.8 | 38.0 | 26.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 25.8 | 16.1 | 16.1 | 51.9 | 36.0 | 23.7 | 59.1 | 38.7 | 15.3 | 38.8 | 38.0 | 26.5 |
| LOS by Move: | C | B | B | D- | D+ | C | E+ | D+ | B | D+ | D+ | C |
| HCM2kAvgQ: | 5 | 11 | 11 | 1 | 4 | 5 | 5 | 2 | 1 | 1 | 12 | 4 |

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

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

Intersection #84: Bowers Ave & Kifer Rd

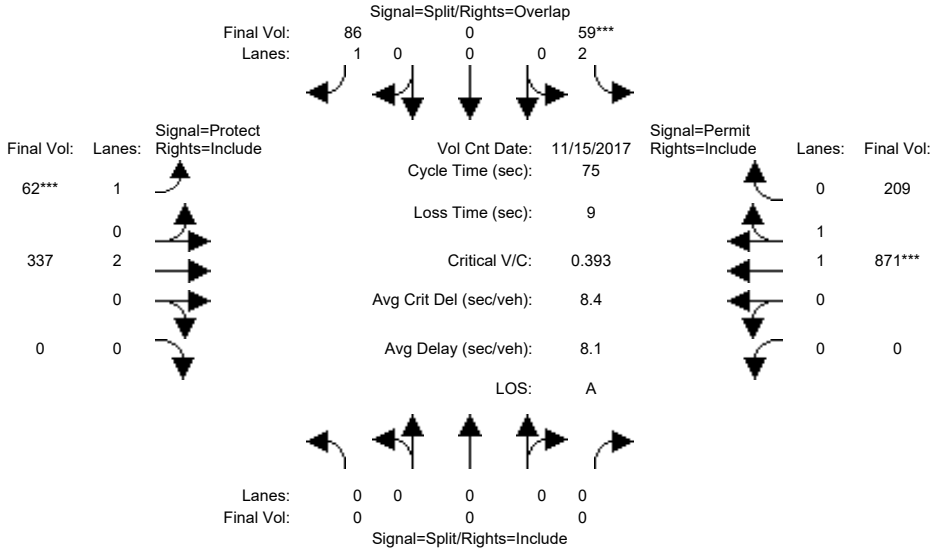



| Street Name: | Bowers Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 5 | 10 | 10 | 8 | 10 | 10 | 5 | 5 | 5 | 5 | 5 | 5 |
| Y+R: | 4.1 | 5.0 | 5.0 | 4.0 | 5.0 | 5.0 | 4.1 | 4.6 | 4.6 | 4.0 | 5.0 | 5.0 |
| Volume Module: >> Count Date: 7 Mar 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 43 | 377 | 53 | 84 | 1115 | 154 | 353 | 645 | 359 | 147 | 145 | 219 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 43 | 377 | 53 | 84 | 1115 | 154 | 353 | 645 | 359 | 147 | 145 | 219 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 43 | 377 | 53 | 84 | 1115 | 154 | 353 | 645 | 359 | 147 | 145 | 219 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| PHF Volume: | 43 | 381 | 54 | 85 | 1126 | 156 | 357 | 652 | 363 | 148 | 146 | 221 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 43 | 381 | 54 | 85 | 1126 | 156 | 357 | 652 | 363 | 148 | 146 | 221 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 43 | 381 | 54 | 85 | 1126 | 156 | 357 | 652 | 363 | 148 | 146 | 221 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.75 | 0.25 | 2.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 3244 | 456 | 3150 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.12 | 0.12 | 0.03 | 0.30 | 0.09 | 0.20 | 0.17 | 0.21 | 0.08 | 0.04 | 0.13 |
| Crit Moves: | **** | | | | **** | | **** | | | | | **** |
| Green Time: | 5.0 | 38.0 | 38.0 | 21.6 | 54.5 | 92.0 | 37.5 | 33.1 | 38.1 | 15.4 | 11.0 | 32.5 |
| Volume/Cap: | 0.60 | 0.37 | 0.37 | 0.15 | 0.65 | 0.12 | 0.65 | 0.62 | 0.65 | 0.66 | 0.42 | 0.47 |
| Uniform Del: | 56.5 | 31.8 | 31.8 | 41.5 | 25.4 | 3.6 | 35.6 | 38.0 | 35.3 | 49.8 | 51.5 | 36.5 |
| IncremntDel: | 12.7 | 0.2 | 0.2 | 0.1 | 0.9 | 0.0 | 2.8 | 1.2 | 2.8 | 7.2 | 0.8 | 0.7 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.97 | 0.69 | 0.69 | 0.85 | 0.44 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 67.6 | 22.2 | 22.2 | 35.6 | 12.2 | 0.0 | 38.4 | 39.2 | 38.1 | 57.0 | 52.3 | 37.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 67.6 | 22.2 | 22.2 | 35.6 | 12.2 | 0.0 | 38.4 | 39.2 | 38.1 | 57.0 | 52.3 | 37.2 |
| LOS by Move: | E | C+ | C+ | D+ | B | A | D+ | D | D+ | E+ | D- | D+ |
| HCM2kAvgQ: | 2 | 5 | 5 | 1 | 10 | 0 | 12 | 10 | 12 | 6 | 3 | 7 |

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

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

Intersection #85: Corvin Dr & Kifer Rd

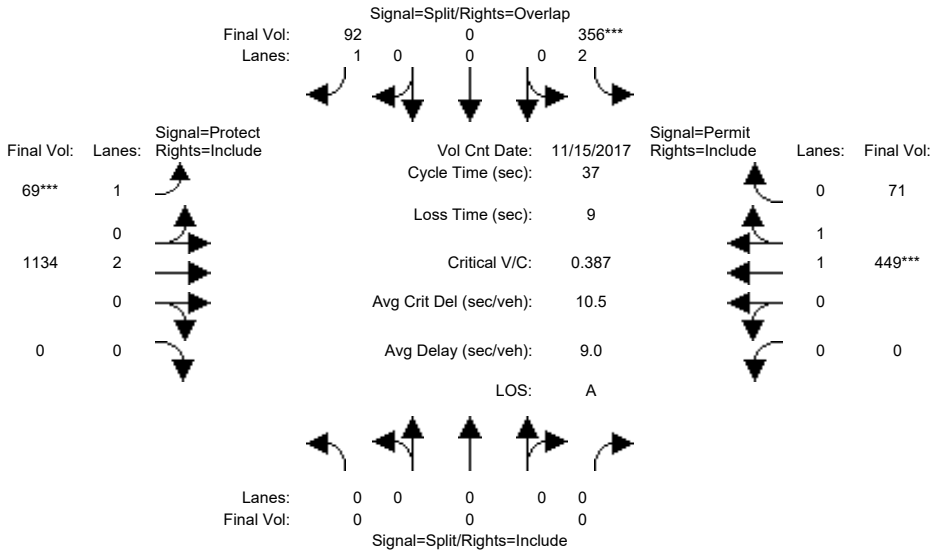



| Street Name: | Corvin Dr | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 5 | 0 | 5 | 5 | 10 | 0 | 0 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.5 | 5.5 | 4.0 | 4.0 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 53 | 0 | 77 | 56 | 303 | 0 | 0 | 784 | 188 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 53 | 0 | 77 | 56 | 303 | 0 | 0 | 784 | 188 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 53 | 0 | 77 | 56 | 303 | 0 | 0 | 784 | 188 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| PHF Volume: | 0 | 0 | 0 | 59 | 0 | 86 | 62 | 337 | 0 | 0 | 871 | 209 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 59 | 0 | 86 | 62 | 337 | 0 | 0 | 871 | 209 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 59 | 0 | 86 | 62 | 337 | 0 | 0 | 871 | 209 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 1.60 | 0.40 |
| Final Sat.: | 0 | 0 | 0 | 3150 | 0 | 1750 | 1750 | 3800 | 0 | 0 | 2984 | 716 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.05 | 0.04 | 0.09 | 0.00 | 0.00 | 0.29 | 0.29 |
| Crit Moves: | | | | **** | | | **** | | | | **** | |
| Green Time: | 0.0 | 0.0 | 0.0 | 9.3 | 0.0 | 15.5 | 6.2 | 56.7 | 0.0 | 0.0 | 50.5 | 50.5 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.15 | 0.00 | 0.24 | 0.43 | 0.12 | 0.00 | 0.00 | 0.43 | 0.43 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 29.3 | 0.0 | 24.8 | 32.8 | 2.5 | 0.0 | 0.0 | 5.6 | 5.6 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.3 | 2.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 29.5 | 0.0 | 25.2 | 34.9 | 2.5 | 0.0 | 0.0 | 5.8 | 5.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 29.5 | 0.0 | 25.2 | 34.9 | 2.5 | 0.0 | 0.0 | 5.8 | 5.8 |
| LOS by Move: | A | A | A | C | A | C | C- | A | A | A | A | A |
| HCM2kAvgQ: | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 6 | 6 |

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

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

Intersection #85: Corvin Dr & Kifer Rd

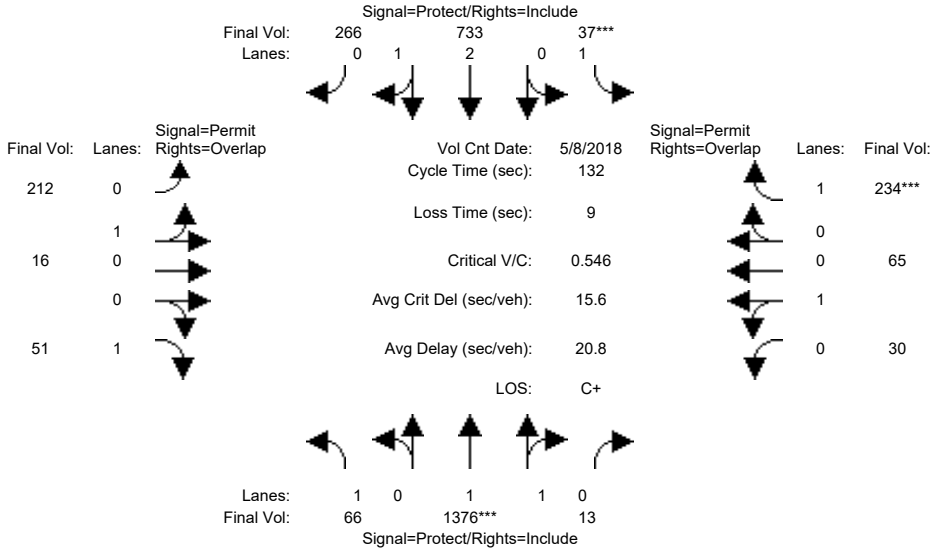



| Street Name: | Corvin Dr | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 5 | 0 | 5 | 5 | 10 | 0 | 0 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.5 | 5.5 | 4.0 | 4.0 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 15 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 317 | 0 | 82 | 61 | 1009 | 0 | 0 | 400 | 63 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 317 | 0 | 82 | 61 | 1009 | 0 | 0 | 400 | 63 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 317 | 0 | 82 | 61 | 1009 | 0 | 0 | 400 | 63 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| PHF Volume: | 0 | 0 | 0 | 356 | 0 | 92 | 69 | 1134 | 0 | 0 | 449 | 71 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 356 | 0 | 92 | 69 | 1134 | 0 | 0 | 449 | 71 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 356 | 0 | 92 | 69 | 1134 | 0 | 0 | 449 | 71 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 1.72 | 0.28 |
| Final Sat.: | 0 | 0 | 0 | 3150 | 0 | 1750 | 1750 | 3800 | 0 | 0 | 3196 | 503 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 | 0.05 | 0.04 | 0.30 | 0.00 | 0.00 | 0.14 | 0.14 |
| Crit Moves: | | | | **** | | | **** | | | | **** | |
| Green Time: | 0.0 | 0.0 | 0.0 | 10.3 | 0.0 | 15.3 | 5.0 | 17.7 | 0.0 | 0.0 | 12.7 | 12.7 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.41 | 0.00 | 0.13 | 0.29 | 0.62 | 0.00 | 0.00 | 0.41 | 0.41 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 10.9 | 0.0 | 6.7 | 14.4 | 7.1 | 0.0 | 0.0 | 9.2 | 9.2 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.1 | 0.7 | 0.7 | 0.0 | 0.0 | 0.2 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 11.2 | 0.0 | 6.8 | 15.1 | 7.8 | 0.0 | 0.0 | 9.5 | 9.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 11.2 | 0.0 | 6.8 | 15.1 | 7.8 | 0.0 | 0.0 | 9.5 | 9.5 |
| LOS by Move: | A | A | A | B+ | A | A | B | A | A | A | A | A |
| HCM2kAvgQ: | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 5 | 0 | 0 | 2 | 2 |

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

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

Intersection #91: Fair Oaks Ave & Ahwanee Ave

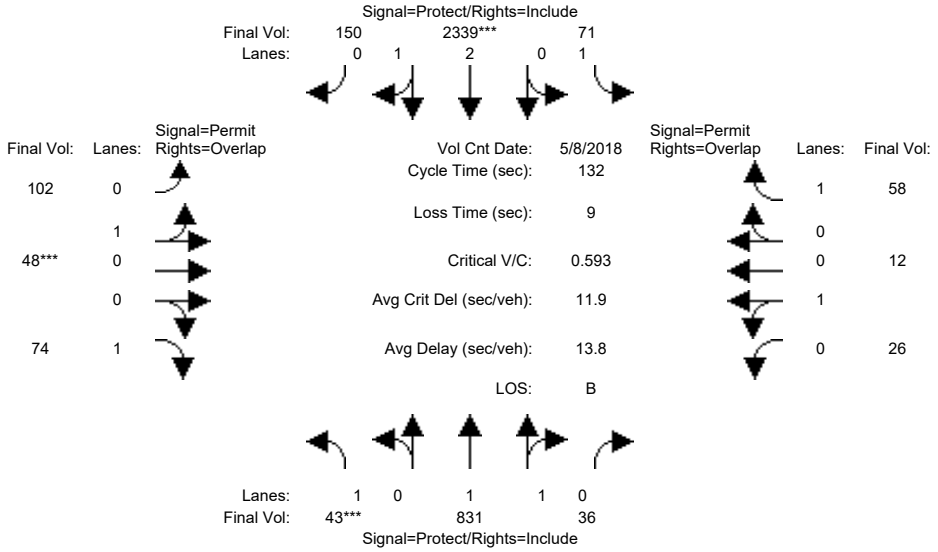



| Street Name: | Fair Oaks Ave | | | | | | Ahwanee Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 66 | 1376 | 13 | 37 | 733 | 266 | 212 | 16 | 51 | 30 | 65 | 234 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 66 | 1376 | 13 | 37 | 733 | 266 | 212 | 16 | 51 | 30 | 65 | 234 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 66 | 1376 | 13 | 37 | 733 | 266 | 212 | 16 | 51 | 30 | 65 | 234 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 66 | 1376 | 13 | 37 | 733 | 266 | 212 | 16 | 51 | 30 | 65 | 234 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 66 | 1376 | 13 | 37 | 733 | 266 | 212 | 16 | 51 | 30 | 65 | 234 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 66 | 1376 | 13 | 37 | 733 | 266 | 212 | 16 | 51 | 30 | 65 | 234 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.92 | 1.00 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes: | 1.00 | 1.98 | 0.02 | 1.00 | 2.17 | 0.83 | 0.93 | 0.07 | 1.00 | 0.32 | 0.68 | 1.00 |
| Final Sat.: | 1750 | 3665 | 35 | 1750 | 4107 | 1490 | 1674 | 126 | 1750 | 568 | 1232 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.38 | 0.38 | 0.02 | 0.18 | 0.18 | 0.13 | 0.13 | 0.03 | 0.05 | 0.05 | 0.13 |
| Crit Moves: | | **** | | **** | | | | | | | | **** |
| Green Time: | 23.5 | 95.5 | 95.5 | 7.0 | 79.0 | 79.0 | 20.5 | 20.5 | 44.0 | 20.5 | 20.5 | 27.5 |
| Volume/Cap: | 0.21 | 0.52 | 0.52 | 0.40 | 0.30 | 0.30 | 0.81 | 0.81 | 0.09 | 0.34 | 0.34 | 0.64 |
| Uniform Del: | 46.4 | 8.1 | 8.1 | 60.5 | 12.9 | 12.9 | 53.9 | 53.9 | 30.2 | 49.7 | 49.7 | 47.7 |
| IncremntDel: | 0.3 | 0.2 | 0.2 | 2.8 | 0.1 | 0.1 | 16.6 | 16.6 | 0.1 | 0.7 | 0.7 | 3.8 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 46.7 | 8.3 | 8.3 | 63.3 | 13.0 | 13.0 | 70.5 | 70.5 | 30.3 | 50.4 | 50.4 | 51.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 46.7 | 8.3 | 8.3 | 63.3 | 13.0 | 13.0 | 70.5 | 70.5 | 30.3 | 50.4 | 50.4 | 51.6 |
| LOS by Move: | D | A | A | E | B | B | E | E | C | D | D | D- |
| HCM2kAvgQ: | 2 | 12 | 12 | 2 | 6 | 6 | 12 | 12 | 1 | 4 | 4 | 10 |

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

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

Intersection #91: Fair Oaks Ave & Ahwanee Ave

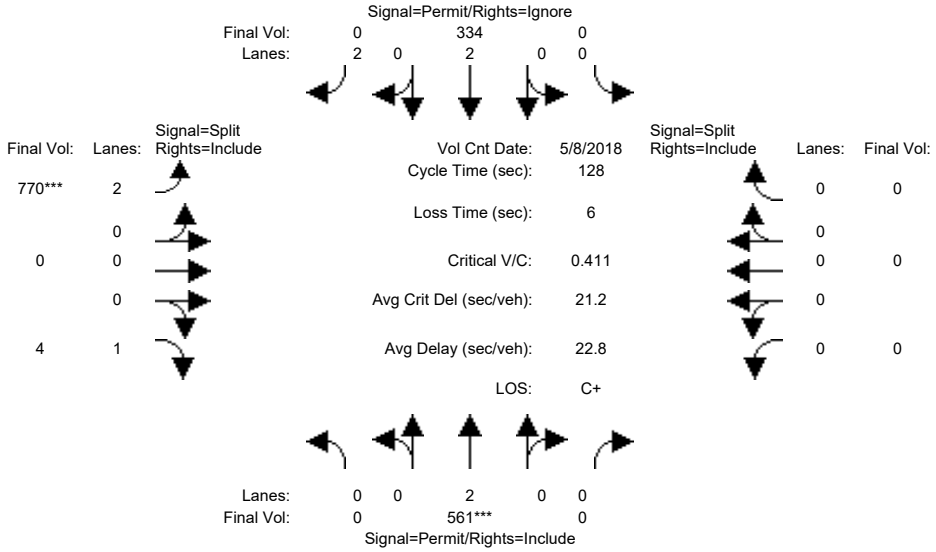



| Street Name: | Fair Oaks Ave | | | | | | Ahwanee Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 43 | 831 | 36 | 71 | 2339 | 150 | 102 | 48 | 74 | 26 | 12 | 58 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 43 | 831 | 36 | 71 | 2339 | 150 | 102 | 48 | 74 | 26 | 12 | 58 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 43 | 831 | 36 | 71 | 2339 | 150 | 102 | 48 | 74 | 26 | 12 | 58 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 43 | 831 | 36 | 71 | 2339 | 150 | 102 | 48 | 74 | 26 | 12 | 58 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 43 | 831 | 36 | 71 | 2339 | 150 | 102 | 48 | 74 | 26 | 12 | 58 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 43 | 831 | 36 | 71 | 2339 | 150 | 102 | 48 | 74 | 26 | 12 | 58 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes: | 1.00 | 1.91 | 0.09 | 1.00 | 2.81 | 0.19 | 0.68 | 0.32 | 1.00 | 0.68 | 0.32 | 1.00 |
| Final Sat.: | 1750 | 3546 | 154 | 1750 | 5262 | 337 | 1224 | 576 | 1750 | 1232 | 568 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.23 | 0.23 | 0.04 | 0.44 | 0.44 | 0.08 | 0.08 | 0.04 | 0.02 | 0.02 | 0.03 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |
| Green Time: | 7.0 | 85.4 | 85.4 | 19.3 | 97.7 | 97.7 | 18.3 | 18.3 | 25.3 | 18.3 | 18.3 | 37.6 |
| Volume/Cap: | 0.46 | 0.36 | 0.36 | 0.28 | 0.60 | 0.60 | 0.60 | 0.60 | 0.22 | 0.15 | 0.15 | 0.12 |
| Uniform Del: | 60.7 | 10.8 | 10.8 | 50.1 | 8.0 | 8.0 | 53.4 | 53.4 | 45.0 | 50.0 | 50.0 | 34.9 |
| IncremntDel: | 3.6 | 0.1 | 0.1 | 0.6 | 0.2 | 0.2 | 4.0 | 4.0 | 0.3 | 0.3 | 0.3 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 64.3 | 10.9 | 10.9 | 50.7 | 8.3 | 8.3 | 57.4 | 57.4 | 45.4 | 50.3 | 50.3 | 35.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 64.3 | 10.9 | 10.9 | 50.7 | 8.3 | 8.3 | 57.4 | 57.4 | 45.4 | 50.3 | 50.3 | 35.0 |
| LOS by Move: | E | B+ | B+ | D | A | A | E+ | E+ | D | D | D | C- |
| HCM2kAvgQ: | 2 | 8 | 8 | 3 | 16 | 16 | 7 | 7 | 3 | 1 | 1 | 2 |

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

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

Intersection #92: Fair Oaks Ave & Wolfe Rd

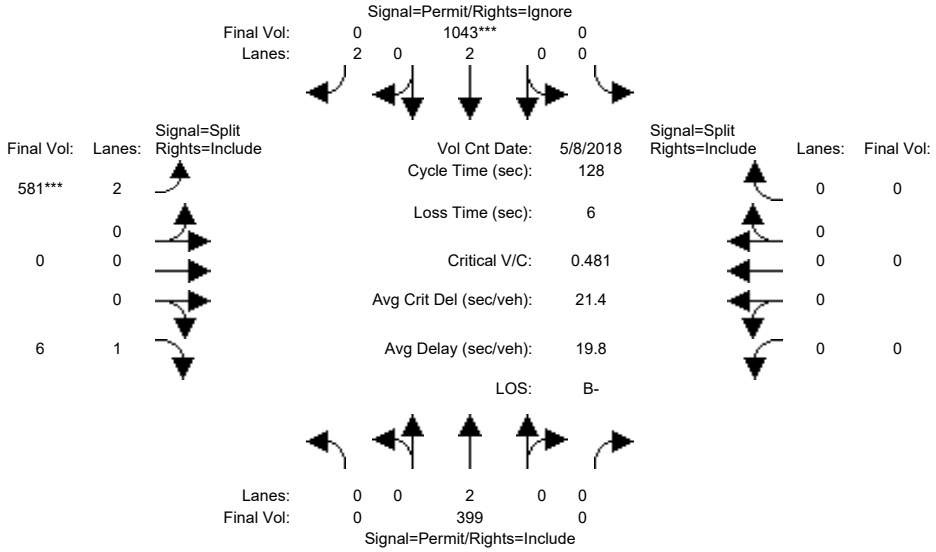



| Street Name: | Fair Oaks Ave | | | | | | Wolfe Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 10 | 10 | 0 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 561 | 0 | 0 | 334 | 574 | 770 | 0 | 4 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 561 | 0 | 0 | 334 | 574 | 770 | 0 | 4 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 561 | 0 | 0 | 334 | 574 | 770 | 0 | 4 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 561 | 0 | 0 | 334 | 0 | 770 | 0 | 4 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 561 | 0 | 0 | 334 | 0 | 770 | 0 | 4 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 561 | 0 | 0 | 334 | 0 | 770 | 0 | 4 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3800 | 0 | 0 | 3800 | 3150 | 3150 | 0 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.15 | 0.00 | 0.00 | 0.09 | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | | | | **** | | | | | |
| Green Time: | 0.0 | 45.9 | 0.0 | 0.0 | 45.9 | 0.0 | 76.1 | 0.0 | 76.1 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.41 | 0.00 | 0.00 | 0.24 | 0.00 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 30.9 | 0.0 | 0.0 | 28.8 | 0.0 | 13.9 | 0.0 | 10.6 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 31.1 | 0.0 | 0.0 | 28.9 | 0.0 | 14.1 | 0.0 | 10.6 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 31.1 | 0.0 | 0.0 | 28.9 | 0.0 | 14.1 | 0.0 | 10.6 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | C | A | A | C | A | B | A | B+ | A | A | A |
| HCM2kAvgQ: | 0 | 8 | 0 | 0 | 4 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |

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

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

Intersection #92: Fair Oaks Ave & Wolfe Rd

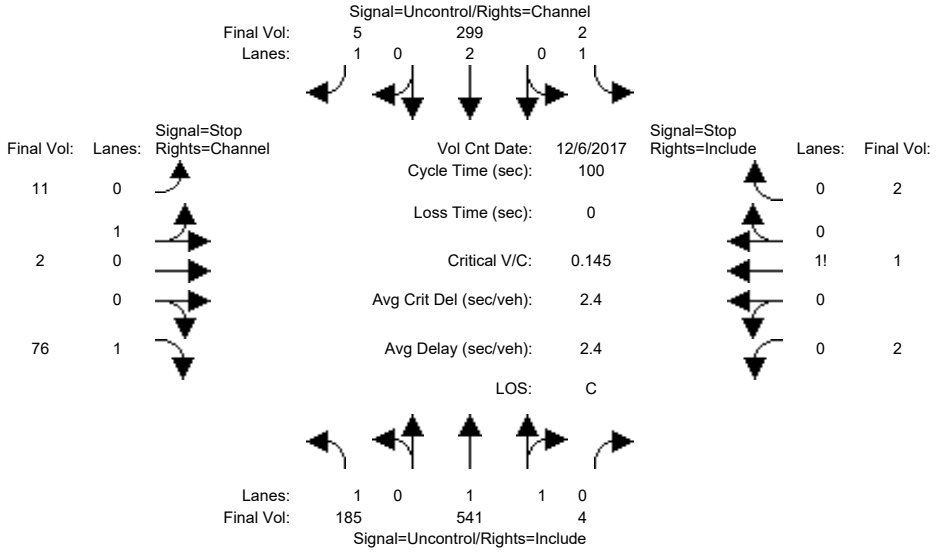



| Street Name: | Fair Oaks Ave | | | | | | Wolfe Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 0 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 399 | 0 | 0 | 1043 | 1080 | 581 | 0 | 6 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 399 | 0 | 0 | 1043 | 1080 | 581 | 0 | 6 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 399 | 0 | 0 | 1043 | 1080 | 581 | 0 | 6 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 399 | 0 | 0 | 1043 | 0 | 581 | 0 | 6 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 399 | 0 | 0 | 1043 | 0 | 581 | 0 | 6 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 399 | 0 | 0 | 1043 | 0 | 581 | 0 | 6 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3800 | 0 | 0 | 3800 | 3150 | 3150 | 0 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.11 | 0.00 | 0.00 | 0.27 | 0.00 | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | | | | **** | | **** | | | | | |
| Green Time: | 0.0 | 73.0 | 0.0 | 0.0 | 73.0 | 0.0 | 49.0 | 0.0 | 49.0 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.18 | 0.00 | 0.00 | 0.48 | 0.00 | 0.48 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 13.2 | 0.0 | 0.0 | 16.3 | 0.0 | 29.9 | 0.0 | 24.4 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 13.3 | 0.0 | 0.0 | 16.5 | 0.0 | 30.2 | 0.0 | 24.4 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 13.3 | 0.0 | 0.0 | 16.5 | 0.0 | 30.2 | 0.0 | 24.4 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | B | A | A | B | A | C | A | C | A | A | A |
| HCM2kAvgQ: | 0 | 4 | 0 | 0 | 12 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |

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

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

Intersection #93: Wolfe Rd & Maude Ave




| Street Name: | Wolfe Rd | | | | | | Maude Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 185 | 541 | 4 | 2 | 299 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 185 | 541 | 4 | 2 | 299 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 185 | 541 | 4 | 2 | 299 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 185 | 541 | 4 | 2 | 299 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 185 | 541 | 4 | 2 | 299 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| FollowUpTim: | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 299 | xxxx | xxxxx | 545 | xxxx | xxxxx | 944 | 1218 | 150 | 1068 | 1216 | 273 |
| Potent Cap.: | 1274 | xxxx | xxxxx | 1034 | xxxx | xxxxx | 220 | 182 | 877 | 179 | 183 | 731 |
| Move Cap.: | 1274 | xxxx | xxxxx | 1034 | xxxx | xxxxx | 194 | 155 | 877 | 144 | 156 | 731 |
| Volume/Cap: | 0.15 | xxxx | xxxx | 0.00 | xxxx | xxxx | 0.06 | 0.01 | 0.09 | 0.01 | 0.01 | 0.00 |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 0.5 | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxx | xxxx | 0.3 | xxxx | xxxx | xxxxx |
| Control Del: | 8.3 | xxxx | xxxxx | 8.5 | xxxx | xxxxx | xxxxx | xxxx | 9.5 | xxxxx | xxxx | xxxxx |
| LOS by Move: | A | * | * | A | * | * | * | * | A | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 187 | xxxx | xxxxx | xxxx | 217 | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 0.2 | xxxx | xxxxx | xxxxx | 0.1 | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 25.7 | xxxx | xxxxx | xxxxx | 22.0 | xxxxx |
| Shared LOS: | * | * | * | * | * | * | D | * | * | * | C | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 11.9 | | | 22.0 | | |
| ApproachLOS: | * | | | * | | | B | | | C | | |

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

Peak Hour Delay Signal Warrant Report

**********

Intersection #93 Wolfe Rd & Maude Ave

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | L | - T | - R | L | - T | - R | L | - T | - R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 | 0 1 | 1 0 | 1 | 0 2 | 0 1 | 0 | 1 0 | 0 1 | 0 | 0 1! | 0 0 |
| Initial Vol: | 185 | 541 | 4 | 2 | 299 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 11.9 | | | 22.0 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=89]
   FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1130]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=5]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1130]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.

## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #93 Wolfe Rd & Maude Ave

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | L | - T | - R | L | - T | - R | L | - T | - R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 | 0 1 | 1 0 | 1 | 0 2 | 0 1 | 0 | 1 0 | 0 1 | 0 | 0 1! | 0 0 |
| Initial Vol: | 185 | 541 | 4 | 2 | 299 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |

Major Street Volume: 1036
Minor Approach Volume: 89
Minor Approach Volume Threshold: 359

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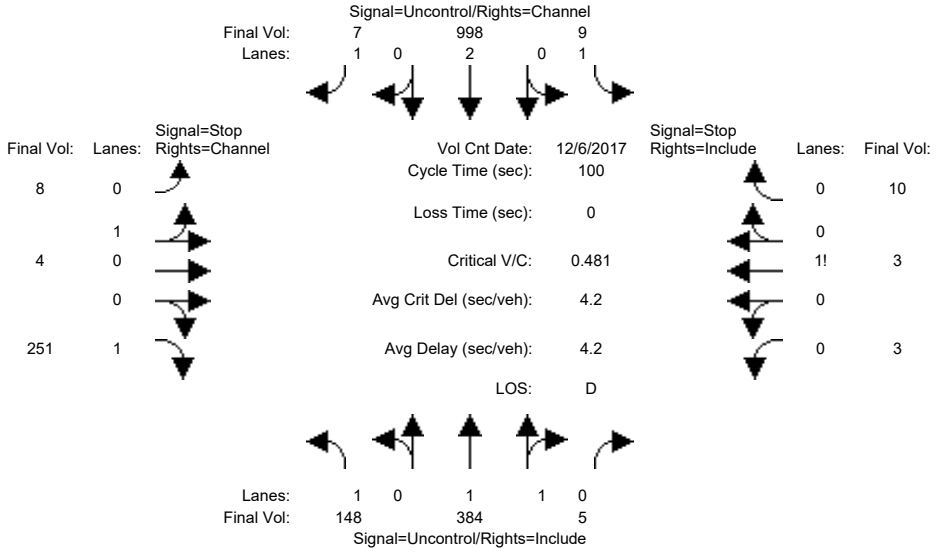
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.

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

Intersection #93: Wolfe Rd & Maude Ave




| Street Name: | Wolfe Rd | | | | | | Maude Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: >> Count Date: 6 Dec 2017 << 4:45 PM - 5:45 PM | | | | | | | | | | | | |
| Base Vol: | 148 | 384 | 5 | 9 | 998 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 148 | 384 | 5 | 9 | 998 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 148 | 384 | 5 | 9 | 998 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 148 | 384 | 5 | 9 | 998 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 148 | 384 | 5 | 9 | 998 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| FollowUpTim: | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 998 | xxxx | xxxxx | 389 | xxxx | xxxxx | 1506 | 1701 | 499 | 1202 | 1699 | 195 |
| Potent Cap.: | 701 | xxxx | xxxxx | 1181 | xxxx | xxxxx | 85 | 93 | 522 | 143 | 93 | 820 |
| Move Cap.: | 701 | xxxx | xxxxx | 1181 | xxxx | xxxxx | 68 | 73 | 522 | 59 | 73 | 820 |
| Volume/Cap: | 0.21 | xxxx | xxxx | 0.01 | xxxx | xxxx | 0.12 | 0.05 | 0.48 | 0.05 | 0.04 | 0.01 |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 0.8 | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxx | xxxx | 2.6 | xxxx | xxxx | xxxxx |
| Control Del: | 11.5 | xxxx | xxxxx | 8.1 | xxxx | xxxxx | xxxxx | xxxx | 18.1 | xxxxx | xxxx | xxxxx |
| LOS by Move: | B | * | * | A | * | * | * | * | C | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 69 | xxxx | xxxxx | xxxx | 154 | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 0.6 | xxxx | xxxxx | xxxxx | 0.3 | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 67.4 | xxxx | xxxxx | xxxxx | 31.1 | xxxxx |
| Shared LOS: | * | * | * | * | * | * | F | * | * | * | D | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 20.4 | | | 31.1 | | |
| ApproachLOS: | * | | | * | | | C | | | D | | |

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

Peak Hour Delay Signal Warrant Report

**********

Intersection #93 Wolfe Rd & Maude Ave

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | L | - T | - R | L | - T | - R | L | - T | - R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 2 0 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Initial Vol: | 148 | 384 | 5 | 9 | 998 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 20.4 | | | 31.1 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.5]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=263]
SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1830]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

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Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=16]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1830]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #93 Wolfe Rd & Maude Ave

**********

Future Volume Alternative: Peak Hour Warrant Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | L | - T | - R | L | - T | - R | L | - T | - R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 2 0 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Initial Vol: | 148 | 384 | 5 | 9 | 998 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |

Major Street Volume: 1551
Minor Approach Volume: 263
Minor Approach Volume Threshold: 185

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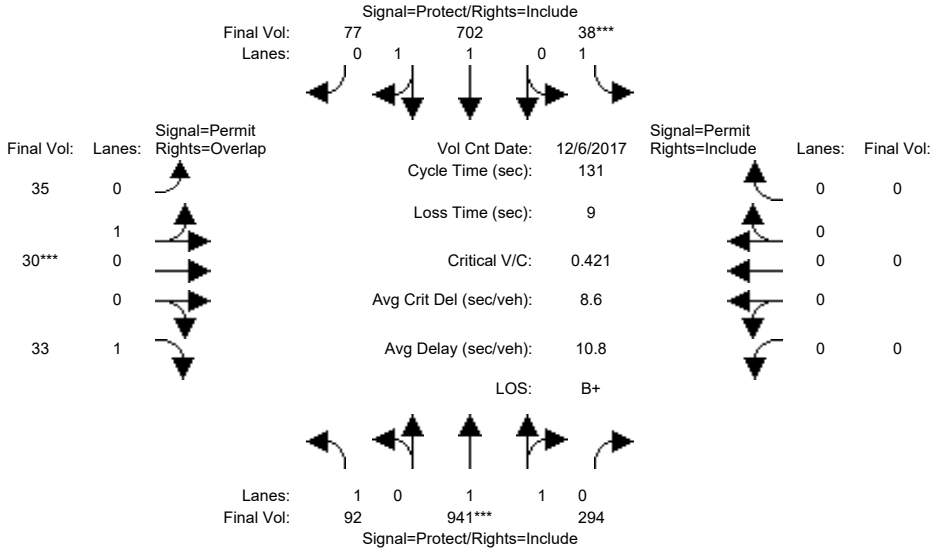
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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

Intersection #95: Fair Oaks Ave & California Ave

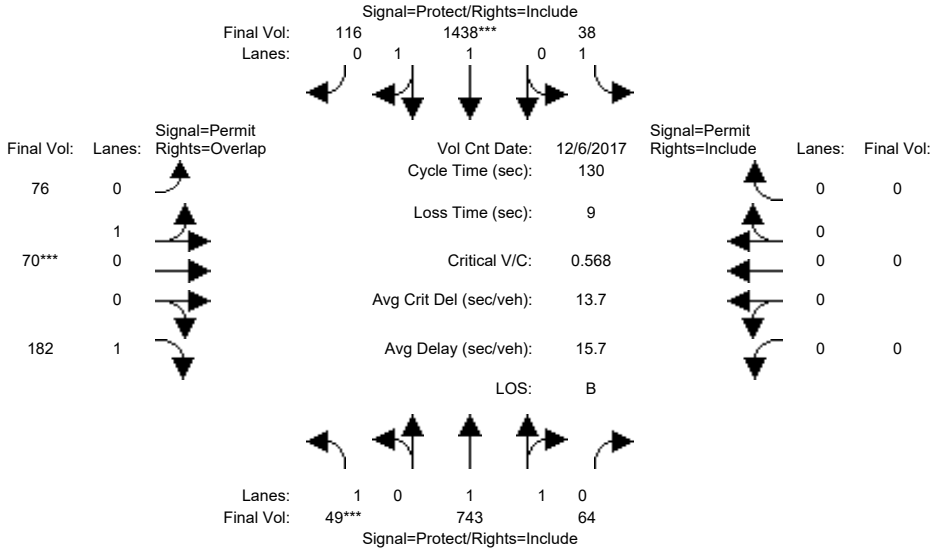



| Street Name: | Fair Oaks Ave | | | | | | California Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 92 | 941 | 294 | 38 | 702 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 92 | 941 | 294 | 38 | 702 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 92 | 941 | 294 | 38 | 702 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 92 | 941 | 294 | 38 | 702 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 92 | 941 | 294 | 38 | 702 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 92 | 941 | 294 | 38 | 702 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.51 | 0.49 | 1.00 | 1.80 | 0.20 | 0.54 | 0.46 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1750 | 2819 | 881 | 1750 | 3334 | 366 | 969 | 831 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.33 | 0.33 | 0.02 | 0.21 | 0.21 | 0.04 | 0.04 | 0.02 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | | **** | | | | |
| Green Time: | 22.4 | 104 | 103.8 | 7.0 | 88.4 | 88.4 | 11.2 | 11.2 | 33.6 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.31 | 0.42 | 0.42 | 0.41 | 0.31 | 0.31 | 0.42 | 0.42 | 0.07 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 47.5 | 4.2 | 4.2 | 60.0 | 8.8 | 8.8 | 56.8 | 56.8 | 36.9 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.6 | 0.1 | 0.1 | 2.9 | 0.1 | 0.1 | 1.9 | 1.9 | 0.1 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 48.1 | 4.3 | 4.3 | 62.9 | 8.9 | 8.9 | 58.7 | 58.7 | 36.9 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 48.1 | 4.3 | 4.3 | 62.9 | 8.9 | 8.9 | 58.7 | 58.7 | 36.9 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | D | A | A | E | A | A | E+ | E+ | D+ | A | A | A |
| HCM2kAvgQ: | 3 | 8 | 8 | 2 | 6 | 6 | 3 | 3 | 1 | 0 | 0 | 0 |

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

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

Intersection #95: Fair Oaks Ave & California Ave

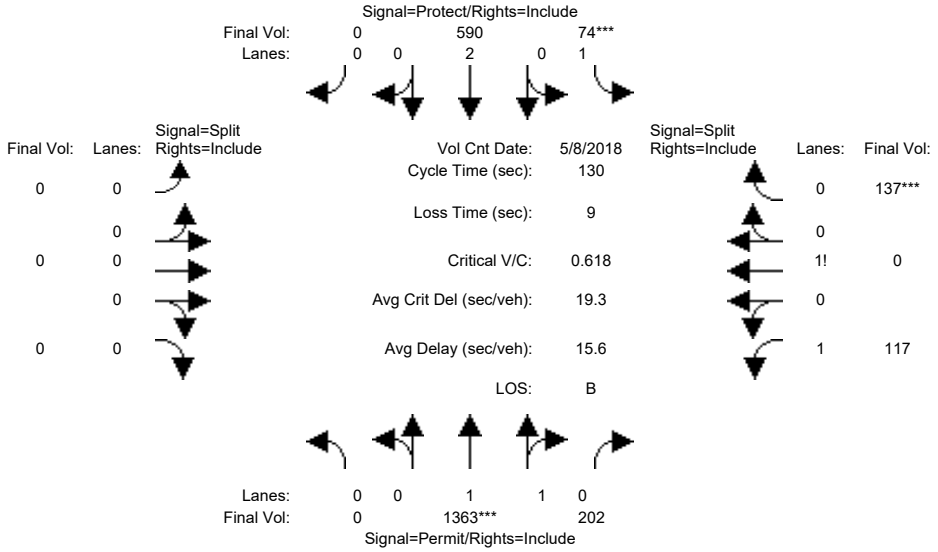



| Street Name: | Fair Oaks Ave | | | | | | California Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 49 | 743 | 64 | 38 | 1438 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 49 | 743 | 64 | 38 | 1438 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 49 | 743 | 64 | 38 | 1438 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 49 | 743 | 64 | 38 | 1438 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 49 | 743 | 64 | 38 | 1438 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 49 | 743 | 64 | 38 | 1438 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.84 | 0.16 | 1.00 | 1.85 | 0.15 | 0.52 | 0.48 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1750 | 3406 | 293 | 1750 | 3424 | 276 | 937 | 863 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.22 | 0.22 | 0.02 | 0.42 | 0.42 | 0.08 | 0.08 | 0.10 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |
| Green Time: | 7.0 | 82.2 | 82.2 | 20.3 | 95.5 | 95.5 | 18.5 | 18.5 | 25.5 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.52 | 0.34 | 0.34 | 0.14 | 0.57 | 0.57 | 0.57 | 0.57 | 0.53 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 59.9 | 11.2 | 11.2 | 47.3 | 7.9 | 7.9 | 52.1 | 52.1 | 46.9 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 5.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.3 | 3.1 | 3.1 | 1.6 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 65.0 | 11.3 | 11.3 | 47.5 | 8.2 | 8.2 | 55.2 | 55.2 | 48.5 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 65.0 | 11.3 | 11.3 | 47.5 | 8.2 | 8.2 | 55.2 | 55.2 | 48.5 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | E | B+ | B+ | D | A | A | E+ | E+ | D | A | A | A |
| HCM2kAvgQ: | 2 | 7 | 7 | 1 | 14 | 14 | 6 | 6 | 7 | 0 | 0 | 0 |

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

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

Intersection #96: Fair Oaks Ave & Kifer Rd

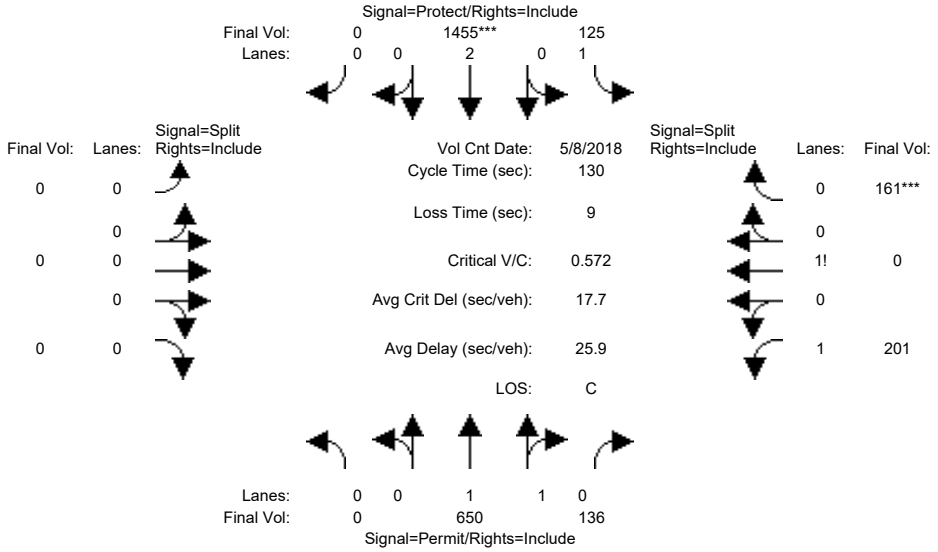



| Street Name: | Fair Oaks Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 10 | 10 | 7 | 10 | 0 | 0 | 0 | 0 | 10 | 0 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:15 AM - 9:15 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 1363 | 202 | 74 | 590 | 0 | 0 | 0 | 0 | 117 | 0 | 137 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1363 | 202 | 74 | 590 | 0 | 0 | 0 | 0 | 117 | 0 | 137 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 1363 | 202 | 74 | 590 | 0 | 0 | 0 | 0 | 117 | 0 | 137 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1363 | 202 | 74 | 590 | 0 | 0 | 0 | 0 | 117 | 0 | 137 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1363 | 202 | 74 | 590 | 0 | 0 | 0 | 0 | 117 | 0 | 137 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 1363 | 202 | 74 | 590 | 0 | 0 | 0 | 0 | 117 | 0 | 137 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.95 |
| Lanes: | 0.00 | 1.73 | 0.27 | 1.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.31 | 0.00 | 0.69 |
| Final Sat.: | 0 | 3222 | 478 | 1750 | 3800 | 0 | 0 | 0 | 0 | 2284 | 0 | 1251 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.42 | 0.42 | 0.04 | 0.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.11 |
| Crit Moves: | | **** | | **** | | | | | | | | **** |
| Green Time: | 0.0 | 89.0 | 89.0 | 8.9 | 97.9 | 0.0 | 0.0 | 0.0 | 0.0 | 23.1 | 0.0 | 23.1 |
| Volume/Cap: | 0.00 | 0.62 | 0.62 | 0.62 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.29 | 0.00 | 0.62 |
| Uniform Del: | 0.0 | 11.2 | 11.2 | 58.9 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 46.4 | 0.0 | 49.4 |
| IncremntDel: | 0.0 | 0.5 | 0.5 | 9.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 2.8 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 11.6 | 11.6 | 68.3 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 46.5 | 0.0 | 52.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 11.6 | 11.6 | 68.3 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 46.5 | 0.0 | 52.2 |
| LOS by Move: | A | B+ | B+ | E | A | A | A | A | A | D | A | D- |
| HCM2kAvgQ: | 0 | 17 | 17 | 3 | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 7 |

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

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

Intersection #96: Fair Oaks Ave & Kifer Rd

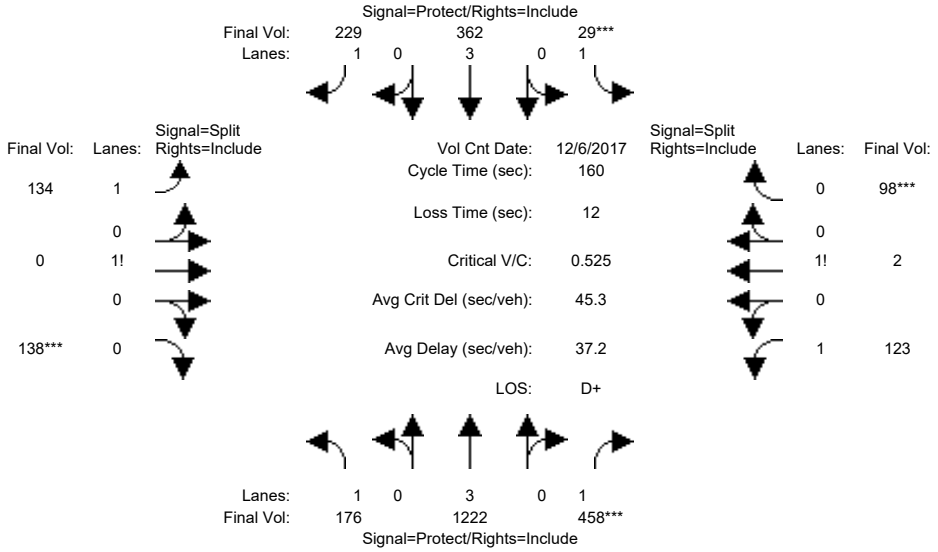



| Street Name: | Fair Oaks Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 10 | 10 | 7 | 10 | 0 | 0 | 0 | 0 | 10 | 0 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 650 | 136 | 125 | 1455 | 0 | 0 | 0 | 0 | 201 | 0 | 161 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 650 | 136 | 125 | 1455 | 0 | 0 | 0 | 0 | 201 | 0 | 161 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 650 | 136 | 125 | 1455 | 0 | 0 | 0 | 0 | 201 | 0 | 161 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 650 | 136 | 125 | 1455 | 0 | 0 | 0 | 0 | 201 | 0 | 161 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 650 | 136 | 125 | 1455 | 0 | 0 | 0 | 0 | 201 | 0 | 161 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 650 | 136 | 125 | 1455 | 0 | 0 | 0 | 0 | 201 | 0 | 161 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 1.64 | 0.36 | 1.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.38 | 0.00 | 0.62 |
| Final Sat.: | 0 | 3059 | 640 | 1750 | 3800 | 0 | 0 | 0 | 0 | 2423 | 0 | 1077 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.21 | 0.21 | 0.07 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 | 0.15 |
| Crit Moves: | | | | | **** | | | | | | | **** |
| Green Time: | 0.0 | 34.5 | 34.5 | 62.2 | 96.7 | 0.0 | 0.0 | 0.0 | 0.0 | 24.3 | 0.0 | 24.3 |
| Volume/Cap: | 0.00 | 0.80 | 0.80 | 0.15 | 0.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.44 | 0.00 | 0.80 |
| Uniform Del: | 0.0 | 44.5 | 44.5 | 19.0 | 6.9 | 0.0 | 0.0 | 0.0 | 0.0 | 46.9 | 0.0 | 50.5 |
| IncremntDel: | 0.0 | 4.7 | 4.7 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 9.8 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 49.3 | 49.3 | 19.1 | 7.1 | 0.0 | 0.0 | 0.0 | 0.0 | 47.3 | 0.0 | 60.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 49.3 | 49.3 | 19.1 | 7.1 | 0.0 | 0.0 | 0.0 | 0.0 | 47.3 | 0.0 | 60.3 |
| LOS by Move: | A | D | D | B- | A | A | A | A | A | D | A | E |
| HCM2kAvgQ: | 0 | 15 | 15 | 3 | 12 | 0 | 0 | 0 | 0 | 5 | 0 | 11 |

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

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

Intersection #97: Wolfe Rd & Central Expwy Ramps

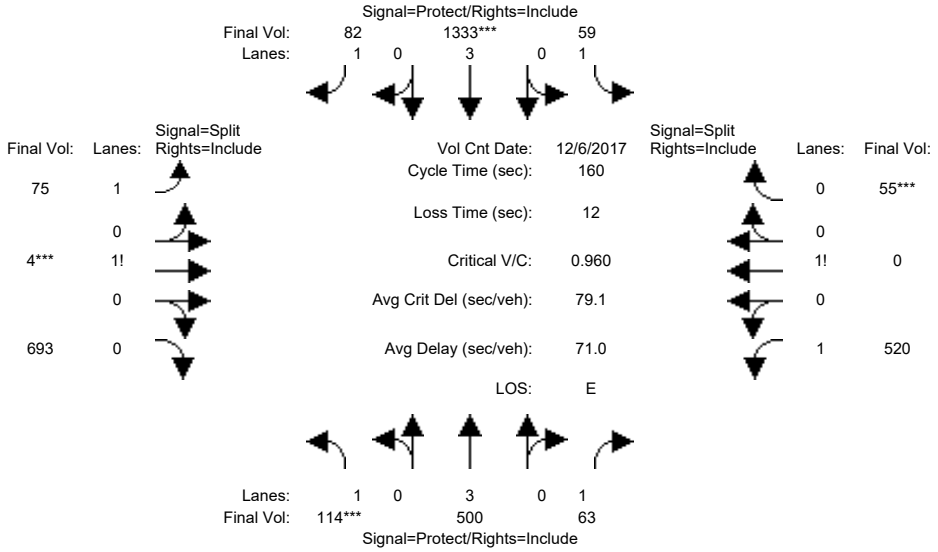



| Street Name: | Wolfe Rd | | | | | | Central Expwy Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 176 | 1222 | 458 | 29 | 362 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 176 | 1222 | 458 | 29 | 362 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 176 | 1222 | 458 | 29 | 362 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 176 | 1222 | 458 | 29 | 362 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 176 | 1222 | 458 | 29 | 362 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 176 | 1222 | 458 | 29 | 362 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.95 | 0.92 | 0.92 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.33 | 0.00 | 0.67 | 1.38 | 0.01 | 0.61 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 2333 | 0 | 1200 | 2416 | 22 | 1062 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.21 | 0.26 | 0.02 | 0.06 | 0.13 | 0.06 | 0.00 | 0.11 | 0.05 | 0.09 | 0.09 |
| Crit Moves: | | | **** | **** | | | | | **** | | | **** |
| Green Time: | 37.2 | 78.7 | 78.7 | 7.0 | 48.5 | 48.5 | 34.6 | 0.0 | 34.6 | 27.7 | 27.7 | 27.7 |
| Volume/Cap: | 0.43 | 0.44 | 0.53 | 0.38 | 0.21 | 0.43 | 0.27 | 0.00 | 0.53 | 0.29 | 0.53 | 0.53 |
| Uniform Del: | 52.4 | 26.3 | 28.0 | 74.4 | 41.5 | 44.7 | 52.2 | 0.0 | 55.6 | 57.6 | 60.2 | 60.2 |
| IncremntDel: | 0.7 | 0.1 | 0.6 | 3.1 | 0.1 | 0.6 | 0.1 | 0.0 | 1.1 | 0.2 | 1.3 | 1.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 53.1 | 26.4 | 28.6 | 77.5 | 41.6 | 45.3 | 52.3 | 0.0 | 56.6 | 57.8 | 61.5 | 61.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 53.1 | 26.4 | 28.6 | 77.5 | 41.6 | 45.3 | 52.3 | 0.0 | 56.6 | 57.8 | 61.5 | 61.5 |
| LOS by Move: | D- | C | C | E- | D | D | D- | A | E+ | E+ | E | E |
| HCM2kAvgQ: | 8 | 12 | 16 | 1 | 4 | 9 | 4 | 0 | 10 | 4 | 8 | 8 |

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

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

Intersection #97: Wolfe Rd & Central Expwy Ramps

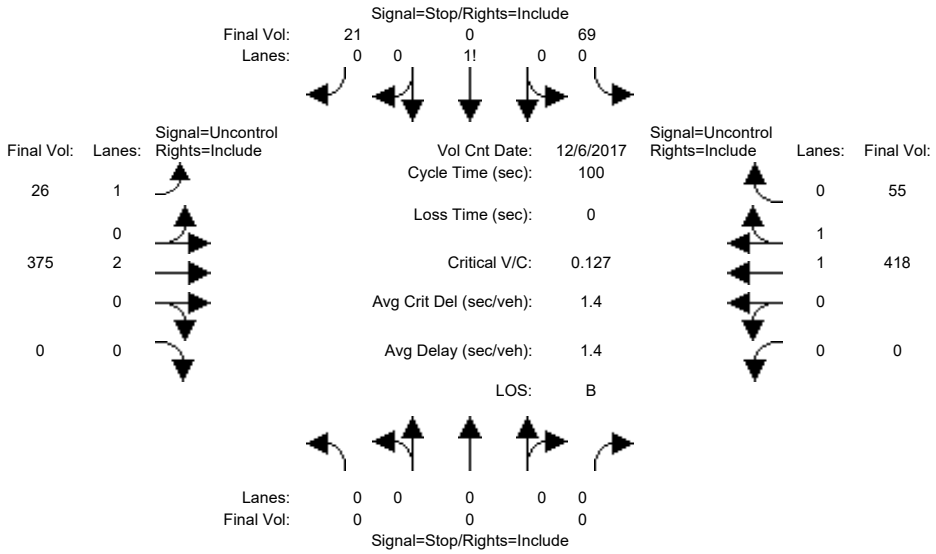



| Street Name: | Wolfe Rd | | | | | | Central Expwy Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 114 | 500 | 63 | 59 | 1333 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 114 | 500 | 63 | 59 | 1333 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 114 | 500 | 63 | 59 | 1333 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 114 | 500 | 63 | 59 | 1333 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 114 | 500 | 63 | 59 | 1333 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 114 | 500 | 63 | 59 | 1333 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.05 | 0.01 | 0.94 | 1.83 | 0.00 | 0.17 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 1842 | 10 | 1696 | 3194 | 0 | 306 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.09 | 0.04 | 0.03 | 0.23 | 0.05 | 0.04 | 0.41 | 0.41 | 0.16 | 0.00 | 0.18 |
| Crit Moves: | **** | | | | **** | | | **** | | | | **** |
| Green Time: | 10.9 | 33.3 | 33.3 | 16.6 | 39.0 | 39.0 | 68.1 | 68.1 | 68.1 | 30.0 | 0.0 | 30.0 |
| Volume/Cap: | 0.96 | 0.42 | 0.17 | 0.33 | 0.96 | 0.19 | 0.10 | 0.96 | 0.96 | 0.87 | 0.00 | 0.96 |
| Uniform Del: | 74.4 | 55.0 | 52.1 | 66.5 | 59.7 | 48.0 | 27.5 | 44.6 | 44.6 | 63.1 | 0.0 | 64.4 |
| IncremntDel: | 69.7 | 0.2 | 0.2 | 1.0 | 15.5 | 0.2 | 0.0 | 22.3 | 22.3 | 11.7 | 0.0 | 26.9 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 144.0 | 55.3 | 52.3 | 67.6 | 75.3 | 48.2 | 27.5 | 66.9 | 66.9 | 74.8 | 0.0 | 91.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 144.0 | 55.3 | 52.3 | 67.6 | 75.3 | 48.2 | 27.5 | 66.9 | 66.9 | 74.8 | 0.0 | 91.3 |
| LOS by Move: | F | E+ | D- | E | E- | D | C | E | E | E | A | F |
| HCM2kAvgQ: | 7 | 7 | 3 | 3 | 24 | 3 | 2 | 42 | 42 | 17 | 0 | 21 |

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

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

Intersection #98: Commercial St & Kifer Rd




| Street Name: | Commercial St | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 69 | 0 | 21 | 26 | 375 | 0 | 0 | 418 | 55 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 69 | 0 | 21 | 26 | 375 | 0 | 0 | 418 | 55 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Adju: | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | -1 | 69 | 0 | 21 | 26 | 375 | 0 | 0 | 418 | 55 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 69 | 0 | 21 | 26 | 375 | 0 | 0 | 418 | 55 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 0 | 0 | 69 | 0 | 21 | 26 | 375 | 0 | 0 | 418 | 55 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | 6.8 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | xxxxx | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | 685 | 873 | 237 | 473 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | xxxx | xxxx | xxxxx | 386 | 291 | 771 | 1099 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | xxxx | xxxx | xxxxx | 379 | 284 | 771 | 1099 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Total Cap: | 503 | 437 | xxxxx | 543 | 454 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | xxxx | xxxx | xxxx | 0.13 | 0.00 | 0.03 | 0.02 | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.1 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 8.4 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | A | * | * | * | * | * |
| Movement: | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | 584 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | 0.5 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | 12.3 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | B | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | 12.3 | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | B | | | * | | | * | | |

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

Peak Hour Delay Signal Warrant Report

**********

Intersection #98 Commercial St & Kifer Rd

**********

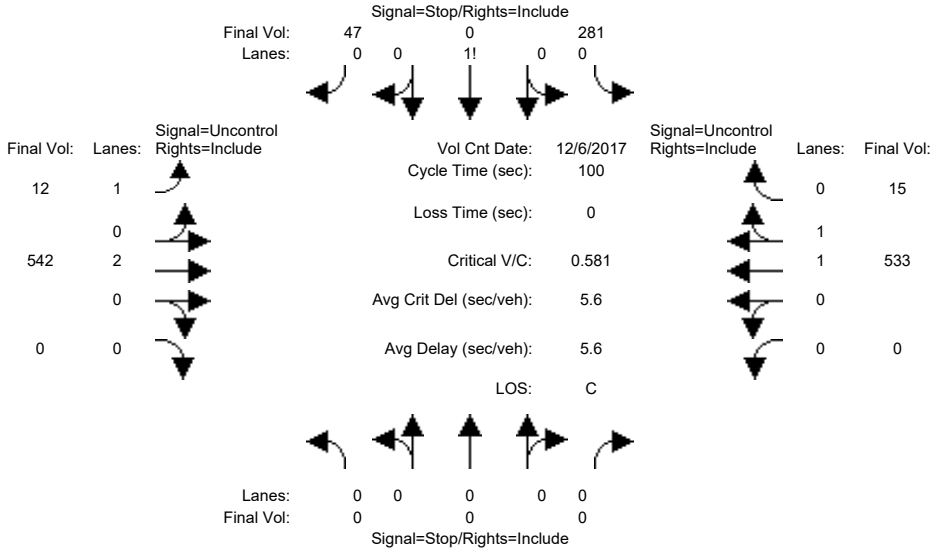
```
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    1  0  2  0  0    0  0  1  1  0
Initial Vol:    0    0    -1    69    0    21    26  375     0     0  418    55
ApproachDel:    xxxxxx             12.3           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=OVERFLOW]
   SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=-1]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=963]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=90]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=963]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #98 Commercial St & Kifer Rd
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    1  0  2  0  0    0  0  1  1  0
Initial Vol:    0    0    -1    69    0    21    26  375     0     0  418    55
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             874
Minor Approach Volume:           90
Minor Approach Volume Threshold: 331
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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

Intersection #98: Commercial St & Kifer Rd




| Street Name: | Commercial St | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: >> Count Date: 6 Dec 2017 << 4:45 PM - 5:45 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 281 | 0 | 47 | 12 | 542 | 0 | 0 | 533 | 15 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 281 | 0 | 47 | 12 | 542 | 0 | 0 | 533 | 15 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 281 | 0 | 47 | 12 | 542 | 0 | 0 | 533 | 15 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 281 | 0 | 47 | 12 | 542 | 0 | 0 | 533 | 15 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 0 | 0 | 281 | 0 | 47 | 12 | 542 | 0 | 0 | 533 | 15 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | 6.8 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | xxxxx | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | 836 | 1107 | 274 | 548 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | xxxx | xxxx | xxxxx | 310 | 212 | 730 | 1032 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | xxxx | xxxx | xxxxx | 307 | 210 | 730 | 1032 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Total Cap: | 416 | 386 | xxxxx | 484 | 392 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | xxxx | xxxx | xxxx | 0.58 | 0.00 | 0.06 | 0.01 | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 8.5 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | A | * | * | * | * | * |
| Movement: | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | 508 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | 4.5 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | 24.1 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | C | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | 24.1 | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | C | | | * | | | * | | |

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

Peak Hour Delay Signal Warrant Report

**********

Intersection #98 Commercial St & Kifer Rd

**********

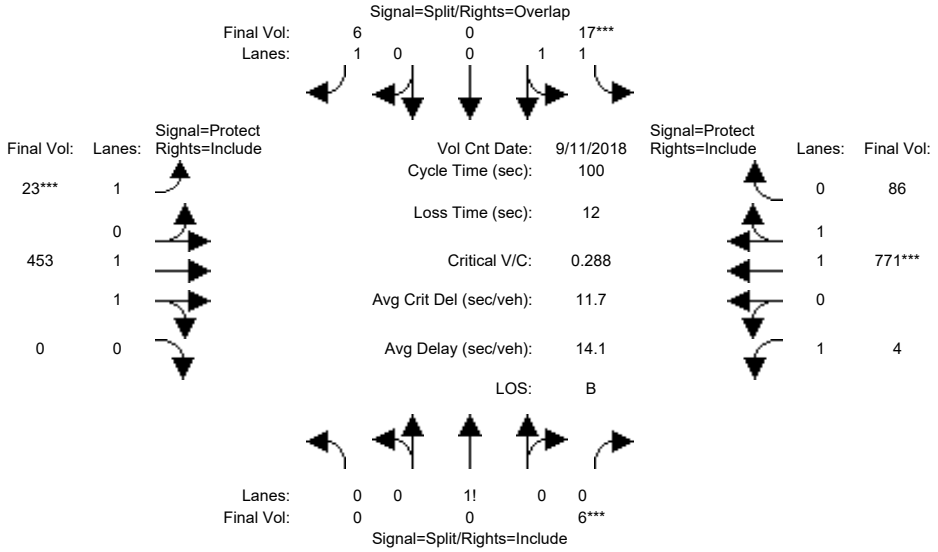
```
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    1  0  2  0  0    0  0  1  1  0
Initial Vol:    0    0     0   281    0    47    12  542     0     0  533    15
ApproachDel:    xxxxxx             24.1           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=2.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=328]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1430]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
              Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #98 Commercial St & Kifer Rd
********************************************************************************
Future Volume Alternative: Peak Hour Warrant Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    1  0  2  0  0    0  0  1  1  0
Initial Vol:    0    0     0   281    0    47    12  542     0     0  533    15
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1102
Minor Approach Volume:           328
Minor Approach Volume Threshold: 251
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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

Intersection #99: Semiconductor Dr & Kifer Rd

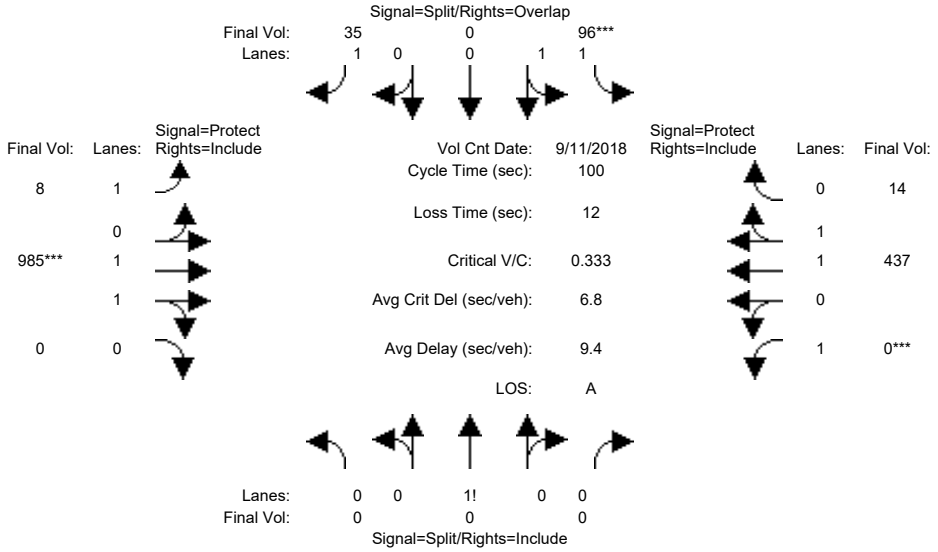



| Street Name: | Semiconductor Drive | | | | | | Kifer Road | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 11 Sep 2018 << 8:45AM-9:45AM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 6 | 17 | 0 | 6 | 23 | 453 | 0 | 4 | 771 | 86 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 6 | 17 | 0 | 6 | 23 | 453 | 0 | 4 | 771 | 86 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 6 | 17 | 0 | 6 | 23 | 453 | 0 | 4 | 771 | 86 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 6 | 17 | 0 | 6 | 23 | 453 | 0 | 4 | 771 | 86 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 6 | 17 | 0 | 6 | 23 | 453 | 0 | 4 | 771 | 86 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 6 | 17 | 0 | 6 | 23 | 453 | 0 | 4 | 771 | 86 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.93 | 1.00 | 0.92 | 0.92 | 0.97 | 0.92 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.00 | 0.00 | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 1.00 | 1.79 | 0.21 |
| Final Sat.: | 0 | 0 | 1750 | 3550 | 0 | 1750 | 1750 | 3700 | 0 | 1750 | 3328 | 371 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.12 | 0.00 | 0.00 | 0.23 | 0.23 |
| Crit Moves: | | | **** | **** | | | **** | | | | **** | |
| Green Time: | 0.0 | 0.0 | 10.0 | 10.0 | 0.0 | 17.0 | 7.0 | 43.3 | 0.0 | 24.7 | 61.0 | 61.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.03 | 0.05 | 0.00 | 0.02 | 0.19 | 0.28 | 0.00 | 0.01 | 0.38 | 0.38 |
| Uniform Del: | 0.0 | 0.0 | 40.6 | 40.7 | 0.0 | 34.6 | 43.8 | 18.3 | 0.0 | 28.4 | 9.9 | 9.9 |
| IncremntDel: | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.7 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 40.7 | 40.8 | 0.0 | 34.6 | 44.6 | 18.4 | 0.0 | 28.4 | 10.0 | 10.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 40.7 | 40.8 | 0.0 | 34.6 | 44.6 | 18.4 | 0.0 | 28.4 | 10.0 | 10.0 |
| LOS by Move: | A | A | D | D | A | C- | D | B- | A | C | B+ | B+ |
| HCM2kAvgQ: | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 6 | 6 |

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

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

Intersection #99: Semiconductor Dr & Kifer Rd

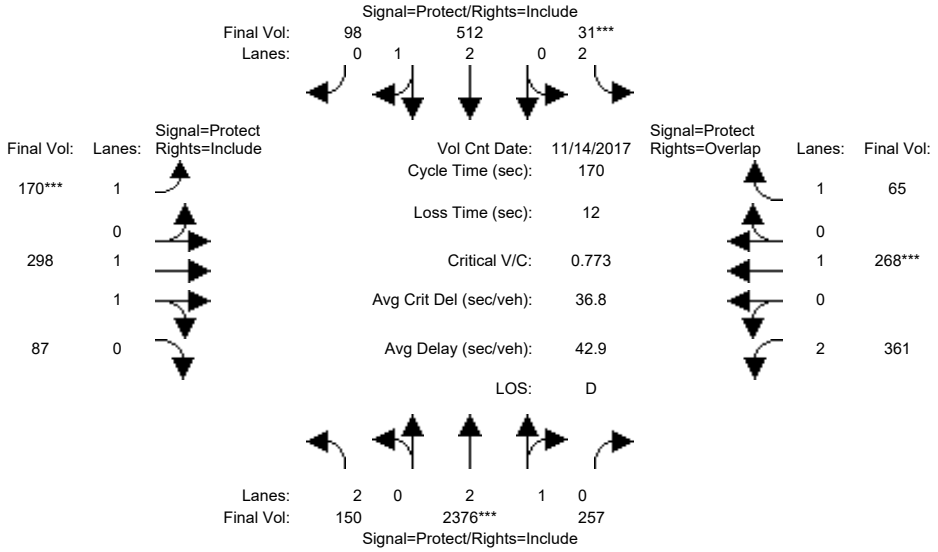



| Street Name: | Semiconductor Drive | | | | | | Kifer Road | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 11 Sep 2018 << 4:45PM-5:45PM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 96 | 0 | 35 | 8 | 985 | 0 | 0 | 437 | 14 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 96 | 0 | 35 | 8 | 985 | 0 | 0 | 437 | 14 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 96 | 0 | 35 | 8 | 985 | 0 | 0 | 437 | 14 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 96 | 0 | 35 | 8 | 985 | 0 | 0 | 437 | 14 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 96 | 0 | 35 | 8 | 985 | 0 | 0 | 437 | 14 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 96 | 0 | 35 | 8 | 985 | 0 | 0 | 437 | 14 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.93 | 1.00 | 0.92 | 0.92 | 0.97 | 0.92 | 0.92 | 0.97 | 0.95 |
| Lanes: | 0.00 | 1.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 1.00 | 1.94 | 0.06 |
| Final Sat.: | 0 | 1750 | 0 | 3550 | 0 | 1750 | 1750 | 3700 | 0 | 1750 | 3585 | 115 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.02 | 0.00 | 0.27 | 0.00 | 0.00 | 0.12 | 0.12 |
| Crit Moves: | | | | **** | | | | **** | | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 38.5 | 28.5 | 78.0 | 0.0 | 0.0 | 49.5 | 49.5 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.27 | 0.00 | 0.05 | 0.02 | 0.34 | 0.00 | 0.00 | 0.25 | 0.25 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 41.6 | 0.0 | 19.3 | 25.7 | 3.3 | 0.0 | 0.0 | 14.5 | 14.5 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 42.0 | 0.0 | 19.4 | 25.7 | 3.4 | 0.0 | 0.0 | 14.6 | 14.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 42.0 | 0.0 | 19.4 | 25.7 | 3.4 | 0.0 | 0.0 | 14.6 | 14.6 |
| LOS by Move: | A | A | A | D | A | B- | C | A | A | A | B | B |
| HCM2kAvgQ: | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 5 | 0 | 0 | 4 | 4 |

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

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

Intersection #1402: Sunnyvale-Saratoga Rd / Remington Dr

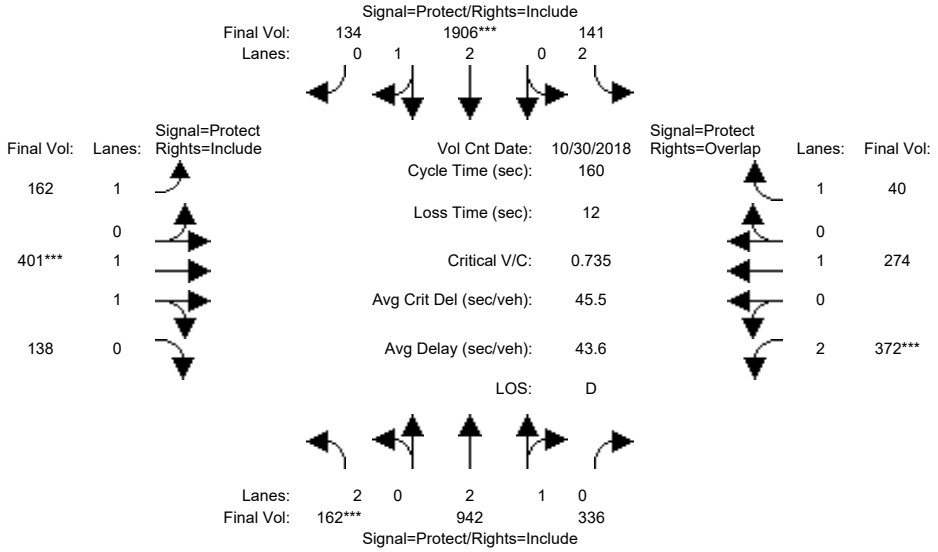



| Street Name: | Sunnyvale-Saratoga Road | | | | | | Remington Drive | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 150 | 2376 | 257 | 31 | 512 | 98 | 170 | 298 | 87 | 361 | 268 | 65 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 150 | 2376 | 257 | 31 | 512 | 98 | 170 | 298 | 87 | 361 | 268 | 65 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 150 | 2376 | 257 | 31 | 512 | 98 | 170 | 298 | 87 | 361 | 268 | 65 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 150 | 2376 | 257 | 31 | 512 | 98 | 170 | 298 | 87 | 361 | 268 | 65 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 150 | 2376 | 257 | 31 | 512 | 98 | 170 | 298 | 87 | 361 | 268 | 65 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 150 | 2376 | 257 | 31 | 512 | 98 | 170 | 298 | 87 | 361 | 268 | 65 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.70 | 0.30 | 2.00 | 2.50 | 0.50 | 1.00 | 1.54 | 0.46 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 5053 | 547 | 3150 | 4699 | 899 | 1750 | 2863 | 836 | 3150 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.47 | 0.47 | 0.01 | 0.11 | 0.11 | 0.10 | 0.10 | 0.10 | 0.11 | 0.14 | 0.04 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 32.6 | 100 | 100.2 | 7.0 | 74.6 | 74.6 | 20.7 | 24.2 | 24.2 | 26.6 | 30.1 | 37.1 |
| Volume/Cap: | 0.25 | 0.80 | 0.80 | 0.24 | 0.25 | 0.25 | 0.80 | 0.73 | 0.73 | 0.73 | 0.80 | 0.17 |
| Uniform Del: | 58.3 | 27.0 | 27.0 | 78.9 | 30.0 | 30.0 | 72.6 | 69.8 | 69.8 | 68.3 | 67.1 | 54.0 |
| IncremntDel: | 0.2 | 1.4 | 1.4 | 1.0 | 0.1 | 0.1 | 18.7 | 5.2 | 5.2 | 5.6 | 12.6 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 58.5 | 28.5 | 28.5 | 79.9 | 30.1 | 30.1 | 91.3 | 75.1 | 75.1 | 73.9 | 79.6 | 54.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 58.5 | 28.5 | 28.5 | 79.9 | 30.1 | 30.1 | 91.3 | 75.1 | 75.1 | 73.9 | 79.6 | 54.2 |
| LOS by Move: | E+ | C | C | E- | C | C | F | E- | E- | E | E- | D- |
| HCM2kAvgQ: | 4 | 35 | 35 | 1 | 6 | 6 | 11 | 11 | 11 | 11 | 13 | 3 |

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

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

Intersection #1402: Sunnyvale-Saratoga Rd / Remington Dr

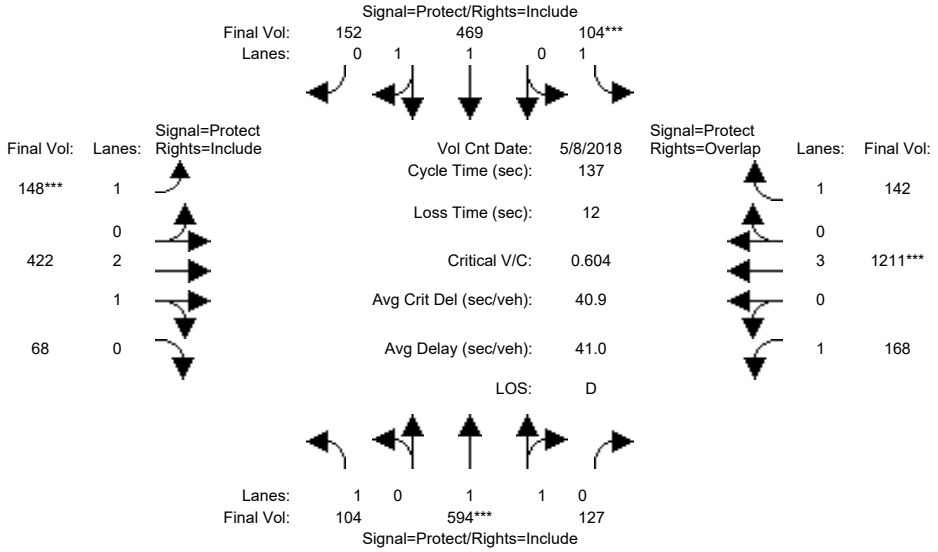



| Street Name: | Sunnyvale-Saratoga Road | | | | | | Remington Drive | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 30 Oct 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 162 | 942 | 336 | 141 | 1906 | 134 | 162 | 401 | 138 | 372 | 274 | 40 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 162 | 942 | 336 | 141 | 1906 | 134 | 162 | 401 | 138 | 372 | 274 | 40 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 162 | 942 | 336 | 141 | 1906 | 134 | 162 | 401 | 138 | 372 | 274 | 40 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 162 | 942 | 336 | 141 | 1906 | 134 | 162 | 401 | 138 | 372 | 274 | 40 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 162 | 942 | 336 | 141 | 1906 | 134 | 162 | 401 | 138 | 372 | 274 | 40 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 162 | 942 | 336 | 141 | 1906 | 134 | 162 | 401 | 138 | 372 | 274 | 40 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.18 | 0.82 | 2.00 | 2.80 | 0.20 | 1.00 | 1.47 | 0.53 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 4126 | 1472 | 3150 | 5232 | 368 | 1750 | 2752 | 947 | 3150 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.23 | 0.23 | 0.04 | 0.36 | 0.36 | 0.09 | 0.15 | 0.15 | 0.12 | 0.14 | 0.02 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 11.2 | 75.7 | 75.7 | 14.8 | 79.3 | 79.3 | 22.5 | 31.7 | 31.7 | 25.7 | 35.0 | 49.8 |
| Volume/Cap: | 0.73 | 0.48 | 0.48 | 0.48 | 0.73 | 0.73 | 0.66 | 0.73 | 0.73 | 0.73 | 0.66 | 0.07 |
| Uniform Del: | 72.9 | 28.8 | 28.8 | 68.9 | 32.0 | 32.0 | 65.1 | 60.2 | 60.2 | 63.9 | 57.1 | 38.8 |
| IncremntDel: | 12.1 | 0.1 | 0.1 | 1.3 | 1.0 | 1.0 | 6.5 | 3.9 | 3.9 | 5.5 | 3.9 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 85.0 | 28.9 | 28.9 | 70.2 | 33.0 | 33.0 | 71.6 | 64.1 | 64.1 | 69.4 | 60.9 | 38.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 85.0 | 28.9 | 28.9 | 70.2 | 33.0 | 33.0 | 71.6 | 64.1 | 64.1 | 69.4 | 60.9 | 38.9 |
| LOS by Move: | F | C | C | E | C- | C- | E | E | E | E | E | D+ |
| HCM2kAvgQ: | 5 | 14 | 14 | 4 | 26 | 26 | 9 | 14 | 14 | 10 | 12 | 1 |

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

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

Intersection #1404: El Camino Real (SR 82) / Fair Oaks Ave

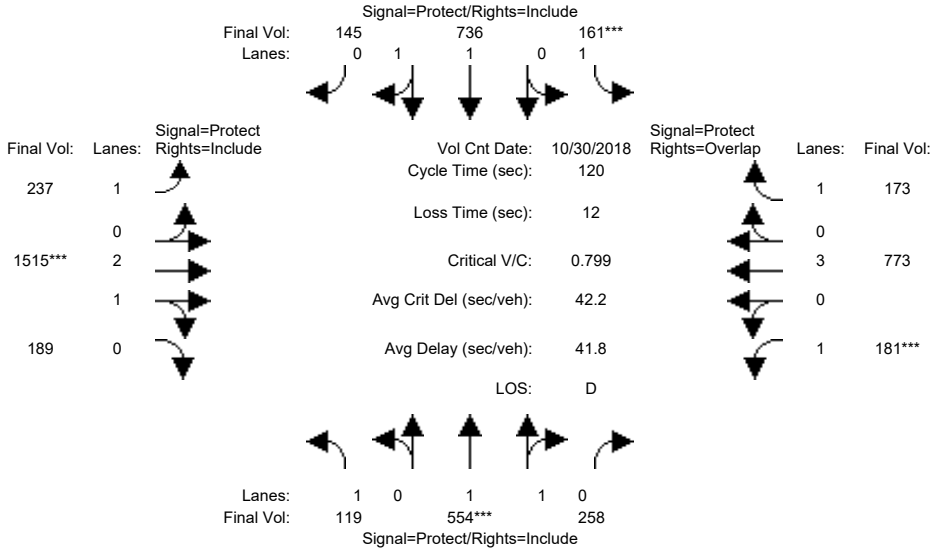



| Street Name: | Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:45 AM - 9:45 AM | | | | | | | | | | | | |
| Base Vol: | 104 | 594 | 127 | 104 | 469 | 152 | 148 | 422 | 68 | 168 | 1211 | 142 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 104 | 594 | 127 | 104 | 469 | 152 | 148 | 422 | 68 | 168 | 1211 | 142 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 104 | 594 | 127 | 104 | 469 | 152 | 148 | 422 | 68 | 168 | 1211 | 142 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 104 | 594 | 127 | 104 | 469 | 152 | 148 | 422 | 68 | 168 | 1211 | 142 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 104 | 594 | 127 | 104 | 469 | 152 | 148 | 422 | 68 | 168 | 1211 | 142 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 104 | 594 | 127 | 104 | 469 | 152 | 148 | 422 | 68 | 168 | 1211 | 142 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.64 | 0.36 | 1.00 | 1.50 | 0.50 | 1.00 | 2.57 | 0.43 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 3048 | 652 | 1750 | 2794 | 905 | 1750 | 4822 | 777 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.19 | 0.19 | 0.06 | 0.17 | 0.17 | 0.08 | 0.09 | 0.09 | 0.10 | 0.21 | 0.08 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 15.1 | 44.2 | 44.2 | 13.5 | 42.6 | 42.6 | 19.2 | 32.1 | 32.1 | 35.2 | 48.2 | 61.6 |
| Volume/Cap: | 0.54 | 0.60 | 0.60 | 0.60 | 0.54 | 0.54 | 0.60 | 0.37 | 0.37 | 0.37 | 0.60 | 0.18 |
| Uniform Del: | 57.7 | 39.1 | 39.1 | 59.2 | 39.1 | 39.1 | 55.3 | 44.0 | 44.0 | 41.8 | 36.6 | 22.6 |
| IncremntDel: | 3.1 | 0.9 | 0.9 | 6.0 | 0.5 | 0.5 | 4.2 | 0.2 | 0.2 | 0.5 | 0.5 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 60.8 | 39.9 | 39.9 | 65.2 | 39.6 | 39.6 | 59.6 | 44.2 | 44.2 | 42.3 | 37.1 | 22.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 60.8 | 39.9 | 39.9 | 65.2 | 39.6 | 39.6 | 59.6 | 44.2 | 44.2 | 42.3 | 37.1 | 22.7 |
| LOS by Move: | E | D | D | E | D | D | E+ | D | D | D | D+ | C+ |
| HCM2kAvgQ: | 4 | 12 | 12 | 5 | 11 | 11 | 6 | 6 | 6 | 6 | 13 | 4 |

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

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

Intersection #1404: El Camino Real (SR 82) / Fair Oaks Ave

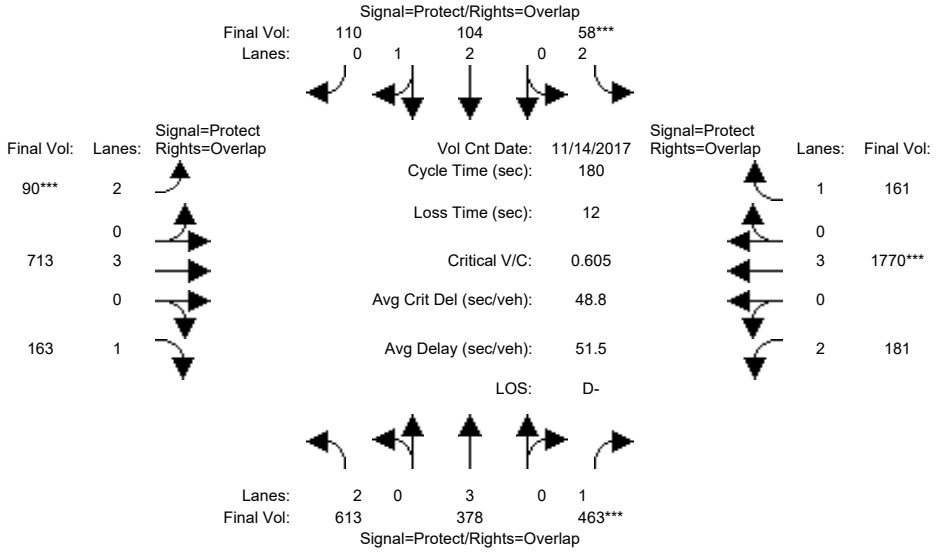



| Street Name: | Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 30 Oct 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 119 | 554 | 258 | 161 | 736 | 145 | 237 | 1515 | 189 | 181 | 773 | 173 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 119 | 554 | 258 | 161 | 736 | 145 | 237 | 1515 | 189 | 181 | 773 | 173 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 119 | 554 | 258 | 161 | 736 | 145 | 237 | 1515 | 189 | 181 | 773 | 173 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 119 | 554 | 258 | 161 | 736 | 145 | 237 | 1515 | 189 | 181 | 773 | 173 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 119 | 554 | 258 | 161 | 736 | 145 | 237 | 1515 | 189 | 181 | 773 | 173 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 119 | 554 | 258 | 161 | 736 | 145 | 237 | 1515 | 189 | 181 | 773 | 173 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.35 | 0.65 | 1.00 | 1.66 | 0.34 | 1.00 | 2.65 | 0.35 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 2524 | 1175 | 1750 | 3091 | 609 | 1750 | 4978 | 621 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.22 | 0.22 | 0.09 | 0.24 | 0.24 | 0.14 | 0.30 | 0.30 | 0.10 | 0.14 | 0.10 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 10.4 | 33.0 | 33.0 | 13.8 | 36.4 | 36.4 | 30.6 | 45.7 | 45.7 | 15.5 | 30.6 | 44.4 |
| Volume/Cap: | 0.79 | 0.80 | 0.80 | 0.80 | 0.79 | 0.79 | 0.53 | 0.80 | 0.80 | 0.80 | 0.53 | 0.27 |
| Uniform Del: | 53.7 | 40.4 | 40.4 | 51.7 | 38.2 | 38.2 | 38.5 | 33.1 | 33.1 | 50.7 | 38.5 | 26.4 |
| IncremntDel: | 23.1 | 4.6 | 4.6 | 19.8 | 3.7 | 3.7 | 1.2 | 2.2 | 2.2 | 17.9 | 0.4 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 76.8 | 45.0 | 45.0 | 71.5 | 42.0 | 42.0 | 39.8 | 35.3 | 35.3 | 68.6 | 38.9 | 26.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 76.8 | 45.0 | 45.0 | 71.5 | 42.0 | 42.0 | 39.8 | 35.3 | 35.3 | 68.6 | 38.9 | 26.6 |
| LOS by Move: | E- | D | D | E | D | D | D | D+ | D+ | E | D+ | C |
| HCM2kAvgQ: | 5 | 15 | 15 | 7 | 15 | 15 | 8 | 19 | 19 | 8 | 8 | 5 |

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

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

Intersection #5320: CENTRAL EXPWY/MARY AVE

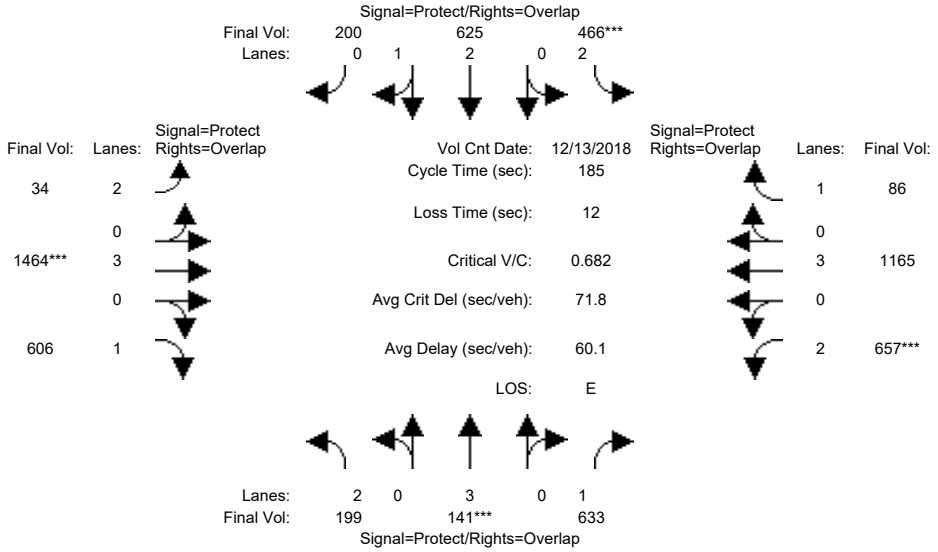



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 6.1 | 6.0 | 6.0 | 6.2 | 5.9 | 5.9 | 6.2 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 14 Nov 2017 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 613 | 378 | 463 | 58 | 104 | 110 | 90 | 713 | 163 | 181 | 1770 | 161 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 613 | 378 | 463 | 58 | 104 | 110 | 90 | 713 | 163 | 181 | 1770 | 161 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 613 | 378 | 463 | 58 | 104 | 110 | 90 | 713 | 163 | 181 | 1770 | 161 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 613 | 378 | 463 | 58 | 104 | 110 | 90 | 713 | 163 | 181 | 1770 | 161 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 613 | 378 | 463 | 58 | 104 | 110 | 90 | 713 | 163 | 181 | 1770 | 161 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 613 | 378 | 463 | 58 | 104 | 110 | 90 | 713 | 163 | 181 | 1770 | 161 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.19 | 0.07 | 0.26 | 0.02 | 0.03 | 0.06 | 0.03 | 0.13 | 0.09 | 0.06 | 0.31 | 0.09 |
| Crit Moves: | | | **** | **** | | | **** | | | | **** | |
| Green Time: | 38.9 | 58.0 | 76.7 | 11.8 | 32.1 | 44.9 | 12.8 | 66.8 | 105.7 | 18.7 | 72.8 | 84.6 |
| Volume/Cap: | 0.90 | 0.21 | 0.62 | 0.28 | 0.15 | 0.25 | 0.40 | 0.34 | 0.16 | 0.55 | 0.77 | 0.20 |
| Uniform Del: | 68.7 | 44.3 | 40.3 | 80.1 | 62.5 | 54.1 | 79.9 | 40.7 | 16.9 | 76.7 | 46.3 | 27.8 |
| IncremntDel: | 15.1 | 0.1 | 1.6 | 0.7 | 0.1 | 0.2 | 1.2 | 0.1 | 0.1 | 2.1 | 1.6 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 83.7 | 44.3 | 41.9 | 80.8 | 62.5 | 54.3 | 81.1 | 40.8 | 17.0 | 78.7 | 47.9 | 28.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 83.7 | 44.3 | 41.9 | 80.8 | 62.5 | 54.3 | 81.1 | 40.8 | 17.0 | 78.7 | 47.9 | 28.0 |
| LOS by Move: | F | D | D | F | E | D- | F | D | B | E- | D | C |
| HCM2kAvgQ: | 21 | 5 | 21 | 2 | 2 | 5 | 3 | 9 | 4 | 6 | 28 | 5 |

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

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

Intersection #5320: CENTRAL EXPWY/MARY AVE

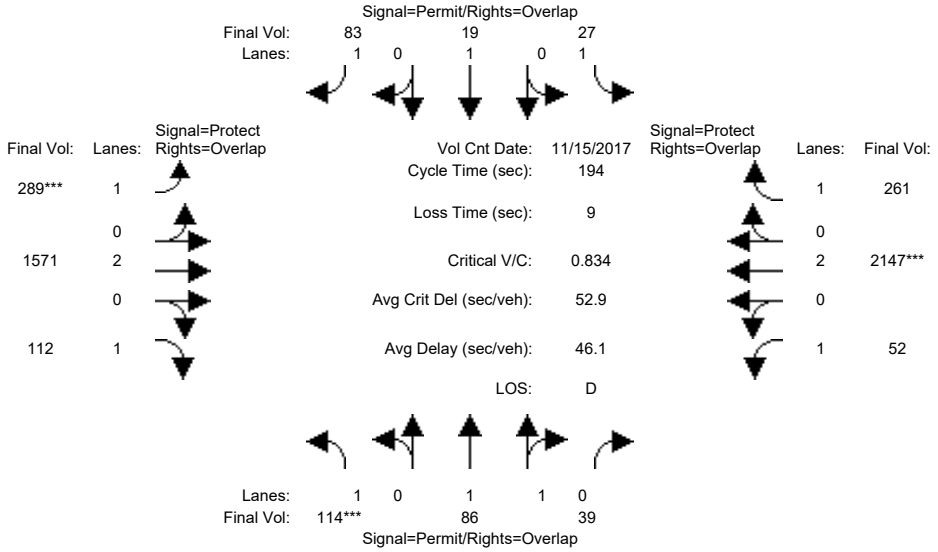



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 16 | 37 | 37 | 29 | 50 | 50 | 9 | 52 | 52 | 43 | 86 | 86 |
| Y+R: | 6.1 | 6.0 | 6.0 | 6.2 | 5.9 | 5.9 | 6.2 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 13 Dec 2018 << 4:45 - 5:45 PM | | | | | | | | | | | | |
| Base Vol: | 199 | 141 | 633 | 466 | 625 | 200 | 34 | 1464 | 606 | 657 | 1165 | 86 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 199 | 141 | 633 | 466 | 625 | 200 | 34 | 1464 | 606 | 657 | 1165 | 86 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 199 | 141 | 633 | 466 | 625 | 200 | 34 | 1464 | 606 | 657 | 1165 | 86 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 199 | 141 | 633 | 466 | 625 | 200 | 34 | 1464 | 606 | 657 | 1165 | 86 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 199 | 141 | 633 | 466 | 625 | 200 | 34 | 1464 | 606 | 657 | 1165 | 86 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 199 | 141 | 633 | 466 | 625 | 200 | 34 | 1464 | 606 | 657 | 1165 | 86 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 0.99 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 2.25 | 0.75 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 4241 | 1357 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.02 | 0.36 | 0.15 | 0.15 | 0.15 | 0.01 | 0.26 | 0.35 | 0.21 | 0.20 | 0.05 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 16.9 | 37.0 | 83.2 | 32.8 | 52.9 | 62.7 | 9.8 | 57.0 | 73.9 | 46.2 | 93.4 | 126.2 |
| Volume/Cap: | 0.69 | 0.12 | 0.80 | 0.83 | 0.52 | 0.44 | 0.20 | 0.83 | 0.87 | 0.83 | 0.40 | 0.07 |
| Uniform Del: | 81.5 | 60.7 | 43.8 | 73.5 | 55.3 | 47.4 | 83.9 | 59.6 | 51.1 | 65.7 | 28.5 | 9.8 |
| IncremntDel: | 7.0 | 0.0 | 6.0 | 10.5 | 0.3 | 0.2 | 0.6 | 3.6 | 11.2 | 7.7 | 0.1 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.07 | 1.14 | 1.03 | 1.25 | 1.60 |
| Delay/Veh: | 88.5 | 60.8 | 49.9 | 83.9 | 55.6 | 47.6 | 84.5 | 67.3 | 69.2 | 75.6 | 35.6 | 15.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 88.5 | 60.8 | 49.9 | 83.9 | 55.6 | 47.6 | 84.5 | 67.3 | 69.2 | 75.6 | 35.6 | 15.7 |
| LOS by Move: | F | E | D | F | E+ | D | F | E | E | E- | D+ | B |
| HCM2kAvgQ: | 7 | 2 | 34 | 17 | 13 | 12 | 1 | 28 | 37 | 23 | 16 | 3 |

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

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

Intersection #5325: CENTRAL EXPWY/CORVIN DR-OAKMEAD PKWY

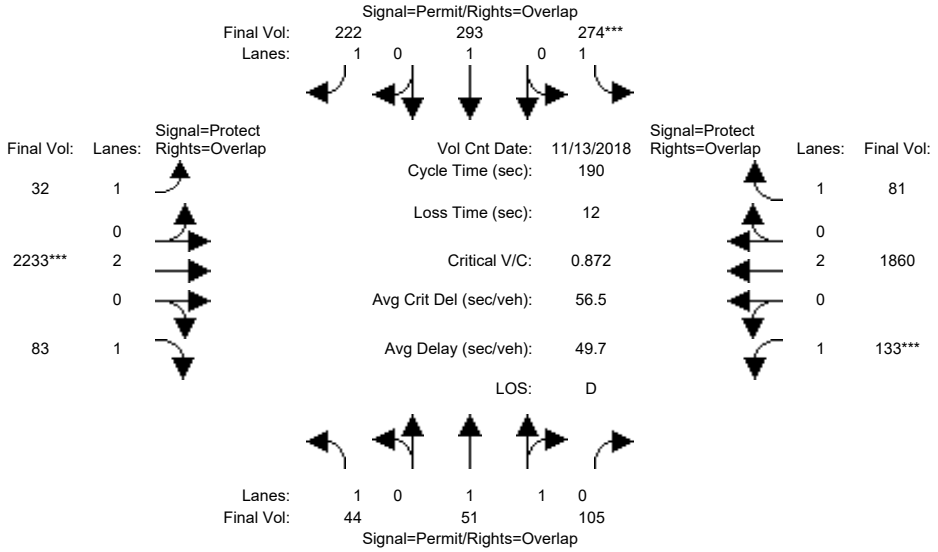



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 23 | 23 | 23 | 23 | 23 | 23 | 34 | 137 | 137 | 14 | 117 | 117 |
| Y+R: | 6.3 | 6.3 | 6.3 | 6.1 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 114 | 86 | 39 | 27 | 19 | 83 | 289 | 1571 | 112 | 52 | 2147 | 261 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 114 | 86 | 39 | 27 | 19 | 83 | 289 | 1571 | 112 | 52 | 2147 | 261 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 114 | 86 | 39 | 27 | 19 | 83 | 289 | 1571 | 112 | 52 | 2147 | 261 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 114 | 86 | 39 | 27 | 19 | 83 | 289 | 1571 | 112 | 52 | 2147 | 261 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 114 | 86 | 39 | 27 | 19 | 83 | 289 | 1571 | 112 | 52 | 2147 | 261 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 114 | 86 | 39 | 27 | 19 | 83 | 289 | 1571 | 112 | 52 | 2147 | 261 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.36 | 0.64 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 2545 | 1154 | 1750 | 1900 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.03 | 0.03 | 0.02 | 0.01 | 0.05 | 0.17 | 0.41 | 0.06 | 0.03 | 0.56 | 0.15 |
| Crit Moves: | **** | | | | | | **** | | | | **** | |
| Green Time: | 23.7 | 23.7 | 37.9 | 23.9 | 23.9 | 58.4 | 34.5 | 138 | 137.8 | 14.2 | 118 | 117.8 |
| Volume/Cap: | 0.53 | 0.28 | 0.17 | 0.13 | 0.08 | 0.16 | 0.93 | 0.58 | 0.09 | 0.41 | 0.93 | 0.25 |
| Uniform Del: | 79.9 | 77.4 | 65.0 | 75.7 | 75.3 | 49.8 | 78.5 | 13.9 | 8.7 | 85.9 | 34.4 | 17.6 |
| IncremntDel: | 2.6 | 0.3 | 0.1 | 0.3 | 0.1 | 0.1 | 33.0 | 0.3 | 0.0 | 2.1 | 7.5 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.14 | 2.63 | 2.63 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 82.5 | 77.7 | 65.1 | 76.0 | 75.5 | 49.9 | 122.8 | 36.9 | 22.9 | 88.0 | 41.9 | 17.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 82.5 | 77.7 | 65.1 | 76.0 | 75.5 | 49.9 | 122.8 | 36.9 | 22.9 | 88.0 | 41.9 | 17.7 |
| LOS by Move: | F | E- | E | E- | E- | D | F | D+ | C+ | F | D | B |
| HCM2kAvgQ: | 7 | 3 | 3 | 1 | 1 | 4 | 22 | 39 | 5 | 3 | 58 | 7 |

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

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

Intersection #5325: CENTRAL EXPWY/CORVIN DR-OAKMEAD PKWY

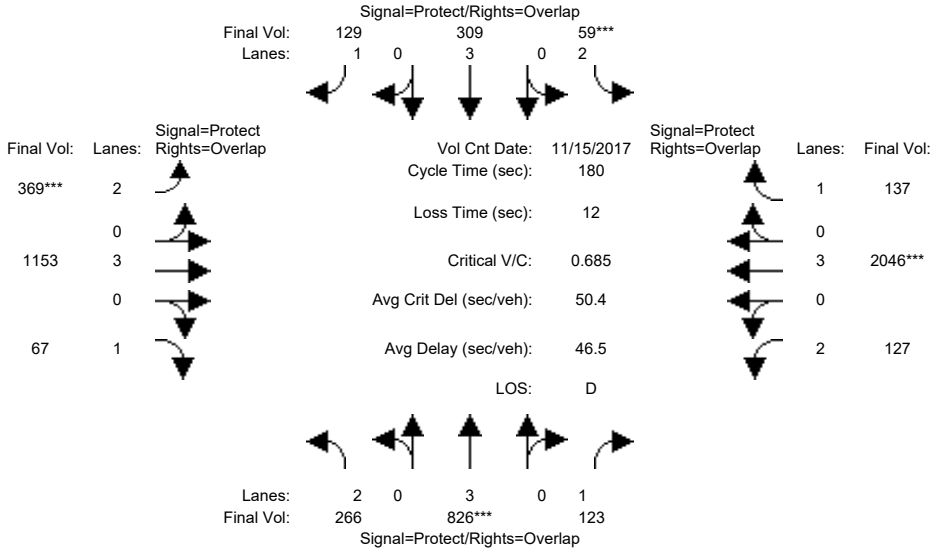



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 39 | 39 | 39 | 39 | 39 | 39 | 13 | 133 | 133 | 18 | 138 | 138 |
| Y+R: | 5.7 | 5.7 | 5.7 | 5.5 | 5.5 | 5.5 | 5.0 | 6.2 | 6.2 | 5.1 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 13 Nov 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 44 | 51 | 105 | 274 | 293 | 222 | 32 | 2233 | 83 | 133 | 1860 | 81 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 44 | 51 | 105 | 274 | 293 | 222 | 32 | 2233 | 83 | 133 | 1860 | 81 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 44 | 51 | 105 | 274 | 293 | 222 | 32 | 2233 | 83 | 133 | 1860 | 81 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 44 | 51 | 105 | 274 | 293 | 222 | 32 | 2233 | 83 | 133 | 1860 | 81 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 44 | 51 | 105 | 274 | 293 | 222 | 32 | 2233 | 83 | 133 | 1860 | 81 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 44 | 51 | 105 | 274 | 293 | 222 | 32 | 2233 | 83 | 133 | 1860 | 81 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 1900 | 1750 | 1750 | 1900 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.03 | 0.06 | 0.16 | 0.15 | 0.13 | 0.02 | 0.59 | 0.05 | 0.08 | 0.49 | 0.05 |
| Crit Moves: | | | | **** | | | | **** | | **** | | |
| Green Time: | 36.7 | 36.7 | 53.6 | 36.7 | 36.7 | 48.9 | 12.2 | 125 | 125.1 | 16.9 | 130 | 129.8 |
| Volume/Cap: | 0.13 | 0.14 | 0.21 | 0.81 | 0.80 | 0.49 | 0.28 | 0.89 | 0.07 | 0.85 | 0.72 | 0.07 |
| Uniform Del: | 67.5 | 67.6 | 55.4 | 78.0 | 77.8 | 63.8 | 90.1 | 28.6 | 12.4 | 90.7 | 19.9 | 10.6 |
| IncremntDel: | 0.2 | 0.1 | 0.1 | 13.7 | 11.7 | 0.9 | 1.4 | 4.5 | 0.0 | 33.9 | 1.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.53 | 1.53 | 1.00 | 1.60 | 1.60 |
| Delay/Veh: | 67.6 | 67.6 | 55.5 | 91.7 | 89.5 | 64.6 | 91.5 | 48.2 | 18.9 | 124.5 | 32.7 | 17.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 67.6 | 67.6 | 55.5 | 91.7 | 89.5 | 64.6 | 91.5 | 48.2 | 18.9 | 124.5 | 32.7 | 17.0 |
| LOS by Move: | E | E | E+ | F | F | E | F | D | B- | F | C- | B |
| HCM2kAvgQ: | 2 | 2 | 5 | 18 | 18 | 12 | 2 | 64 | 3 | 9 | 45 | 3 |

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

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

Intersection #5329: CENTRAL EXPWY/BOWERS AVE

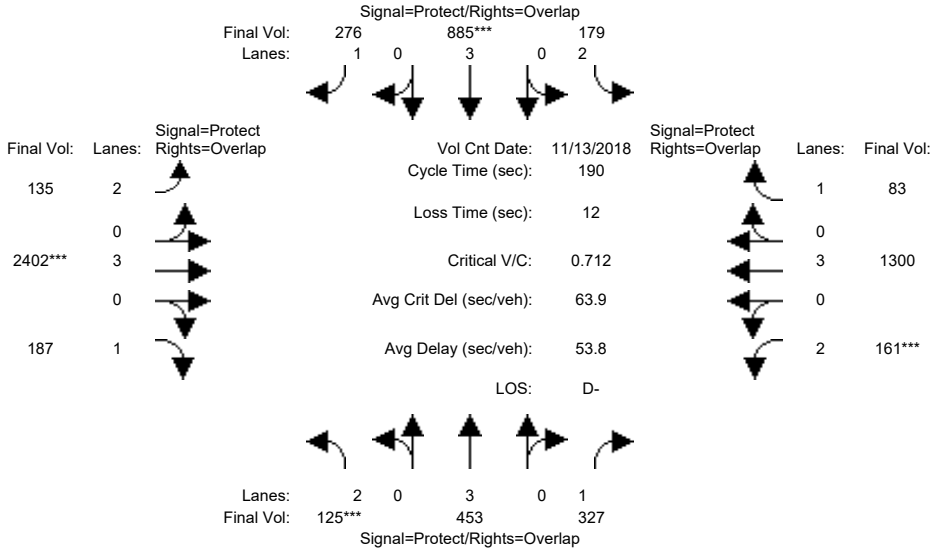



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 14 | 10 | 10 | 14 | 10 | 10 | 14 | 78 | 78 | 14 | 85 | 85 |
| Y+R: | 7.3 | 6.3 | 6.3 | 7.3 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 266 | 826 | 123 | 59 | 309 | 129 | 369 | 1153 | 67 | 127 | 2046 | 137 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 266 | 826 | 123 | 59 | 309 | 129 | 369 | 1153 | 67 | 127 | 2046 | 137 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 266 | 826 | 123 | 59 | 309 | 129 | 369 | 1153 | 67 | 127 | 2046 | 137 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 266 | 826 | 123 | 59 | 309 | 129 | 369 | 1153 | 67 | 127 | 2046 | 137 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 266 | 826 | 123 | 59 | 309 | 129 | 369 | 1153 | 67 | 127 | 2046 | 137 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 266 | 826 | 123 | 59 | 309 | 129 | 369 | 1153 | 67 | 127 | 2046 | 137 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.14 | 0.07 | 0.02 | 0.05 | 0.07 | 0.12 | 0.20 | 0.04 | 0.04 | 0.36 | 0.08 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 19.7 | 40.2 | 56.6 | 13.9 | 34.6 | 60.4 | 25.8 | 97.4 | 117.1 | 16.4 | 88.4 | 102.3 |
| Volume/Cap: | 0.77 | 0.65 | 0.22 | 0.24 | 0.28 | 0.22 | 0.82 | 0.37 | 0.06 | 0.44 | 0.73 | 0.14 |
| Uniform Del: | 78.0 | 63.5 | 45.5 | 78.1 | 62.1 | 42.9 | 74.8 | 23.8 | 11.4 | 77.5 | 36.4 | 18.2 |
| IncremntDel: | 10.3 | 1.2 | 0.2 | 0.5 | 0.1 | 0.2 | 11.1 | 0.1 | 0.0 | 1.1 | 1.0 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 88.3 | 64.7 | 45.7 | 78.6 | 62.2 | 43.1 | 86.0 | 23.8 | 11.5 | 78.6 | 37.4 | 18.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 88.3 | 64.7 | 45.7 | 78.6 | 62.2 | 43.1 | 86.0 | 23.8 | 11.5 | 78.6 | 37.4 | 18.3 |
| LOS by Move: | F | E | D | E- | E | D | F | C | B+ | E- | D+ | B- |
| HCM2kAvgQ: | 9 | 13 | 5 | 2 | 5 | 5 | 12 | 12 | 1 | 4 | 30 | 4 |

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

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

Intersection #5329: CENTRAL EXPWY/BOWERS AVE

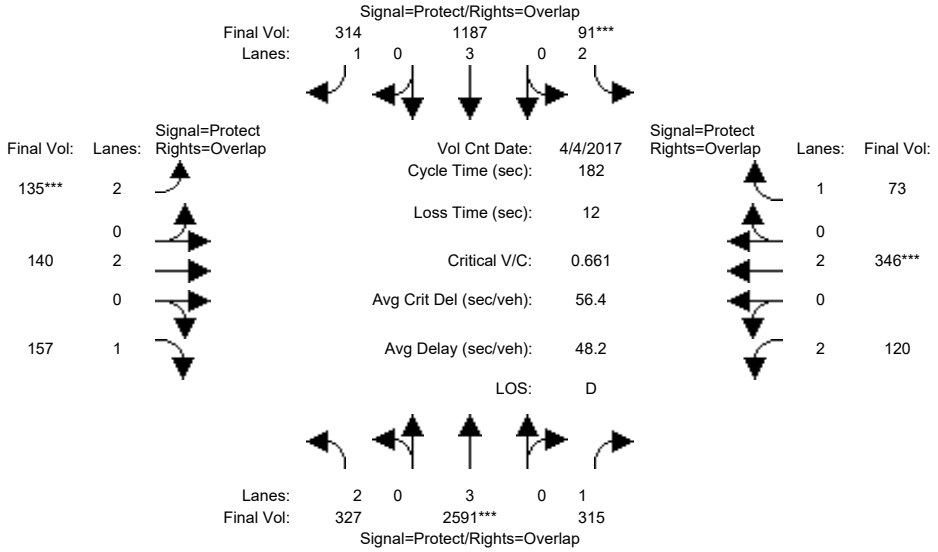



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 15 | 39 | 39 | 16 | 40 | 40 | 16 | 96 | 96 | 14 | 95 | 95 |
| Y+R: | 7.3 | 6.3 | 6.3 | 7.3 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 13 Nov 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 125 | 453 | 327 | 179 | 885 | 276 | 135 | 2402 | 187 | 161 | 1300 | 83 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 125 | 453 | 327 | 179 | 885 | 276 | 135 | 2402 | 187 | 161 | 1300 | 83 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 125 | 453 | 327 | 179 | 885 | 276 | 135 | 2402 | 187 | 161 | 1300 | 83 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 125 | 453 | 327 | 179 | 885 | 276 | 135 | 2402 | 187 | 161 | 1300 | 83 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 125 | 453 | 327 | 179 | 885 | 276 | 135 | 2402 | 187 | 161 | 1300 | 83 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 125 | 453 | 327 | 179 | 885 | 276 | 135 | 2402 | 187 | 161 | 1300 | 83 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.08 | 0.19 | 0.06 | 0.16 | 0.16 | 0.04 | 0.42 | 0.11 | 0.05 | 0.23 | 0.05 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 15.0 | 39.1 | 53.1 | 16.0 | 40.1 | 57.8 | 17.7 | 109 | 123.9 | 14.0 | 105 | 121.2 |
| Volume/Cap: | 0.50 | 0.39 | 0.67 | 0.67 | 0.74 | 0.52 | 0.46 | 0.74 | 0.16 | 0.69 | 0.41 | 0.07 |
| Uniform Del: | 83.9 | 65.1 | 60.7 | 84.4 | 70.0 | 54.6 | 81.6 | 29.9 | 12.9 | 85.9 | 24.5 | 13.1 |
| IncremntDel: | 1.6 | 0.2 | 3.6 | 6.6 | 2.4 | 0.9 | 1.1 | 0.9 | 0.1 | 8.7 | 0.1 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.07 | 1.89 | 2.25 | 1.00 | 0.67 | 0.47 |
| Delay/Veh: | 85.6 | 65.3 | 64.2 | 91.1 | 72.4 | 55.5 | 88.3 | 57.6 | 29.0 | 94.7 | 16.6 | 6.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 85.6 | 65.3 | 64.2 | 91.1 | 72.4 | 55.5 | 88.3 | 57.6 | 29.0 | 94.7 | 16.6 | 6.2 |
| LOS by Move: | F | E | E | F | E | E+ | F | E+ | C | F | B | A |
| HCM2kAvgQ: | 4 | 7 | 18 | 6 | 16 | 14 | 4 | 41 | 9 | 7 | 9 | 1 |

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

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

Intersection #5611: LAWRENCE EXPWY/ARQUES AVE

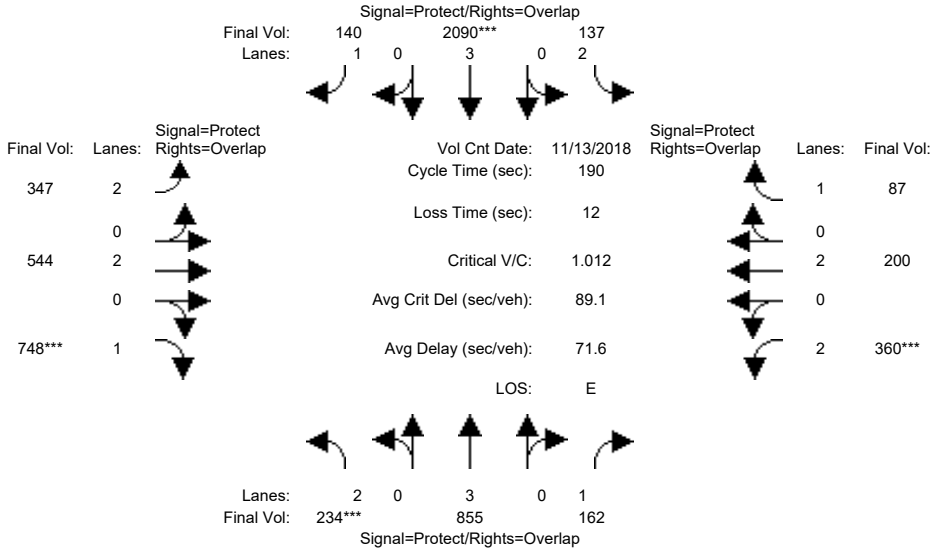



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 23 | 94 | 94 | 17 | 88 | 88 | 16 | 32 | 32 | 15 | 31 | 31 |
| Y+R: | 6.3 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.9 | 5.7 | 5.7 | 5.9 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 4 Apr 2017 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 327 | 2978 | 315 | 91 | 1364 | 314 | 135 | 140 | 157 | 120 | 346 | 73 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 327 | 2978 | 315 | 91 | 1364 | 314 | 135 | 140 | 157 | 120 | 346 | 73 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 327 | 2978 | 315 | 91 | 1364 | 314 | 135 | 140 | 157 | 120 | 346 | 73 |
| User Adj: | 1.00 | 0.87 | 1.00 | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 327 | 2591 | 315 | 91 | 1187 | 314 | 135 | 140 | 157 | 120 | 346 | 73 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 327 | 2591 | 315 | 91 | 1187 | 314 | 135 | 140 | 157 | 120 | 346 | 73 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 327 | 2591 | 315 | 91 | 1187 | 314 | 135 | 140 | 157 | 120 | 346 | 73 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.84 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1601 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.45 | 0.18 | 0.03 | 0.21 | 0.18 | 0.04 | 0.04 | 0.10 | 0.04 | 0.09 | 0.04 |
| Crit Moves: | | **** | | | **** | | | **** | | | **** | |
| Green Time: | 23.4 | 94.0 | 109.0 | 17.1 | 87.4 | 103.0 | 15.6 | 31.9 | 55.3 | 15.0 | 31.3 | 48.4 |
| Volume/Cap: | 0.81 | 0.88 | 0.30 | 0.31 | 0.43 | 0.32 | 0.50 | 0.21 | 0.32 | 0.46 | 0.53 | 0.16 |
| Uniform Del: | 77.1 | 39.0 | 17.9 | 76.9 | 31.1 | 20.9 | 79.5 | 64.3 | 48.9 | 79.7 | 68.6 | 51.2 |
| IncremntDel: | 11.4 | 3.4 | 0.2 | 0.6 | 0.1 | 0.2 | 1.5 | 0.2 | 0.4 | 1.3 | 0.8 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.26 | 1.39 | 1.00 | 0.80 | 0.65 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 88.5 | 52.6 | 25.0 | 77.5 | 24.8 | 13.8 | 80.9 | 64.4 | 49.3 | 81.0 | 69.5 | 51.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 88.5 | 52.6 | 25.0 | 77.5 | 24.8 | 13.8 | 80.9 | 64.4 | 49.3 | 81.0 | 69.5 | 51.3 |
| LOS by Move: | F | D- | C | E- | C | B | F | E | D | F | E | D- |
| HCM2kAvgQ: | 13 | 46 | 12 | 3 | 11 | 6 | 4 | 3 | 7 | 4 | 9 | 3 |

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

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

Intersection #5611: LAWRENCE EXPWY/ARQUES AVE

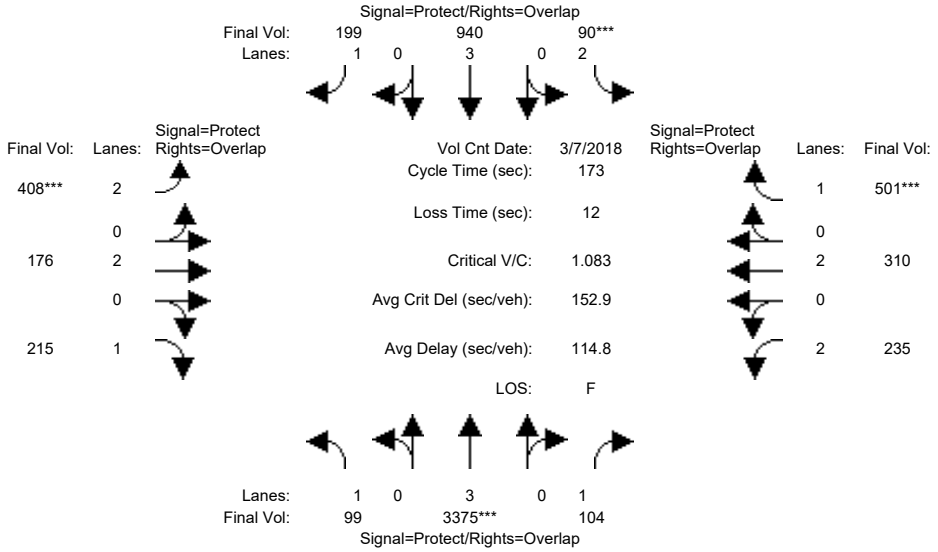



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 22 | 86 | 86 | 15 | 79 | 79 | 24 | 41 | 41 | 24 | 41 | 41 |
| Y+R: | 6.3 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.9 | 5.7 | 5.7 | 5.9 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 13 Nov 2018 << 4:30 - 5:30 PM | | | | | | | | | | | | |
| Base Vol: | 234 | 1276 | 162 | 137 | 2612 | 140 | 347 | 544 | 748 | 360 | 200 | 87 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 234 | 1276 | 162 | 137 | 2612 | 140 | 347 | 544 | 748 | 360 | 200 | 87 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 234 | 1276 | 162 | 137 | 2612 | 140 | 347 | 544 | 748 | 360 | 200 | 87 |
| User Adj: | 1.00 | 0.67 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 234 | 855 | 162 | 137 | 2090 | 140 | 347 | 544 | 748 | 360 | 200 | 87 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 234 | 855 | 162 | 137 | 2090 | 140 | 347 | 544 | 748 | 360 | 200 | 87 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 234 | 855 | 162 | 137 | 2090 | 140 | 347 | 544 | 748 | 360 | 200 | 87 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.84 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1601 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.15 | 0.09 | 0.04 | 0.37 | 0.08 | 0.11 | 0.14 | 0.47 | 0.11 | 0.05 | 0.05 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green Time: | 22.0 | 86.0 | 110.0 | 15.0 | 79.0 | 107.4 | 28.4 | 53.0 | 75.0 | 24.0 | 48.6 | 63.6 |
| Volume/Cap: | 0.64 | 0.33 | 0.16 | 0.55 | 0.88 | 0.14 | 0.74 | 0.51 | 1.18 | 0.90 | 0.21 | 0.15 |
| Uniform Del: | 80.2 | 33.5 | 18.6 | 84.3 | 51.2 | 19.5 | 77.2 | 57.6 | 57.5 | 81.9 | 55.6 | 44.3 |
| IncremntDel: | 3.9 | 0.1 | 0.1 | 2.6 | 4.2 | 0.1 | 6.0 | 0.4 | 98.0 | 23.5 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.83 | 0.62 | 1.00 | 1.15 | 1.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 84.1 | 28.0 | 11.6 | 86.9 | 63.1 | 26.1 | 83.2 | 58.1 | 155.5 | 105.4 | 55.7 | 44.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 84.1 | 28.0 | 11.6 | 86.9 | 63.1 | 26.1 | 83.2 | 58.1 | 155.5 | 105.4 | 55.7 | 44.4 |
| LOS by Move: | F | C | B+ | F | E | C | F | E+ | F | F | E+ | D |
| HCM2kAvgQ: | 9 | 8 | 3 | 4 | 38 | 5 | 12 | 13 | 63 | 14 | 4 | 4 |

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

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

Intersection #5613: LAWRENCE EXPWY/REED AVE

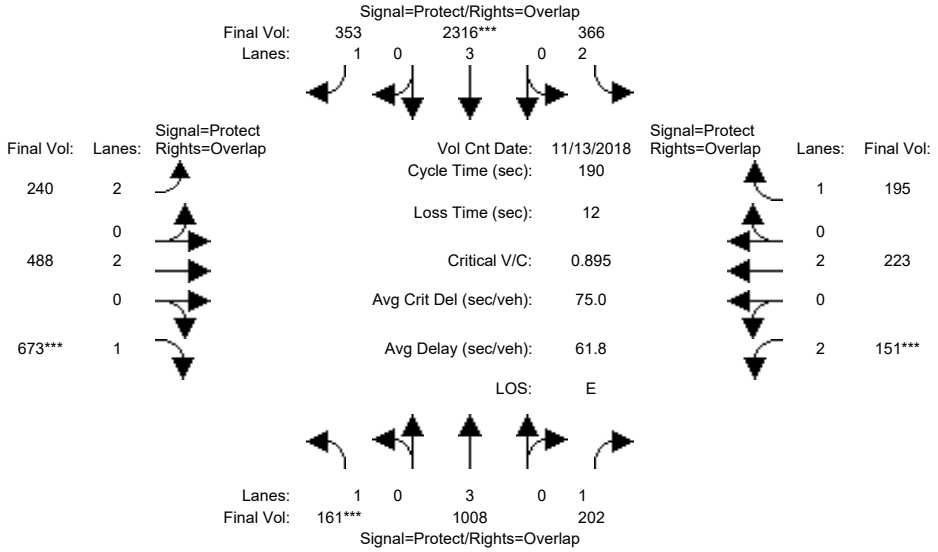



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 14 | 81 | 81 | 13 | 80 | 80 | 23 | 39 | 39 | 17 | 33 | 33 |
| Y+R: | 6.0 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.7 | 5.6 | 5.6 | 5.6 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 7 Mar 2018 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 99 | 3879 | 104 | 90 | 1081 | 199 | 408 | 176 | 215 | 235 | 310 | 501 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 99 | 3879 | 104 | 90 | 1081 | 199 | 408 | 176 | 215 | 235 | 310 | 501 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 99 | 3879 | 104 | 90 | 1081 | 199 | 408 | 176 | 215 | 235 | 310 | 501 |
| User Adj: | 1.00 | 0.87 | 1.00 | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 99 | 3375 | 104 | 90 | 940 | 199 | 408 | 176 | 215 | 235 | 310 | 501 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 99 | 3375 | 104 | 90 | 940 | 199 | 408 | 176 | 215 | 235 | 310 | 501 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 99 | 3375 | 104 | 90 | 940 | 199 | 408 | 176 | 215 | 235 | 310 | 501 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.59 | 0.06 | 0.03 | 0.16 | 0.11 | 0.13 | 0.05 | 0.12 | 0.07 | 0.08 | 0.29 |
| Crit Moves: | | **** | | **** | | | **** | | | | | **** |
| Green Time: | 14.1 | 80.5 | 97.8 | 13.2 | 79.7 | 102.8 | 23.1 | 38.5 | 52.6 | 17.3 | 32.5 | 45.7 |
| Volume/Cap: | 0.69 | 1.27 | 0.11 | 0.37 | 0.36 | 0.19 | 0.97 | 0.21 | 0.40 | 0.75 | 0.43 | 1.08 |
| Uniform Del: | 77.4 | 46.3 | 17.4 | 76.0 | 30.1 | 16.1 | 74.6 | 54.8 | 47.8 | 75.7 | 62.1 | 63.6 |
| IncremntDel: | 13.8 | 126 | 0.0 | 1.0 | 0.1 | 0.1 | 36.0 | 0.1 | 0.5 | 9.4 | 0.4 | 66.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.82 | 0.65 | 1.00 | 0.82 | 0.59 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 91.2 | 163 | 11.4 | 77.0 | 24.9 | 9.6 | 110.6 | 55.0 | 48.3 | 85.1 | 62.5 | 129.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 91.2 | 163 | 11.4 | 77.0 | 24.9 | 9.6 | 110.6 | 55.0 | 48.3 | 85.1 | 62.5 | 129.9 |
| LOS by Move: | F | F | B+ | E- | C | A | F | D- | D | F | E | F |
| HCM2kAvgQ: | 5 | 85 | 1 | 3 | 8 | 3 | 15 | 4 | 9 | 7 | 7 | 36 |

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

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

Intersection #5613: LAWRENCE EXPWY/REED AVE

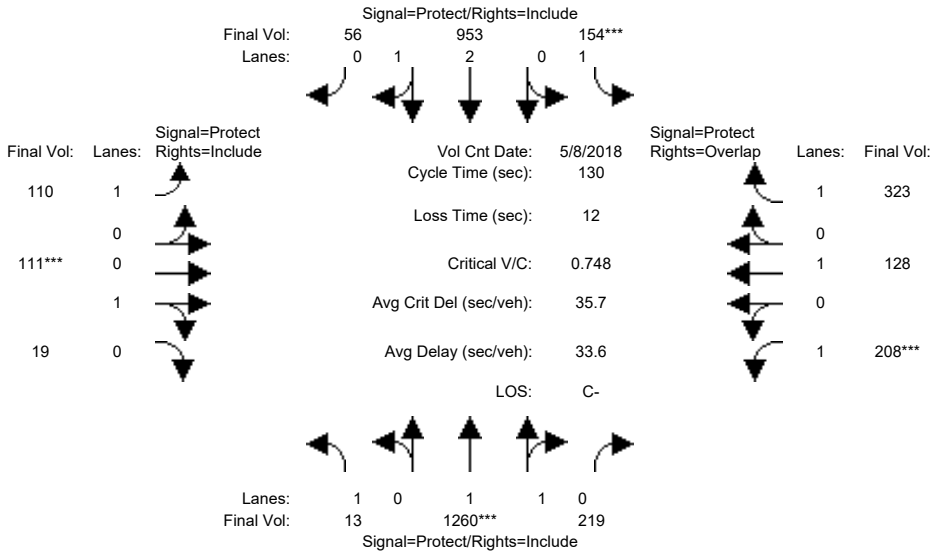



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 17 | 90 | 90 | 27 | 100 | 100 | 15 | 35 | 35 | 14 | 34 | 34 |
| Y+R: | 6.0 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.7 | 5.6 | 5.6 | 5.6 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 13 Nov 2018 << 4:45 - 5:45 PM | | | | | | | | | | | | |
| Base Vol: | 161 | 1245 | 202 | 366 | 3216 | 353 | 240 | 488 | 673 | 151 | 223 | 195 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 161 | 1245 | 202 | 366 | 3216 | 353 | 240 | 488 | 673 | 151 | 223 | 195 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 161 | 1245 | 202 | 366 | 3216 | 353 | 240 | 488 | 673 | 151 | 223 | 195 |
| User Adj: | 1.00 | 0.81 | 1.00 | 1.00 | 0.72 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 161 | 1008 | 202 | 366 | 2316 | 353 | 240 | 488 | 673 | 151 | 223 | 195 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 161 | 1008 | 202 | 366 | 2316 | 353 | 240 | 488 | 673 | 151 | 223 | 195 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 161 | 1008 | 202 | 366 | 2316 | 353 | 240 | 488 | 673 | 151 | 223 | 195 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.18 | 0.12 | 0.12 | 0.41 | 0.20 | 0.08 | 0.13 | 0.38 | 0.05 | 0.06 | 0.11 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green Time: | 17.0 | 90.0 | 104.0 | 27.0 | 100 | 118.7 | 18.7 | 47.0 | 64.0 | 14.0 | 42.3 | 69.3 |
| Volume/Cap: | 1.03 | 0.37 | 0.21 | 0.82 | 0.77 | 0.32 | 0.78 | 0.52 | 1.14 | 0.65 | 0.26 | 0.31 |
| Uniform Del: | 86.5 | 32.0 | 22.0 | 79.1 | 35.9 | 16.8 | 83.6 | 61.7 | 63.0 | 85.6 | 61.0 | 43.1 |
| IncremntDel: | 79.6 | 0.1 | 0.1 | 11.2 | 1.3 | 0.2 | 11.6 | 0.5 | 82.7 | 6.4 | 0.2 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.80 | 0.69 | 1.00 | 1.27 | 1.45 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 166.1 | 25.8 | 15.2 | 90.3 | 47.0 | 24.4 | 95.2 | 62.3 | 145.7 | 92.0 | 61.1 | 43.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 166.1 | 25.8 | 15.2 | 90.3 | 47.0 | 24.4 | 95.2 | 62.3 | 145.7 | 92.0 | 61.1 | 43.4 |
| LOS by Move: | F | C | B | F | D | C | F | E | F | F | E | D |
| HCM2kAvgQ: | 12 | 9 | 4 | 12 | 37 | 14 | 9 | 12 | 54 | 5 | 5 | 8 |

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

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

Intersection #41: Fair Oaks Ave & Duane Ave

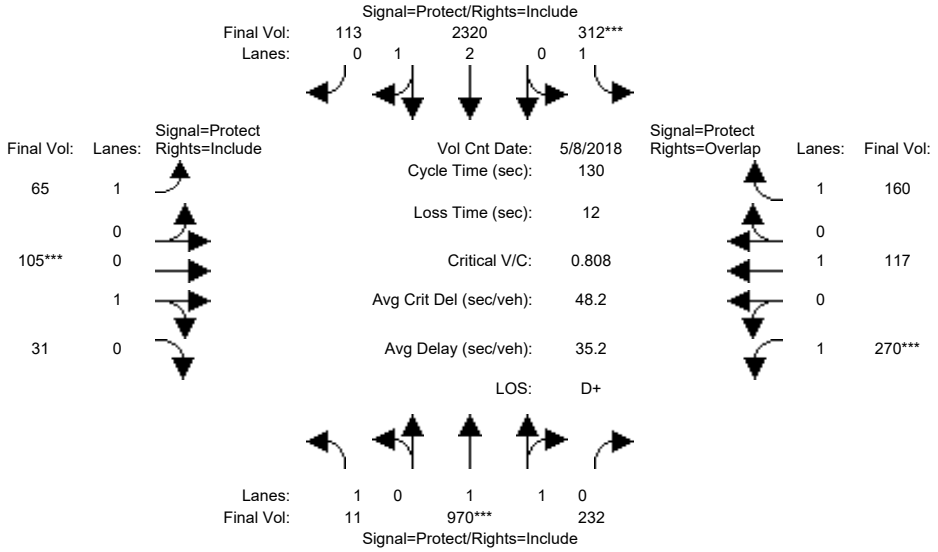



| Street Name: | Fair Oaks Ave | | | | | | Duane Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 13 | 1260 | 219 | 154 | 953 | 56 | 110 | 111 | 19 | 208 | 128 | 323 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 13 | 1260 | 219 | 154 | 953 | 56 | 110 | 111 | 19 | 208 | 128 | 323 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 13 | 1260 | 219 | 154 | 953 | 56 | 110 | 111 | 19 | 208 | 128 | 323 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 13 | 1260 | 219 | 154 | 953 | 56 | 110 | 111 | 19 | 208 | 128 | 323 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 13 | 1260 | 219 | 154 | 953 | 56 | 110 | 111 | 19 | 208 | 128 | 323 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 13 | 1260 | 219 | 154 | 953 | 56 | 110 | 111 | 19 | 208 | 128 | 323 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.70 | 0.30 | 1.00 | 2.83 | 0.17 | 1.00 | 0.85 | 0.15 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 3152 | 548 | 1750 | 5289 | 311 | 1750 | 1537 | 263 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.40 | 0.40 | 0.09 | 0.18 | 0.18 | 0.06 | 0.07 | 0.07 | 0.12 | 0.07 | 0.18 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 19.5 | 69.5 | 69.5 | 15.3 | 65.3 | 65.3 | 13.1 | 12.6 | 12.6 | 20.7 | 20.1 | 35.4 |
| Volume/Cap: | 0.05 | 0.75 | 0.75 | 0.75 | 0.36 | 0.36 | 0.62 | 0.75 | 0.75 | 0.75 | 0.44 | 0.68 |
| Uniform Del: | 47.3 | 23.5 | 23.5 | 55.5 | 19.7 | 19.7 | 56.1 | 57.2 | 57.2 | 52.2 | 49.8 | 42.2 |
| IncremntDel: | 0.1 | 1.6 | 1.6 | 14.0 | 0.1 | 0.1 | 6.8 | 16.3 | 16.3 | 10.7 | 1.0 | 3.9 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 47.4 | 25.1 | 25.1 | 69.5 | 19.7 | 19.7 | 62.9 | 73.5 | 73.5 | 62.8 | 50.8 | 46.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 47.4 | 25.1 | 25.1 | 69.5 | 19.7 | 19.7 | 62.9 | 73.5 | 73.5 | 62.8 | 50.8 | 46.1 |
| LOS by Move: | D | C | C | E | B- | B- | E | E | E | E | D | D |
| HCM2kAvgQ: | 0 | 23 | 23 | 7 | 8 | 8 | 6 | 7 | 7 | 10 | 5 | 13 |

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

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

Intersection #41: Fair Oaks Ave & Duane Ave

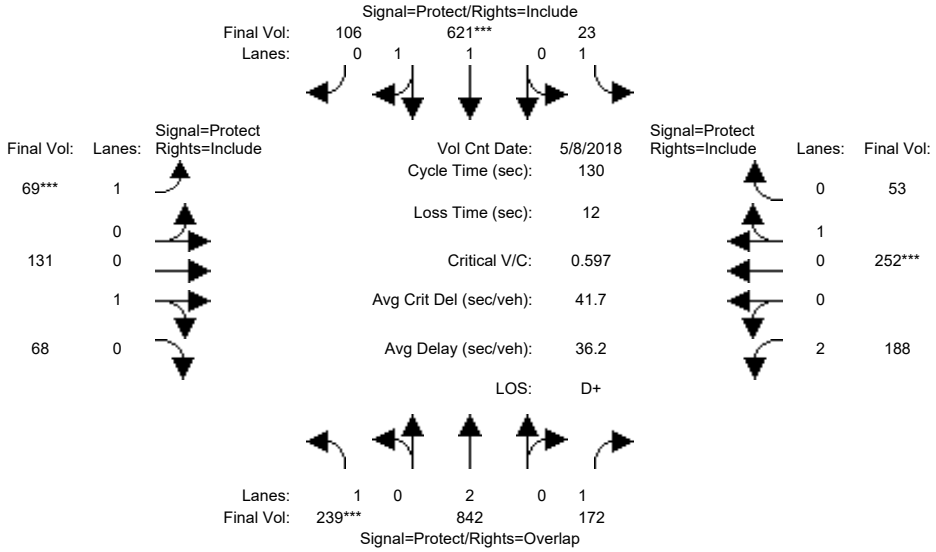



| Street Name: | Fair Oaks Ave | | | | | | Duane Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 11 | 970 | 232 | 312 | 2320 | 113 | 65 | 105 | 31 | 270 | 117 | 160 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 11 | 970 | 232 | 312 | 2320 | 113 | 65 | 105 | 31 | 270 | 117 | 160 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 11 | 970 | 232 | 312 | 2320 | 113 | 65 | 105 | 31 | 270 | 117 | 160 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 11 | 970 | 232 | 312 | 2320 | 113 | 65 | 105 | 31 | 270 | 117 | 160 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 11 | 970 | 232 | 312 | 2320 | 113 | 65 | 105 | 31 | 270 | 117 | 160 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 11 | 970 | 232 | 312 | 2320 | 113 | 65 | 105 | 31 | 270 | 117 | 160 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.60 | 0.40 | 1.00 | 2.86 | 0.14 | 1.00 | 0.77 | 0.23 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 2985 | 714 | 1750 | 5340 | 260 | 1750 | 1390 | 410 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.32 | 0.32 | 0.18 | 0.43 | 0.43 | 0.04 | 0.08 | 0.08 | 0.15 | 0.06 | 0.09 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 8.9 | 52.3 | 52.3 | 28.7 | 72.1 | 72.1 | 15.2 | 12.2 | 12.2 | 24.8 | 21.8 | 50.5 |
| Volume/Cap: | 0.09 | 0.81 | 0.81 | 0.81 | 0.78 | 0.78 | 0.32 | 0.81 | 0.81 | 0.81 | 0.37 | 0.24 |
| Uniform Del: | 56.7 | 34.4 | 34.4 | 48.0 | 22.8 | 22.8 | 52.6 | 57.8 | 57.8 | 50.3 | 48.0 | 26.8 |
| IncremntDel: | 0.3 | 3.4 | 3.4 | 11.9 | 1.4 | 1.4 | 0.9 | 24.3 | 24.3 | 13.5 | 0.7 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 57.1 | 37.8 | 37.8 | 59.9 | 24.2 | 24.2 | 53.5 | 82.0 | 82.0 | 63.8 | 48.7 | 27.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 57.1 | 37.8 | 37.8 | 59.9 | 24.2 | 24.2 | 53.5 | 82.0 | 82.0 | 63.8 | 48.7 | 27.0 |
| LOS by Move: | E+ | D+ | D+ | E+ | C | C | D- | F | F | E | D | C |
| HCM2kAvgQ: | 0 | 22 | 22 | 13 | 25 | 25 | 3 | 8 | 8 | 13 | 4 | 5 |

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

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

Intersection #42: Fair Oaks Ave & Arques Ave

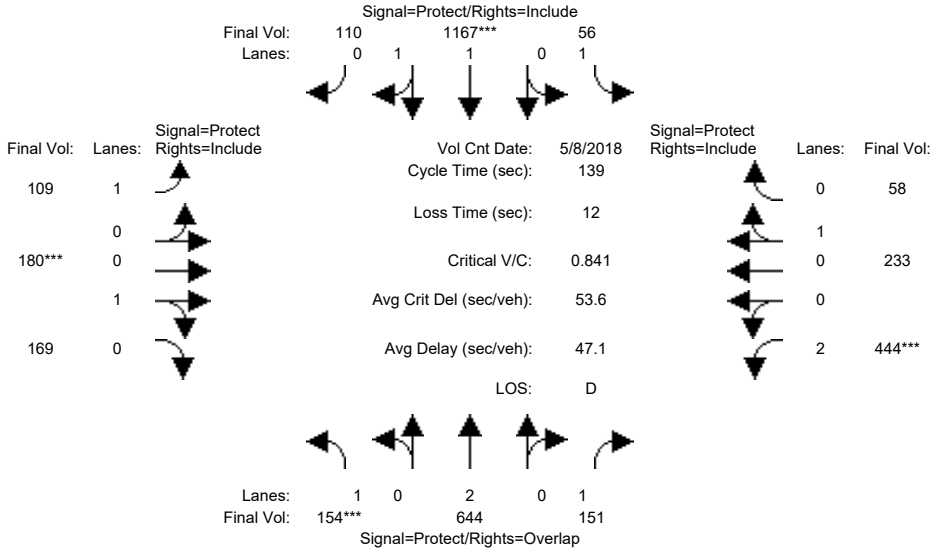



| Street Name: | Fair Oaks Ave | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:15 AM - 9:15 AM | | | | | | | | | | | | |
| Base Vol: | 239 | 842 | 172 | 23 | 621 | 106 | 69 | 131 | 68 | 188 | 252 | 53 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 239 | 842 | 172 | 23 | 621 | 106 | 69 | 131 | 68 | 188 | 252 | 53 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 239 | 842 | 172 | 23 | 621 | 106 | 69 | 131 | 68 | 188 | 252 | 53 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 239 | 842 | 172 | 23 | 621 | 106 | 69 | 131 | 68 | 188 | 252 | 53 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 239 | 842 | 172 | 23 | 621 | 106 | 69 | 131 | 68 | 188 | 252 | 53 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 239 | 842 | 172 | 23 | 621 | 106 | 69 | 131 | 68 | 188 | 252 | 53 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.83 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 1.70 | 0.30 | 1.00 | 0.66 | 0.34 | 2.00 | 0.83 | 0.17 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3160 | 539 | 1750 | 1185 | 615 | 3150 | 1487 | 313 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.14 | 0.22 | 0.10 | 0.01 | 0.20 | 0.20 | 0.04 | 0.11 | 0.11 | 0.06 | 0.17 | 0.17 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 29.7 | 58.3 | 74.3 | 14.2 | 42.8 | 42.8 | 8.6 | 29.5 | 29.5 | 15.9 | 36.9 | 36.9 |
| Volume/Cap: | 0.60 | 0.49 | 0.17 | 0.12 | 0.60 | 0.60 | 0.60 | 0.49 | 0.49 | 0.49 | 0.60 | 0.60 |
| Uniform Del: | 44.8 | 25.4 | 13.2 | 52.3 | 36.4 | 36.4 | 59.0 | 43.6 | 43.6 | 53.2 | 40.1 | 40.1 |
| IncremntDel: | 2.5 | 0.2 | 0.1 | 0.3 | 0.8 | 0.8 | 8.3 | 0.9 | 0.9 | 1.0 | 1.9 | 1.9 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 47.2 | 25.6 | 13.3 | 52.6 | 37.2 | 37.2 | 67.3 | 44.6 | 44.6 | 54.2 | 42.1 | 42.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 47.2 | 25.6 | 13.3 | 52.6 | 37.2 | 37.2 | 67.3 | 44.6 | 44.6 | 54.2 | 42.1 | 42.1 |
| LOS by Move: | D | C | B | D- | D+ | D+ | E | D | D | D- | D | D |
| HCM2kAvgQ: | 9 | 11 | 3 | 1 | 13 | 13 | 4 | 8 | 8 | 4 | 11 | 11 |

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

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

Intersection #42: Fair Oaks Ave & Arques Ave

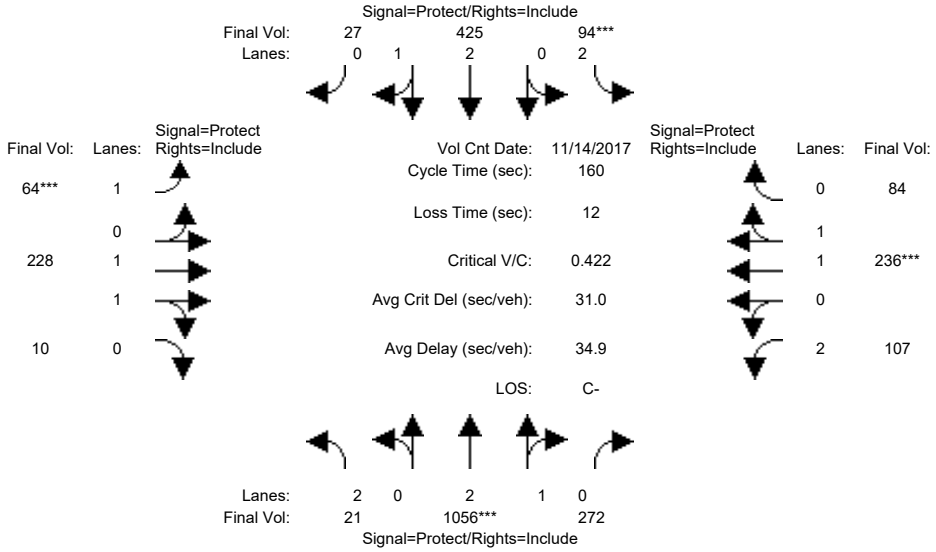



| Street Name: | Fair Oaks Ave | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 154 | 644 | 151 | 56 | 1167 | 110 | 109 | 180 | 169 | 444 | 233 | 58 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 154 | 644 | 151 | 56 | 1167 | 110 | 109 | 180 | 169 | 444 | 233 | 58 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 154 | 644 | 151 | 56 | 1167 | 110 | 109 | 180 | 169 | 444 | 233 | 58 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 154 | 644 | 151 | 56 | 1167 | 110 | 109 | 180 | 169 | 444 | 233 | 58 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 154 | 644 | 151 | 56 | 1167 | 110 | 109 | 180 | 169 | 444 | 233 | 58 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 154 | 644 | 151 | 56 | 1167 | 110 | 109 | 180 | 169 | 444 | 233 | 58 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.83 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 1.82 | 0.18 | 1.00 | 0.52 | 0.48 | 2.00 | 0.80 | 0.20 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3381 | 319 | 1750 | 928 | 872 | 3150 | 1441 | 359 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.17 | 0.09 | 0.03 | 0.35 | 0.35 | 0.06 | 0.19 | 0.19 | 0.14 | 0.16 | 0.16 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 14.6 | 55.2 | 78.5 | 16.4 | 57.1 | 57.1 | 15.4 | 32.1 | 32.1 | 23.3 | 40.0 | 40.0 |
| Volume/Cap: | 0.84 | 0.43 | 0.15 | 0.27 | 0.84 | 0.84 | 0.56 | 0.84 | 0.84 | 0.84 | 0.56 | 0.56 |
| Uniform Del: | 61.1 | 30.4 | 14.4 | 55.8 | 36.9 | 36.9 | 58.6 | 51.0 | 51.0 | 56.0 | 42.1 | 42.1 |
| IncremntDel: | 27.8 | 0.2 | 0.1 | 0.7 | 4.4 | 4.4 | 3.7 | 14.2 | 14.2 | 11.5 | 1.4 | 1.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 88.9 | 30.6 | 14.5 | 56.6 | 41.3 | 41.3 | 62.3 | 65.2 | 65.2 | 67.6 | 43.5 | 43.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 88.9 | 30.6 | 14.5 | 56.6 | 41.3 | 41.3 | 62.3 | 65.2 | 65.2 | 67.6 | 43.5 | 43.5 |
| LOS by Move: | F | C | B | E+ | D | D | E | E | E | E | D | D |
| HCM2kAvgQ: | 8 | 10 | 3 | 3 | 27 | 27 | 5 | 17 | 17 | 12 | 11 | 11 |

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

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

Intersection #43: Wolfe Rd & Arques Ave

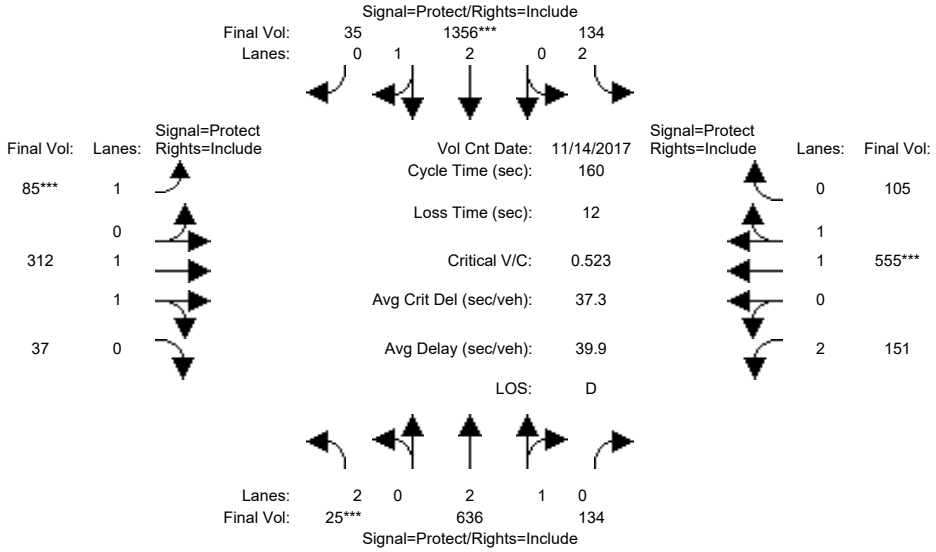



| Street Name: | Wolfe Rd | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 21 | 1056 | 272 | 94 | 425 | 27 | 64 | 228 | 10 | 107 | 236 | 84 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 21 | 1056 | 272 | 94 | 425 | 27 | 64 | 228 | 10 | 107 | 236 | 84 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 21 | 1056 | 272 | 94 | 425 | 27 | 64 | 228 | 10 | 107 | 236 | 84 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 21 | 1056 | 272 | 94 | 425 | 27 | 64 | 228 | 10 | 107 | 236 | 84 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 21 | 1056 | 272 | 94 | 425 | 27 | 64 | 228 | 10 | 107 | 236 | 84 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 21 | 1056 | 272 | 94 | 425 | 27 | 64 | 228 | 10 | 107 | 236 | 84 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.97 | 0.95 | 0.83 | 0.98 | 0.95 |
| Lanes: | 2.00 | 2.36 | 0.64 | 2.00 | 2.81 | 0.19 | 1.00 | 1.91 | 0.09 | 2.00 | 1.46 | 0.54 |
| Final Sat.: | 3150 | 4452 | 1147 | 3150 | 5265 | 334 | 1750 | 3544 | 155 | 3150 | 2728 | 971 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.24 | 0.24 | 0.03 | 0.08 | 0.08 | 0.04 | 0.06 | 0.06 | 0.03 | 0.09 | 0.09 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 35.6 | 90.0 | 90.0 | 11.3 | 65.7 | 65.7 | 13.9 | 27.8 | 27.8 | 18.9 | 32.8 | 32.8 |
| Volume/Cap: | 0.03 | 0.42 | 0.42 | 0.42 | 0.20 | 0.20 | 0.42 | 0.37 | 0.37 | 0.29 | 0.42 | 0.42 |
| Uniform Del: | 48.7 | 20.1 | 20.1 | 71.2 | 30.2 | 30.2 | 69.3 | 58.4 | 58.4 | 64.4 | 55.3 | 55.3 |
| IncremntDel: | 0.0 | 0.1 | 0.1 | 1.3 | 0.0 | 0.0 | 1.9 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 48.7 | 20.2 | 20.2 | 72.5 | 30.3 | 30.3 | 71.2 | 58.7 | 58.7 | 64.8 | 55.7 | 55.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 48.7 | 20.2 | 20.2 | 72.5 | 30.3 | 30.3 | 71.2 | 58.7 | 58.7 | 64.8 | 55.7 | 55.7 |
| LOS by Move: | D | C+ | C+ | E | C | C | E | E+ | E+ | E | E+ | E+ |
| HCM2kAvgQ: | 0 | 12 | 12 | 3 | 5 | 5 | 3 | 5 | 5 | 3 | 7 | 7 |

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

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

Intersection #43: Wolfe Rd & Arques Ave

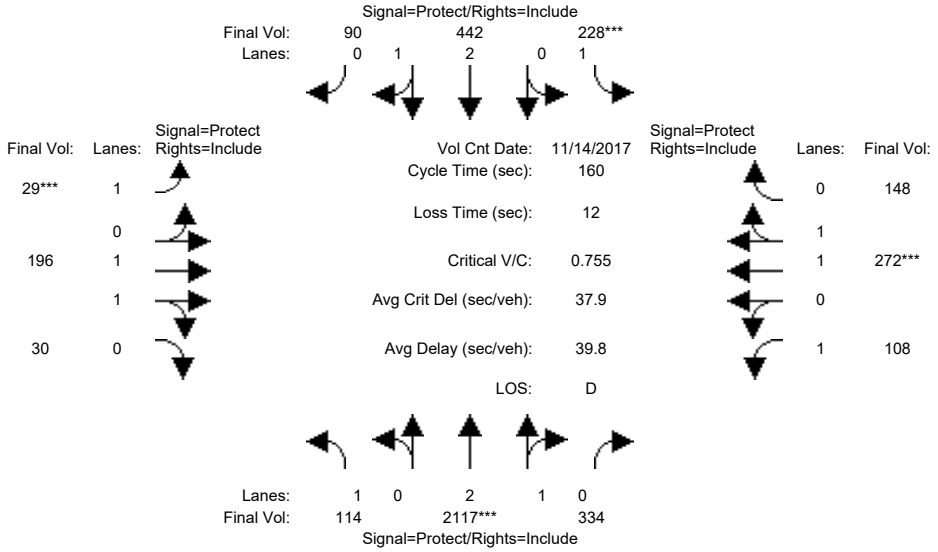



| Street Name: | Wolfe Rd | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 25 | 636 | 134 | 134 | 1356 | 35 | 85 | 312 | 37 | 151 | 555 | 105 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 25 | 636 | 134 | 134 | 1356 | 35 | 85 | 312 | 37 | 151 | 555 | 105 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 25 | 636 | 134 | 134 | 1356 | 35 | 85 | 312 | 37 | 151 | 555 | 105 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 25 | 636 | 134 | 134 | 1356 | 35 | 85 | 312 | 37 | 151 | 555 | 105 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 25 | 636 | 134 | 134 | 1356 | 35 | 85 | 312 | 37 | 151 | 555 | 105 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 25 | 636 | 134 | 134 | 1356 | 35 | 85 | 312 | 37 | 151 | 555 | 105 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 0.98 | 0.95 |
| Lanes: | 2.00 | 2.46 | 0.54 | 2.00 | 2.92 | 0.08 | 1.00 | 1.78 | 0.22 | 2.00 | 1.67 | 0.33 |
| Final Sat.: | 3150 | 4624 | 974 | 3150 | 5459 | 141 | 1750 | 3307 | 392 | 3150 | 3111 | 589 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.14 | 0.14 | 0.04 | 0.25 | 0.25 | 0.05 | 0.09 | 0.09 | 0.05 | 0.18 | 0.18 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 7.0 | 61.2 | 61.2 | 19.5 | 73.7 | 73.7 | 14.4 | 44.6 | 44.6 | 22.7 | 52.9 | 52.9 |
| Volume/Cap: | 0.18 | 0.36 | 0.36 | 0.35 | 0.54 | 0.54 | 0.54 | 0.34 | 0.34 | 0.34 | 0.54 | 0.54 |
| Uniform Del: | 73.7 | 35.4 | 35.4 | 64.5 | 31.0 | 31.0 | 69.6 | 45.9 | 45.9 | 61.9 | 43.6 | 43.6 |
| IncremntDel: | 0.6 | 0.1 | 0.1 | 0.6 | 0.2 | 0.2 | 3.7 | 0.2 | 0.2 | 0.5 | 0.5 | 0.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 74.4 | 35.5 | 35.5 | 65.0 | 31.2 | 31.2 | 73.3 | 46.1 | 46.1 | 62.3 | 44.1 | 44.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 74.4 | 35.5 | 35.5 | 65.0 | 31.2 | 31.2 | 73.3 | 46.1 | 46.1 | 62.3 | 44.1 | 44.1 |
| LOS by Move: | E | D+ | D+ | E | C | C | E | D | D | E | D | D |
| HCM2kAvgQ: | 1 | 9 | 9 | 3 | 16 | 16 | 4 | 6 | 6 | 4 | 13 | 13 |

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

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

Intersection #44: Wolfe Rd & Kifer Rd

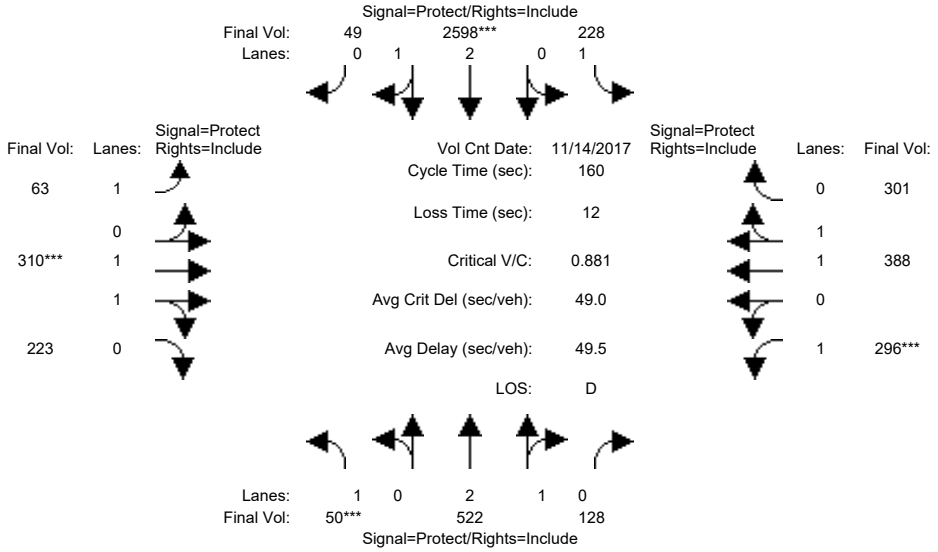



| Street Name: | Wolfe Rd | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00AM | | | | | | | | | | | | |
| Base Vol: | 114 | 2117 | 334 | 228 | 442 | 90 | 29 | 196 | 30 | 108 | 272 | 148 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 114 | 2117 | 334 | 228 | 442 | 90 | 29 | 196 | 30 | 108 | 272 | 148 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 114 | 2117 | 334 | 228 | 442 | 90 | 29 | 196 | 30 | 108 | 272 | 148 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 114 | 2117 | 334 | 228 | 442 | 90 | 29 | 196 | 30 | 108 | 272 | 148 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 114 | 2117 | 334 | 228 | 442 | 90 | 29 | 196 | 30 | 108 | 272 | 148 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 114 | 2117 | 334 | 228 | 442 | 90 | 29 | 196 | 30 | 108 | 272 | 148 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 2.58 | 0.42 | 1.00 | 2.47 | 0.53 | 1.00 | 1.73 | 0.27 | 1.00 | 1.28 | 0.72 |
| Final Sat.: | 1750 | 4836 | 763 | 1750 | 4651 | 947 | 1750 | 3208 | 491 | 1750 | 2395 | 1303 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.44 | 0.44 | 0.13 | 0.10 | 0.10 | 0.02 | 0.06 | 0.06 | 0.06 | 0.11 | 0.11 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 47.8 | 90.6 | 90.6 | 27.0 | 69.7 | 69.7 | 7.0 | 15.3 | 15.3 | 15.1 | 23.5 | 23.5 |
| Volume/Cap: | 0.22 | 0.77 | 0.77 | 0.77 | 0.22 | 0.22 | 0.38 | 0.64 | 0.64 | 0.65 | 0.77 | 0.77 |
| Uniform Del: | 42.1 | 26.8 | 26.8 | 63.6 | 28.1 | 28.1 | 74.4 | 69.6 | 69.6 | 69.9 | 65.7 | 65.7 |
| IncremntDel: | 0.2 | 1.2 | 1.2 | 12.0 | 0.0 | 0.0 | 3.1 | 3.8 | 3.8 | 8.9 | 6.8 | 6.8 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 42.3 | 28.0 | 28.0 | 75.6 | 28.2 | 28.2 | 77.5 | 73.5 | 73.5 | 78.8 | 72.5 | 72.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 42.3 | 28.0 | 28.0 | 75.6 | 28.2 | 28.2 | 77.5 | 73.5 | 73.5 | 78.8 | 72.5 | 72.5 |
| LOS by Move: | D | C | C | E- | C | C | E- | E | E | E- | E | E |
| HCM2kAvgQ: | 4 | 30 | 30 | 12 | 5 | 5 | 1 | 6 | 6 | 6 | 11 | 11 |

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

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

Intersection #44: Wolfe Rd & Kifer Rd

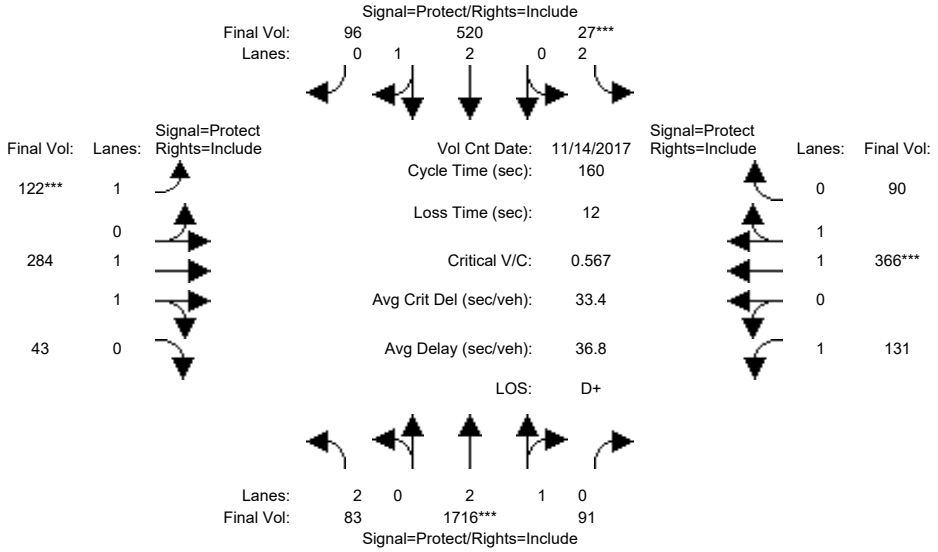



| Street Name: | Wolfe Rd | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 50 | 522 | 128 | 228 | 2598 | 49 | 63 | 310 | 223 | 296 | 388 | 301 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 50 | 522 | 128 | 228 | 2598 | 49 | 63 | 310 | 223 | 296 | 388 | 301 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 50 | 522 | 128 | 228 | 2598 | 49 | 63 | 310 | 223 | 296 | 388 | 301 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 50 | 522 | 128 | 228 | 2598 | 49 | 63 | 310 | 223 | 296 | 388 | 301 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 50 | 522 | 128 | 228 | 2598 | 49 | 63 | 310 | 223 | 296 | 388 | 301 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 50 | 522 | 128 | 228 | 2598 | 49 | 63 | 310 | 223 | 296 | 388 | 301 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 2.39 | 0.61 | 1.00 | 2.94 | 0.06 | 1.00 | 1.14 | 0.86 | 1.00 | 1.10 | 0.90 |
| Final Sat.: | 1750 | 4496 | 1102 | 1750 | 5496 | 104 | 1750 | 2151 | 1547 | 1750 | 2082 | 1615 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.12 | 0.12 | 0.13 | 0.47 | 0.47 | 0.04 | 0.14 | 0.14 | 0.17 | 0.19 | 0.19 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 7.0 | 43.3 | 43.3 | 48.5 | 84.8 | 84.8 | 10.7 | 25.9 | 25.9 | 30.3 | 45.5 | 45.5 |
| Volume/Cap: | 0.65 | 0.43 | 0.43 | 0.43 | 0.89 | 0.89 | 0.54 | 0.89 | 0.89 | 0.89 | 0.66 | 0.66 |
| Uniform Del: | 75.3 | 48.2 | 48.2 | 44.6 | 33.5 | 33.5 | 72.3 | 65.7 | 65.7 | 63.2 | 50.3 | 50.3 |
| IncremntDel: | 18.4 | 0.2 | 0.2 | 0.6 | 3.8 | 3.8 | 5.0 | 15.6 | 15.6 | 24.6 | 1.5 | 1.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 93.7 | 48.4 | 48.4 | 45.2 | 37.3 | 37.3 | 77.2 | 81.3 | 81.3 | 87.8 | 51.8 | 51.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 93.7 | 48.4 | 48.4 | 45.2 | 37.3 | 37.3 | 77.2 | 81.3 | 81.3 | 87.8 | 51.8 | 51.8 |
| LOS by Move: | F | D | D | D | D+ | D+ | E- | F | F | F | D- | D- |
| HCM2kAvgQ: | 3 | 9 | 9 | 9 | 36 | 36 | 3 | 14 | 14 | 17 | 15 | 15 |

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

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

Intersection #45: Wolfe Rd & Reed Ave

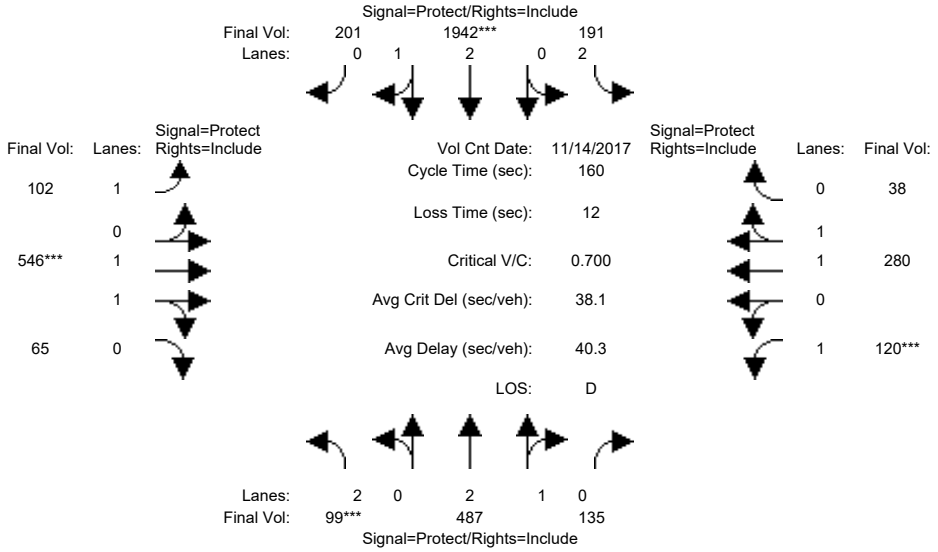



| Street Name: | Wolfe Rd | | | | | | Reed Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 83 | 1716 | 91 | 27 | 520 | 96 | 122 | 284 | 43 | 131 | 366 | 90 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 83 | 1716 | 91 | 27 | 520 | 96 | 122 | 284 | 43 | 131 | 366 | 90 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 83 | 1716 | 91 | 27 | 520 | 96 | 122 | 284 | 43 | 131 | 366 | 90 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 83 | 1716 | 91 | 27 | 520 | 96 | 122 | 284 | 43 | 131 | 366 | 90 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 83 | 1716 | 91 | 27 | 520 | 96 | 122 | 284 | 43 | 131 | 366 | 90 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 83 | 1716 | 91 | 27 | 520 | 96 | 122 | 284 | 43 | 131 | 366 | 90 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 2.00 | 2.84 | 0.16 | 2.00 | 2.52 | 0.48 | 1.00 | 1.73 | 0.27 | 1.00 | 1.59 | 0.41 |
| Final Sat.: | 3150 | 5318 | 282 | 3150 | 4726 | 873 | 1750 | 3213 | 486 | 1750 | 2969 | 730 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.32 | 0.32 | 0.01 | 0.11 | 0.11 | 0.07 | 0.09 | 0.09 | 0.07 | 0.12 | 0.12 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 27.1 | 88.2 | 88.2 | 7.0 | 68.1 | 68.1 | 19.1 | 28.6 | 28.6 | 24.2 | 33.7 | 33.7 |
| Volume/Cap: | 0.16 | 0.59 | 0.59 | 0.20 | 0.26 | 0.26 | 0.59 | 0.50 | 0.50 | 0.50 | 0.59 | 0.59 |
| Uniform Del: | 56.7 | 23.8 | 23.8 | 73.8 | 29.6 | 29.6 | 66.7 | 59.2 | 59.2 | 62.3 | 56.9 | 56.9 |
| IncremntDel: | 0.1 | 0.3 | 0.3 | 0.7 | 0.1 | 0.1 | 4.2 | 0.6 | 0.6 | 1.5 | 1.2 | 1.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 56.8 | 24.1 | 24.1 | 74.5 | 29.7 | 29.7 | 71.0 | 59.8 | 59.8 | 63.8 | 58.0 | 58.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 56.8 | 24.1 | 24.1 | 74.5 | 29.7 | 29.7 | 71.0 | 59.8 | 59.8 | 63.8 | 58.0 | 58.0 |
| LOS by Move: | E+ | C | C | E | C | C | E | E+ | E+ | E | E+ | E+ |
| HCM2kAvgQ: | 2 | 19 | 19 | 1 | 6 | 6 | 6 | 7 | 7 | 6 | 10 | 10 |

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

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

Intersection #45: Wolfe Rd & Reed Ave

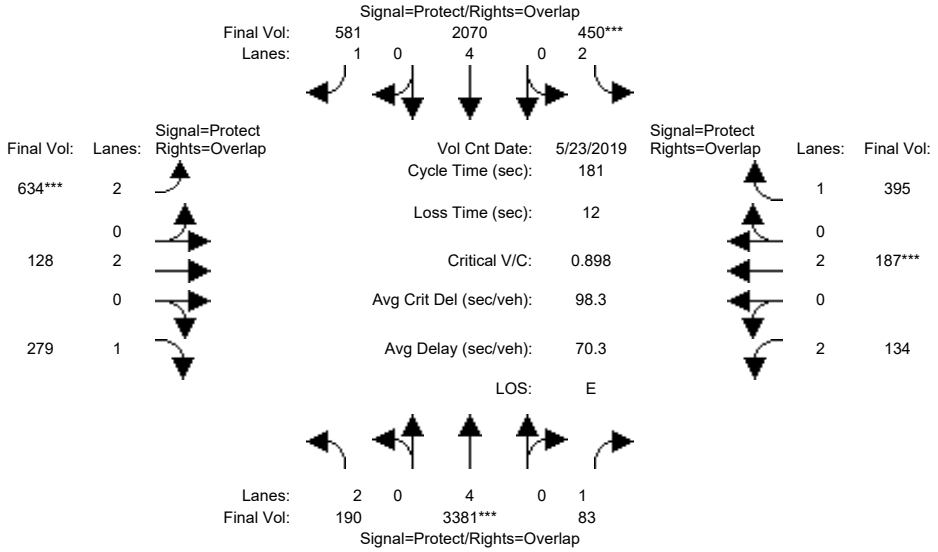



| Street Name: | Wolfe Rd | | | | | | Reed Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 99 | 487 | 135 | 191 | 1942 | 201 | 102 | 546 | 65 | 120 | 280 | 38 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 99 | 487 | 135 | 191 | 1942 | 201 | 102 | 546 | 65 | 120 | 280 | 38 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 99 | 487 | 135 | 191 | 1942 | 201 | 102 | 546 | 65 | 120 | 280 | 38 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 99 | 487 | 135 | 191 | 1942 | 201 | 102 | 546 | 65 | 120 | 280 | 38 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 99 | 487 | 135 | 191 | 1942 | 201 | 102 | 546 | 65 | 120 | 280 | 38 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 99 | 487 | 135 | 191 | 1942 | 201 | 102 | 546 | 65 | 120 | 280 | 38 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 2.00 | 2.33 | 0.67 | 2.00 | 2.71 | 0.29 | 1.00 | 1.78 | 0.22 | 1.00 | 1.75 | 0.25 |
| Final Sat.: | 3150 | 4383 | 1215 | 3150 | 5074 | 525 | 1750 | 3306 | 394 | 1750 | 3258 | 442 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.11 | 0.11 | 0.06 | 0.38 | 0.38 | 0.06 | 0.17 | 0.17 | 0.07 | 0.09 | 0.09 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.2 | 61.2 | 61.2 | 33.4 | 87.4 | 87.4 | 21.6 | 37.7 | 37.7 | 15.7 | 31.8 | 31.8 |
| Volume/Cap: | 0.70 | 0.29 | 0.29 | 0.29 | 0.70 | 0.70 | 0.43 | 0.70 | 0.70 | 0.70 | 0.43 | 0.43 |
| Uniform Del: | 75.3 | 34.3 | 34.3 | 53.3 | 26.7 | 26.7 | 63.6 | 56.0 | 56.0 | 69.9 | 56.2 | 56.2 |
| IncremntDel: | 14.5 | 0.1 | 0.1 | 0.2 | 0.7 | 0.7 | 1.3 | 2.6 | 2.6 | 12.2 | 0.4 | 0.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 89.9 | 34.4 | 34.4 | 53.6 | 27.4 | 27.4 | 64.9 | 58.5 | 58.5 | 82.1 | 56.6 | 56.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 89.9 | 34.4 | 34.4 | 53.6 | 27.4 | 27.4 | 64.9 | 58.5 | 58.5 | 82.1 | 56.6 | 56.6 |
| LOS by Move: | F | C- | C- | D- | C | C | E | E+ | E+ | F | E+ | E+ |
| HCM2kAvgQ: | 3 | 7 | 7 | 4 | 25 | 25 | 5 | 14 | 14 | 6 | 7 | 7 |

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

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

Intersection #49: Lawrence Expwy & Oakmead Pkwy

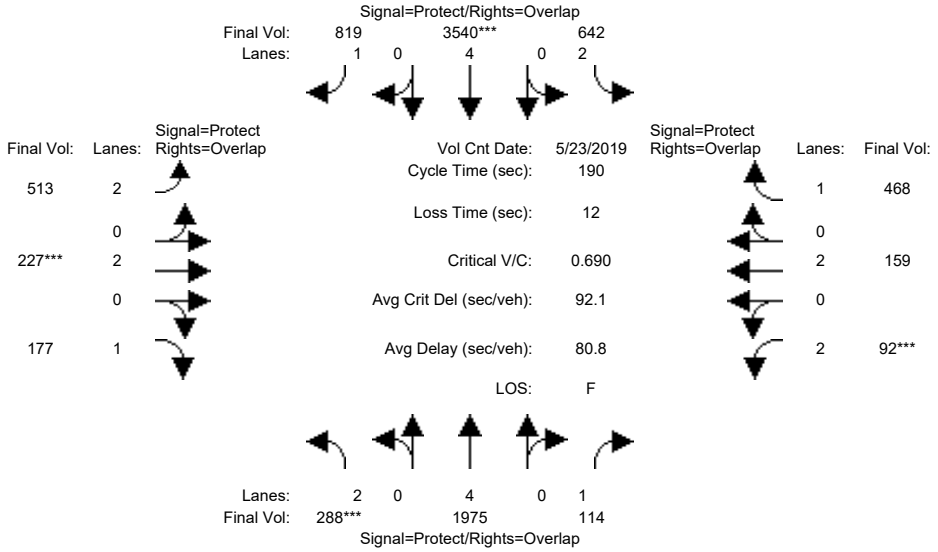



| Street Name: | Lawrence Expwy | | | | | | Oakmead Pkwy | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 17 | 86 | 86 | 20 | 89 | 89 | 23 | 39 | 39 | 10 | 20 | 25 |
| Y+R: | 6.4 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 | 5.6 | 5.5 | 5.5 | 5.6 | 5.6 | 5.6 |
| Volume Module: >> Count Date: 23 May 2019 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 190 | 3381 | 83 | 450 | 2070 | 581 | 634 | 128 | 279 | 134 | 187 | 395 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 190 | 3381 | 83 | 450 | 2070 | 581 | 634 | 128 | 279 | 134 | 187 | 395 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 190 | 3381 | 83 | 450 | 2070 | 581 | 634 | 128 | 279 | 134 | 187 | 395 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 190 | 3381 | 83 | 450 | 2070 | 581 | 634 | 128 | 279 | 134 | 187 | 395 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 190 | 3381 | 83 | 450 | 2070 | 581 | 634 | 128 | 279 | 134 | 187 | 395 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 190 | 3381 | 83 | 450 | 2070 | 581 | 634 | 128 | 279 | 134 | 187 | 395 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 4.00 | 1.00 | 2.00 | 4.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 7600 | 1750 | 3150 | 7600 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.44 | 0.05 | 0.14 | 0.27 | 0.33 | 0.20 | 0.03 | 0.16 | 0.04 | 0.05 | 0.23 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 17.2 | 86.9 | 97.4 | 20.3 | 89.9 | 113.7 | 23.8 | 39.3 | 56.5 | 10.5 | 25.9 | 46.2 |
| Volume/Cap: | 0.63 | 0.93 | 0.09 | 1.27 | 0.55 | 0.53 | 1.53 | 0.16 | 0.51 | 0.73 | 0.34 | 0.88 |
| Uniform Del: | 78.9 | 44.1 | 20.3 | 80.3 | 31.5 | 18.7 | 78.6 | 57.4 | 50.9 | 83.9 | 69.9 | 64.8 |
| IncremntDel: | 4.4 | 4.8 | 0.0 | 143.3 | 0.2 | 0.5 | 250.7 | 0.1 | 0.8 | 14.2 | 0.4 | 18.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.80 | 0.70 | 1.00 | 0.77 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 83.3 | 39.9 | 14.3 | 223.7 | 24.5 | 9.9 | 329.3 | 57.5 | 51.8 | 98.1 | 70.3 | 83.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 83.3 | 39.9 | 14.3 | 223.7 | 24.5 | 9.9 | 329.3 | 57.5 | 51.8 | 98.1 | 70.3 | 83.3 |
| LOS by Move: | F | D | B | F | C | A | F | E+ | D- | F | E | F |
| HCM2kAvgQ: | 6 | 39 | 1 | 24 | 15 | 10 | 38 | 3 | 13 | 6 | 5 | 25 |

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

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

Intersection #49: Lawrence Expwy & Oakmead Pkwy

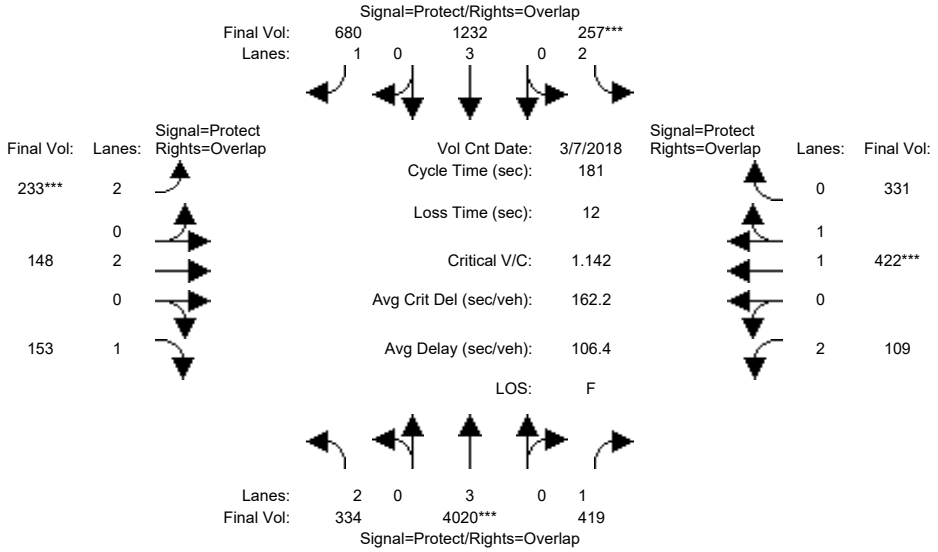



| Street Name: | Lawrence Expwy | | | | | | Oakmead Pkwy | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 20 | 71 | 71 | 31 | 82 | 82 | 34 | 53 | 53 | 10 | 29 | 29 |
| Y+R: | 6.4 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 | 5.6 | 5.5 | 5.5 | 5.6 | 5.6 | 5.6 |
| Volume Module: >> Count Date: 23 May 2019 << | | | | | | | | | | | | |
| Base Vol: | 288 | 1975 | 114 | 642 | 3540 | 819 | 513 | 227 | 177 | 92 | 159 | 468 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 288 | 1975 | 114 | 642 | 3540 | 819 | 513 | 227 | 177 | 92 | 159 | 468 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 288 | 1975 | 114 | 642 | 3540 | 819 | 513 | 227 | 177 | 92 | 159 | 468 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 288 | 1975 | 114 | 642 | 3540 | 819 | 513 | 227 | 177 | 92 | 159 | 468 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 288 | 1975 | 114 | 642 | 3540 | 819 | 513 | 227 | 177 | 92 | 159 | 468 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 288 | 1975 | 114 | 642 | 3540 | 819 | 513 | 227 | 177 | 92 | 159 | 468 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 4.00 | 1.00 | 2.00 | 4.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 7600 | 1750 | 3150 | 7600 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.26 | 0.07 | 0.20 | 0.47 | 0.47 | 0.16 | 0.06 | 0.10 | 0.03 | 0.04 | 0.27 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 20.1 | 71.0 | 81.0 | 31.6 | 82.4 | 116.8 | 34.4 | 53.5 | 73.6 | 10.0 | 29.0 | 60.6 |
| Volume/Cap: | 0.86 | 0.70 | 0.15 | 1.23 | 1.07 | 0.76 | 0.90 | 0.21 | 0.26 | 0.56 | 0.27 | 0.84 |
| Uniform Del: | 83.6 | 50.3 | 33.4 | 79.2 | 53.8 | 26.5 | 76.1 | 52.1 | 39.7 | 87.8 | 71.2 | 60.2 |
| IncremntDel: | 20.2 | 0.8 | 0.1 | 117.6 | 39.9 | 3.2 | 17.1 | 0.1 | 0.2 | 4.1 | 0.3 | 10.8 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.92 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 103.8 | 47.2 | 29.0 | 196.8 | 93.7 | 29.7 | 93.2 | 52.2 | 39.9 | 91.9 | 71.5 | 71.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 103.8 | 47.2 | 29.0 | 196.8 | 93.7 | 29.7 | 93.2 | 52.2 | 39.9 | 91.9 | 71.5 | 71.0 |
| LOS by Move: | F | D | C | F | F | C | F | D- | D | F | E | E |
| HCM2kAvgQ: | 11 | 22 | 3 | 33 | 62 | 37 | 20 | 5 | 7 | 4 | 4 | 29 |

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

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

Intersection #51: Lawrence Expwy & Kifer Rd

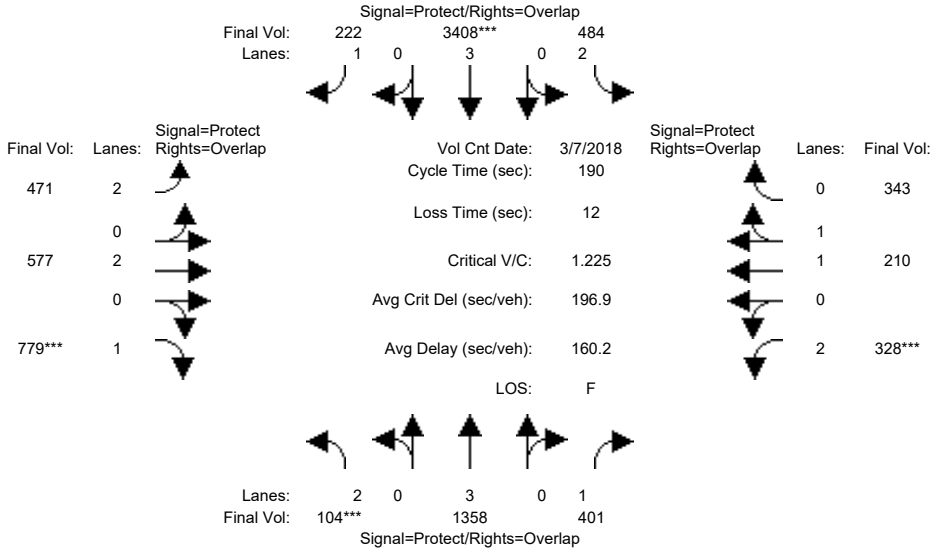



| Street Name: | Lawrence Expwy | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 25 | 101 | 101 | 17 | 93 | 93 | 13 | 29 | 29 | 11 | 27 | 27 |
| Y+R: | 5.9 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.8 | 5.5 | 5.5 | 5.9 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 7 Mar 2018 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 334 | 4621 | 419 | 257 | 1416 | 680 | 233 | 148 | 153 | 109 | 422 | 331 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 334 | 4621 | 419 | 257 | 1416 | 680 | 233 | 148 | 153 | 109 | 422 | 331 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 334 | 4621 | 419 | 257 | 1416 | 680 | 233 | 148 | 153 | 109 | 422 | 331 |
| User Adj: | 1.00 | 0.87 | 1.00 | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 334 | 4020 | 419 | 257 | 1232 | 680 | 233 | 148 | 153 | 109 | 422 | 331 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 334 | 4020 | 419 | 257 | 1232 | 680 | 233 | 148 | 153 | 109 | 422 | 331 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 334 | 4020 | 419 | 257 | 1232 | 680 | 233 | 148 | 153 | 109 | 422 | 331 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 0.99 | 0.94 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.10 | 0.90 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 2058 | 1614 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.71 | 0.24 | 0.08 | 0.22 | 0.39 | 0.07 | 0.04 | 0.09 | 0.03 | 0.21 | 0.21 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 25.2 | 101 | 111.8 | 17.1 | 93.1 | 105.9 | 12.8 | 28.8 | 54.0 | 10.8 | 26.9 | 44.0 |
| Volume/Cap: | 0.76 | 1.26 | 0.39 | 0.86 | 0.42 | 0.66 | 1.05 | 0.24 | 0.29 | 0.58 | 1.38 | 0.84 |
| Uniform Del: | 75.0 | 40.0 | 17.4 | 80.8 | 27.2 | 25.5 | 84.1 | 66.6 | 48.8 | 82.9 | 77.1 | 65.2 |
| IncremntDel: | 7.7 | 121 | 0.2 | 22.0 | 0.1 | 1.7 | 73.0 | 0.2 | 0.3 | 4.5 | 182 | 7.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.67 | 0.53 | 1.00 | 0.74 | 0.61 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 82.7 | 148 | 9.5 | 102.8 | 20.4 | 17.2 | 157.1 | 66.8 | 49.1 | 87.4 | 259 | 72.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 82.7 | 148 | 9.5 | 102.8 | 20.4 | 17.2 | 157.1 | 66.8 | 49.1 | 87.4 | 259 | 72.6 |
| LOS by Move: | F | F | A | F | C+ | B | F | E | D | F | F | E |
| HCM2kAvgQ: | 10 | 103 | 6 | 11 | 10 | 19 | 10 | 3 | 7 | 4 | 34 | 21 |

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

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

Intersection #51: Lawrence Expwy & Kifer Rd

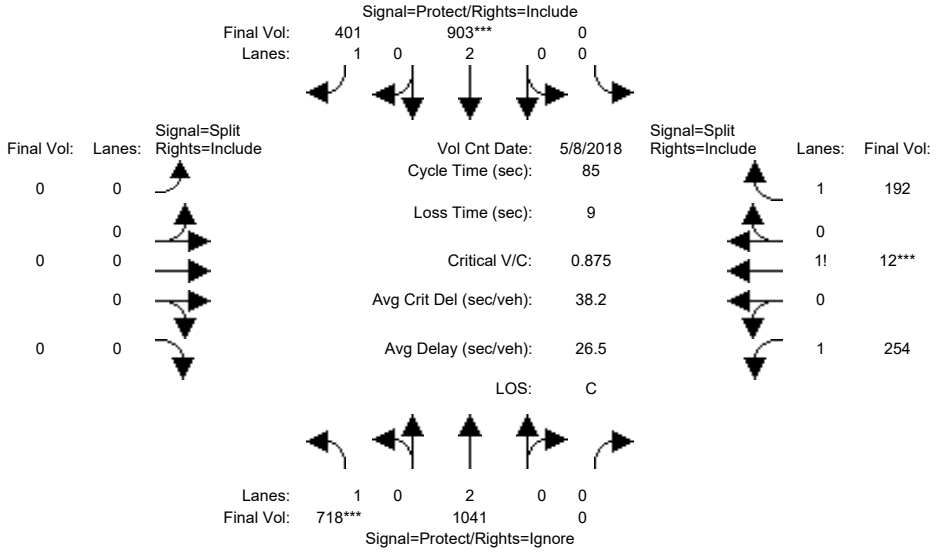



| Street Name: | Lawrence Expwy | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 9 | 85 | 85 | 27 | 103 | 103 | 16 | 33 | 33 | 22 | 39 | 39 |
| Y+R: | 5.9 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.8 | 5.5 | 5.5 | 5.9 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 7 Mar 2018 << 4:15 PM - 5:15 PM | | | | | | | | | | | | |
| Base Vol: | 104 | 1698 | 401 | 484 | 4314 | 222 | 471 | 577 | 779 | 328 | 210 | 343 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 104 | 1698 | 401 | 484 | 4314 | 222 | 471 | 577 | 779 | 328 | 210 | 343 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 104 | 1698 | 401 | 484 | 4314 | 222 | 471 | 577 | 779 | 328 | 210 | 343 |
| User Adj: | 1.00 | 0.80 | 1.00 | 1.00 | 0.79 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 104 | 1358 | 401 | 484 | 3408 | 222 | 471 | 577 | 779 | 328 | 210 | 343 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 104 | 1358 | 401 | 484 | 3408 | 222 | 471 | 577 | 779 | 328 | 210 | 343 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 104 | 1358 | 401 | 484 | 3408 | 222 | 471 | 577 | 779 | 328 | 210 | 343 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.24 | 0.23 | 0.15 | 0.60 | 0.13 | 0.15 | 0.15 | 0.45 | 0.10 | 0.11 | 0.20 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green Time: | 8.9 | 84.9 | 106.6 | 26.9 | 103 | 118.9 | 15.8 | 33.0 | 41.9 | 21.7 | 38.9 | 65.8 |
| Volume/Cap: | 0.71 | 0.53 | 0.41 | 1.09 | 1.10 | 0.20 | 1.80 | 0.87 | 2.02 | 0.91 | 0.54 | 0.57 |
| Uniform Del: | 89.3 | 38.2 | 23.8 | 81.5 | 43.5 | 15.2 | 87.1 | 76.5 | 74.1 | 83.2 | 67.6 | 50.5 |
| IncremntDel: | 14.4 | 0.2 | 0.3 | 67.5 | 51.5 | 0.1 | 373.6 | 12.4 | 467.5 | 26.6 | 0.6 | 0.8 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.03 | 1.54 | 1.85 | 1.11 | 1.79 | 2.11 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 106.6 | 58.9 | 44.3 | 158.0 | 129 | 32.3 | 460.7 | 88.9 | 541.6 | 109.8 | 68.1 | 51.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 106.6 | 58.9 | 44.3 | 158.0 | 129 | 32.3 | 460.7 | 88.9 | 541.6 | 109.8 | 68.1 | 51.3 |
| LOS by Move: | F | E+ | D | F | F | C- | F | F | F | F | E | D- |
| HCM2kAvgQ: | 4 | 23 | 21 | 23 | 80 | 11 | 31 | 17 | 99 | 12 | 11 | 17 |

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

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

Intersection #57: Fair Oaks Ave & US 101 NB Ramps

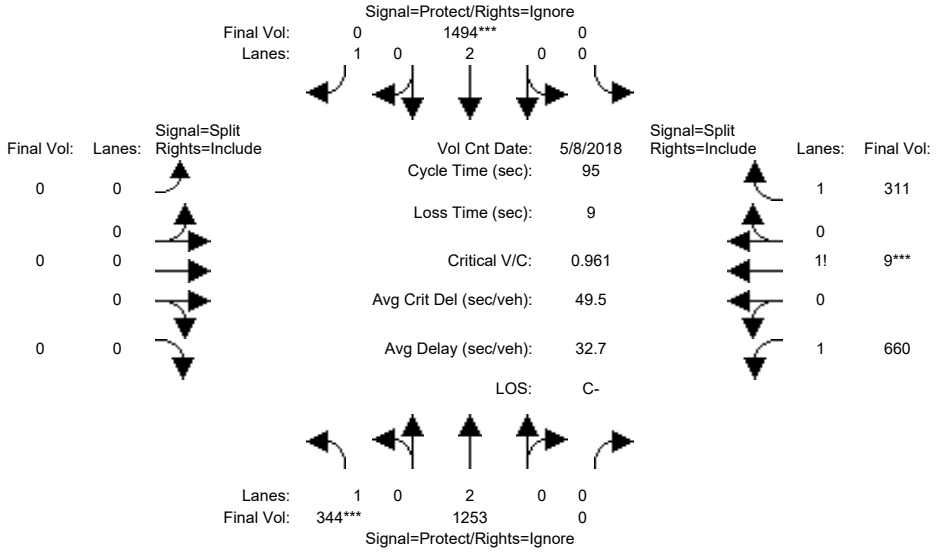



| Street Name: | Fair Oaks Ave | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 0 | 0 | 10 | 10 | 0 | 0 | 0 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 0.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 718 | 1041 | 0 | 0 | 903 | 566 | 0 | 0 | 0 | 254 | 12 | 192 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 718 | 1041 | 0 | 0 | 903 | 566 | 0 | 0 | 0 | 254 | 12 | 192 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 718 | 1041 | 0 | 0 | 903 | 566 | 0 | 0 | 0 | 254 | 12 | 192 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 718 | 1041 | 0 | 0 | 903 | 566 | 0 | 0 | 0 | 254 | 12 | 192 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 165 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 718 | 1041 | 0 | 0 | 903 | 401 | 0 | 0 | 0 | 254 | 12 | 192 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 718 | 1041 | 0 | 0 | 903 | 401 | 0 | 0 | 0 | 254 | 12 | 192 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.92 | 0.92 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.54 | 0.05 | 1.41 |
| Final Sat.: | 1750 | 3800 | 0 | 0 | 3800 | 1750 | 0 | 0 | 0 | 2696 | 89 | 2465 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.41 | 0.27 | 0.00 | 0.00 | 0.24 | 0.23 | 0.00 | 0.00 | 0.00 | 0.09 | 0.13 | 0.08 |
| Crit Moves: | **** | | | | **** | | | | | | **** | |
| Green Time: | 39.9 | 63.0 | 0.0 | 0.0 | 23.1 | 23.1 | 0.0 | 0.0 | 0.0 | 13.0 | 13.0 | 13.0 |
| Volume/Cap: | 0.87 | 0.37 | 0.00 | 0.00 | 0.87 | 0.84 | 0.00 | 0.00 | 0.00 | 0.61 | 0.87 | 0.51 |
| Uniform Del: | 20.3 | 3.9 | 0.0 | 0.0 | 29.6 | 29.2 | 0.0 | 0.0 | 0.0 | 33.6 | 35.2 | 33.0 |
| IncremntDel: | 10.4 | 0.1 | 0.0 | 0.0 | 8.5 | 12.9 | 0.0 | 0.0 | 0.0 | 1.5 | 15.1 | 0.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 30.7 | 4.0 | 0.0 | 0.0 | 38.0 | 42.2 | 0.0 | 0.0 | 0.0 | 35.2 | 50.3 | 33.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 30.7 | 4.0 | 0.0 | 0.0 | 38.0 | 42.2 | 0.0 | 0.0 | 0.0 | 35.2 | 50.3 | 33.5 |
| LOS by Move: | C | A | A | A | D+ | D | A | A | A | D+ | D | C- |
| HCM2kAvgQ: | 22 | 5 | 0 | 0 | 13 | 12 | 0 | 0 | 0 | 5 | 10 | 4 |

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

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

Intersection #57: Fair Oaks Ave & US 101 NB Ramps

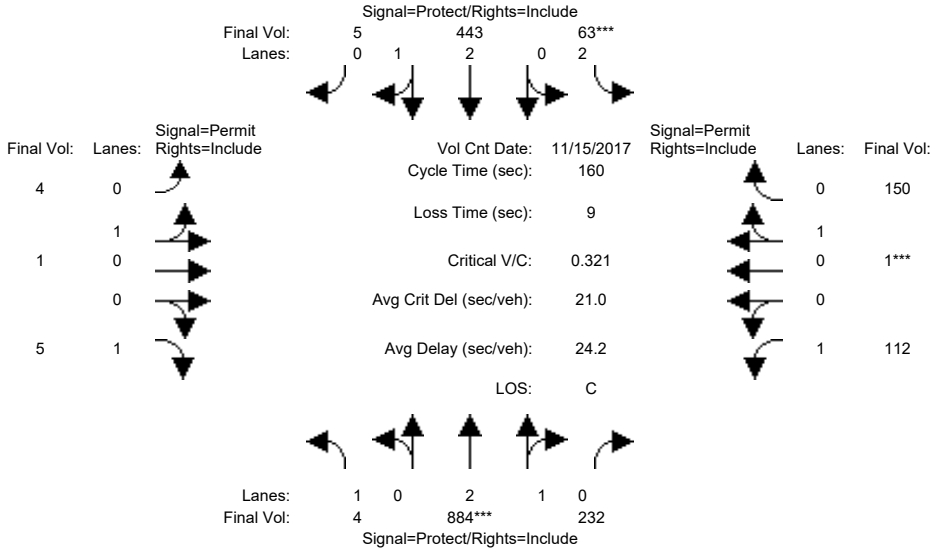



| Street Name: | Fair Oaks Ave | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 0 | 0 | 10 | 10 | 0 | 0 | 0 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 344 | 1253 | 0 | 0 | 1494 | 175 | 0 | 0 | 0 | 660 | 9 | 311 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 344 | 1253 | 0 | 0 | 1494 | 175 | 0 | 0 | 0 | 660 | 9 | 311 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 344 | 1253 | 0 | 0 | 1494 | 175 | 0 | 0 | 0 | 660 | 9 | 311 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 344 | 1253 | 0 | 0 | 1494 | 0 | 0 | 0 | 0 | 660 | 9 | 311 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 344 | 1253 | 0 | 0 | 1494 | 0 | 0 | 0 | 0 | 660 | 9 | 311 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 344 | 1253 | 0 | 0 | 1494 | 0 | 0 | 0 | 0 | 660 | 9 | 311 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.93 | 0.95 | 0.92 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.66 | 0.02 | 1.32 |
| Final Sat.: | 1750 | 3800 | 0 | 0 | 3800 | 1750 | 0 | 0 | 0 | 2954 | 32 | 2306 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.20 | 0.33 | 0.00 | 0.00 | 0.39 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | 0.28 | 0.13 |
| Crit Moves: | **** | | | | **** | | | | | | **** | |
| Green Time: | 19.4 | 58.3 | 0.0 | 0.0 | 38.9 | 0.0 | 0.0 | 0.0 | 0.0 | 27.7 | 27.7 | 27.7 |
| Volume/Cap: | 0.96 | 0.54 | 0.00 | 0.00 | 0.96 | 0.00 | 0.00 | 0.00 | 0.00 | 0.77 | 0.96 | 0.46 |
| Uniform Del: | 37.4 | 10.6 | 0.0 | 0.0 | 27.3 | 0.0 | 0.0 | 0.0 | 0.0 | 30.7 | 33.1 | 27.6 |
| IncremntDel: | 37.1 | 0.2 | 0.0 | 0.0 | 14.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 19.3 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 74.5 | 10.8 | 0.0 | 0.0 | 41.8 | 0.0 | 0.0 | 0.0 | 0.0 | 33.6 | 52.4 | 27.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 74.5 | 10.8 | 0.0 | 0.0 | 41.8 | 0.0 | 0.0 | 0.0 | 0.0 | 33.6 | 52.4 | 27.7 |
| LOS by Move: | E | B+ | A | A | D | A | A | A | A | C- | D- | C |
| HCM2kAvgQ: | 16 | 11 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 13 | 21 | 6 |

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

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

Intersection #58: Wolfe Rd & Stewart Dr

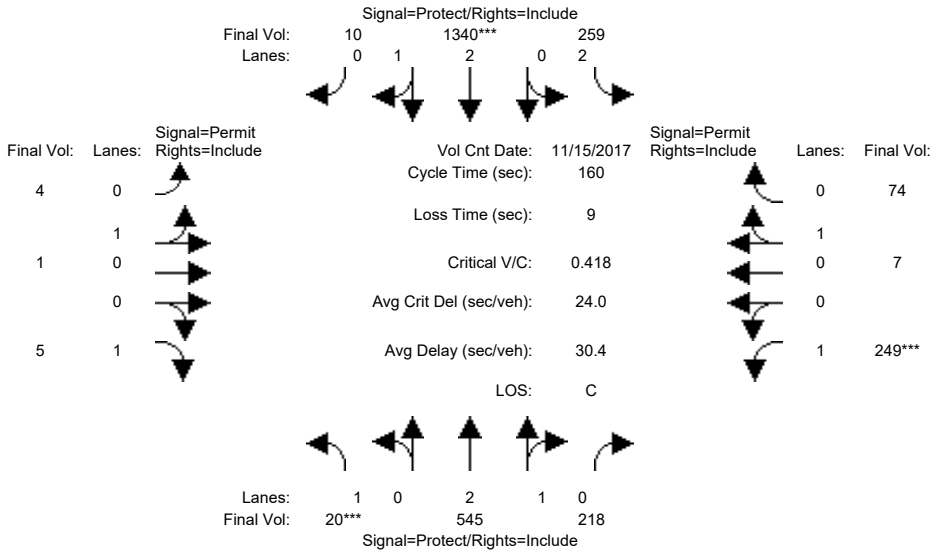



| Street Name: | Wolfe Rd | | | | | | Stewart Dr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 4 | 884 | 232 | 63 | 443 | 5 | 4 | 1 | 5 | 112 | 1 | 150 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 4 | 884 | 232 | 63 | 443 | 5 | 4 | 1 | 5 | 112 | 1 | 150 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 4 | 884 | 232 | 63 | 443 | 5 | 4 | 1 | 5 | 112 | 1 | 150 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 4 | 884 | 232 | 63 | 443 | 5 | 4 | 1 | 5 | 112 | 1 | 150 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 4 | 884 | 232 | 63 | 443 | 5 | 4 | 1 | 5 | 112 | 1 | 150 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 4 | 884 | 232 | 63 | 443 | 5 | 4 | 1 | 5 | 112 | 1 | 150 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.35 | 0.65 | 2.00 | 2.97 | 0.03 | 0.80 | 0.20 | 1.00 | 1.00 | 0.01 | 0.99 |
| Final Sat.: | 1750 | 4434 | 1164 | 3150 | 5537 | 62 | 1440 | 360 | 1750 | 1750 | 12 | 1788 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.20 | 0.20 | 0.02 | 0.08 | 0.08 | 0.00 | 0.00 | 0.00 | 0.06 | 0.08 | 0.08 |
| Crit Moves: | | **** | | **** | | | | | | | **** | |
| Green Time: | 38.6 | 99.3 | 99.3 | 10.0 | 70.6 | 70.6 | 41.8 | 41.8 | 41.8 | 41.8 | 41.8 | 41.8 |
| Volume/Cap: | 0.01 | 0.32 | 0.32 | 0.32 | 0.18 | 0.18 | 0.01 | 0.01 | 0.01 | 0.25 | 0.32 | 0.32 |
| Uniform Del: | 46.1 | 14.4 | 14.4 | 71.8 | 27.1 | 27.1 | 43.8 | 43.8 | 43.8 | 46.7 | 47.7 | 47.7 |
| IncremntDel: | 0.0 | 0.1 | 0.1 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.4 | 0.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 46.2 | 14.4 | 14.4 | 72.7 | 27.2 | 27.2 | 43.8 | 43.8 | 43.8 | 46.9 | 48.1 | 48.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 46.2 | 14.4 | 14.4 | 72.7 | 27.2 | 27.2 | 43.8 | 43.8 | 43.8 | 46.9 | 48.1 | 48.1 |
| LOS by Move: | D | B | B | E | C | C | D | D | D | D | D | D |
| HCM2kAvgQ: | 0 | 8 | 8 | 2 | 4 | 4 | 0 | 0 | 0 | 5 | 6 | 6 |

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

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

Intersection #58: Wolfe Rd & Stewart Dr

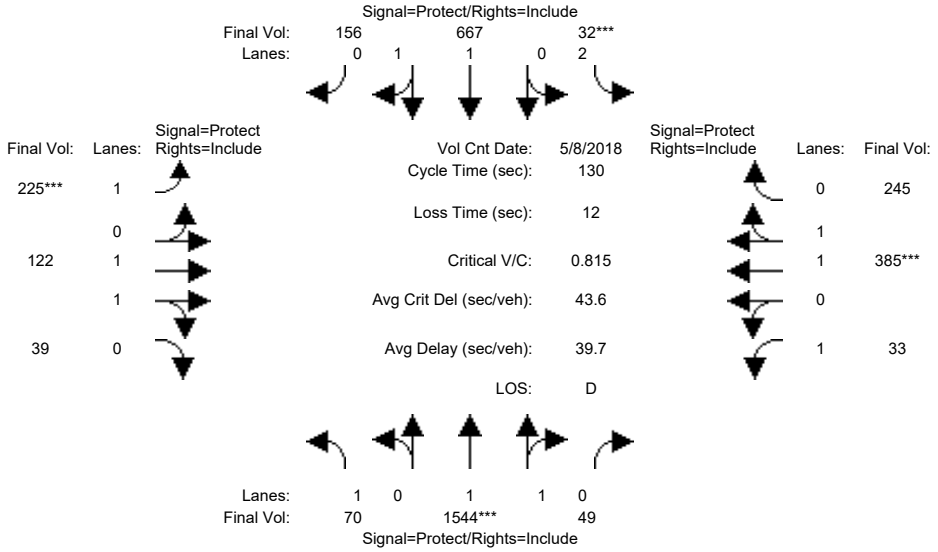



| Street Name: | Wolfe Rd | | | | | | Stewart Dr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 20 | 545 | 218 | 259 | 1340 | 10 | 4 | 1 | 5 | 249 | 7 | 74 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 20 | 545 | 218 | 259 | 1340 | 10 | 4 | 1 | 5 | 249 | 7 | 74 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 20 | 545 | 218 | 259 | 1340 | 10 | 4 | 1 | 5 | 249 | 7 | 74 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 20 | 545 | 218 | 259 | 1340 | 10 | 4 | 1 | 5 | 249 | 7 | 74 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 20 | 545 | 218 | 259 | 1340 | 10 | 4 | 1 | 5 | 249 | 7 | 74 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 20 | 545 | 218 | 259 | 1340 | 10 | 4 | 1 | 5 | 249 | 7 | 74 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.95 | 0.83 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.11 | 0.89 | 2.00 | 2.98 | 0.02 | 0.80 | 0.20 | 1.00 | 1.00 | 0.09 | 0.91 |
| Final Sat.: | 1750 | 3998 | 1599 | 3150 | 5558 | 41 | 1440 | 360 | 1750 | 1750 | 156 | 1644 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.14 | 0.14 | 0.08 | 0.24 | 0.24 | 0.00 | 0.00 | 0.00 | 0.14 | 0.05 | 0.05 |
| Crit Moves: | **** | | | | **** | | | | | **** | | |
| Green Time: | 7.0 | 60.9 | 60.9 | 36.7 | 90.6 | 90.6 | 53.4 | 53.4 | 53.4 | 53.4 | 53.4 | 53.4 |
| Volume/Cap: | 0.26 | 0.36 | 0.36 | 0.36 | 0.43 | 0.43 | 0.01 | 0.01 | 0.01 | 0.43 | 0.13 | 0.13 |
| Uniform Del: | 74.0 | 35.6 | 35.6 | 51.8 | 19.9 | 19.9 | 35.6 | 35.6 | 35.6 | 41.4 | 37.2 | 37.2 |
| IncremntDel: | 1.8 | 0.1 | 0.1 | 0.3 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.5 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 75.8 | 35.7 | 35.7 | 52.1 | 20.0 | 20.0 | 35.6 | 35.6 | 35.6 | 41.9 | 37.3 | 37.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 75.8 | 35.7 | 35.7 | 52.1 | 20.0 | 20.0 | 35.6 | 35.6 | 35.6 | 41.9 | 37.3 | 37.3 |
| LOS by Move: | E- | D+ | D+ | D- | B- | B- | D+ | D+ | D+ | D | D+ | D+ |
| HCM2kAvgQ: | 1 | 9 | 9 | 6 | 12 | 12 | 0 | 0 | 0 | 10 | 3 | 3 |

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

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

Intersection #62: Fair Oaks Ave & Evelyn Ave

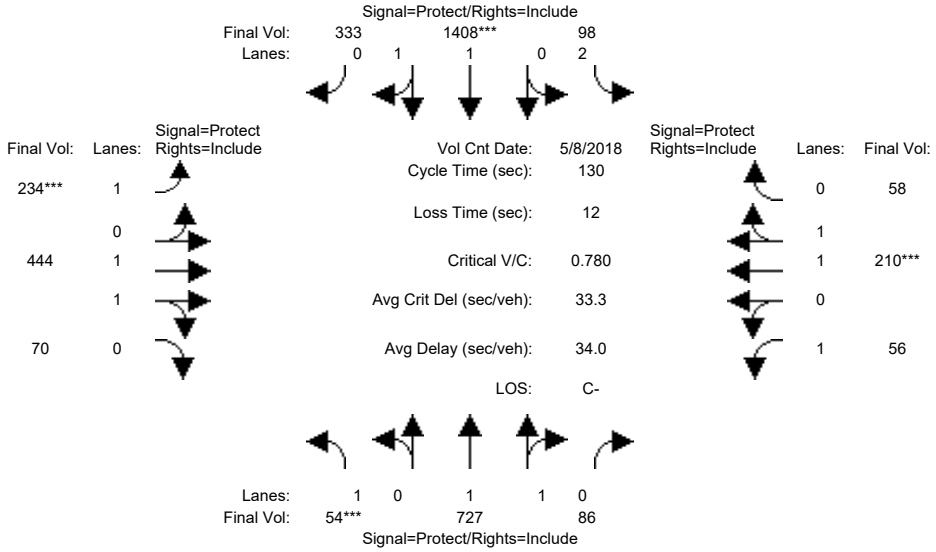



| Street Name: | Fair Oaks Ave | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:15 AM - 9:15 AM | | | | | | | | | | | | |
| Base Vol: | 70 | 1544 | 49 | 32 | 667 | 156 | 225 | 122 | 39 | 33 | 385 | 245 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 70 | 1544 | 49 | 32 | 667 | 156 | 225 | 122 | 39 | 33 | 385 | 245 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 70 | 1544 | 49 | 32 | 667 | 156 | 225 | 122 | 39 | 33 | 385 | 245 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 70 | 1544 | 49 | 32 | 667 | 156 | 225 | 122 | 39 | 33 | 385 | 245 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 70 | 1544 | 49 | 32 | 667 | 156 | 225 | 122 | 39 | 33 | 385 | 245 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 70 | 1544 | 49 | 32 | 667 | 156 | 225 | 122 | 39 | 33 | 385 | 245 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.94 | 0.06 | 2.00 | 1.61 | 0.39 | 1.00 | 1.50 | 0.50 | 1.00 | 1.20 | 0.80 |
| Final Sat.: | 1750 | 3586 | 114 | 3150 | 2998 | 701 | 1750 | 2803 | 896 | 1750 | 2260 | 1438 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.43 | 0.43 | 0.01 | 0.22 | 0.22 | 0.13 | 0.04 | 0.04 | 0.02 | 0.17 | 0.17 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 14.1 | 65.5 | 65.5 | 7.0 | 58.4 | 58.4 | 19.6 | 26.8 | 26.8 | 18.7 | 25.9 | 25.9 |
| Volume/Cap: | 0.37 | 0.85 | 0.85 | 0.19 | 0.50 | 0.50 | 0.85 | 0.21 | 0.21 | 0.13 | 0.85 | 0.85 |
| Uniform Del: | 53.8 | 28.1 | 28.1 | 58.8 | 25.4 | 25.4 | 53.8 | 42.9 | 42.9 | 48.5 | 50.2 | 50.2 |
| IncremntDel: | 1.2 | 4.1 | 4.1 | 0.5 | 0.2 | 0.2 | 22.8 | 0.1 | 0.1 | 0.2 | 9.6 | 9.6 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 55.0 | 32.2 | 32.2 | 59.3 | 25.6 | 25.6 | 76.6 | 43.0 | 43.0 | 48.8 | 59.8 | 59.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 55.0 | 32.2 | 32.2 | 59.3 | 25.6 | 25.6 | 76.6 | 43.0 | 43.0 | 48.8 | 59.8 | 59.8 |
| LOS by Move: | D- | C- | C- | E+ | C | C | E- | D | D | D | E+ | E+ |
| HCM2kAvgQ: | 3 | 30 | 30 | 1 | 12 | 12 | 10 | 3 | 3 | 1 | 13 | 13 |

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

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

Intersection #62: Fair Oaks Ave & Evelyn Ave

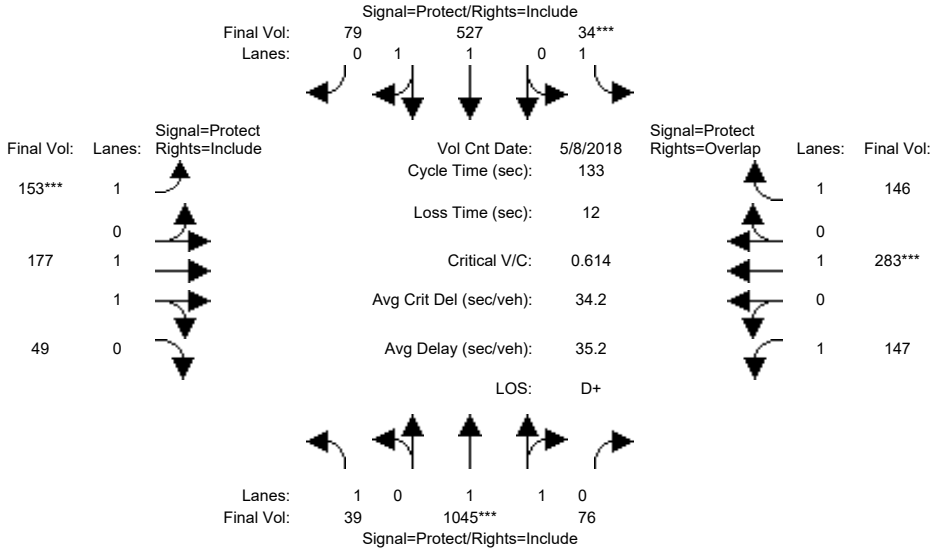



| Street Name: | Fair Oaks Ave | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 54 | 727 | 86 | 98 | 1408 | 333 | 234 | 444 | 70 | 56 | 210 | 58 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 54 | 727 | 86 | 98 | 1408 | 333 | 234 | 444 | 70 | 56 | 210 | 58 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 54 | 727 | 86 | 98 | 1408 | 333 | 234 | 444 | 70 | 56 | 210 | 58 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 54 | 727 | 86 | 98 | 1408 | 333 | 234 | 444 | 70 | 56 | 210 | 58 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 54 | 727 | 86 | 98 | 1408 | 333 | 234 | 444 | 70 | 56 | 210 | 58 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 54 | 727 | 86 | 98 | 1408 | 333 | 234 | 444 | 70 | 56 | 210 | 58 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 1.00 | 1.78 | 0.22 | 2.00 | 1.61 | 0.39 | 1.00 | 1.72 | 0.28 | 1.00 | 1.56 | 0.44 |
| Final Sat.: | 1750 | 3308 | 391 | 3150 | 2992 | 708 | 1750 | 3196 | 504 | 1750 | 2899 | 801 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.22 | 0.22 | 0.03 | 0.47 | 0.47 | 0.13 | 0.14 | 0.14 | 0.03 | 0.07 | 0.07 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 7.0 | 67.6 | 67.6 | 16.6 | 77.2 | 77.2 | 21.9 | 24.4 | 24.4 | 9.4 | 11.9 | 11.9 |
| Volume/Cap: | 0.57 | 0.42 | 0.42 | 0.24 | 0.79 | 0.79 | 0.79 | 0.74 | 0.74 | 0.44 | 0.79 | 0.79 |
| Uniform Del: | 60.0 | 19.2 | 19.2 | 51.1 | 20.3 | 20.3 | 51.9 | 49.8 | 49.8 | 57.7 | 57.9 | 57.9 |
| IncremntDel: | 8.3 | 0.2 | 0.2 | 0.3 | 2.1 | 2.1 | 13.6 | 4.3 | 4.3 | 2.4 | 12.1 | 12.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 68.3 | 19.3 | 19.3 | 51.4 | 22.3 | 22.3 | 65.5 | 54.1 | 54.1 | 60.2 | 69.9 | 69.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 68.3 | 19.3 | 19.3 | 51.4 | 22.3 | 22.3 | 65.5 | 54.1 | 54.1 | 60.2 | 69.9 | 69.9 |
| LOS by Move: | E | B- | B- | D- | C+ | C+ | E | D- | D- | E | E | E |
| HCM2kAvgQ: | 3 | 10 | 10 | 2 | 27 | 27 | 10 | 10 | 10 | 2 | 6 | 6 |

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

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

Intersection #63: Fair Oaks Ave & Old SF Rd

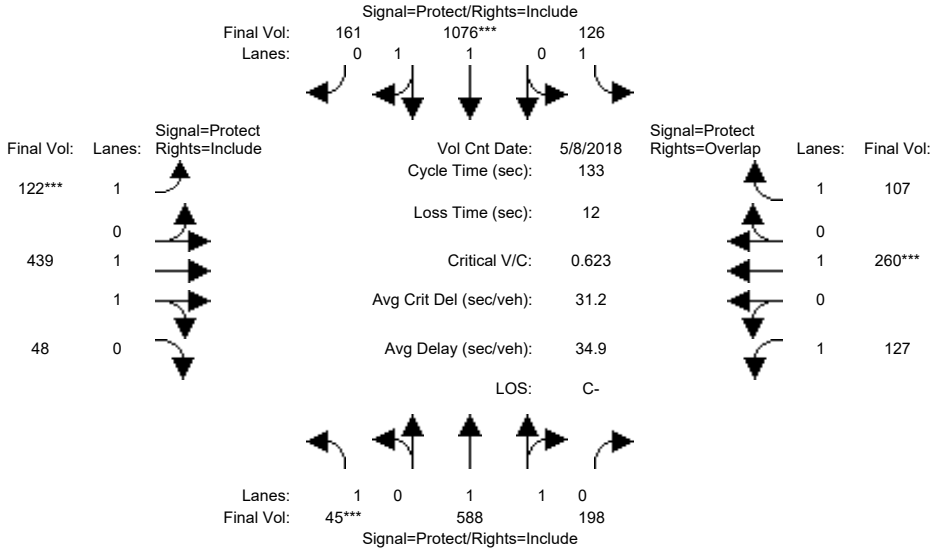



| Street Name: | Fair Oaks Ave | | | | | | Old SF Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:45 AM - 9:45 AM | | | | | | | | | | | | |
| Base Vol: | 39 | 1045 | 76 | 34 | 527 | 79 | 153 | 177 | 49 | 147 | 283 | 146 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 39 | 1045 | 76 | 34 | 527 | 79 | 153 | 177 | 49 | 147 | 283 | 146 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 39 | 1045 | 76 | 34 | 527 | 79 | 153 | 177 | 49 | 147 | 283 | 146 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 39 | 1045 | 76 | 34 | 527 | 79 | 153 | 177 | 49 | 147 | 283 | 146 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 39 | 1045 | 76 | 34 | 527 | 79 | 153 | 177 | 49 | 147 | 283 | 146 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 39 | 1045 | 76 | 34 | 527 | 79 | 153 | 177 | 49 | 147 | 283 | 146 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.86 | 0.14 | 1.00 | 1.73 | 0.27 | 1.00 | 1.55 | 0.45 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 3449 | 251 | 1750 | 3217 | 482 | 1750 | 2897 | 802 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.30 | 0.30 | 0.02 | 0.16 | 0.16 | 0.09 | 0.06 | 0.06 | 0.08 | 0.15 | 0.08 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 17.3 | 64.0 | 64.0 | 7.0 | 53.8 | 53.8 | 18.5 | 23.6 | 23.6 | 26.4 | 31.5 | 38.5 |
| Volume/Cap: | 0.17 | 0.63 | 0.63 | 0.37 | 0.41 | 0.41 | 0.63 | 0.34 | 0.34 | 0.42 | 0.63 | 0.29 |
| Uniform Del: | 51.5 | 25.6 | 25.6 | 60.9 | 28.2 | 28.2 | 54.0 | 47.9 | 47.9 | 46.7 | 45.5 | 36.6 |
| IncremntDel: | 0.4 | 0.7 | 0.7 | 2.5 | 0.2 | 0.2 | 5.2 | 0.3 | 0.3 | 0.8 | 2.9 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 51.9 | 26.4 | 26.4 | 63.4 | 28.4 | 28.4 | 59.2 | 48.2 | 48.2 | 47.5 | 48.4 | 37.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 51.9 | 26.4 | 26.4 | 63.4 | 28.4 | 28.4 | 59.2 | 48.2 | 48.2 | 47.5 | 48.4 | 37.0 |
| LOS by Move: | D- | C | C | E | C | C | E+ | D | D | D | D | D+ |
| HCM2kAvgQ: | 1 | 17 | 17 | 2 | 9 | 9 | 7 | 4 | 4 | 5 | 10 | 5 |

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

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

Intersection #63: Fair Oaks Ave & Old SF Rd

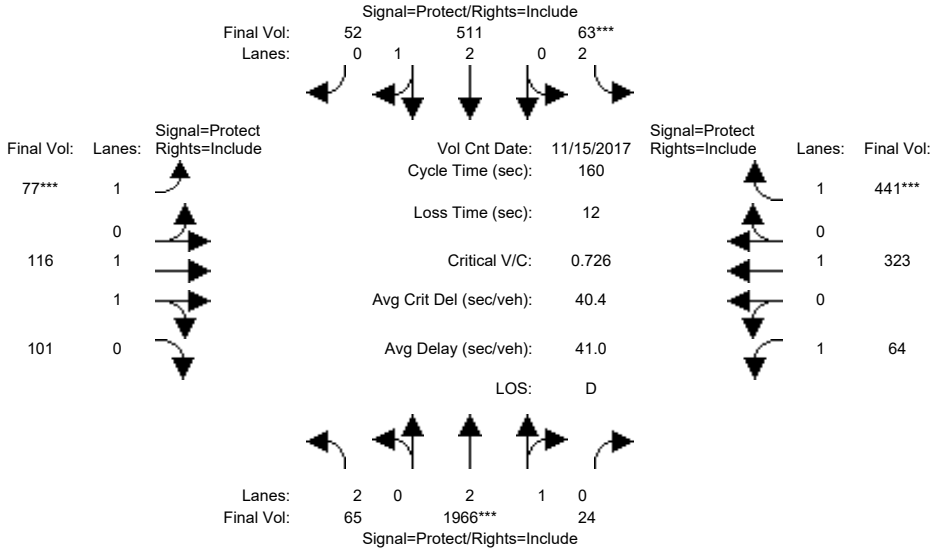



| Street Name: | Fair Oaks Ave | | | | | | Old SF Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 45 | 588 | 198 | 126 | 1076 | 161 | 122 | 439 | 48 | 127 | 260 | 107 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 45 | 588 | 198 | 126 | 1076 | 161 | 122 | 439 | 48 | 127 | 260 | 107 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 45 | 588 | 198 | 126 | 1076 | 161 | 122 | 439 | 48 | 127 | 260 | 107 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 45 | 588 | 198 | 126 | 1076 | 161 | 122 | 439 | 48 | 127 | 260 | 107 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 45 | 588 | 198 | 126 | 1076 | 161 | 122 | 439 | 48 | 127 | 260 | 107 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 45 | 588 | 198 | 126 | 1076 | 161 | 122 | 439 | 48 | 127 | 260 | 107 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.48 | 0.52 | 1.00 | 1.73 | 0.27 | 1.00 | 1.80 | 0.20 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 2767 | 932 | 1750 | 3218 | 482 | 1750 | 3335 | 365 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.21 | 0.21 | 0.07 | 0.33 | 0.33 | 0.07 | 0.13 | 0.13 | 0.07 | 0.14 | 0.06 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 7.0 | 57.9 | 57.9 | 19.6 | 70.5 | 70.5 | 14.7 | 28.1 | 28.1 | 15.5 | 28.8 | 48.4 |
| Volume/Cap: | 0.49 | 0.49 | 0.49 | 0.49 | 0.63 | 0.63 | 0.63 | 0.62 | 0.62 | 0.62 | 0.63 | 0.17 |
| Uniform Del: | 61.3 | 27.0 | 27.0 | 52.1 | 22.1 | 22.1 | 56.6 | 47.7 | 47.7 | 56.0 | 47.3 | 28.6 |
| IncremntDel: | 4.0 | 0.2 | 0.2 | 1.5 | 0.7 | 0.7 | 6.6 | 1.6 | 1.6 | 5.9 | 3.2 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 65.3 | 27.2 | 27.2 | 53.5 | 22.8 | 22.8 | 63.1 | 49.3 | 49.3 | 61.9 | 50.4 | 28.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 65.3 | 27.2 | 27.2 | 53.5 | 22.8 | 22.8 | 63.1 | 49.3 | 49.3 | 61.9 | 50.4 | 28.8 |
| LOS by Move: | E | C | C | D- | C+ | C+ | E | D | D | E | D | C |
| HCM2kAvgQ: | 2 | 11 | 11 | 6 | 18 | 18 | 6 | 10 | 10 | 5 | 9 | 3 |

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

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

Intersection #64: Wolfe Rd & Evelyn Ave

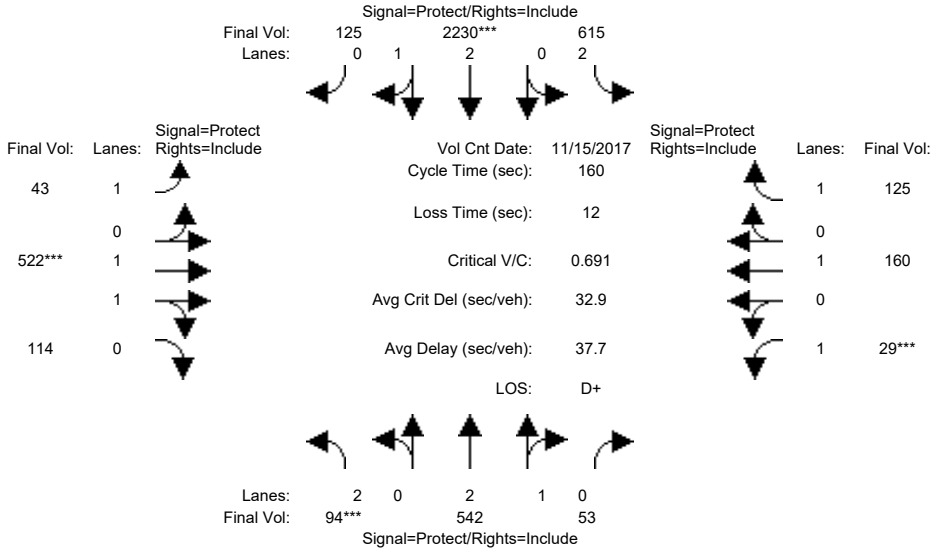



| Street Name: | Wolfe Rd | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 65 | 1966 | 24 | 63 | 511 | 52 | 77 | 116 | 101 | 64 | 323 | 441 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 65 | 1966 | 24 | 63 | 511 | 52 | 77 | 116 | 101 | 64 | 323 | 441 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 65 | 1966 | 24 | 63 | 511 | 52 | 77 | 116 | 101 | 64 | 323 | 441 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 65 | 1966 | 24 | 63 | 511 | 52 | 77 | 116 | 101 | 64 | 323 | 441 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 65 | 1966 | 24 | 63 | 511 | 52 | 77 | 116 | 101 | 64 | 323 | 441 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 65 | 1966 | 24 | 63 | 511 | 52 | 77 | 116 | 101 | 64 | 323 | 441 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 1.00 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.96 | 0.04 | 2.00 | 2.71 | 0.29 | 1.00 | 1.04 | 0.96 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 5532 | 68 | 3150 | 5082 | 517 | 1750 | 1977 | 1721 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.36 | 0.36 | 0.02 | 0.10 | 0.10 | 0.04 | 0.06 | 0.06 | 0.04 | 0.17 | 0.25 |
| Crit Moves: | | **** | | **** | | | **** | | | | | **** |
| Green Time: | 25.4 | 76.9 | 76.9 | 7.0 | 58.5 | 58.5 | 9.5 | 37.7 | 37.7 | 26.4 | 54.6 | 54.6 |
| Volume/Cap: | 0.13 | 0.74 | 0.74 | 0.46 | 0.28 | 0.28 | 0.74 | 0.25 | 0.25 | 0.22 | 0.50 | 0.74 |
| Uniform Del: | 57.8 | 33.5 | 33.5 | 74.6 | 35.8 | 35.8 | 74.0 | 49.7 | 49.7 | 57.9 | 41.9 | 46.5 |
| IncremntDel: | 0.1 | 1.1 | 1.1 | 2.4 | 0.1 | 0.1 | 24.2 | 0.2 | 0.2 | 0.4 | 0.6 | 4.9 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 57.9 | 34.6 | 34.6 | 77.0 | 35.9 | 35.9 | 98.2 | 49.8 | 49.8 | 58.3 | 42.5 | 51.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 57.9 | 34.6 | 34.6 | 77.0 | 35.9 | 35.9 | 98.2 | 49.8 | 49.8 | 58.3 | 42.5 | 51.3 |
| LOS by Move: | E+ | C- | C- | E- | D+ | D+ | F | D | D | E+ | D | D- |
| HCM2kAvgQ: | 2 | 26 | 26 | 2 | 6 | 6 | 4 | 4 | 4 | 3 | 12 | 21 |

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

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

Intersection #64: Wolfe Rd & Evelyn Ave

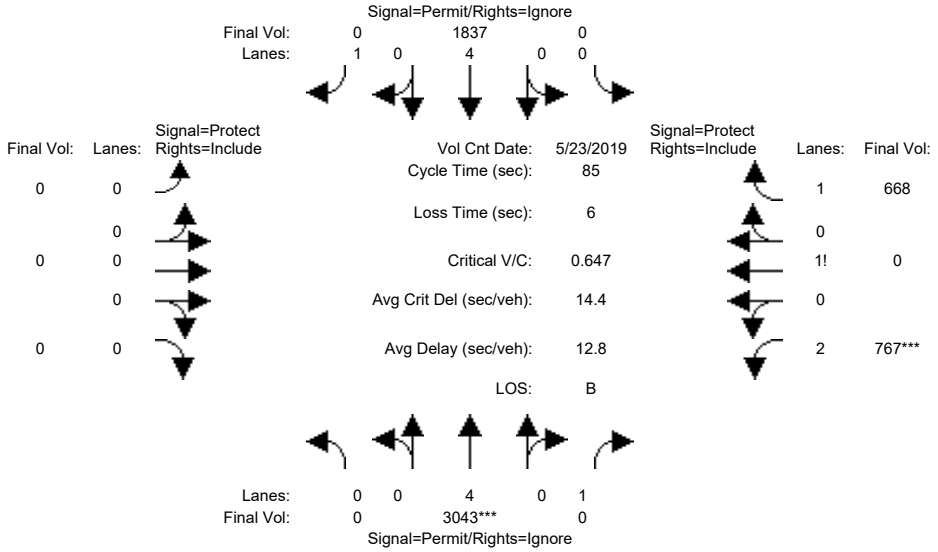



| Street Name: | Wolfe Rd | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 94 | 542 | 53 | 615 | 2230 | 125 | 43 | 522 | 114 | 29 | 160 | 125 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 94 | 542 | 53 | 615 | 2230 | 125 | 43 | 522 | 114 | 29 | 160 | 125 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 94 | 542 | 53 | 615 | 2230 | 125 | 43 | 522 | 114 | 29 | 160 | 125 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 94 | 542 | 53 | 615 | 2230 | 125 | 43 | 522 | 114 | 29 | 160 | 125 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 94 | 542 | 53 | 615 | 2230 | 125 | 43 | 522 | 114 | 29 | 160 | 125 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 94 | 542 | 53 | 615 | 2230 | 125 | 43 | 522 | 114 | 29 | 160 | 125 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.72 | 0.28 | 2.00 | 2.83 | 0.17 | 1.00 | 1.63 | 0.37 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 5101 | 499 | 3150 | 5302 | 297 | 1750 | 3036 | 663 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.11 | 0.11 | 0.20 | 0.42 | 0.42 | 0.02 | 0.17 | 0.17 | 0.02 | 0.08 | 0.07 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.0 | 36.0 | 36.0 | 66.1 | 95.1 | 95.1 | 15.7 | 38.9 | 38.9 | 7.0 | 30.2 | 30.2 |
| Volume/Cap: | 0.68 | 0.47 | 0.47 | 0.47 | 0.71 | 0.71 | 0.25 | 0.71 | 0.71 | 0.38 | 0.45 | 0.38 |
| Uniform Del: | 75.4 | 53.8 | 53.8 | 34.2 | 22.7 | 22.7 | 66.7 | 55.4 | 55.4 | 74.4 | 57.5 | 56.7 |
| IncremntDel: | 13.1 | 0.3 | 0.3 | 0.3 | 0.7 | 0.7 | 0.8 | 2.6 | 2.6 | 3.1 | 0.9 | 0.7 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 88.5 | 54.1 | 54.1 | 34.5 | 23.4 | 23.4 | 67.5 | 58.0 | 58.0 | 77.5 | 58.4 | 57.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 88.5 | 54.1 | 54.1 | 34.5 | 23.4 | 23.4 | 67.5 | 58.0 | 58.0 | 77.5 | 58.4 | 57.4 |
| LOS by Move: | F | D- | D- | C- | C | C | E | E+ | E+ | E- | E+ | E+ |
| HCM2kAvgQ: | 3 | 8 | 8 | 12 | 26 | 26 | 2 | 14 | 14 | 2 | 7 | 6 |

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

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

Intersection #67: Lawrence Expwy & US 101 NB Ramps

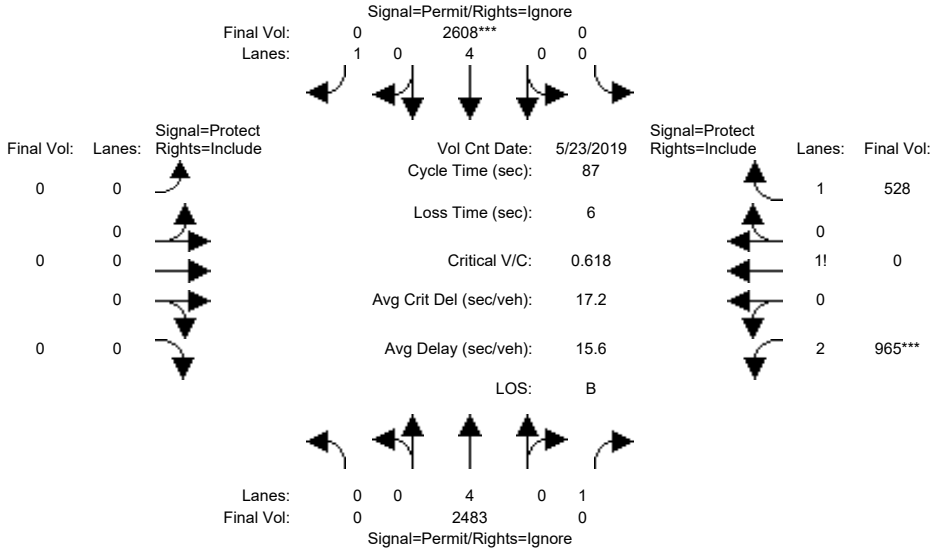



| Street Name: | Lawrence Expwy | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 51 | 0 | 0 | 51 | 0 | 0 | 0 | 0 | 22 | 22 | 22 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 0.0 | 5.0 |
| Volume Module: >> Count Date: 23 May 2019 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 3043 | 676 | 0 | 1837 | 381 | 0 | 0 | 0 | 767 | 0 | 668 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 3043 | 676 | 0 | 1837 | 381 | 0 | 0 | 0 | 767 | 0 | 668 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 3043 | 676 | 0 | 1837 | 381 | 0 | 0 | 0 | 767 | 0 | 668 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 3043 | 0 | 0 | 1837 | 0 | 0 | 0 | 0 | 767 | 0 | 668 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 3043 | 0 | 0 | 1837 | 0 | 0 | 0 | 0 | 767 | 0 | 668 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 3043 | 0 | 0 | 1837 | 0 | 0 | 0 | 0 | 767 | 0 | 668 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.82 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 0.00 | 0.00 | 0.00 | 2.46 | 0.00 | 1.54 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 0 | 0 | 0 | 3816 | 0 | 2688 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.40 | 0.00 | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.00 | 0.25 |
| Crit Moves: | | **** | | | | | | | | **** | | |
| Green Time: | 0.0 | 51.0 | 0.0 | 0.0 | 51.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.7 | 22.7 | 22.7 |
| Volume/Cap: | 0.00 | 0.67 | 0.00 | 0.00 | 0.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.75 | 0.00 | 0.93 |
| Uniform Del: | 0.0 | 11.3 | 0.0 | 0.0 | 9.0 | 0.0 | 0.0 | 0.0 | 0.0 | 28.5 | 0.0 | 30.4 |
| IncremntDel: | 0.0 | 0.4 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 | 10.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.58 | 0.00 | 0.00 | 0.58 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 6.9 | 0.0 | 0.0 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 | 30.3 | 0.0 | 40.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 6.9 | 0.0 | 0.0 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 | 30.3 | 0.0 | 40.6 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | C | A | D |
| HCM2kAvgQ: | 0 | 10 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 11 | 0 | 17 |

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

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

Intersection #67: Lawrence Expwy & US 101 NB Ramps

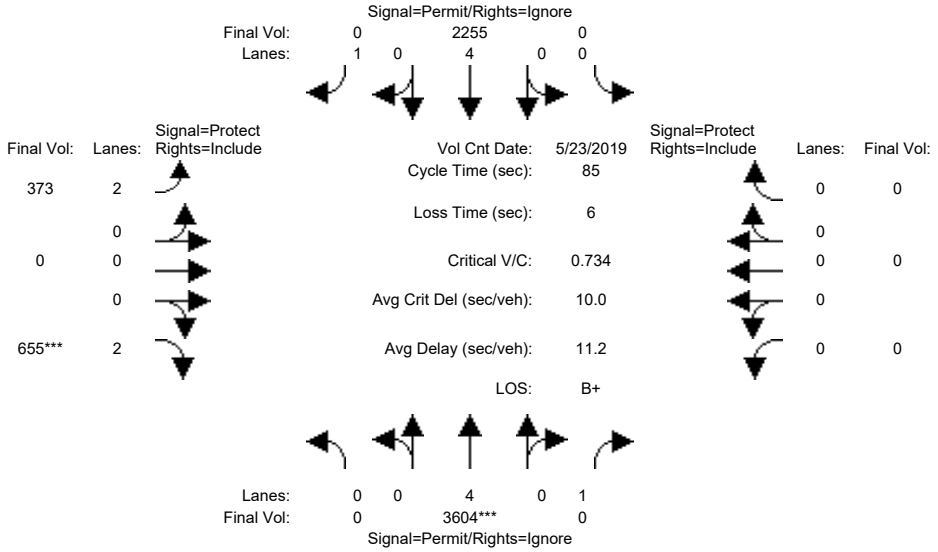



| Street Name: | Lawrence Expwy | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 53 | 0 | 0 | 53 | 0 | 0 | 0 | 0 | 22 | 22 | 22 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 0.0 | 5.0 |
| Volume Module: >> Count Date: 23 May 2019 << 4:55 PM - 5:55 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 2483 | 590 | 0 | 2608 | 551 | 0 | 0 | 0 | 965 | 0 | 528 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 2483 | 590 | 0 | 2608 | 551 | 0 | 0 | 0 | 965 | 0 | 528 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 2483 | 590 | 0 | 2608 | 551 | 0 | 0 | 0 | 965 | 0 | 528 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 2483 | 0 | 0 | 2608 | 0 | 0 | 0 | 0 | 965 | 0 | 528 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 2483 | 0 | 0 | 2608 | 0 | 0 | 0 | 0 | 965 | 0 | 528 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 2483 | 0 | 0 | 2608 | 0 | 0 | 0 | 0 | 965 | 0 | 528 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.85 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 0.00 | 0.00 | 0.00 | 2.57 | 0.00 | 1.43 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 0 | 0 | 0 | 4148 | 0 | 2504 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.33 | 0.00 | 0.00 | 0.34 | 0.00 | 0.00 | 0.00 | 0.00 | 0.23 | 0.00 | 0.21 |
| Crit Moves: | | | | | **** | | | | | **** | | |
| Green Time: | 0.0 | 53.2 | 0.0 | 0.0 | 53.2 | 0.0 | 0.0 | 0.0 | 0.0 | 22.7 | 0.0 | 22.7 |
| Volume/Cap: | 0.00 | 0.53 | 0.00 | 0.00 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.89 | 0.00 | 0.81 |
| Uniform Del: | 0.0 | 9.8 | 0.0 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31.0 | 0.0 | 30.1 |
| IncremntDel: | 0.0 | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 6.5 | 0.0 | 2.8 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.42 | 0.00 | 0.00 | 0.55 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 13.9 | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 | 37.4 | 0.0 | 32.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 13.9 | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 | 37.4 | 0.0 | 32.9 |
| LOS by Move: | A | B | A | A | A | A | A | A | A | D+ | A | C- |
| HCM2kAvgQ: | 0 | 12 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 15 | 0 | 12 |

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

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

Intersection #68: Lawrence Expwy & US 101 SB Ramps

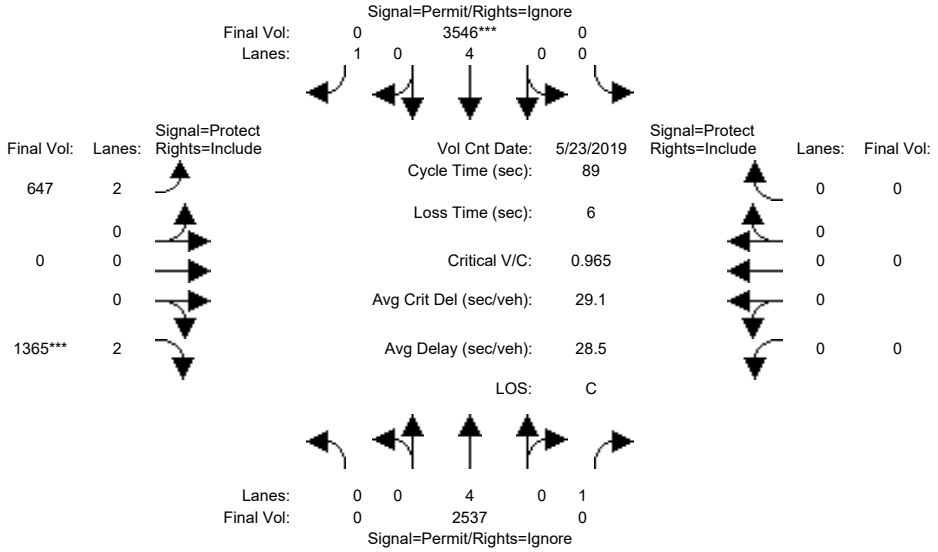



| Street Name: | Lawrence Expwy | | | | | | US 101 SB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 60 | 0 | 0 | 60 | 0 | 14 | 14 | 14 | 0 | 0 | 0 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 5.5 | 0.0 | 5.5 | 0.0 | 0.0 | 0.0 |
| Volume Module: >> Count Date: 23 May 2019 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 3604 | 781 | 0 | 2255 | 340 | 373 | 0 | 655 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 3604 | 781 | 0 | 2255 | 340 | 373 | 0 | 655 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 3604 | 781 | 0 | 2255 | 340 | 373 | 0 | 655 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 3604 | 0 | 0 | 2255 | 0 | 373 | 0 | 655 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 3604 | 0 | 0 | 2255 | 0 | 373 | 0 | 655 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 3604 | 0 | 0 | 2255 | 0 | 373 | 0 | 655 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 2.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 3150 | 0 | 3150 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.47 | 0.00 | 0.00 | 0.30 | 0.00 | 0.12 | 0.00 | 0.21 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | | | | | | **** | | | |
| Green Time: | 0.0 | 60.4 | 0.0 | 0.0 | 47.6 | 0.0 | 12.6 | 12.6 | 18.6 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.67 | 0.00 | 0.00 | 0.53 | 0.00 | 0.80 | 0.00 | 0.95 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 6.8 | 0.0 | 0.0 | 11.7 | 0.0 | 35.0 | 0.0 | 32.7 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.3 | 0.0 | 0.0 | 0.1 | 0.0 | 9.4 | 0.0 | 22.8 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.21 | 0.00 | 0.00 | 0.66 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 1.7 | 0.0 | 0.0 | 7.9 | 0.0 | 44.4 | 0.0 | 55.5 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 1.7 | 0.0 | 0.0 | 7.9 | 0.0 | 44.4 | 0.0 | 55.5 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | A | A | A | A | A | D | A | E+ | A | A | A |
| HCM2kAvgQ: | 0 | 5 | 0 | 0 | 7 | 0 | 8 | 0 | 15 | 0 | 0 | 0 |

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

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

Intersection #68: Lawrence Expwy & US 101 SB Ramps

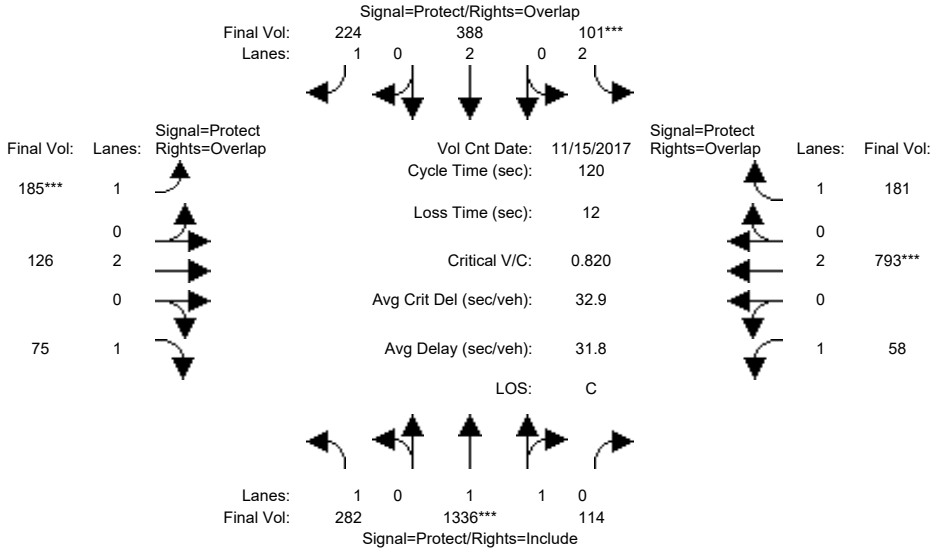



| Street Name: | Lawrence Expwy | | | | | | US 101 SB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 61 | 0 | 0 | 44 | 0 | 15 | 18 | 15 | 0 | 0 | 0 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 5.5 | 0.0 | 5.5 | 0.0 | 0.0 | 0.0 |
| Volume Module: >> Count Date: 23 May 2019 << | | | | | | | | | | | | |
| Base Vol: | 0 | 2537 | 517 | 0 | 3546 | 178 | 647 | 0 | 1365 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 2537 | 517 | 0 | 3546 | 178 | 647 | 0 | 1365 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 2537 | 517 | 0 | 3546 | 178 | 647 | 0 | 1365 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 2537 | 0 | 0 | 3546 | 0 | 647 | 0 | 1365 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 2537 | 0 | 0 | 3546 | 0 | 647 | 0 | 1365 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 2537 | 0 | 0 | 3546 | 0 | 647 | 0 | 1365 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 2.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 3150 | 0 | 3150 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.33 | 0.00 | 0.00 | 0.47 | 0.00 | 0.21 | 0.00 | 0.43 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | | | | **** | | | | **** | | | |
| Green Time: | 0.0 | 61.8 | 0.0 | 0.0 | 44.6 | 0.0 | 15.7 | 18.3 | 38.4 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.48 | 0.00 | 0.00 | 0.93 | 0.00 | 1.16 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 6.2 | 0.0 | 0.0 | 20.8 | 0.0 | 36.7 | 0.0 | 25.3 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.1 | 0.0 | 0.0 | 4.9 | 0.0 | 92.4 | 0.0 | 25.4 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.28 | 0.00 | 0.00 | 0.76 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 1.8 | 0.0 | 0.0 | 20.8 | 0.0 | 129.0 | 0.0 | 50.7 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 1.8 | 0.0 | 0.0 | 20.8 | 0.0 | 129.0 | 0.0 | 50.7 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | A | A | A | C+ | A | F | A | D | A | A | A |
| HCM2kAvgQ: | 0 | 3 | 0 | 0 | 26 | 0 | 21 | 0 | 31 | 0 | 0 | 0 |

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

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

Intersection #84: Bowers Ave & Kifer Rd

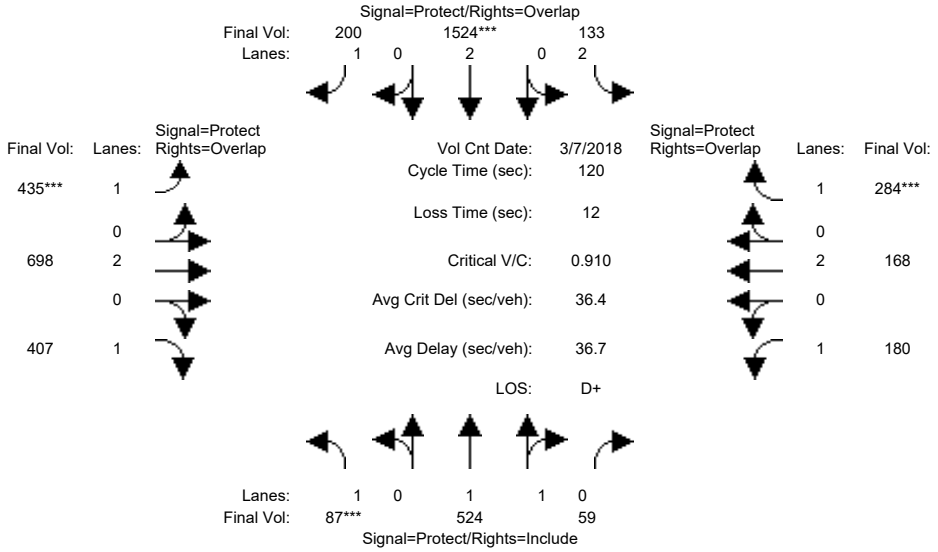



| Street Name: | Bowers Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 5 | 10 | 10 | 8 | 10 | 10 | 5 | 5 | 5 | 5 | 5 | 5 |
| Y+R: | 4.1 | 5.0 | 5.0 | 4.0 | 5.0 | 5.0 | 4.1 | 4.6 | 4.6 | 4.0 | 5.0 | 5.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 257 | 1216 | 104 | 92 | 353 | 204 | 168 | 115 | 68 | 53 | 722 | 165 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 257 | 1216 | 104 | 92 | 353 | 204 | 168 | 115 | 68 | 53 | 722 | 165 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 257 | 1216 | 104 | 92 | 353 | 204 | 168 | 115 | 68 | 53 | 722 | 165 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| PHF Volume: | 282 | 1336 | 114 | 101 | 388 | 224 | 185 | 126 | 75 | 58 | 793 | 181 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 282 | 1336 | 114 | 101 | 388 | 224 | 185 | 126 | 75 | 58 | 793 | 181 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 282 | 1336 | 114 | 101 | 388 | 224 | 185 | 126 | 75 | 58 | 793 | 181 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.84 | 0.16 | 2.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 3408 | 291 | 3150 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.16 | 0.39 | 0.39 | 0.03 | 0.10 | 0.13 | 0.11 | 0.03 | 0.04 | 0.03 | 0.21 | 0.10 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 38.9 | 55.5 | 55.5 | 8.0 | 24.6 | 39.5 | 14.9 | 22.2 | 61.1 | 22.2 | 29.6 | 37.6 |
| Volume/Cap: | 0.50 | 0.85 | 0.85 | 0.48 | 0.50 | 0.39 | 0.85 | 0.18 | 0.08 | 0.18 | 0.85 | 0.33 |
| Uniform Del: | 32.7 | 28.5 | 28.5 | 54.0 | 42.2 | 30.9 | 51.4 | 41.2 | 15.1 | 41.2 | 43.1 | 31.6 |
| IncremntDel: | 0.7 | 4.2 | 4.2 | 1.7 | 0.5 | 0.4 | 25.4 | 0.1 | 0.0 | 0.3 | 7.3 | 0.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.68 | 0.43 | 0.43 | 0.95 | 0.83 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 22.9 | 16.3 | 16.3 | 53.2 | 35.5 | 21.2 | 76.8 | 41.3 | 15.1 | 41.5 | 50.4 | 31.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 22.9 | 16.3 | 16.3 | 53.2 | 35.5 | 21.2 | 76.8 | 41.3 | 15.1 | 41.5 | 50.4 | 31.9 |
| LOS by Move: | C+ | B | B | D- | D+ | C+ | E- | D | B | D | D | C |
| HCM2kAvgQ: | 7 | 18 | 18 | 2 | 6 | 5 | 8 | 2 | 1 | 2 | 14 | 5 |

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

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

Intersection #84: Bowers Ave & Kifer Rd

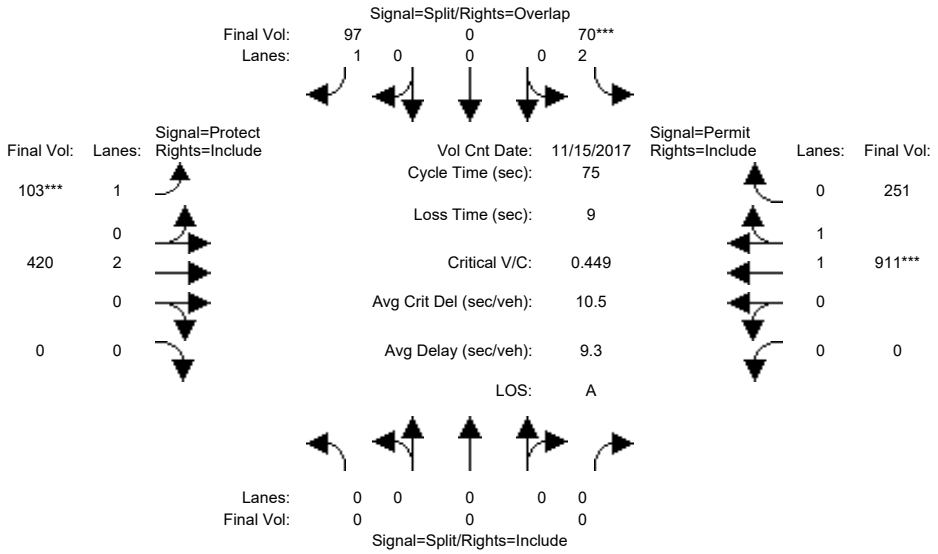



| Street Name: | Bowers Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 5 | 10 | 10 | 8 | 10 | 10 | 5 | 5 | 5 | 5 | 5 | 5 |
| Y+R: | 4.1 | 5.0 | 5.0 | 4.0 | 5.0 | 5.0 | 4.1 | 4.6 | 4.6 | 4.0 | 5.0 | 5.0 |
| Volume Module: >> Count Date: 7 Mar 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 86 | 519 | 58 | 132 | 1509 | 198 | 431 | 691 | 403 | 178 | 166 | 281 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 86 | 519 | 58 | 132 | 1509 | 198 | 431 | 691 | 403 | 178 | 166 | 281 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 86 | 519 | 58 | 132 | 1509 | 198 | 431 | 691 | 403 | 178 | 166 | 281 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| PHF Volume: | 87 | 524 | 59 | 133 | 1524 | 200 | 435 | 698 | 407 | 180 | 168 | 284 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 87 | 524 | 59 | 133 | 1524 | 200 | 435 | 698 | 407 | 180 | 168 | 284 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 87 | 524 | 59 | 133 | 1524 | 200 | 435 | 698 | 407 | 180 | 168 | 284 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.79 | 0.21 | 2.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 3328 | 372 | 3150 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.16 | 0.16 | 0.04 | 0.40 | 0.11 | 0.25 | 0.18 | 0.23 | 0.10 | 0.04 | 0.16 |
| Crit Moves: | **** | | | | **** | | **** | | | | | **** |
| Green Time: | 6.5 | 41.7 | 41.7 | 17.7 | 52.9 | 85.7 | 32.8 | 29.1 | 35.6 | 16.3 | 12.6 | 30.3 |
| Volume/Cap: | 0.91 | 0.45 | 0.45 | 0.29 | 0.91 | 0.16 | 0.91 | 0.76 | 0.78 | 0.76 | 0.42 | 0.64 |
| Uniform Del: | 56.4 | 30.3 | 30.3 | 45.6 | 31.4 | 5.5 | 42.2 | 42.2 | 38.6 | 50.0 | 50.3 | 40.1 |
| IncremntDel: | 63.7 | 0.3 | 0.3 | 0.3 | 7.8 | 0.1 | 21.4 | 3.7 | 7.6 | 13.1 | 0.7 | 3.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.96 | 0.64 | 0.64 | 0.88 | 0.47 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 117.9 | 19.8 | 19.8 | 40.7 | 22.7 | 0.1 | 63.6 | 45.8 | 46.2 | 63.1 | 51.0 | 43.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 117.9 | 19.8 | 19.8 | 40.7 | 22.7 | 0.1 | 63.6 | 45.8 | 46.2 | 63.1 | 51.0 | 43.3 |
| LOS by Move: | F | B- | B- | D | C+ | A | E | D | D | E | D- | D |
| HCM2kAvgQ: | 4 | 6 | 6 | 2 | 22 | 0 | 18 | 12 | 15 | 7 | 3 | 10 |

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

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

Intersection #85: Corvin Dr & Kifer Rd

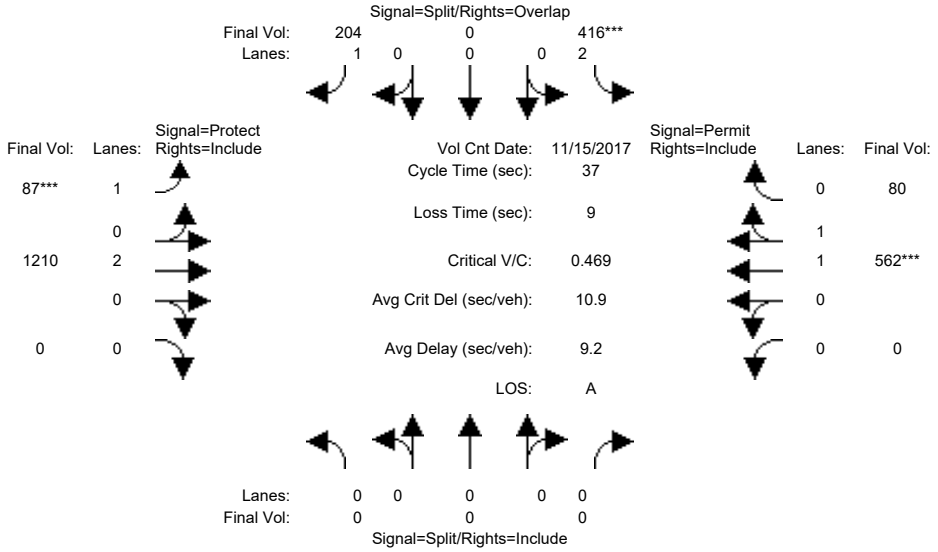



| Street Name: | Corvin Dr | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 5 | 0 | 5 | 5 | 10 | 0 | 0 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.5 | 5.5 | 4.0 | 4.0 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 63 | 0 | 87 | 93 | 378 | 0 | 0 | 820 | 226 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 63 | 0 | 87 | 93 | 378 | 0 | 0 | 820 | 226 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 63 | 0 | 87 | 93 | 378 | 0 | 0 | 820 | 226 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| PHF Volume: | 0 | 0 | 0 | 70 | 0 | 97 | 103 | 420 | 0 | 0 | 911 | 251 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 70 | 0 | 97 | 103 | 420 | 0 | 0 | 911 | 251 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 70 | 0 | 97 | 103 | 420 | 0 | 0 | 911 | 251 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 1.56 | 0.44 |
| Final Sat.: | 0 | 0 | 0 | 3150 | 0 | 1750 | 1750 | 3800 | 0 | 0 | 2900 | 799 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.06 | 0.06 | 0.11 | 0.00 | 0.00 | 0.31 | 0.31 |
| Crit Moves: | | | | **** | | | **** | | | | **** | |
| Green Time: | 0.0 | 0.0 | 0.0 | 9.2 | 0.0 | 18.2 | 9.0 | 56.8 | 0.0 | 0.0 | 47.8 | 47.8 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.18 | 0.00 | 0.23 | 0.49 | 0.15 | 0.00 | 0.00 | 0.49 | 0.49 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 29.5 | 0.0 | 22.8 | 30.9 | 2.5 | 0.0 | 0.0 | 7.2 | 7.2 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.3 | 1.8 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 29.7 | 0.0 | 23.0 | 32.7 | 2.5 | 0.0 | 0.0 | 7.4 | 7.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 29.7 | 0.0 | 23.0 | 32.7 | 2.5 | 0.0 | 0.0 | 7.4 | 7.4 |
| LOS by Move: | A | A | A | C | A | C | C- | A | A | A | A | A |
| HCM2kAvgQ: | 0 | 0 | 0 | 1 | 0 | 2 | 2 | 1 | 0 | 0 | 7 | 7 |

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

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

Intersection #85: Corvin Dr & Kifer Rd

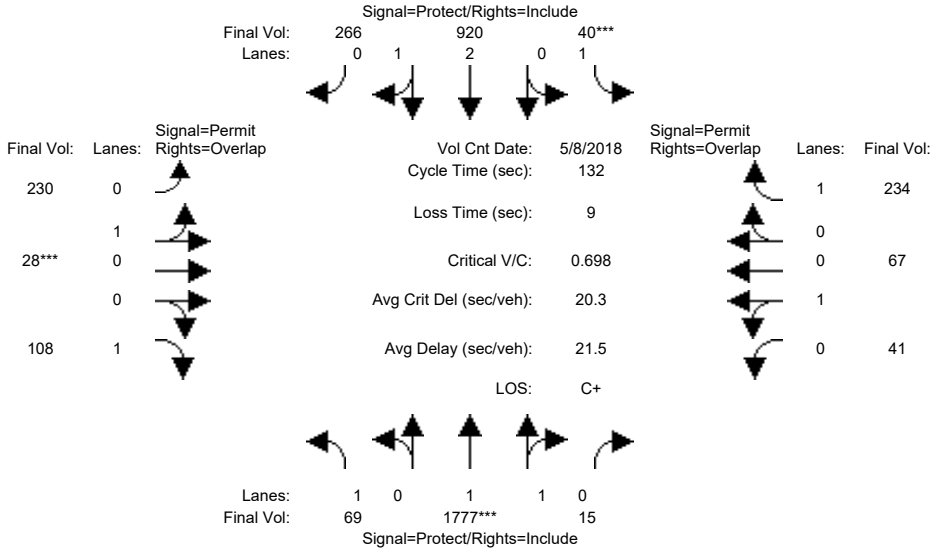



| Street Name: | Corvin Dr | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 5 | 0 | 5 | 5 | 10 | 0 | 0 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.5 | 5.5 | 4.0 | 4.0 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 15 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 370 | 0 | 182 | 77 | 1077 | 0 | 0 | 500 | 71 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 370 | 0 | 182 | 77 | 1077 | 0 | 0 | 500 | 71 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 370 | 0 | 182 | 77 | 1077 | 0 | 0 | 500 | 71 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| PHF Volume: | 0 | 0 | 0 | 416 | 0 | 204 | 87 | 1210 | 0 | 0 | 562 | 80 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 416 | 0 | 204 | 87 | 1210 | 0 | 0 | 562 | 80 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 416 | 0 | 204 | 87 | 1210 | 0 | 0 | 562 | 80 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 1.74 | 0.26 |
| Final Sat.: | 0 | 0 | 0 | 3150 | 0 | 1750 | 1750 | 3800 | 0 | 0 | 3240 | 460 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.13 | 0.00 | 0.12 | 0.05 | 0.32 | 0.00 | 0.00 | 0.17 | 0.17 |
| Crit Moves: | | | | **** | | | **** | | | | **** | |
| Green Time: | 0.0 | 0.0 | 0.0 | 9.9 | 0.0 | 14.9 | 5.0 | 18.1 | 0.0 | 0.0 | 13.1 | 13.1 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.49 | 0.00 | 0.29 | 0.37 | 0.65 | 0.00 | 0.00 | 0.49 | 0.49 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 11.4 | 0.0 | 7.4 | 14.6 | 7.1 | 0.0 | 0.0 | 9.4 | 9.4 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.2 | 1.0 | 0.8 | 0.0 | 0.0 | 0.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 11.9 | 0.0 | 7.7 | 15.5 | 8.0 | 0.0 | 0.0 | 9.7 | 9.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 11.9 | 0.0 | 7.7 | 15.5 | 8.0 | 0.0 | 0.0 | 9.7 | 9.7 |
| LOS by Move: | A | A | A | B+ | A | A | B | A | A | A | A | A |
| HCM2kAvgQ: | 0 | 0 | 0 | 2 | 0 | 2 | 1 | 5 | 0 | 0 | 3 | 3 |

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

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

Intersection #91: Fair Oaks Ave & Ahwanee Ave

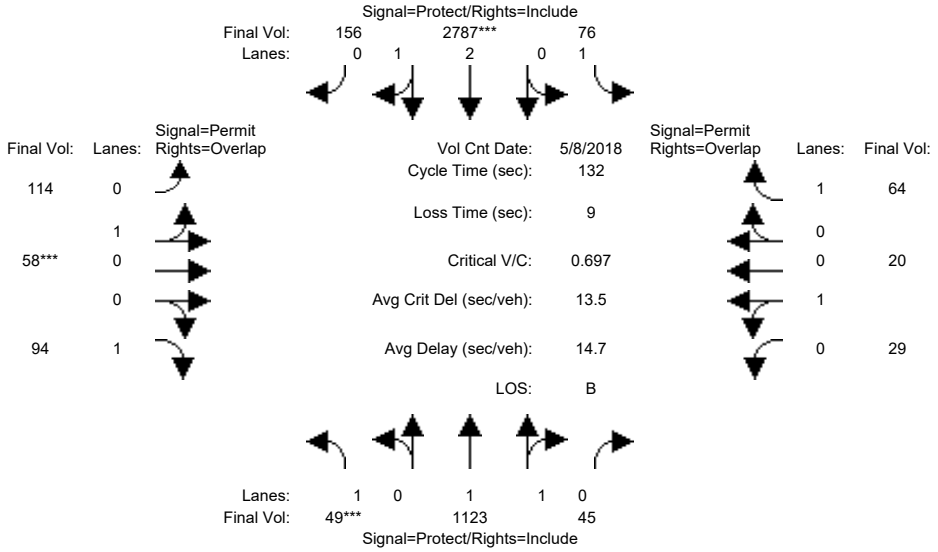



| Street Name: | Fair Oaks Ave | | | | | | Ahwanee Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 69 | 1777 | 15 | 40 | 920 | 266 | 230 | 28 | 108 | 41 | 67 | 234 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 69 | 1777 | 15 | 40 | 920 | 266 | 230 | 28 | 108 | 41 | 67 | 234 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 69 | 1777 | 15 | 40 | 920 | 266 | 230 | 28 | 108 | 41 | 67 | 234 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 69 | 1777 | 15 | 40 | 920 | 266 | 230 | 28 | 108 | 41 | 67 | 234 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 69 | 1777 | 15 | 40 | 920 | 266 | 230 | 28 | 108 | 41 | 67 | 234 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 69 | 1777 | 15 | 40 | 920 | 266 | 230 | 28 | 108 | 41 | 67 | 234 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.92 | 0.99 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes: | 1.00 | 1.98 | 0.02 | 1.00 | 2.30 | 0.70 | 0.89 | 0.11 | 1.00 | 0.38 | 0.62 | 1.00 |
| Final Sat.: | 1750 | 3669 | 31 | 1750 | 4342 | 1256 | 1605 | 195 | 1750 | 683 | 1117 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.48 | 0.48 | 0.02 | 0.21 | 0.21 | 0.14 | 0.14 | 0.06 | 0.06 | 0.06 | 0.13 |
| Crit Moves: | | **** | | **** | | | | **** | | | | |
| Green Time: | 19.3 | 89.5 | 89.5 | 7.0 | 77.2 | 77.2 | 26.5 | 26.5 | 45.8 | 26.5 | 26.5 | 33.5 |
| Volume/Cap: | 0.27 | 0.71 | 0.71 | 0.43 | 0.36 | 0.36 | 0.71 | 0.71 | 0.18 | 0.30 | 0.30 | 0.53 |
| Uniform Del: | 50.1 | 13.3 | 13.3 | 60.6 | 14.4 | 14.4 | 49.2 | 49.2 | 30.0 | 44.9 | 44.9 | 42.4 |
| IncremntDel: | 0.6 | 1.0 | 1.0 | 3.2 | 0.1 | 0.1 | 6.6 | 6.6 | 0.1 | 0.5 | 0.5 | 1.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 50.6 | 14.3 | 14.3 | 63.8 | 14.5 | 14.5 | 55.9 | 55.9 | 30.1 | 45.3 | 45.3 | 43.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 50.6 | 14.3 | 14.3 | 63.8 | 14.5 | 14.5 | 55.9 | 55.9 | 30.1 | 45.3 | 45.3 | 43.6 |
| LOS by Move: | D | B | B | E | B | B | E+ | E+ | C | D | D | D |
| HCM2kAvgQ: | 3 | 22 | 22 | 2 | 8 | 8 | 11 | 11 | 3 | 4 | 4 | 9 |

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

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

Intersection #91: Fair Oaks Ave & Ahwanee Ave

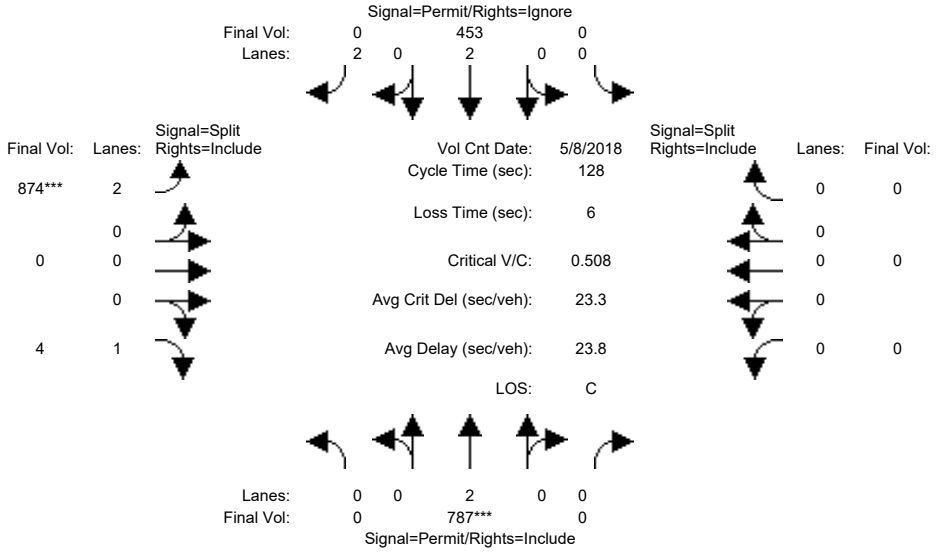



| Street Name: | Fair Oaks Ave | | | | | | Ahwanee Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 49 | 1123 | 45 | 76 | 2787 | 156 | 114 | 58 | 94 | 29 | 20 | 64 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 49 | 1123 | 45 | 76 | 2787 | 156 | 114 | 58 | 94 | 29 | 20 | 64 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 49 | 1123 | 45 | 76 | 2787 | 156 | 114 | 58 | 94 | 29 | 20 | 64 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 49 | 1123 | 45 | 76 | 2787 | 156 | 114 | 58 | 94 | 29 | 20 | 64 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 49 | 1123 | 45 | 76 | 2787 | 156 | 114 | 58 | 94 | 29 | 20 | 64 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 49 | 1123 | 45 | 76 | 2787 | 156 | 114 | 58 | 94 | 29 | 20 | 64 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes: | 1.00 | 1.92 | 0.08 | 1.00 | 2.84 | 0.16 | 0.66 | 0.34 | 1.00 | 0.59 | 0.41 | 1.00 |
| Final Sat.: | 1750 | 3557 | 143 | 1750 | 5303 | 297 | 1193 | 607 | 1750 | 1065 | 735 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.32 | 0.32 | 0.04 | 0.53 | 0.53 | 0.10 | 0.10 | 0.05 | 0.03 | 0.03 | 0.04 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |
| Green Time: | 7.0 | 90.0 | 90.0 | 15.1 | 98.2 | 98.2 | 17.8 | 17.8 | 24.8 | 17.8 | 17.8 | 33.0 |
| Volume/Cap: | 0.53 | 0.46 | 0.46 | 0.38 | 0.71 | 0.71 | 0.71 | 0.71 | 0.29 | 0.20 | 0.20 | 0.15 |
| Uniform Del: | 60.9 | 9.8 | 9.8 | 54.1 | 9.1 | 9.1 | 54.6 | 54.6 | 46.0 | 50.7 | 50.7 | 38.6 |
| IncremntDel: | 5.6 | 0.1 | 0.1 | 1.2 | 0.6 | 0.6 | 9.2 | 9.2 | 0.5 | 0.4 | 0.4 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 66.5 | 9.9 | 9.9 | 55.3 | 9.7 | 9.7 | 63.7 | 63.7 | 46.4 | 51.2 | 51.2 | 38.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 66.5 | 9.9 | 9.9 | 55.3 | 9.7 | 9.7 | 63.7 | 63.7 | 46.4 | 51.2 | 51.2 | 38.7 |
| LOS by Move: | E | A | A | E+ | A | A | E | E | D | D- | D- | D+ |
| HCM2kAvgQ: | 2 | 11 | 11 | 3 | 22 | 22 | 8 | 8 | 4 | 2 | 2 | 2 |

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

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

Intersection #92: Fair Oaks Ave & Wolfe Rd

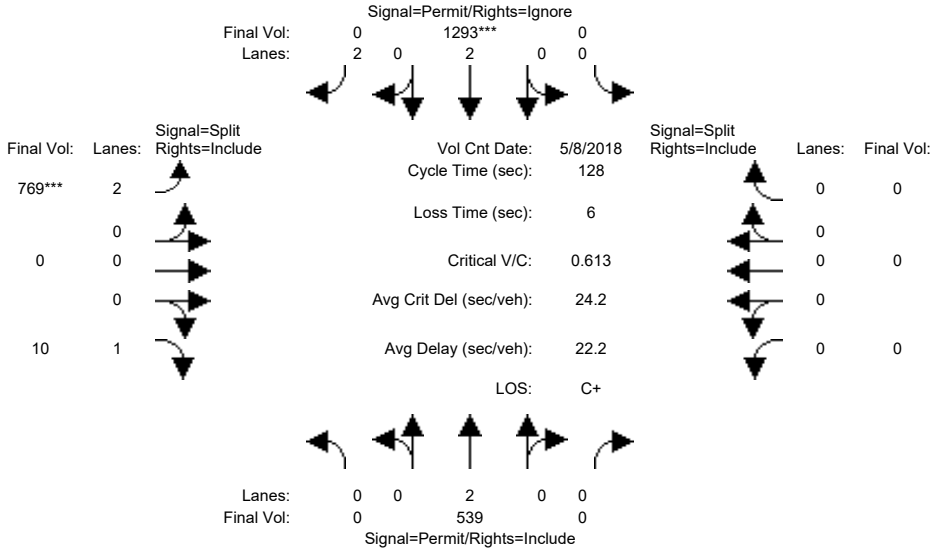



| Street Name: | Fair Oaks Ave | | | | | | Wolfe Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 10 | 10 | 0 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 787 | 0 | 0 | 453 | 746 | 874 | 0 | 4 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 787 | 0 | 0 | 453 | 746 | 874 | 0 | 4 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 787 | 0 | 0 | 453 | 746 | 874 | 0 | 4 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 787 | 0 | 0 | 453 | 0 | 874 | 0 | 4 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 787 | 0 | 0 | 453 | 0 | 874 | 0 | 4 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 787 | 0 | 0 | 453 | 0 | 874 | 0 | 4 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3800 | 0 | 0 | 3800 | 3150 | 3150 | 0 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.21 | 0.00 | 0.00 | 0.12 | 0.00 | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | | | | **** | | | | | |
| Green Time: | 0.0 | 52.1 | 0.0 | 0.0 | 52.1 | 0.0 | 69.9 | 0.0 | 69.9 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.51 | 0.00 | 0.00 | 0.29 | 0.00 | 0.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 28.3 | 0.0 | 0.0 | 25.5 | 0.0 | 18.3 | 0.0 | 13.2 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 28.6 | 0.0 | 0.0 | 25.6 | 0.0 | 18.5 | 0.0 | 13.2 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 28.6 | 0.0 | 0.0 | 25.6 | 0.0 | 18.5 | 0.0 | 13.2 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | C | A | A | C | A | B- | A | B | A | A | A |
| HCM2kAvgQ: | 0 | 11 | 0 | 0 | 6 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |

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

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

Intersection #92: Fair Oaks Ave & Wolfe Rd

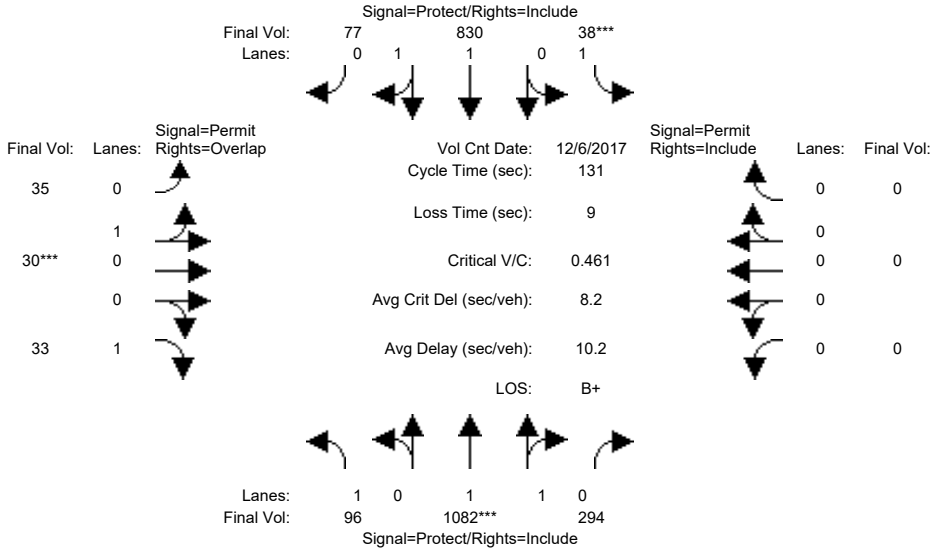



| Street Name: | Fair Oaks Ave | | | | | | Wolfe Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 10 | 10 | 0 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 539 | 0 | 0 | 1293 | 1272 | 769 | 0 | 10 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 539 | 0 | 0 | 1293 | 1272 | 769 | 0 | 10 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 539 | 0 | 0 | 1293 | 1272 | 769 | 0 | 10 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 539 | 0 | 0 | 1293 | 0 | 769 | 0 | 10 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 539 | 0 | 0 | 1293 | 0 | 769 | 0 | 10 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 539 | 0 | 0 | 1293 | 0 | 769 | 0 | 10 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3800 | 0 | 0 | 3800 | 3150 | 3150 | 0 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.14 | 0.00 | 0.00 | 0.34 | 0.00 | 0.24 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | | | | **** | | **** | | | | | |
| Green Time: | 0.0 | 71.0 | 0.0 | 0.0 | 71.0 | 0.0 | 51.0 | 0.0 | 51.0 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.26 | 0.00 | 0.00 | 0.61 | 0.00 | 0.61 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 14.8 | 0.0 | 0.0 | 19.2 | 0.0 | 30.7 | 0.0 | 23.3 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.1 | 0.0 | 0.0 | 0.5 | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 14.8 | 0.0 | 0.0 | 19.8 | 0.0 | 31.6 | 0.0 | 23.3 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 14.8 | 0.0 | 0.0 | 19.8 | 0.0 | 31.6 | 0.0 | 23.3 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | B | A | A | B- | A | C | A | C | A | A | A |
| HCM2kAvgQ: | 0 | 5 | 0 | 0 | 16 | 0 | 15 | 0 | 0 | 0 | 0 | 0 |

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

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

Intersection #95: Fair Oaks Ave & California Ave

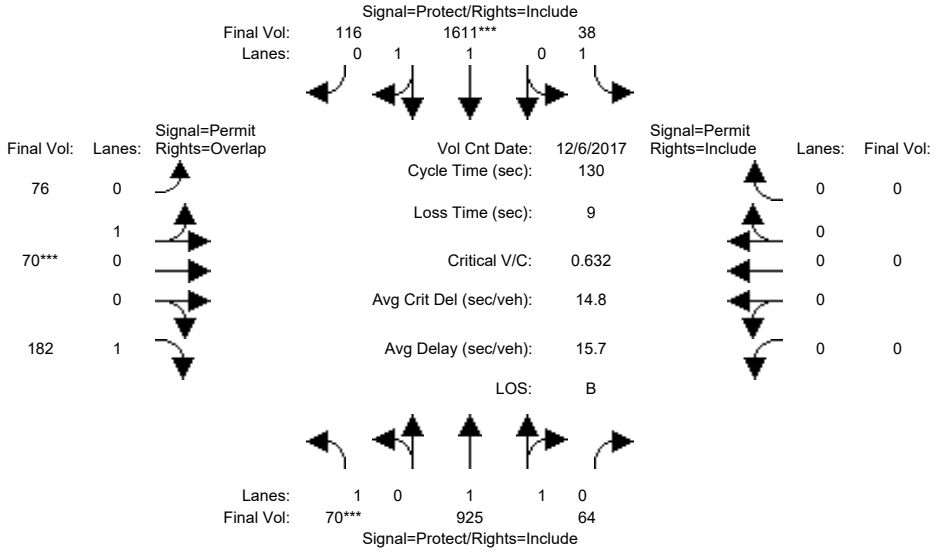



| Street Name: | Fair Oaks Ave | | | | | | California Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 96 | 1082 | 294 | 38 | 830 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 96 | 1082 | 294 | 38 | 830 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 96 | 1082 | 294 | 38 | 830 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 96 | 1082 | 294 | 38 | 830 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 96 | 1082 | 294 | 38 | 830 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 96 | 1082 | 294 | 38 | 830 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.56 | 0.44 | 1.00 | 1.83 | 0.17 | 0.54 | 0.46 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1750 | 2909 | 790 | 1750 | 3386 | 314 | 969 | 831 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.37 | 0.37 | 0.02 | 0.25 | 0.25 | 0.04 | 0.04 | 0.02 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | | **** | | | | |
| Green Time: | 20.4 | 105 | 104.8 | 7.0 | 91.4 | 91.4 | 10.2 | 10.2 | 30.6 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.35 | 0.46 | 0.46 | 0.41 | 0.35 | 0.35 | 0.46 | 0.46 | 0.08 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 49.4 | 4.2 | 4.2 | 60.0 | 7.9 | 7.9 | 57.8 | 57.8 | 39.2 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.8 | 0.1 | 0.1 | 2.9 | 0.1 | 0.1 | 2.4 | 2.4 | 0.1 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 50.1 | 4.3 | 4.3 | 62.9 | 8.0 | 8.0 | 60.2 | 60.2 | 39.3 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 50.1 | 4.3 | 4.3 | 62.9 | 8.0 | 8.0 | 60.2 | 60.2 | 39.3 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | D | A | A | E | A | A | E | E | D | A | A | A |
| HCM2kAvgQ: | 4 | 9 | 9 | 2 | 7 | 7 | 3 | 3 | 1 | 0 | 0 | 0 |

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

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

Intersection #95: Fair Oaks Ave & California Ave

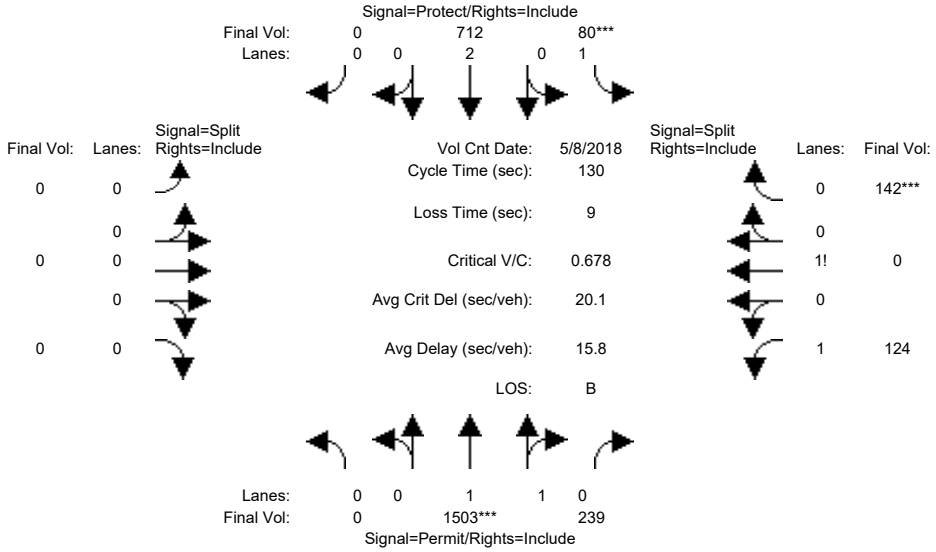



| Street Name: | Fair Oaks Ave | | | | | | California Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 70 | 925 | 64 | 38 | 1611 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 70 | 925 | 64 | 38 | 1611 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 70 | 925 | 64 | 38 | 1611 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 70 | 925 | 64 | 38 | 1611 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 70 | 925 | 64 | 38 | 1611 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 70 | 925 | 64 | 38 | 1611 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.87 | 0.13 | 1.00 | 1.86 | 0.14 | 0.52 | 0.48 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1750 | 3460 | 239 | 1750 | 3451 | 249 | 937 | 863 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.27 | 0.27 | 0.02 | 0.47 | 0.47 | 0.08 | 0.08 | 0.10 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |
| Green Time: | 8.2 | 86.8 | 86.8 | 17.5 | 96.1 | 96.1 | 16.7 | 16.7 | 24.9 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.63 | 0.40 | 0.40 | 0.16 | 0.63 | 0.63 | 0.63 | 0.63 | 0.54 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 59.4 | 9.8 | 9.8 | 49.8 | 8.3 | 8.3 | 53.7 | 53.7 | 47.4 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 11.2 | 0.1 | 0.1 | 0.3 | 0.5 | 0.5 | 5.6 | 5.6 | 1.8 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 70.6 | 9.9 | 9.9 | 50.1 | 8.8 | 8.8 | 59.3 | 59.3 | 49.2 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 70.6 | 9.9 | 9.9 | 50.1 | 8.8 | 8.8 | 59.3 | 59.3 | 49.2 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | E | A | A | D | A | A | E+ | E+ | D | A | A | A |
| HCM2kAvgQ: | 3 | 8 | 8 | 1 | 16 | 16 | 6 | 6 | 7 | 0 | 0 | 0 |

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

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

Intersection #96: Fair Oaks Ave & Kifer Rd

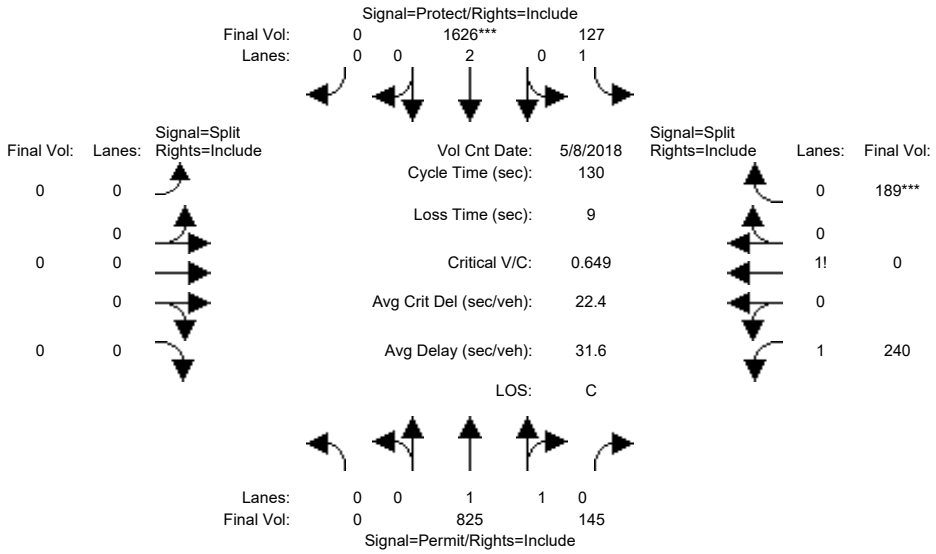



| Street Name: | Fair Oaks Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 10 | 10 | 7 | 10 | 0 | 0 | 0 | 0 | 10 | 0 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:15 AM - 9:15 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 1503 | 239 | 80 | 712 | 0 | 0 | 0 | 0 | 124 | 0 | 142 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1503 | 239 | 80 | 712 | 0 | 0 | 0 | 0 | 124 | 0 | 142 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 1503 | 239 | 80 | 712 | 0 | 0 | 0 | 0 | 124 | 0 | 142 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1503 | 239 | 80 | 712 | 0 | 0 | 0 | 0 | 124 | 0 | 142 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1503 | 239 | 80 | 712 | 0 | 0 | 0 | 0 | 124 | 0 | 142 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 1503 | 239 | 80 | 712 | 0 | 0 | 0 | 0 | 124 | 0 | 142 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.95 |
| Lanes: | 0.00 | 1.72 | 0.28 | 1.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.31 | 0.00 | 0.69 |
| Final Sat.: | 0 | 3192 | 508 | 1750 | 3800 | 0 | 0 | 0 | 0 | 2292 | 0 | 1242 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.47 | 0.47 | 0.05 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.11 |
| Crit Moves: | | **** | | **** | | | | | | | | **** |
| Green Time: | 0.0 | 90.3 | 90.3 | 8.8 | 99.1 | 0.0 | 0.0 | 0.0 | 0.0 | 21.9 | 0.0 | 21.9 |
| Volume/Cap: | 0.00 | 0.68 | 0.68 | 0.68 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.32 | 0.00 | 0.68 |
| Uniform Del: | 0.0 | 11.5 | 11.5 | 59.2 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 47.5 | 0.0 | 50.7 |
| IncremntDel: | 0.0 | 0.7 | 0.7 | 14.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 4.7 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 12.2 | 12.2 | 73.9 | 4.6 | 0.0 | 0.0 | 0.0 | 0.0 | 47.7 | 0.0 | 55.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 12.2 | 12.2 | 73.9 | 4.6 | 0.0 | 0.0 | 0.0 | 0.0 | 47.7 | 0.0 | 55.4 |
| LOS by Move: | A | B | B | E | A | A | A | A | A | D | A | E+ |
| HCM2kAvgQ: | 0 | 19 | 19 | 4 | 4 | 0 | 0 | 0 | 0 | 3 | 0 | 8 |

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

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

Intersection #96: Fair Oaks Ave & Kifer Rd

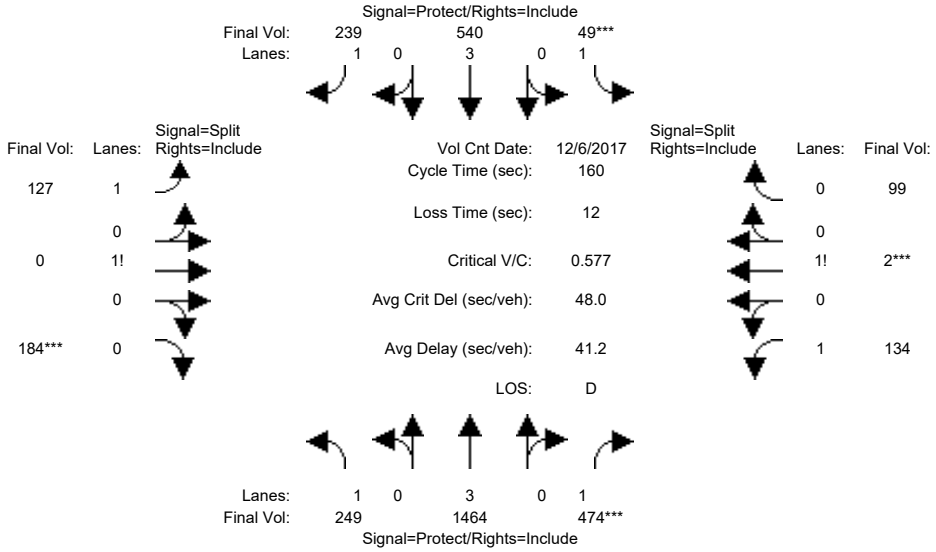



| Street Name: | Fair Oaks Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 10 | 10 | 7 | 10 | 0 | 0 | 0 | 0 | 10 | 0 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 825 | 145 | 127 | 1626 | 0 | 0 | 0 | 0 | 240 | 0 | 189 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 825 | 145 | 127 | 1626 | 0 | 0 | 0 | 0 | 240 | 0 | 189 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 825 | 145 | 127 | 1626 | 0 | 0 | 0 | 0 | 240 | 0 | 189 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 825 | 145 | 127 | 1626 | 0 | 0 | 0 | 0 | 240 | 0 | 189 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 825 | 145 | 127 | 1626 | 0 | 0 | 0 | 0 | 240 | 0 | 189 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 825 | 145 | 127 | 1626 | 0 | 0 | 0 | 0 | 240 | 0 | 189 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 1.69 | 0.31 | 1.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.39 | 0.00 | 0.61 |
| Final Sat.: | 0 | 3146 | 553 | 1750 | 3800 | 0 | 0 | 0 | 0 | 2430 | 0 | 1070 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.26 | 0.26 | 0.07 | 0.43 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 | 0.18 |
| Crit Moves: | | | | | **** | | | | | | | **** |
| Green Time: | 0.0 | 36.6 | 36.6 | 59.7 | 96.3 | 0.0 | 0.0 | 0.0 | 0.0 | 24.7 | 0.0 | 24.7 |
| Volume/Cap: | 0.00 | 0.93 | 0.93 | 0.16 | 0.58 | 0.00 | 0.00 | 0.00 | 0.00 | 0.52 | 0.00 | 0.93 |
| Uniform Del: | 0.0 | 45.5 | 45.5 | 20.5 | 7.6 | 0.0 | 0.0 | 0.0 | 0.0 | 47.4 | 0.0 | 51.8 |
| IncremntDel: | 0.0 | 14.2 | 14.2 | 0.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 25.7 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 59.7 | 59.7 | 20.6 | 7.9 | 0.0 | 0.0 | 0.0 | 0.0 | 48.0 | 0.0 | 77.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 59.7 | 59.7 | 20.6 | 7.9 | 0.0 | 0.0 | 0.0 | 0.0 | 48.0 | 0.0 | 77.5 |
| LOS by Move: | A | E+ | E+ | C+ | A | A | A | A | A | D | A | E- |
| HCM2kAvgQ: | 0 | 21 | 21 | 3 | 14 | 0 | 0 | 0 | 0 | 6 | 0 | 14 |

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

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

Intersection #97: Wolfe Rd & Central Expwy Ramps

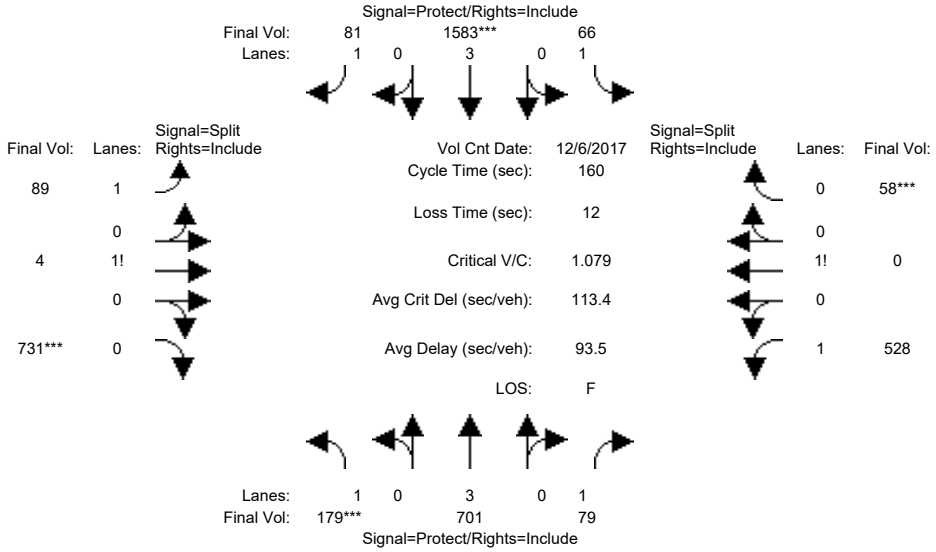



| Street Name: | Wolfe Rd | | | | | | Central Expwy Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 249 | 1464 | 474 | 49 | 540 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 249 | 1464 | 474 | 49 | 540 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 249 | 1464 | 474 | 49 | 540 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 249 | 1464 | 474 | 49 | 540 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 249 | 1464 | 474 | 49 | 540 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 249 | 1464 | 474 | 49 | 540 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.95 | 0.92 | 0.92 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.26 | 0.00 | 0.74 | 1.40 | 0.01 | 0.59 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 2208 | 0 | 1328 | 2448 | 21 | 1031 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.14 | 0.26 | 0.27 | 0.03 | 0.09 | 0.14 | 0.06 | 0.00 | 0.14 | 0.05 | 0.10 | 0.10 |
| Crit Moves: | | | **** | **** | | | | | **** | | **** | |
| Green Time: | 42.3 | 75.2 | 75.2 | 7.8 | 40.6 | 40.6 | 38.4 | 0.0 | 38.4 | 26.6 | 26.6 | 26.6 |
| Volume/Cap: | 0.54 | 0.55 | 0.58 | 0.58 | 0.37 | 0.54 | 0.24 | 0.00 | 0.58 | 0.33 | 0.58 | 0.58 |
| Uniform Del: | 50.5 | 30.3 | 30.9 | 74.5 | 49.2 | 51.6 | 49.0 | 0.0 | 53.6 | 58.8 | 61.5 | 61.5 |
| IncremntDel: | 1.3 | 0.2 | 1.0 | 9.4 | 0.2 | 1.3 | 0.1 | 0.0 | 1.5 | 0.3 | 2.0 | 2.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 51.7 | 30.5 | 31.9 | 83.9 | 49.4 | 52.9 | 49.1 | 0.0 | 55.2 | 59.1 | 63.5 | 63.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 51.7 | 30.5 | 31.9 | 83.9 | 49.4 | 52.9 | 49.1 | 0.0 | 55.2 | 59.1 | 63.5 | 63.5 |
| LOS by Move: | D- | C | C | F | D | D- | D | A | E+ | E+ | E | E |
| HCM2kAvgQ: | 11 | 16 | 17 | 3 | 7 | 11 | 4 | 0 | 12 | 5 | 9 | 9 |

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

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

Intersection #97: Wolfe Rd & Central Expwy Ramps

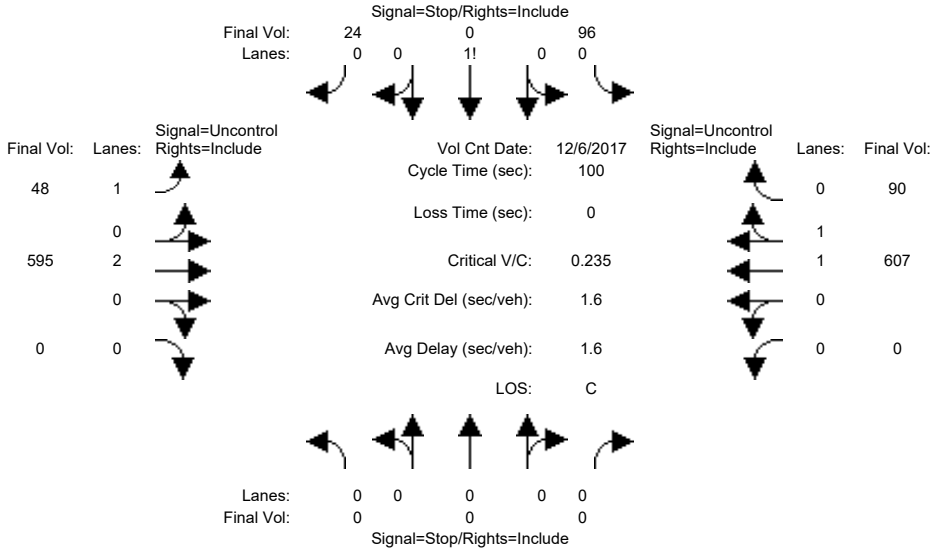



| Street Name: | Wolfe Rd | | | | | | Central Expwy Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 179 | 701 | 79 | 66 | 1583 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 179 | 701 | 79 | 66 | 1583 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 179 | 701 | 79 | 66 | 1583 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 179 | 701 | 79 | 66 | 1583 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 179 | 701 | 79 | 66 | 1583 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 179 | 701 | 79 | 66 | 1583 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.06 | 0.01 | 0.93 | 1.82 | 0.00 | 0.18 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 1853 | 9 | 1685 | 3185 | 0 | 315 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.12 | 0.05 | 0.04 | 0.28 | 0.05 | 0.05 | 0.43 | 0.43 | 0.17 | 0.00 | 0.18 |
| Crit Moves: | **** | | | | **** | | | | **** | | | **** |
| Green Time: | 15.2 | 41.6 | 41.6 | 14.8 | 41.2 | 41.2 | 64.3 | 64.3 | 64.3 | 27.3 | 0.0 | 27.3 |
| Volume/Cap: | 1.08 | 0.47 | 0.17 | 0.41 | 1.08 | 0.18 | 0.12 | 1.08 | 1.08 | 0.97 | 0.00 | 1.08 |
| Uniform Del: | 72.4 | 50.0 | 45.9 | 68.5 | 59.4 | 46.2 | 30.0 | 47.8 | 47.8 | 66.0 | 0.0 | 66.4 |
| IncremntDel: | 92.4 | 0.2 | 0.2 | 1.7 | 47.8 | 0.2 | 0.0 | 55.9 | 55.9 | 29.6 | 0.0 | 61.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 164.8 | 50.2 | 46.1 | 70.2 | 107 | 46.4 | 30.0 | 104 | 103.7 | 95.5 | 0.0 | 127.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 164.8 | 50.2 | 46.1 | 70.2 | 107 | 46.4 | 30.0 | 104 | 103.7 | 95.5 | 0.0 | 127.9 |
| LOS by Move: | F | D | D | E | F | D | C | F | F | F | A | F |
| HCM2kAvgQ: | 12 | 9 | 3 | 3 | 32 | 3 | 3 | 51 | 51 | 20 | 0 | 24 |

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

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

Intersection #98: Commercial St & Kifer Rd




| Street Name: | Commercial St | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 96 | 0 | 24 | 48 | 595 | 0 | 0 | 607 | 90 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 96 | 0 | 24 | 48 | 595 | 0 | 0 | 607 | 90 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Adju: | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | -1 | 96 | 0 | 24 | 48 | 595 | 0 | 0 | 607 | 90 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 96 | 0 | 24 | 48 | 595 | 0 | 0 | 607 | 90 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 0 | 0 | 96 | 0 | 24 | 48 | 595 | 0 | 0 | 607 | 90 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | 6.8 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | xxxxx | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | 1046 | 1343 | 349 | 697 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | xxxx | xxxx | xxxxx | 227 | 153 | 653 | 909 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | xxxx | xxxx | xxxxx | 218 | 145 | 653 | 909 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Total Cap: | 341 | 303 | xxxxx | 408 | 327 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | xxxx | xxxx | xxxx | 0.24 | 0.00 | 0.04 | 0.05 | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.2 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 9.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | A | * | * | * | * | * |
| Movement: | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | 441 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | 1.1 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | 16.2 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | C | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | 16.2 | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | C | | | * | | | * | | |

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

Peak Hour Delay Signal Warrant Report

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Intersection #98 Commercial St & Kifer Rd

**********

```
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    1  0  2  0  0    0  0  1  1  0
Initial Vol:    0    0    -1    96    0    24    48  595     0     0  607    90
ApproachDel:    xxxxxx             16.2           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=OVERFLOW]
   SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=-1]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1459]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.5]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=120]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1459]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #98 Commercial St & Kifer Rd
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  0    0  0  1! 0  0    1  0  2  0  0    0  0  1  1  0
Initial Vol:    0    0    -1    96    0    24    48  595     0     0  607    90
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1340
Minor Approach Volume:           120
Minor Approach Volume Threshold: 184
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
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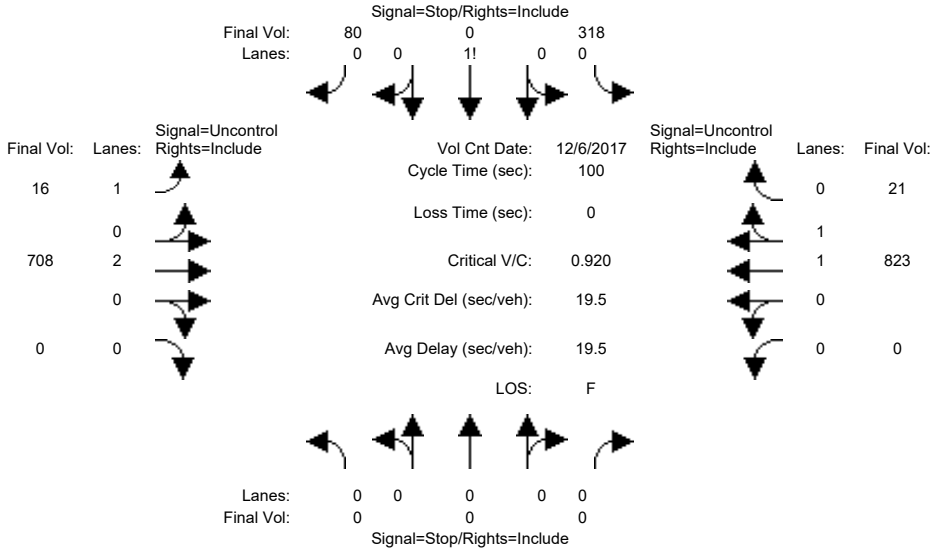
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background PM (Intuitive)

Intersection #98: Commercial St & Kifer Rd




| Street Name: | Commercial St | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: >> Count Date: 6 Dec 2017 << 4:45 PM - 5:45 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 318 | 0 | 80 | 16 | 708 | 0 | 0 | 823 | 21 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 318 | 0 | 80 | 16 | 708 | 0 | 0 | 823 | 21 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 318 | 0 | 80 | 16 | 708 | 0 | 0 | 823 | 21 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 318 | 0 | 80 | 16 | 708 | 0 | 0 | 823 | 21 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 0 | 0 | 318 | 0 | 80 | 16 | 708 | 0 | 0 | 823 | 21 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | 6.8 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | xxxxx | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | 1220 | 1574 | 422 | 844 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | xxxx | xxxx | xxxxx | 175 | 111 | 586 | 801 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | xxxx | xxxx | xxxxx | 173 | 109 | 586 | 801 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Total Cap: | 306 | 280 | xxxxx | 346 | 288 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | xxxx | xxxx | xxxx | 0.92 | 0.00 | 0.14 | 0.02 | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.1 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 9.6 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | A | * | * | * | * | * |
| Movement: | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | 377 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | 13.6 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | 95.9 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | F | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | 95.9 | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | F | | | * | | | * | | |

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

Peak Hour Delay Signal Warrant Report

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Intersection #98 Commercial St & Kifer Rd

**********

Future Volume Alternative: Peak Hour Warrant Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Lanes: | 0 0 0 0 0 | | | 0 0 1! 0 0 | | | 1 0 2 0 0 | | | 0 0 1 1 0 | | |
| Initial Vol: | 0 | 0 | 0 | 318 | 0 | 80 | 16 | 708 | 0 | 0 | 823 | 21 |
| ApproachDel: | xxxxxx | | | 95.9 | | | xxxxxx | | | xxxxxx | | |

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=10.6]
SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=398]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1966]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

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SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #98 Commercial St & Kifer Rd

**********

Future Volume Alternative: Peak Hour Warrant Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Lanes: | 0 0 0 0 0 | | | 0 0 1! 0 0 | | | 1 0 2 0 0 | | | 0 0 1 1 0 | | |
| Initial Vol: | 0 | 0 | 0 | 318 | 0 | 80 | 16 | 708 | 0 | 0 | 823 | 21 |

Major Street Volume: 1568
Minor Approach Volume: 398
Minor Approach Volume Threshold: 130

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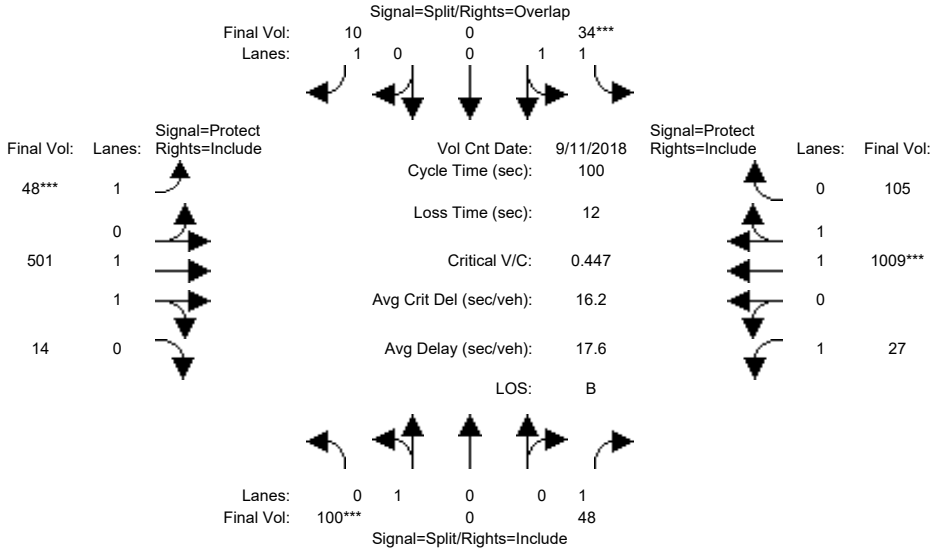
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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

Intersection #99: Semiconductor Dr & Kifer Rd

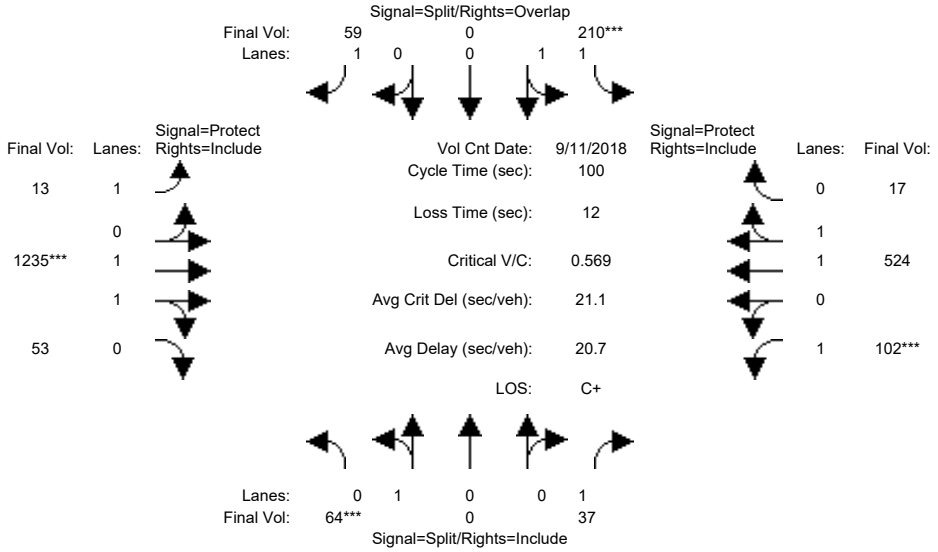



| Street Name: | Semiconductor Drive | | | | | | Kifer Road | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 11 Sep 2018 << 8:45AM-9:45AM | | | | | | | | | | | | |
| Base Vol: | 100 | 0 | 48 | 34 | 0 | 10 | 48 | 501 | 14 | 27 | 1009 | 105 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 100 | 0 | 48 | 34 | 0 | 10 | 48 | 501 | 14 | 27 | 1009 | 105 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 100 | 0 | 48 | 34 | 0 | 10 | 48 | 501 | 14 | 27 | 1009 | 105 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 100 | 0 | 48 | 34 | 0 | 10 | 48 | 501 | 14 | 27 | 1009 | 105 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 100 | 0 | 48 | 34 | 0 | 10 | 48 | 501 | 14 | 27 | 1009 | 105 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 100 | 0 | 48 | 34 | 0 | 10 | 48 | 501 | 14 | 27 | 1009 | 105 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.95 | 0.95 | 0.92 | 0.93 | 1.00 | 0.92 | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 1.00 | 0.00 | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 1.94 | 0.06 | 1.00 | 1.81 | 0.19 |
| Final Sat.: | 1800 | 0 | 1750 | 3550 | 0 | 1750 | 1750 | 3599 | 101 | 1750 | 3351 | 349 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.00 | 0.03 | 0.01 | 0.00 | 0.01 | 0.03 | 0.14 | 0.14 | 0.02 | 0.30 | 0.30 |
| Crit Moves: | **** | | | **** | | | **** | | | | **** | |
| Green Time: | 11.1 | 0.0 | 11.1 | 10.0 | 0.0 | 17.0 | 7.0 | 44.5 | 44.5 | 22.4 | 59.9 | 59.9 |
| Volume/Cap: | 0.50 | 0.00 | 0.25 | 0.10 | 0.00 | 0.03 | 0.39 | 0.31 | 0.31 | 0.07 | 0.50 | 0.50 |
| Uniform Del: | 41.9 | 0.0 | 40.7 | 40.9 | 0.0 | 34.6 | 44.5 | 17.9 | 17.9 | 30.6 | 11.5 | 11.5 |
| IncremntDel: | 2.0 | 0.0 | 0.7 | 0.1 | 0.0 | 0.0 | 2.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 43.9 | 0.0 | 41.3 | 41.0 | 0.0 | 34.7 | 46.5 | 18.0 | 18.0 | 30.7 | 11.7 | 11.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 43.9 | 0.0 | 41.3 | 41.0 | 0.0 | 34.7 | 46.5 | 18.0 | 18.0 | 30.7 | 11.7 | 11.7 |
| LOS by Move: | D | A | D | D | A | C- | D | B | B | C | B+ | B+ |
| HCM2kAvgQ: | 4 | 0 | 2 | 1 | 0 | 0 | 2 | 5 | 5 | 1 | 9 | 9 |

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

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

Intersection #99: Semiconductor Dr & Kifer Rd

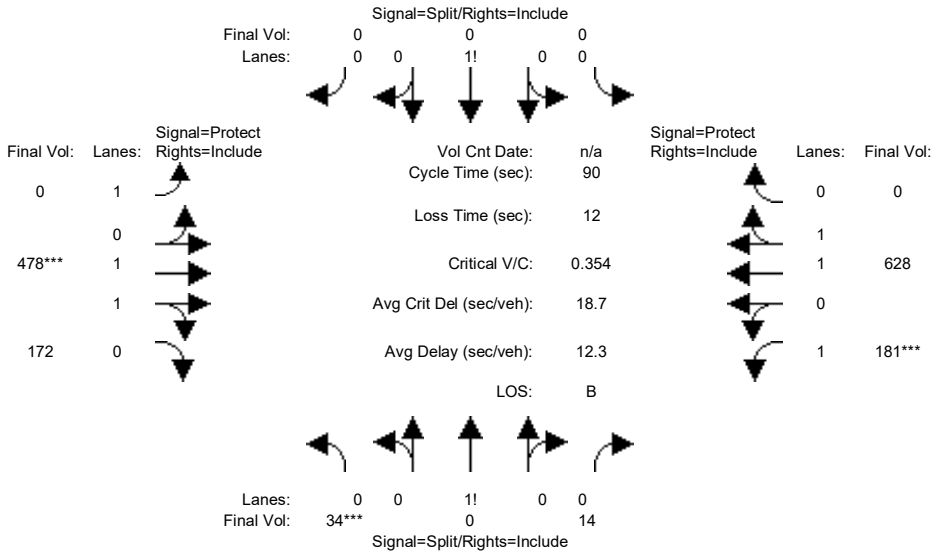



| Street Name: | Semiconductor Drive | | | | | | Kifer Road | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 11 Sep 2018 << 4:45PM-5:45PM | | | | | | | | | | | | |
| Base Vol: | 64 | 0 | 37 | 210 | 0 | 59 | 13 | 1235 | 53 | 102 | 524 | 17 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 64 | 0 | 37 | 210 | 0 | 59 | 13 | 1235 | 53 | 102 | 524 | 17 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 64 | 0 | 37 | 210 | 0 | 59 | 13 | 1235 | 53 | 102 | 524 | 17 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 64 | 0 | 37 | 210 | 0 | 59 | 13 | 1235 | 53 | 102 | 524 | 17 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 64 | 0 | 37 | 210 | 0 | 59 | 13 | 1235 | 53 | 102 | 524 | 17 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 64 | 0 | 37 | 210 | 0 | 59 | 13 | 1235 | 53 | 102 | 524 | 17 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.95 | 0.95 | 0.92 | 0.93 | 1.00 | 0.92 | 0.92 | 0.97 | 0.95 | 0.92 | 0.97 | 0.95 |
| Lanes: | 1.00 | 0.00 | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 1.92 | 0.08 | 1.00 | 1.94 | 0.06 |
| Final Sat.: | 1800 | 0 | 1750 | 3550 | 0 | 1750 | 1750 | 3548 | 152 | 1750 | 3584 | 116 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.00 | 0.02 | 0.06 | 0.00 | 0.03 | 0.01 | 0.35 | 0.35 | 0.06 | 0.15 | 0.15 |
| Crit Moves: | **** | | | **** | | | | **** | | **** | | |
| Green Time: | 10.0 | 0.0 | 10.0 | 10.0 | 0.0 | 32.0 | 22.0 | 58.2 | 58.2 | 9.8 | 46.0 | 46.0 |
| Volume/Cap: | 0.36 | 0.00 | 0.21 | 0.59 | 0.00 | 0.11 | 0.03 | 0.60 | 0.60 | 0.60 | 0.32 | 0.32 |
| Uniform Del: | 42.0 | 0.0 | 41.4 | 43.0 | 0.0 | 23.9 | 30.6 | 13.4 | 13.4 | 43.2 | 17.1 | 17.1 |
| IncremntDel: | 1.2 | 0.0 | 0.6 | 2.7 | 0.0 | 0.1 | 0.0 | 0.5 | 0.5 | 5.7 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 43.2 | 0.0 | 42.0 | 45.7 | 0.0 | 24.0 | 30.7 | 13.8 | 13.8 | 49.0 | 17.2 | 17.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 43.2 | 0.0 | 42.0 | 45.7 | 0.0 | 24.0 | 30.7 | 13.8 | 13.8 | 49.0 | 17.2 | 17.2 |
| LOS by Move: | D | A | D | D | A | C | C | B | B | D | B | B |
| HCM2kAvgQ: | 2 | 0 | 1 | 4 | 0 | 1 | 0 | 13 | 13 | 3 | 5 | 5 |

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

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

Intersection #100: 1020 Kifer Rd Dwy & Kifer Rd

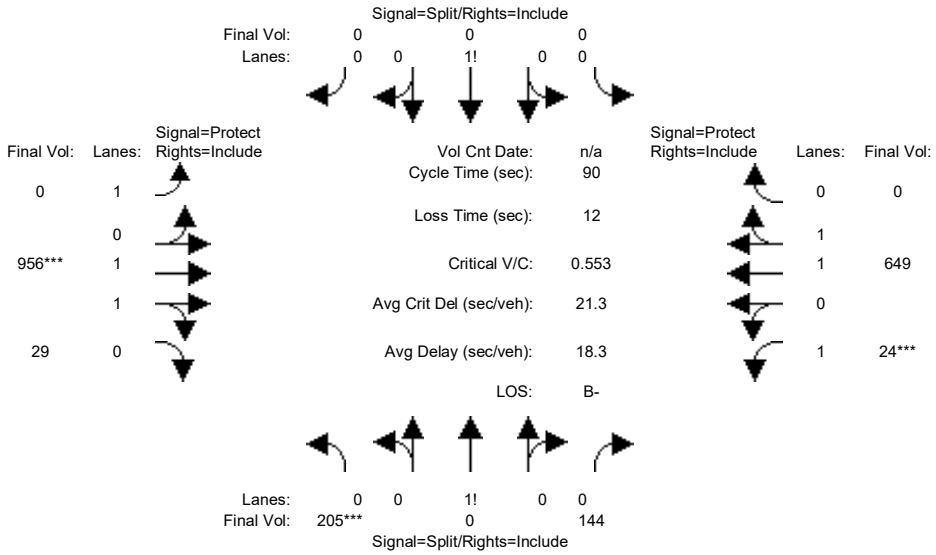



| Street Name: | 1020 Kifer Road Driveway | | | | | | Kifer Road | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 34 | 0 | 14 | 0 | 0 | 0 | 0 | 478 | 172 | 181 | 628 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 34 | 0 | 14 | 0 | 0 | 0 | 0 | 478 | 172 | 181 | 628 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 34 | 0 | 14 | 0 | 0 | 0 | 0 | 478 | 172 | 181 | 628 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 34 | 0 | 14 | 0 | 0 | 0 | 0 | 478 | 172 | 181 | 628 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 34 | 0 | 14 | 0 | 0 | 0 | 0 | 478 | 172 | 181 | 628 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 34 | 0 | 14 | 0 | 0 | 0 | 0 | 478 | 172 | 181 | 628 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.97 | 0.92 |
| Lanes: | 0.71 | 0.00 | 0.29 | 0.00 | 1.00 | 0.00 | 1.00 | 1.46 | 0.54 | 1.00 | 2.00 | 0.00 |
| Final Sat.: | 1240 | 0 | 510 | 0 | 1750 | 0 | 1750 | 2720 | 979 | 1750 | 3700 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.18 | 0.18 | 0.10 | 0.17 | 0.00 |
| Crit Moves: | **** | | | | | | | **** | | **** | | |
| Green Time: | 10.0 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42.8 | 42.8 | 25.2 | 68.0 | 0.0 |
| Volume/Cap: | 0.25 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.37 | 0.37 | 0.37 | 0.22 | 0.00 |
| Uniform Del: | 36.6 | 0.0 | 36.6 | 0.0 | 0.0 | 0.0 | 0.0 | 15.0 | 15.0 | 26.0 | 3.2 | 0.0 |
| IncremntDel: | 0.7 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.5 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 37.2 | 0.0 | 37.2 | 0.0 | 0.0 | 0.0 | 0.0 | 15.1 | 15.1 | 26.5 | 3.3 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 37.2 | 0.0 | 37.2 | 0.0 | 0.0 | 0.0 | 0.0 | 15.1 | 15.1 | 26.5 | 3.3 | 0.0 |
| LOS by Move: | D+ | A | D+ | A | A | A | A | B | B | C | A | A |
| HCM2kAvgQ: | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 6 | 6 | 4 | 3 | 0 |

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

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

Intersection #100: 1020 Kifer Rd Dwy & Kifer Rd

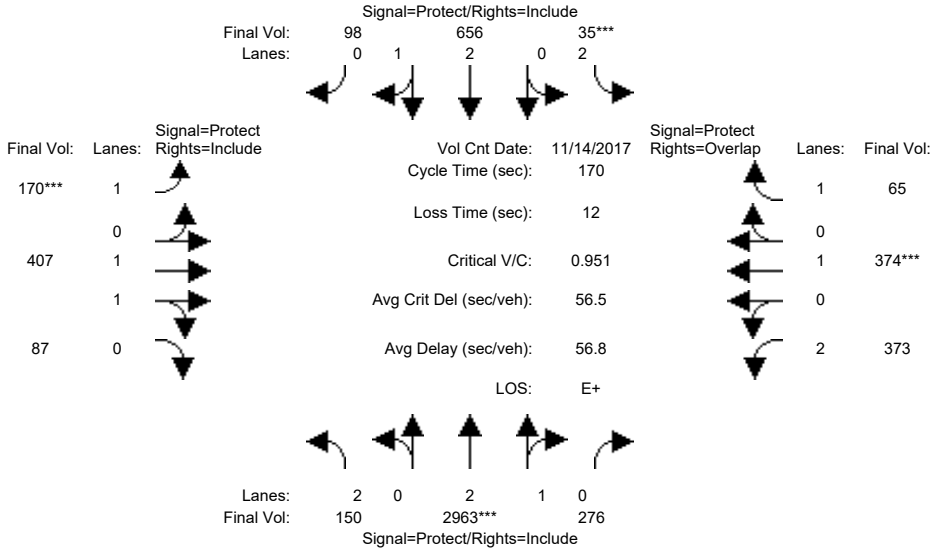



| Street Name: | 1020 Kifer Road Driveway | | | | | | Kifer Road | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 205 | 0 | 144 | 0 | 0 | 0 | 0 | 956 | 29 | 24 | 649 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 205 | 0 | 144 | 0 | 0 | 0 | 0 | 956 | 29 | 24 | 649 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 205 | 0 | 144 | 0 | 0 | 0 | 0 | 956 | 29 | 24 | 649 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 205 | 0 | 144 | 0 | 0 | 0 | 0 | 956 | 29 | 24 | 649 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 205 | 0 | 144 | 0 | 0 | 0 | 0 | 956 | 29 | 24 | 649 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 205 | 0 | 144 | 0 | 0 | 0 | 0 | 956 | 29 | 24 | 649 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.97 | 0.95 | 0.92 | 0.97 | 0.92 |
| Lanes: | 0.59 | 0.00 | 0.41 | 0.00 | 1.00 | 0.00 | 1.00 | 1.94 | 0.06 | 1.00 | 2.00 | 0.00 |
| Final Sat.: | 1028 | 0 | 722 | 0 | 1750 | 0 | 1750 | 3591 | 109 | 1750 | 3700 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.20 | 0.00 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27 | 0.27 | 0.01 | 0.18 | 0.00 |
| Crit Moves: | **** | | | | | | | **** | | **** | | |
| Green Time: | 30.4 | 0.0 | 30.4 | 0.0 | 0.0 | 0.0 | 0.0 | 40.6 | 40.6 | 7.0 | 47.6 | 0.0 |
| Volume/Cap: | 0.59 | 0.00 | 0.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.59 | 0.59 | 0.18 | 0.33 | 0.00 |
| Uniform Del: | 24.6 | 0.0 | 24.6 | 0.0 | 0.0 | 0.0 | 0.0 | 18.5 | 18.5 | 38.8 | 12.1 | 0.0 |
| IncremntDel: | 1.6 | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.6 | 0.6 | 0.1 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 26.2 | 0.0 | 26.2 | 0.0 | 0.0 | 0.0 | 0.0 | 19.0 | 19.0 | 39.4 | 12.2 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 26.2 | 0.0 | 26.2 | 0.0 | 0.0 | 0.0 | 0.0 | 19.0 | 19.0 | 39.4 | 12.2 | 0.0 |
| LOS by Move: | C | A | C | A | A | A | A | B- | B- | D | B | A |
| HCM2kAvgQ: | 9 | 0 | 9 | 0 | 0 | 0 | 0 | 10 | 10 | 1 | 5 | 0 |

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

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

Intersection #1402: Sunnyvale-Saratoga Rd / Remington Dr

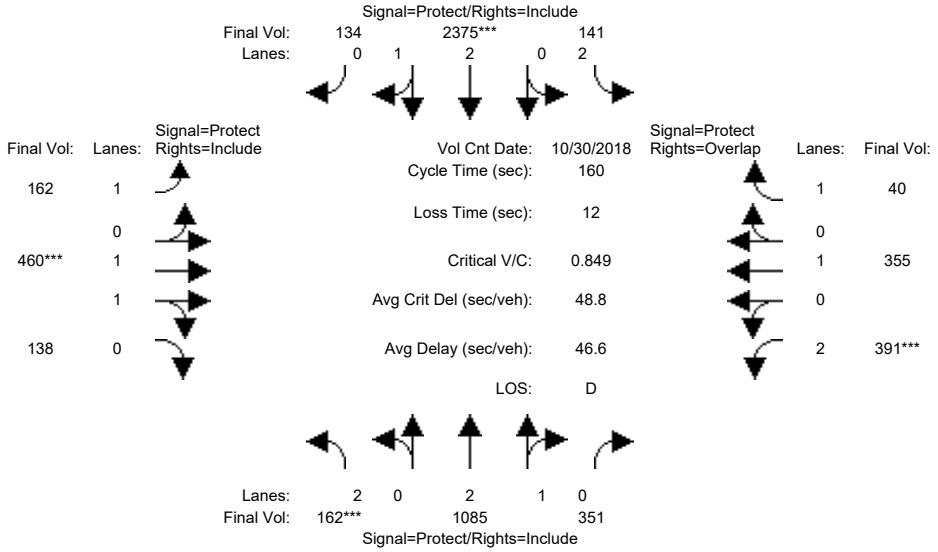



| Street Name: | Sunnyvale-Saratoga Road | | | | | | Remington Drive | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 150 | 2963 | 276 | 35 | 656 | 98 | 170 | 407 | 87 | 373 | 374 | 65 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 150 | 2963 | 276 | 35 | 656 | 98 | 170 | 407 | 87 | 373 | 374 | 65 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 150 | 2963 | 276 | 35 | 656 | 98 | 170 | 407 | 87 | 373 | 374 | 65 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 150 | 2963 | 276 | 35 | 656 | 98 | 170 | 407 | 87 | 373 | 374 | 65 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 150 | 2963 | 276 | 35 | 656 | 98 | 170 | 407 | 87 | 373 | 374 | 65 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 150 | 2963 | 276 | 35 | 656 | 98 | 170 | 407 | 87 | 373 | 374 | 65 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.73 | 0.27 | 2.00 | 2.60 | 0.40 | 1.00 | 1.64 | 0.36 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 5122 | 477 | 3150 | 4871 | 728 | 1750 | 3048 | 652 | 3150 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.58 | 0.58 | 0.01 | 0.13 | 0.13 | 0.10 | 0.13 | 0.13 | 0.12 | 0.20 | 0.04 |
| Crit Moves: | | **** | | | **** | | | **** | | | **** | |
| Green Time: | 28.0 | 100 | 100.1 | 7.0 | 79.1 | 79.1 | 16.8 | 27.0 | 27.0 | 23.9 | 34.1 | 41.1 |
| Volume/Cap: | 0.29 | 0.98 | 0.98 | 0.27 | 0.29 | 0.29 | 0.98 | 0.84 | 0.84 | 0.84 | 0.98 | 0.15 |
| Uniform Del: | 62.3 | 34.1 | 34.1 | 79.0 | 28.1 | 28.1 | 76.4 | 69.4 | 69.4 | 71.2 | 67.7 | 50.8 |
| IncremntDel: | 0.3 | 11.8 | 11.8 | 1.1 | 0.1 | 0.1 | 62.9 | 10.6 | 10.6 | 13.6 | 41.2 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 62.6 | 45.9 | 45.9 | 80.1 | 28.1 | 28.1 | 139.4 | 80.1 | 80.1 | 84.8 | 109 | 50.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 62.6 | 45.9 | 45.9 | 80.1 | 28.1 | 28.1 | 139.4 | 80.1 | 80.1 | 84.8 | 109 | 50.9 |
| LOS by Move: | E | D | D | F | C | C | F | F | F | F | F | D |
| HCM2kAvgQ: | 4 | 62 | 62 | 1 | 8 | 8 | 13 | 15 | 15 | 12 | 21 | 3 |

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

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

Intersection #1402: Sunnyvale-Saratoga Rd / Remington Dr



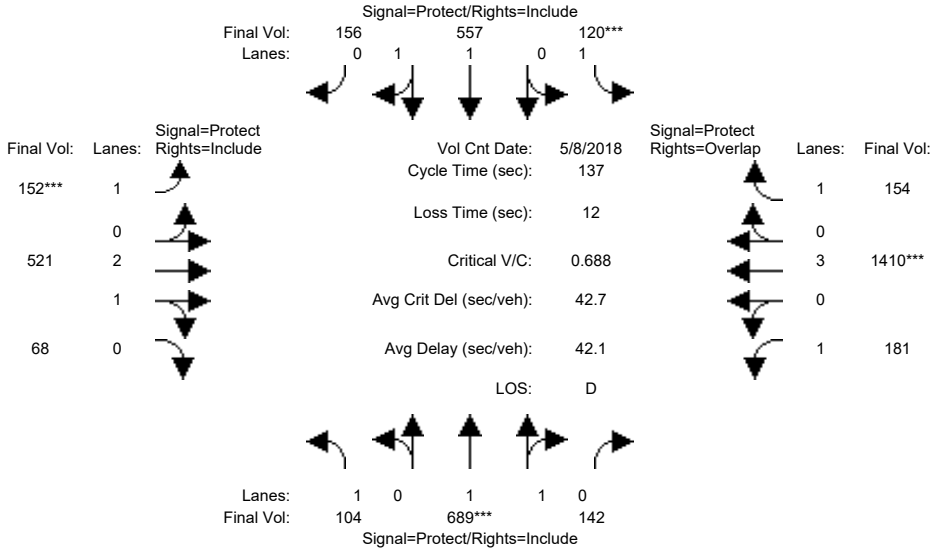

Street Name: Sunnyvale-Saratoga Road Remington Drive

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 30 Oct 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 162 | 1085 | 351 | 141 | 2375 | 134 | 162 | 460 | 138 | 391 | 355 | 40 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 162 | 1085 | 351 | 141 | 2375 | 134 | 162 | 460 | 138 | 391 | 355 | 40 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 162 | 1085 | 351 | 141 | 2375 | 134 | 162 | 460 | 138 | 391 | 355 | 40 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 162 | 1085 | 351 | 141 | 2375 | 134 | 162 | 460 | 138 | 391 | 355 | 40 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 162 | 1085 | 351 | 141 | 2375 | 134 | 162 | 460 | 138 | 391 | 355 | 40 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 162 | 1085 | 351 | 141 | 2375 | 134 | 162 | 460 | 138 | 391 | 355 | 40 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.24 | 0.76 | 2.00 | 2.83 | 0.17 | 1.00 | 1.53 | 0.47 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 4229 | 1368 | 3150 | 5301 | 299 | 1750 | 2846 | 854 | 3150 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.26 | 0.26 | 0.04 | 0.45 | 0.45 | 0.09 | 0.16 | 0.16 | 0.12 | 0.19 | 0.02 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 9.7 | 80.2 | 80.2 | 14.0 | 84.4 | 84.4 | 17.8 | 30.5 | 30.5 | 23.4 | 36.0 | 50.0 |
| Volume/Cap: | 0.85 | 0.51 | 0.51 | 0.51 | 0.85 | 0.85 | 0.83 | 0.85 | 0.85 | 0.85 | 0.83 | 0.07 |
| Uniform Del: | 74.4 | 26.8 | 26.8 | 69.7 | 32.3 | 32.3 | 69.6 | 62.5 | 62.5 | 66.6 | 59.1 | 38.7 |
| IncremntDel: | 28.4 | 0.2 | 0.2 | 1.6 | 2.5 | 2.5 | 24.8 | 9.5 | 9.5 | 13.8 | 12.8 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 102.8 | 27.0 | 27.0 | 71.4 | 34.8 | 34.8 | 94.4 | 72.1 | 72.1 | 80.4 | 71.9 | 38.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 102.8 | 27.0 | 27.0 | 71.4 | 34.8 | 34.8 | 94.4 | 72.1 | 72.1 | 80.4 | 71.9 | 38.8 |
| LOS by Move: | F | C | C | E | C- | C- | F | E | E | F | E | D+ |
| HCM2kAvgQ: | 5 | 16 | 16 | 4 | 37 | 37 | 11 | 17 | 17 | 12 | 17 | 1 |

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

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

Intersection #1404: El Camino Real (SR 82) / Fair Oaks Ave

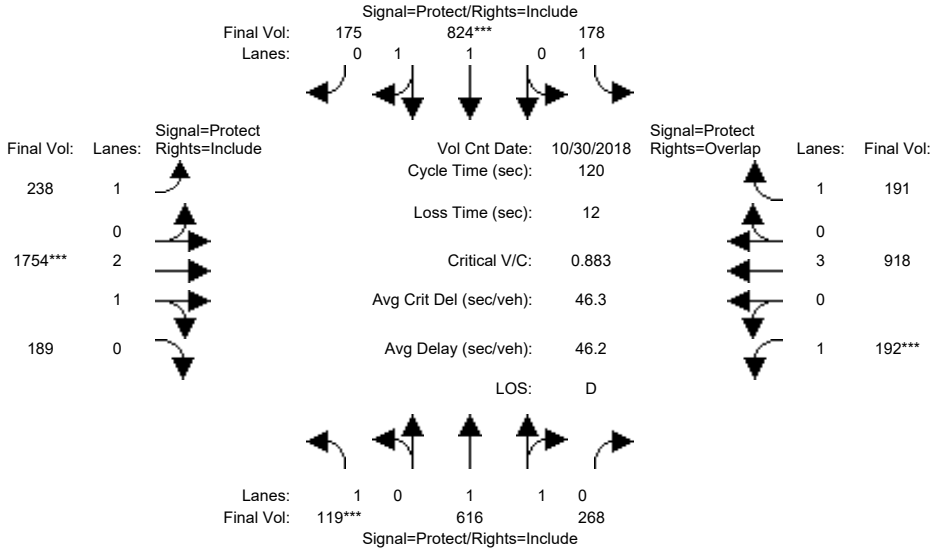



| Street Name: | Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:45 AM - 9:45 AM | | | | | | | | | | | | |
| Base Vol: | 104 | 689 | 142 | 120 | 557 | 156 | 152 | 521 | 68 | 181 | 1410 | 154 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 104 | 689 | 142 | 120 | 557 | 156 | 152 | 521 | 68 | 181 | 1410 | 154 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 104 | 689 | 142 | 120 | 557 | 156 | 152 | 521 | 68 | 181 | 1410 | 154 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 104 | 689 | 142 | 120 | 557 | 156 | 152 | 521 | 68 | 181 | 1410 | 154 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 104 | 689 | 142 | 120 | 557 | 156 | 152 | 521 | 68 | 181 | 1410 | 154 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 104 | 689 | 142 | 120 | 557 | 156 | 152 | 521 | 68 | 181 | 1410 | 154 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.65 | 0.35 | 1.00 | 1.55 | 0.45 | 1.00 | 2.64 | 0.36 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 3067 | 632 | 1750 | 2890 | 809 | 1750 | 4953 | 646 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.22 | 0.22 | 0.07 | 0.19 | 0.19 | 0.09 | 0.11 | 0.11 | 0.10 | 0.25 | 0.09 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 13.8 | 44.8 | 44.8 | 13.7 | 44.6 | 44.6 | 17.3 | 33.6 | 33.6 | 33.0 | 49.3 | 62.9 |
| Volume/Cap: | 0.59 | 0.69 | 0.69 | 0.69 | 0.59 | 0.59 | 0.69 | 0.43 | 0.43 | 0.43 | 0.69 | 0.19 |
| Uniform Del: | 58.9 | 40.1 | 40.1 | 59.6 | 38.6 | 38.6 | 57.3 | 43.6 | 43.6 | 44.0 | 37.3 | 21.9 |
| IncremntDel: | 5.3 | 1.7 | 1.7 | 11.0 | 0.8 | 0.8 | 8.8 | 0.2 | 0.2 | 0.7 | 1.0 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 64.2 | 41.7 | 41.7 | 70.6 | 39.3 | 39.3 | 66.0 | 43.8 | 43.8 | 44.7 | 38.3 | 22.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 64.2 | 41.7 | 41.7 | 70.6 | 39.3 | 39.3 | 66.0 | 43.8 | 43.8 | 44.7 | 38.3 | 22.1 |
| LOS by Move: | E | D | D | E | D | D | E | D | D | D | D+ | C+ |
| HCM2kAvgQ: | 4 | 14 | 14 | 5 | 13 | 13 | 7 | 7 | 7 | 7 | 16 | 4 |

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

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

Intersection #1404: El Camino Real (SR 82) / Fair Oaks Ave

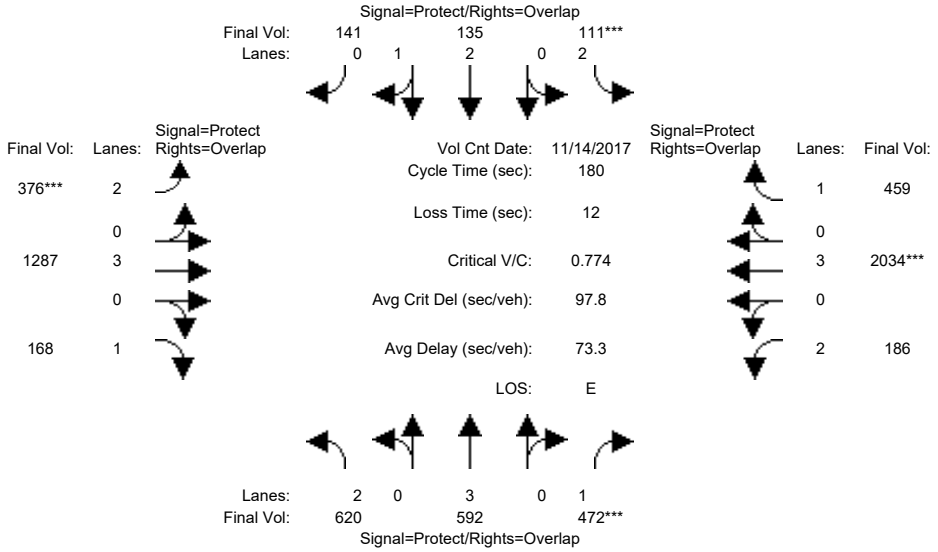



| Street Name: | Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 30 Oct 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 119 | 616 | 268 | 178 | 824 | 175 | 238 | 1754 | 189 | 192 | 918 | 191 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 119 | 616 | 268 | 178 | 824 | 175 | 238 | 1754 | 189 | 192 | 918 | 191 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 119 | 616 | 268 | 178 | 824 | 175 | 238 | 1754 | 189 | 192 | 918 | 191 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 119 | 616 | 268 | 178 | 824 | 175 | 238 | 1754 | 189 | 192 | 918 | 191 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 119 | 616 | 268 | 178 | 824 | 175 | 238 | 1754 | 189 | 192 | 918 | 191 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 119 | 616 | 268 | 178 | 824 | 175 | 238 | 1754 | 189 | 192 | 918 | 191 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.38 | 0.62 | 1.00 | 1.64 | 0.36 | 1.00 | 2.70 | 0.30 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 2577 | 1121 | 1750 | 3051 | 648 | 1750 | 5055 | 545 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.24 | 0.24 | 0.10 | 0.27 | 0.27 | 0.14 | 0.35 | 0.35 | 0.11 | 0.16 | 0.11 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 9.2 | 32.2 | 32.2 | 13.7 | 36.7 | 36.7 | 28.4 | 47.2 | 47.2 | 14.9 | 33.6 | 47.4 |
| Volume/Cap: | 0.88 | 0.89 | 0.89 | 0.89 | 0.88 | 0.88 | 0.57 | 0.88 | 0.88 | 0.88 | 0.57 | 0.28 |
| Uniform Del: | 54.8 | 42.2 | 42.2 | 52.4 | 39.6 | 39.6 | 40.5 | 33.9 | 33.9 | 51.7 | 37.0 | 24.7 |
| IncremntDel: | 44.5 | 10.0 | 10.0 | 35.1 | 8.4 | 8.4 | 2.0 | 4.6 | 4.6 | 31.7 | 0.5 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 99.3 | 52.2 | 52.2 | 87.5 | 48.0 | 48.0 | 42.4 | 38.5 | 38.5 | 83.4 | 37.5 | 24.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 99.3 | 52.2 | 52.2 | 87.5 | 48.0 | 48.0 | 42.4 | 38.5 | 38.5 | 83.4 | 37.5 | 24.9 |
| LOS by Move: | F | D- | D- | F | D | D | D | D+ | D+ | F | D+ | C |
| HCM2kAvgQ: | 5 | 17 | 17 | 8 | 19 | 19 | 8 | 24 | 24 | 9 | 9 | 5 |

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

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

Intersection #5320: CENTRAL EXPWY/MARY AVE

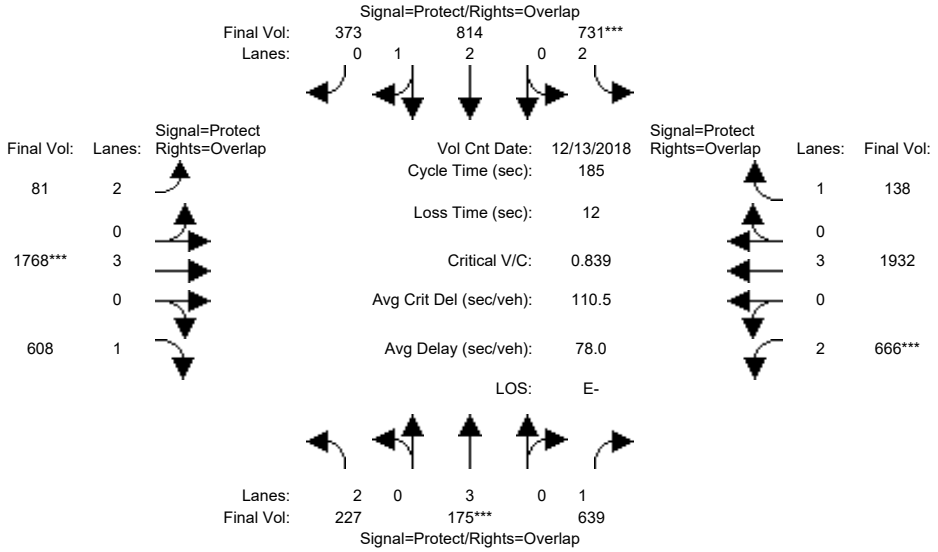



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 6.1 | 6.0 | 6.0 | 6.2 | 5.9 | 5.9 | 6.2 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 14 Nov 2017 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 620 | 592 | 472 | 111 | 135 | 141 | 376 | 1287 | 168 | 186 | 2034 | 459 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 620 | 592 | 472 | 111 | 135 | 141 | 376 | 1287 | 168 | 186 | 2034 | 459 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 620 | 592 | 472 | 111 | 135 | 141 | 376 | 1287 | 168 | 186 | 2034 | 459 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 620 | 592 | 472 | 111 | 135 | 141 | 376 | 1287 | 168 | 186 | 2034 | 459 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 620 | 592 | 472 | 111 | 135 | 141 | 376 | 1287 | 168 | 186 | 2034 | 459 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 620 | 592 | 472 | 111 | 135 | 141 | 376 | 1287 | 168 | 186 | 2034 | 459 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.20 | 0.10 | 0.27 | 0.04 | 0.04 | 0.08 | 0.12 | 0.23 | 0.10 | 0.06 | 0.36 | 0.26 |
| Crit Moves: | | | **** | **** | | | **** | | | | **** | |
| Green Time: | 38.9 | 58.0 | 76.7 | 11.8 | 32.1 | 44.9 | 12.8 | 66.8 | 105.7 | 18.7 | 72.8 | 84.6 |
| Volume/Cap: | 0.91 | 0.32 | 0.63 | 0.54 | 0.20 | 0.32 | 1.68 | 0.61 | 0.16 | 0.57 | 0.88 | 0.56 |
| Uniform Del: | 68.9 | 46.1 | 40.6 | 81.4 | 63.0 | 55.1 | 83.6 | 46.0 | 17.0 | 76.8 | 49.6 | 34.3 |
| IncremntDel: | 16.4 | 0.1 | 1.8 | 2.8 | 0.1 | 0.2 | 324.2 | 0.5 | 0.1 | 2.4 | 4.4 | 0.9 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 85.3 | 46.2 | 42.4 | 84.2 | 63.1 | 55.4 | 407.8 | 46.5 | 17.0 | 79.2 | 54.0 | 35.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 85.3 | 46.2 | 42.4 | 84.2 | 63.1 | 55.4 | 407.8 | 46.5 | 17.0 | 79.2 | 54.0 | 35.1 |
| LOS by Move: | F | D | D | F | E | E+ | F | D | B | E- | D- | D+ |
| HCM2kAvgQ: | 22 | 8 | 22 | 4 | 3 | 7 | 25 | 19 | 4 | 7 | 37 | 19 |

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

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

Intersection #5320: CENTRAL EXPWY/MARY AVE

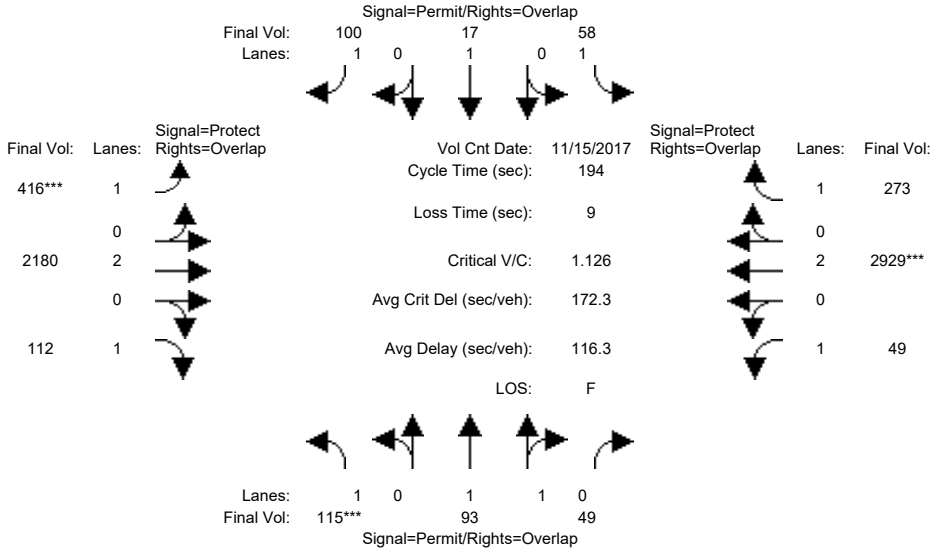



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 16 | 37 | 37 | 29 | 50 | 50 | 9 | 52 | 52 | 43 | 86 | 86 |
| Y+R: | 6.1 | 6.0 | 6.0 | 6.2 | 5.9 | 5.9 | 6.2 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 13 Dec 2018 << 4:45 - 5:45 PM | | | | | | | | | | | | |
| Base Vol: | 227 | 175 | 639 | 731 | 814 | 373 | 81 | 1768 | 608 | 666 | 1932 | 138 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 227 | 175 | 639 | 731 | 814 | 373 | 81 | 1768 | 608 | 666 | 1932 | 138 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 227 | 175 | 639 | 731 | 814 | 373 | 81 | 1768 | 608 | 666 | 1932 | 138 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 227 | 175 | 639 | 731 | 814 | 373 | 81 | 1768 | 608 | 666 | 1932 | 138 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 227 | 175 | 639 | 731 | 814 | 373 | 81 | 1768 | 608 | 666 | 1932 | 138 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 227 | 175 | 639 | 731 | 814 | 373 | 81 | 1768 | 608 | 666 | 1932 | 138 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 2.02 | 0.98 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 3838 | 1759 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.03 | 0.37 | 0.23 | 0.21 | 0.21 | 0.03 | 0.31 | 0.35 | 0.21 | 0.34 | 0.08 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 18.6 | 37.0 | 80.0 | 39.8 | 58.2 | 67.3 | 9.1 | 53.2 | 71.8 | 43.0 | 87.1 | 126.9 |
| Volume/Cap: | 0.72 | 0.15 | 0.84 | 1.08 | 0.67 | 0.58 | 0.52 | 1.08 | 0.89 | 0.91 | 0.72 | 0.11 |
| Uniform Del: | 80.6 | 61.1 | 46.9 | 72.6 | 55.2 | 47.5 | 85.8 | 65.9 | 53.1 | 69.1 | 39.2 | 9.9 |
| IncremntDel: | 7.6 | 0.1 | 8.6 | 57.7 | 1.0 | 0.4 | 3.2 | 46.8 | 14.4 | 15.4 | 1.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.06 | 1.13 | 1.02 | 1.21 | 1.61 |
| Delay/Veh: | 88.2 | 61.1 | 55.6 | 130.3 | 56.2 | 48.0 | 89.0 | 116 | 74.2 | 86.1 | 48.2 | 16.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 88.2 | 61.1 | 55.6 | 130.3 | 56.2 | 48.0 | 89.0 | 116 | 74.2 | 86.1 | 48.2 | 16.0 |
| LOS by Move: | F | E | E+ | F | E+ | D | F | F | E | F | D | B |
| HCM2kAvgQ: | 8 | 3 | 36 | 32 | 20 | 18 | 3 | 42 | 38 | 25 | 32 | 5 |

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

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

Intersection #5325: CENTRAL EXPWY/CORVIN DR-OAKMEAD PKWY

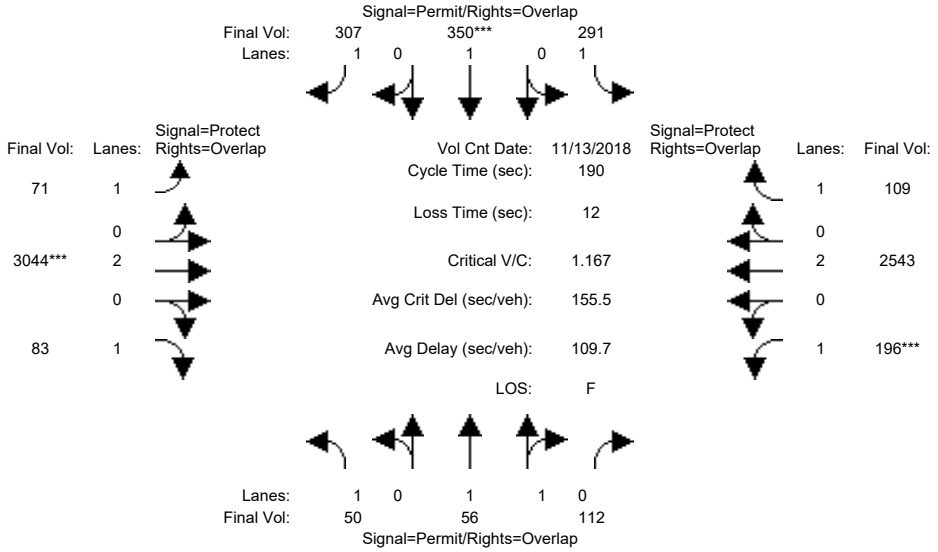



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 23 | 23 | 23 | 23 | 23 | 23 | 34 | 137 | 137 | 14 | 117 | 117 |
| Y+R: | 6.3 | 6.3 | 6.3 | 6.1 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2180 | 112 | 49 | 2929 | 273 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2180 | 112 | 49 | 2929 | 273 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2180 | 112 | 49 | 2929 | 273 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2180 | 112 | 49 | 2929 | 273 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2180 | 112 | 49 | 2929 | 273 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2180 | 112 | 49 | 2929 | 273 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.29 | 0.71 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 2422 | 1276 | 1750 | 1900 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.04 | 0.04 | 0.03 | 0.01 | 0.06 | 0.24 | 0.57 | 0.06 | 0.03 | 0.77 | 0.16 |
| Crit Moves: | **** | | | | | | **** | | | | **** | |
| Green Time: | 23.7 | 23.7 | 37.9 | 23.9 | 23.9 | 58.4 | 34.5 | 138 | 137.8 | 14.2 | 118 | 117.8 |
| Volume/Cap: | 0.54 | 0.31 | 0.20 | 0.27 | 0.07 | 0.19 | 1.34 | 0.81 | 0.09 | 0.38 | 1.27 | 0.26 |
| Uniform Del: | 80.0 | 77.7 | 65.3 | 77.1 | 75.2 | 50.3 | 79.8 | 19.1 | 8.7 | 85.7 | 38.1 | 17.7 |
| IncremntDel: | 2.7 | 0.4 | 0.1 | 0.7 | 0.1 | 0.2 | 171.9 | 1.9 | 0.0 | 1.9 | 125 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.14 | 2.63 | 2.63 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 82.7 | 78.1 | 65.4 | 77.8 | 75.4 | 50.4 | 263.1 | 52.2 | 22.9 | 87.6 | 163 | 17.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 82.7 | 78.1 | 65.4 | 77.8 | 75.4 | 50.4 | 263.1 | 52.2 | 22.9 | 87.6 | 163 | 17.9 |
| LOS by Move: | F | E- | E | E- | E- | D | F | D- | C+ | F | F | B |
| HCM2kAvgQ: | 7 | 4 | 3 | 3 | 1 | 5 | 42 | 59 | 5 | 3 | 119 | 7 |

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

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

Intersection #5325: CENTRAL EXPWY/CORVIN DR-OAKMEAD PKWY

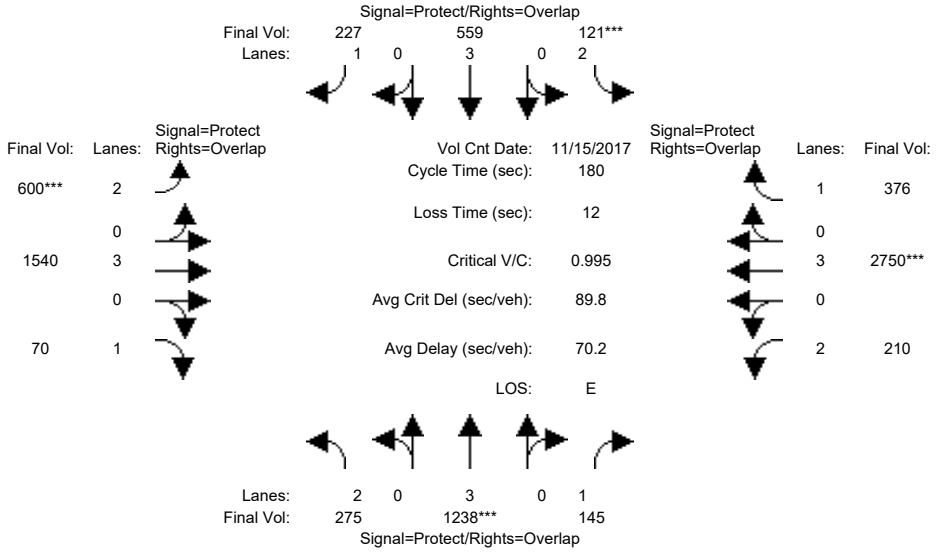



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 39 | 39 | 39 | 39 | 39 | 39 | 13 | 133 | 133 | 18 | 138 | 138 |
| Y+R: | 5.7 | 5.7 | 5.7 | 5.5 | 5.5 | 5.5 | 5.0 | 6.2 | 6.2 | 5.1 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 13 Nov 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3044 | 83 | 196 | 2543 | 109 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3044 | 83 | 196 | 2543 | 109 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3044 | 83 | 196 | 2543 | 109 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3044 | 83 | 196 | 2543 | 109 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3044 | 83 | 196 | 2543 | 109 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3044 | 83 | 196 | 2543 | 109 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 1900 | 1750 | 1750 | 1900 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.03 | 0.06 | 0.17 | 0.18 | 0.18 | 0.04 | 0.80 | 0.05 | 0.11 | 0.67 | 0.06 |
| Crit Moves: | | | | | **** | | | **** | | **** | | |
| Green Time: | 36.7 | 36.7 | 53.6 | 36.7 | 36.7 | 48.9 | 12.2 | 125 | 125.1 | 16.9 | 130 | 129.8 |
| Volume/Cap: | 0.15 | 0.15 | 0.23 | 0.86 | 0.95 | 0.68 | 0.63 | 1.22 | 0.07 | 1.26 | 0.98 | 0.09 |
| Uniform Del: | 67.7 | 67.8 | 55.6 | 78.9 | 80.6 | 67.5 | 92.2 | 34.5 | 12.4 | 92.0 | 30.6 | 10.8 |
| IncremntDel: | 0.2 | 0.1 | 0.2 | 19.6 | 35.0 | 4.2 | 11.0 | 101 | 0.0 | 157.1 | 13.2 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.53 | 1.53 | 1.00 | 1.60 | 1.60 |
| Delay/Veh: | 67.9 | 67.8 | 55.8 | 98.5 | 116 | 71.8 | 103.1 | 154 | 18.9 | 249.1 | 62.2 | 17.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 67.9 | 67.8 | 55.8 | 98.5 | 116 | 71.8 | 103.1 | 154 | 18.9 | 249.1 | 62.2 | 17.3 |
| LOS by Move: | E | E | E+ | F | F | E | F | F | B- | F | E | B |
| HCM2kAvgQ: | 3 | 3 | 5 | 20 | 23 | 18 | 6 | 124 | 3 | 19 | 81 | 4 |

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

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

Intersection #5329: CENTRAL EXPWY/BOWERS AVE

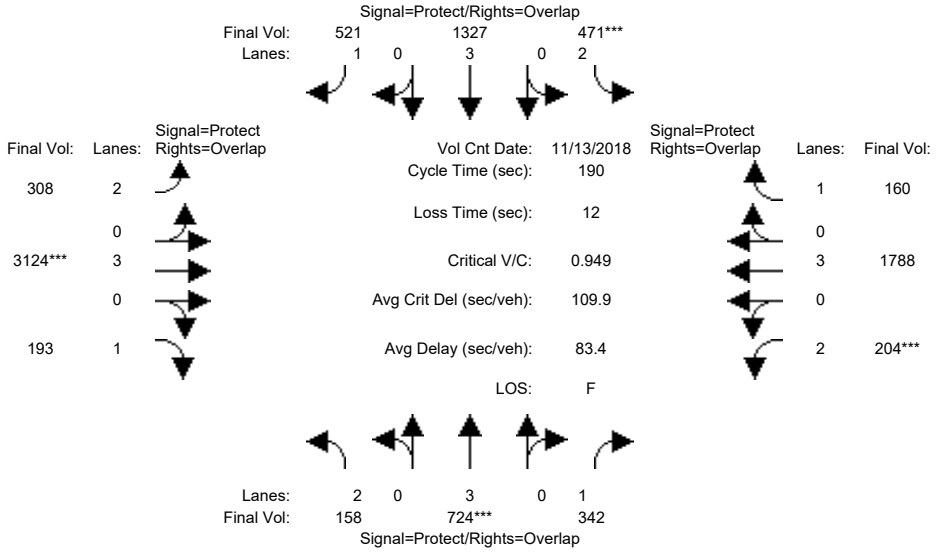



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 14 | 10 | 10 | 14 | 10 | 10 | 14 | 78 | 78 | 14 | 85 | 85 |
| Y+R: | 7.3 | 6.3 | 6.3 | 7.3 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1540 | 70 | 210 | 2750 | 376 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1540 | 70 | 210 | 2750 | 376 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1540 | 70 | 210 | 2750 | 376 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1540 | 70 | 210 | 2750 | 376 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1540 | 70 | 210 | 2750 | 376 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1540 | 70 | 210 | 2750 | 376 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.22 | 0.08 | 0.04 | 0.10 | 0.13 | 0.19 | 0.27 | 0.04 | 0.07 | 0.48 | 0.21 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 19.7 | 40.2 | 56.6 | 13.9 | 34.6 | 60.4 | 25.8 | 97.4 | 117.1 | 16.4 | 88.4 | 102.3 |
| Volume/Cap: | 0.80 | 0.97 | 0.26 | 0.50 | 0.51 | 0.39 | 1.33 | 0.50 | 0.06 | 0.73 | 0.98 | 0.38 |
| Uniform Del: | 78.2 | 69.4 | 46.1 | 79.7 | 65.1 | 45.7 | 77.1 | 26.0 | 11.5 | 79.7 | 45.0 | 21.4 |
| IncremntDel: | 12.3 | 18.9 | 0.3 | 1.6 | 0.4 | 0.4 | 162.8 | 0.1 | 0.0 | 9.3 | 13.1 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 90.5 | 88.3 | 46.4 | 81.3 | 65.5 | 46.1 | 239.9 | 26.1 | 11.5 | 88.9 | 58.2 | 21.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 90.5 | 88.3 | 46.4 | 81.3 | 65.5 | 46.1 | 239.9 | 26.1 | 11.5 | 88.9 | 58.2 | 21.6 |
| LOS by Move: | F | F | D | F | E | D | F | C | B+ | F | E+ | C+ |
| HCM2kAvgQ: | 9 | 23 | 6 | 4 | 9 | 10 | 30 | 17 | 1 | 8 | 55 | 12 |

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

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

Intersection #5329: CENTRAL EXPWY/BOWERS AVE

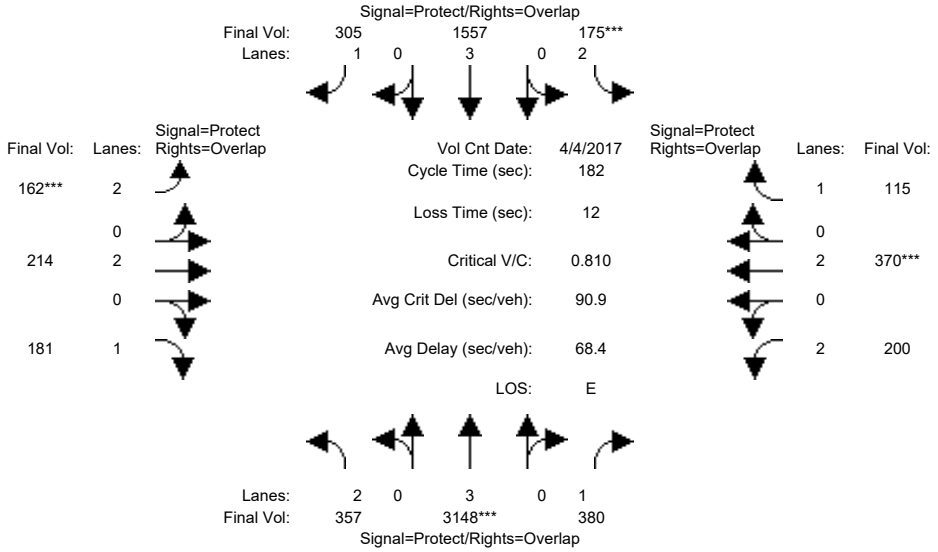



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 15 | 39 | 39 | 16 | 40 | 40 | 16 | 96 | 96 | 14 | 95 | 95 |
| Y+R: | 7.3 | 6.3 | 6.3 | 7.3 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 13 Nov 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3124 | 193 | 204 | 1788 | 160 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3124 | 193 | 204 | 1788 | 160 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3124 | 193 | 204 | 1788 | 160 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3124 | 193 | 204 | 1788 | 160 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3124 | 193 | 204 | 1788 | 160 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3124 | 193 | 204 | 1788 | 160 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.13 | 0.20 | 0.15 | 0.23 | 0.30 | 0.10 | 0.55 | 0.11 | 0.06 | 0.31 | 0.09 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 16.7 | 39.0 | 53.0 | 26.8 | 49.1 | 66.3 | 17.2 | 98.2 | 114.9 | 14.0 | 95.0 | 121.8 |
| Volume/Cap: | 0.57 | 0.62 | 0.70 | 1.06 | 0.90 | 0.85 | 1.08 | 1.06 | 0.18 | 0.88 | 0.63 | 0.14 |
| Uniform Del: | 83.2 | 68.7 | 61.4 | 81.6 | 68.1 | 57.3 | 86.4 | 45.9 | 16.7 | 87.2 | 34.6 | 13.5 |
| IncremntDel: | 2.9 | 1.0 | 4.5 | 59.6 | 7.9 | 11.2 | 76.1 | 35.4 | 0.1 | 29.5 | 0.4 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.07 | 1.71 | 2.02 | 1.00 | 0.77 | 0.47 |
| Delay/Veh: | 86.1 | 69.8 | 65.9 | 141.2 | 76.0 | 68.5 | 168.2 | 114 | 33.8 | 116.6 | 27.0 | 6.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 86.1 | 69.8 | 65.9 | 141.2 | 76.0 | 68.5 | 168.2 | 114 | 33.8 | 116.6 | 27.0 | 6.3 |
| LOS by Move: | F | E | E | F | E- | E | F | F | C- | F | C | A |
| HCM2kAvgQ: | 5 | 12 | 19 | 20 | 26 | 31 | 12 | 64 | 9 | 9 | 20 | 2 |

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

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

Intersection #5611: LAWRENCE EXPWY/ARQUES AVE

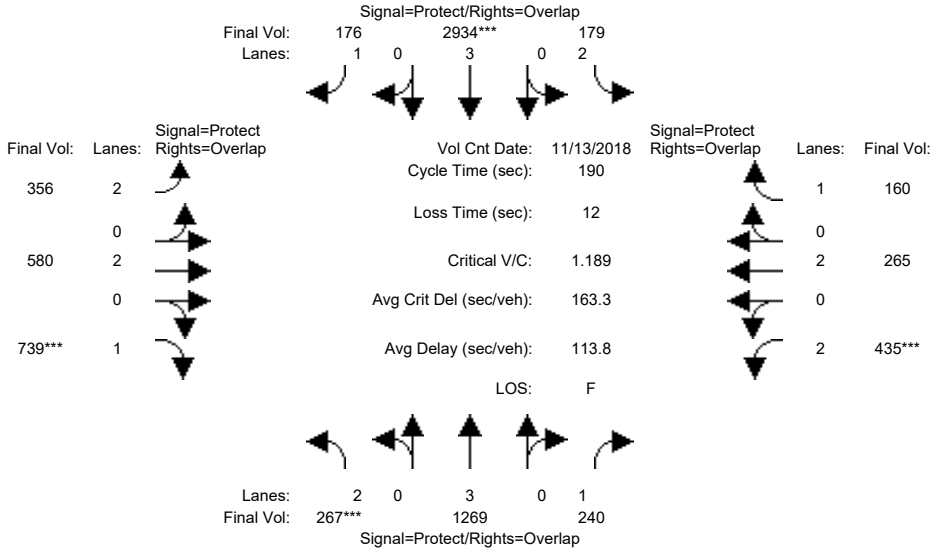



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 23 | 94 | 94 | 17 | 88 | 88 | 16 | 32 | 32 | 15 | 31 | 31 |
| Y+R: | 6.3 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.9 | 5.7 | 5.7 | 5.9 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 4 Apr 2017 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 357 | 3618 | 380 | 175 | 1790 | 305 | 162 | 214 | 181 | 200 | 370 | 115 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 357 | 3618 | 380 | 175 | 1790 | 305 | 162 | 214 | 181 | 200 | 370 | 115 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 357 | 3618 | 380 | 175 | 1790 | 305 | 162 | 214 | 181 | 200 | 370 | 115 |
| User Adj: | 1.00 | 0.87 | 1.00 | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 357 | 3148 | 380 | 175 | 1557 | 305 | 162 | 214 | 181 | 200 | 370 | 115 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 357 | 3148 | 380 | 175 | 1557 | 305 | 162 | 214 | 181 | 200 | 370 | 115 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 357 | 3148 | 380 | 175 | 1557 | 305 | 162 | 214 | 181 | 200 | 370 | 115 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.84 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1601 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.55 | 0.22 | 0.06 | 0.27 | 0.17 | 0.05 | 0.06 | 0.11 | 0.06 | 0.10 | 0.07 |
| Crit Moves: | | **** | | | **** | | | **** | | | **** | |
| Green Time: | 23.4 | 94.0 | 109.0 | 17.1 | 87.4 | 103.0 | 15.6 | 31.9 | 55.3 | 15.0 | 31.3 | 48.4 |
| Volume/Cap: | 0.88 | 1.07 | 0.36 | 0.59 | 0.57 | 0.31 | 0.60 | 0.32 | 0.37 | 0.77 | 0.57 | 0.25 |
| Uniform Del: | 77.9 | 44.0 | 18.7 | 79.1 | 33.8 | 20.8 | 80.2 | 65.6 | 49.7 | 81.8 | 69.1 | 52.5 |
| IncremntDel: | 19.6 | 38.7 | 0.2 | 3.2 | 0.3 | 0.2 | 3.7 | 0.3 | 0.5 | 13.2 | 1.2 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.26 | 1.39 | 1.00 | 0.80 | 0.65 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 97.5 | 94.2 | 26.3 | 82.2 | 27.2 | 13.7 | 83.9 | 65.9 | 50.2 | 95.0 | 70.3 | 52.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 97.5 | 94.2 | 26.3 | 82.2 | 27.2 | 13.7 | 83.9 | 65.9 | 50.2 | 95.0 | 70.3 | 52.8 |
| LOS by Move: | F | F | C | F | C | B | F | E | D | F | E | D- |
| HCM2kAvgQ: | 14 | 69 | 15 | 5 | 16 | 6 | 5 | 5 | 8 | 7 | 9 | 5 |

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

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

Intersection #5611: LAWRENCE EXPWY/ARQUES AVE

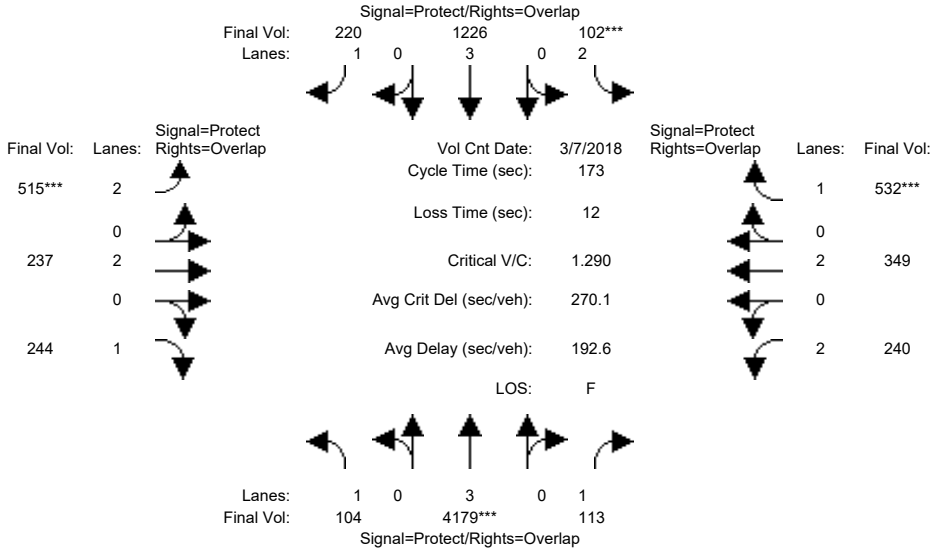



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 22 | 86 | 86 | 15 | 79 | 79 | 24 | 41 | 41 | 24 | 41 | 41 |
| Y+R: | 6.3 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.9 | 5.7 | 5.7 | 5.9 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 13 Nov 2018 << 4:30 - 5:30 PM | | | | | | | | | | | | |
| Base Vol: | 267 | 1894 | 240 | 179 | 3667 | 176 | 356 | 580 | 739 | 435 | 265 | 160 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 267 | 1894 | 240 | 179 | 3667 | 176 | 356 | 580 | 739 | 435 | 265 | 160 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 267 | 1894 | 240 | 179 | 3667 | 176 | 356 | 580 | 739 | 435 | 265 | 160 |
| User Adj: | 1.00 | 0.67 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 267 | 1269 | 240 | 179 | 2934 | 176 | 356 | 580 | 739 | 435 | 265 | 160 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 267 | 1269 | 240 | 179 | 2934 | 176 | 356 | 580 | 739 | 435 | 265 | 160 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 267 | 1269 | 240 | 179 | 2934 | 176 | 356 | 580 | 739 | 435 | 265 | 160 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.84 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1601 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.22 | 0.14 | 0.06 | 0.51 | 0.10 | 0.11 | 0.15 | 0.46 | 0.14 | 0.07 | 0.09 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green Time: | 22.0 | 86.0 | 110.0 | 15.0 | 79.0 | 107.4 | 28.4 | 53.0 | 75.0 | 24.0 | 48.6 | 63.6 |
| Volume/Cap: | 0.73 | 0.49 | 0.24 | 0.72 | 1.24 | 0.18 | 0.76 | 0.55 | 1.17 | 1.09 | 0.27 | 0.27 |
| Uniform Del: | 81.2 | 36.6 | 19.5 | 85.4 | 55.5 | 19.9 | 77.4 | 58.3 | 57.5 | 83.0 | 56.6 | 46.3 |
| IncremntDel: | 7.4 | 0.1 | 0.1 | 9.8 | 111 | 0.1 | 6.9 | 0.6 | 92.4 | 72.6 | 0.2 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.83 | 0.62 | 1.00 | 1.15 | 1.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 88.6 | 30.6 | 12.3 | 95.2 | 175 | 26.7 | 84.3 | 58.9 | 149.9 | 155.6 | 56.7 | 46.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 88.6 | 30.6 | 12.3 | 95.2 | 175 | 26.7 | 84.3 | 58.9 | 149.9 | 155.6 | 56.7 | 46.6 |
| LOS by Move: | F | C | B | F | F | C | F | E+ | F | F | E+ | D |
| HCM2kAvgQ: | 10 | 14 | 4 | 6 | 76 | 7 | 12 | 14 | 61 | 19 | 6 | 7 |

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

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

Intersection #5613: LAWRENCE EXPWY/REED AVE

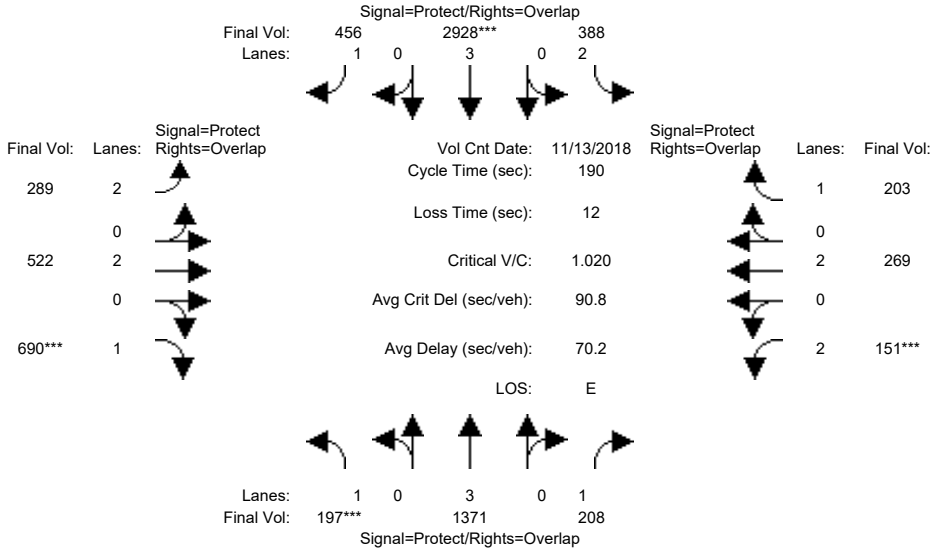



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 14 | 81 | 81 | 13 | 80 | 80 | 23 | 39 | 39 | 17 | 33 | 33 |
| Y+R: | 6.0 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.7 | 5.6 | 5.6 | 5.6 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 7 Mar 2018 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 104 | 4804 | 113 | 102 | 1409 | 220 | 515 | 237 | 244 | 240 | 349 | 532 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 104 | 4804 | 113 | 102 | 1409 | 220 | 515 | 237 | 244 | 240 | 349 | 532 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 104 | 4804 | 113 | 102 | 1409 | 220 | 515 | 237 | 244 | 240 | 349 | 532 |
| User Adj: | 1.00 | 0.87 | 1.00 | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 104 | 4179 | 113 | 102 | 1226 | 220 | 515 | 237 | 244 | 240 | 349 | 532 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 104 | 4179 | 113 | 102 | 1226 | 220 | 515 | 237 | 244 | 240 | 349 | 532 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 104 | 4179 | 113 | 102 | 1226 | 220 | 515 | 237 | 244 | 240 | 349 | 532 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.73 | 0.06 | 0.03 | 0.22 | 0.13 | 0.16 | 0.06 | 0.14 | 0.08 | 0.09 | 0.30 |
| Crit Moves: | | **** | | **** | | | **** | | | | | **** |
| Green Time: | 14.1 | 80.5 | 97.8 | 13.2 | 79.7 | 102.8 | 23.1 | 38.5 | 52.6 | 17.3 | 32.5 | 45.7 |
| Volume/Cap: | 0.73 | 1.58 | 0.11 | 0.42 | 0.47 | 0.21 | 1.22 | 0.28 | 0.46 | 0.76 | 0.49 | 1.15 |
| Uniform Del: | 77.6 | 46.3 | 17.5 | 76.3 | 32.1 | 16.3 | 75.0 | 55.8 | 48.7 | 75.8 | 62.8 | 63.6 |
| IncremntDel: | 17.3 | 261 | 0.1 | 1.2 | 0.1 | 0.1 | 120.6 | 0.2 | 0.6 | 10.4 | 0.5 | 90.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.82 | 0.65 | 1.00 | 0.82 | 0.59 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 94.9 | 299 | 11.4 | 77.5 | 26.5 | 9.7 | 195.6 | 56.0 | 49.3 | 86.3 | 63.3 | 153.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 94.9 | 299 | 11.4 | 77.5 | 26.5 | 9.7 | 195.6 | 56.0 | 49.3 | 86.3 | 63.3 | 153.8 |
| LOS by Move: | F | F | B+ | E- | C | A | F | E+ | D | F | E | F |
| HCM2kAvgQ: | 6 | 132 | 2 | 3 | 11 | 3 | 24 | 5 | 11 | 8 | 8 | 40 |

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

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

Intersection #5613: LAWRENCE EXPWY/REED AVE

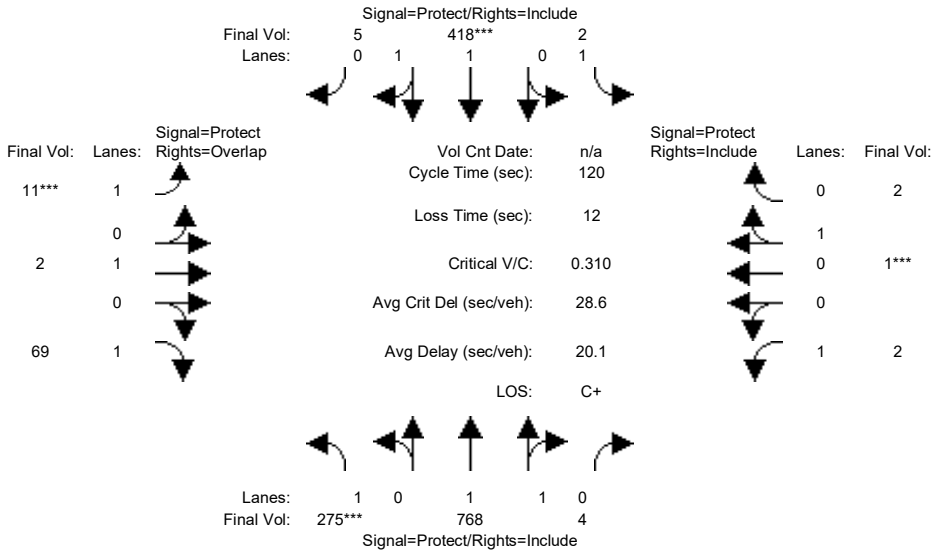



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 17 | 90 | 90 | 27 | 100 | 100 | 15 | 35 | 35 | 14 | 34 | 34 |
| Y+R: | 6.0 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.7 | 5.6 | 5.6 | 5.6 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 13 Nov 2018 << 4:45 - 5:45 PM | | | | | | | | | | | | |
| Base Vol: | 197 | 1693 | 208 | 388 | 4067 | 456 | 289 | 522 | 690 | 151 | 269 | 203 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 197 | 1693 | 208 | 388 | 4067 | 456 | 289 | 522 | 690 | 151 | 269 | 203 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 197 | 1693 | 208 | 388 | 4067 | 456 | 289 | 522 | 690 | 151 | 269 | 203 |
| User Adj: | 1.00 | 0.81 | 1.00 | 1.00 | 0.72 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 197 | 1371 | 208 | 388 | 2928 | 456 | 289 | 522 | 690 | 151 | 269 | 203 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 197 | 1371 | 208 | 388 | 2928 | 456 | 289 | 522 | 690 | 151 | 269 | 203 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 197 | 1371 | 208 | 388 | 2928 | 456 | 289 | 522 | 690 | 151 | 269 | 203 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.24 | 0.12 | 0.12 | 0.51 | 0.26 | 0.09 | 0.14 | 0.39 | 0.05 | 0.07 | 0.12 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green Time: | 18.3 | 91.0 | 105.0 | 27.3 | 100 | 120.2 | 20.2 | 45.7 | 64.0 | 14.0 | 39.5 | 66.8 |
| Volume/Cap: | 1.17 | 0.50 | 0.22 | 0.86 | 0.98 | 0.41 | 0.86 | 0.57 | 1.17 | 0.65 | 0.34 | 0.33 |
| Uniform Del: | 85.9 | 34.0 | 21.6 | 79.5 | 43.8 | 17.3 | 83.5 | 63.5 | 63.0 | 85.6 | 64.2 | 45.2 |
| IncremntDel: | 122.7 | 0.1 | 0.1 | 15.0 | 11.4 | 0.3 | 19.7 | 0.9 | 93.9 | 6.4 | 0.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.80 | 0.68 | 1.00 | 1.27 | 1.46 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 208.5 | 27.3 | 14.7 | 94.4 | 67.3 | 25.6 | 103.2 | 64.4 | 156.9 | 92.0 | 64.4 | 45.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 208.5 | 27.3 | 14.7 | 94.4 | 67.3 | 25.6 | 103.2 | 64.4 | 156.9 | 92.0 | 64.4 | 45.5 |
| LOS by Move: | F | C | B | F | E | C | F | E | F | F | E | D |
| HCM2kAvgQ: | 17 | 14 | 4 | 12 | 53 | 18 | 11 | 13 | 57 | 5 | 6 | 9 |

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

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

Intersection #9300: Wolfe Rd & Maude Ave (Signalized)

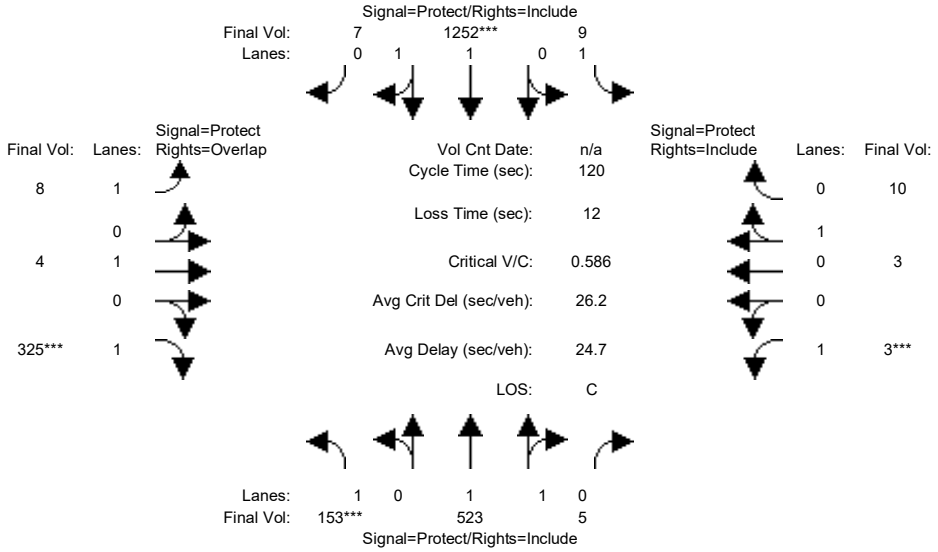



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 275 | 768 | 4 | 2 | 418 | 5 | 11 | 2 | 69 | 2 | 1 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 275 | 768 | 4 | 2 | 418 | 5 | 11 | 2 | 69 | 2 | 1 | 2 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 275 | 768 | 4 | 2 | 418 | 5 | 11 | 2 | 69 | 2 | 1 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 275 | 768 | 4 | 2 | 418 | 5 | 11 | 2 | 69 | 2 | 1 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 275 | 768 | 4 | 2 | 418 | 5 | 11 | 2 | 69 | 2 | 1 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 275 | 768 | 4 | 2 | 418 | 5 | 11 | 2 | 69 | 2 | 1 | 2 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.92 | 0.97 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 |
| Lanes: | 1.00 | 1.99 | 0.01 | 1.00 | 1.98 | 0.02 | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.67 |
| Final Sat.: | 1750 | 3681 | 19 | 1750 | 3656 | 44 | 1750 | 1900 | 1750 | 1750 | 600 | 1200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.16 | 0.21 | 0.21 | 0.00 | 0.11 | 0.11 | 0.01 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 52.7 | 71.1 | 71.1 | 19.9 | 38.3 | 38.3 | 7.0 | 10.0 | 62.7 | 7.0 | 10.0 | 10.0 |
| Volume/Cap: | 0.36 | 0.35 | 0.35 | 0.01 | 0.36 | 0.36 | 0.11 | 0.01 | 0.08 | 0.02 | 0.02 | 0.02 |
| Uniform Del: | 22.4 | 12.6 | 12.6 | 41.8 | 31.4 | 31.4 | 53.5 | 50.5 | 14.3 | 53.3 | 50.5 | 50.5 |
| IncremntDel: | 0.3 | 0.1 | 0.1 | 0.0 | 0.2 | 0.2 | 0.5 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 22.7 | 12.7 | 12.7 | 41.8 | 31.6 | 31.6 | 54.0 | 50.5 | 14.3 | 53.3 | 50.6 | 50.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 22.7 | 12.7 | 12.7 | 41.8 | 31.6 | 31.6 | 54.0 | 50.5 | 14.3 | 53.3 | 50.6 | 50.6 |
| LOS by Move: | C+ | B | B | D | C | C | D- | D | B | D- | D | D |
| HCM2kAvgQ: | 7 | 7 | 7 | 0 | 6 | 6 | 0 | 0 | 1 | 0 | 0 | 0 |

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

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

Intersection #9300: Wolfe Rd & Maude Ave (Signalized)

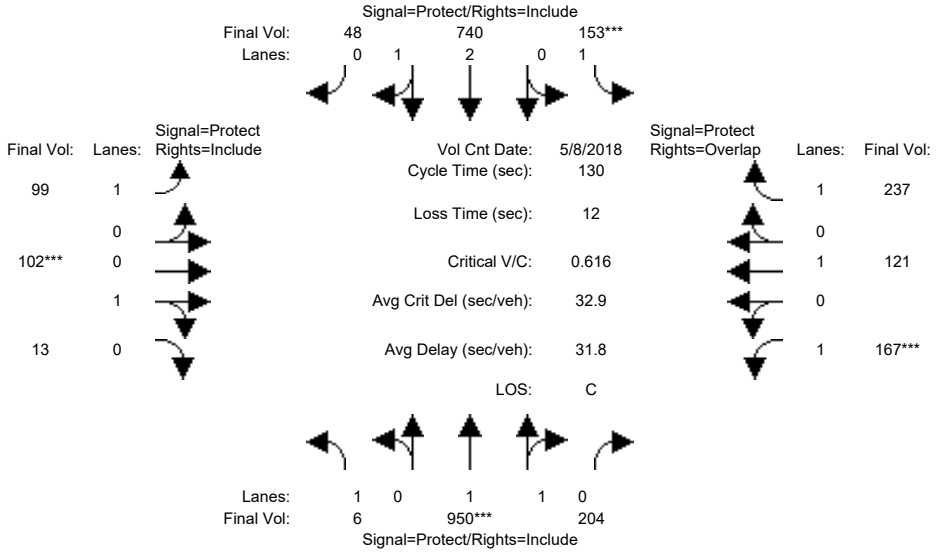



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 153 | 523 | 5 | 9 | 1252 | 7 | 8 | 4 | 325 | 3 | 3 | 10 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 153 | 523 | 5 | 9 | 1252 | 7 | 8 | 4 | 325 | 3 | 3 | 10 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 153 | 523 | 5 | 9 | 1252 | 7 | 8 | 4 | 325 | 3 | 3 | 10 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 153 | 523 | 5 | 9 | 1252 | 7 | 8 | 4 | 325 | 3 | 3 | 10 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 153 | 523 | 5 | 9 | 1252 | 7 | 8 | 4 | 325 | 3 | 3 | 10 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 153 | 523 | 5 | 9 | 1252 | 7 | 8 | 4 | 325 | 3 | 3 | 10 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.92 | 0.97 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 |
| Lanes: | 1.00 | 1.98 | 0.02 | 1.00 | 1.99 | 0.01 | 1.00 | 1.00 | 1.00 | 1.00 | 0.23 | 0.77 |
| Final Sat.: | 1750 | 3665 | 35 | 1750 | 3679 | 21 | 1750 | 1900 | 1750 | 1750 | 415 | 1385 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.14 | 0.14 | 0.01 | 0.34 | 0.34 | 0.00 | 0.00 | 0.19 | 0.00 | 0.01 | 0.01 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green Time: | 16.8 | 58.3 | 58.3 | 23.8 | 65.3 | 65.3 | 10.7 | 18.9 | 35.7 | 7.0 | 15.2 | 15.2 |
| Volume/Cap: | 0.62 | 0.29 | 0.29 | 0.03 | 0.62 | 0.62 | 0.05 | 0.01 | 0.62 | 0.03 | 0.06 | 0.06 |
| Uniform Del: | 48.6 | 18.5 | 18.5 | 38.7 | 18.9 | 18.9 | 50.0 | 42.7 | 36.4 | 53.3 | 46.1 | 46.1 |
| IncremntDel: | 5.0 | 0.1 | 0.1 | 0.0 | 0.6 | 0.6 | 0.1 | 0.0 | 2.4 | 0.1 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 53.6 | 18.6 | 18.6 | 38.8 | 19.5 | 19.5 | 50.2 | 42.7 | 38.8 | 53.4 | 46.2 | 46.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 53.6 | 18.6 | 18.6 | 38.8 | 19.5 | 19.5 | 50.2 | 42.7 | 38.8 | 53.4 | 46.2 | 46.2 |
| LOS by Move: | D- | B- | B- | D+ | B- | B- | D | D | D+ | D- | D | D |
| HCM2kAvgQ: | 7 | 6 | 6 | 0 | 16 | 16 | 0 | 0 | 12 | 0 | 0 | 0 |

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

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

Intersection #41: Fair Oaks Ave & Duane Ave

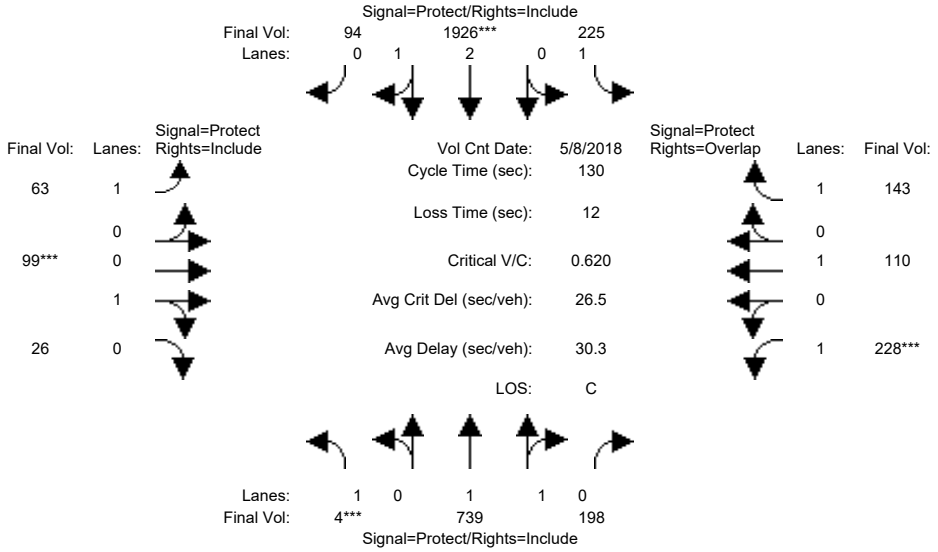



| Street Name: | Fair Oaks Ave | | | | | | Duane Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 6 | 943 | 201 | 153 | 700 | 48 | 99 | 102 | 13 | 167 | 121 | 237 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 6 | 943 | 201 | 153 | 700 | 48 | 99 | 102 | 13 | 167 | 121 | 237 |
| Added Vol: | 0 | 7 | 3 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 6 | 950 | 204 | 153 | 740 | 48 | 99 | 102 | 13 | 167 | 121 | 237 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 6 | 950 | 204 | 153 | 740 | 48 | 99 | 102 | 13 | 167 | 121 | 237 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 6 | 950 | 204 | 153 | 740 | 48 | 99 | 102 | 13 | 167 | 121 | 237 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 6 | 950 | 204 | 153 | 740 | 48 | 99 | 102 | 13 | 167 | 121 | 237 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.64 | 0.36 | 1.00 | 2.81 | 0.19 | 1.00 | 0.89 | 0.11 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 3045 | 654 | 1750 | 5258 | 341 | 1750 | 1597 | 203 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.31 | 0.31 | 0.09 | 0.14 | 0.14 | 0.06 | 0.06 | 0.06 | 0.10 | 0.06 | 0.14 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 23.3 | 65.9 | 65.9 | 18.5 | 61.0 | 61.0 | 14.3 | 13.5 | 13.5 | 20.2 | 19.4 | 37.9 |
| Volume/Cap: | 0.02 | 0.62 | 0.62 | 0.62 | 0.30 | 0.30 | 0.52 | 0.62 | 0.62 | 0.62 | 0.43 | 0.47 |
| Uniform Del: | 43.9 | 23.0 | 23.0 | 52.4 | 21.3 | 21.3 | 54.6 | 55.8 | 55.8 | 51.3 | 50.3 | 37.8 |
| IncremntDel: | 0.0 | 0.6 | 0.6 | 4.6 | 0.1 | 0.1 | 2.4 | 6.0 | 6.0 | 4.2 | 1.0 | 0.7 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 43.9 | 23.6 | 23.6 | 57.0 | 21.4 | 21.4 | 57.0 | 61.8 | 61.8 | 55.5 | 51.3 | 38.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 43.9 | 23.6 | 23.6 | 57.0 | 21.4 | 21.4 | 57.0 | 61.8 | 61.8 | 55.5 | 51.3 | 38.4 |
| LOS by Move: | D | C | C | E+ | C+ | C+ | E+ | E | E | E+ | D- | D+ |
| HCM2kAvgQ: | 0 | 17 | 17 | 6 | 6 | 6 | 5 | 6 | 6 | 8 | 5 | 8 |

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

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

Intersection #41: Fair Oaks Ave & Duane Ave

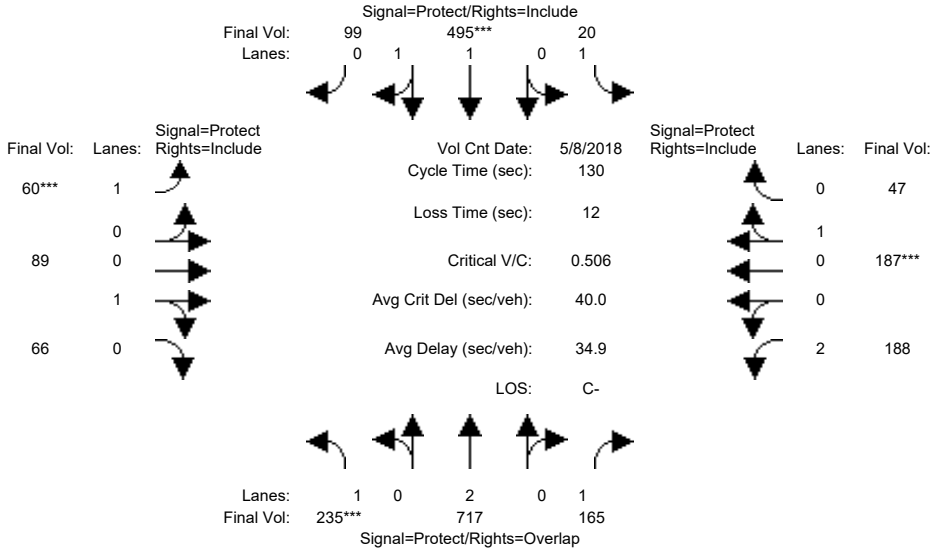



| Street Name: | Fair Oaks Ave | | | | | | Duane Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 4 | 692 | 179 | 225 | 1921 | 94 | 63 | 99 | 26 | 228 | 110 | 143 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 4 | 692 | 179 | 225 | 1921 | 94 | 63 | 99 | 26 | 228 | 110 | 143 |
| Added Vol: | 0 | 47 | 19 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 4 | 739 | 198 | 225 | 1926 | 94 | 63 | 99 | 26 | 228 | 110 | 143 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 4 | 739 | 198 | 225 | 1926 | 94 | 63 | 99 | 26 | 228 | 110 | 143 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 4 | 739 | 198 | 225 | 1926 | 94 | 63 | 99 | 26 | 228 | 110 | 143 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 4 | 739 | 198 | 225 | 1926 | 94 | 63 | 99 | 26 | 228 | 110 | 143 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.57 | 0.43 | 1.00 | 2.86 | 0.14 | 1.00 | 0.79 | 0.21 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 2918 | 782 | 1750 | 5339 | 261 | 1750 | 1426 | 374 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.25 | 0.25 | 0.13 | 0.36 | 0.36 | 0.04 | 0.07 | 0.07 | 0.13 | 0.06 | 0.08 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.0 | 52.0 | 52.0 | 26.4 | 71.4 | 71.4 | 16.3 | 13.8 | 13.8 | 25.8 | 23.3 | 49.7 |
| Volume/Cap: | 0.04 | 0.63 | 0.63 | 0.63 | 0.66 | 0.66 | 0.29 | 0.66 | 0.66 | 0.66 | 0.32 | 0.21 |
| Uniform Del: | 58.3 | 31.3 | 31.3 | 47.4 | 20.6 | 20.6 | 51.6 | 55.9 | 55.9 | 48.0 | 46.5 | 27.0 |
| IncremntDel: | 0.2 | 0.9 | 0.9 | 3.7 | 0.5 | 0.5 | 0.7 | 8.1 | 8.1 | 4.5 | 0.6 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 58.5 | 32.2 | 32.2 | 51.1 | 21.2 | 21.2 | 52.3 | 63.9 | 63.9 | 52.5 | 47.1 | 27.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 58.5 | 32.2 | 32.2 | 51.1 | 21.2 | 21.2 | 52.3 | 63.9 | 63.9 | 52.5 | 47.1 | 27.2 |
| LOS by Move: | E+ | C- | C- | D- | C+ | C+ | D- | E | E | D- | D | C |
| HCM2kAvgQ: | 0 | 15 | 15 | 9 | 19 | 19 | 3 | 6 | 6 | 10 | 4 | 4 |

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

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

Intersection #42: Fair Oaks Ave & Arques Ave

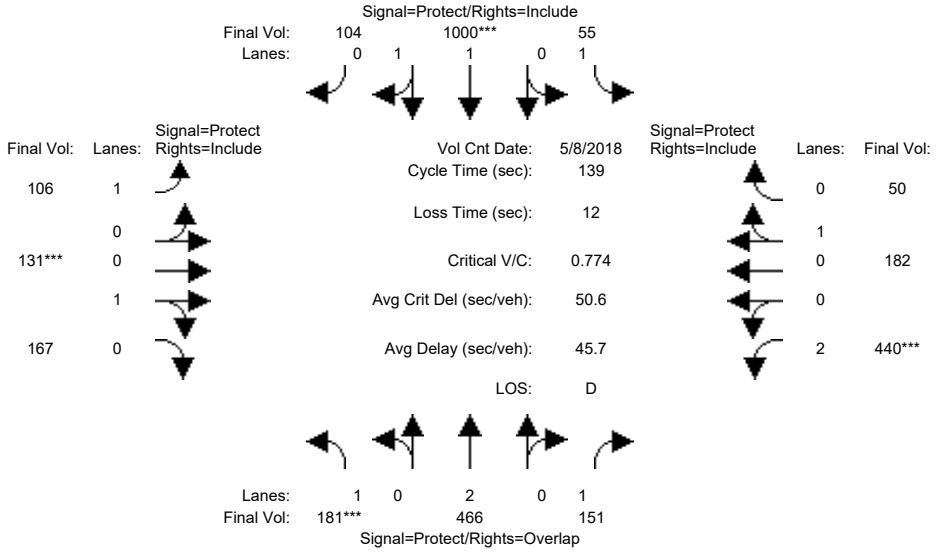



| Street Name: | Fair Oaks Ave | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:15 AM - 9:15 AM | | | | | | | | | | | | |
| Base Vol: | 230 | 717 | 165 | 20 | 495 | 99 | 60 | 89 | 66 | 188 | 187 | 47 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 230 | 717 | 165 | 20 | 495 | 99 | 60 | 89 | 66 | 188 | 187 | 47 |
| Added Vol: | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 235 | 717 | 165 | 20 | 495 | 99 | 60 | 89 | 66 | 188 | 187 | 47 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 235 | 717 | 165 | 20 | 495 | 99 | 60 | 89 | 66 | 188 | 187 | 47 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 235 | 717 | 165 | 20 | 495 | 99 | 60 | 89 | 66 | 188 | 187 | 47 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 235 | 717 | 165 | 20 | 495 | 99 | 60 | 89 | 66 | 188 | 187 | 47 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.83 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 1.66 | 0.34 | 1.00 | 0.57 | 0.43 | 2.00 | 0.80 | 0.20 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3083 | 617 | 1750 | 1034 | 766 | 3150 | 1438 | 362 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.19 | 0.09 | 0.01 | 0.16 | 0.16 | 0.03 | 0.09 | 0.09 | 0.06 | 0.13 | 0.13 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 34.5 | 59.0 | 76.2 | 16.8 | 41.3 | 41.3 | 8.8 | 24.9 | 24.9 | 17.3 | 33.4 | 33.4 |
| Volume/Cap: | 0.51 | 0.42 | 0.16 | 0.09 | 0.51 | 0.51 | 0.51 | 0.45 | 0.45 | 0.45 | 0.51 | 0.51 |
| Uniform Del: | 40.5 | 23.9 | 12.3 | 49.8 | 36.1 | 36.1 | 58.5 | 46.5 | 46.5 | 52.0 | 41.2 | 41.2 |
| IncremntDel: | 0.9 | 0.2 | 0.1 | 0.2 | 0.4 | 0.4 | 3.5 | 0.9 | 0.9 | 0.8 | 0.9 | 0.9 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 41.4 | 24.1 | 12.3 | 50.0 | 36.4 | 36.4 | 62.0 | 47.4 | 47.4 | 52.7 | 42.2 | 42.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 41.4 | 24.1 | 12.3 | 50.0 | 36.4 | 36.4 | 62.0 | 47.4 | 47.4 | 52.7 | 42.2 | 42.2 |
| LOS by Move: | D | C | B | D | D+ | D+ | E | D | D | D- | D | D |
| HCM2kAvgQ: | 8 | 9 | 3 | 1 | 10 | 10 | 3 | 6 | 6 | 4 | 8 | 8 |

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

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

Intersection #42: Fair Oaks Ave & Arques Ave

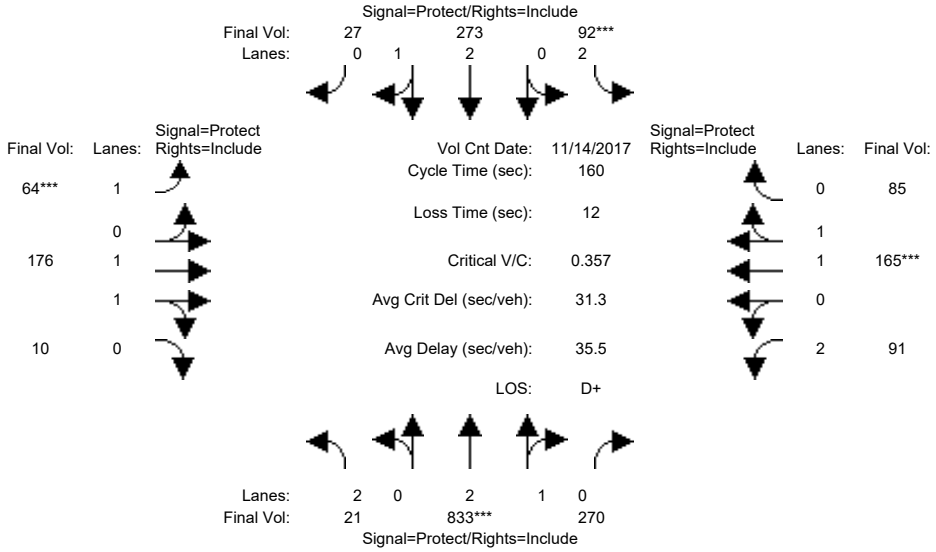



| Street Name: | Fair Oaks Ave | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 150 | 466 | 151 | 55 | 1000 | 104 | 106 | 131 | 167 | 440 | 182 | 50 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 150 | 466 | 151 | 55 | 1000 | 104 | 106 | 131 | 167 | 440 | 182 | 50 |
| Added Vol: | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 181 | 466 | 151 | 55 | 1000 | 104 | 106 | 131 | 167 | 440 | 182 | 50 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 181 | 466 | 151 | 55 | 1000 | 104 | 106 | 131 | 167 | 440 | 182 | 50 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 181 | 466 | 151 | 55 | 1000 | 104 | 106 | 131 | 167 | 440 | 182 | 50 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 181 | 466 | 151 | 55 | 1000 | 104 | 106 | 131 | 167 | 440 | 182 | 50 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.83 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 1.81 | 0.19 | 1.00 | 0.44 | 0.56 | 2.00 | 0.78 | 0.22 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3351 | 349 | 1750 | 791 | 1009 | 3150 | 1412 | 388 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.12 | 0.09 | 0.03 | 0.30 | 0.30 | 0.06 | 0.17 | 0.17 | 0.14 | 0.13 | 0.13 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 18.6 | 51.2 | 76.3 | 21.0 | 53.6 | 53.6 | 17.5 | 29.7 | 29.7 | 25.1 | 37.3 | 37.3 |
| Volume/Cap: | 0.77 | 0.33 | 0.16 | 0.21 | 0.77 | 0.77 | 0.48 | 0.77 | 0.77 | 0.77 | 0.48 | 0.48 |
| Uniform Del: | 58.2 | 31.6 | 15.5 | 51.7 | 37.4 | 37.4 | 56.5 | 51.5 | 51.5 | 54.3 | 42.7 | 42.7 |
| IncremntDel: | 14.8 | 0.1 | 0.1 | 0.4 | 2.7 | 2.7 | 1.6 | 9.4 | 9.4 | 6.5 | 0.8 | 0.8 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 73.0 | 31.8 | 15.6 | 52.1 | 40.1 | 40.1 | 58.1 | 60.9 | 60.9 | 60.8 | 43.5 | 43.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 73.0 | 31.8 | 15.6 | 52.1 | 40.1 | 40.1 | 58.1 | 60.9 | 60.9 | 60.8 | 43.5 | 43.5 |
| LOS by Move: | E | C | B | D- | D | D | E+ | E | E | E | D | D |
| HCM2kAvgQ: | 8 | 7 | 3 | 2 | 22 | 22 | 5 | 14 | 14 | 11 | 8 | 8 |

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

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

Intersection #43: Wolfe Rd & Arques Ave

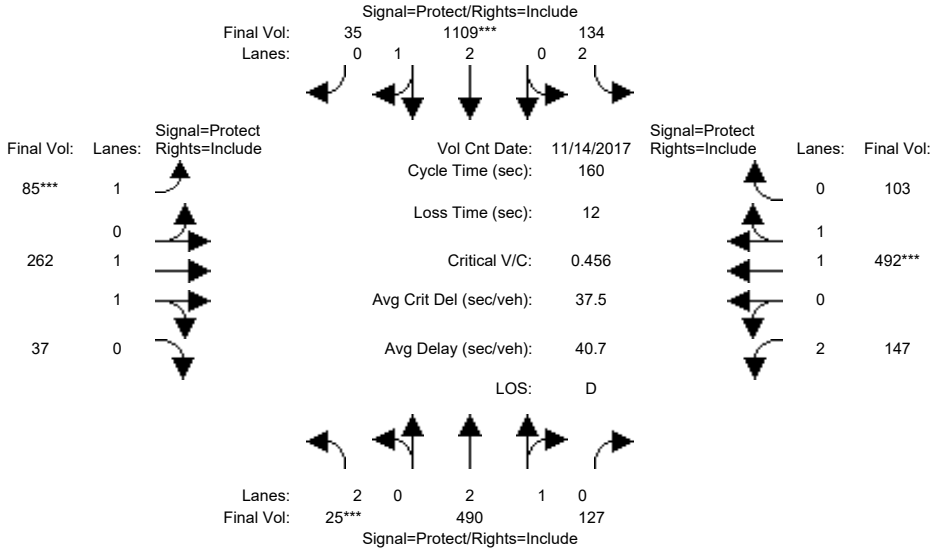



| Street Name: | Wolfe Rd | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 21 | 823 | 270 | 92 | 233 | 27 | 64 | 176 | 10 | 91 | 165 | 85 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 21 | 823 | 270 | 92 | 233 | 27 | 64 | 176 | 10 | 91 | 165 | 85 |
| Added Vol: | 0 | 10 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 21 | 833 | 270 | 92 | 273 | 27 | 64 | 176 | 10 | 91 | 165 | 85 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 21 | 833 | 270 | 92 | 273 | 27 | 64 | 176 | 10 | 91 | 165 | 85 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 21 | 833 | 270 | 92 | 273 | 27 | 64 | 176 | 10 | 91 | 165 | 85 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 21 | 833 | 270 | 92 | 273 | 27 | 64 | 176 | 10 | 91 | 165 | 85 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 |
| Lanes: | 2.00 | 2.24 | 0.76 | 2.00 | 2.72 | 0.28 | 1.00 | 1.89 | 0.11 | 2.00 | 1.30 | 0.70 |
| Final Sat.: | 3150 | 4227 | 1370 | 3150 | 5095 | 504 | 1750 | 3501 | 199 | 3150 | 2441 | 1258 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.20 | 0.20 | 0.03 | 0.05 | 0.05 | 0.04 | 0.05 | 0.05 | 0.03 | 0.07 | 0.07 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 41.7 | 88.3 | 88.3 | 13.1 | 59.6 | 59.6 | 16.4 | 27.4 | 27.4 | 19.2 | 30.3 | 30.3 |
| Volume/Cap: | 0.03 | 0.36 | 0.36 | 0.36 | 0.14 | 0.14 | 0.36 | 0.29 | 0.29 | 0.24 | 0.36 | 0.36 |
| Uniform Del: | 44.0 | 20.0 | 20.0 | 69.5 | 33.3 | 33.3 | 66.9 | 57.8 | 57.8 | 63.8 | 56.4 | 56.4 |
| IncremntDel: | 0.0 | 0.1 | 0.1 | 0.9 | 0.0 | 0.0 | 1.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 44.0 | 20.1 | 20.1 | 70.3 | 33.3 | 33.3 | 68.1 | 58.1 | 58.1 | 64.1 | 56.7 | 56.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 44.0 | 20.1 | 20.1 | 70.3 | 33.3 | 33.3 | 68.1 | 58.1 | 58.1 | 64.1 | 56.7 | 56.7 |
| LOS by Move: | D | C+ | C+ | E | C- | C- | E | E+ | E+ | E | E+ | E+ |
| HCM2kAvgQ: | 0 | 10 | 10 | 3 | 3 | 3 | 3 | 4 | 4 | 2 | 5 | 5 |

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

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

Intersection #43: Wolfe Rd & Arques Ave

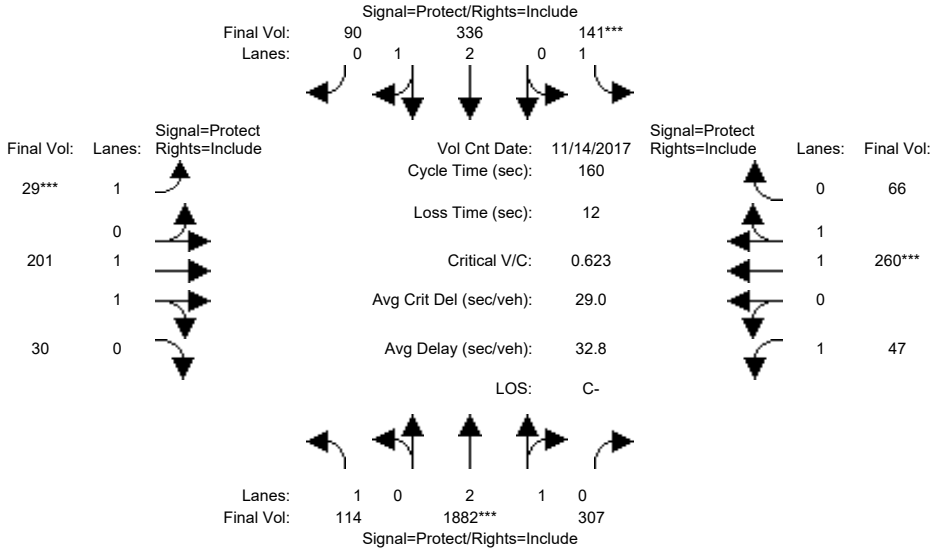



| Street Name: | Wolfe Rd | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 25 | 425 | 127 | 134 | 1104 | 35 | 85 | 262 | 37 | 147 | 492 | 103 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 25 | 425 | 127 | 134 | 1104 | 35 | 85 | 262 | 37 | 147 | 492 | 103 |
| Added Vol: | 0 | 65 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 25 | 490 | 127 | 134 | 1109 | 35 | 85 | 262 | 37 | 147 | 492 | 103 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 25 | 490 | 127 | 134 | 1109 | 35 | 85 | 262 | 37 | 147 | 492 | 103 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 25 | 490 | 127 | 134 | 1109 | 35 | 85 | 262 | 37 | 147 | 492 | 103 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 25 | 490 | 127 | 134 | 1109 | 35 | 85 | 262 | 37 | 147 | 492 | 103 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 0.98 | 0.95 |
| Lanes: | 2.00 | 2.36 | 0.64 | 2.00 | 2.90 | 0.10 | 1.00 | 1.75 | 0.25 | 2.00 | 1.64 | 0.36 |
| Final Sat.: | 3150 | 4446 | 1152 | 3150 | 5428 | 171 | 1750 | 3242 | 458 | 3150 | 3059 | 640 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.11 | 0.11 | 0.04 | 0.20 | 0.20 | 0.05 | 0.08 | 0.08 | 0.05 | 0.16 | 0.16 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 7.0 | 54.9 | 54.9 | 21.8 | 69.6 | 69.6 | 16.6 | 45.2 | 45.2 | 26.1 | 54.8 | 54.8 |
| Volume/Cap: | 0.18 | 0.32 | 0.32 | 0.31 | 0.47 | 0.47 | 0.47 | 0.29 | 0.29 | 0.29 | 0.47 | 0.47 |
| Uniform Del: | 73.7 | 38.8 | 38.8 | 62.4 | 32.1 | 32.1 | 67.6 | 44.8 | 44.8 | 58.7 | 41.2 | 41.2 |
| IncremntDel: | 0.6 | 0.1 | 0.1 | 0.4 | 0.1 | 0.1 | 1.9 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 74.4 | 38.9 | 38.9 | 62.8 | 32.2 | 32.2 | 69.5 | 44.9 | 44.9 | 59.1 | 41.5 | 41.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 74.4 | 38.9 | 38.9 | 62.8 | 32.2 | 32.2 | 69.5 | 44.9 | 44.9 | 59.1 | 41.5 | 41.5 |
| LOS by Move: | E | D+ | D+ | E | C- | C- | E | D | D | E+ | D | D |
| HCM2kAvgQ: | 1 | 7 | 7 | 3 | 13 | 13 | 4 | 5 | 5 | 4 | 11 | 11 |

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

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

Intersection #44: Wolfe Rd & Kifer Rd

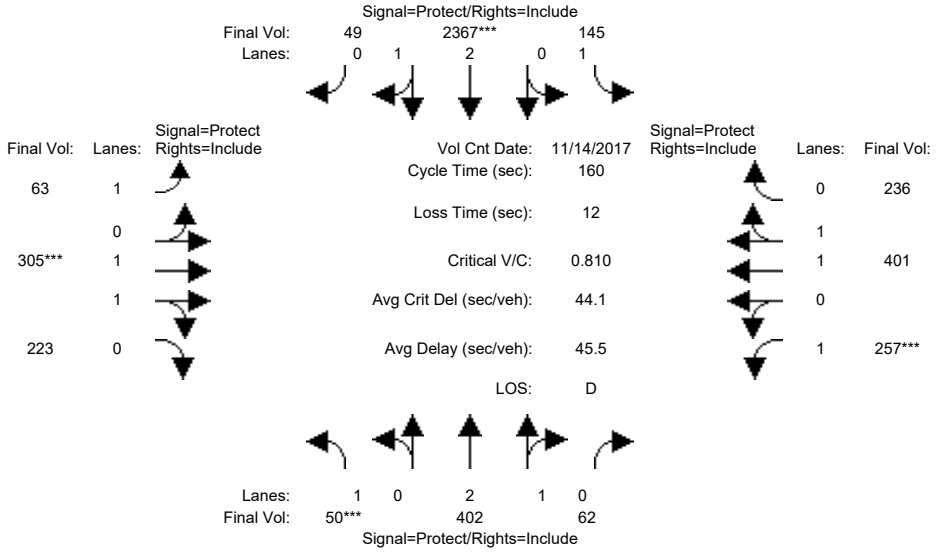



| Street Name: | Wolfe Rd | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00AM | | | | | | | | | | | | |
| Base Vol: | 114 | 1882 | 275 | 101 | 336 | 90 | 29 | 142 | 30 | 41 | 244 | 51 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 114 | 1882 | 275 | 101 | 336 | 90 | 29 | 142 | 30 | 41 | 244 | 51 |
| Added Vol: | 0 | 0 | 32 | 40 | 0 | 0 | 0 | 59 | 0 | 6 | 16 | 15 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 114 | 1882 | 307 | 141 | 336 | 90 | 29 | 201 | 30 | 47 | 260 | 66 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 114 | 1882 | 307 | 141 | 336 | 90 | 29 | 201 | 30 | 47 | 260 | 66 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 114 | 1882 | 307 | 141 | 336 | 90 | 29 | 201 | 30 | 47 | 260 | 66 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 114 | 1882 | 307 | 141 | 336 | 90 | 29 | 201 | 30 | 47 | 260 | 66 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 1.00 | 2.56 | 0.44 | 1.00 | 2.34 | 0.66 | 1.00 | 1.73 | 0.27 | 1.00 | 1.58 | 0.42 |
| Final Sat.: | 1750 | 4814 | 785 | 1750 | 4415 | 1183 | 1750 | 3219 | 480 | 1750 | 2950 | 749 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.39 | 0.39 | 0.08 | 0.08 | 0.08 | 0.02 | 0.06 | 0.06 | 0.03 | 0.09 | 0.09 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 54.8 | 98.5 | 98.5 | 20.3 | 64.0 | 64.0 | 7.0 | 17.2 | 17.2 | 12.0 | 22.2 | 22.2 |
| Volume/Cap: | 0.19 | 0.64 | 0.64 | 0.64 | 0.19 | 0.19 | 0.38 | 0.58 | 0.58 | 0.36 | 0.64 | 0.64 |
| Uniform Del: | 37.0 | 19.4 | 19.4 | 66.3 | 31.2 | 31.2 | 74.4 | 68.0 | 68.0 | 70.3 | 65.1 | 65.1 |
| IncremntDel: | 0.2 | 0.4 | 0.4 | 5.9 | 0.0 | 0.0 | 3.1 | 2.2 | 2.2 | 1.7 | 2.6 | 2.6 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 37.2 | 19.8 | 19.8 | 72.3 | 31.2 | 31.2 | 77.5 | 70.2 | 70.2 | 72.0 | 67.7 | 67.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 37.2 | 19.8 | 19.8 | 72.3 | 31.2 | 31.2 | 77.5 | 70.2 | 70.2 | 72.0 | 67.7 | 67.7 |
| LOS by Move: | D+ | B- | B- | E | C | C | E- | E | E | E | E | E |
| HCM2kAvgQ: | 4 | 22 | 22 | 7 | 4 | 4 | 1 | 6 | 6 | 2 | 8 | 8 |

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

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

Intersection #44: Wolfe Rd & Kifer Rd

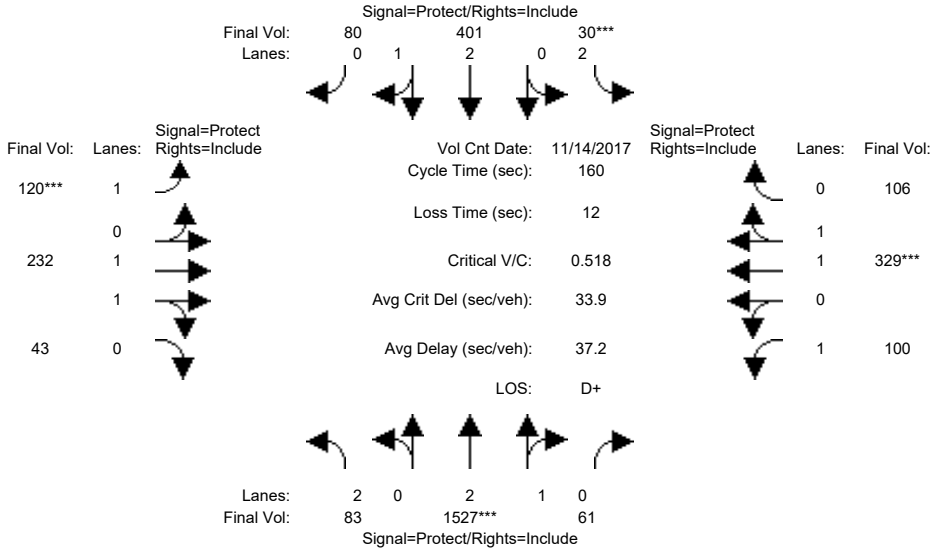



| Street Name: | Wolfe Rd | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 50 | 402 | 58 | 140 | 2367 | 49 | 63 | 298 | 223 | 220 | 301 | 139 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 50 | 402 | 58 | 140 | 2367 | 49 | 63 | 298 | 223 | 220 | 301 | 139 |
| Added Vol: | 0 | 0 | 4 | 5 | 0 | 0 | 0 | 7 | 0 | 37 | 100 | 97 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 50 | 402 | 62 | 145 | 2367 | 49 | 63 | 305 | 223 | 257 | 401 | 236 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 50 | 402 | 62 | 145 | 2367 | 49 | 63 | 305 | 223 | 257 | 401 | 236 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 50 | 402 | 62 | 145 | 2367 | 49 | 63 | 305 | 223 | 257 | 401 | 236 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 50 | 402 | 62 | 145 | 2367 | 49 | 63 | 305 | 223 | 257 | 401 | 236 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 2.58 | 0.42 | 1.00 | 2.94 | 0.06 | 1.00 | 1.13 | 0.87 | 1.00 | 1.24 | 0.76 |
| Final Sat.: | 1750 | 4851 | 748 | 1750 | 5486 | 114 | 1750 | 2136 | 1562 | 1750 | 2328 | 1370 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.08 | 0.08 | 0.08 | 0.43 | 0.43 | 0.04 | 0.14 | 0.14 | 0.15 | 0.17 | 0.17 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.0 | 45.7 | 45.7 | 45.7 | 84.4 | 84.4 | 11.5 | 27.9 | 27.9 | 28.7 | 45.2 | 45.2 |
| Volume/Cap: | 0.65 | 0.29 | 0.29 | 0.29 | 0.82 | 0.82 | 0.50 | 0.82 | 0.82 | 0.82 | 0.61 | 0.61 |
| Uniform Del: | 75.3 | 44.5 | 44.5 | 44.5 | 31.4 | 31.4 | 71.5 | 63.6 | 63.6 | 63.1 | 49.8 | 49.8 |
| IncremntDel: | 18.4 | 0.1 | 0.1 | 0.3 | 1.9 | 1.9 | 3.2 | 8.1 | 8.1 | 15.4 | 1.1 | 1.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 93.7 | 44.6 | 44.6 | 44.9 | 33.3 | 33.3 | 74.7 | 71.7 | 71.7 | 78.5 | 50.8 | 50.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 93.7 | 44.6 | 44.6 | 44.9 | 33.3 | 33.3 | 74.7 | 71.7 | 71.7 | 78.5 | 50.8 | 50.8 |
| LOS by Move: | F | D | D | D | C- | C- | E | E | E | E- | D | D |
| HCM2kAvgQ: | 3 | 6 | 6 | 5 | 31 | 31 | 3 | 13 | 13 | 14 | 14 | 14 |

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

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

Intersection #45: Wolfe Rd & Reed Ave

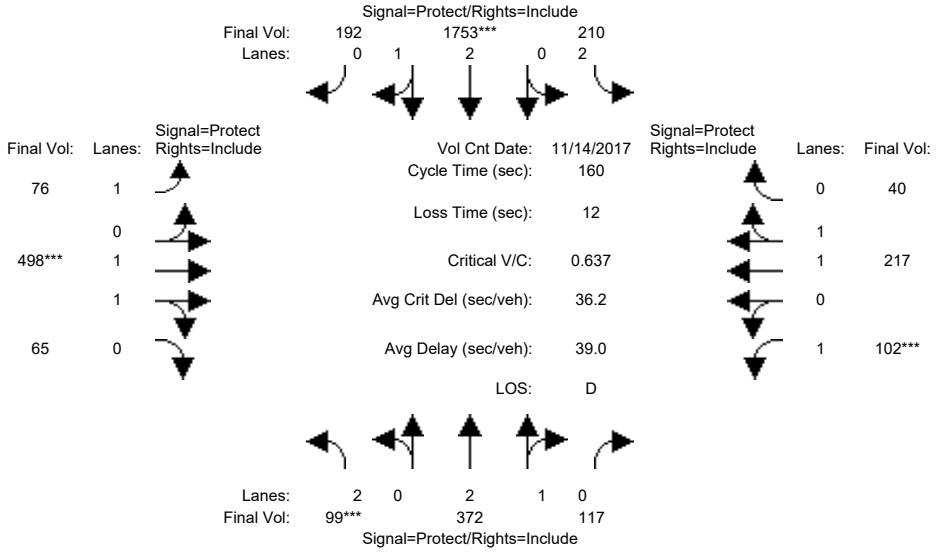



| Street Name: | Wolfe Rd | | | | | | Reed Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 83 | 1511 | 61 | 27 | 398 | 80 | 120 | 232 | 43 | 100 | 329 | 90 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 83 | 1511 | 61 | 27 | 398 | 80 | 120 | 232 | 43 | 100 | 329 | 90 |
| Added Vol: | 0 | 16 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 83 | 1527 | 61 | 30 | 401 | 80 | 120 | 232 | 43 | 100 | 329 | 106 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 83 | 1527 | 61 | 30 | 401 | 80 | 120 | 232 | 43 | 100 | 329 | 106 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 83 | 1527 | 61 | 30 | 401 | 80 | 120 | 232 | 43 | 100 | 329 | 106 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 83 | 1527 | 61 | 30 | 401 | 80 | 120 | 232 | 43 | 100 | 329 | 106 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 2.00 | 2.88 | 0.12 | 2.00 | 2.48 | 0.52 | 1.00 | 1.68 | 0.32 | 1.00 | 1.50 | 0.50 |
| Final Sat.: | 3150 | 5385 | 215 | 3150 | 4667 | 931 | 1750 | 3121 | 578 | 1750 | 2798 | 901 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.28 | 0.28 | 0.01 | 0.09 | 0.09 | 0.07 | 0.07 | 0.07 | 0.06 | 0.12 | 0.12 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 31.1 | 85.1 | 85.1 | 7.0 | 61.0 | 61.0 | 20.6 | 31.6 | 31.6 | 24.3 | 35.3 | 35.3 |
| Volume/Cap: | 0.14 | 0.53 | 0.53 | 0.22 | 0.23 | 0.23 | 0.53 | 0.38 | 0.38 | 0.38 | 0.53 | 0.53 |
| Uniform Del: | 53.3 | 24.5 | 24.5 | 73.9 | 33.5 | 33.5 | 65.2 | 55.7 | 55.7 | 61.0 | 55.1 | 55.1 |
| IncremntDel: | 0.1 | 0.2 | 0.2 | 0.8 | 0.1 | 0.1 | 2.5 | 0.3 | 0.3 | 0.9 | 0.7 | 0.7 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 53.4 | 24.6 | 24.6 | 74.7 | 33.5 | 33.5 | 67.7 | 56.0 | 56.0 | 61.9 | 55.8 | 55.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 53.4 | 24.6 | 24.6 | 74.7 | 33.5 | 33.5 | 67.7 | 56.0 | 56.0 | 61.9 | 55.8 | 55.8 |
| LOS by Move: | D- | C | C | E | C- | C- | E | E+ | E+ | E | E+ | E+ |
| HCM2kAvgQ: | 2 | 16 | 16 | 1 | 5 | 5 | 6 | 6 | 6 | 5 | 9 | 9 |

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

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

Intersection #45: Wolfe Rd & Reed Ave

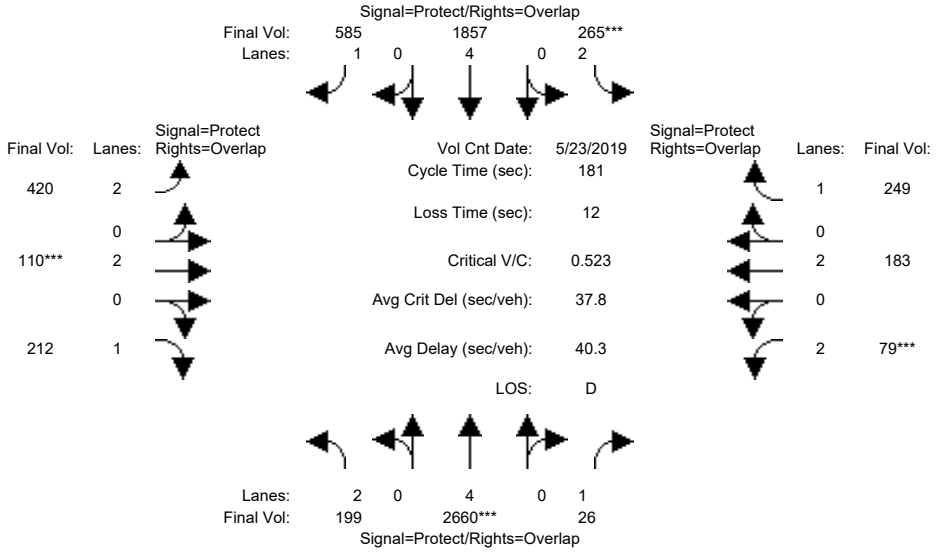



| Street Name: | Wolfe Rd | | | | | | Reed Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 99 | 370 | 117 | 191 | 1734 | 192 | 76 | 498 | 65 | 102 | 217 | 38 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 99 | 370 | 117 | 191 | 1734 | 192 | 76 | 498 | 65 | 102 | 217 | 38 |
| Added Vol: | 0 | 2 | 0 | 19 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 99 | 372 | 117 | 210 | 1753 | 192 | 76 | 498 | 65 | 102 | 217 | 40 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 99 | 372 | 117 | 210 | 1753 | 192 | 76 | 498 | 65 | 102 | 217 | 40 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 99 | 372 | 117 | 210 | 1753 | 192 | 76 | 498 | 65 | 102 | 217 | 40 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 99 | 372 | 117 | 210 | 1753 | 192 | 76 | 498 | 65 | 102 | 217 | 40 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 2.00 | 2.26 | 0.74 | 2.00 | 2.69 | 0.31 | 1.00 | 1.76 | 0.24 | 1.00 | 1.68 | 0.32 |
| Final Sat.: | 3150 | 4258 | 1339 | 3150 | 5046 | 553 | 1750 | 3273 | 427 | 1750 | 3124 | 576 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.09 | 0.09 | 0.07 | 0.35 | 0.35 | 0.04 | 0.15 | 0.15 | 0.06 | 0.07 | 0.07 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.9 | 54.0 | 54.0 | 41.2 | 87.2 | 87.2 | 20.4 | 38.2 | 38.2 | 14.6 | 32.4 | 32.4 |
| Volume/Cap: | 0.64 | 0.26 | 0.26 | 0.26 | 0.64 | 0.64 | 0.34 | 0.64 | 0.64 | 0.64 | 0.34 | 0.34 |
| Uniform Del: | 74.6 | 38.5 | 38.5 | 47.3 | 25.3 | 25.3 | 63.6 | 54.7 | 54.7 | 70.1 | 54.6 | 54.6 |
| IncremntDel: | 8.5 | 0.1 | 0.1 | 0.2 | 0.5 | 0.5 | 0.9 | 1.6 | 1.6 | 8.3 | 0.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 83.1 | 38.6 | 38.6 | 47.4 | 25.8 | 25.8 | 64.6 | 56.2 | 56.2 | 78.4 | 54.9 | 54.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 83.1 | 38.6 | 38.6 | 47.4 | 25.8 | 25.8 | 64.6 | 56.2 | 56.2 | 78.4 | 54.9 | 54.9 |
| LOS by Move: | F | D+ | D+ | D | C | C | E | E+ | E+ | E- | D- | D- |
| HCM2kAvgQ: | 3 | 6 | 6 | 5 | 22 | 22 | 4 | 12 | 12 | 5 | 5 | 5 |

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

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

Intersection #49: Lawrence Expwy & Oakmead Pkwy

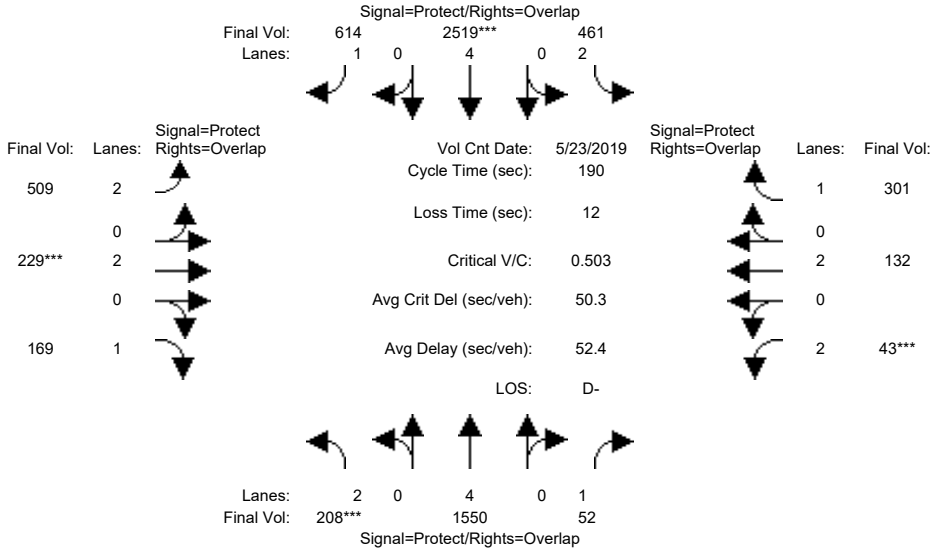



| Street Name: | Lawrence Expwy | | | | | | Oakmead Pkwy | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 17 | 86 | 86 | 20 | 89 | 89 | 23 | 39 | 39 | 10 | 20 | 25 |
| Y+R: | 6.4 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 | 5.6 | 5.5 | 5.5 | 5.6 | 5.6 | 5.6 |
| Volume Module: >> Count Date: 23 May 2019 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 199 | 2636 | 26 | 265 | 1722 | 585 | 420 | 110 | 196 | 79 | 183 | 249 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 199 | 2636 | 26 | 265 | 1722 | 585 | 420 | 110 | 196 | 79 | 183 | 249 |
| Added Vol: | 0 | 24 | 0 | 0 | 135 | 0 | 0 | 0 | 16 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 199 | 2660 | 26 | 265 | 1857 | 585 | 420 | 110 | 212 | 79 | 183 | 249 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 199 | 2660 | 26 | 265 | 1857 | 585 | 420 | 110 | 212 | 79 | 183 | 249 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 199 | 2660 | 26 | 265 | 1857 | 585 | 420 | 110 | 212 | 79 | 183 | 249 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 199 | 2660 | 26 | 265 | 1857 | 585 | 420 | 110 | 212 | 79 | 183 | 249 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 4.00 | 1.00 | 2.00 | 4.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 7600 | 1750 | 3150 | 7600 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.35 | 0.01 | 0.08 | 0.24 | 0.33 | 0.13 | 0.03 | 0.12 | 0.03 | 0.05 | 0.14 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 17.2 | 86.9 | 97.4 | 20.3 | 89.9 | 113.7 | 23.8 | 39.3 | 56.5 | 10.5 | 25.9 | 46.2 |
| Volume/Cap: | 0.66 | 0.73 | 0.03 | 0.75 | 0.49 | 0.53 | 1.01 | 0.13 | 0.39 | 0.43 | 0.34 | 0.56 |
| Uniform Del: | 79.1 | 37.6 | 19.6 | 77.9 | 30.3 | 18.8 | 78.6 | 57.1 | 48.7 | 82.4 | 69.8 | 58.5 |
| IncremntDel: | 5.6 | 0.8 | 0.0 | 8.6 | 0.1 | 0.5 | 47.8 | 0.1 | 0.5 | 1.6 | 0.4 | 1.6 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.80 | 0.70 | 1.00 | 0.77 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 84.7 | 30.7 | 13.8 | 86.5 | 23.5 | 9.9 | 126.4 | 57.2 | 49.2 | 84.0 | 70.2 | 60.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 84.7 | 30.7 | 13.8 | 86.5 | 23.5 | 9.9 | 126.4 | 57.2 | 49.2 | 84.0 | 70.2 | 60.1 |
| LOS by Move: | F | C | B | F | C | A | F | E+ | D | F | E | E |
| HCM2kAvgQ: | 6 | 23 | 0 | 10 | 13 | 10 | 19 | 2 | 10 | 3 | 5 | 13 |

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

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

Intersection #49: Lawrence Expwy & Oakmead Pkwy

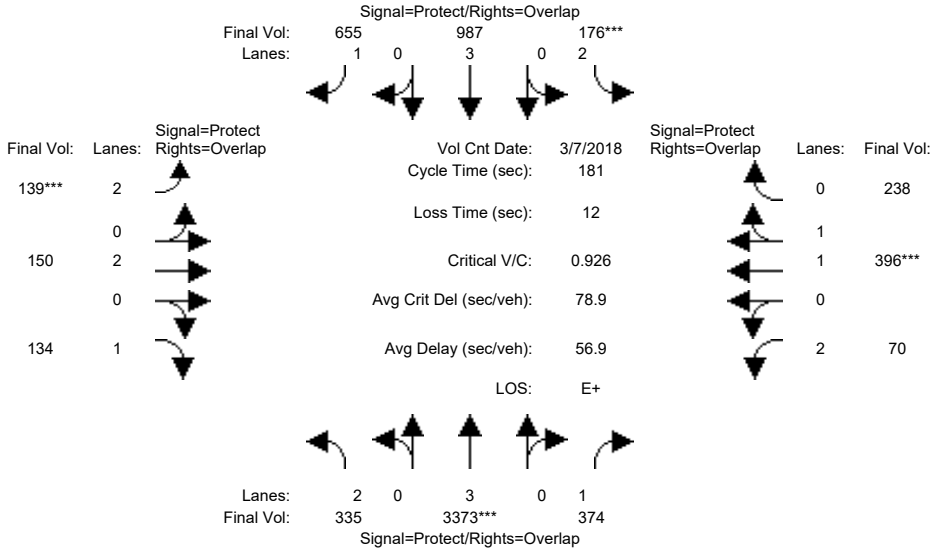



| Street Name: | Lawrence Expwy | | | | | | Oakmead Pkwy | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 20 | 71 | 71 | 31 | 82 | 82 | 34 | 53 | 53 | 10 | 29 | 29 |
| Y+R: | 6.4 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 | 5.6 | 5.5 | 5.5 | 5.6 | 5.6 | 5.6 |
| Volume Module: >> Count Date: 23 May 2019 << | | | | | | | | | | | | |
| Base Vol: | 208 | 1394 | 52 | 461 | 2503 | 614 | 509 | 229 | 167 | 43 | 132 | 301 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 208 | 1394 | 52 | 461 | 2503 | 614 | 509 | 229 | 167 | 43 | 132 | 301 |
| Added Vol: | 0 | 156 | 0 | 0 | 16 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 208 | 1550 | 52 | 461 | 2519 | 614 | 509 | 229 | 169 | 43 | 132 | 301 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 208 | 1550 | 52 | 461 | 2519 | 614 | 509 | 229 | 169 | 43 | 132 | 301 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 208 | 1550 | 52 | 461 | 2519 | 614 | 509 | 229 | 169 | 43 | 132 | 301 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 208 | 1550 | 52 | 461 | 2519 | 614 | 509 | 229 | 169 | 43 | 132 | 301 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 4.00 | 1.00 | 2.00 | 4.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 7600 | 1750 | 3150 | 7600 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.20 | 0.03 | 0.15 | 0.33 | 0.35 | 0.16 | 0.06 | 0.10 | 0.01 | 0.03 | 0.17 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 20.1 | 71.0 | 81.0 | 31.6 | 82.4 | 116.8 | 34.4 | 53.5 | 73.6 | 10.0 | 29.0 | 60.6 |
| Volume/Cap: | 0.62 | 0.55 | 0.07 | 0.88 | 0.76 | 0.57 | 0.89 | 0.21 | 0.25 | 0.26 | 0.23 | 0.54 |
| Uniform Del: | 81.3 | 46.8 | 32.2 | 77.4 | 45.6 | 21.7 | 76.0 | 52.2 | 39.5 | 86.4 | 70.7 | 53.2 |
| IncremntDel: | 3.7 | 0.2 | 0.0 | 15.8 | 1.1 | 0.7 | 16.2 | 0.1 | 0.2 | 0.8 | 0.2 | 1.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.92 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 85.0 | 43.3 | 27.9 | 93.1 | 46.7 | 22.5 | 92.2 | 52.3 | 39.7 | 87.3 | 70.9 | 54.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 85.0 | 43.3 | 27.9 | 93.1 | 46.7 | 22.5 | 92.2 | 52.3 | 39.7 | 87.3 | 70.9 | 54.3 |
| LOS by Move: | F | D | C | F | D | C+ | F | D- | D | F | E | D- |
| HCM2kAvgQ: | 7 | 15 | 1 | 18 | 31 | 22 | 20 | 5 | 7 | 2 | 3 | 15 |

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

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

Intersection #51: Lawrence Expwy & Kifer Rd

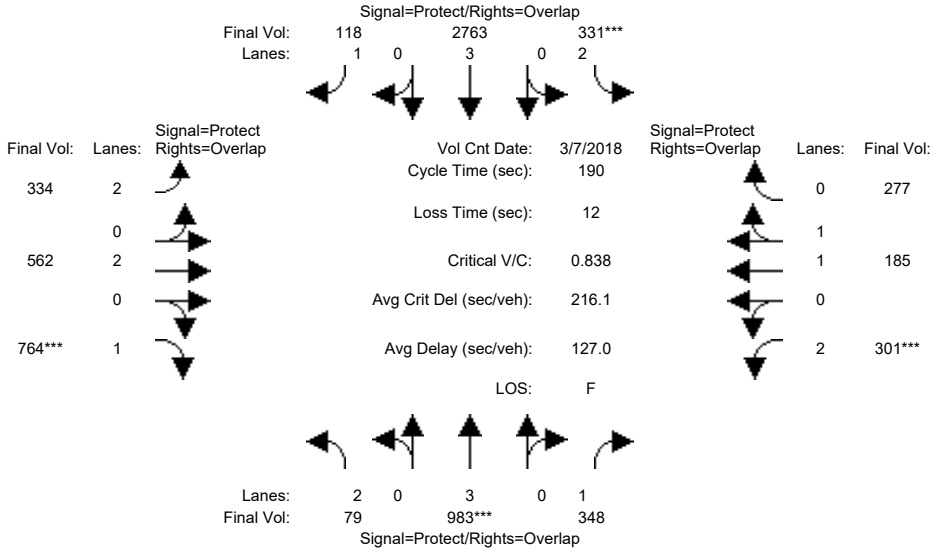



| Street Name: | Lawrence Expwy | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 25 | 101 | 101 | 17 | 93 | 93 | 13 | 29 | 29 | 11 | 27 | 27 |
| Y+R: | 5.9 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.8 | 5.5 | 5.5 | 5.9 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 7 Mar 2018 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 238 | 3877 | 374 | 176 | 1134 | 450 | 115 | 141 | 116 | 70 | 345 | 238 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 238 | 3877 | 374 | 176 | 1134 | 450 | 115 | 141 | 116 | 70 | 345 | 238 |
| Added Vol: | 97 | 0 | 0 | 0 | 0 | 205 | 24 | 9 | 18 | 0 | 51 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 335 | 3877 | 374 | 176 | 1134 | 655 | 139 | 150 | 134 | 70 | 396 | 238 |
| User Adj: | 1.00 | 0.87 | 1.00 | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 335 | 3373 | 374 | 176 | 987 | 655 | 139 | 150 | 134 | 70 | 396 | 238 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 335 | 3373 | 374 | 176 | 987 | 655 | 139 | 150 | 134 | 70 | 396 | 238 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 335 | 3373 | 374 | 176 | 987 | 655 | 139 | 150 | 134 | 70 | 396 | 238 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 0.98 | 0.94 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.23 | 0.77 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 2294 | 1379 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.59 | 0.21 | 0.06 | 0.17 | 0.37 | 0.04 | 0.04 | 0.08 | 0.02 | 0.17 | 0.17 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 25.2 | 101 | 111.8 | 17.1 | 93.1 | 105.9 | 12.8 | 28.8 | 54.0 | 10.8 | 26.9 | 44.0 |
| Volume/Cap: | 0.76 | 1.06 | 0.35 | 0.59 | 0.34 | 0.64 | 0.62 | 0.25 | 0.26 | 0.37 | 1.16 | 0.71 |
| Uniform Del: | 75.0 | 40.0 | 16.8 | 78.6 | 25.8 | 24.9 | 81.8 | 66.6 | 48.3 | 81.8 | 77.1 | 62.7 |
| IncremntDel: | 7.8 | 34.9 | 0.2 | 3.1 | 0.1 | 1.4 | 5.4 | 0.2 | 0.3 | 1.2 | 91.6 | 2.7 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.67 | 0.53 | 1.00 | 0.74 | 0.61 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 82.8 | 61.6 | 9.1 | 81.7 | 19.3 | 16.5 | 87.2 | 66.8 | 48.5 | 83.1 | 169 | 65.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 82.8 | 61.6 | 9.1 | 81.7 | 19.3 | 16.5 | 87.2 | 66.8 | 48.5 | 83.1 | 169 | 65.3 |
| LOS by Move: | F | E | A | F | B- | B | F | E | D | F | F | E |
| HCM2kAvgQ: | 10 | 66 | 5 | 6 | 7 | 17 | 5 | 3 | 6 | 2 | 24 | 16 |

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

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

Intersection #51: Lawrence Expwy & Kifer Rd

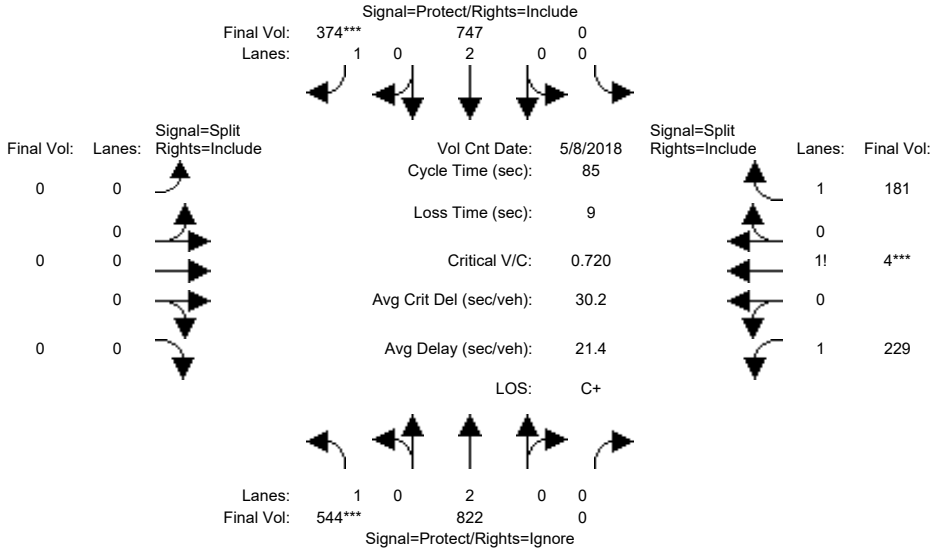



| Street Name: | Lawrence Expwy | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 9 | 85 | 85 | 27 | 103 | 103 | 16 | 33 | 33 | 22 | 39 | 39 |
| Y+R: | 5.9 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.8 | 5.5 | 5.5 | 5.9 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 7 Mar 2018 << 4:15 PM - 5:15 PM | | | | | | | | | | | | |
| Base Vol: | 68 | 1229 | 348 | 331 | 3497 | 94 | 178 | 503 | 652 | 301 | 179 | 277 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 68 | 1229 | 348 | 331 | 3497 | 94 | 178 | 503 | 652 | 301 | 179 | 277 |
| Added Vol: | 11 | 0 | 0 | 0 | 0 | 24 | 156 | 59 | 112 | 0 | 6 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 79 | 1229 | 348 | 331 | 3497 | 118 | 334 | 562 | 764 | 301 | 185 | 277 |
| User Adj: | 1.00 | 0.80 | 1.00 | 1.00 | 0.79 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 79 | 983 | 348 | 331 | 2763 | 118 | 334 | 562 | 764 | 301 | 185 | 277 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 79 | 983 | 348 | 331 | 2763 | 118 | 334 | 562 | 764 | 301 | 185 | 277 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 79 | 983 | 348 | 331 | 2763 | 118 | 334 | 562 | 764 | 301 | 185 | 277 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.17 | 0.20 | 0.11 | 0.48 | 0.07 | 0.11 | 0.15 | 0.44 | 0.10 | 0.10 | 0.16 |
| Crit Moves: | | **** | | **** | | | | | **** | **** | | |
| Green Time: | 8.9 | 84.9 | 106.6 | 26.9 | 103 | 118.9 | 15.8 | 33.0 | 41.9 | 21.7 | 38.9 | 65.8 |
| Volume/Cap: | 0.54 | 0.39 | 0.35 | 0.74 | 0.89 | 0.11 | 1.27 | 0.85 | 1.98 | 0.84 | 0.48 | 0.46 |
| Uniform Del: | 88.5 | 35.1 | 22.9 | 78.2 | 38.6 | 14.3 | 87.1 | 76.1 | 74.1 | 82.4 | 66.6 | 48.2 |
| IncremntDel: | 3.8 | 0.1 | 0.2 | 6.6 | 3.7 | 0.0 | 149.8 | 10.3 | 450.2 | 15.6 | 0.4 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.03 | 1.54 | 1.85 | 1.11 | 1.79 | 2.11 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 95.3 | 54.1 | 42.5 | 93.4 | 72.8 | 30.2 | 236.9 | 86.4 | 524.2 | 98.0 | 66.9 | 48.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 95.3 | 54.1 | 42.5 | 93.4 | 72.8 | 30.2 | 236.9 | 86.4 | 524.2 | 98.0 | 66.9 | 48.6 |
| LOS by Move: | F | D- | D | F | E | C | F | F | F | F | E | D |
| HCM2kAvgQ: | 3 | 16 | 18 | 13 | 53 | 6 | 17 | 16 | 96 | 11 | 9 | 13 |

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

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

Intersection #57: Fair Oaks Ave & US 101 NB Ramps

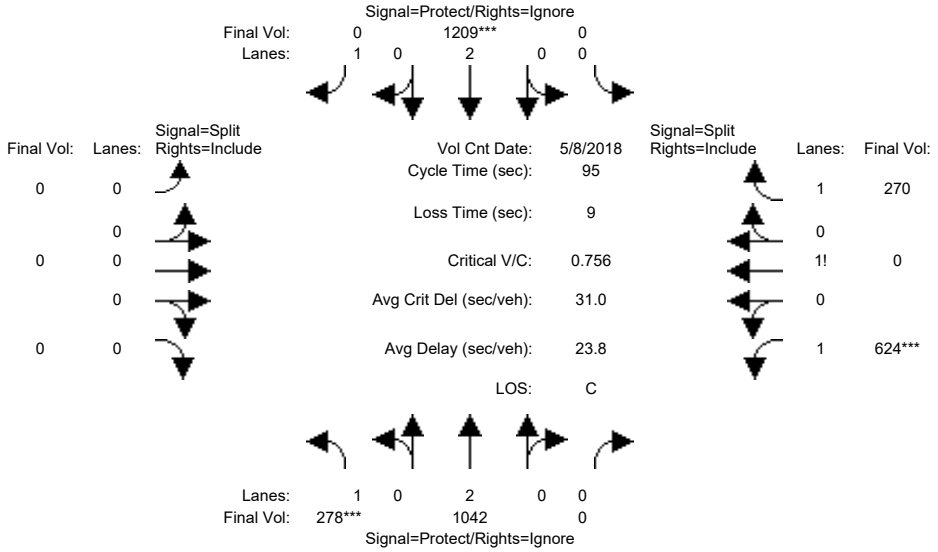



| Street Name: | Fair Oaks Ave | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 0 | 0 | 10 | 10 | 0 | 0 | 0 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 0.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 537 | 822 | 0 | 0 | 747 | 522 | 0 | 0 | 0 | 229 | 4 | 181 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 537 | 822 | 0 | 0 | 747 | 522 | 0 | 0 | 0 | 229 | 4 | 181 |
| Added Vol: | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 544 | 822 | 0 | 0 | 747 | 522 | 0 | 0 | 0 | 229 | 4 | 181 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 544 | 822 | 0 | 0 | 747 | 522 | 0 | 0 | 0 | 229 | 4 | 181 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 148 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 544 | 822 | 0 | 0 | 747 | 374 | 0 | 0 | 0 | 229 | 4 | 181 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 544 | 822 | 0 | 0 | 747 | 374 | 0 | 0 | 0 | 229 | 4 | 181 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.92 | 0.92 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.02 | 1.43 |
| Final Sat.: | 1750 | 3800 | 0 | 0 | 3800 | 1750 | 0 | 0 | 0 | 2709 | 33 | 2508 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.31 | 0.22 | 0.00 | 0.00 | 0.20 | 0.21 | 0.00 | 0.00 | 0.00 | 0.08 | 0.12 | 0.07 |
| Crit Moves: | **** | | | | | **** | | | | | **** | |
| Green Time: | 36.7 | 61.9 | 0.0 | 0.0 | 25.2 | 25.2 | 0.0 | 0.0 | 0.0 | 14.1 | 14.1 | 14.1 |
| Volume/Cap: | 0.72 | 0.30 | 0.00 | 0.00 | 0.66 | 0.72 | 0.00 | 0.00 | 0.00 | 0.51 | 0.72 | 0.44 |
| Uniform Del: | 19.9 | 4.0 | 0.0 | 0.0 | 26.2 | 26.7 | 0.0 | 0.0 | 0.0 | 32.3 | 33.6 | 31.9 |
| IncremntDel: | 3.4 | 0.1 | 0.0 | 0.0 | 1.5 | 4.9 | 0.0 | 0.0 | 0.0 | 0.5 | 4.4 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 23.3 | 4.1 | 0.0 | 0.0 | 27.7 | 31.6 | 0.0 | 0.0 | 0.0 | 32.8 | 38.0 | 32.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 23.3 | 4.1 | 0.0 | 0.0 | 27.7 | 31.6 | 0.0 | 0.0 | 0.0 | 32.8 | 38.0 | 32.2 |
| LOS by Move: | C | A | A | A | C | C | A | A | A | C- | D+ | C- |
| HCM2kAvgQ: | 14 | 4 | 0 | 0 | 9 | 10 | 0 | 0 | 0 | 4 | 7 | 4 |

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

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

Intersection #57: Fair Oaks Ave & US 101 NB Ramps

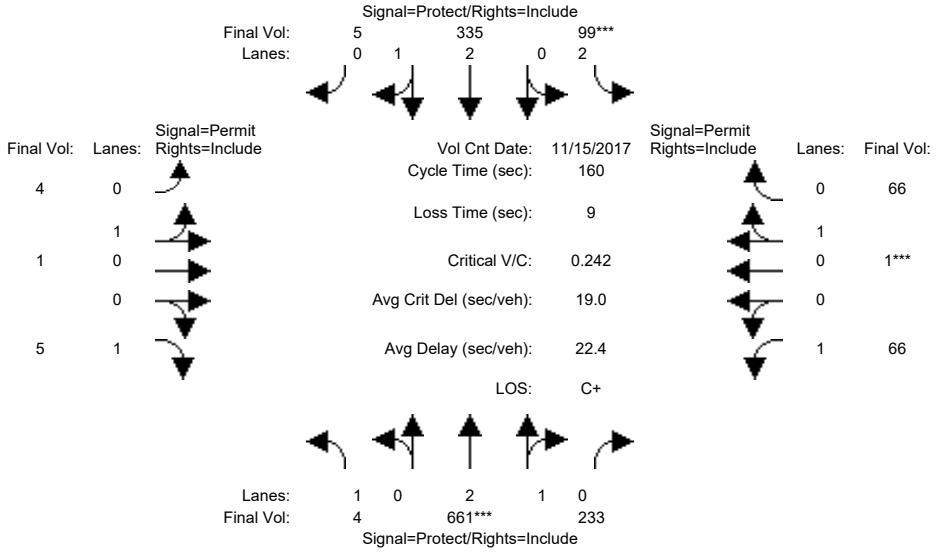



| Street Name: | Fair Oaks Ave | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 0 | 0 | 10 | 10 | 0 | 0 | 0 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 231 | 1042 | 0 | 0 | 1209 | 190 | 0 | 0 | 0 | 624 | 0 | 270 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 231 | 1042 | 0 | 0 | 1209 | 190 | 0 | 0 | 0 | 624 | 0 | 270 |
| Added Vol: | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 278 | 1042 | 0 | 0 | 1209 | 190 | 0 | 0 | 0 | 624 | 0 | 270 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 278 | 1042 | 0 | 0 | 1209 | 0 | 0 | 0 | 0 | 624 | 0 | 270 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 278 | 1042 | 0 | 0 | 1209 | 0 | 0 | 0 | 0 | 624 | 0 | 270 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 278 | 1042 | 0 | 0 | 1209 | 0 | 0 | 0 | 0 | 624 | 0 | 270 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.93 | 1.00 | 0.92 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.69 | 0.00 | 1.31 |
| Final Sat.: | 1750 | 3800 | 0 | 0 | 3800 | 1750 | 0 | 0 | 0 | 3009 | 0 | 2284 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.16 | 0.27 | 0.00 | 0.00 | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.00 | 0.12 |
| Crit Moves: | **** | | | | **** | | | | | **** | | |
| Green Time: | 20.0 | 59.9 | 0.0 | 0.0 | 40.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.1 | 0.0 | 26.1 |
| Volume/Cap: | 0.76 | 0.43 | 0.00 | 0.00 | 0.76 | 0.00 | 0.00 | 0.00 | 0.00 | 0.76 | 0.00 | 0.43 |
| Uniform Del: | 35.2 | 8.9 | 0.0 | 0.0 | 23.4 | 0.0 | 0.0 | 0.0 | 0.0 | 31.6 | 0.0 | 28.4 |
| IncremntDel: | 8.7 | 0.1 | 0.0 | 0.0 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 | 0.0 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 43.9 | 9.0 | 0.0 | 0.0 | 25.5 | 0.0 | 0.0 | 0.0 | 0.0 | 34.4 | 0.0 | 28.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 43.9 | 9.0 | 0.0 | 0.0 | 25.5 | 0.0 | 0.0 | 0.0 | 0.0 | 34.4 | 0.0 | 28.5 |
| LOS by Move: | D | A | A | A | C | A | A | A | A | C- | A | C |
| HCM2kAvgQ: | 10 | 8 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 12 | 0 | 6 |

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

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

Intersection #58: Wolfe Rd & Stewart Dr

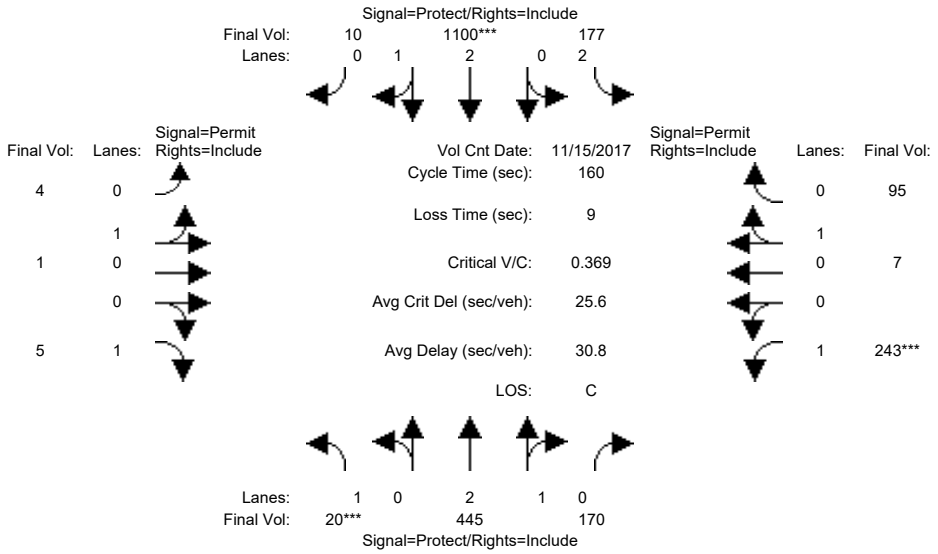



| Street Name: | Wolfe Rd | | | | | | Stewart Dr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 4 | 651 | 233 | 99 | 295 | 5 | 4 | 1 | 5 | 66 | 1 | 66 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 4 | 651 | 233 | 99 | 295 | 5 | 4 | 1 | 5 | 66 | 1 | 66 |
| Added Vol: | 0 | 10 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 4 | 661 | 233 | 99 | 335 | 5 | 4 | 1 | 5 | 66 | 1 | 66 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 4 | 661 | 233 | 99 | 335 | 5 | 4 | 1 | 5 | 66 | 1 | 66 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 4 | 661 | 233 | 99 | 335 | 5 | 4 | 1 | 5 | 66 | 1 | 66 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 4 | 661 | 233 | 99 | 335 | 5 | 4 | 1 | 5 | 66 | 1 | 66 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.19 | 0.81 | 2.00 | 2.95 | 0.05 | 0.80 | 0.20 | 1.00 | 1.00 | 0.01 | 0.99 |
| Final Sat.: | 1750 | 4139 | 1459 | 3150 | 5518 | 82 | 1440 | 360 | 1750 | 1750 | 27 | 1773 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.16 | 0.16 | 0.03 | 0.06 | 0.06 | 0.00 | 0.00 | 0.00 | 0.04 | 0.04 | 0.04 |
| Crit Moves: | | **** | | **** | | | | | | | **** | |
| Green Time: | 52.0 | 106 | 105.6 | 20.8 | 74.3 | 74.3 | 24.6 | 24.6 | 24.6 | 24.6 | 24.6 | 24.6 |
| Volume/Cap: | 0.01 | 0.24 | 0.24 | 0.24 | 0.13 | 0.13 | 0.02 | 0.02 | 0.02 | 0.25 | 0.24 | 0.24 |
| Uniform Del: | 36.5 | 11.0 | 11.0 | 62.5 | 24.4 | 24.4 | 57.4 | 57.4 | 57.4 | 59.5 | 59.5 | 59.5 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.5 | 0.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 36.5 | 11.0 | 11.0 | 62.8 | 24.4 | 24.4 | 57.5 | 57.5 | 57.5 | 60.0 | 60.0 | 60.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 36.5 | 11.0 | 11.0 | 62.8 | 24.4 | 24.4 | 57.5 | 57.5 | 57.5 | 60.0 | 60.0 | 60.0 |
| LOS by Move: | D+ | B+ | B+ | E | C | C | E+ | E+ | E+ | E | E+ | E+ |
| HCM2kAvgQ: | 0 | 6 | 6 | 3 | 3 | 3 | 0 | 0 | 0 | 3 | 3 | 3 |

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

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

Intersection #58: Wolfe Rd & Stewart Dr

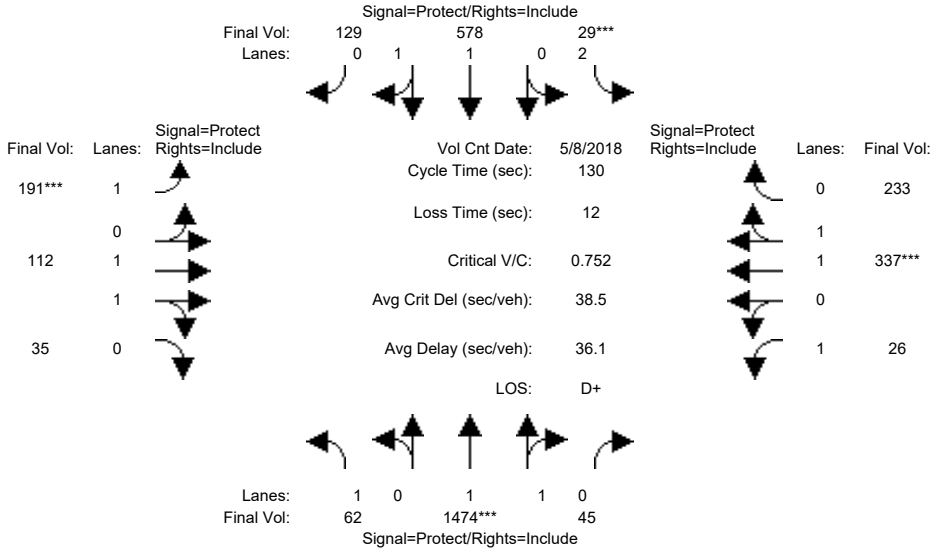



| Street Name: | Wolfe Rd | | | | | | Stewart Dr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 20 | 380 | 170 | 177 | 1095 | 10 | 4 | 1 | 5 | 243 | 7 | 95 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 20 | 380 | 170 | 177 | 1095 | 10 | 4 | 1 | 5 | 243 | 7 | 95 |
| Added Vol: | 0 | 65 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 20 | 445 | 170 | 177 | 1100 | 10 | 4 | 1 | 5 | 243 | 7 | 95 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 20 | 445 | 170 | 177 | 1100 | 10 | 4 | 1 | 5 | 243 | 7 | 95 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 20 | 445 | 170 | 177 | 1100 | 10 | 4 | 1 | 5 | 243 | 7 | 95 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 20 | 445 | 170 | 177 | 1100 | 10 | 4 | 1 | 5 | 243 | 7 | 95 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.95 | 0.83 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.14 | 0.86 | 2.00 | 2.97 | 0.03 | 0.80 | 0.20 | 1.00 | 1.00 | 0.07 | 0.93 |
| Final Sat.: | 1750 | 4050 | 1547 | 3150 | 5549 | 50 | 1440 | 360 | 1750 | 1750 | 124 | 1676 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.11 | 0.11 | 0.06 | 0.20 | 0.20 | 0.00 | 0.00 | 0.00 | 0.14 | 0.06 | 0.06 |
| Crit Moves: | **** | | | | **** | | | | | **** | | |
| Green Time: | 7.0 | 60.7 | 60.7 | 31.0 | 84.7 | 84.7 | 59.3 | 59.3 | 59.3 | 59.3 | 59.3 | 59.3 |
| Volume/Cap: | 0.26 | 0.29 | 0.29 | 0.29 | 0.37 | 0.37 | 0.01 | 0.01 | 0.01 | 0.37 | 0.15 | 0.15 |
| Uniform Del: | 74.0 | 34.6 | 34.6 | 55.1 | 22.1 | 22.1 | 31.8 | 31.8 | 31.8 | 36.8 | 33.6 | 33.6 |
| IncremntDel: | 1.8 | 0.1 | 0.1 | 0.3 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.4 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 75.8 | 34.7 | 34.7 | 55.3 | 22.2 | 22.2 | 31.8 | 31.8 | 31.8 | 37.1 | 33.7 | 33.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 75.8 | 34.7 | 34.7 | 55.3 | 22.2 | 22.2 | 31.8 | 31.8 | 31.8 | 37.1 | 33.7 | 33.7 |
| LOS by Move: | E- | C- | C- | E+ | C+ | C+ | C | C | C | D+ | C- | C- |
| HCM2kAvgQ: | 1 | 7 | 7 | 4 | 10 | 10 | 0 | 0 | 0 | 9 | 3 | 3 |

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

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

Intersection #62: Fair Oaks Ave & Evelyn Ave

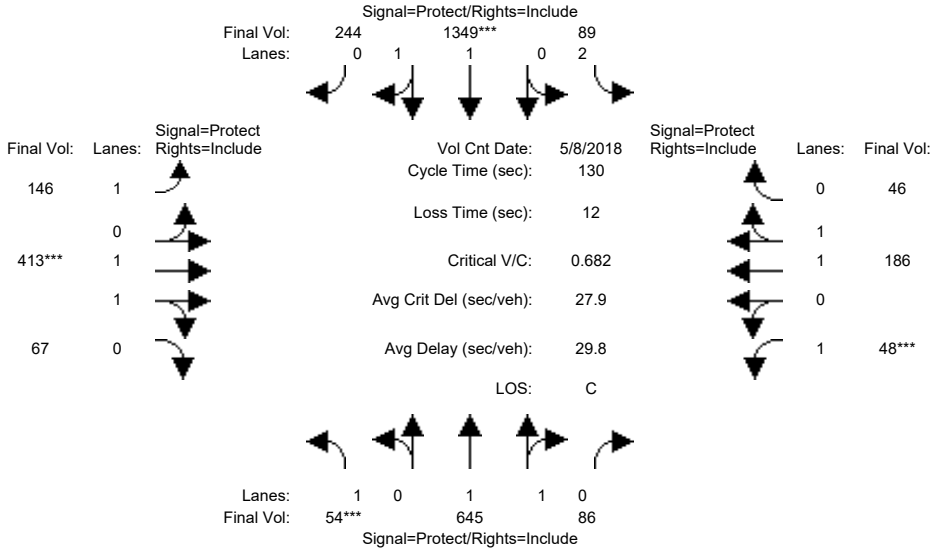



| Street Name: | Fair Oaks Ave | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:15 AM - 9:15 AM | | | | | | | | | | | | |
| Base Vol: | 62 | 1415 | 45 | 29 | 567 | 129 | 191 | 112 | 35 | 26 | 337 | 233 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 62 | 1415 | 45 | 29 | 567 | 129 | 191 | 112 | 35 | 26 | 337 | 233 |
| Added Vol: | 0 | 59 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 62 | 1474 | 45 | 29 | 578 | 129 | 191 | 112 | 35 | 26 | 337 | 233 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 62 | 1474 | 45 | 29 | 578 | 129 | 191 | 112 | 35 | 26 | 337 | 233 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 62 | 1474 | 45 | 29 | 578 | 129 | 191 | 112 | 35 | 26 | 337 | 233 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 62 | 1474 | 45 | 29 | 578 | 129 | 191 | 112 | 35 | 26 | 337 | 233 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.94 | 0.06 | 2.00 | 1.63 | 0.37 | 1.00 | 1.51 | 0.49 | 1.00 | 1.16 | 0.84 |
| Final Sat.: | 1750 | 3590 | 110 | 3150 | 3024 | 675 | 1750 | 2818 | 881 | 1750 | 2186 | 1512 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.41 | 0.41 | 0.01 | 0.19 | 0.19 | 0.11 | 0.04 | 0.04 | 0.01 | 0.15 | 0.15 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 16.4 | 67.6 | 67.6 | 7.0 | 58.2 | 58.2 | 18.0 | 25.5 | 25.5 | 17.9 | 25.4 | 25.4 |
| Volume/Cap: | 0.28 | 0.79 | 0.79 | 0.17 | 0.43 | 0.43 | 0.79 | 0.20 | 0.20 | 0.11 | 0.79 | 0.79 |
| Uniform Del: | 51.5 | 25.4 | 25.4 | 58.7 | 24.5 | 24.5 | 54.2 | 43.7 | 43.7 | 49.1 | 49.8 | 49.8 |
| IncremntDel: | 0.7 | 2.3 | 2.3 | 0.5 | 0.2 | 0.2 | 15.9 | 0.1 | 0.1 | 0.2 | 5.8 | 5.8 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 52.2 | 27.7 | 27.7 | 59.2 | 24.7 | 24.7 | 70.0 | 43.9 | 43.9 | 49.3 | 55.6 | 55.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 52.2 | 27.7 | 27.7 | 59.2 | 24.7 | 24.7 | 70.0 | 43.9 | 43.9 | 49.3 | 55.6 | 55.6 |
| LOS by Move: | D- | C | C | E+ | C | C | E | D | D | D | E+ | E+ |
| HCM2kAvgQ: | 3 | 26 | 26 | 1 | 10 | 10 | 8 | 2 | 2 | 1 | 11 | 11 |

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

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

Intersection #62: Fair Oaks Ave & Evelyn Ave

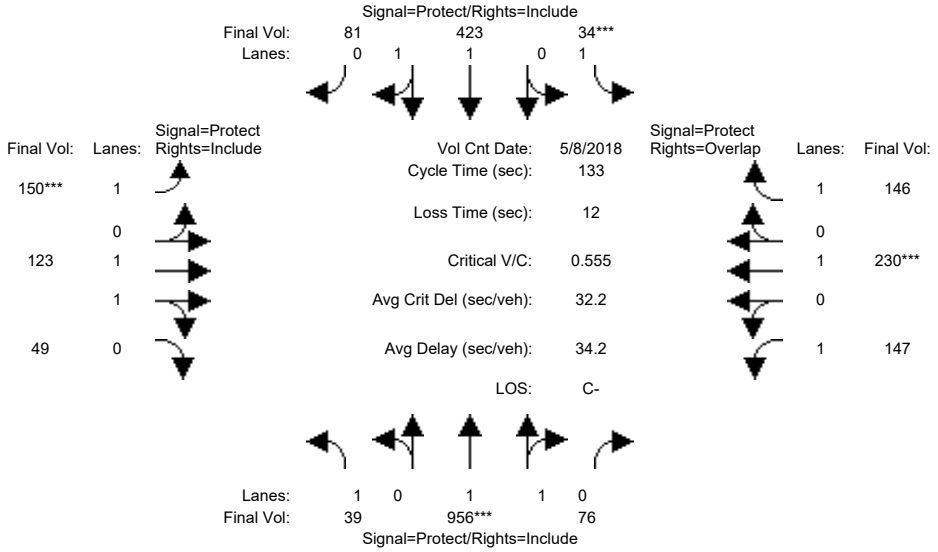



| Street Name: | Fair Oaks Ave | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 54 | 638 | 86 | 89 | 1280 | 244 | 146 | 413 | 67 | 48 | 186 | 46 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 54 | 638 | 86 | 89 | 1280 | 244 | 146 | 413 | 67 | 48 | 186 | 46 |
| Added Vol: | 0 | 7 | 0 | 0 | 69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 54 | 645 | 86 | 89 | 1349 | 244 | 146 | 413 | 67 | 48 | 186 | 46 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 54 | 645 | 86 | 89 | 1349 | 244 | 146 | 413 | 67 | 48 | 186 | 46 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 54 | 645 | 86 | 89 | 1349 | 244 | 146 | 413 | 67 | 48 | 186 | 46 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 54 | 645 | 86 | 89 | 1349 | 244 | 146 | 413 | 67 | 48 | 186 | 46 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 1.00 | 1.76 | 0.24 | 2.00 | 1.69 | 0.31 | 1.00 | 1.71 | 0.29 | 1.00 | 1.59 | 0.41 |
| Final Sat.: | 1750 | 3264 | 435 | 3150 | 3133 | 567 | 1750 | 3183 | 516 | 1750 | 2966 | 733 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.20 | 0.20 | 0.03 | 0.43 | 0.43 | 0.08 | 0.13 | 0.13 | 0.03 | 0.06 | 0.06 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.0 | 68.3 | 68.3 | 18.6 | 79.9 | 79.9 | 16.2 | 24.1 | 24.1 | 7.0 | 14.9 | 14.9 |
| Volume/Cap: | 0.57 | 0.38 | 0.38 | 0.20 | 0.70 | 0.70 | 0.67 | 0.70 | 0.70 | 0.51 | 0.55 | 0.55 |
| Uniform Del: | 60.0 | 18.2 | 18.2 | 49.1 | 16.9 | 16.9 | 54.4 | 49.6 | 49.6 | 59.8 | 54.4 | 54.4 |
| IncremntDel: | 8.3 | 0.1 | 0.1 | 0.2 | 1.0 | 1.0 | 7.9 | 3.2 | 3.2 | 4.6 | 1.5 | 1.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 68.3 | 18.4 | 18.4 | 49.3 | 17.9 | 17.9 | 62.3 | 52.8 | 52.8 | 64.4 | 55.9 | 55.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 68.3 | 18.4 | 18.4 | 49.3 | 17.9 | 17.9 | 62.3 | 52.8 | 52.8 | 64.4 | 55.9 | 55.9 |
| LOS by Move: | E | B- | B- | D | B | B | E | D- | D- | E | E+ | E+ |
| HCM2kAvgQ: | 3 | 9 | 9 | 2 | 22 | 22 | 6 | 9 | 9 | 2 | 4 | 4 |

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

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

Intersection #63: Fair Oaks Ave & Old SF Rd

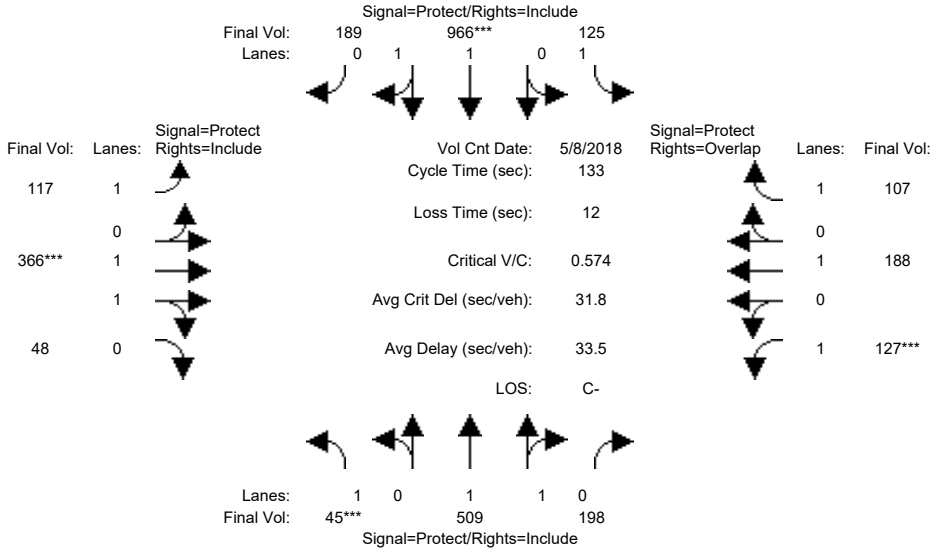



| Street Name: | Fair Oaks Ave | | | | | | Old SF Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:45 AM - 9:45 AM | | | | | | | | | | | | |
| Base Vol: | 39 | 934 | 76 | 34 | 419 | 76 | 123 | 123 | 49 | 147 | 230 | 146 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 39 | 934 | 76 | 34 | 419 | 76 | 123 | 123 | 49 | 147 | 230 | 146 |
| Added Vol: | 0 | 22 | 0 | 0 | 4 | 5 | 27 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 39 | 956 | 76 | 34 | 423 | 81 | 150 | 123 | 49 | 147 | 230 | 146 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 39 | 956 | 76 | 34 | 423 | 81 | 150 | 123 | 49 | 147 | 230 | 146 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 39 | 956 | 76 | 34 | 423 | 81 | 150 | 123 | 49 | 147 | 230 | 146 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 39 | 956 | 76 | 34 | 423 | 81 | 150 | 123 | 49 | 147 | 230 | 146 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.85 | 0.15 | 1.00 | 1.67 | 0.33 | 1.00 | 1.41 | 0.59 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 3427 | 272 | 1750 | 3105 | 595 | 1750 | 2645 | 1054 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.28 | 0.28 | 0.02 | 0.14 | 0.14 | 0.09 | 0.05 | 0.05 | 0.08 | 0.12 | 0.08 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 20.2 | 65.5 | 65.5 | 7.0 | 52.3 | 52.3 | 20.1 | 22.9 | 22.9 | 25.6 | 28.4 | 35.4 |
| Volume/Cap: | 0.15 | 0.57 | 0.57 | 0.37 | 0.35 | 0.35 | 0.57 | 0.27 | 0.27 | 0.44 | 0.57 | 0.31 |
| Uniform Del: | 48.9 | 23.8 | 23.8 | 60.9 | 28.4 | 28.4 | 52.4 | 47.8 | 47.8 | 47.3 | 46.8 | 39.1 |
| IncremntDel: | 0.3 | 0.4 | 0.4 | 2.5 | 0.1 | 0.1 | 2.9 | 0.2 | 0.2 | 0.9 | 1.9 | 0.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 49.2 | 24.2 | 24.2 | 63.4 | 28.5 | 28.5 | 55.3 | 48.0 | 48.0 | 48.2 | 48.7 | 39.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 49.2 | 24.2 | 24.2 | 63.4 | 28.5 | 28.5 | 55.3 | 48.0 | 48.0 | 48.2 | 48.7 | 39.4 |
| LOS by Move: | D | C | C | E | C | C | E+ | D | D | D | D | D |
| HCM2kAvgQ: | 1 | 15 | 15 | 2 | 7 | 7 | 7 | 3 | 3 | 6 | 8 | 5 |

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

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

Intersection #63: Fair Oaks Ave & Old SF Rd

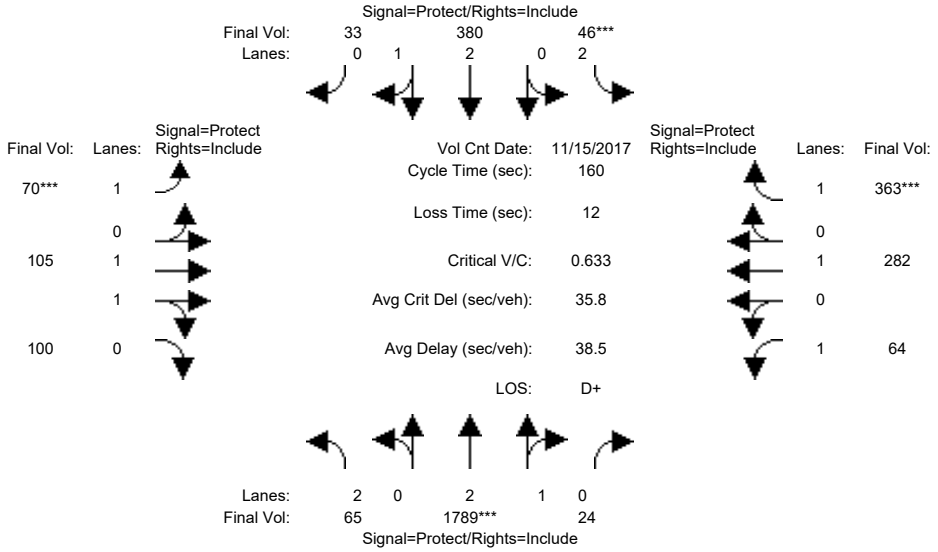



| Street Name: | Fair Oaks Ave | | | | | | Old SF Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 45 | 507 | 198 | 125 | 941 | 158 | 114 | 366 | 48 | 127 | 188 | 107 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 45 | 507 | 198 | 125 | 941 | 158 | 114 | 366 | 48 | 127 | 188 | 107 |
| Added Vol: | 0 | 2 | 0 | 0 | 25 | 31 | 3 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 45 | 509 | 198 | 125 | 966 | 189 | 117 | 366 | 48 | 127 | 188 | 107 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 45 | 509 | 198 | 125 | 966 | 189 | 117 | 366 | 48 | 127 | 188 | 107 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 45 | 509 | 198 | 125 | 966 | 189 | 117 | 366 | 48 | 127 | 188 | 107 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 45 | 509 | 198 | 125 | 966 | 189 | 117 | 366 | 48 | 127 | 188 | 107 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.42 | 0.58 | 1.00 | 1.66 | 0.34 | 1.00 | 1.76 | 0.24 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 2663 | 1036 | 1750 | 3094 | 605 | 1750 | 3271 | 429 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.19 | 0.19 | 0.07 | 0.31 | 0.31 | 0.07 | 0.11 | 0.11 | 0.07 | 0.10 | 0.06 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.0 | 57.3 | 57.3 | 21.4 | 71.7 | 71.7 | 17.1 | 25.7 | 25.7 | 16.7 | 25.3 | 46.7 |
| Volume/Cap: | 0.49 | 0.44 | 0.44 | 0.44 | 0.58 | 0.58 | 0.52 | 0.58 | 0.58 | 0.58 | 0.52 | 0.17 |
| Uniform Del: | 61.3 | 26.7 | 26.7 | 50.4 | 20.6 | 20.6 | 54.1 | 48.8 | 48.8 | 54.9 | 48.4 | 29.8 |
| IncremntDel: | 4.0 | 0.2 | 0.2 | 1.1 | 0.4 | 0.4 | 2.2 | 1.2 | 1.2 | 3.9 | 1.4 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 65.3 | 26.9 | 26.9 | 51.5 | 21.0 | 21.0 | 56.3 | 49.9 | 49.9 | 58.7 | 49.8 | 30.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 65.3 | 26.9 | 26.9 | 51.5 | 21.0 | 21.0 | 56.3 | 49.9 | 49.9 | 58.7 | 49.8 | 30.0 |
| LOS by Move: | E | C | C | D- | C+ | C+ | E+ | D | D | E+ | D | C |
| HCM2kAvgQ: | 2 | 10 | 10 | 5 | 16 | 16 | 5 | 8 | 8 | 5 | 7 | 3 |

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

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

Intersection #64: Wolfe Rd & Evelyn Ave

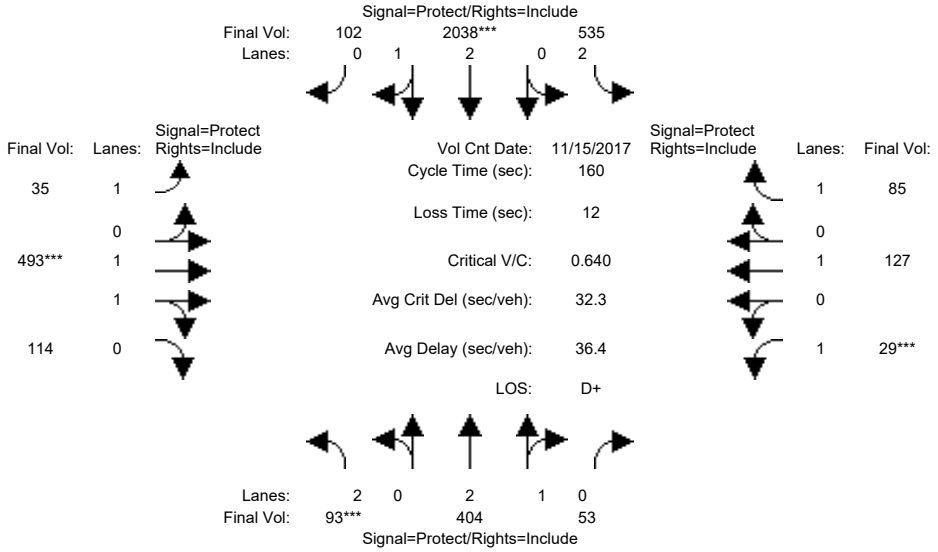



| Street Name: | Wolfe Rd | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 65 | 1757 | 24 | 46 | 374 | 33 | 70 | 105 | 100 | 64 | 282 | 363 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 65 | 1757 | 24 | 46 | 374 | 33 | 70 | 105 | 100 | 64 | 282 | 363 |
| Added Vol: | 0 | 32 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 65 | 1789 | 24 | 46 | 380 | 33 | 70 | 105 | 100 | 64 | 282 | 363 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 65 | 1789 | 24 | 46 | 380 | 33 | 70 | 105 | 100 | 64 | 282 | 363 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 65 | 1789 | 24 | 46 | 380 | 33 | 70 | 105 | 100 | 64 | 282 | 363 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 65 | 1789 | 24 | 46 | 380 | 33 | 70 | 105 | 100 | 64 | 282 | 363 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 1.00 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.96 | 0.04 | 2.00 | 2.75 | 0.25 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 5526 | 74 | 3150 | 5152 | 447 | 1750 | 1898 | 1800 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.32 | 0.32 | 0.01 | 0.07 | 0.07 | 0.04 | 0.06 | 0.06 | 0.04 | 0.15 | 0.21 |
| Crit Moves: | | **** | | **** | | | **** | | | | | **** |
| Green Time: | 32.4 | 79.9 | 79.9 | 7.0 | 54.6 | 54.6 | 9.9 | 35.9 | 35.9 | 25.2 | 51.2 | 51.2 |
| Volume/Cap: | 0.10 | 0.65 | 0.65 | 0.33 | 0.22 | 0.22 | 0.65 | 0.25 | 0.25 | 0.23 | 0.46 | 0.65 |
| Uniform Del: | 52.0 | 29.6 | 29.6 | 74.2 | 37.5 | 37.5 | 73.4 | 50.9 | 50.9 | 59.0 | 43.4 | 46.7 |
| IncremntDel: | 0.1 | 0.5 | 0.5 | 1.4 | 0.1 | 0.1 | 13.0 | 0.2 | 0.2 | 0.4 | 0.6 | 2.7 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 52.1 | 30.2 | 30.2 | 75.7 | 37.6 | 37.6 | 86.3 | 51.1 | 51.1 | 59.4 | 44.0 | 49.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 52.1 | 30.2 | 30.2 | 75.7 | 37.6 | 37.6 | 86.3 | 51.1 | 51.1 | 59.4 | 44.0 | 49.3 |
| LOS by Move: | D- | C | C | E- | D+ | D+ | F | D- | D- | E+ | D | D |
| HCM2kAvgQ: | 1 | 22 | 22 | 1 | 5 | 5 | 4 | 4 | 4 | 3 | 11 | 17 |

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

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

Intersection #64: Wolfe Rd & Evelyn Ave

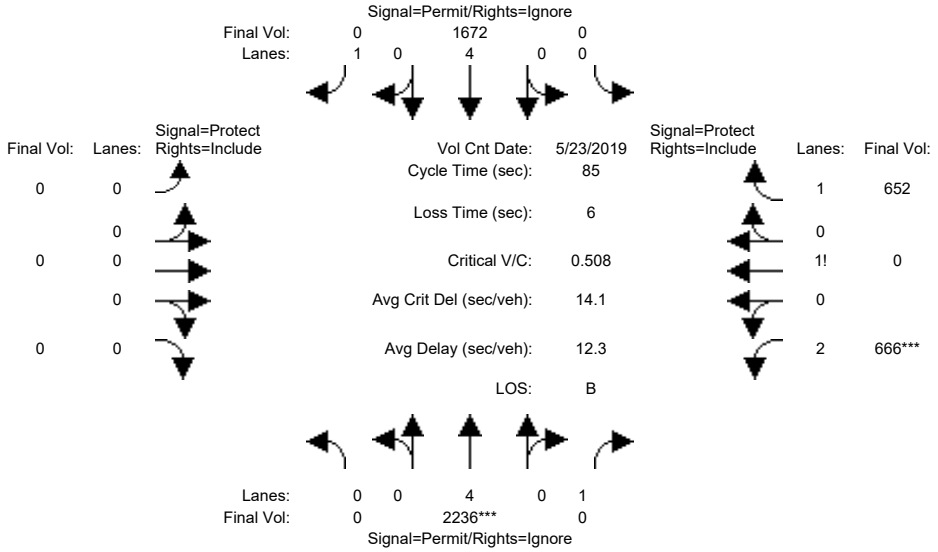



| Street Name: | Wolfe Rd | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 93 | 400 | 53 | 535 | 2001 | 102 | 35 | 493 | 114 | 29 | 127 | 85 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 93 | 400 | 53 | 535 | 2001 | 102 | 35 | 493 | 114 | 29 | 127 | 85 |
| Added Vol: | 0 | 4 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 93 | 404 | 53 | 535 | 2038 | 102 | 35 | 493 | 114 | 29 | 127 | 85 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 93 | 404 | 53 | 535 | 2038 | 102 | 35 | 493 | 114 | 29 | 127 | 85 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 93 | 404 | 53 | 535 | 2038 | 102 | 35 | 493 | 114 | 29 | 127 | 85 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 93 | 404 | 53 | 535 | 2038 | 102 | 35 | 493 | 114 | 29 | 127 | 85 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.64 | 0.36 | 2.00 | 2.85 | 0.15 | 1.00 | 1.61 | 0.39 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 4950 | 649 | 3150 | 5333 | 267 | 1750 | 3005 | 695 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.08 | 0.08 | 0.17 | 0.38 | 0.38 | 0.02 | 0.16 | 0.16 | 0.02 | 0.07 | 0.05 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.2 | 32.7 | 32.7 | 68.1 | 93.6 | 93.6 | 18.7 | 40.2 | 40.2 | 7.0 | 28.5 | 28.5 |
| Volume/Cap: | 0.65 | 0.40 | 0.40 | 0.40 | 0.65 | 0.65 | 0.17 | 0.65 | 0.65 | 0.38 | 0.38 | 0.27 |
| Uniform Del: | 75.2 | 55.1 | 55.1 | 31.8 | 22.3 | 22.3 | 63.7 | 53.7 | 53.7 | 74.4 | 57.9 | 56.8 |
| IncremntDel: | 10.4 | 0.2 | 0.2 | 0.2 | 0.5 | 0.5 | 0.4 | 1.7 | 1.7 | 3.1 | 0.7 | 0.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 85.6 | 55.4 | 55.4 | 32.0 | 22.8 | 22.8 | 64.1 | 55.4 | 55.4 | 77.5 | 58.6 | 57.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 85.6 | 55.4 | 55.4 | 32.0 | 22.8 | 22.8 | 64.1 | 55.4 | 55.4 | 77.5 | 58.6 | 57.3 |
| LOS by Move: | F | E+ | E+ | C | C+ | C+ | E | E+ | E+ | E- | E+ | E+ |
| HCM2kAvgQ: | 3 | 6 | 6 | 10 | 23 | 23 | 2 | 13 | 13 | 2 | 6 | 4 |

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

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

Intersection #67: Lawrence Expwy & US 101 NB Ramps

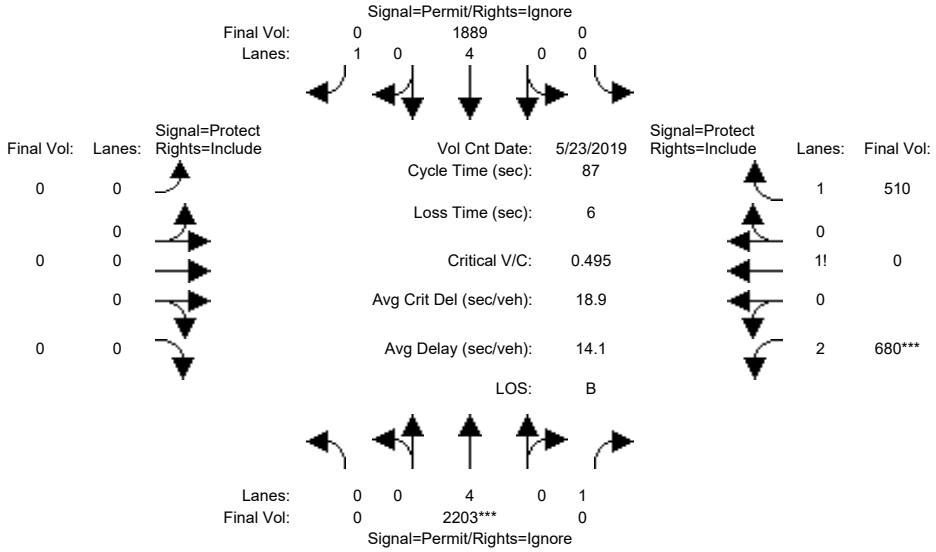



| Street Name: | Lawrence Expwy | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 51 | 0 | 0 | 51 | 0 | 0 | 0 | 0 | 22 | 22 | 22 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 0.0 | 5.0 |
| Volume Module: >> Count Date: 23 May 2019 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 2226 | 0 | 0 | 1618 | 371 | 0 | 0 | 0 | 626 | 0 | 652 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 2226 | 0 | 0 | 1618 | 371 | 0 | 0 | 0 | 626 | 0 | 652 |
| Added Vol: | 0 | 10 | 0 | 0 | 54 | 0 | 0 | 0 | 0 | 40 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 2236 | 0 | 0 | 1672 | 371 | 0 | 0 | 0 | 666 | 0 | 652 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 2236 | 0 | 0 | 1672 | 0 | 0 | 0 | 0 | 666 | 0 | 652 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 2236 | 0 | 0 | 1672 | 0 | 0 | 0 | 0 | 666 | 0 | 652 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 2236 | 0 | 0 | 1672 | 0 | 0 | 0 | 0 | 666 | 0 | 652 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.81 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 0.00 | 0.00 | 0.00 | 2.44 | 0.00 | 1.56 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 0 | 0 | 0 | 3751 | 0 | 2736 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.29 | 0.00 | 0.00 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.18 | 0.00 | 0.24 |
| Crit Moves: | | **** | | | | | | | | **** | | |
| Green Time: | 0.0 | 51.0 | 0.0 | 0.0 | 51.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.7 | 22.7 | 22.7 |
| Volume/Cap: | 0.00 | 0.49 | 0.00 | 0.00 | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.66 | 0.00 | 0.89 |
| Uniform Del: | 0.0 | 9.6 | 0.0 | 0.0 | 8.7 | 0.0 | 0.0 | 0.0 | 0.0 | 27.7 | 0.0 | 29.9 |
| IncremntDel: | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 7.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.58 | 0.00 | 0.00 | 0.58 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 5.6 | 0.0 | 0.0 | 5.1 | 0.0 | 0.0 | 0.0 | 0.0 | 28.6 | 0.0 | 37.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 5.6 | 0.0 | 0.0 | 5.1 | 0.0 | 0.0 | 0.0 | 0.0 | 28.6 | 0.0 | 37.1 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | C | A | D+ |
| HCM2kAvgQ: | 0 | 5 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 9 | 0 | 15 |

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

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

Intersection #67: Lawrence Expwy & US 101 NB Ramps

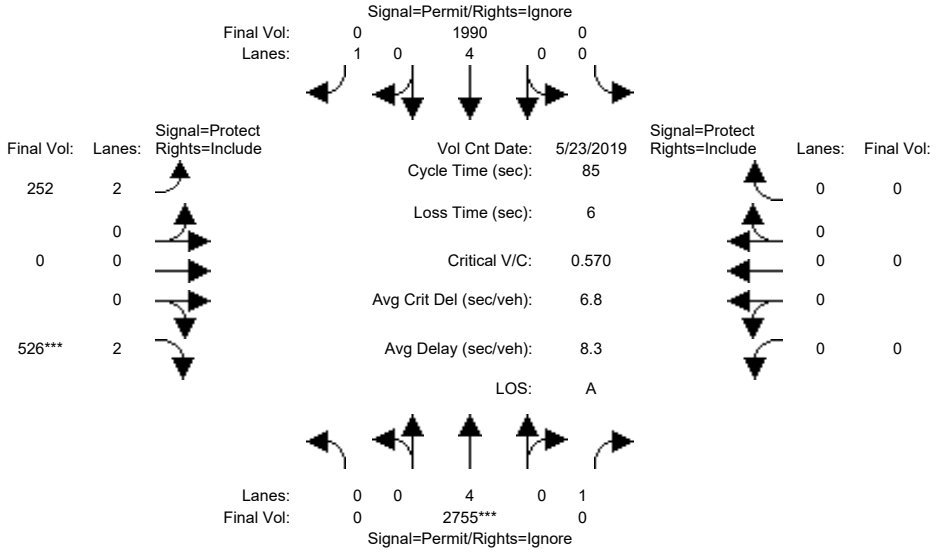



| Street Name: | Lawrence Expwy | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 53 | 0 | 0 | 53 | 0 | 0 | 0 | 0 | 22 | 22 | 22 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 0.0 | 5.0 |
| Volume Module: >> Count Date: 23 May 2019 << 4:55 PM - 5:55 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 2141 | 0 | 0 | 1883 | 344 | 0 | 0 | 0 | 675 | 0 | 510 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 2141 | 0 | 0 | 1883 | 344 | 0 | 0 | 0 | 675 | 0 | 510 |
| Added Vol: | 0 | 62 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 5 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 2203 | 0 | 0 | 1889 | 344 | 0 | 0 | 0 | 680 | 0 | 510 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 2203 | 0 | 0 | 1889 | 0 | 0 | 0 | 0 | 680 | 0 | 510 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 2203 | 0 | 0 | 1889 | 0 | 0 | 0 | 0 | 680 | 0 | 510 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 2203 | 0 | 0 | 1889 | 0 | 0 | 0 | 0 | 680 | 0 | 510 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.84 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 0.00 | 0.00 | 0.00 | 2.49 | 0.00 | 1.51 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 0 | 0 | 0 | 3982 | 0 | 2636 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.29 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 | 0.19 |
| Crit Moves: | | **** | | | | | | | | **** | | |
| Green Time: | 0.0 | 53.2 | 0.0 | 0.0 | 53.2 | 0.0 | 0.0 | 0.0 | 0.0 | 22.7 | 0.0 | 22.7 |
| Volume/Cap: | 0.00 | 0.47 | 0.00 | 0.00 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.65 | 0.00 | 0.74 |
| Uniform Del: | 0.0 | 9.2 | 0.0 | 0.0 | 8.7 | 0.0 | 0.0 | 0.0 | 0.0 | 28.7 | 0.0 | 29.5 |
| IncremntDel: | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 1.9 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.42 | 0.00 | 0.00 | 0.55 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 13.2 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 29.5 | 0.0 | 31.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 13.2 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 29.5 | 0.0 | 31.4 |
| LOS by Move: | A | B | A | A | A | A | A | A | A | C | A | C |
| HCM2kAvgQ: | 0 | 11 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 9 | 0 | 11 |

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

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

Intersection #68: Lawrence Expwy & US 101 SB Ramps

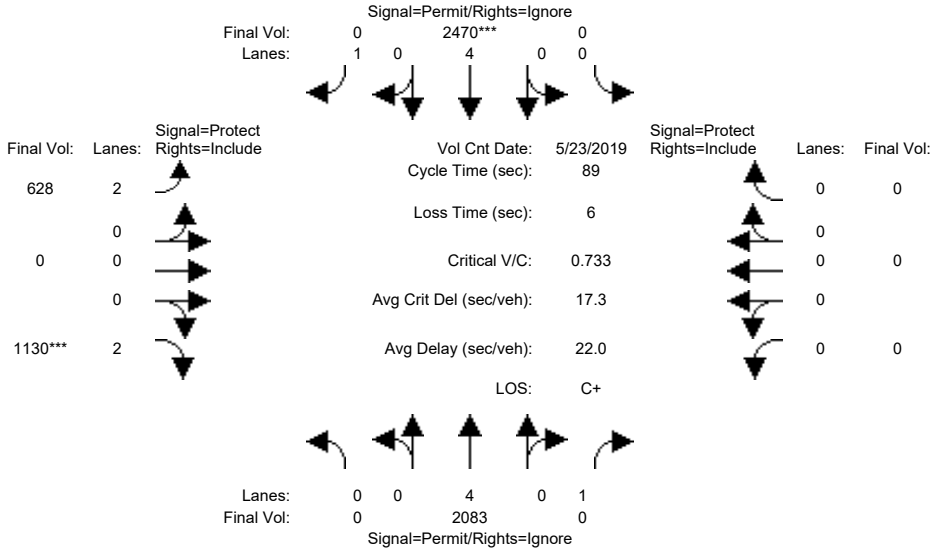



| Street Name: | Lawrence Expwy | | | | | | US 101 SB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 60 | 0 | 0 | 60 | 0 | 14 | 14 | 14 | 0 | 0 | 0 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 5.5 | 0.0 | 5.5 | 0.0 | 0.0 | 0.0 |
| Volume Module: >> Count Date: 23 May 2019 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 2738 | 584 | 0 | 1896 | 0 | 252 | 0 | 486 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 2738 | 584 | 0 | 1896 | 0 | 252 | 0 | 486 | 0 | 0 | 0 |
| Added Vol: | 0 | 17 | 0 | 0 | 94 | 0 | 0 | 0 | 40 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 2755 | 584 | 0 | 1990 | 0 | 252 | 0 | 526 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 2755 | 0 | 0 | 1990 | 0 | 252 | 0 | 526 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 2755 | 0 | 0 | 1990 | 0 | 252 | 0 | 526 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 2755 | 0 | 0 | 1990 | 0 | 252 | 0 | 526 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 2.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 3150 | 0 | 3150 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.36 | 0.00 | 0.00 | 0.26 | 0.00 | 0.08 | 0.00 | 0.17 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | | | | | | **** | | | |
| Green Time: | 0.0 | 60.4 | 0.0 | 0.0 | 47.6 | 0.0 | 12.6 | 12.6 | 18.6 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.51 | 0.00 | 0.00 | 0.47 | 0.00 | 0.54 | 0.00 | 0.76 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 5.6 | 0.0 | 0.0 | 11.1 | 0.0 | 33.5 | 0.0 | 31.1 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 1.3 | 0.0 | 5.0 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.21 | 0.00 | 0.00 | 0.66 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 1.2 | 0.0 | 0.0 | 7.5 | 0.0 | 34.8 | 0.0 | 36.2 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 1.2 | 0.0 | 0.0 | 7.5 | 0.0 | 34.8 | 0.0 | 36.2 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | A | A | A | A | A | C- | A | D+ | A | A | A |
| HCM2kAvgQ: | 0 | 3 | 0 | 0 | 5 | 0 | 4 | 0 | 10 | 0 | 0 | 0 |

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

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

Intersection #68: Lawrence Expwy & US 101 SB Ramps

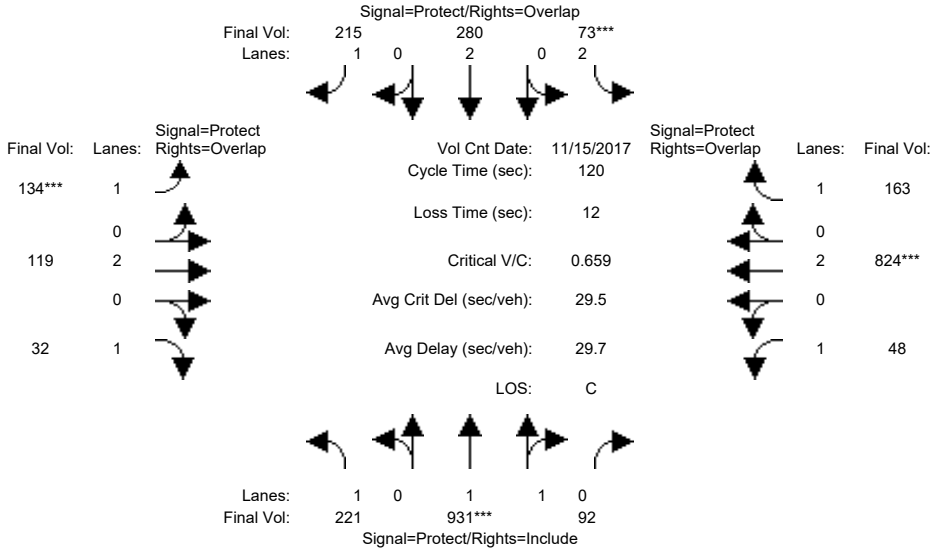



| Street Name: | Lawrence Expwy | | | | | | US 101 SB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 61 | 0 | 0 | 44 | 0 | 15 | 18 | 15 | 0 | 0 | 0 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 5.5 | 0.0 | 5.5 | 0.0 | 0.0 | 0.0 |
| Volume Module: >> Count Date: 23 May 2019 << | | | | | | | | | | | | |
| Base Vol: | 0 | 1974 | 352 | 0 | 2459 | 0 | 628 | 0 | 1125 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1974 | 352 | 0 | 2459 | 0 | 628 | 0 | 1125 | 0 | 0 | 0 |
| Added Vol: | 0 | 109 | 0 | 0 | 11 | 0 | 0 | 0 | 5 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 2083 | 352 | 0 | 2470 | 0 | 628 | 0 | 1130 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 2083 | 0 | 0 | 2470 | 0 | 628 | 0 | 1130 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 2083 | 0 | 0 | 2470 | 0 | 628 | 0 | 1130 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 2083 | 0 | 0 | 2470 | 0 | 628 | 0 | 1130 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 2.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 3150 | 0 | 3150 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.27 | 0.00 | 0.00 | 0.33 | 0.00 | 0.20 | 0.00 | 0.36 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | | | | **** | | | | **** | | | |
| Green Time: | 0.0 | 61.8 | 0.0 | 0.0 | 44.6 | 0.0 | 15.7 | 18.3 | 38.4 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.39 | 0.00 | 0.00 | 0.65 | 0.00 | 1.13 | 0.00 | 0.83 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 5.7 | 0.0 | 0.0 | 16.4 | 0.0 | 36.7 | 0.0 | 22.4 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 79.3 | 0.0 | 4.5 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.28 | 0.00 | 0.00 | 0.76 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 1.6 | 0.0 | 0.0 | 13.0 | 0.0 | 116.0 | 0.0 | 26.9 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 1.6 | 0.0 | 0.0 | 13.0 | 0.0 | 116.0 | 0.0 | 26.9 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | A | A | A | B | A | F | A | C | A | A | A |
| HCM2kAvgQ: | 0 | 2 | 0 | 0 | 11 | 0 | 19 | 0 | 19 | 0 | 0 | 0 |

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

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

Intersection #84: Bowers Ave & Kifer Rd

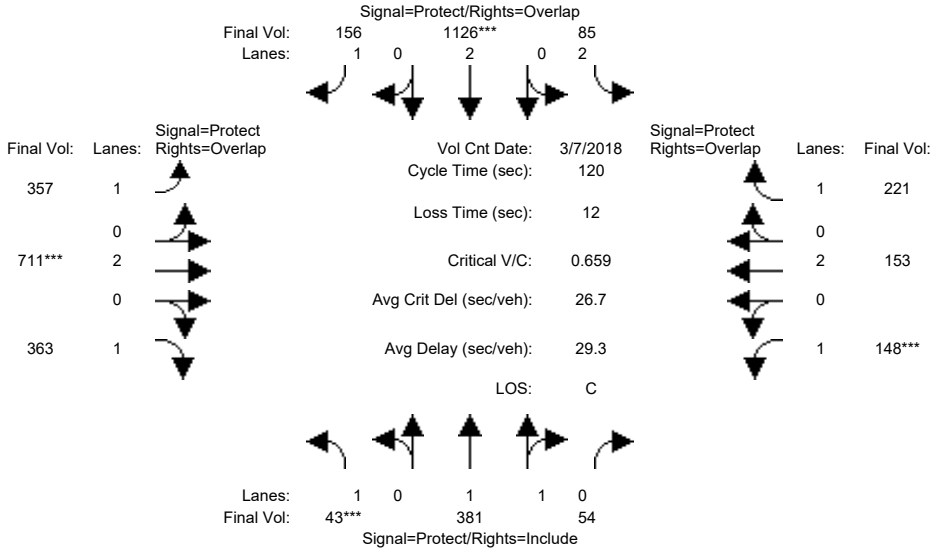



| Street Name: | Bowers Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 5 | 10 | 10 | 8 | 10 | 10 | 5 | 5 | 5 | 5 | 5 | 5 |
| Y+R: | 4.1 | 5.0 | 5.0 | 4.0 | 5.0 | 5.0 | 4.1 | 4.6 | 4.6 | 4.0 | 5.0 | 5.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 201 | 847 | 84 | 66 | 255 | 196 | 122 | 99 | 29 | 44 | 699 | 148 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 201 | 847 | 84 | 66 | 255 | 196 | 122 | 99 | 29 | 44 | 699 | 148 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 51 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 201 | 847 | 84 | 66 | 255 | 196 | 122 | 108 | 29 | 44 | 750 | 148 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| PHF Volume: | 221 | 931 | 92 | 73 | 280 | 215 | 134 | 119 | 32 | 48 | 824 | 163 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 221 | 931 | 92 | 73 | 280 | 215 | 134 | 119 | 32 | 48 | 824 | 163 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 221 | 931 | 92 | 73 | 280 | 215 | 134 | 119 | 32 | 48 | 824 | 163 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.81 | 0.19 | 2.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 3366 | 334 | 3150 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.28 | 0.28 | 0.02 | 0.07 | 0.12 | 0.08 | 0.03 | 0.02 | 0.03 | 0.22 | 0.09 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 34.0 | 48.5 | 48.5 | 8.0 | 22.5 | 35.9 | 13.4 | 25.7 | 59.8 | 25.7 | 38.0 | 46.0 |
| Volume/Cap: | 0.44 | 0.68 | 0.68 | 0.35 | 0.39 | 0.41 | 0.68 | 0.15 | 0.04 | 0.13 | 0.68 | 0.24 |
| Uniform Del: | 35.2 | 29.4 | 29.4 | 53.5 | 42.8 | 33.6 | 51.2 | 38.2 | 15.4 | 38.1 | 35.7 | 25.1 |
| IncremntDel: | 0.6 | 1.3 | 1.3 | 1.0 | 0.4 | 0.5 | 9.6 | 0.1 | 0.0 | 0.2 | 1.6 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.74 | 0.55 | 0.55 | 0.95 | 0.85 | 0.72 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 26.6 | 17.4 | 17.4 | 51.9 | 36.6 | 24.6 | 60.8 | 38.3 | 15.4 | 38.2 | 37.4 | 25.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 26.6 | 17.4 | 17.4 | 51.9 | 36.6 | 24.6 | 60.8 | 38.3 | 15.4 | 38.2 | 37.4 | 25.3 |
| LOS by Move: | C | B | B | D- | D+ | C | E | D+ | B | D+ | D+ | C |
| HCM2kAvgQ: | 6 | 12 | 12 | 1 | 4 | 5 | 5 | 2 | 1 | 1 | 13 | 4 |

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

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

Intersection #84: Bowers Ave & Kifer Rd

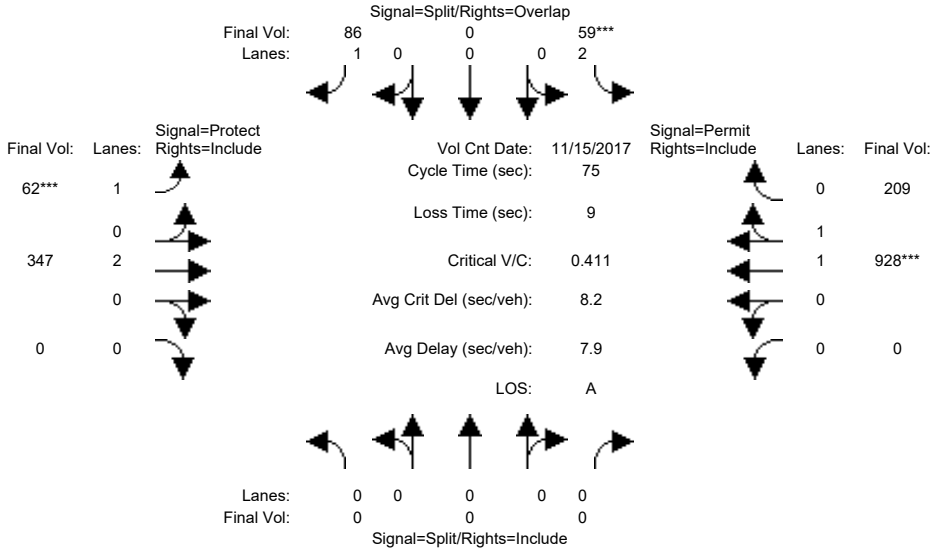



| Street Name: | Bowers Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 5 | 10 | 10 | 8 | 10 | 10 | 5 | 5 | 5 | 5 | 5 | 5 |
| Y+R: | 4.1 | 5.0 | 5.0 | 4.0 | 5.0 | 5.0 | 4.1 | 4.6 | 4.6 | 4.0 | 5.0 | 5.0 |
| Volume Module: >> Count Date: 7 Mar 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 43 | 377 | 53 | 84 | 1115 | 154 | 353 | 645 | 359 | 147 | 145 | 219 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 43 | 377 | 53 | 84 | 1115 | 154 | 353 | 645 | 359 | 147 | 145 | 219 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 0 | 6 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 43 | 377 | 53 | 84 | 1115 | 154 | 353 | 704 | 359 | 147 | 151 | 219 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| PHF Volume: | 43 | 381 | 54 | 85 | 1126 | 156 | 357 | 711 | 363 | 148 | 153 | 221 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 43 | 381 | 54 | 85 | 1126 | 156 | 357 | 711 | 363 | 148 | 153 | 221 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 43 | 381 | 54 | 85 | 1126 | 156 | 357 | 711 | 363 | 148 | 153 | 221 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.75 | 0.25 | 2.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 3244 | 456 | 3150 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.12 | 0.12 | 0.03 | 0.30 | 0.09 | 0.20 | 0.19 | 0.21 | 0.08 | 0.04 | 0.13 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 5.0 | 37.4 | 37.4 | 21.3 | 53.7 | 86.8 | 33.1 | 33.9 | 38.9 | 15.4 | 16.2 | 37.4 |
| Volume/Cap: | 0.60 | 0.38 | 0.38 | 0.15 | 0.66 | 0.12 | 0.74 | 0.66 | 0.64 | 0.66 | 0.30 | 0.41 |
| Uniform Del: | 56.5 | 32.2 | 32.2 | 41.7 | 26.0 | 5.0 | 39.5 | 38.0 | 34.6 | 49.8 | 46.8 | 32.5 |
| IncremntDel: | 12.7 | 0.2 | 0.2 | 0.1 | 1.0 | 0.0 | 5.9 | 1.6 | 2.4 | 7.2 | 0.3 | 0.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.97 | 0.70 | 0.70 | 0.86 | 0.46 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 67.6 | 22.7 | 22.7 | 35.9 | 13.0 | 0.0 | 45.4 | 39.5 | 37.0 | 57.0 | 47.1 | 33.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 67.6 | 22.7 | 22.7 | 35.9 | 13.0 | 0.0 | 45.4 | 39.5 | 37.0 | 57.0 | 47.1 | 33.0 |
| LOS by Move: | E | C+ | C+ | D+ | B | A | D | D | D+ | E+ | D | C- |
| HCM2kAvgQ: | 2 | 5 | 5 | 1 | 10 | 0 | 13 | 11 | 12 | 6 | 2 | 7 |

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

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

Intersection #85: Corvin Dr & Kifer Rd

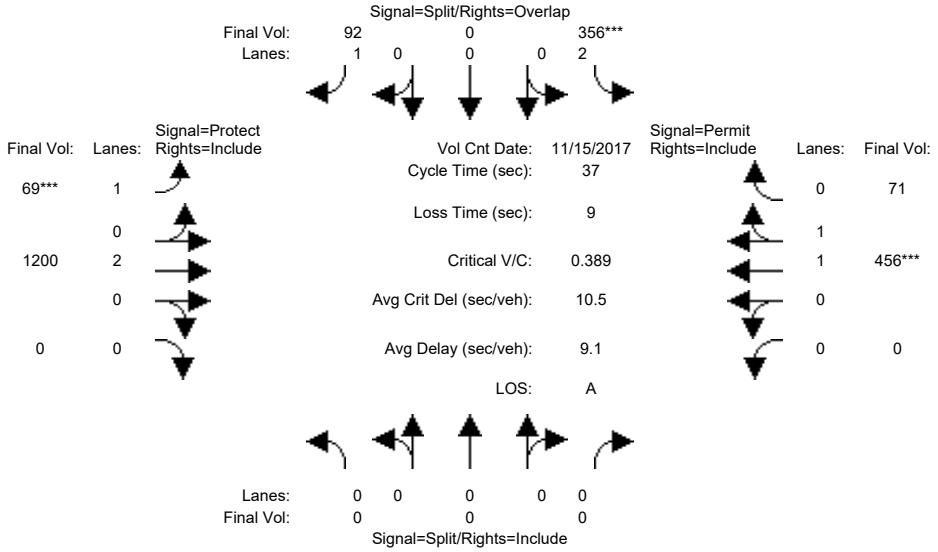



| Street Name: | Corvin Dr | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 5 | 0 | 5 | 5 | 10 | 0 | 0 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.5 | 5.5 | 4.0 | 4.0 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 53 | 0 | 77 | 56 | 303 | 0 | 0 | 784 | 188 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 53 | 0 | 77 | 56 | 303 | 0 | 0 | 784 | 188 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 51 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 53 | 0 | 77 | 56 | 312 | 0 | 0 | 835 | 188 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| PHF Volume: | 0 | 0 | 0 | 59 | 0 | 86 | 62 | 347 | 0 | 0 | 928 | 209 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 59 | 0 | 86 | 62 | 347 | 0 | 0 | 928 | 209 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 59 | 0 | 86 | 62 | 347 | 0 | 0 | 928 | 209 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 1.62 | 0.38 |
| Final Sat.: | 0 | 0 | 0 | 3150 | 0 | 1750 | 1750 | 3800 | 0 | 0 | 3020 | 680 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.05 | 0.04 | 0.09 | 0.00 | 0.00 | 0.31 | 0.31 |
| Crit Moves: | | | | **** | | | **** | | | | **** | |
| Green Time: | 0.0 | 0.0 | 0.0 | 8.9 | 0.0 | 14.8 | 5.9 | 57.1 | 0.0 | 0.0 | 51.2 | 51.2 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.16 | 0.00 | 0.25 | 0.45 | 0.12 | 0.00 | 0.00 | 0.45 | 0.45 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 29.7 | 0.0 | 25.4 | 33.0 | 2.4 | 0.0 | 0.0 | 5.5 | 5.5 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.4 | 2.3 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 29.9 | 0.0 | 25.7 | 35.3 | 2.4 | 0.0 | 0.0 | 5.6 | 5.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 29.9 | 0.0 | 25.7 | 35.3 | 2.4 | 0.0 | 0.0 | 5.6 | 5.6 |
| LOS by Move: | A | A | A | C | A | C | D+ | A | A | A | A | A |
| HCM2kAvgQ: | 0 | 0 | 0 | 1 | 0 | 2 | 2 | 1 | 0 | 0 | 6 | 6 |

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

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

Intersection #85: Corvin Dr & Kifer Rd

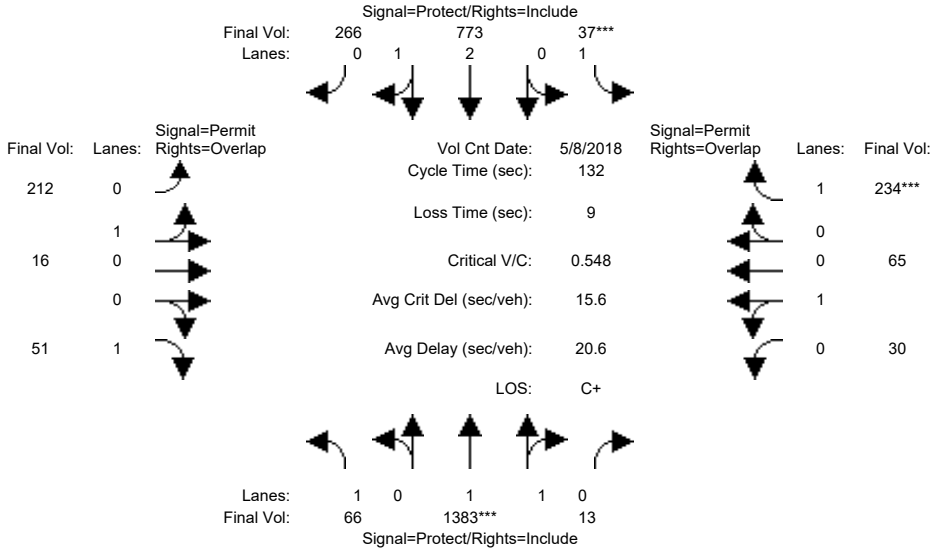



| Street Name: | Corvin Dr | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 5 | 0 | 5 | 5 | 10 | 0 | 0 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.5 | 5.5 | 4.0 | 4.0 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 15 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 317 | 0 | 82 | 61 | 1009 | 0 | 0 | 400 | 63 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 317 | 0 | 82 | 61 | 1009 | 0 | 0 | 400 | 63 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 0 | 6 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 317 | 0 | 82 | 61 | 1068 | 0 | 0 | 406 | 63 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| PHF Volume: | 0 | 0 | 0 | 356 | 0 | 92 | 69 | 1200 | 0 | 0 | 456 | 71 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 356 | 0 | 92 | 69 | 1200 | 0 | 0 | 456 | 71 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 356 | 0 | 92 | 69 | 1200 | 0 | 0 | 456 | 71 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 1.72 | 0.28 |
| Final Sat.: | 0 | 0 | 0 | 3150 | 0 | 1750 | 1750 | 3800 | 0 | 0 | 3203 | 497 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 | 0.05 | 0.04 | 0.32 | 0.00 | 0.00 | 0.14 | 0.14 |
| Crit Moves: | | | | **** | | | **** | | | | **** | |
| Green Time: | 0.0 | 0.0 | 0.0 | 10.2 | 0.0 | 15.2 | 5.0 | 17.8 | 0.0 | 0.0 | 12.8 | 12.8 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.41 | 0.00 | 0.13 | 0.29 | 0.66 | 0.00 | 0.00 | 0.41 | 0.41 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 11.0 | 0.0 | 6.8 | 14.4 | 7.3 | 0.0 | 0.0 | 9.2 | 9.2 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.1 | 0.7 | 0.9 | 0.0 | 0.0 | 0.2 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 11.3 | 0.0 | 6.9 | 15.1 | 8.1 | 0.0 | 0.0 | 9.4 | 9.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 11.3 | 0.0 | 6.9 | 15.1 | 8.1 | 0.0 | 0.0 | 9.4 | 9.4 |
| LOS by Move: | A | A | A | B+ | A | A | B | A | A | A | A | A |
| HCM2kAvgQ: | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 5 | 0 | 0 | 2 | 2 |

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

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

Intersection #91: Fair Oaks Ave & Ahwanee Ave



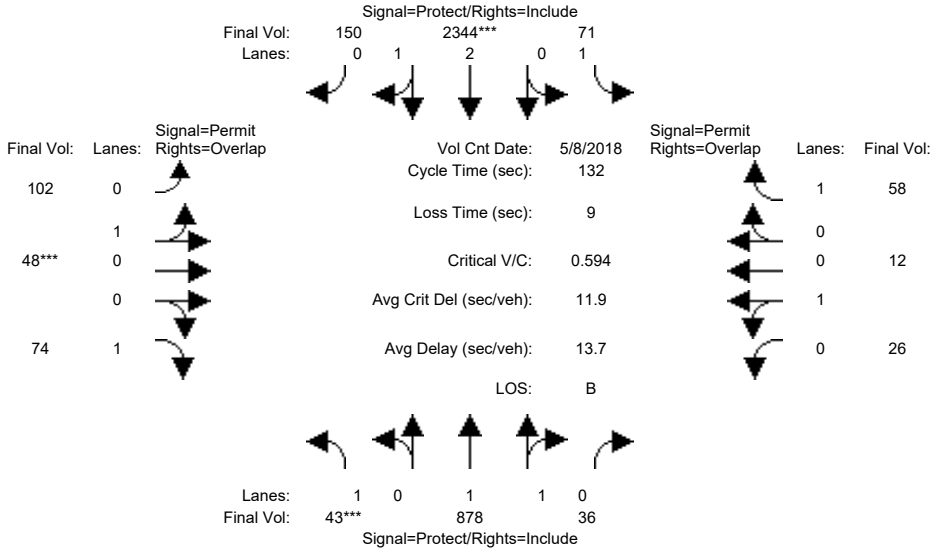

Street Name: Fair Oaks Ave Ahwanee Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 66 | 1376 | 13 | 37 | 733 | 266 | 212 | 16 | 51 | 30 | 65 | 234 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 66 | 1376 | 13 | 37 | 733 | 266 | 212 | 16 | 51 | 30 | 65 | 234 |
| Added Vol: | 0 | 7 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 66 | 1383 | 13 | 37 | 773 | 266 | 212 | 16 | 51 | 30 | 65 | 234 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 66 | 1383 | 13 | 37 | 773 | 266 | 212 | 16 | 51 | 30 | 65 | 234 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 66 | 1383 | 13 | 37 | 773 | 266 | 212 | 16 | 51 | 30 | 65 | 234 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 66 | 1383 | 13 | 37 | 773 | 266 | 212 | 16 | 51 | 30 | 65 | 234 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.92 | 0.99 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes: | 1.00 | 1.98 | 0.02 | 1.00 | 2.20 | 0.80 | 0.93 | 0.07 | 1.00 | 0.32 | 0.68 | 1.00 |
| Final Sat.: | 1750 | 3666 | 34 | 1750 | 4164 | 1433 | 1674 | 126 | 1750 | 568 | 1232 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.38 | 0.38 | 0.02 | 0.19 | 0.19 | 0.13 | 0.13 | 0.03 | 0.05 | 0.05 | 0.13 |
| Crit Moves: | | **** | | **** | | | | | | | | **** |
| Green Time: | 22.8 | 95.6 | 95.6 | 7.0 | 79.8 | 79.8 | 20.4 | 20.4 | 43.2 | 20.4 | 20.4 | 27.4 |
| Volume/Cap: | 0.22 | 0.52 | 0.52 | 0.40 | 0.31 | 0.31 | 0.82 | 0.82 | 0.09 | 0.34 | 0.34 | 0.64 |
| Uniform Del: | 46.9 | 8.1 | 8.1 | 60.5 | 12.7 | 12.7 | 54.0 | 54.0 | 30.7 | 49.8 | 49.8 | 47.8 |
| IncremntDel: | 0.4 | 0.2 | 0.2 | 2.8 | 0.1 | 0.1 | 17.1 | 17.1 | 0.1 | 0.7 | 0.7 | 3.9 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 47.3 | 8.3 | 8.3 | 63.3 | 12.7 | 12.7 | 71.0 | 71.0 | 30.8 | 50.5 | 50.5 | 51.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 47.3 | 8.3 | 8.3 | 63.3 | 12.7 | 12.7 | 71.0 | 71.0 | 30.8 | 50.5 | 50.5 | 51.7 |
| LOS by Move: | D | A | A | E | B | B | E | E | C | D | D | D- |
| HCM2kAvgQ: | 2 | 13 | 13 | 2 | 7 | 7 | 12 | 12 | 2 | 4 | 4 | 10 |

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

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

Intersection #91: Fair Oaks Ave & Ahwanee Ave

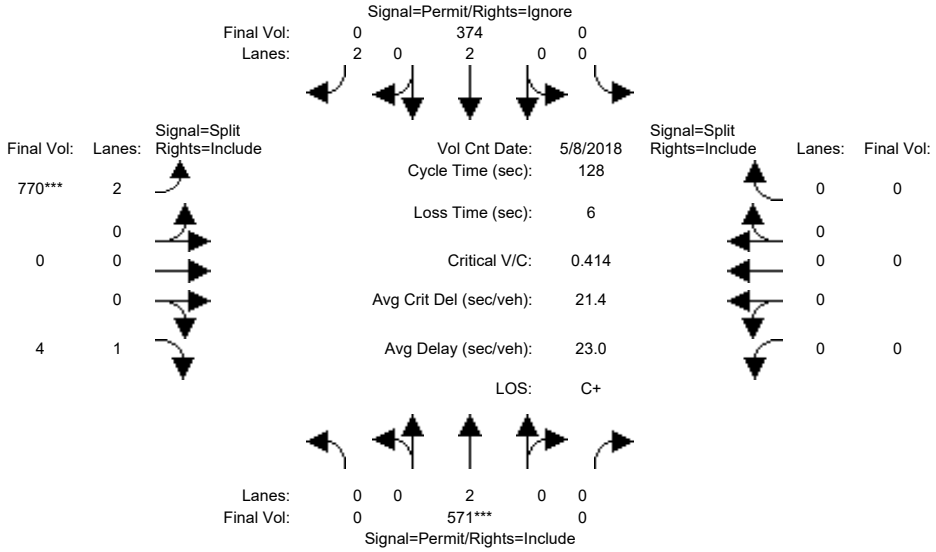



| Street Name: | Fair Oaks Ave | | | | | | Ahwanee Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 43 | 831 | 36 | 71 | 2339 | 150 | 102 | 48 | 74 | 26 | 12 | 58 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 43 | 831 | 36 | 71 | 2339 | 150 | 102 | 48 | 74 | 26 | 12 | 58 |
| Added Vol: | 0 | 47 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 43 | 878 | 36 | 71 | 2344 | 150 | 102 | 48 | 74 | 26 | 12 | 58 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 43 | 878 | 36 | 71 | 2344 | 150 | 102 | 48 | 74 | 26 | 12 | 58 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 43 | 878 | 36 | 71 | 2344 | 150 | 102 | 48 | 74 | 26 | 12 | 58 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 43 | 878 | 36 | 71 | 2344 | 150 | 102 | 48 | 74 | 26 | 12 | 58 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes: | 1.00 | 1.92 | 0.08 | 1.00 | 2.81 | 0.19 | 0.68 | 0.32 | 1.00 | 0.68 | 0.32 | 1.00 |
| Final Sat.: | 1750 | 3554 | 146 | 1750 | 5263 | 337 | 1224 | 576 | 1750 | 1232 | 568 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.25 | 0.25 | 0.04 | 0.45 | 0.45 | 0.08 | 0.08 | 0.04 | 0.02 | 0.02 | 0.03 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |
| Green Time: | 7.0 | 86.2 | 86.2 | 18.5 | 97.7 | 97.7 | 18.3 | 18.3 | 25.3 | 18.3 | 18.3 | 36.8 |
| Volume/Cap: | 0.46 | 0.38 | 0.38 | 0.29 | 0.60 | 0.60 | 0.60 | 0.60 | 0.22 | 0.15 | 0.15 | 0.12 |
| Uniform Del: | 60.7 | 10.5 | 10.5 | 50.9 | 8.0 | 8.0 | 53.4 | 53.4 | 45.0 | 50.0 | 50.0 | 35.5 |
| IncremntDel: | 3.6 | 0.1 | 0.1 | 0.7 | 0.3 | 0.3 | 4.1 | 4.1 | 0.3 | 0.3 | 0.3 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 64.3 | 10.6 | 10.6 | 51.5 | 8.3 | 8.3 | 57.5 | 57.5 | 45.4 | 50.3 | 50.3 | 35.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 64.3 | 10.6 | 10.6 | 51.5 | 8.3 | 8.3 | 57.5 | 57.5 | 45.4 | 50.3 | 50.3 | 35.6 |
| LOS by Move: | E | B+ | B+ | D- | A | A | E+ | E+ | D | D | D | D+ |
| HCM2kAvgQ: | 2 | 8 | 8 | 3 | 16 | 16 | 7 | 7 | 3 | 1 | 1 | 2 |

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

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

Intersection #92: Fair Oaks Ave & Wolfe Rd

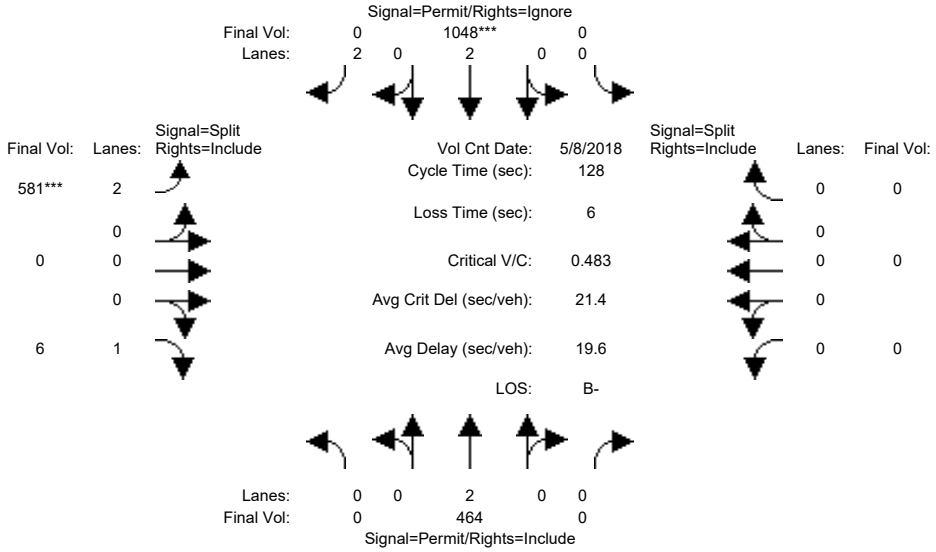



| Street Name: | Fair Oaks Ave | | | | | | Wolfe Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 10 | 10 | 0 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 561 | 0 | 0 | 334 | 574 | 770 | 0 | 4 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 561 | 0 | 0 | 334 | 574 | 770 | 0 | 4 | 0 | 0 | 0 |
| Added Vol: | 0 | 10 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 571 | 0 | 0 | 374 | 574 | 770 | 0 | 4 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 571 | 0 | 0 | 374 | 0 | 770 | 0 | 4 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 571 | 0 | 0 | 374 | 0 | 770 | 0 | 4 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 571 | 0 | 0 | 374 | 0 | 770 | 0 | 4 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3800 | 0 | 0 | 3800 | 3150 | 3150 | 0 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.15 | 0.00 | 0.00 | 0.10 | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | | | | **** | | | | | |
| Green Time: | 0.0 | 46.4 | 0.0 | 0.0 | 46.4 | 0.0 | 75.6 | 0.0 | 75.6 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.41 | 0.00 | 0.00 | 0.27 | 0.00 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 30.6 | 0.0 | 0.0 | 28.8 | 0.0 | 14.2 | 0.0 | 10.8 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 30.8 | 0.0 | 0.0 | 28.9 | 0.0 | 14.4 | 0.0 | 10.8 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 30.8 | 0.0 | 0.0 | 28.9 | 0.0 | 14.4 | 0.0 | 10.8 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | C | A | A | C | A | B | A | B+ | A | A | A |
| HCM2kAvgQ: | 0 | 8 | 0 | 0 | 5 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |

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

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

Intersection #92: Fair Oaks Ave & Wolfe Rd

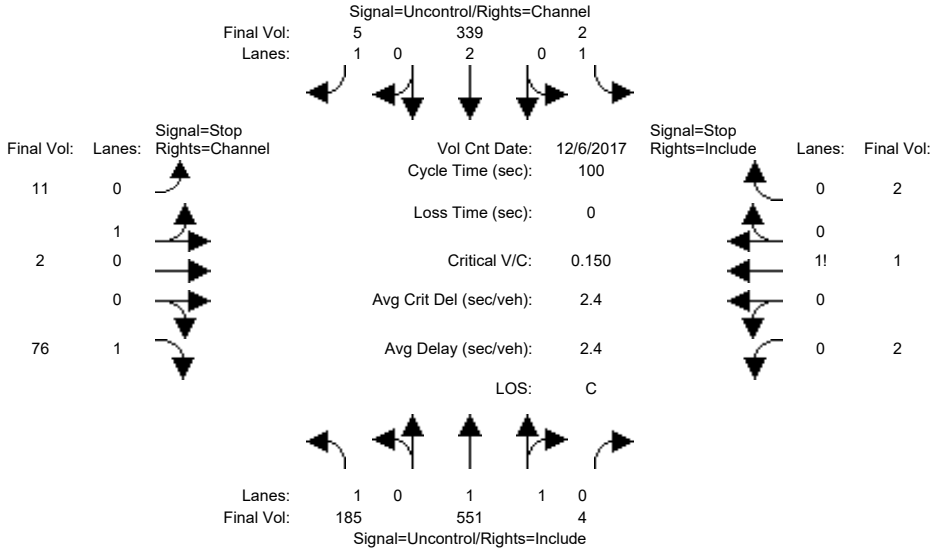



| Street Name: | Fair Oaks Ave | | | | | | Wolfe Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 0 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 399 | 0 | 0 | 1043 | 1080 | 581 | 0 | 6 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 399 | 0 | 0 | 1043 | 1080 | 581 | 0 | 6 | 0 | 0 | 0 |
| Added Vol: | 0 | 65 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 464 | 0 | 0 | 1048 | 1080 | 581 | 0 | 6 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 464 | 0 | 0 | 1048 | 0 | 581 | 0 | 6 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 464 | 0 | 0 | 1048 | 0 | 581 | 0 | 6 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 464 | 0 | 0 | 1048 | 0 | 581 | 0 | 6 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3800 | 0 | 0 | 3800 | 3150 | 3150 | 0 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.12 | 0.00 | 0.00 | 0.28 | 0.00 | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | | | | **** | | **** | | | | | |
| Green Time: | 0.0 | 73.1 | 0.0 | 0.0 | 73.1 | 0.0 | 48.9 | 0.0 | 48.9 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.21 | 0.00 | 0.00 | 0.48 | 0.00 | 0.48 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 13.4 | 0.0 | 0.0 | 16.3 | 0.0 | 30.0 | 0.0 | 24.5 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 13.5 | 0.0 | 0.0 | 16.4 | 0.0 | 30.3 | 0.0 | 24.5 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 13.5 | 0.0 | 0.0 | 16.4 | 0.0 | 30.3 | 0.0 | 24.5 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | B | A | A | B | A | C | A | C | A | A | A |
| HCM2kAvgQ: | 0 | 4 | 0 | 0 | 12 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |

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

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing + Project AM (Intuitive)

Intersection #93: Wolfe Rd & Maude Ave




| Street Name: | Wolfe Rd | | | | | | Maude Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 185 | 541 | 4 | 2 | 299 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 185 | 541 | 4 | 2 | 299 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| Added Vol: | 0 | 10 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 185 | 551 | 4 | 2 | 339 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 185 | 551 | 4 | 2 | 339 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 185 | 551 | 4 | 2 | 339 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| FollowUpTim: | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 339 | xxxx | xxxxx | 555 | xxxx | xxxxx | 989 | 1268 | 170 | 1098 | 1266 | 278 |
| Potent Cap.: | 1231 | xxxx | xxxxx | 1026 | xxxx | xxxxx | 204 | 170 | 851 | 170 | 171 | 726 |
| Move Cap.: | 1231 | xxxx | xxxxx | 1026 | xxxx | xxxxx | 179 | 144 | 851 | 135 | 145 | 726 |
| Volume/Cap: | 0.15 | xxxx | xxxx | 0.00 | xxxx | xxxx | 0.06 | 0.01 | 0.09 | 0.01 | 0.01 | 0.00 |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 0.5 | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxx | xxxx | 0.3 | xxxx | xxxx | xxxxx |
| Control Del: | 8.4 | xxxx | xxxxx | 8.5 | xxxx | xxxxx | xxxxx | xxxx | 9.6 | xxxxx | xxxx | xxxxx |
| LOS by Move: | A | * | * | A | * | * | * | * | A | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 172 | xxxx | xxxxx | xxxx | 205 | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 0.2 | xxxx | xxxxx | xxxxx | 0.1 | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 27.6 | xxxx | xxxxx | xxxxx | 23.0 | xxxxx |
| Shared LOS: | * | * | * | * | * | * | D | * | * | * | C | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 12.3 | | | 23.0 | | |
| ApproachLOS: | * | | | * | | | B | | | C | | |

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

Peak Hour Delay Signal Warrant Report

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Intersection #93 Wolfe Rd & Maude Ave

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 2 0 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Initial Vol: | 185 | 551 | 4 | 2 | 339 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 12.3 | | | 23.0 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=89]
   FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1180]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.

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Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=5]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1180]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.

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SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.

## Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #93 Wolfe Rd & Maude Ave

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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 2 0 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Initial Vol: | 185 | 551 | 4 | 2 | 339 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |

Major Street Volume: 1086
Minor Approach Volume: 89
Minor Approach Volume Threshold: 339

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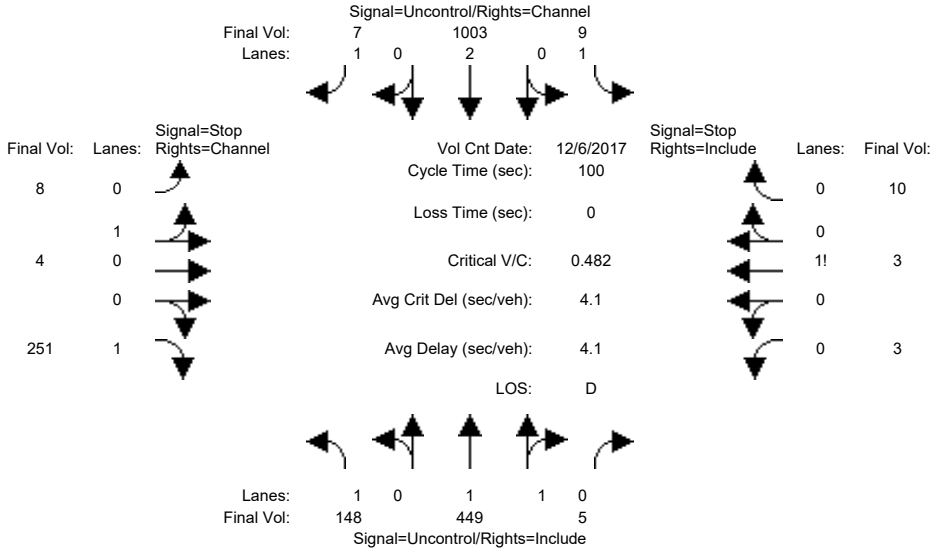
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing + Project PM (Intuitive)

Intersection #93: Wolfe Rd & Maude Ave




| Street Name: | Wolfe Rd | | | | | | Maude Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: >> Count Date: 6 Dec 2017 << 4:45 PM - 5:45 PM | | | | | | | | | | | | |
| Base Vol: | 148 | 384 | 5 | 9 | 998 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 148 | 384 | 5 | 9 | 998 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| Added Vol: | 0 | 65 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 148 | 449 | 5 | 9 | 1003 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 148 | 449 | 5 | 9 | 1003 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 148 | 449 | 5 | 9 | 1003 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| FollowUpTim: | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 1003 | xxxx | xxxxx | 454 | xxxx | xxxxx | 1543 | 1771 | 502 | 1269 | 1769 | 227 |
| Potent Cap.: | 698 | xxxx | xxxxx | 1117 | xxxx | xxxxx | 80 | 84 | 520 | 127 | 84 | 782 |
| Move Cap.: | 698 | xxxx | xxxxx | 1117 | xxxx | xxxxx | 63 | 66 | 520 | 52 | 66 | 782 |
| Volume/Cap: | 0.21 | xxxx | xxxx | 0.01 | xxxx | xxxx | 0.13 | 0.06 | 0.48 | 0.06 | 0.05 | 0.01 |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 0.8 | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxx | xxxx | 2.6 | xxxx | xxxx | xxxxx |
| Control Del: | 11.5 | xxxx | xxxxx | 8.2 | xxxx | xxxxx | xxxxx | xxxx | 18.2 | xxxxx | xxxx | xxxxx |
| LOS by Move: | B | * | * | A | * | * | * | * | C | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 64 | xxxx | xxxxx | xxxx | 138 | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 0.6 | xxxx | xxxxx | xxxxx | 0.4 | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 73.6 | xxxx | xxxxx | xxxxx | 34.4 | xxxxx |
| Shared LOS: | * | * | * | * | * | * | F | * | * | * | D | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 20.7 | | | 34.4 | | |
| ApproachLOS: | * | | | * | | | C | | | D | | |

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

Peak Hour Delay Signal Warrant Report

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Intersection #93 Wolfe Rd & Maude Ave

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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | L | - T | - R | L | - T | - R | L | - T | - R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 | 0 1 | 1 0 | 1 | 0 2 | 0 1 | 0 | 1 0 | 0 1 | 0 | 0 1! | 0 0 |
| Initial Vol: | 148 | 449 | 5 | 9 | 1003 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 20.7 | | | 34.4 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.5]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=263]
SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1900]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

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Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=16]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1900]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

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SIGNAL WARRANT DISCLAIMER
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The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

## Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #93 Wolfe Rd & Maude Ave

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Future Volume Alternative: Peak Hour Warrant Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | L | - T | - R | L | - T | - R | L | - T | - R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 | 0 1 | 1 0 | 1 | 0 2 | 0 1 | 0 | 1 0 | 0 1 | 0 | 0 1! | 0 0 |
| Initial Vol: | 148 | 449 | 5 | 9 | 1003 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |

Major Street Volume: 1621
Minor Approach Volume: 263
Minor Approach Volume Threshold: 166

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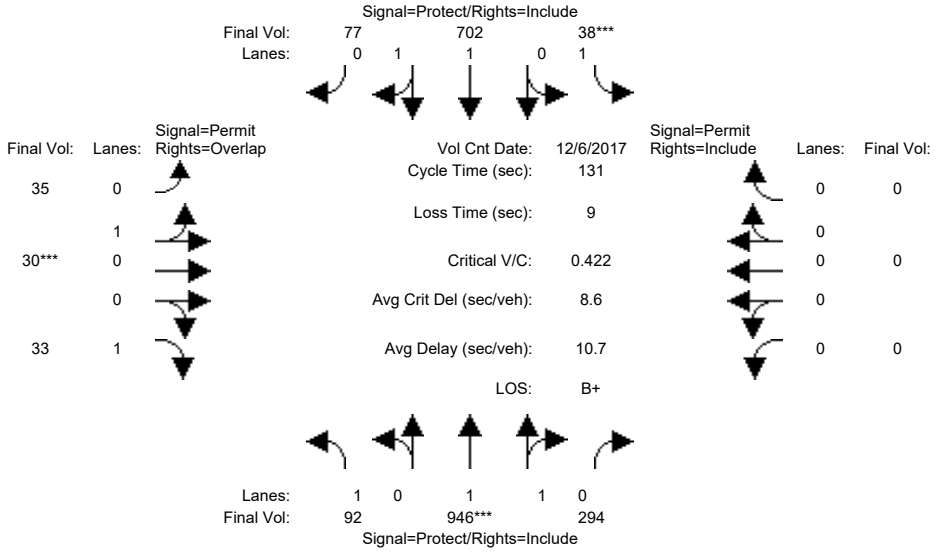
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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

Intersection #95: Fair Oaks Ave & California Ave

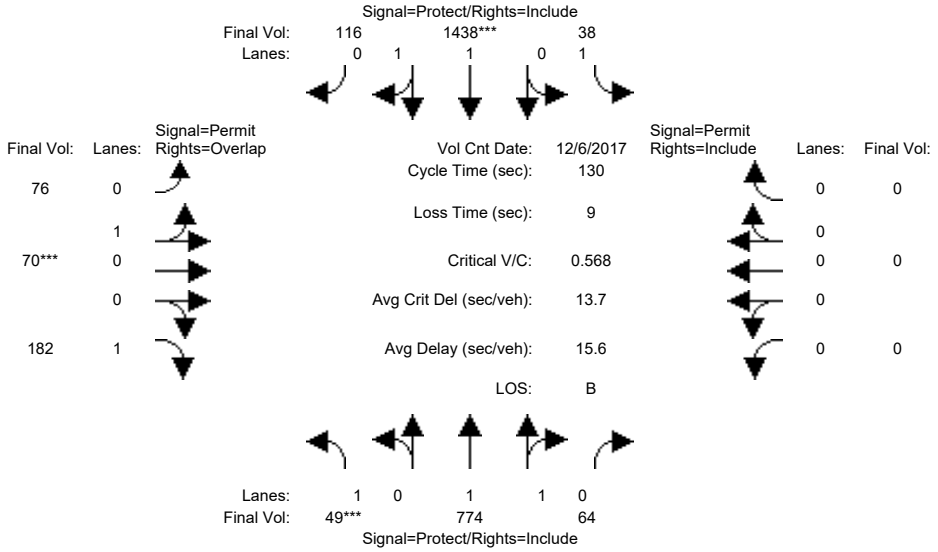



| Street Name: | Fair Oaks Ave | | | | | | California Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 92 | 941 | 294 | 38 | 702 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 92 | 941 | 294 | 38 | 702 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Added Vol: | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 92 | 946 | 294 | 38 | 702 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 92 | 946 | 294 | 38 | 702 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 92 | 946 | 294 | 38 | 702 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 92 | 946 | 294 | 38 | 702 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.51 | 0.49 | 1.00 | 1.80 | 0.20 | 0.54 | 0.46 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1750 | 2822 | 877 | 1750 | 3334 | 366 | 969 | 831 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.34 | 0.34 | 0.02 | 0.21 | 0.21 | 0.04 | 0.04 | 0.02 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | | **** | | | | |
| Green Time: | 22.4 | 104 | 103.8 | 7.0 | 88.4 | 88.4 | 11.2 | 11.2 | 33.6 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.31 | 0.42 | 0.42 | 0.41 | 0.31 | 0.31 | 0.42 | 0.42 | 0.07 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 47.5 | 4.2 | 4.2 | 60.0 | 8.8 | 8.8 | 56.8 | 56.8 | 36.9 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.6 | 0.1 | 0.1 | 2.9 | 0.1 | 0.1 | 1.9 | 1.9 | 0.1 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 48.1 | 4.3 | 4.3 | 62.9 | 8.9 | 8.9 | 58.7 | 58.7 | 37.0 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 48.1 | 4.3 | 4.3 | 62.9 | 8.9 | 8.9 | 58.7 | 58.7 | 37.0 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | D | A | A | E | A | A | E+ | E+ | D+ | A | A | A |
| HCM2kAvgQ: | 3 | 8 | 8 | 2 | 6 | 6 | 3 | 3 | 1 | 0 | 0 | 0 |

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

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

Intersection #95: Fair Oaks Ave & California Ave

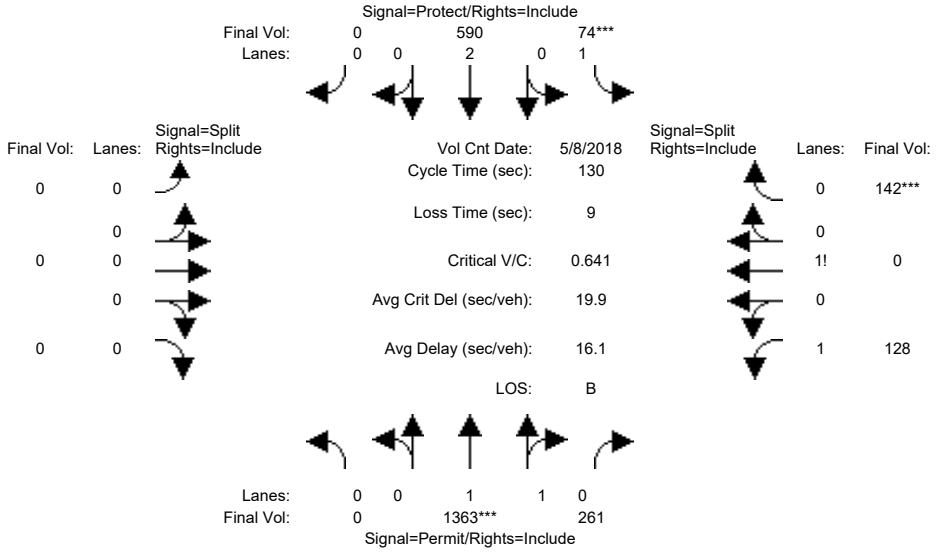



| Street Name: | Fair Oaks Ave | | | | | | California Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 49 | 743 | 64 | 38 | 1438 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 49 | 743 | 64 | 38 | 1438 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Added Vol: | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 49 | 774 | 64 | 38 | 1438 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 49 | 774 | 64 | 38 | 1438 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 49 | 774 | 64 | 38 | 1438 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 49 | 774 | 64 | 38 | 1438 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.84 | 0.16 | 1.00 | 1.85 | 0.15 | 0.52 | 0.48 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1750 | 3417 | 283 | 1750 | 3424 | 276 | 937 | 863 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.23 | 0.23 | 0.02 | 0.42 | 0.42 | 0.08 | 0.08 | 0.10 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |
| Green Time: | 7.0 | 82.9 | 82.9 | 19.7 | 95.5 | 95.5 | 18.5 | 18.5 | 25.5 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.52 | 0.36 | 0.36 | 0.14 | 0.57 | 0.57 | 0.57 | 0.57 | 0.53 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 59.9 | 11.1 | 11.1 | 47.8 | 7.9 | 7.9 | 52.1 | 52.1 | 46.9 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 5.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.3 | 3.1 | 3.1 | 1.6 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 65.0 | 11.1 | 11.1 | 48.1 | 8.2 | 8.2 | 55.2 | 55.2 | 48.5 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 65.0 | 11.1 | 11.1 | 48.1 | 8.2 | 8.2 | 55.2 | 55.2 | 48.5 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | E | B+ | B+ | D | A | A | E+ | E+ | D | A | A | A |
| HCM2kAvgQ: | 2 | 8 | 8 | 1 | 14 | 14 | 6 | 6 | 7 | 0 | 0 | 0 |

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

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

Intersection #96: Fair Oaks Ave & Kifer Rd

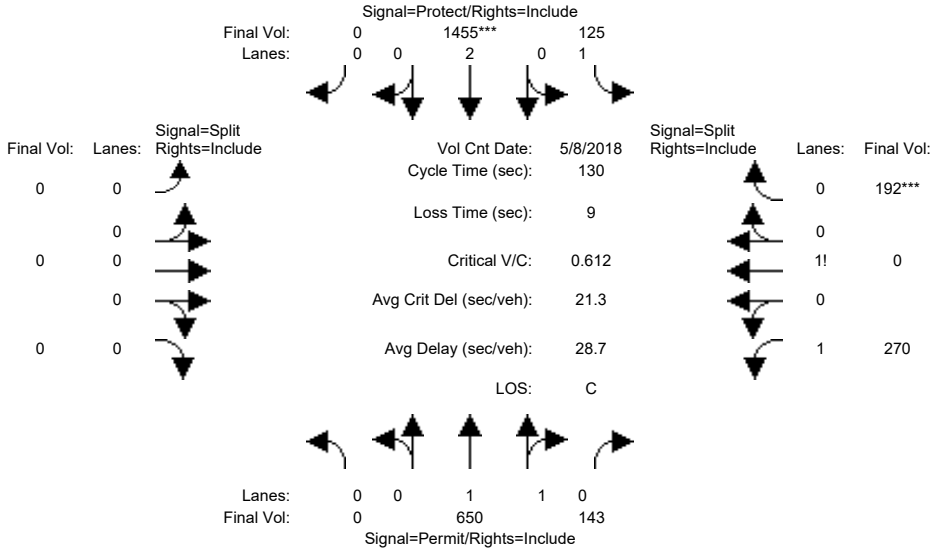



| Street Name: | Fair Oaks Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 10 | 10 | 7 | 10 | 0 | 0 | 0 | 0 | 10 | 0 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:15 AM - 9:15 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 1363 | 202 | 74 | 590 | 0 | 0 | 0 | 0 | 117 | 0 | 137 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1363 | 202 | 74 | 590 | 0 | 0 | 0 | 0 | 117 | 0 | 137 |
| Added Vol: | 0 | 0 | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 5 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 1363 | 261 | 74 | 590 | 0 | 0 | 0 | 0 | 128 | 0 | 142 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1363 | 261 | 74 | 590 | 0 | 0 | 0 | 0 | 128 | 0 | 142 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1363 | 261 | 74 | 590 | 0 | 0 | 0 | 0 | 128 | 0 | 142 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 1363 | 261 | 74 | 590 | 0 | 0 | 0 | 0 | 128 | 0 | 142 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.95 |
| Lanes: | 0.00 | 1.67 | 0.33 | 1.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.32 | 0.00 | 0.68 |
| Final Sat.: | 0 | 3105 | 595 | 1750 | 3800 | 0 | 0 | 0 | 0 | 2304 | 0 | 1230 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.44 | 0.44 | 0.04 | 0.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.00 | 0.12 |
| Crit Moves: | | **** | | **** | | | | | | | | **** |
| Green Time: | 0.0 | 89.0 | 89.0 | 8.6 | 97.6 | 0.0 | 0.0 | 0.0 | 0.0 | 23.4 | 0.0 | 23.4 |
| Volume/Cap: | 0.00 | 0.64 | 0.64 | 0.64 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.31 | 0.00 | 0.64 |
| Uniform Del: | 0.0 | 11.5 | 11.5 | 59.2 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 46.3 | 0.0 | 49.4 |
| IncremntDel: | 0.0 | 0.6 | 0.6 | 11.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 3.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 12.1 | 12.1 | 70.8 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 46.5 | 0.0 | 52.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 12.1 | 12.1 | 70.8 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 46.5 | 0.0 | 52.7 |
| LOS by Move: | A | B | B | E | A | A | A | A | A | D | A | D- |
| HCM2kAvgQ: | 0 | 18 | 18 | 3 | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 8 |

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

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

Intersection #96: Fair Oaks Ave & Kifer Rd

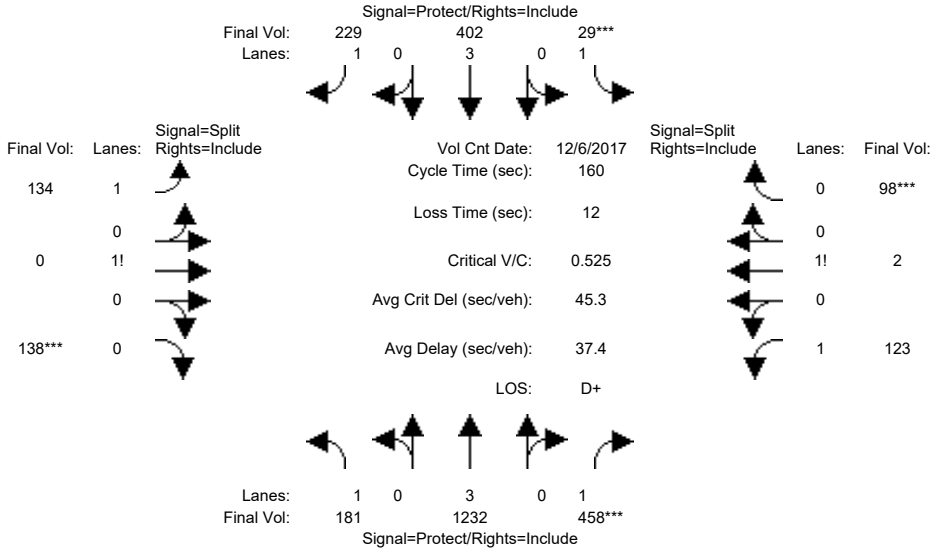



| Street Name: | Fair Oaks Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 10 | 10 | 7 | 10 | 0 | 0 | 0 | 0 | 10 | 0 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 650 | 136 | 125 | 1455 | 0 | 0 | 0 | 0 | 201 | 0 | 161 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 650 | 136 | 125 | 1455 | 0 | 0 | 0 | 0 | 201 | 0 | 161 |
| Added Vol: | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 69 | 0 | 31 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 650 | 143 | 125 | 1455 | 0 | 0 | 0 | 0 | 270 | 0 | 192 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 650 | 143 | 125 | 1455 | 0 | 0 | 0 | 0 | 270 | 0 | 192 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 650 | 143 | 125 | 1455 | 0 | 0 | 0 | 0 | 270 | 0 | 192 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 650 | 143 | 125 | 1455 | 0 | 0 | 0 | 0 | 270 | 0 | 192 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 1.63 | 0.37 | 1.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.41 | 0.00 | 0.59 |
| Final Sat.: | 0 | 3032 | 667 | 1750 | 3800 | 0 | 0 | 0 | 0 | 2472 | 0 | 1028 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.21 | 0.21 | 0.07 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 | 0.19 |
| Crit Moves: | | | | | **** | | | | | | | **** |
| Green Time: | 0.0 | 33.1 | 33.1 | 59.1 | 92.2 | 0.0 | 0.0 | 0.0 | 0.0 | 28.8 | 0.0 | 28.8 |
| Volume/Cap: | 0.00 | 0.84 | 0.84 | 0.16 | 0.54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.49 | 0.00 | 0.84 |
| Uniform Del: | 0.0 | 46.0 | 46.0 | 20.8 | 8.9 | 0.0 | 0.0 | 0.0 | 0.0 | 44.2 | 0.0 | 48.4 |
| IncremntDel: | 0.0 | 7.0 | 7.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 11.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 53.0 | 53.0 | 20.9 | 9.1 | 0.0 | 0.0 | 0.0 | 0.0 | 44.6 | 0.0 | 59.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 53.0 | 53.0 | 20.9 | 9.1 | 0.0 | 0.0 | 0.0 | 0.0 | 44.6 | 0.0 | 59.7 |
| LOS by Move: | A | D- | D- | C+ | A | A | A | A | A | D | A | E+ |
| HCM2kAvgQ: | 0 | 16 | 16 | 3 | 13 | 0 | 0 | 0 | 0 | 7 | 0 | 14 |

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

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

Intersection #97: Wolfe Rd & Central Expwy Ramps

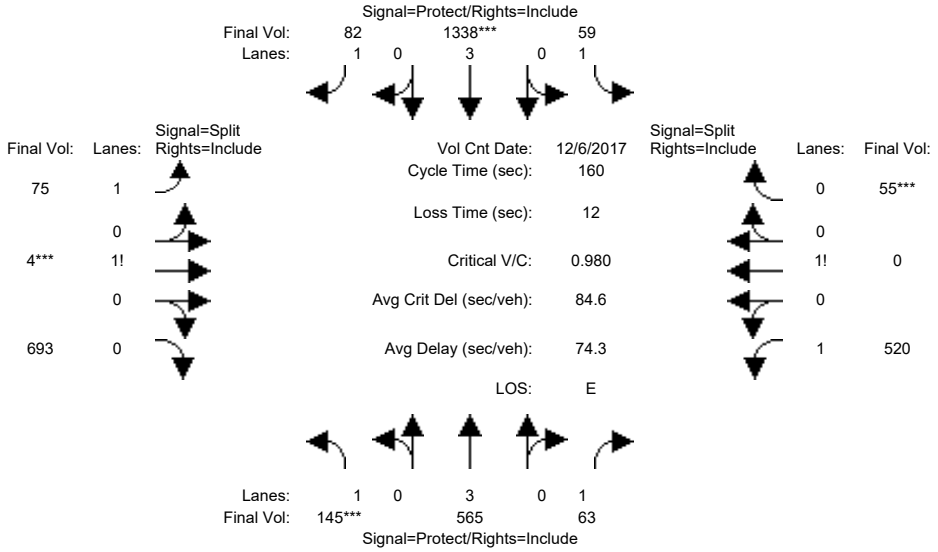



| Street Name: | Wolfe Rd | | | | | | Central Expwy Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 176 | 1222 | 458 | 29 | 362 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 176 | 1222 | 458 | 29 | 362 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| Added Vol: | 5 | 10 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 181 | 1232 | 458 | 29 | 402 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 181 | 1232 | 458 | 29 | 402 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 181 | 1232 | 458 | 29 | 402 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 181 | 1232 | 458 | 29 | 402 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.95 | 0.92 | 0.92 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.33 | 0.00 | 0.67 | 1.38 | 0.01 | 0.61 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 2333 | 0 | 1200 | 2416 | 22 | 1062 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.22 | 0.26 | 0.02 | 0.07 | 0.13 | 0.06 | 0.00 | 0.11 | 0.05 | 0.09 | 0.09 |
| Crit Moves: | | | **** | **** | | | | | **** | | | **** |
| Green Time: | 37.8 | 78.7 | 78.7 | 7.0 | 47.9 | 47.9 | 34.6 | 0.0 | 34.6 | 27.7 | 27.7 | 27.7 |
| Volume/Cap: | 0.44 | 0.44 | 0.53 | 0.38 | 0.24 | 0.44 | 0.27 | 0.00 | 0.53 | 0.29 | 0.53 | 0.53 |
| Uniform Del: | 52.0 | 26.4 | 28.0 | 74.4 | 42.3 | 45.2 | 52.2 | 0.0 | 55.6 | 57.6 | 60.2 | 60.2 |
| IncremntDel: | 0.7 | 0.1 | 0.6 | 3.1 | 0.1 | 0.6 | 0.1 | 0.0 | 1.1 | 0.2 | 1.3 | 1.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 52.8 | 26.5 | 28.6 | 77.5 | 42.4 | 45.8 | 52.3 | 0.0 | 56.6 | 57.8 | 61.5 | 61.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 52.8 | 26.5 | 28.6 | 77.5 | 42.4 | 45.8 | 52.3 | 0.0 | 56.6 | 57.8 | 61.5 | 61.5 |
| LOS by Move: | D- | C | C | E- | D | D | D- | A | E+ | E+ | E | E |
| HCM2kAvgQ: | 8 | 12 | 16 | 1 | 5 | 9 | 4 | 0 | 10 | 4 | 8 | 8 |

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

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

Intersection #97: Wolfe Rd & Central Expwy Ramps

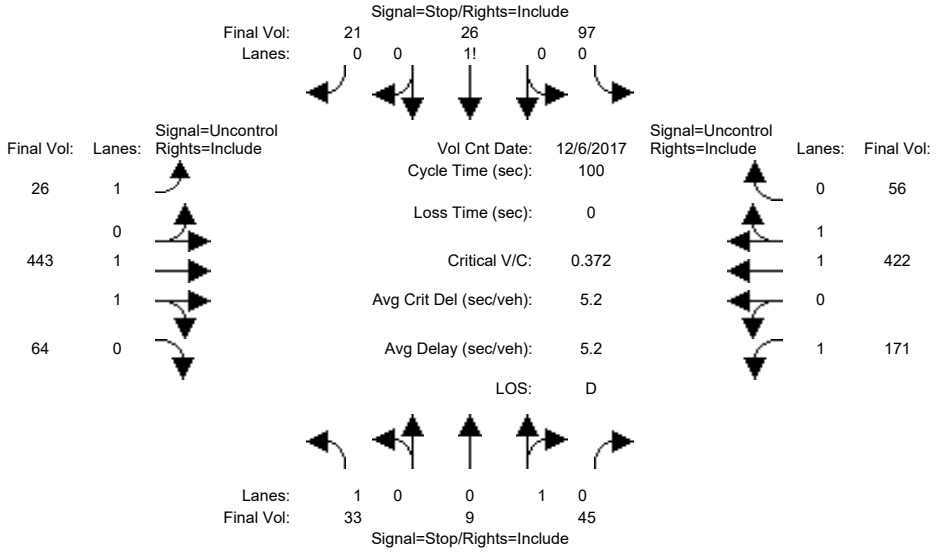



| Street Name: | Wolfe Rd | | | | | | Central Expwy Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 114 | 500 | 63 | 59 | 1333 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 114 | 500 | 63 | 59 | 1333 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| Added Vol: | 31 | 65 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 145 | 565 | 63 | 59 | 1338 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 145 | 565 | 63 | 59 | 1338 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 145 | 565 | 63 | 59 | 1338 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 145 | 565 | 63 | 59 | 1338 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.05 | 0.01 | 0.94 | 1.83 | 0.00 | 0.17 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 1842 | 10 | 1696 | 3194 | 0 | 306 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.10 | 0.04 | 0.03 | 0.23 | 0.05 | 0.04 | 0.41 | 0.41 | 0.16 | 0.00 | 0.18 |
| Crit Moves: | **** | | | | **** | | | **** | | | | **** |
| Green Time: | 13.5 | 36.0 | 36.0 | 15.9 | 38.3 | 38.3 | 66.7 | 66.7 | 66.7 | 29.4 | 0.0 | 29.4 |
| Volume/Cap: | 0.98 | 0.44 | 0.16 | 0.34 | 0.98 | 0.20 | 0.10 | 0.98 | 0.98 | 0.89 | 0.00 | 0.98 |
| Uniform Del: | 73.1 | 53.4 | 49.9 | 67.2 | 60.4 | 48.5 | 28.3 | 46.0 | 46.0 | 63.7 | 0.0 | 65.0 |
| IncremntDel: | 67.6 | 0.2 | 0.2 | 1.2 | 19.6 | 0.2 | 0.0 | 27.0 | 27.0 | 13.9 | 0.0 | 31.9 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 140.7 | 53.6 | 50.0 | 68.3 | 80.0 | 48.8 | 28.3 | 72.9 | 72.9 | 77.5 | 0.0 | 96.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 140.7 | 53.6 | 50.0 | 68.3 | 80.0 | 48.8 | 28.3 | 72.9 | 72.9 | 77.5 | 0.0 | 96.9 |
| LOS by Move: | F | D- | D | E | F | D | C | E | E | E- | A | F |
| HCM2kAvgQ: | 9 | 8 | 3 | 3 | 25 | 3 | 2 | 43 | 43 | 18 | 0 | 21 |

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

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing + Project AM (Intuitive)

Intersection #98: Commercial St & Kifer Rd




| Street Name: | Commercial St | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 69 | 0 | 21 | 26 | 375 | 0 | 0 | 418 | 55 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 69 | 0 | 21 | 26 | 375 | 0 | 0 | 418 | 55 |
| Added Vol: | 33 | 9 | 46 | 28 | 26 | 0 | 0 | 68 | 64 | 171 | 4 | 1 |
| Volume Adju: | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 33 | 9 | 45 | 97 | 26 | 21 | 26 | 443 | 64 | 171 | 422 | 56 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 33 | 9 | 45 | 97 | 26 | 21 | 26 | 443 | 64 | 171 | 422 | 56 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 33 | 9 | 45 | 97 | 26 | 21 | 26 | 443 | 64 | 171 | 422 | 56 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 1093 | 1347 | 254 | 1070 | 1351 | 239 | 478 | xxxx | xxxxx | 507 | xxxx | xxxxx |
| Potent Cap.: | 171 | 152 | 752 | 178 | 152 | 768 | 1095 | xxxx | xxxxx | 1068 | xxxx | xxxxx |
| Move Cap.: | 121 | 125 | 752 | 137 | 124 | 768 | 1095 | xxxx | xxxxx | 1068 | xxxx | xxxxx |
| Total Cap: | 284 | 267 | xxxxx | 261 | 251 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.12 | 0.03 | 0.06 | 0.37 | 0.10 | 0.03 | 0.02 | xxxx | xxxx | 0.16 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 0.4 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.1 | xxxx | xxxxx | 0.6 | xxxx | xxxxx |
| Control Del: | 19.3 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 8.4 | xxxx | xxxxx | 9.0 | xxxx | xxxxx |
| LOS by Move: | C | * | * | * | * | * | A | * | * | A | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | 577 | xxxx | 287 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | 0.3 | xxxxx | 2.6 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | 11.9 | xxxxx | 29.6 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | B | * | D | * | * | * | * | * | * | * |
| ApproachDel: | | 14.7 | | | 29.6 | | | xxxxx | | | xxxxx | |
| ApproachLOS: | | B | | | D | | | * | | | * | |

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

Peak Hour Delay Signal Warrant Report

**********

Intersection #98 Commercial St & Kifer Rd

**********

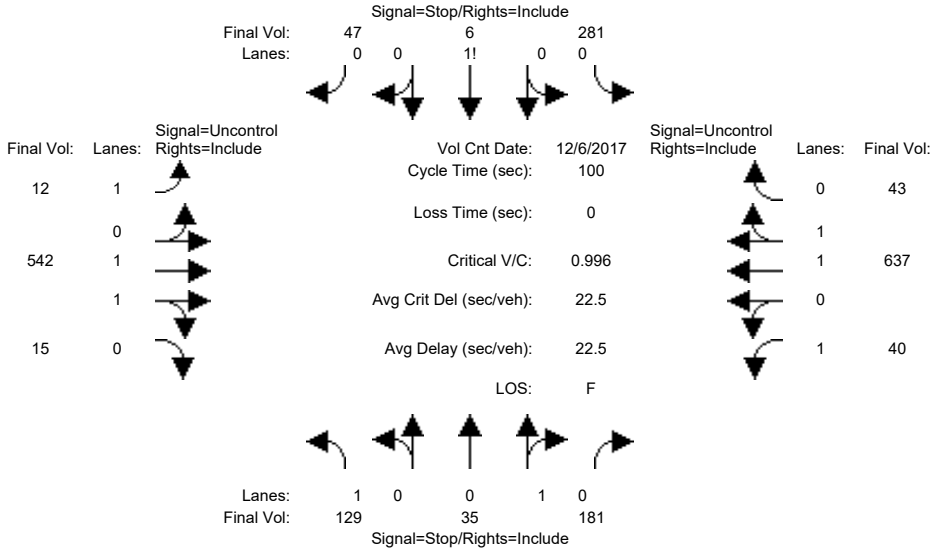
```
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        1  0  0  1  0    0  0  1! 0  0    1  0  1  1  0    1  0  1  1  0
Initial Vol:   33    9    45    97   26    21    26  443    64   171  422    56
ApproachDel:      14.7             29.6           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.4]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=87]
   FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1413]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=144]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1413]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #98 Commercial St & Kifer Rd
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        1  0  0  1  0    0  0  1! 0  0    1  0  1  1  0    1  0  1  1  0
Initial Vol:   33    9    45    97   26    21    26  443    64   171  422    56
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1182
Minor Approach Volume:           144
Minor Approach Volume Threshold: 227
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing + Project PM (Intuitive)

Intersection #98: Commercial St & Kifer Rd




| Street Name: | Commercial St | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| **Volume Module: >> Count Date: 6 Dec 2017 << 4:45 PM - 5:45 PM** | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 281 | 0 | 47 | 12 | 542 | 0 | 0 | 533 | 15 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 281 | 0 | 47 | 12 | 542 | 0 | 0 | 533 | 15 |
| Added Vol: | 129 | 35 | 181 | 0 | 6 | 0 | 0 | 0 | 15 | 40 | 104 | 28 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 129 | 35 | 181 | 281 | 6 | 47 | 12 | 542 | 15 | 40 | 637 | 43 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 129 | 35 | 181 | 281 | 6 | 47 | 12 | 542 | 15 | 40 | 637 | 43 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 129 | 35 | 181 | 281 | 6 | 47 | 12 | 542 | 15 | 40 | 637 | 43 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 975 | 1334 | 279 | 1051 | 1320 | 340 | 680 | xxxx | xxxxx | 557 | xxxx | xxxxx |
| Potent Cap.: | 209 | 155 | 725 | 184 | 158 | 662 | 922 | xxxx | xxxxx | 1024 | xxxx | xxxxx |
| Move Cap.: | 181 | 147 | 725 | 108 | 150 | 662 | 922 | xxxx | xxxxx | 1024 | xxxx | xxxxx |
| Total Cap: | 368 | 319 | xxxxx | 282 | 320 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.35 | 0.11 | 0.25 | 1.00 | 0.02 | 0.07 | 0.01 | xxxx | xxxx | 0.04 | xxxx | xxxx |
| **Level Of Service Module:** | | | | | | | | | | | | |
| 2Way95thQ: | 1.5 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.0 | xxxx | xxxxx | 0.1 | xxxx | xxxxx |
| Control Del: | 20.0 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 9.0 | xxxx | xxxxx | 8.7 | xxxx | xxxxx |
| LOS by Move: | C | * | * | * | * | * | A | * | * | A | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | 601 | xxxx | 308 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | 1.6 | xxxxx | 13.0 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | 14.3 | xxxxx | 114 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | B | * | F | * | * | * | * | * | * | * |
| ApproachDel: | | 16.4 | | | 114.0 | | | xxxxx | | | xxxxx | |
| ApproachLOS: | | C | | | F | | | * | | | * | |

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

Peak Hour Delay Signal Warrant Report

**********

Intersection #98 Commercial St & Kifer Rd

**********

Future Volume Alternative: Peak Hour Warrant Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Lanes: | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1! 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| Initial Vol: | 129 | 35 | 181 | 281 | 6 | 47 | 12 | 542 | 15 | 40 | 637 | 43 |
| ApproachDel: | 16.4 | | | 114.0 | | | xxxxxx | | | xxxxxx | | |

Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.6]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=345]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1968]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.

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Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=10.6]
   SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=334]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1968]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.

## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #98 Commercial St & Kifer Rd

**********

Future Volume Alternative: Peak Hour Warrant Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Lanes: | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1! 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| Initial Vol: | 129 | 35 | 181 | 281 | 6 | 47 | 12 | 542 | 15 | 40 | 637 | 43 |

Major Street Volume: 1289
Minor Approach Volume: 345
Minor Approach Volume Threshold: 265

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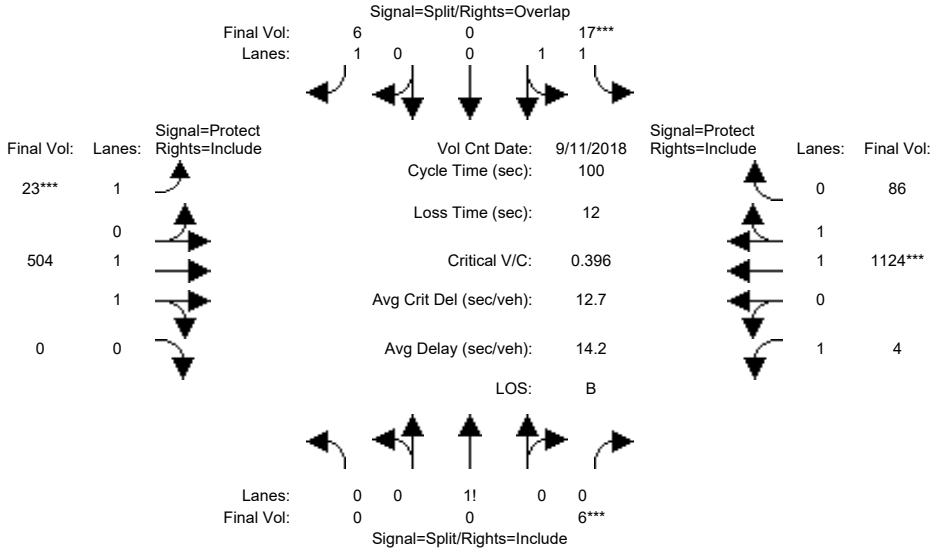
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.

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

Intersection #99: Semiconductor Dr & Kifer Rd

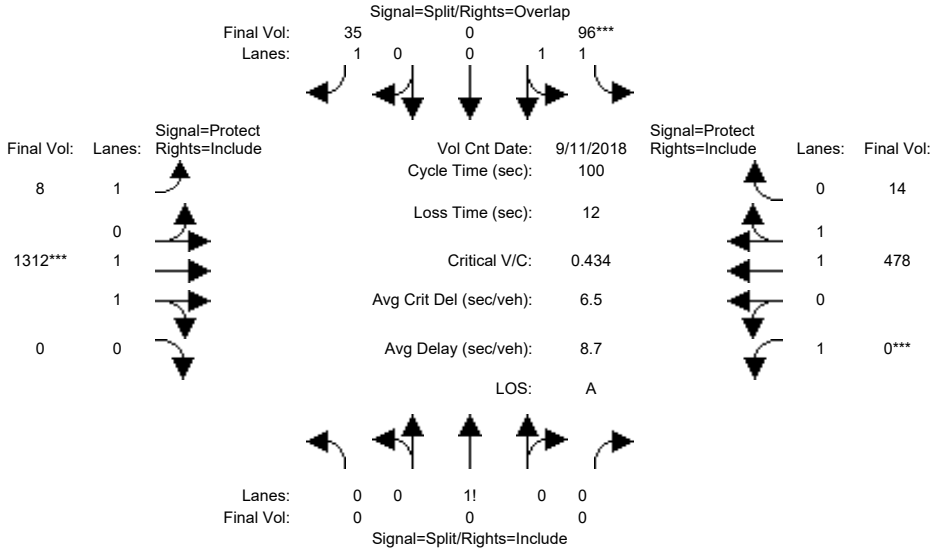



| Street Name: | Semiconductor Drive | | | | | | Kifer Road | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 11 Sep 2018 << 8:45AM-9:45AM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 6 | 17 | 0 | 6 | 23 | 453 | 0 | 4 | 771 | 86 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 6 | 17 | 0 | 6 | 23 | 453 | 0 | 4 | 771 | 86 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 51 | 0 | 0 | 353 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 6 | 17 | 0 | 6 | 23 | 504 | 0 | 4 | 1124 | 86 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 6 | 17 | 0 | 6 | 23 | 504 | 0 | 4 | 1124 | 86 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 6 | 17 | 0 | 6 | 23 | 504 | 0 | 4 | 1124 | 86 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 6 | 17 | 0 | 6 | 23 | 504 | 0 | 4 | 1124 | 86 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.93 | 1.00 | 0.92 | 0.92 | 0.97 | 0.92 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.00 | 0.00 | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 1.00 | 1.85 | 0.15 |
| Final Sat.: | 0 | 0 | 1750 | 3550 | 0 | 1750 | 1750 | 3700 | 0 | 1750 | 3437 | 263 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.14 | 0.00 | 0.00 | 0.33 | 0.33 |
| Crit Moves: | | | **** | **** | | | **** | | | | **** | |
| Green Time: | 0.0 | 0.0 | 10.0 | 10.0 | 0.0 | 17.0 | 7.0 | 44.9 | 0.0 | 23.1 | 61.0 | 61.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.03 | 0.05 | 0.00 | 0.02 | 0.19 | 0.30 | 0.00 | 0.01 | 0.54 | 0.54 |
| Uniform Del: | 0.0 | 0.0 | 40.6 | 40.7 | 0.0 | 34.6 | 43.8 | 17.6 | 0.0 | 29.6 | 11.3 | 11.3 |
| IncremntDel: | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.7 | 0.1 | 0.0 | 0.0 | 0.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 40.7 | 40.8 | 0.0 | 34.6 | 44.6 | 17.7 | 0.0 | 29.7 | 11.6 | 11.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 40.7 | 40.8 | 0.0 | 34.6 | 44.6 | 17.7 | 0.0 | 29.7 | 11.6 | 11.6 |
| LOS by Move: | A | A | D | D | A | C- | D | B | A | C | B+ | B+ |
| HCM2kAvgQ: | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 10 | 10 |

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

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

Intersection #99: Semiconductor Dr & Kifer Rd

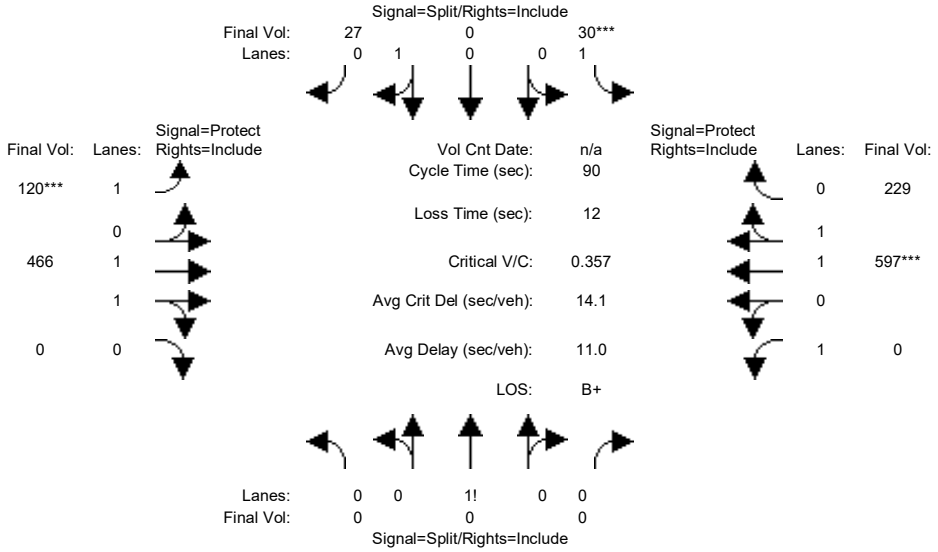



| Street Name: | Semiconductor Drive | | | | | | Kifer Road | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 11 Sep 2018 << 4:45PM-5:45PM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 96 | 0 | 35 | 8 | 985 | 0 | 0 | 437 | 14 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 96 | 0 | 35 | 8 | 985 | 0 | 0 | 437 | 14 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 327 | 0 | 0 | 41 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 96 | 0 | 35 | 8 | 1312 | 0 | 0 | 478 | 14 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 96 | 0 | 35 | 8 | 1312 | 0 | 0 | 478 | 14 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 96 | 0 | 35 | 8 | 1312 | 0 | 0 | 478 | 14 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 96 | 0 | 35 | 8 | 1312 | 0 | 0 | 478 | 14 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.93 | 1.00 | 0.92 | 0.92 | 0.97 | 0.92 | 0.92 | 0.97 | 0.95 |
| Lanes: | 0.00 | 1.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 1.00 | 1.94 | 0.06 |
| Final Sat.: | 0 | 1750 | 0 | 3550 | 0 | 1750 | 1750 | 3700 | 0 | 1750 | 3595 | 105 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.02 | 0.00 | 0.35 | 0.00 | 0.00 | 0.13 | 0.13 |
| Crit Moves: | | | | **** | | | | **** | | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 36.9 | 26.9 | 78.0 | 0.0 | 0.0 | 51.1 | 51.1 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.27 | 0.00 | 0.05 | 0.02 | 0.45 | 0.00 | 0.00 | 0.26 | 0.26 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 41.6 | 0.0 | 20.3 | 26.8 | 3.7 | 0.0 | 0.0 | 13.8 | 13.8 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 42.0 | 0.0 | 20.3 | 26.9 | 3.9 | 0.0 | 0.0 | 13.9 | 13.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 42.0 | 0.0 | 20.3 | 26.9 | 3.9 | 0.0 | 0.0 | 13.9 | 13.9 |
| LOS by Move: | A | A | A | D | A | C+ | C | A | A | A | B | B |
| HCM2kAvgQ: | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 7 | 0 | 0 | 4 | 4 |

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

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

Intersection #100: 1020 Kifer Rd Dwy & Kifer Rd

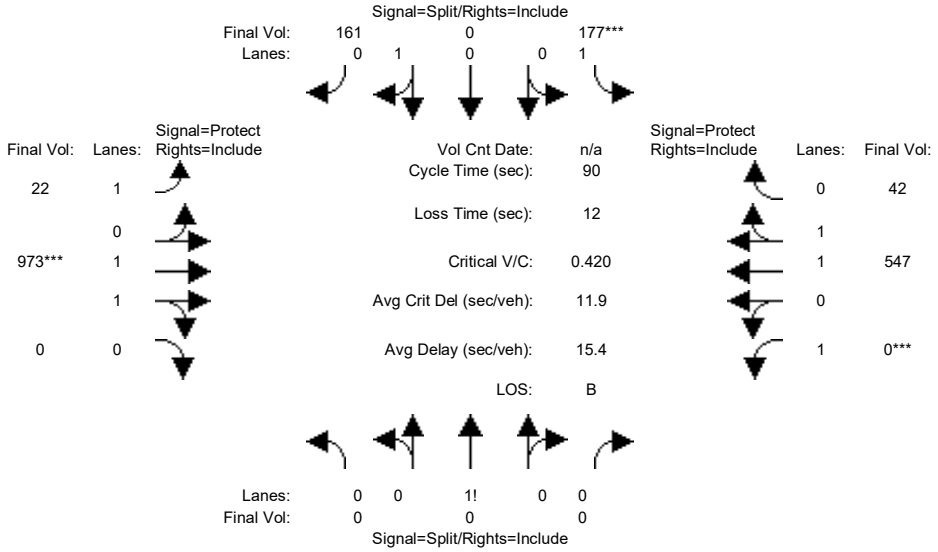



| Street Name: | 1020 Kifer Road Driveway | | | | | | Kifer Road | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 444 | 0 | 0 | 473 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 444 | 0 | 0 | 473 | 0 |
| Added Vol: | 0 | 0 | 0 | 30 | 0 | 27 | 120 | 22 | 0 | 0 | 124 | 229 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 30 | 0 | 27 | 120 | 466 | 0 | 0 | 597 | 229 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 30 | 0 | 27 | 120 | 466 | 0 | 0 | 597 | 229 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 30 | 0 | 27 | 120 | 466 | 0 | 0 | 597 | 229 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 30 | 0 | 27 | 120 | 466 | 0 | 0 | 597 | 229 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.95 | 0.92 | 0.97 | 0.92 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 1.00 | 1.43 | 0.57 |
| Final Sat.: | 0 | 1750 | 0 | 1750 | 0 | 1800 | 1750 | 3700 | 0 | 1750 | 2673 | 1025 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.02 | 0.07 | 0.13 | 0.00 | 0.00 | 0.22 | 0.22 |
| Crit Moves: | | | | **** | | | **** | | | | **** | |
| Green Time: | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 10.0 | 16.0 | 68.0 | 0.0 | 0.0 | 52.0 | 52.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.15 | 0.00 | 0.14 | 0.39 | 0.17 | 0.00 | 0.00 | 0.39 | 0.39 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 36.2 | 0.0 | 36.1 | 32.7 | 3.1 | 0.0 | 0.0 | 10.3 | 10.3 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.3 | 0.8 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 36.5 | 0.0 | 36.4 | 33.5 | 3.1 | 0.0 | 0.0 | 10.4 | 10.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 36.5 | 0.0 | 36.4 | 33.5 | 3.1 | 0.0 | 0.0 | 10.4 | 10.4 |
| LOS by Move: | A | A | A | D+ | A | D+ | C- | A | A | A | B+ | B+ |
| HCM2kAvgQ: | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 2 | 0 | 0 | 6 | 6 |

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

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

Intersection #100: 1020 Kifer Rd Dwy & Kifer Rd

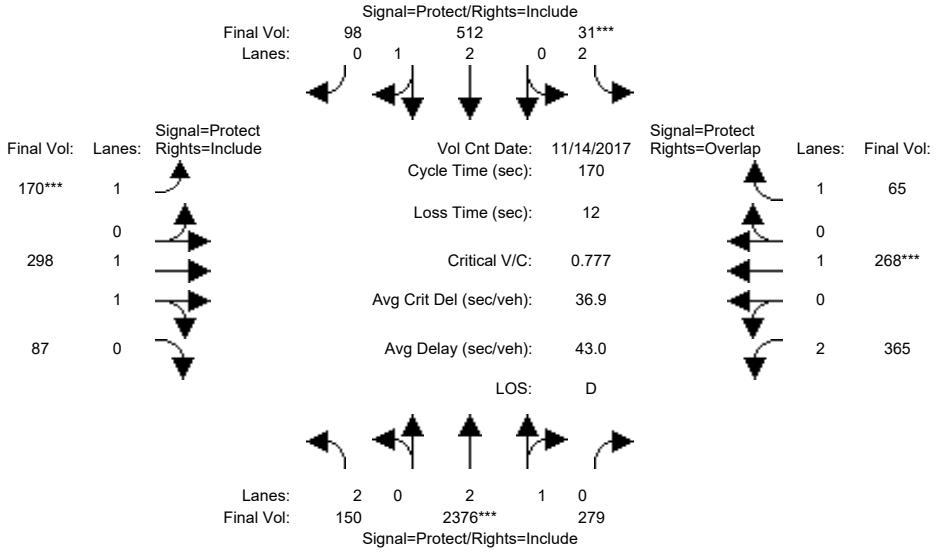



| Street Name: | 1020 Kifer Road Driveway | | | | | | Kifer Road | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 823 | 0 | 0 | 548 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 823 | 0 | 0 | 548 | 0 |
| Added Vol: | 0 | 0 | 0 | 177 | 0 | 161 | 22 | 150 | 0 | 0 | -1 | 42 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 177 | 0 | 161 | 22 | 973 | 0 | 0 | 547 | 42 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 177 | 0 | 161 | 22 | 973 | 0 | 0 | 547 | 42 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 177 | 0 | 161 | 22 | 973 | 0 | 0 | 547 | 42 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 177 | 0 | 161 | 22 | 973 | 0 | 0 | 547 | 42 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.95 | 0.92 | 0.97 | 0.92 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 1.00 | 1.85 | 0.15 |
| Final Sat.: | 0 | 1750 | 0 | 1750 | 0 | 1800 | 1750 | 3700 | 0 | 1750 | 3436 | 264 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 | 0.09 | 0.01 | 0.26 | 0.00 | 0.00 | 0.16 | 0.16 |
| Crit Moves: | | | | **** | | | | **** | | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 21.7 | 0.0 | 21.7 | 18.5 | 56.3 | 0.0 | 0.0 | 37.8 | 37.8 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.42 | 0.00 | 0.37 | 0.06 | 0.42 | 0.00 | 0.00 | 0.38 | 0.38 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 28.9 | 0.0 | 28.5 | 28.8 | 8.5 | 0.0 | 0.0 | 18.0 | 18.0 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.5 | 0.1 | 0.1 | 0.0 | 0.0 | 0.2 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 29.5 | 0.0 | 29.0 | 28.8 | 8.7 | 0.0 | 0.0 | 18.1 | 18.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 29.5 | 0.0 | 29.0 | 28.8 | 8.7 | 0.0 | 0.0 | 18.1 | 18.1 |
| LOS by Move: | A | A | A | C | A | C | C | A | A | A | B- | B- |
| HCM2kAvgQ: | 0 | 0 | 0 | 5 | 0 | 4 | 0 | 7 | 0 | 0 | 6 | 6 |

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

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

Intersection #1402: Sunnyvale-Saratoga Rd / Remington Dr

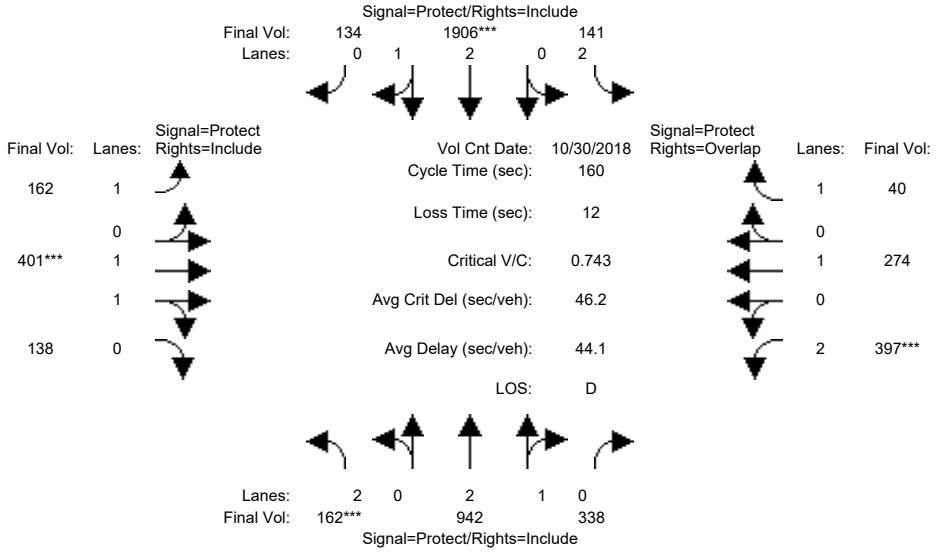



| Street Name: | Sunnyvale-Saratoga Road | | | | | | Remington Drive | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 150 | 2376 | 257 | 31 | 512 | 98 | 170 | 298 | 87 | 361 | 268 | 65 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 150 | 2376 | 257 | 31 | 512 | 98 | 170 | 298 | 87 | 361 | 268 | 65 |
| Added Vol: | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 150 | 2376 | 279 | 31 | 512 | 98 | 170 | 298 | 87 | 365 | 268 | 65 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 150 | 2376 | 279 | 31 | 512 | 98 | 170 | 298 | 87 | 365 | 268 | 65 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 150 | 2376 | 279 | 31 | 512 | 98 | 170 | 298 | 87 | 365 | 268 | 65 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 150 | 2376 | 279 | 31 | 512 | 98 | 170 | 298 | 87 | 365 | 268 | 65 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.67 | 0.33 | 2.00 | 2.50 | 0.50 | 1.00 | 1.54 | 0.46 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 5011 | 588 | 3150 | 4699 | 899 | 1750 | 2863 | 836 | 3150 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.47 | 0.47 | 0.01 | 0.11 | 0.11 | 0.10 | 0.10 | 0.10 | 0.12 | 0.14 | 0.04 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 32.7 | 101 | 100.5 | 7.0 | 74.8 | 74.8 | 20.6 | 23.9 | 23.9 | 26.6 | 29.9 | 36.9 |
| Volume/Cap: | 0.25 | 0.80 | 0.80 | 0.24 | 0.25 | 0.25 | 0.80 | 0.74 | 0.74 | 0.74 | 0.80 | 0.17 |
| Uniform Del: | 58.2 | 27.0 | 27.0 | 78.9 | 29.9 | 29.9 | 72.7 | 70.1 | 70.1 | 68.4 | 67.2 | 54.1 |
| IncremntDel: | 0.2 | 1.5 | 1.5 | 1.0 | 0.1 | 0.1 | 19.3 | 5.6 | 5.6 | 5.9 | 13.0 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 58.4 | 28.5 | 28.5 | 79.9 | 30.0 | 30.0 | 92.0 | 75.7 | 75.7 | 74.3 | 80.2 | 54.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 58.4 | 28.5 | 28.5 | 79.9 | 30.0 | 30.0 | 92.0 | 75.7 | 75.7 | 74.3 | 80.2 | 54.3 |
| LOS by Move: | E+ | C | C | E- | C | C | F | E- | E- | E | F | D- |
| HCM2kAvgQ: | 4 | 37 | 37 | 1 | 6 | 6 | 11 | 11 | 11 | 11 | 14 | 3 |

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

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

Intersection #1402: Sunnyvale-Saratoga Rd / Remington Dr

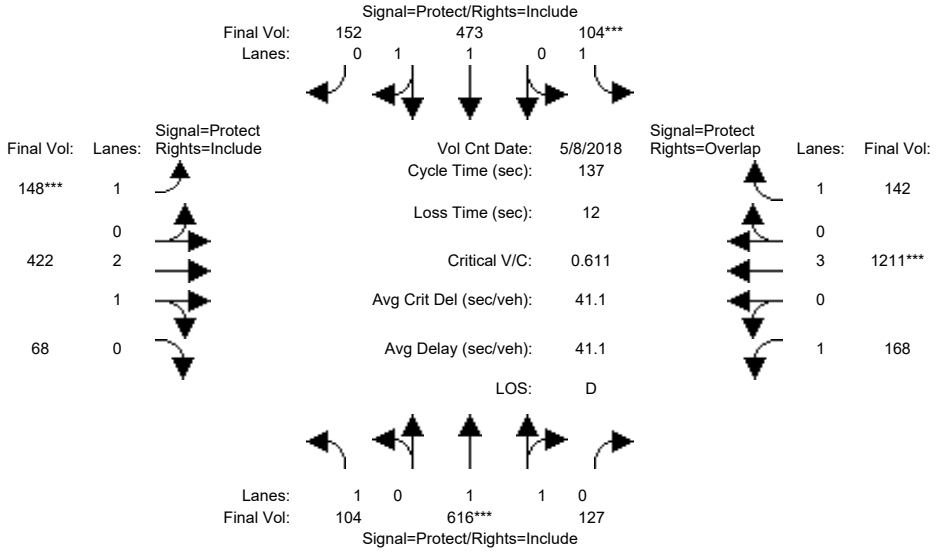



| Street Name: | Sunnyvale-Saratoga Road | | | | | | Remington Drive | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 30 Oct 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 162 | 942 | 336 | 141 | 1906 | 134 | 162 | 401 | 138 | 372 | 274 | 40 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 162 | 942 | 336 | 141 | 1906 | 134 | 162 | 401 | 138 | 372 | 274 | 40 |
| Added Vol: | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 162 | 942 | 338 | 141 | 1906 | 134 | 162 | 401 | 138 | 397 | 274 | 40 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 162 | 942 | 338 | 141 | 1906 | 134 | 162 | 401 | 138 | 397 | 274 | 40 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 162 | 942 | 338 | 141 | 1906 | 134 | 162 | 401 | 138 | 397 | 274 | 40 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 162 | 942 | 338 | 141 | 1906 | 134 | 162 | 401 | 138 | 397 | 274 | 40 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.18 | 0.82 | 2.00 | 2.80 | 0.20 | 1.00 | 1.47 | 0.53 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 4119 | 1478 | 3150 | 5232 | 368 | 1750 | 2752 | 947 | 3150 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.23 | 0.23 | 0.04 | 0.36 | 0.36 | 0.09 | 0.15 | 0.15 | 0.13 | 0.14 | 0.02 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 11.1 | 74.8 | 74.8 | 14.7 | 78.4 | 78.4 | 22.9 | 31.4 | 31.4 | 27.1 | 35.6 | 50.3 |
| Volume/Cap: | 0.74 | 0.49 | 0.49 | 0.49 | 0.74 | 0.74 | 0.65 | 0.74 | 0.74 | 0.74 | 0.65 | 0.07 |
| Uniform Del: | 73.1 | 29.4 | 29.4 | 69.1 | 32.7 | 32.7 | 64.8 | 60.5 | 60.5 | 63.1 | 56.5 | 38.5 |
| IncremntDel: | 12.9 | 0.1 | 0.1 | 1.3 | 1.1 | 1.1 | 5.8 | 4.2 | 4.2 | 5.6 | 3.5 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 86.0 | 29.5 | 29.5 | 70.4 | 33.8 | 33.8 | 70.6 | 64.7 | 64.7 | 68.7 | 60.0 | 38.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 86.0 | 29.5 | 29.5 | 70.4 | 33.8 | 33.8 | 70.6 | 64.7 | 64.7 | 68.7 | 60.0 | 38.6 |
| LOS by Move: | F | C | C | E | C- | C- | E | E | E | E | E+ | D+ |
| HCM2kAvgQ: | 5 | 14 | 14 | 4 | 27 | 27 | 9 | 14 | 14 | 11 | 12 | 1 |

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

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

Intersection #1404: El Camino Real (SR 82) / Fair Oaks Ave

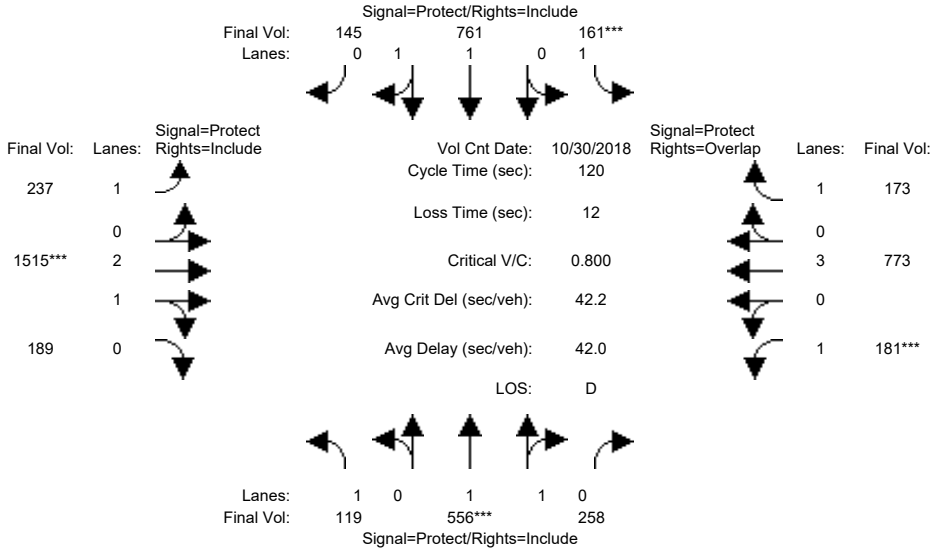



| Street Name: | Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:45 AM - 9:45 AM | | | | | | | | | | | | |
| Base Vol: | 104 | 594 | 127 | 104 | 469 | 152 | 148 | 422 | 68 | 168 | 1211 | 142 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 104 | 594 | 127 | 104 | 469 | 152 | 148 | 422 | 68 | 168 | 1211 | 142 |
| Added Vol: | 0 | 22 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 104 | 616 | 127 | 104 | 473 | 152 | 148 | 422 | 68 | 168 | 1211 | 142 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 104 | 616 | 127 | 104 | 473 | 152 | 148 | 422 | 68 | 168 | 1211 | 142 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 104 | 616 | 127 | 104 | 473 | 152 | 148 | 422 | 68 | 168 | 1211 | 142 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 104 | 616 | 127 | 104 | 473 | 152 | 148 | 422 | 68 | 168 | 1211 | 142 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.65 | 0.35 | 1.00 | 1.50 | 0.50 | 1.00 | 2.57 | 0.43 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 3067 | 632 | 1750 | 2799 | 900 | 1750 | 4822 | 777 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.20 | 0.20 | 0.06 | 0.17 | 0.17 | 0.08 | 0.09 | 0.09 | 0.10 | 0.21 | 0.08 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 15.2 | 45.0 | 45.0 | 13.3 | 43.2 | 43.2 | 19.0 | 31.8 | 31.8 | 34.9 | 47.7 | 61.0 |
| Volume/Cap: | 0.54 | 0.61 | 0.61 | 0.61 | 0.54 | 0.54 | 0.61 | 0.38 | 0.38 | 0.38 | 0.61 | 0.18 |
| Uniform Del: | 57.6 | 38.6 | 38.6 | 59.3 | 38.7 | 38.7 | 55.5 | 44.3 | 44.3 | 42.1 | 37.0 | 23.0 |
| IncremntDel: | 2.9 | 0.9 | 0.9 | 6.4 | 0.5 | 0.5 | 4.5 | 0.2 | 0.2 | 0.5 | 0.6 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 60.5 | 39.5 | 39.5 | 65.7 | 39.1 | 39.1 | 60.1 | 44.5 | 44.5 | 42.7 | 37.6 | 23.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 60.5 | 39.5 | 39.5 | 65.7 | 39.1 | 39.1 | 60.1 | 44.5 | 44.5 | 42.7 | 37.6 | 23.1 |
| LOS by Move: | E | D | D | E | D | D | E | D | D | D | D+ | C |
| HCM2kAvgQ: | 4 | 13 | 13 | 5 | 11 | 11 | 6 | 6 | 6 | 6 | 13 | 4 |

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

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

Intersection #1404: El Camino Real (SR 82) / Fair Oaks Ave

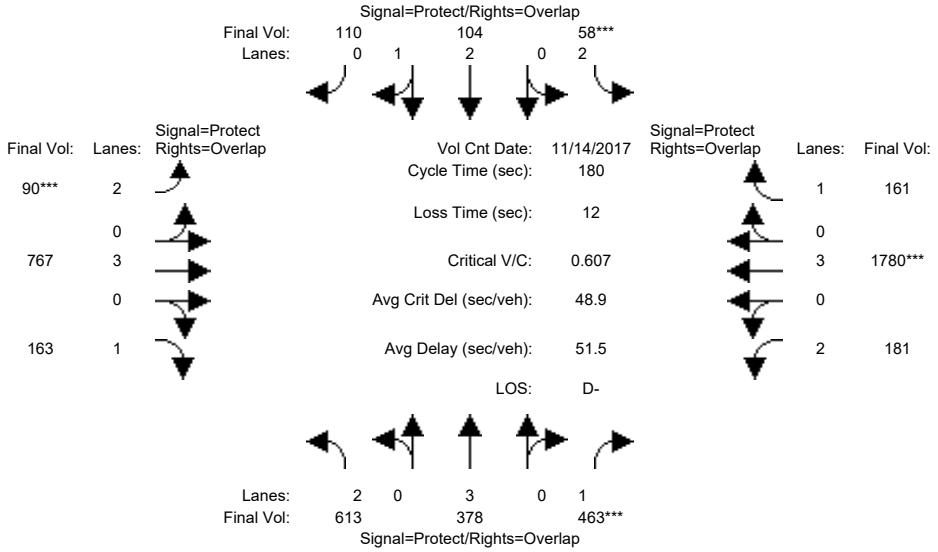



| Street Name: | Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 30 Oct 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 119 | 554 | 258 | 161 | 736 | 145 | 237 | 1515 | 189 | 181 | 773 | 173 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 119 | 554 | 258 | 161 | 736 | 145 | 237 | 1515 | 189 | 181 | 773 | 173 |
| Added Vol: | 0 | 2 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 119 | 556 | 258 | 161 | 761 | 145 | 237 | 1515 | 189 | 181 | 773 | 173 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 119 | 556 | 258 | 161 | 761 | 145 | 237 | 1515 | 189 | 181 | 773 | 173 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 119 | 556 | 258 | 161 | 761 | 145 | 237 | 1515 | 189 | 181 | 773 | 173 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 119 | 556 | 258 | 161 | 761 | 145 | 237 | 1515 | 189 | 181 | 773 | 173 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.35 | 0.65 | 1.00 | 1.67 | 0.33 | 1.00 | 2.65 | 0.35 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 2526 | 1172 | 1750 | 3107 | 592 | 1750 | 4978 | 621 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.22 | 0.22 | 0.09 | 0.24 | 0.24 | 0.14 | 0.30 | 0.30 | 0.10 | 0.14 | 0.10 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 10.2 | 33.0 | 33.0 | 13.8 | 36.6 | 36.6 | 30.6 | 45.7 | 45.7 | 15.5 | 30.6 | 44.4 |
| Volume/Cap: | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.53 | 0.80 | 0.80 | 0.80 | 0.53 | 0.27 |
| Uniform Del: | 53.9 | 40.4 | 40.4 | 51.8 | 38.3 | 38.3 | 38.5 | 33.1 | 33.1 | 50.7 | 38.5 | 26.4 |
| IncremntDel: | 26.0 | 4.6 | 4.6 | 19.9 | 4.2 | 4.2 | 1.2 | 2.2 | 2.2 | 18.0 | 0.4 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 79.9 | 45.0 | 45.0 | 71.6 | 42.5 | 42.5 | 39.8 | 35.3 | 35.3 | 68.7 | 38.9 | 26.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 79.9 | 45.0 | 45.0 | 71.6 | 42.5 | 42.5 | 39.8 | 35.3 | 35.3 | 68.7 | 38.9 | 26.6 |
| LOS by Move: | E- | D | D | E | D | D | D | D+ | D+ | E | D+ | C |
| HCM2kAvgQ: | 5 | 15 | 15 | 7 | 16 | 16 | 8 | 20 | 20 | 8 | 8 | 5 |

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

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

Intersection #5320: CENTRAL EXPWY/MARY AVE

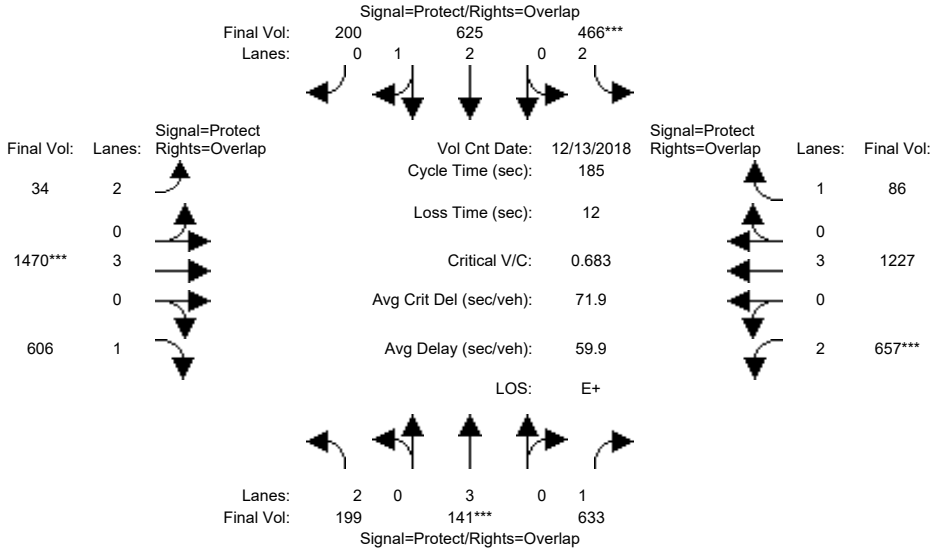



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 6.1 | 6.0 | 6.0 | 6.2 | 5.9 | 5.9 | 6.2 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 14 Nov 2017 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 613 | 378 | 463 | 58 | 104 | 110 | 90 | 713 | 163 | 181 | 1770 | 161 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 613 | 378 | 463 | 58 | 104 | 110 | 90 | 713 | 163 | 181 | 1770 | 161 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 0 | 10 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 613 | 378 | 463 | 58 | 104 | 110 | 90 | 767 | 163 | 181 | 1780 | 161 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 613 | 378 | 463 | 58 | 104 | 110 | 90 | 767 | 163 | 181 | 1780 | 161 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 613 | 378 | 463 | 58 | 104 | 110 | 90 | 767 | 163 | 181 | 1780 | 161 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 613 | 378 | 463 | 58 | 104 | 110 | 90 | 767 | 163 | 181 | 1780 | 161 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.19 | 0.07 | 0.26 | 0.02 | 0.03 | 0.06 | 0.03 | 0.13 | 0.09 | 0.06 | 0.31 | 0.09 |
| Crit Moves: | | | **** | **** | | | **** | | | | **** | |
| Green Time: | 38.9 | 58.0 | 76.7 | 11.8 | 32.1 | 44.9 | 12.8 | 66.8 | 105.7 | 18.7 | 72.8 | 84.6 |
| Volume/Cap: | 0.90 | 0.21 | 0.62 | 0.28 | 0.15 | 0.25 | 0.40 | 0.36 | 0.16 | 0.55 | 0.77 | 0.20 |
| Uniform Del: | 68.7 | 44.3 | 40.3 | 80.1 | 62.5 | 54.1 | 79.9 | 41.1 | 16.9 | 76.7 | 46.4 | 27.8 |
| IncremntDel: | 15.1 | 0.1 | 1.6 | 0.7 | 0.1 | 0.2 | 1.2 | 0.1 | 0.1 | 2.1 | 1.7 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 83.7 | 44.3 | 41.9 | 80.8 | 62.5 | 54.3 | 81.1 | 41.2 | 17.0 | 78.7 | 48.1 | 28.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 83.7 | 44.3 | 41.9 | 80.8 | 62.5 | 54.3 | 81.1 | 41.2 | 17.0 | 78.7 | 48.1 | 28.0 |
| LOS by Move: | F | D | D | F | E | D- | F | D | B | E- | D | C |
| HCM2kAvgQ: | 21 | 5 | 21 | 2 | 2 | 5 | 3 | 10 | 4 | 6 | 29 | 5 |

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

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

Intersection #5320: CENTRAL EXPWY/MARY AVE

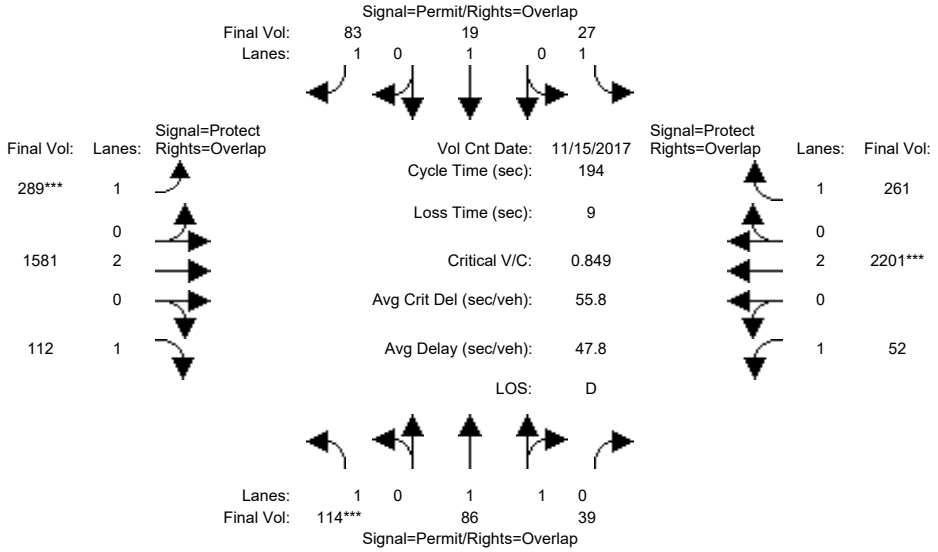



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 16 | 37 | 37 | 29 | 50 | 50 | 9 | 52 | 52 | 43 | 86 | 86 |
| Y+R: | 6.1 | 6.0 | 6.0 | 6.2 | 5.9 | 5.9 | 6.2 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 13 Dec 2018 << 4:45 - 5:45 PM | | | | | | | | | | | | |
| Base Vol: | 199 | 141 | 633 | 466 | 625 | 200 | 34 | 1464 | 606 | 657 | 1165 | 86 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 199 | 141 | 633 | 466 | 625 | 200 | 34 | 1464 | 606 | 657 | 1165 | 86 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 62 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 199 | 141 | 633 | 466 | 625 | 200 | 34 | 1470 | 606 | 657 | 1227 | 86 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 199 | 141 | 633 | 466 | 625 | 200 | 34 | 1470 | 606 | 657 | 1227 | 86 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 199 | 141 | 633 | 466 | 625 | 200 | 34 | 1470 | 606 | 657 | 1227 | 86 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 199 | 141 | 633 | 466 | 625 | 200 | 34 | 1470 | 606 | 657 | 1227 | 86 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 0.99 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 2.25 | 0.75 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 4241 | 1357 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.02 | 0.36 | 0.15 | 0.15 | 0.15 | 0.01 | 0.26 | 0.35 | 0.21 | 0.22 | 0.05 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 16.9 | 37.0 | 83.2 | 32.7 | 52.8 | 62.6 | 9.8 | 57.1 | 74.0 | 46.2 | 93.5 | 126.2 |
| Volume/Cap: | 0.69 | 0.12 | 0.80 | 0.84 | 0.52 | 0.44 | 0.20 | 0.84 | 0.87 | 0.84 | 0.43 | 0.07 |
| Uniform Del: | 81.5 | 60.7 | 43.9 | 73.5 | 55.4 | 47.5 | 83.9 | 59.6 | 50.9 | 65.8 | 28.9 | 9.8 |
| IncremntDel: | 7.0 | 0.0 | 6.1 | 10.6 | 0.3 | 0.2 | 0.6 | 3.7 | 11.0 | 7.8 | 0.1 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.07 | 1.14 | 1.03 | 1.25 | 1.60 |
| Delay/Veh: | 88.5 | 60.8 | 50.0 | 84.1 | 55.7 | 47.6 | 84.5 | 67.3 | 68.9 | 75.8 | 36.1 | 15.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 88.5 | 60.8 | 50.0 | 84.1 | 55.7 | 47.6 | 84.5 | 67.3 | 68.9 | 75.8 | 36.1 | 15.7 |
| LOS by Move: | F | E | D | F | E+ | D | F | E | E | E- | D+ | B |
| HCM2kAvgQ: | 7 | 2 | 34 | 17 | 13 | 12 | 1 | 28 | 37 | 23 | 17 | 3 |

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

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

Intersection #5325: CENTRAL EXPWY/CORVIN DR-OAKMEAD PKWY

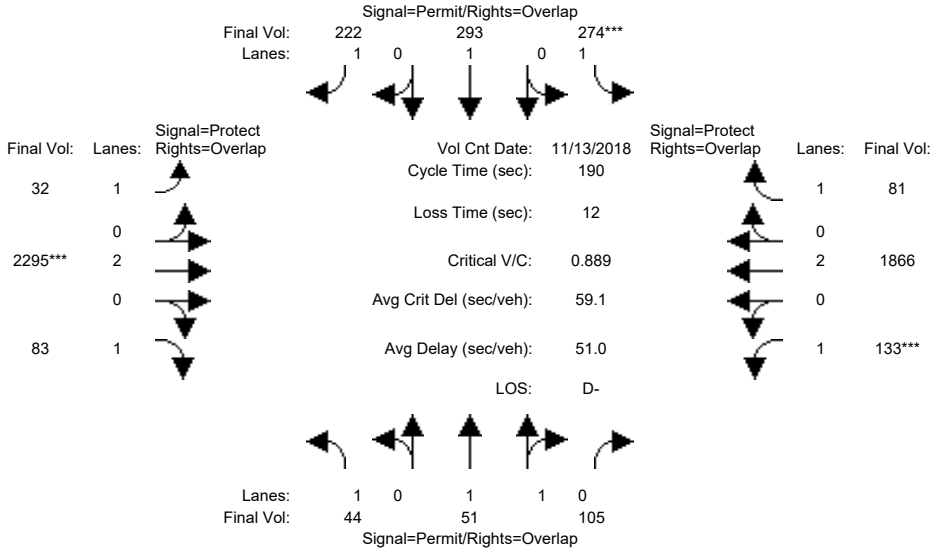



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 23 | 23 | 23 | 23 | 23 | 23 | 34 | 137 | 137 | 14 | 117 | 117 |
| Y+R: | 6.3 | 6.3 | 6.3 | 6.1 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 114 | 86 | 39 | 27 | 19 | 83 | 289 | 1571 | 112 | 52 | 2147 | 261 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 114 | 86 | 39 | 27 | 19 | 83 | 289 | 1571 | 112 | 52 | 2147 | 261 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 54 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 114 | 86 | 39 | 27 | 19 | 83 | 289 | 1581 | 112 | 52 | 2201 | 261 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 114 | 86 | 39 | 27 | 19 | 83 | 289 | 1581 | 112 | 52 | 2201 | 261 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 114 | 86 | 39 | 27 | 19 | 83 | 289 | 1581 | 112 | 52 | 2201 | 261 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 114 | 86 | 39 | 27 | 19 | 83 | 289 | 1581 | 112 | 52 | 2201 | 261 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.36 | 0.64 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 2545 | 1154 | 1750 | 1900 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.03 | 0.03 | 0.02 | 0.01 | 0.05 | 0.17 | 0.42 | 0.06 | 0.03 | 0.58 | 0.15 |
| Crit Moves: | **** | | | | | | **** | | | | **** | |
| Green Time: | 23.7 | 23.7 | 37.9 | 23.9 | 23.9 | 58.4 | 34.5 | 138 | 137.8 | 14.2 | 118 | 117.8 |
| Volume/Cap: | 0.53 | 0.28 | 0.17 | 0.13 | 0.08 | 0.16 | 0.93 | 0.59 | 0.09 | 0.41 | 0.95 | 0.25 |
| Uniform Del: | 79.9 | 77.4 | 65.0 | 75.7 | 75.3 | 49.8 | 78.5 | 13.9 | 8.7 | 85.9 | 35.6 | 17.6 |
| IncremntDel: | 2.6 | 0.3 | 0.1 | 0.3 | 0.1 | 0.1 | 33.0 | 0.3 | 0.0 | 2.1 | 10.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.14 | 2.63 | 2.63 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 82.5 | 77.7 | 65.1 | 76.0 | 75.5 | 49.9 | 122.8 | 37.1 | 22.9 | 88.0 | 45.6 | 17.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 82.5 | 77.7 | 65.1 | 76.0 | 75.5 | 49.9 | 122.8 | 37.1 | 22.9 | 88.0 | 45.6 | 17.7 |
| LOS by Move: | F | E- | E | E- | E- | D | F | D+ | C+ | F | D | B |
| HCM2kAvgQ: | 7 | 3 | 3 | 1 | 1 | 4 | 22 | 39 | 5 | 3 | 62 | 7 |

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

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

Intersection #5325: CENTRAL EXPWY/CORVIN DR-OAKMEAD PKWY

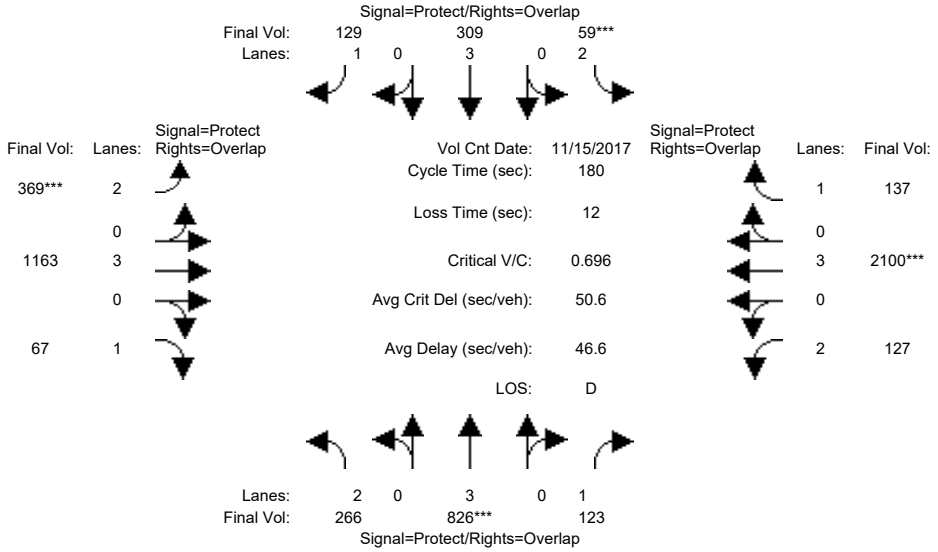



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 39 | 39 | 39 | 39 | 39 | 39 | 13 | 133 | 133 | 18 | 138 | 138 |
| Y+R: | 5.7 | 5.7 | 5.7 | 5.5 | 5.5 | 5.5 | 5.0 | 6.2 | 6.2 | 5.1 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 13 Nov 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 44 | 51 | 105 | 274 | 293 | 222 | 32 | 2233 | 83 | 133 | 1860 | 81 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 44 | 51 | 105 | 274 | 293 | 222 | 32 | 2233 | 83 | 133 | 1860 | 81 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 0 | 0 | 6 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 44 | 51 | 105 | 274 | 293 | 222 | 32 | 2295 | 83 | 133 | 1866 | 81 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 44 | 51 | 105 | 274 | 293 | 222 | 32 | 2295 | 83 | 133 | 1866 | 81 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 44 | 51 | 105 | 274 | 293 | 222 | 32 | 2295 | 83 | 133 | 1866 | 81 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 44 | 51 | 105 | 274 | 293 | 222 | 32 | 2295 | 83 | 133 | 1866 | 81 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 1900 | 1750 | 1750 | 1900 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.03 | 0.06 | 0.16 | 0.15 | 0.13 | 0.02 | 0.60 | 0.05 | 0.08 | 0.49 | 0.05 |
| Crit Moves: | | | | **** | | | | **** | | **** | | |
| Green Time: | 36.7 | 36.7 | 53.6 | 36.7 | 36.7 | 48.9 | 12.2 | 125 | 125.1 | 16.9 | 130 | 129.8 |
| Volume/Cap: | 0.13 | 0.14 | 0.21 | 0.81 | 0.80 | 0.49 | 0.28 | 0.92 | 0.07 | 0.85 | 0.72 | 0.07 |
| Uniform Del: | 67.5 | 67.6 | 55.4 | 78.0 | 77.8 | 63.8 | 90.1 | 29.8 | 12.4 | 90.7 | 19.9 | 10.6 |
| IncremntDel: | 0.2 | 0.1 | 0.1 | 13.7 | 11.7 | 0.9 | 1.4 | 6.0 | 0.0 | 33.9 | 1.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.53 | 1.53 | 1.00 | 1.60 | 1.60 |
| Delay/Veh: | 67.6 | 67.6 | 55.5 | 91.7 | 89.5 | 64.6 | 91.5 | 51.4 | 18.9 | 124.5 | 32.8 | 17.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 67.6 | 67.6 | 55.5 | 91.7 | 89.5 | 64.6 | 91.5 | 51.4 | 18.9 | 124.5 | 32.8 | 17.0 |
| LOS by Move: | E | E | E+ | F | F | E | F | D- | B- | F | C- | B |
| HCM2kAvgQ: | 2 | 2 | 5 | 18 | 18 | 12 | 2 | 68 | 3 | 9 | 45 | 3 |

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

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

Intersection #5329: CENTRAL EXPWY/BOWERS AVE

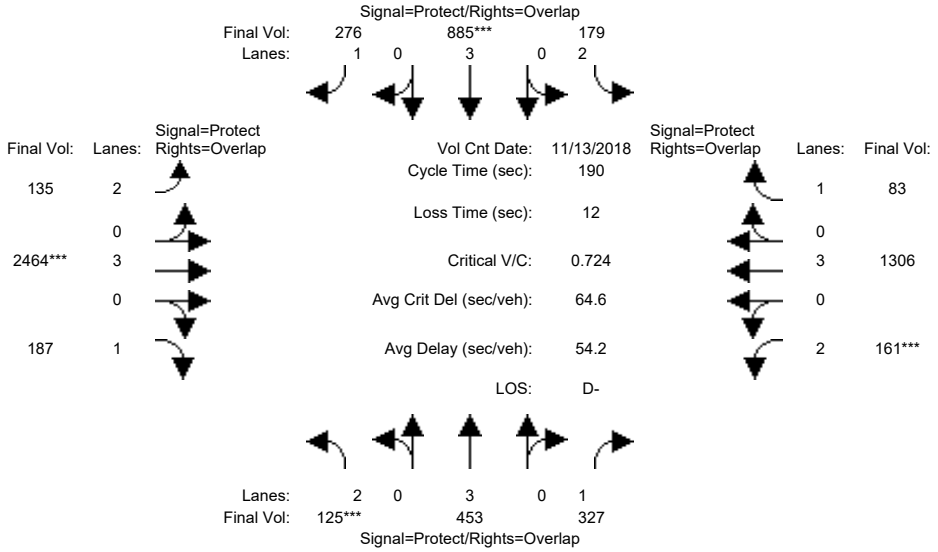



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 14 | 10 | 10 | 14 | 10 | 10 | 14 | 78 | 78 | 14 | 85 | 85 |
| Y+R: | 7.3 | 6.3 | 6.3 | 7.3 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 266 | 826 | 123 | 59 | 309 | 129 | 369 | 1153 | 67 | 127 | 2046 | 137 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 266 | 826 | 123 | 59 | 309 | 129 | 369 | 1153 | 67 | 127 | 2046 | 137 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 54 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 266 | 826 | 123 | 59 | 309 | 129 | 369 | 1163 | 67 | 127 | 2100 | 137 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 266 | 826 | 123 | 59 | 309 | 129 | 369 | 1163 | 67 | 127 | 2100 | 137 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 266 | 826 | 123 | 59 | 309 | 129 | 369 | 1163 | 67 | 127 | 2100 | 137 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 266 | 826 | 123 | 59 | 309 | 129 | 369 | 1163 | 67 | 127 | 2100 | 137 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.14 | 0.07 | 0.02 | 0.05 | 0.07 | 0.12 | 0.20 | 0.04 | 0.04 | 0.37 | 0.08 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 19.7 | 40.2 | 56.6 | 13.9 | 34.6 | 60.4 | 25.8 | 97.4 | 117.1 | 16.4 | 88.4 | 102.3 |
| Volume/Cap: | 0.77 | 0.65 | 0.22 | 0.24 | 0.28 | 0.22 | 0.82 | 0.38 | 0.06 | 0.44 | 0.75 | 0.14 |
| Uniform Del: | 78.0 | 63.5 | 45.5 | 78.1 | 62.1 | 42.9 | 74.8 | 23.8 | 11.4 | 77.5 | 36.9 | 18.2 |
| IncremntDel: | 10.3 | 1.2 | 0.2 | 0.5 | 0.1 | 0.2 | 11.1 | 0.1 | 0.0 | 1.1 | 1.2 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 88.3 | 64.7 | 45.7 | 78.6 | 62.2 | 43.1 | 86.0 | 23.9 | 11.5 | 78.6 | 38.1 | 18.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 88.3 | 64.7 | 45.7 | 78.6 | 62.2 | 43.1 | 86.0 | 23.9 | 11.5 | 78.6 | 38.1 | 18.3 |
| LOS by Move: | F | E | D | E- | E | D | F | C | B+ | E- | D+ | B- |
| HCM2kAvgQ: | 9 | 13 | 5 | 2 | 5 | 5 | 12 | 12 | 1 | 4 | 31 | 4 |

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

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

Intersection #5329: CENTRAL EXPWY/BOWERS AVE

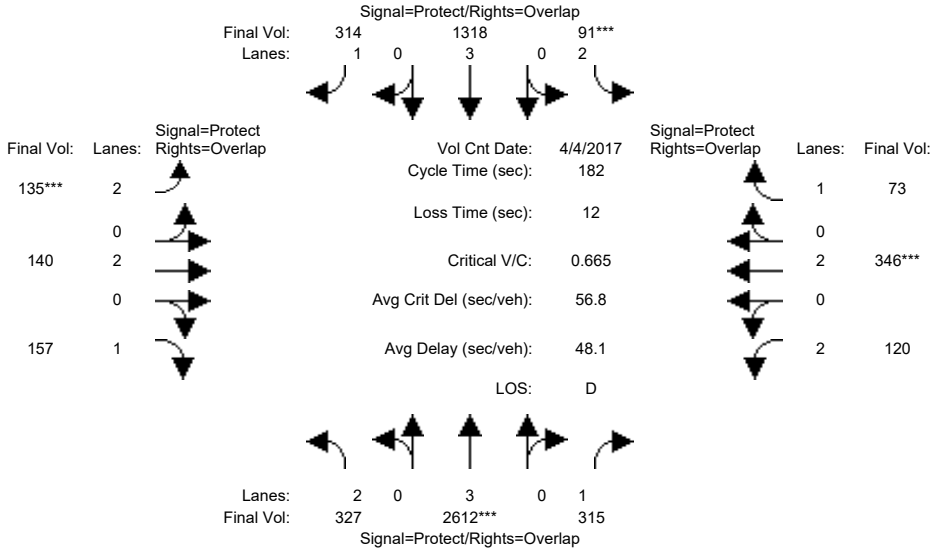



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 15 | 39 | 39 | 16 | 40 | 40 | 16 | 96 | 96 | 14 | 95 | 95 |
| Y+R: | 7.3 | 6.3 | 6.3 | 7.3 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 13 Nov 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 125 | 453 | 327 | 179 | 885 | 276 | 135 | 2402 | 187 | 161 | 1300 | 83 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 125 | 453 | 327 | 179 | 885 | 276 | 135 | 2402 | 187 | 161 | 1300 | 83 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 0 | 0 | 6 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 125 | 453 | 327 | 179 | 885 | 276 | 135 | 2464 | 187 | 161 | 1306 | 83 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 125 | 453 | 327 | 179 | 885 | 276 | 135 | 2464 | 187 | 161 | 1306 | 83 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 125 | 453 | 327 | 179 | 885 | 276 | 135 | 2464 | 187 | 161 | 1306 | 83 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 125 | 453 | 327 | 179 | 885 | 276 | 135 | 2464 | 187 | 161 | 1306 | 83 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.08 | 0.19 | 0.06 | 0.16 | 0.16 | 0.04 | 0.43 | 0.11 | 0.05 | 0.23 | 0.05 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 15.0 | 39.0 | 53.0 | 16.0 | 40.0 | 57.7 | 17.7 | 109 | 124.0 | 14.0 | 105 | 121.3 |
| Volume/Cap: | 0.50 | 0.39 | 0.67 | 0.67 | 0.74 | 0.52 | 0.46 | 0.75 | 0.16 | 0.69 | 0.41 | 0.07 |
| Uniform Del: | 83.9 | 65.2 | 60.7 | 84.5 | 70.1 | 54.7 | 81.6 | 30.4 | 12.8 | 85.9 | 24.5 | 13.0 |
| IncremntDel: | 1.6 | 0.2 | 3.6 | 6.7 | 2.4 | 0.9 | 1.1 | 1.0 | 0.1 | 8.7 | 0.1 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.07 | 1.90 | 2.25 | 1.00 | 0.67 | 0.47 |
| Delay/Veh: | 85.6 | 65.4 | 64.3 | 91.2 | 72.5 | 55.6 | 88.3 | 58.7 | 29.0 | 94.7 | 16.6 | 6.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 85.6 | 65.4 | 64.3 | 91.2 | 72.5 | 55.6 | 88.3 | 58.7 | 29.0 | 94.7 | 16.6 | 6.2 |
| LOS by Move: | F | E | E | F | E | E+ | F | E+ | C | F | B | A |
| HCM2kAvgQ: | 4 | 7 | 18 | 6 | 16 | 14 | 4 | 42 | 9 | 7 | 9 | 1 |

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

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

Intersection #5611: LAWRENCE EXPWY/ARQUES AVE

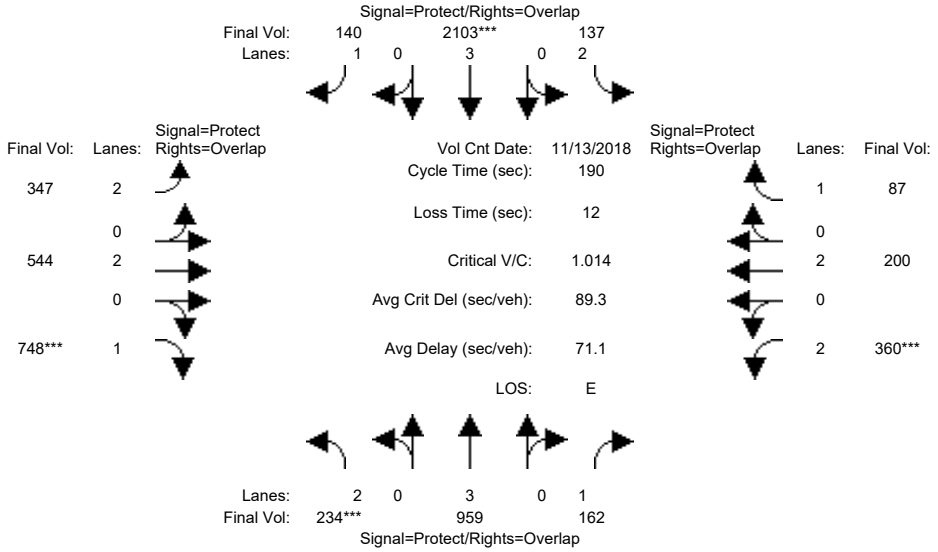



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 23 | 94 | 94 | 17 | 88 | 88 | 16 | 32 | 32 | 15 | 31 | 31 |
| Y+R: | 6.3 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.9 | 5.7 | 5.7 | 5.9 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 4 Apr 2017 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 327 | 2978 | 315 | 91 | 1364 | 314 | 135 | 140 | 157 | 120 | 346 | 73 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 327 | 2978 | 315 | 91 | 1364 | 314 | 135 | 140 | 157 | 120 | 346 | 73 |
| Added Vol: | 0 | 24 | 0 | 0 | 151 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 327 | 3002 | 315 | 91 | 1515 | 314 | 135 | 140 | 157 | 120 | 346 | 73 |
| User Adj: | 1.00 | 0.87 | 1.00 | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 327 | 2612 | 315 | 91 | 1318 | 314 | 135 | 140 | 157 | 120 | 346 | 73 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 327 | 2612 | 315 | 91 | 1318 | 314 | 135 | 140 | 157 | 120 | 346 | 73 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 327 | 2612 | 315 | 91 | 1318 | 314 | 135 | 140 | 157 | 120 | 346 | 73 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.84 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1601 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.46 | 0.18 | 0.03 | 0.23 | 0.18 | 0.04 | 0.04 | 0.10 | 0.04 | 0.09 | 0.04 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 23.4 | 94.0 | 109.0 | 17.1 | 87.4 | 103.0 | 15.6 | 31.9 | 55.3 | 15.0 | 31.3 | 48.4 |
| Volume/Cap: | 0.81 | 0.89 | 0.30 | 0.31 | 0.48 | 0.32 | 0.50 | 0.21 | 0.32 | 0.46 | 0.53 | 0.16 |
| Uniform Del: | 77.1 | 39.3 | 17.9 | 76.9 | 32.0 | 20.9 | 79.5 | 64.3 | 48.9 | 79.7 | 68.6 | 51.2 |
| IncremntDel: | 11.4 | 3.7 | 0.2 | 0.6 | 0.1 | 0.2 | 1.5 | 0.2 | 0.4 | 1.3 | 0.8 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.26 | 1.39 | 1.00 | 0.80 | 0.65 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 88.5 | 53.2 | 25.0 | 77.5 | 25.6 | 13.8 | 80.9 | 64.4 | 49.3 | 81.0 | 69.5 | 51.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 88.5 | 53.2 | 25.0 | 77.5 | 25.6 | 13.8 | 80.9 | 64.4 | 49.3 | 81.0 | 69.5 | 51.3 |
| LOS by Move: | F | D- | C | E- | C | B | F | E | D | F | E | D- |
| HCM2kAvgQ: | 13 | 47 | 12 | 3 | 12 | 6 | 4 | 3 | 7 | 4 | 9 | 3 |

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

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

Intersection #5611: LAWRENCE EXPWY/ARQUES AVE

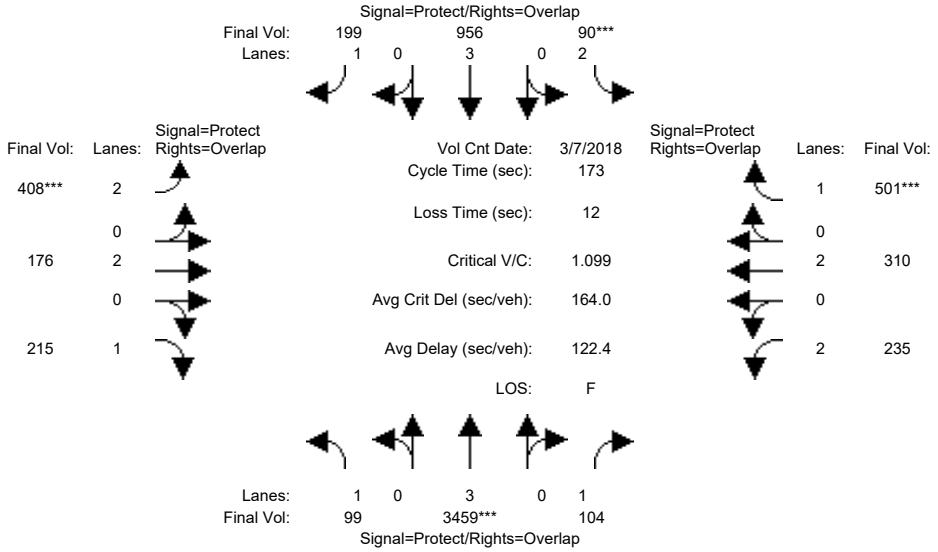



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 22 | 86 | 86 | 15 | 79 | 79 | 24 | 41 | 41 | 24 | 41 | 41 |
| Y+R: | 6.3 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.9 | 5.7 | 5.7 | 5.9 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 13 Nov 2018 << 4:30 - 5:30 PM | | | | | | | | | | | | |
| Base Vol: | 234 | 1276 | 162 | 137 | 2612 | 140 | 347 | 544 | 748 | 360 | 200 | 87 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 234 | 1276 | 162 | 137 | 2612 | 140 | 347 | 544 | 748 | 360 | 200 | 87 |
| Added Vol: | 0 | 156 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 234 | 1432 | 162 | 137 | 2629 | 140 | 347 | 544 | 748 | 360 | 200 | 87 |
| User Adj: | 1.00 | 0.67 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 234 | 959 | 162 | 137 | 2103 | 140 | 347 | 544 | 748 | 360 | 200 | 87 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 234 | 959 | 162 | 137 | 2103 | 140 | 347 | 544 | 748 | 360 | 200 | 87 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 234 | 959 | 162 | 137 | 2103 | 140 | 347 | 544 | 748 | 360 | 200 | 87 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.84 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1601 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.17 | 0.09 | 0.04 | 0.37 | 0.08 | 0.11 | 0.14 | 0.47 | 0.11 | 0.05 | 0.05 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green Time: | 22.0 | 86.0 | 110.0 | 15.0 | 79.0 | 107.4 | 28.4 | 53.0 | 75.0 | 24.0 | 48.6 | 63.6 |
| Volume/Cap: | 0.64 | 0.37 | 0.16 | 0.55 | 0.89 | 0.14 | 0.74 | 0.51 | 1.18 | 0.90 | 0.21 | 0.15 |
| Uniform Del: | 80.2 | 34.2 | 18.6 | 84.3 | 51.4 | 19.5 | 77.2 | 57.6 | 57.5 | 81.9 | 55.6 | 44.3 |
| IncremntDel: | 3.9 | 0.1 | 0.1 | 2.6 | 4.5 | 0.1 | 6.0 | 0.4 | 98.0 | 23.5 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.83 | 0.62 | 1.00 | 1.15 | 1.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 84.1 | 28.6 | 11.6 | 86.9 | 63.6 | 26.1 | 83.2 | 58.1 | 155.5 | 105.4 | 55.7 | 44.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 84.1 | 28.6 | 11.6 | 86.9 | 63.6 | 26.1 | 83.2 | 58.1 | 155.5 | 105.4 | 55.7 | 44.4 |
| LOS by Move: | F | C | B+ | F | E | C | F | E+ | F | F | E+ | D |
| HCM2kAvgQ: | 9 | 9 | 3 | 4 | 39 | 5 | 12 | 13 | 63 | 14 | 4 | 4 |

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

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

Intersection #5613: LAWRENCE EXPWY/REED AVE

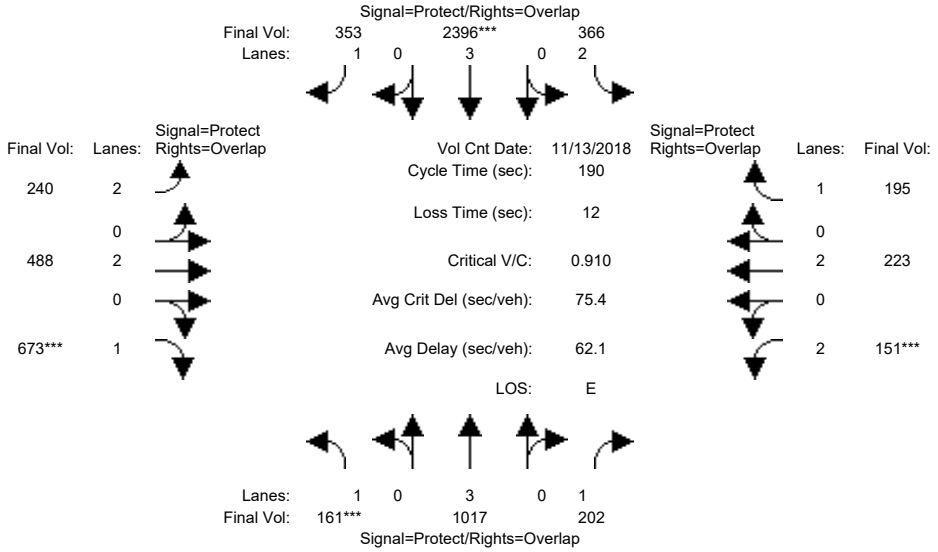



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 14 | 81 | 81 | 13 | 80 | 80 | 23 | 39 | 39 | 17 | 33 | 33 |
| Y+R: | 6.0 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.7 | 5.6 | 5.6 | 5.6 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 7 Mar 2018 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 99 | 3879 | 104 | 90 | 1081 | 199 | 408 | 176 | 215 | 235 | 310 | 501 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 99 | 3879 | 104 | 90 | 1081 | 199 | 408 | 176 | 215 | 235 | 310 | 501 |
| Added Vol: | 0 | 97 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 99 | 3976 | 104 | 90 | 1099 | 199 | 408 | 176 | 215 | 235 | 310 | 501 |
| User Adj: | 1.00 | 0.87 | 1.00 | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 99 | 3459 | 104 | 90 | 956 | 199 | 408 | 176 | 215 | 235 | 310 | 501 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 99 | 3459 | 104 | 90 | 956 | 199 | 408 | 176 | 215 | 235 | 310 | 501 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 99 | 3459 | 104 | 90 | 956 | 199 | 408 | 176 | 215 | 235 | 310 | 501 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.61 | 0.06 | 0.03 | 0.17 | 0.11 | 0.13 | 0.05 | 0.12 | 0.07 | 0.08 | 0.29 |
| Crit Moves: | | **** | | **** | | | **** | | | | | **** |
| Green Time: | 14.1 | 80.5 | 97.8 | 13.2 | 79.7 | 102.8 | 23.1 | 38.5 | 52.6 | 17.3 | 32.5 | 45.7 |
| Volume/Cap: | 0.69 | 1.30 | 0.11 | 0.37 | 0.36 | 0.19 | 0.97 | 0.21 | 0.40 | 0.75 | 0.43 | 1.08 |
| Uniform Del: | 77.4 | 46.3 | 17.4 | 76.0 | 30.2 | 16.1 | 74.6 | 54.8 | 47.8 | 75.7 | 62.1 | 63.6 |
| IncremntDel: | 13.8 | 140 | 0.0 | 1.0 | 0.1 | 0.1 | 36.0 | 0.1 | 0.5 | 9.4 | 0.4 | 66.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.82 | 0.65 | 1.00 | 0.82 | 0.59 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 91.2 | 178 | 11.4 | 77.0 | 25.0 | 9.6 | 110.6 | 55.0 | 48.3 | 85.1 | 62.5 | 129.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 91.2 | 178 | 11.4 | 77.0 | 25.0 | 9.6 | 110.6 | 55.0 | 48.3 | 85.1 | 62.5 | 129.9 |
| LOS by Move: | F | F | B+ | E- | C | A | F | D- | D | F | E | F |
| HCM2kAvgQ: | 5 | 89 | 1 | 3 | 8 | 3 | 15 | 4 | 9 | 7 | 7 | 36 |

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

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

Intersection #5613: LAWRENCE EXPWY/REED AVE

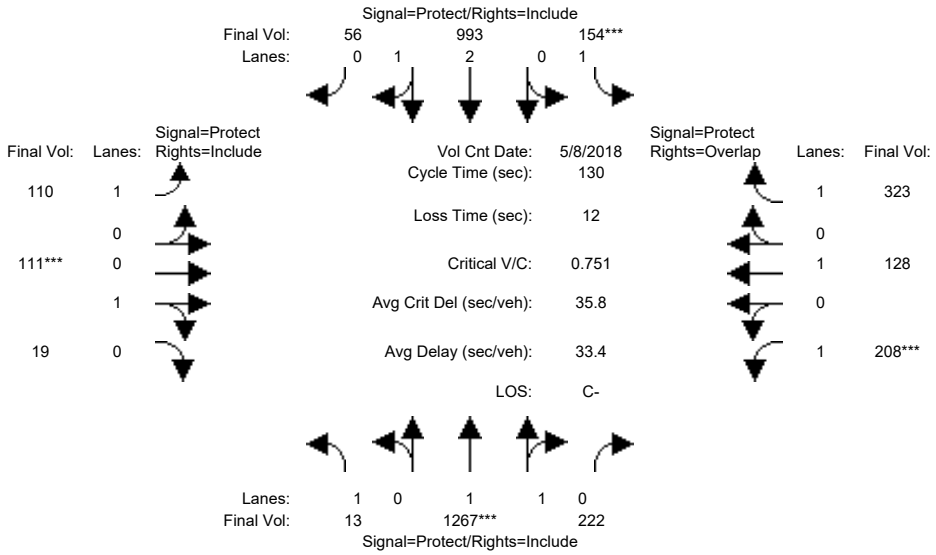



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 17 | 90 | 90 | 27 | 100 | 100 | 15 | 35 | 35 | 14 | 34 | 34 |
| Y+R: | 6.0 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.7 | 5.6 | 5.6 | 5.6 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 13 Nov 2018 << 4:45 - 5:45 PM | | | | | | | | | | | | |
| Base Vol: | 161 | 1245 | 202 | 366 | 3216 | 353 | 240 | 488 | 673 | 151 | 223 | 195 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 161 | 1245 | 202 | 366 | 3216 | 353 | 240 | 488 | 673 | 151 | 223 | 195 |
| Added Vol: | 0 | 11 | 0 | 0 | 112 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 161 | 1256 | 202 | 366 | 3328 | 353 | 240 | 488 | 673 | 151 | 223 | 195 |
| User Adj: | 1.00 | 0.81 | 1.00 | 1.00 | 0.72 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 161 | 1017 | 202 | 366 | 2396 | 353 | 240 | 488 | 673 | 151 | 223 | 195 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 161 | 1017 | 202 | 366 | 2396 | 353 | 240 | 488 | 673 | 151 | 223 | 195 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 161 | 1017 | 202 | 366 | 2396 | 353 | 240 | 488 | 673 | 151 | 223 | 195 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.18 | 0.12 | 0.12 | 0.42 | 0.20 | 0.08 | 0.13 | 0.38 | 0.05 | 0.06 | 0.11 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green Time: | 17.0 | 90.0 | 104.0 | 27.0 | 100 | 118.7 | 18.7 | 47.0 | 64.0 | 14.0 | 42.3 | 69.3 |
| Volume/Cap: | 1.03 | 0.38 | 0.21 | 0.82 | 0.80 | 0.32 | 0.78 | 0.52 | 1.14 | 0.65 | 0.26 | 0.31 |
| Uniform Del: | 86.5 | 32.0 | 22.0 | 79.1 | 36.8 | 16.8 | 83.6 | 61.7 | 63.0 | 85.6 | 61.0 | 43.1 |
| IncremntDel: | 79.6 | 0.1 | 0.1 | 11.2 | 1.6 | 0.2 | 11.6 | 0.5 | 82.7 | 6.4 | 0.2 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.80 | 0.69 | 1.00 | 1.27 | 1.45 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 166.1 | 25.9 | 15.2 | 90.3 | 48.5 | 24.4 | 95.2 | 62.3 | 145.7 | 92.0 | 61.1 | 43.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 166.1 | 25.9 | 15.2 | 90.3 | 48.5 | 24.4 | 95.2 | 62.3 | 145.7 | 92.0 | 61.1 | 43.4 |
| LOS by Move: | F | C | B | F | D | C | F | E | F | F | E | D |
| HCM2kAvgQ: | 12 | 9 | 4 | 12 | 39 | 14 | 9 | 12 | 54 | 5 | 5 | 8 |

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

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

Intersection #41: Fair Oaks Ave & Duane Ave

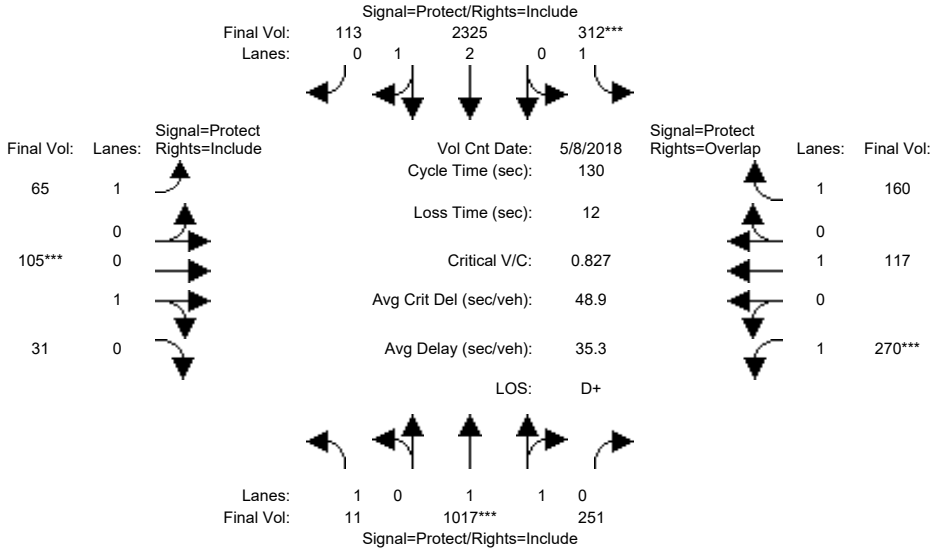



| Street Name: | Fair Oaks Ave | | | | | | Duane Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 13 | 1260 | 219 | 154 | 953 | 56 | 110 | 111 | 19 | 208 | 128 | 323 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 13 | 1260 | 219 | 154 | 953 | 56 | 110 | 111 | 19 | 208 | 128 | 323 |
| Added Vol: | 0 | 7 | 3 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 13 | 1267 | 222 | 154 | 993 | 56 | 110 | 111 | 19 | 208 | 128 | 323 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 13 | 1267 | 222 | 154 | 993 | 56 | 110 | 111 | 19 | 208 | 128 | 323 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 13 | 1267 | 222 | 154 | 993 | 56 | 110 | 111 | 19 | 208 | 128 | 323 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 13 | 1267 | 222 | 154 | 993 | 56 | 110 | 111 | 19 | 208 | 128 | 323 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.69 | 0.31 | 1.00 | 2.83 | 0.17 | 1.00 | 0.85 | 0.15 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 3148 | 552 | 1750 | 5301 | 299 | 1750 | 1537 | 263 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.40 | 0.40 | 0.09 | 0.19 | 0.19 | 0.06 | 0.07 | 0.07 | 0.12 | 0.07 | 0.18 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 19.0 | 69.7 | 69.7 | 15.2 | 66.0 | 66.0 | 13.0 | 12.5 | 12.5 | 20.6 | 20.0 | 35.3 |
| Volume/Cap: | 0.05 | 0.75 | 0.75 | 0.75 | 0.37 | 0.37 | 0.63 | 0.75 | 0.75 | 0.75 | 0.44 | 0.68 |
| Uniform Del: | 47.8 | 23.4 | 23.4 | 55.5 | 19.4 | 19.4 | 56.1 | 57.2 | 57.2 | 52.3 | 49.9 | 42.3 |
| IncremntDel: | 0.1 | 1.6 | 1.6 | 14.3 | 0.1 | 0.1 | 7.0 | 16.7 | 16.7 | 10.9 | 1.0 | 4.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 47.9 | 25.1 | 25.1 | 69.9 | 19.5 | 19.5 | 63.1 | 73.9 | 73.9 | 63.2 | 50.9 | 46.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 47.9 | 25.1 | 25.1 | 69.9 | 19.5 | 19.5 | 63.1 | 73.9 | 73.9 | 63.2 | 50.9 | 46.3 |
| LOS by Move: | D | C | C | E | B- | B- | E | E | E | E | D | D |
| HCM2kAvgQ: | 0 | 24 | 24 | 7 | 8 | 8 | 6 | 7 | 7 | 10 | 5 | 13 |

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

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

Intersection #41: Fair Oaks Ave & Duane Ave

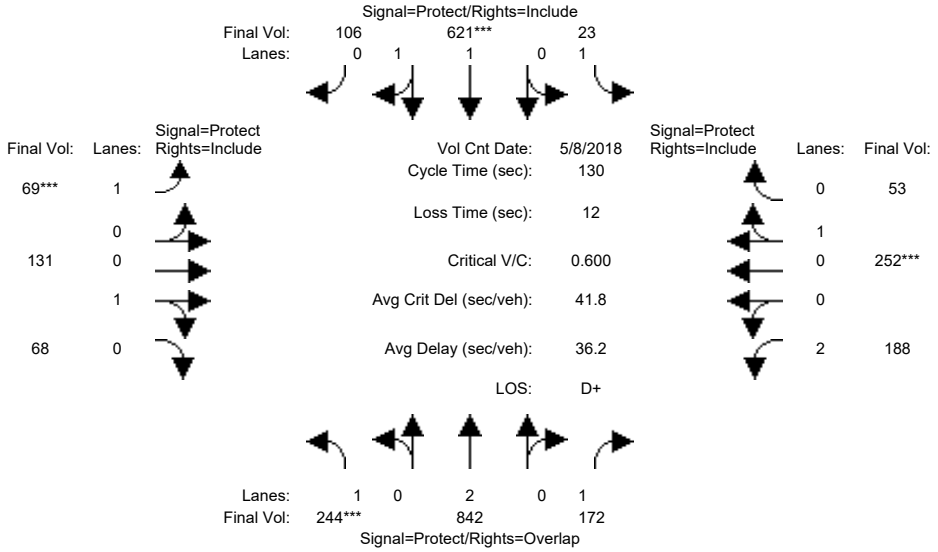



| Street Name: | Fair Oaks Ave | | | | | | Duane Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 11 | 970 | 232 | 312 | 2320 | 113 | 65 | 105 | 31 | 270 | 117 | 160 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 11 | 970 | 232 | 312 | 2320 | 113 | 65 | 105 | 31 | 270 | 117 | 160 |
| Added Vol: | 0 | 47 | 19 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 11 | 1017 | 251 | 312 | 2325 | 113 | 65 | 105 | 31 | 270 | 117 | 160 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 11 | 1017 | 251 | 312 | 2325 | 113 | 65 | 105 | 31 | 270 | 117 | 160 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 11 | 1017 | 251 | 312 | 2325 | 113 | 65 | 105 | 31 | 270 | 117 | 160 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 11 | 1017 | 251 | 312 | 2325 | 113 | 65 | 105 | 31 | 270 | 117 | 160 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.59 | 0.41 | 1.00 | 2.86 | 0.14 | 1.00 | 0.77 | 0.23 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 2967 | 732 | 1750 | 5340 | 260 | 1750 | 1390 | 410 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.34 | 0.34 | 0.18 | 0.44 | 0.44 | 0.04 | 0.08 | 0.08 | 0.15 | 0.06 | 0.09 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 9.0 | 53.9 | 53.9 | 28.0 | 72.9 | 72.9 | 14.9 | 11.9 | 11.9 | 24.2 | 21.2 | 49.3 |
| Volume/Cap: | 0.09 | 0.83 | 0.83 | 0.83 | 0.78 | 0.78 | 0.32 | 0.83 | 0.83 | 0.83 | 0.38 | 0.24 |
| Uniform Del: | 56.7 | 33.9 | 33.9 | 48.7 | 22.2 | 22.2 | 52.9 | 58.1 | 58.1 | 50.9 | 48.5 | 27.6 |
| IncremntDel: | 0.3 | 3.9 | 3.9 | 14.0 | 1.3 | 1.3 | 0.9 | 27.9 | 27.9 | 15.9 | 0.8 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 57.0 | 37.8 | 37.8 | 62.7 | 23.5 | 23.5 | 53.9 | 86.0 | 86.0 | 66.7 | 49.2 | 27.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 57.0 | 37.8 | 37.8 | 62.7 | 23.5 | 23.5 | 53.9 | 86.0 | 86.0 | 66.7 | 49.2 | 27.8 |
| LOS by Move: | E+ | D+ | D+ | E | C | C | D- | F | F | E | D | C |
| HCM2kAvgQ: | 0 | 24 | 24 | 13 | 25 | 25 | 3 | 8 | 8 | 14 | 4 | 5 |

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

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

Intersection #42: Fair Oaks Ave & Arques Ave

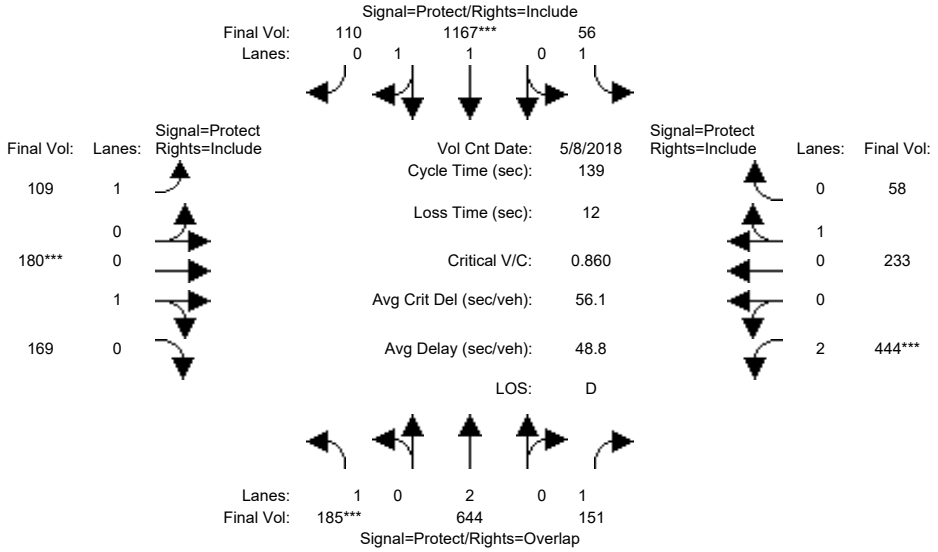



| Street Name: | Fair Oaks Ave | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:15 AM - 9:15 AM | | | | | | | | | | | | |
| Base Vol: | 239 | 842 | 172 | 23 | 621 | 106 | 69 | 131 | 68 | 188 | 252 | 53 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 239 | 842 | 172 | 23 | 621 | 106 | 69 | 131 | 68 | 188 | 252 | 53 |
| Added Vol: | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 244 | 842 | 172 | 23 | 621 | 106 | 69 | 131 | 68 | 188 | 252 | 53 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 244 | 842 | 172 | 23 | 621 | 106 | 69 | 131 | 68 | 188 | 252 | 53 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 244 | 842 | 172 | 23 | 621 | 106 | 69 | 131 | 68 | 188 | 252 | 53 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 244 | 842 | 172 | 23 | 621 | 106 | 69 | 131 | 68 | 188 | 252 | 53 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.83 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 1.70 | 0.30 | 1.00 | 0.66 | 0.34 | 2.00 | 0.83 | 0.17 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3160 | 539 | 1750 | 1185 | 615 | 3150 | 1487 | 313 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.14 | 0.22 | 0.10 | 0.01 | 0.20 | 0.20 | 0.04 | 0.11 | 0.11 | 0.06 | 0.17 | 0.17 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 30.2 | 58.5 | 74.4 | 14.2 | 42.6 | 42.6 | 8.5 | 29.4 | 29.4 | 15.9 | 36.7 | 36.7 |
| Volume/Cap: | 0.60 | 0.49 | 0.17 | 0.12 | 0.60 | 0.60 | 0.60 | 0.49 | 0.49 | 0.49 | 0.60 | 0.60 |
| Uniform Del: | 44.5 | 25.2 | 13.2 | 52.2 | 36.6 | 36.6 | 59.1 | 43.8 | 43.8 | 53.3 | 40.3 | 40.3 |
| IncremntDel: | 2.5 | 0.2 | 0.1 | 0.3 | 0.8 | 0.8 | 8.5 | 0.9 | 0.9 | 1.0 | 2.0 | 2.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 47.0 | 25.5 | 13.3 | 52.5 | 37.4 | 37.4 | 67.6 | 44.7 | 44.7 | 54.3 | 42.3 | 42.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 47.0 | 25.5 | 13.3 | 52.5 | 37.4 | 37.4 | 67.6 | 44.7 | 44.7 | 54.3 | 42.3 | 42.3 |
| LOS by Move: | D | C | B | D- | D+ | D+ | E | D | D | D- | D | D |
| HCM2kAvgQ: | 9 | 11 | 3 | 1 | 13 | 13 | 4 | 8 | 8 | 4 | 11 | 11 |

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

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

Intersection #42: Fair Oaks Ave & Arques Ave

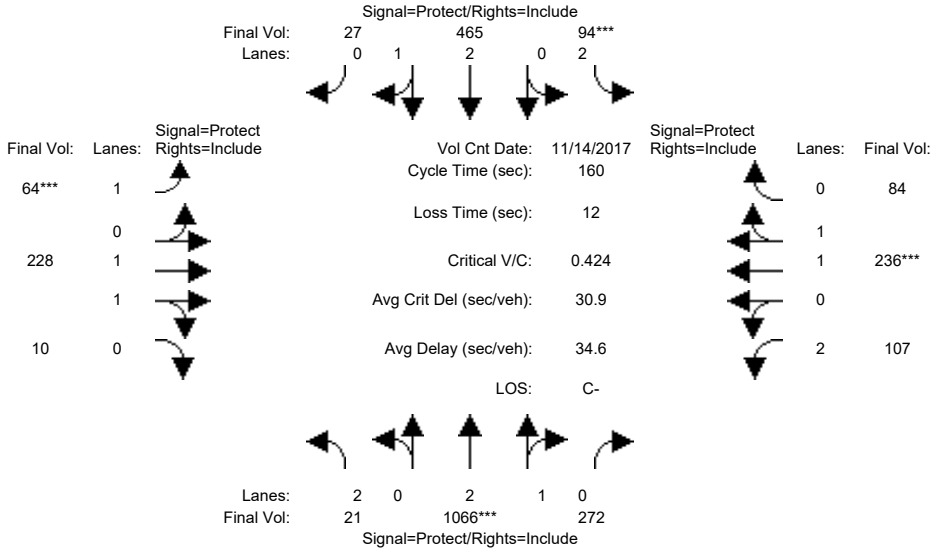



| Street Name: | Fair Oaks Ave | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 154 | 644 | 151 | 56 | 1167 | 110 | 109 | 180 | 169 | 444 | 233 | 58 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 154 | 644 | 151 | 56 | 1167 | 110 | 109 | 180 | 169 | 444 | 233 | 58 |
| Added Vol: | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 185 | 644 | 151 | 56 | 1167 | 110 | 109 | 180 | 169 | 444 | 233 | 58 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 185 | 644 | 151 | 56 | 1167 | 110 | 109 | 180 | 169 | 444 | 233 | 58 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 185 | 644 | 151 | 56 | 1167 | 110 | 109 | 180 | 169 | 444 | 233 | 58 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 185 | 644 | 151 | 56 | 1167 | 110 | 109 | 180 | 169 | 444 | 233 | 58 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.83 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 1.82 | 0.18 | 1.00 | 0.52 | 0.48 | 2.00 | 0.80 | 0.20 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3381 | 319 | 1750 | 928 | 872 | 3150 | 1441 | 359 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.17 | 0.09 | 0.03 | 0.35 | 0.35 | 0.06 | 0.19 | 0.19 | 0.14 | 0.16 | 0.16 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 17.1 | 56.2 | 79.0 | 16.7 | 55.8 | 55.8 | 15.1 | 31.3 | 31.3 | 22.8 | 39.1 | 39.1 |
| Volume/Cap: | 0.86 | 0.42 | 0.15 | 0.27 | 0.86 | 0.86 | 0.58 | 0.86 | 0.86 | 0.86 | 0.58 | 0.58 |
| Uniform Del: | 59.8 | 29.7 | 14.2 | 55.6 | 38.0 | 38.0 | 58.9 | 51.7 | 51.7 | 56.6 | 42.8 | 42.8 |
| IncremntDel: | 27.7 | 0.2 | 0.1 | 0.7 | 5.3 | 5.3 | 4.3 | 16.7 | 16.7 | 13.7 | 1.6 | 1.6 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 87.5 | 29.9 | 14.3 | 56.3 | 43.4 | 43.4 | 63.2 | 68.4 | 68.4 | 70.2 | 44.5 | 44.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 87.5 | 29.9 | 14.3 | 56.3 | 43.4 | 43.4 | 63.2 | 68.4 | 68.4 | 70.2 | 44.5 | 44.5 |
| LOS by Move: | F | C | B | E+ | D | D | E | E | E | E | D | D |
| HCM2kAvgQ: | 9 | 9 | 3 | 2 | 28 | 28 | 6 | 18 | 18 | 12 | 11 | 11 |

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

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

Intersection #43: Wolfe Rd & Arques Ave

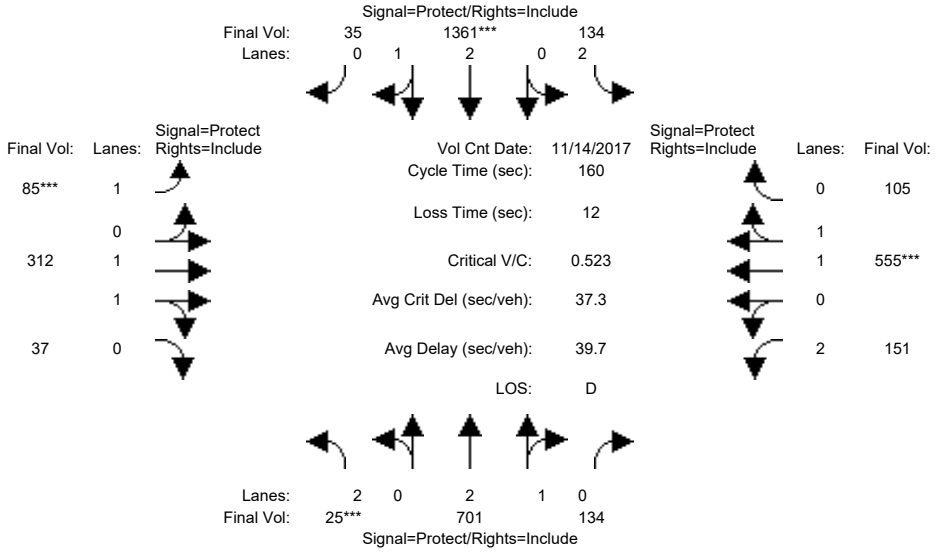



| Street Name: | Wolfe Rd | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 21 | 1056 | 272 | 94 | 425 | 27 | 64 | 228 | 10 | 107 | 236 | 84 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 21 | 1056 | 272 | 94 | 425 | 27 | 64 | 228 | 10 | 107 | 236 | 84 |
| Added Vol: | 0 | 10 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 21 | 1066 | 272 | 94 | 465 | 27 | 64 | 228 | 10 | 107 | 236 | 84 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 21 | 1066 | 272 | 94 | 465 | 27 | 64 | 228 | 10 | 107 | 236 | 84 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 21 | 1066 | 272 | 94 | 465 | 27 | 64 | 228 | 10 | 107 | 236 | 84 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 21 | 1066 | 272 | 94 | 465 | 27 | 64 | 228 | 10 | 107 | 236 | 84 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.97 | 0.95 | 0.83 | 0.98 | 0.95 |
| Lanes: | 2.00 | 2.37 | 0.63 | 2.00 | 2.83 | 0.17 | 1.00 | 1.91 | 0.09 | 2.00 | 1.46 | 0.54 |
| Final Sat.: | 3150 | 4460 | 1138 | 3150 | 5292 | 307 | 1750 | 3544 | 155 | 3150 | 2728 | 971 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.24 | 0.24 | 0.03 | 0.09 | 0.09 | 0.04 | 0.06 | 0.06 | 0.03 | 0.09 | 0.09 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 33.7 | 90.3 | 90.3 | 11.3 | 67.8 | 67.8 | 13.8 | 27.7 | 27.7 | 18.8 | 32.7 | 32.7 |
| Volume/Cap: | 0.03 | 0.42 | 0.42 | 0.42 | 0.21 | 0.21 | 0.42 | 0.37 | 0.37 | 0.29 | 0.42 | 0.42 |
| Uniform Del: | 50.1 | 20.0 | 20.0 | 71.3 | 29.1 | 29.1 | 69.3 | 58.5 | 58.5 | 64.5 | 55.5 | 55.5 |
| IncremntDel: | 0.0 | 0.1 | 0.1 | 1.3 | 0.0 | 0.0 | 1.9 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 50.2 | 20.1 | 20.1 | 72.6 | 29.2 | 29.2 | 71.2 | 58.9 | 58.9 | 64.9 | 55.9 | 55.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 50.2 | 20.1 | 20.1 | 72.6 | 29.2 | 29.2 | 71.2 | 58.9 | 58.9 | 64.9 | 55.9 | 55.9 |
| LOS by Move: | D | C+ | C+ | E | C | C | E | E+ | E+ | E | E+ | E+ |
| HCM2kAvgQ: | 0 | 12 | 12 | 3 | 5 | 5 | 3 | 5 | 5 | 3 | 7 | 7 |

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

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

Intersection #43: Wolfe Rd & Arques Ave

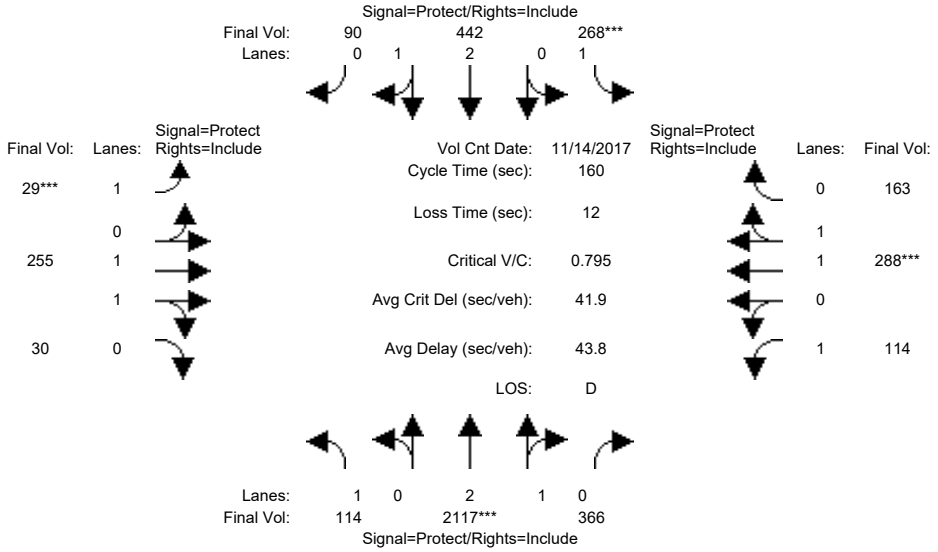



| Street Name: | Wolfe Rd | | | | | | Arques Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 25 | 636 | 134 | 134 | 1356 | 35 | 85 | 312 | 37 | 151 | 555 | 105 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 25 | 636 | 134 | 134 | 1356 | 35 | 85 | 312 | 37 | 151 | 555 | 105 |
| Added Vol: | 0 | 65 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 25 | 701 | 134 | 134 | 1361 | 35 | 85 | 312 | 37 | 151 | 555 | 105 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 25 | 701 | 134 | 134 | 1361 | 35 | 85 | 312 | 37 | 151 | 555 | 105 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 25 | 701 | 134 | 134 | 1361 | 35 | 85 | 312 | 37 | 151 | 555 | 105 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 25 | 701 | 134 | 134 | 1361 | 35 | 85 | 312 | 37 | 151 | 555 | 105 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 0.98 | 0.95 |
| Lanes: | 2.00 | 2.50 | 0.50 | 2.00 | 2.92 | 0.08 | 1.00 | 1.78 | 0.22 | 2.00 | 1.67 | 0.33 |
| Final Sat.: | 3150 | 4700 | 898 | 3150 | 5459 | 140 | 1750 | 3307 | 392 | 3150 | 3111 | 589 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.15 | 0.15 | 0.04 | 0.25 | 0.25 | 0.05 | 0.09 | 0.09 | 0.05 | 0.18 | 0.18 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 7.0 | 62.5 | 62.5 | 18.3 | 73.8 | 73.8 | 14.4 | 44.6 | 44.6 | 22.6 | 52.8 | 52.8 |
| Volume/Cap: | 0.18 | 0.38 | 0.38 | 0.37 | 0.54 | 0.54 | 0.54 | 0.34 | 0.34 | 0.34 | 0.54 | 0.54 |
| Uniform Del: | 73.7 | 34.9 | 34.9 | 65.5 | 30.9 | 30.9 | 69.6 | 46.0 | 46.0 | 61.9 | 43.7 | 43.7 |
| IncremntDel: | 0.6 | 0.1 | 0.1 | 0.6 | 0.2 | 0.2 | 3.8 | 0.2 | 0.2 | 0.5 | 0.5 | 0.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 74.4 | 35.0 | 35.0 | 66.2 | 31.2 | 31.2 | 73.4 | 46.2 | 46.2 | 62.4 | 44.2 | 44.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 74.4 | 35.0 | 35.0 | 66.2 | 31.2 | 31.2 | 73.4 | 46.2 | 46.2 | 62.4 | 44.2 | 44.2 |
| LOS by Move: | E | D+ | D+ | E | C | C | E | D | D | E | D | D |
| HCM2kAvgQ: | 1 | 9 | 9 | 4 | 16 | 16 | 4 | 6 | 6 | 4 | 13 | 13 |

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

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

Intersection #44: Wolfe Rd & Kifer Rd

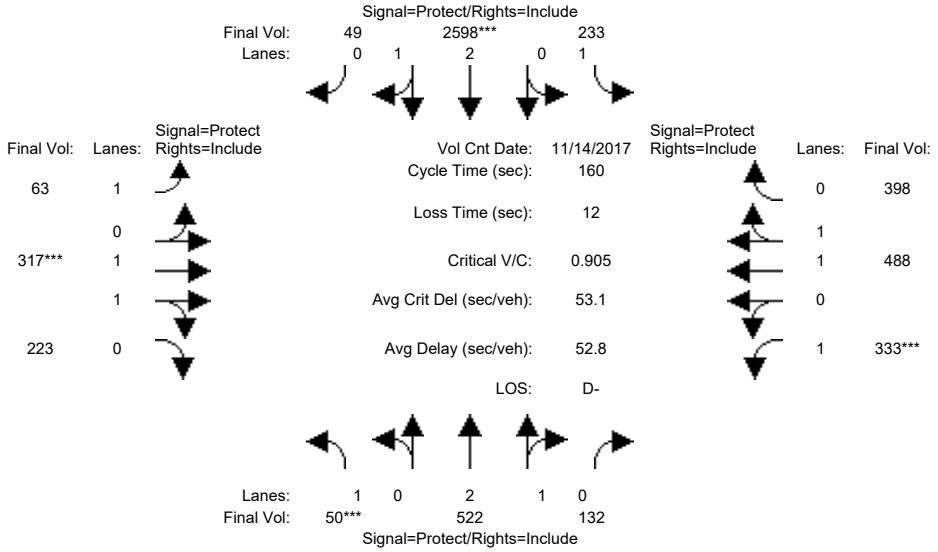



| Street Name: | Wolfe Rd | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00AM | | | | | | | | | | | | |
| Base Vol: | 114 | 2117 | 334 | 228 | 442 | 90 | 29 | 196 | 30 | 108 | 272 | 148 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 114 | 2117 | 334 | 228 | 442 | 90 | 29 | 196 | 30 | 108 | 272 | 148 |
| Added Vol: | 0 | 0 | 32 | 40 | 0 | 0 | 0 | 59 | 0 | 6 | 16 | 15 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 114 | 2117 | 366 | 268 | 442 | 90 | 29 | 255 | 30 | 114 | 288 | 163 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 114 | 2117 | 366 | 268 | 442 | 90 | 29 | 255 | 30 | 114 | 288 | 163 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 114 | 2117 | 366 | 268 | 442 | 90 | 29 | 255 | 30 | 114 | 288 | 163 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 114 | 2117 | 366 | 268 | 442 | 90 | 29 | 255 | 30 | 114 | 288 | 163 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 2.54 | 0.46 | 1.00 | 2.47 | 0.53 | 1.00 | 1.78 | 0.22 | 1.00 | 1.26 | 0.74 |
| Final Sat.: | 1750 | 4773 | 825 | 1750 | 4651 | 947 | 1750 | 3310 | 389 | 1750 | 2362 | 1337 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.44 | 0.44 | 0.15 | 0.10 | 0.10 | 0.02 | 0.08 | 0.08 | 0.07 | 0.12 | 0.12 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 47.6 | 87.0 | 87.0 | 30.0 | 69.5 | 69.5 | 7.0 | 16.8 | 16.8 | 14.2 | 23.9 | 23.9 |
| Volume/Cap: | 0.22 | 0.82 | 0.82 | 0.82 | 0.22 | 0.22 | 0.38 | 0.74 | 0.74 | 0.74 | 0.82 | 0.82 |
| Uniform Del: | 42.2 | 29.9 | 29.9 | 62.3 | 28.3 | 28.3 | 74.4 | 69.5 | 69.5 | 71.1 | 65.9 | 65.9 |
| IncremntDel: | 0.2 | 1.8 | 1.8 | 14.5 | 0.0 | 0.0 | 3.1 | 7.2 | 7.2 | 16.7 | 9.1 | 9.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 42.4 | 31.7 | 31.7 | 76.8 | 28.4 | 28.4 | 77.5 | 76.7 | 76.7 | 87.8 | 75.0 | 75.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 42.4 | 31.7 | 31.7 | 76.8 | 28.4 | 28.4 | 77.5 | 76.7 | 76.7 | 87.8 | 75.0 | 75.0 |
| LOS by Move: | D | C | C | E- | C | C | E- | E- | E- | F | E- | E- |
| HCM2kAvgQ: | 4 | 33 | 33 | 14 | 5 | 5 | 1 | 7 | 7 | 6 | 11 | 11 |

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

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

Intersection #44: Wolfe Rd & Kifer Rd

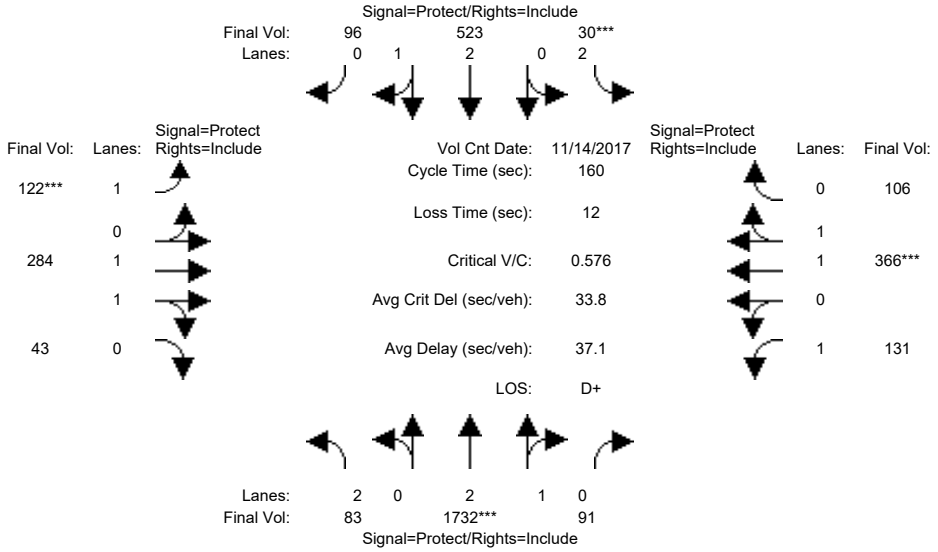



| Street Name: | Wolfe Rd | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 50 | 522 | 128 | 228 | 2598 | 49 | 63 | 310 | 223 | 296 | 388 | 301 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 50 | 522 | 128 | 228 | 2598 | 49 | 63 | 310 | 223 | 296 | 388 | 301 |
| Added Vol: | 0 | 0 | 4 | 5 | 0 | 0 | 0 | 7 | 0 | 37 | 100 | 97 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 50 | 522 | 132 | 233 | 2598 | 49 | 63 | 317 | 223 | 333 | 488 | 398 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 50 | 522 | 132 | 233 | 2598 | 49 | 63 | 317 | 223 | 333 | 488 | 398 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 50 | 522 | 132 | 233 | 2598 | 49 | 63 | 317 | 223 | 333 | 488 | 398 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 50 | 522 | 132 | 233 | 2598 | 49 | 63 | 317 | 223 | 333 | 488 | 398 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.95 |
| Lanes: | 1.00 | 2.37 | 0.63 | 1.00 | 2.94 | 0.06 | 1.00 | 1.15 | 0.85 | 1.00 | 1.08 | 0.92 |
| Final Sat.: | 1750 | 4468 | 1130 | 1750 | 5496 | 104 | 1750 | 2171 | 1527 | 1750 | 2037 | 1661 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.12 | 0.12 | 0.13 | 0.47 | 0.47 | 0.04 | 0.15 | 0.15 | 0.19 | 0.24 | 0.24 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.0 | 41.8 | 41.8 | 47.6 | 82.4 | 82.4 | 9.1 | 25.5 | 25.5 | 33.2 | 49.6 | 49.6 |
| Volume/Cap: | 0.65 | 0.45 | 0.45 | 0.45 | 0.92 | 0.92 | 0.64 | 0.92 | 0.92 | 0.92 | 0.77 | 0.77 |
| Uniform Del: | 75.3 | 49.5 | 49.5 | 45.5 | 35.7 | 35.7 | 73.9 | 66.2 | 66.2 | 62.1 | 50.1 | 50.1 |
| IncremntDel: | 18.4 | 0.2 | 0.2 | 0.6 | 5.3 | 5.3 | 12.9 | 19.5 | 19.5 | 27.6 | 3.3 | 3.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 93.7 | 49.7 | 49.7 | 46.2 | 41.0 | 41.0 | 86.8 | 85.7 | 85.7 | 89.7 | 53.5 | 53.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 93.7 | 49.7 | 49.7 | 46.2 | 41.0 | 41.0 | 86.8 | 85.7 | 85.7 | 89.7 | 53.5 | 53.5 |
| LOS by Move: | F | D | D | D | D | D | F | F | F | F | D- | D- |
| HCM2kAvgQ: | 3 | 9 | 9 | 9 | 38 | 38 | 3 | 15 | 15 | 19 | 20 | 20 |

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

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

Intersection #45: Wolfe Rd & Reed Ave

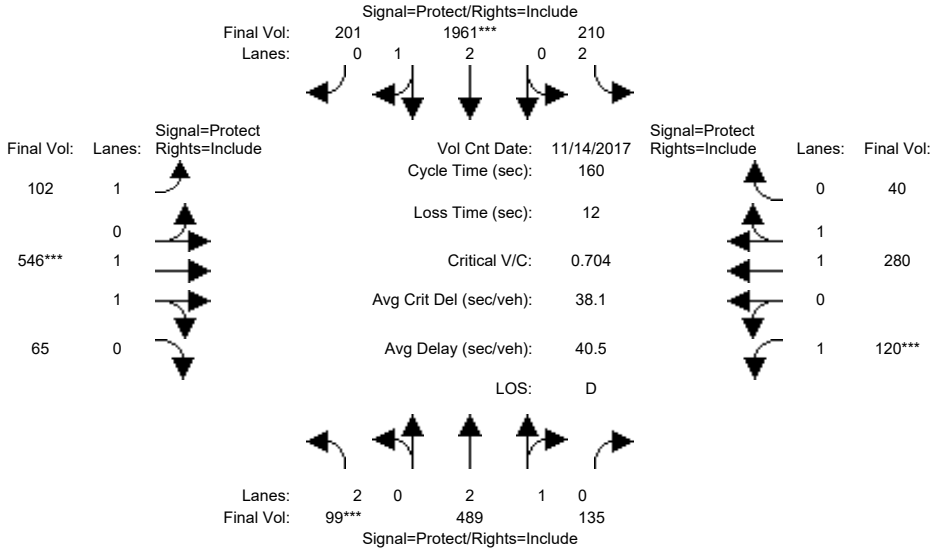



| Street Name: | Wolfe Rd | | | | | | Reed Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 83 | 1716 | 91 | 27 | 520 | 96 | 122 | 284 | 43 | 131 | 366 | 90 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 83 | 1716 | 91 | 27 | 520 | 96 | 122 | 284 | 43 | 131 | 366 | 90 |
| Added Vol: | 0 | 16 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 83 | 1732 | 91 | 30 | 523 | 96 | 122 | 284 | 43 | 131 | 366 | 106 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 83 | 1732 | 91 | 30 | 523 | 96 | 122 | 284 | 43 | 131 | 366 | 106 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 83 | 1732 | 91 | 30 | 523 | 96 | 122 | 284 | 43 | 131 | 366 | 106 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 83 | 1732 | 91 | 30 | 523 | 96 | 122 | 284 | 43 | 131 | 366 | 106 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 2.00 | 2.84 | 0.16 | 2.00 | 2.52 | 0.48 | 1.00 | 1.73 | 0.27 | 1.00 | 1.54 | 0.46 |
| Final Sat.: | 3150 | 5320 | 280 | 3150 | 4730 | 868 | 1750 | 3213 | 486 | 1750 | 2868 | 831 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.33 | 0.33 | 0.01 | 0.11 | 0.11 | 0.07 | 0.09 | 0.09 | 0.07 | 0.13 | 0.13 |
| Crit Moves: | | **** | | | **** | | | **** | | | **** | |
| Green Time: | 26.9 | 87.8 | 87.8 | 7.0 | 67.9 | 67.9 | 18.8 | 28.8 | 28.8 | 24.4 | 34.4 | 34.4 |
| Volume/Cap: | 0.16 | 0.59 | 0.59 | 0.22 | 0.26 | 0.26 | 0.59 | 0.49 | 0.49 | 0.49 | 0.59 | 0.59 |
| Uniform Del: | 56.9 | 24.2 | 24.2 | 73.9 | 29.8 | 29.8 | 67.0 | 59.0 | 59.0 | 62.1 | 56.5 | 56.5 |
| IncremntDel: | 0.1 | 0.3 | 0.3 | 0.8 | 0.1 | 0.1 | 4.6 | 0.6 | 0.6 | 1.4 | 1.2 | 1.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 57.0 | 24.5 | 24.5 | 74.7 | 29.9 | 29.9 | 71.6 | 59.6 | 59.6 | 63.5 | 57.7 | 57.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 57.0 | 24.5 | 24.5 | 74.7 | 29.9 | 29.9 | 71.6 | 59.6 | 59.6 | 63.5 | 57.7 | 57.7 |
| LOS by Move: | E+ | C | C | E | C | C | E | E+ | E+ | E | E+ | E+ |
| HCM2kAvgQ: | 2 | 19 | 19 | 1 | 6 | 6 | 6 | 7 | 7 | 6 | 10 | 10 |

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

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

Intersection #45: Wolfe Rd & Reed Ave

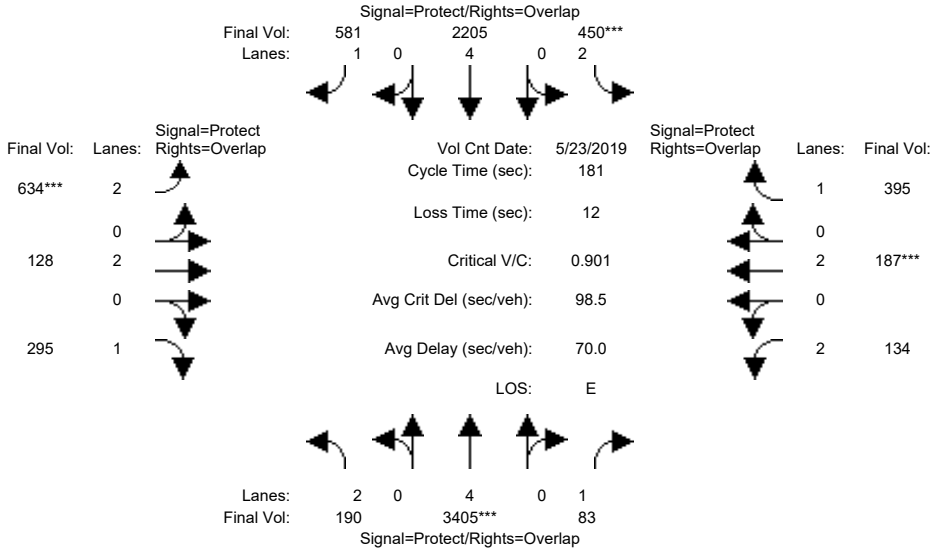



| Street Name: | Wolfe Rd | | | | | | Reed Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 99 | 487 | 135 | 191 | 1942 | 201 | 102 | 546 | 65 | 120 | 280 | 38 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 99 | 487 | 135 | 191 | 1942 | 201 | 102 | 546 | 65 | 120 | 280 | 38 |
| Added Vol: | 0 | 2 | 0 | 19 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 99 | 489 | 135 | 210 | 1961 | 201 | 102 | 546 | 65 | 120 | 280 | 40 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 99 | 489 | 135 | 210 | 1961 | 201 | 102 | 546 | 65 | 120 | 280 | 40 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 99 | 489 | 135 | 210 | 1961 | 201 | 102 | 546 | 65 | 120 | 280 | 40 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 99 | 489 | 135 | 210 | 1961 | 201 | 102 | 546 | 65 | 120 | 280 | 40 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 2.00 | 2.33 | 0.67 | 2.00 | 2.71 | 0.29 | 1.00 | 1.78 | 0.22 | 1.00 | 1.74 | 0.26 |
| Final Sat.: | 3150 | 4387 | 1211 | 3150 | 5079 | 521 | 1750 | 3306 | 394 | 1750 | 3237 | 462 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.11 | 0.11 | 0.07 | 0.39 | 0.39 | 0.06 | 0.17 | 0.17 | 0.07 | 0.09 | 0.09 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.1 | 59.4 | 59.4 | 35.5 | 87.7 | 87.7 | 21.4 | 37.5 | 37.5 | 15.6 | 31.7 | 31.7 |
| Volume/Cap: | 0.70 | 0.30 | 0.30 | 0.30 | 0.70 | 0.70 | 0.44 | 0.70 | 0.70 | 0.70 | 0.44 | 0.44 |
| Uniform Del: | 75.4 | 35.6 | 35.6 | 51.9 | 26.6 | 26.6 | 63.8 | 56.1 | 56.1 | 70.0 | 56.3 | 56.3 |
| IncremntDel: | 14.9 | 0.1 | 0.1 | 0.2 | 0.8 | 0.8 | 1.3 | 2.6 | 2.6 | 12.5 | 0.4 | 0.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 90.3 | 35.7 | 35.7 | 52.1 | 27.3 | 27.3 | 65.1 | 58.8 | 58.8 | 82.5 | 56.7 | 56.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 90.3 | 35.7 | 35.7 | 52.1 | 27.3 | 27.3 | 65.1 | 58.8 | 58.8 | 82.5 | 56.7 | 56.7 |
| LOS by Move: | F | D+ | D+ | D- | C | C | E | E+ | E+ | F | E+ | E+ |
| HCM2kAvgQ: | 3 | 7 | 7 | 5 | 25 | 25 | 5 | 14 | 14 | 6 | 7 | 7 |

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

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

Intersection #49: Lawrence Expwy & Oakmead Pkwy

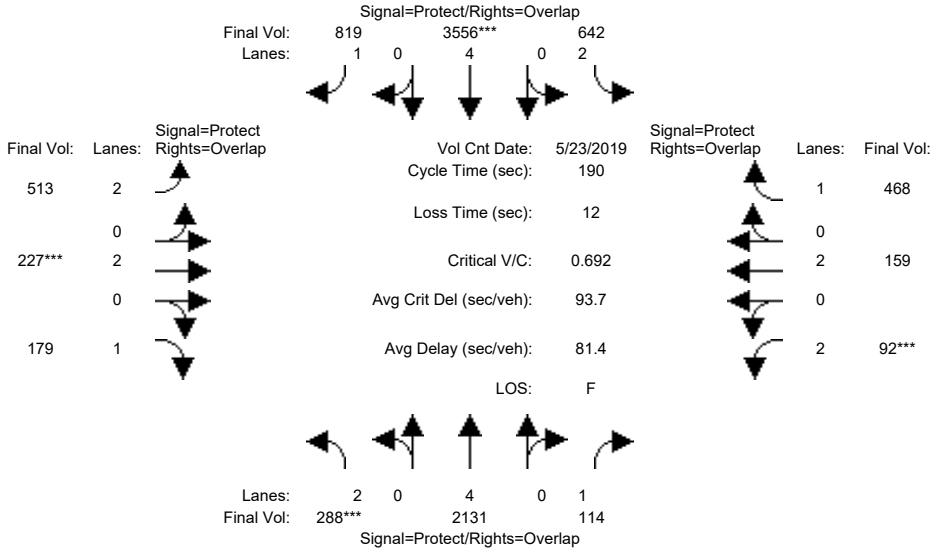



| Street Name: | Lawrence Expwy | | | | | | Oakmead Pkwy | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 17 | 86 | 86 | 20 | 89 | 89 | 23 | 39 | 39 | 10 | 20 | 25 |
| Y+R: | 6.4 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 | 5.6 | 5.5 | 5.5 | 5.6 | 5.6 | 5.6 |
| Volume Module: >> Count Date: 23 May 2019 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 190 | 3381 | 83 | 450 | 2070 | 581 | 634 | 128 | 279 | 134 | 187 | 395 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 190 | 3381 | 83 | 450 | 2070 | 581 | 634 | 128 | 279 | 134 | 187 | 395 |
| Added Vol: | 0 | 24 | 0 | 0 | 135 | 0 | 0 | 0 | 16 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 190 | 3405 | 83 | 450 | 2205 | 581 | 634 | 128 | 295 | 134 | 187 | 395 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 190 | 3405 | 83 | 450 | 2205 | 581 | 634 | 128 | 295 | 134 | 187 | 395 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 190 | 3405 | 83 | 450 | 2205 | 581 | 634 | 128 | 295 | 134 | 187 | 395 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 190 | 3405 | 83 | 450 | 2205 | 581 | 634 | 128 | 295 | 134 | 187 | 395 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 4.00 | 1.00 | 2.00 | 4.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 7600 | 1750 | 3150 | 7600 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.45 | 0.05 | 0.14 | 0.29 | 0.33 | 0.20 | 0.03 | 0.17 | 0.04 | 0.05 | 0.23 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 17.2 | 86.9 | 97.4 | 20.3 | 89.9 | 113.7 | 23.8 | 39.3 | 56.5 | 10.5 | 25.9 | 46.2 |
| Volume/Cap: | 0.63 | 0.93 | 0.09 | 1.27 | 0.58 | 0.53 | 1.53 | 0.16 | 0.54 | 0.73 | 0.34 | 0.88 |
| Uniform Del: | 78.9 | 44.3 | 20.3 | 80.3 | 32.3 | 18.7 | 78.6 | 57.4 | 51.5 | 83.9 | 69.9 | 64.8 |
| IncremntDel: | 4.4 | 5.2 | 0.0 | 143.3 | 0.2 | 0.5 | 250.7 | 0.1 | 1.1 | 14.2 | 0.4 | 18.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.80 | 0.70 | 1.00 | 0.77 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 83.3 | 40.5 | 14.3 | 223.7 | 25.2 | 9.9 | 329.3 | 57.5 | 52.6 | 98.1 | 70.3 | 83.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 83.3 | 40.5 | 14.3 | 223.7 | 25.2 | 9.9 | 329.3 | 57.5 | 52.6 | 98.1 | 70.3 | 83.3 |
| LOS by Move: | F | D | B | F | C | A | F | E+ | D- | F | E | F |
| HCM2kAvgQ: | 6 | 39 | 1 | 24 | 17 | 10 | 38 | 3 | 14 | 6 | 5 | 25 |

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

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

Intersection #49: Lawrence Expwy & Oakmead Pkwy

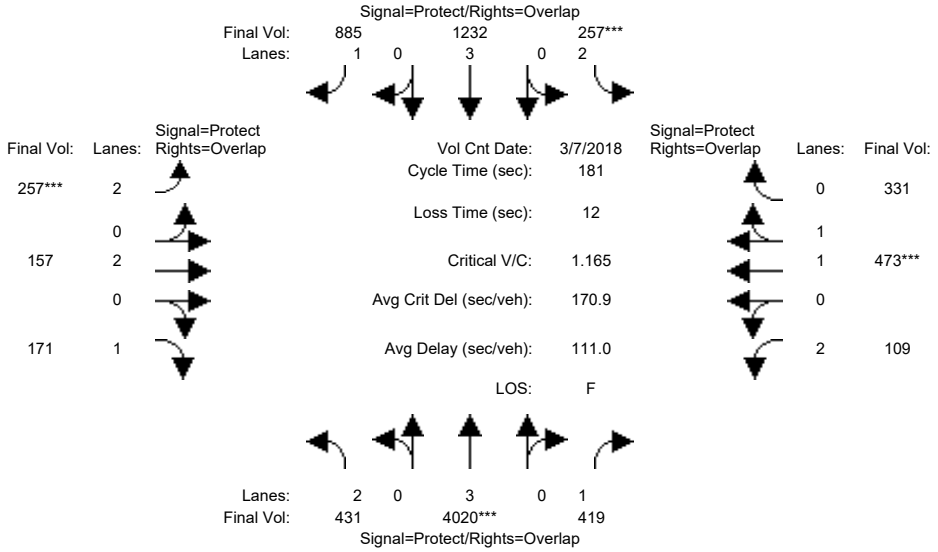



| Street Name: | Lawrence Expwy | | | | | | Oakmead Pkwy | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 20 | 71 | 71 | 31 | 82 | 82 | 34 | 53 | 53 | 10 | 29 | 29 |
| Y+R: | 6.4 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 | 5.6 | 5.5 | 5.5 | 5.6 | 5.6 | 5.6 |
| Volume Module: >> Count Date: 23 May 2019 << | | | | | | | | | | | | |
| Base Vol: | 288 | 1975 | 114 | 642 | 3540 | 819 | 513 | 227 | 177 | 92 | 159 | 468 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 288 | 1975 | 114 | 642 | 3540 | 819 | 513 | 227 | 177 | 92 | 159 | 468 |
| Added Vol: | 0 | 156 | 0 | 0 | 16 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 288 | 2131 | 114 | 642 | 3556 | 819 | 513 | 227 | 179 | 92 | 159 | 468 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 288 | 2131 | 114 | 642 | 3556 | 819 | 513 | 227 | 179 | 92 | 159 | 468 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 288 | 2131 | 114 | 642 | 3556 | 819 | 513 | 227 | 179 | 92 | 159 | 468 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 288 | 2131 | 114 | 642 | 3556 | 819 | 513 | 227 | 179 | 92 | 159 | 468 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 4.00 | 1.00 | 2.00 | 4.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 7600 | 1750 | 3150 | 7600 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.28 | 0.07 | 0.20 | 0.47 | 0.47 | 0.16 | 0.06 | 0.10 | 0.03 | 0.04 | 0.27 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 20.1 | 71.0 | 81.0 | 31.6 | 82.4 | 116.8 | 34.4 | 53.5 | 73.6 | 10.0 | 29.0 | 60.6 |
| Volume/Cap: | 0.86 | 0.75 | 0.15 | 1.23 | 1.08 | 0.76 | 0.90 | 0.21 | 0.26 | 0.56 | 0.27 | 0.84 |
| Uniform Del: | 83.6 | 51.8 | 33.4 | 79.2 | 53.8 | 26.5 | 76.1 | 52.1 | 39.7 | 87.8 | 71.2 | 60.2 |
| IncremntDel: | 20.2 | 1.2 | 0.1 | 117.6 | 41.8 | 3.2 | 17.1 | 0.1 | 0.2 | 4.1 | 0.3 | 10.8 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.92 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 103.8 | 48.9 | 29.0 | 196.8 | 95.6 | 29.7 | 93.2 | 52.2 | 39.9 | 91.9 | 71.5 | 71.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 103.8 | 48.9 | 29.0 | 196.8 | 95.6 | 29.7 | 93.2 | 52.2 | 39.9 | 91.9 | 71.5 | 71.0 |
| LOS by Move: | F | D | C | F | F | C | F | D- | D | F | E | E |
| HCM2kAvgQ: | 10 | 25 | 3 | 33 | 62 | 37 | 20 | 5 | 7 | 4 | 4 | 29 |

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

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

Intersection #51: Lawrence Expwy & Kifer Rd

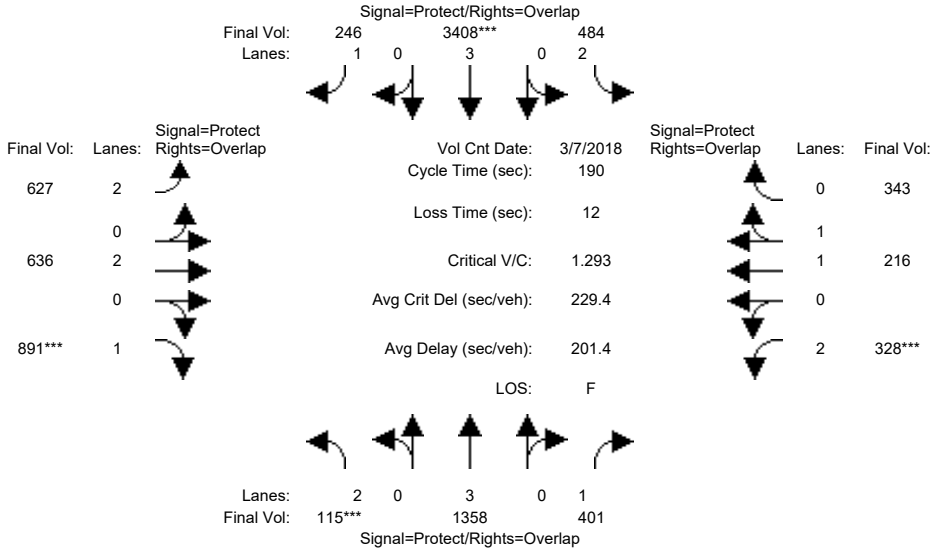



| Street Name: | Lawrence Expwy | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 25 | 101 | 101 | 17 | 93 | 93 | 13 | 29 | 29 | 11 | 27 | 27 |
| Y+R: | 5.9 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.8 | 5.5 | 5.5 | 5.9 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 7 Mar 2018 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 334 | 4621 | 419 | 257 | 1416 | 680 | 233 | 148 | 153 | 109 | 422 | 331 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 334 | 4621 | 419 | 257 | 1416 | 680 | 233 | 148 | 153 | 109 | 422 | 331 |
| Added Vol: | 97 | 0 | 0 | 0 | 0 | 205 | 24 | 9 | 18 | 0 | 51 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 431 | 4621 | 419 | 257 | 1416 | 885 | 257 | 157 | 171 | 109 | 473 | 331 |
| User Adj: | 1.00 | 0.87 | 1.00 | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 431 | 4020 | 419 | 257 | 1232 | 885 | 257 | 157 | 171 | 109 | 473 | 331 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 431 | 4020 | 419 | 257 | 1232 | 885 | 257 | 157 | 171 | 109 | 473 | 331 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 431 | 4020 | 419 | 257 | 1232 | 885 | 257 | 157 | 171 | 109 | 473 | 331 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 0.99 | 0.94 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.15 | 0.85 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 2160 | 1512 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.14 | 0.71 | 0.24 | 0.08 | 0.22 | 0.51 | 0.08 | 0.04 | 0.10 | 0.03 | 0.22 | 0.22 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 25.2 | 101 | 111.8 | 17.1 | 93.1 | 105.9 | 12.8 | 28.8 | 54.0 | 10.8 | 26.9 | 44.0 |
| Volume/Cap: | 0.98 | 1.26 | 0.39 | 0.86 | 0.42 | 0.86 | 1.15 | 0.26 | 0.33 | 0.58 | 1.47 | 0.90 |
| Uniform Del: | 77.7 | 40.0 | 17.4 | 80.8 | 27.2 | 31.5 | 84.1 | 66.8 | 49.4 | 82.9 | 77.1 | 66.4 |
| IncremntDel: | 38.4 | 121 | 0.2 | 22.0 | 0.1 | 7.8 | 108.1 | 0.2 | 0.4 | 4.5 | 223 | 12.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.67 | 0.53 | 1.00 | 0.74 | 0.61 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 116.1 | 148 | 9.5 | 102.8 | 20.4 | 27.0 | 192.2 | 67.0 | 49.8 | 87.4 | 300 | 78.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 116.1 | 148 | 9.5 | 102.8 | 20.4 | 27.0 | 192.2 | 67.0 | 49.8 | 87.4 | 300 | 78.5 |
| LOS by Move: | F | F | A | F | C+ | C | F | E | D | F | F | E- |
| HCM2kAvgQ: | 14 | 103 | 6 | 11 | 10 | 38 | 12 | 4 | 8 | 4 | 39 | 23 |

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

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

Intersection #51: Lawrence Expwy & Kifer Rd

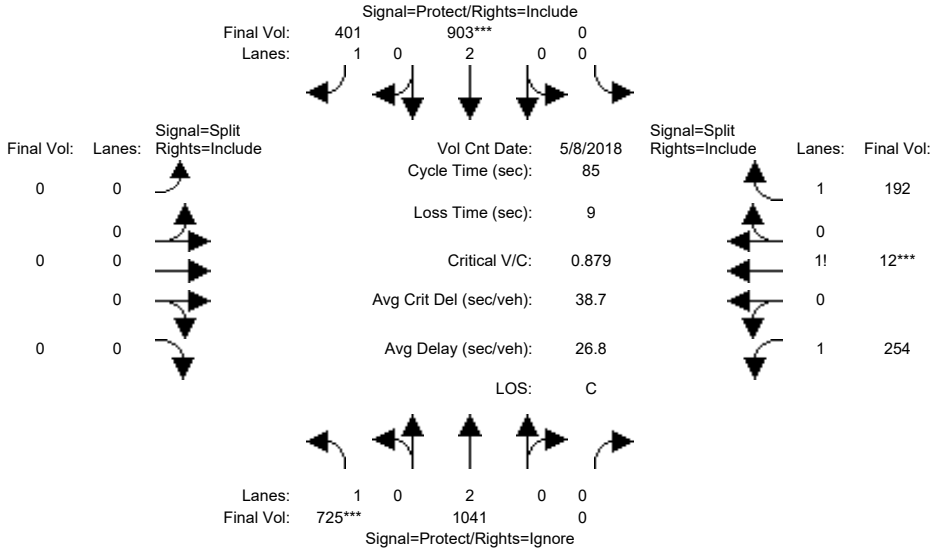



| Street Name: | Lawrence Expwy | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 9 | 85 | 85 | 27 | 103 | 103 | 16 | 33 | 33 | 22 | 39 | 39 |
| Y+R: | 5.9 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.8 | 5.5 | 5.5 | 5.9 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 7 Mar 2018 << 4:15 PM - 5:15 PM | | | | | | | | | | | | |
| Base Vol: | 104 | 1698 | 401 | 484 | 4314 | 222 | 471 | 577 | 779 | 328 | 210 | 343 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 104 | 1698 | 401 | 484 | 4314 | 222 | 471 | 577 | 779 | 328 | 210 | 343 |
| Added Vol: | 11 | 0 | 0 | 0 | 0 | 24 | 156 | 59 | 112 | 0 | 6 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 115 | 1698 | 401 | 484 | 4314 | 246 | 627 | 636 | 891 | 328 | 216 | 343 |
| User Adj: | 1.00 | 0.80 | 1.00 | 1.00 | 0.79 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 115 | 1358 | 401 | 484 | 3408 | 246 | 627 | 636 | 891 | 328 | 216 | 343 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 115 | 1358 | 401 | 484 | 3408 | 246 | 627 | 636 | 891 | 328 | 216 | 343 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 115 | 1358 | 401 | 484 | 3408 | 246 | 627 | 636 | 891 | 328 | 216 | 343 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.24 | 0.23 | 0.15 | 0.60 | 0.14 | 0.20 | 0.17 | 0.51 | 0.10 | 0.11 | 0.20 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green Time: | 8.9 | 84.9 | 106.6 | 26.9 | 103 | 118.9 | 15.8 | 33.0 | 41.9 | 21.7 | 38.9 | 65.8 |
| Volume/Cap: | 0.78 | 0.53 | 0.41 | 1.09 | 1.10 | 0.22 | 2.39 | 0.96 | 2.31 | 0.91 | 0.56 | 0.57 |
| Uniform Del: | 89.6 | 38.2 | 23.8 | 81.5 | 43.5 | 15.5 | 87.1 | 77.9 | 74.1 | 83.2 | 67.8 | 50.5 |
| IncremntDel: | 22.9 | 0.2 | 0.3 | 67.5 | 51.5 | 0.1 | 638.2 | 26.2 | 597.2 | 26.6 | 0.7 | 0.8 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.03 | 1.54 | 1.85 | 1.11 | 1.79 | 2.11 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 115.4 | 58.9 | 44.3 | 158.0 | 129 | 32.8 | 725.3 | 104 | 671.2 | 109.8 | 68.5 | 51.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 115.4 | 58.9 | 44.3 | 158.0 | 129 | 32.8 | 725.3 | 104 | 671.2 | 109.8 | 68.5 | 51.3 |
| LOS by Move: | F | E+ | D | F | F | C- | F | F | F | F | E | D- |
| HCM2kAvgQ: | 4 | 23 | 21 | 23 | 80 | 12 | 48 | 20 | 120 | 12 | 11 | 17 |

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

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

Intersection #57: Fair Oaks Ave & US 101 NB Ramps

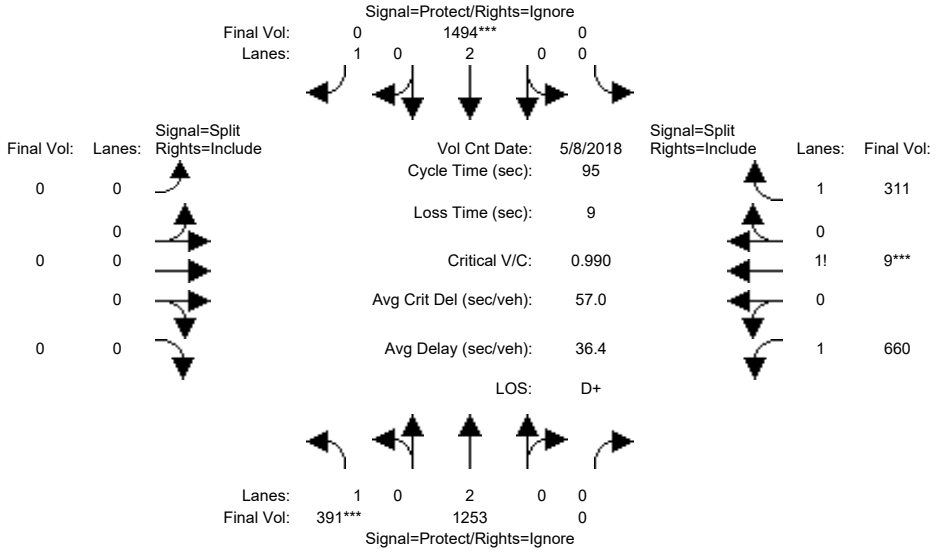



| Street Name: | Fair Oaks Ave | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 0 | 0 | 10 | 10 | 0 | 0 | 0 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 0.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 718 | 1041 | 0 | 0 | 903 | 566 | 0 | 0 | 0 | 254 | 12 | 192 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 718 | 1041 | 0 | 0 | 903 | 566 | 0 | 0 | 0 | 254 | 12 | 192 |
| Added Vol: | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 725 | 1041 | 0 | 0 | 903 | 566 | 0 | 0 | 0 | 254 | 12 | 192 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 725 | 1041 | 0 | 0 | 903 | 566 | 0 | 0 | 0 | 254 | 12 | 192 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 165 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 725 | 1041 | 0 | 0 | 903 | 401 | 0 | 0 | 0 | 254 | 12 | 192 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 725 | 1041 | 0 | 0 | 903 | 401 | 0 | 0 | 0 | 254 | 12 | 192 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.92 | 0.92 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.54 | 0.05 | 1.41 |
| Final Sat.: | 1750 | 3800 | 0 | 0 | 3800 | 1750 | 0 | 0 | 0 | 2696 | 89 | 2465 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.41 | 0.27 | 0.00 | 0.00 | 0.24 | 0.23 | 0.00 | 0.00 | 0.00 | 0.09 | 0.13 | 0.08 |
| Crit Moves: | **** | | | | **** | | | | | | **** | |
| Green Time: | 40.0 | 63.0 | 0.0 | 0.0 | 23.0 | 23.0 | 0.0 | 0.0 | 0.0 | 13.0 | 13.0 | 13.0 |
| Volume/Cap: | 0.88 | 0.37 | 0.00 | 0.00 | 0.88 | 0.85 | 0.00 | 0.00 | 0.00 | 0.62 | 0.88 | 0.51 |
| Uniform Del: | 20.3 | 3.9 | 0.0 | 0.0 | 29.7 | 29.4 | 0.0 | 0.0 | 0.0 | 33.7 | 35.2 | 33.1 |
| IncremntDel: | 10.7 | 0.1 | 0.0 | 0.0 | 8.9 | 13.4 | 0.0 | 0.0 | 0.0 | 1.6 | 15.7 | 0.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 31.0 | 4.0 | 0.0 | 0.0 | 38.5 | 42.8 | 0.0 | 0.0 | 0.0 | 35.3 | 51.0 | 33.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 31.0 | 4.0 | 0.0 | 0.0 | 38.5 | 42.8 | 0.0 | 0.0 | 0.0 | 35.3 | 51.0 | 33.6 |
| LOS by Move: | C | A | A | A | D+ | D | A | A | A | D+ | D | C- |
| HCM2kAvgQ: | 22 | 5 | 0 | 0 | 13 | 12 | 0 | 0 | 0 | 5 | 10 | 4 |

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

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

Intersection #57: Fair Oaks Ave & US 101 NB Ramps

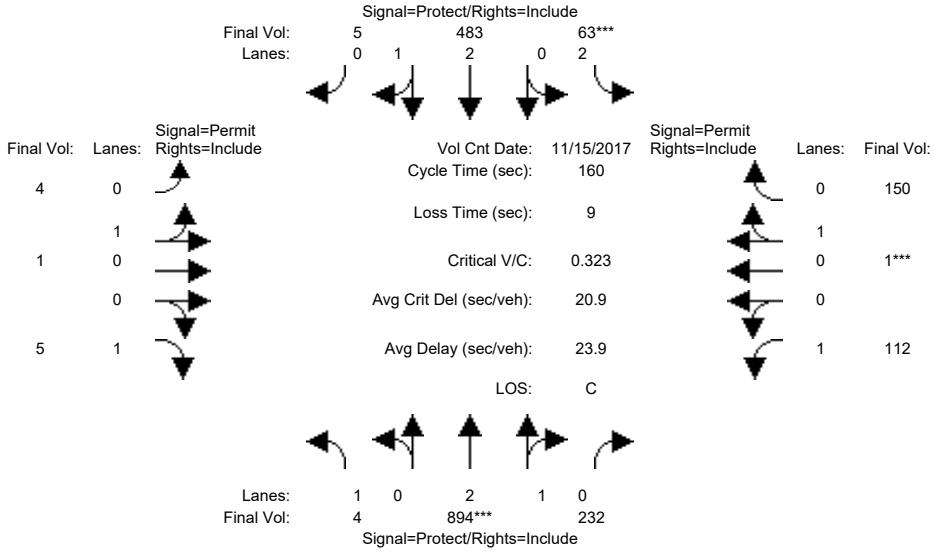



| Street Name: | Fair Oaks Ave | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 0 | 0 | 10 | 10 | 0 | 0 | 0 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 344 | 1253 | 0 | 0 | 1494 | 175 | 0 | 0 | 0 | 660 | 9 | 311 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 344 | 1253 | 0 | 0 | 1494 | 175 | 0 | 0 | 0 | 660 | 9 | 311 |
| Added Vol: | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 391 | 1253 | 0 | 0 | 1494 | 175 | 0 | 0 | 0 | 660 | 9 | 311 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 391 | 1253 | 0 | 0 | 1494 | 0 | 0 | 0 | 0 | 660 | 9 | 311 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 391 | 1253 | 0 | 0 | 1494 | 0 | 0 | 0 | 0 | 660 | 9 | 311 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 391 | 1253 | 0 | 0 | 1494 | 0 | 0 | 0 | 0 | 660 | 9 | 311 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.93 | 0.95 | 0.92 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.66 | 0.02 | 1.32 |
| Final Sat.: | 1750 | 3800 | 0 | 0 | 3800 | 1750 | 0 | 0 | 0 | 2954 | 32 | 2306 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.22 | 0.33 | 0.00 | 0.00 | 0.39 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | 0.28 | 0.13 |
| Crit Moves: | **** | | | | **** | | | | | | **** | |
| Green Time: | 21.4 | 59.2 | 0.0 | 0.0 | 37.7 | 0.0 | 0.0 | 0.0 | 0.0 | 26.8 | 26.8 | 26.8 |
| Volume/Cap: | 0.99 | 0.53 | 0.00 | 0.00 | 0.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.79 | 0.99 | 0.48 |
| Uniform Del: | 36.7 | 10.1 | 0.0 | 0.0 | 28.5 | 0.0 | 0.0 | 0.0 | 0.0 | 31.5 | 33.9 | 28.3 |
| IncremntDel: | 42.6 | 0.2 | 0.0 | 0.0 | 20.8 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 | 26.1 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 79.2 | 10.3 | 0.0 | 0.0 | 49.2 | 0.0 | 0.0 | 0.0 | 0.0 | 35.0 | 60.1 | 28.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 79.2 | 10.3 | 0.0 | 0.0 | 49.2 | 0.0 | 0.0 | 0.0 | 0.0 | 35.0 | 60.1 | 28.4 |
| LOS by Move: | E- | B+ | A | A | D | A | A | A | A | D+ | E | C |
| HCM2kAvgQ: | 18 | 10 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 13 | 22 | 6 |

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

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

Intersection #58: Wolfe Rd & Stewart Dr

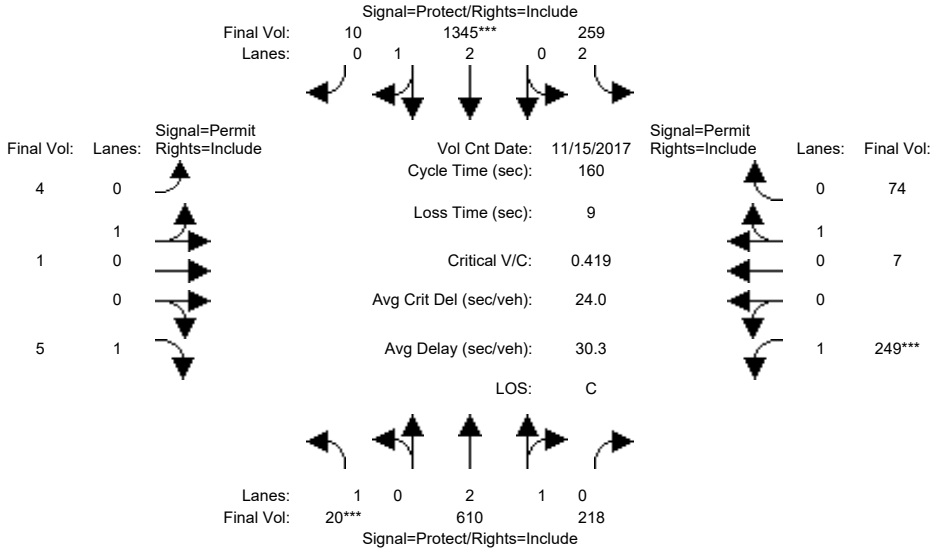



| Street Name: | Wolfe Rd | | | | | | Stewart Dr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 4 | 884 | 232 | 63 | 443 | 5 | 4 | 1 | 5 | 112 | 1 | 150 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 4 | 884 | 232 | 63 | 443 | 5 | 4 | 1 | 5 | 112 | 1 | 150 |
| Added Vol: | 0 | 10 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 4 | 894 | 232 | 63 | 483 | 5 | 4 | 1 | 5 | 112 | 1 | 150 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 4 | 894 | 232 | 63 | 483 | 5 | 4 | 1 | 5 | 112 | 1 | 150 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 4 | 894 | 232 | 63 | 483 | 5 | 4 | 1 | 5 | 112 | 1 | 150 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 4 | 894 | 232 | 63 | 483 | 5 | 4 | 1 | 5 | 112 | 1 | 150 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.36 | 0.64 | 2.00 | 2.97 | 0.03 | 0.80 | 0.20 | 1.00 | 1.00 | 0.01 | 0.99 |
| Final Sat.: | 1750 | 4445 | 1153 | 3150 | 5543 | 57 | 1440 | 360 | 1750 | 1750 | 12 | 1788 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.20 | 0.20 | 0.02 | 0.09 | 0.09 | 0.00 | 0.00 | 0.00 | 0.06 | 0.08 | 0.08 |
| Crit Moves: | | **** | | **** | | | | | | | **** | |
| Green Time: | 36.6 | 99.6 | 99.6 | 9.9 | 72.9 | 72.9 | 41.5 | 41.5 | 41.5 | 41.5 | 41.5 | 41.5 |
| Volume/Cap: | 0.01 | 0.32 | 0.32 | 0.32 | 0.19 | 0.19 | 0.01 | 0.01 | 0.01 | 0.25 | 0.32 | 0.32 |
| Uniform Del: | 47.7 | 14.3 | 14.3 | 71.8 | 26.0 | 26.0 | 44.0 | 44.0 | 44.0 | 46.9 | 47.9 | 47.9 |
| IncremntDel: | 0.0 | 0.1 | 0.1 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.4 | 0.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 47.7 | 14.3 | 14.3 | 72.8 | 26.0 | 26.0 | 44.0 | 44.0 | 44.0 | 47.1 | 48.3 | 48.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 47.7 | 14.3 | 14.3 | 72.8 | 26.0 | 26.0 | 44.0 | 44.0 | 44.0 | 47.1 | 48.3 | 48.3 |
| LOS by Move: | D | B | B | E | C | C | D | D | D | D | D | D |
| HCM2kAvgQ: | 0 | 8 | 8 | 2 | 5 | 5 | 0 | 0 | 0 | 5 | 6 | 6 |

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

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

Intersection #58: Wolfe Rd & Stewart Dr

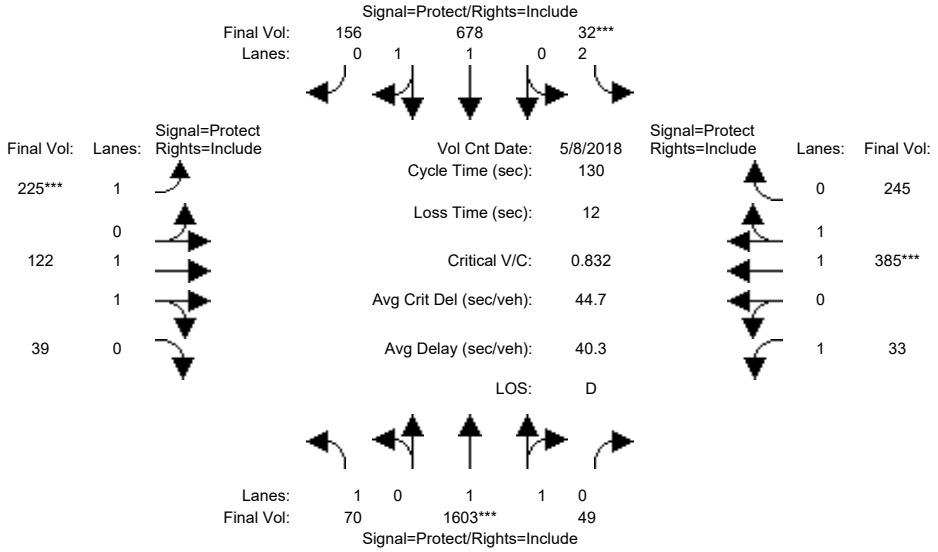



| Street Name: | Wolfe Rd | | | | | | Stewart Dr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 20 | 545 | 218 | 259 | 1340 | 10 | 4 | 1 | 5 | 249 | 7 | 74 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 20 | 545 | 218 | 259 | 1340 | 10 | 4 | 1 | 5 | 249 | 7 | 74 |
| Added Vol: | 0 | 65 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 20 | 610 | 218 | 259 | 1345 | 10 | 4 | 1 | 5 | 249 | 7 | 74 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 20 | 610 | 218 | 259 | 1345 | 10 | 4 | 1 | 5 | 249 | 7 | 74 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 20 | 610 | 218 | 259 | 1345 | 10 | 4 | 1 | 5 | 249 | 7 | 74 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 20 | 610 | 218 | 259 | 1345 | 10 | 4 | 1 | 5 | 249 | 7 | 74 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 0.95 | 0.95 |
| Lanes: | 1.00 | 2.18 | 0.82 | 2.00 | 2.98 | 0.02 | 0.80 | 0.20 | 1.00 | 1.00 | 0.09 | 0.91 |
| Final Sat.: | 1750 | 4124 | 1474 | 3150 | 5559 | 41 | 1440 | 360 | 1750 | 1750 | 156 | 1644 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.15 | 0.15 | 0.08 | 0.24 | 0.24 | 0.00 | 0.00 | 0.00 | 0.14 | 0.05 | 0.05 |
| Crit Moves: | **** | | | | **** | | | | | **** | | |
| Green Time: | 7.0 | 62.8 | 62.8 | 34.9 | 90.7 | 90.7 | 53.3 | 53.3 | 53.3 | 53.3 | 53.3 | 53.3 |
| Volume/Cap: | 0.26 | 0.38 | 0.38 | 0.38 | 0.43 | 0.43 | 0.01 | 0.01 | 0.01 | 0.43 | 0.14 | 0.14 |
| Uniform Del: | 74.0 | 34.7 | 34.7 | 53.3 | 19.8 | 19.8 | 35.7 | 35.7 | 35.7 | 41.5 | 37.2 | 37.2 |
| IncremntDel: | 1.8 | 0.1 | 0.1 | 0.3 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.5 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 75.8 | 34.8 | 34.8 | 53.6 | 19.9 | 19.9 | 35.7 | 35.7 | 35.7 | 42.0 | 37.3 | 37.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 75.8 | 34.8 | 34.8 | 53.6 | 19.9 | 19.9 | 35.7 | 35.7 | 35.7 | 42.0 | 37.3 | 37.3 |
| LOS by Move: | E- | C- | C- | D- | B- | B- | D+ | D+ | D+ | D | D+ | D+ |
| HCM2kAvgQ: | 1 | 9 | 9 | 6 | 12 | 12 | 0 | 0 | 0 | 10 | 3 | 3 |

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

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

Intersection #62: Fair Oaks Ave & Evelyn Ave

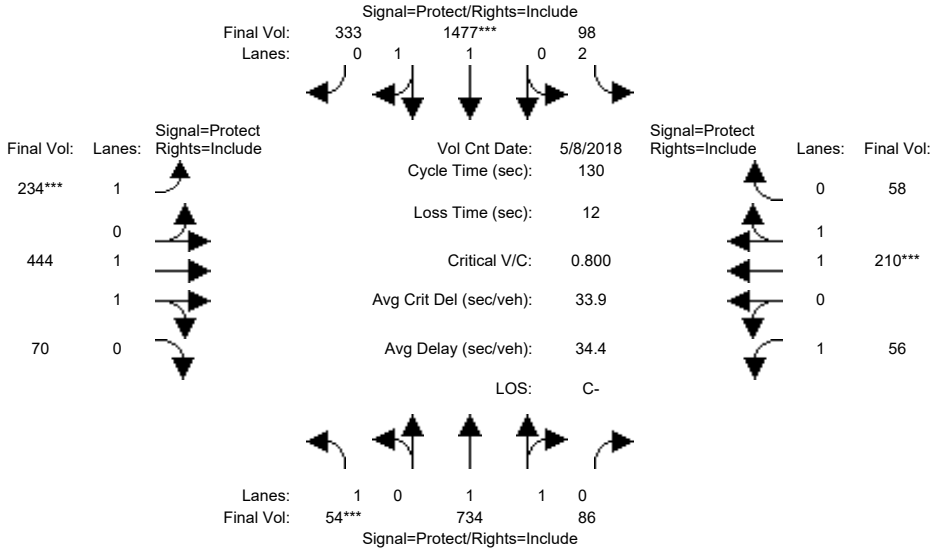



| Street Name: | Fair Oaks Ave | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:15 AM - 9:15 AM | | | | | | | | | | | | |
| Base Vol: | 70 | 1544 | 49 | 32 | 667 | 156 | 225 | 122 | 39 | 33 | 385 | 245 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 70 | 1544 | 49 | 32 | 667 | 156 | 225 | 122 | 39 | 33 | 385 | 245 |
| Added Vol: | 0 | 59 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 70 | 1603 | 49 | 32 | 678 | 156 | 225 | 122 | 39 | 33 | 385 | 245 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 70 | 1603 | 49 | 32 | 678 | 156 | 225 | 122 | 39 | 33 | 385 | 245 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 70 | 1603 | 49 | 32 | 678 | 156 | 225 | 122 | 39 | 33 | 385 | 245 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 70 | 1603 | 49 | 32 | 678 | 156 | 225 | 122 | 39 | 33 | 385 | 245 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.94 | 0.06 | 2.00 | 1.62 | 0.38 | 1.00 | 1.50 | 0.50 | 1.00 | 1.20 | 0.80 |
| Final Sat.: | 1750 | 3590 | 110 | 3150 | 3007 | 692 | 1750 | 2803 | 896 | 1750 | 2260 | 1438 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.45 | 0.45 | 0.01 | 0.23 | 0.23 | 0.13 | 0.04 | 0.04 | 0.02 | 0.17 | 0.17 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 14.2 | 66.5 | 66.5 | 7.0 | 59.3 | 59.3 | 19.1 | 26.2 | 26.2 | 18.3 | 25.4 | 25.4 |
| Volume/Cap: | 0.37 | 0.87 | 0.87 | 0.19 | 0.49 | 0.49 | 0.87 | 0.22 | 0.22 | 0.13 | 0.87 | 0.87 |
| Uniform Del: | 53.8 | 28.0 | 28.0 | 58.8 | 24.8 | 24.8 | 54.2 | 43.3 | 43.3 | 48.9 | 50.8 | 50.8 |
| IncremntDel: | 1.2 | 4.8 | 4.8 | 0.5 | 0.2 | 0.2 | 26.2 | 0.1 | 0.1 | 0.2 | 11.4 | 11.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 55.0 | 32.8 | 32.8 | 59.3 | 25.0 | 25.0 | 80.5 | 43.5 | 43.5 | 49.1 | 62.1 | 62.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 55.0 | 32.8 | 32.8 | 59.3 | 25.0 | 25.0 | 80.5 | 43.5 | 43.5 | 49.1 | 62.1 | 62.1 |
| LOS by Move: | D- | C- | C- | E+ | C | C | F | D | D | D | E | E |
| HCM2kAvgQ: | 3 | 32 | 32 | 1 | 12 | 12 | 11 | 3 | 3 | 1 | 13 | 13 |

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

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

Intersection #62: Fair Oaks Ave & Evelyn Ave

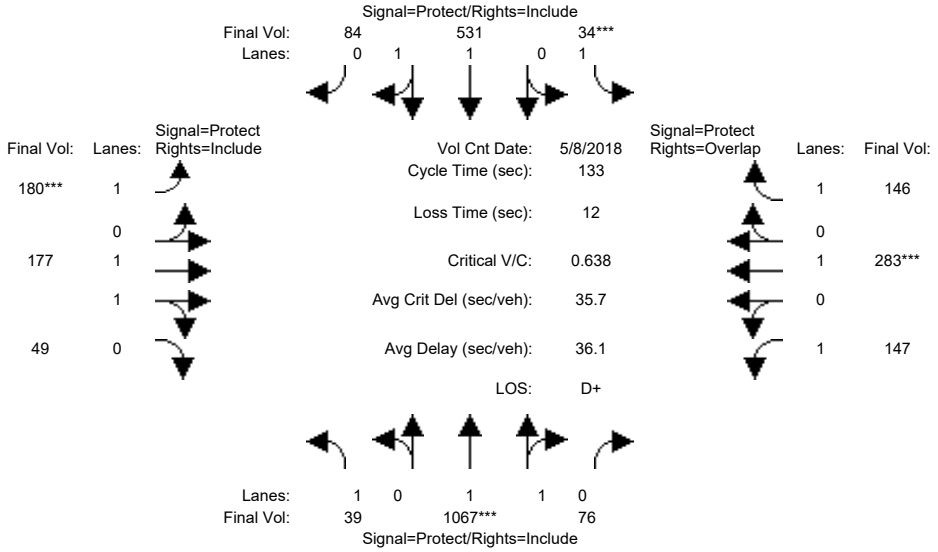



| Street Name: | Fair Oaks Ave | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 54 | 727 | 86 | 98 | 1408 | 333 | 234 | 444 | 70 | 56 | 210 | 58 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 54 | 727 | 86 | 98 | 1408 | 333 | 234 | 444 | 70 | 56 | 210 | 58 |
| Added Vol: | 0 | 7 | 0 | 0 | 69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 54 | 734 | 86 | 98 | 1477 | 333 | 234 | 444 | 70 | 56 | 210 | 58 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 54 | 734 | 86 | 98 | 1477 | 333 | 234 | 444 | 70 | 56 | 210 | 58 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 54 | 734 | 86 | 98 | 1477 | 333 | 234 | 444 | 70 | 56 | 210 | 58 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 54 | 734 | 86 | 98 | 1477 | 333 | 234 | 444 | 70 | 56 | 210 | 58 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 1.00 | 1.78 | 0.22 | 2.00 | 1.62 | 0.38 | 1.00 | 1.72 | 0.28 | 1.00 | 1.56 | 0.44 |
| Final Sat.: | 1750 | 3312 | 388 | 3150 | 3019 | 681 | 1750 | 3196 | 504 | 1750 | 2899 | 801 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.22 | 0.22 | 0.03 | 0.49 | 0.49 | 0.13 | 0.14 | 0.14 | 0.03 | 0.07 | 0.07 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 7.0 | 68.5 | 68.5 | 16.6 | 78.1 | 78.1 | 21.3 | 23.7 | 23.7 | 9.2 | 11.6 | 11.6 |
| Volume/Cap: | 0.57 | 0.42 | 0.42 | 0.24 | 0.81 | 0.81 | 0.81 | 0.76 | 0.76 | 0.45 | 0.81 | 0.81 |
| Uniform Del: | 60.0 | 18.7 | 18.7 | 51.0 | 20.3 | 20.3 | 52.4 | 50.5 | 50.5 | 58.0 | 58.2 | 58.2 |
| IncremntDel: | 8.3 | 0.1 | 0.1 | 0.3 | 2.4 | 2.4 | 16.2 | 5.1 | 5.1 | 2.6 | 14.4 | 14.4 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 68.3 | 18.9 | 18.9 | 51.3 | 22.7 | 22.7 | 68.6 | 55.6 | 55.6 | 60.6 | 72.6 | 72.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 68.3 | 18.9 | 18.9 | 51.3 | 22.7 | 22.7 | 68.6 | 55.6 | 55.6 | 60.6 | 72.6 | 72.6 |
| LOS by Move: | E | B- | B- | D- | C+ | C+ | E | E+ | E+ | E | E | E |
| HCM2kAvgQ: | 3 | 10 | 10 | 2 | 29 | 29 | 10 | 10 | 10 | 2 | 6 | 6 |

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

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

Intersection #63: Fair Oaks Ave & Old SF Rd



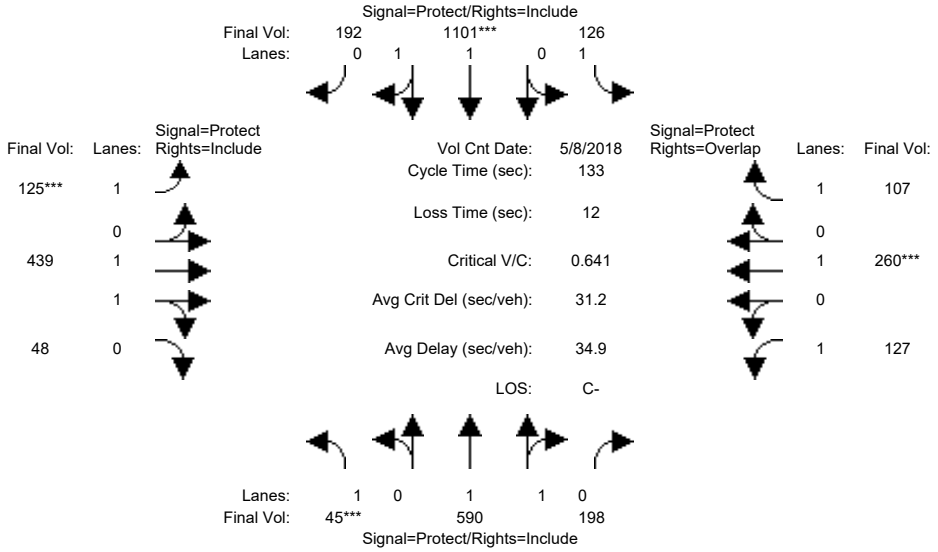

Street Name: Fair Oaks Ave Old SF Rd

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:45 AM - 9:45 AM | | | | | | | | | | | | |
| Base Vol: | 39 | 1045 | 76 | 34 | 527 | 79 | 153 | 177 | 49 | 147 | 283 | 146 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 39 | 1045 | 76 | 34 | 527 | 79 | 153 | 177 | 49 | 147 | 283 | 146 |
| Added Vol: | 0 | 22 | 0 | 0 | 4 | 5 | 27 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 39 | 1067 | 76 | 34 | 531 | 84 | 180 | 177 | 49 | 147 | 283 | 146 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 39 | 1067 | 76 | 34 | 531 | 84 | 180 | 177 | 49 | 147 | 283 | 146 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 39 | 1067 | 76 | 34 | 531 | 84 | 180 | 177 | 49 | 147 | 283 | 146 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 39 | 1067 | 76 | 34 | 531 | 84 | 180 | 177 | 49 | 147 | 283 | 146 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.86 | 0.14 | 1.00 | 1.72 | 0.28 | 1.00 | 1.55 | 0.45 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 3454 | 246 | 1750 | 3194 | 505 | 1750 | 2897 | 802 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.31 | 0.31 | 0.02 | 0.17 | 0.17 | 0.10 | 0.06 | 0.06 | 0.08 | 0.15 | 0.08 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 16.8 | 62.8 | 62.8 | 7.0 | 53.0 | 53.0 | 20.9 | 24.2 | 24.2 | 27.0 | 30.3 | 37.3 |
| Volume/Cap: | 0.18 | 0.65 | 0.65 | 0.37 | 0.42 | 0.42 | 0.65 | 0.34 | 0.34 | 0.41 | 0.65 | 0.30 |
| Uniform Del: | 51.9 | 26.8 | 26.8 | 60.9 | 28.8 | 28.8 | 52.6 | 47.4 | 47.4 | 46.1 | 46.6 | 37.6 |
| IncremntDel: | 0.4 | 0.9 | 0.9 | 2.5 | 0.2 | 0.2 | 5.6 | 0.3 | 0.3 | 0.8 | 3.6 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 52.3 | 27.7 | 27.7 | 63.4 | 29.0 | 29.0 | 58.2 | 47.7 | 47.7 | 46.9 | 50.2 | 37.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 52.3 | 27.7 | 27.7 | 63.4 | 29.0 | 29.0 | 58.2 | 47.7 | 47.7 | 46.9 | 50.2 | 37.9 |
| LOS by Move: | D- | C | C | E | C | C | E+ | D | D | D | D | D+ |
| HCM2kAvgQ: | 1 | 18 | 18 | 2 | 9 | 9 | 8 | 4 | 4 | 5 | 10 | 5 |

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

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

Intersection #63: Fair Oaks Ave & Old SF Rd

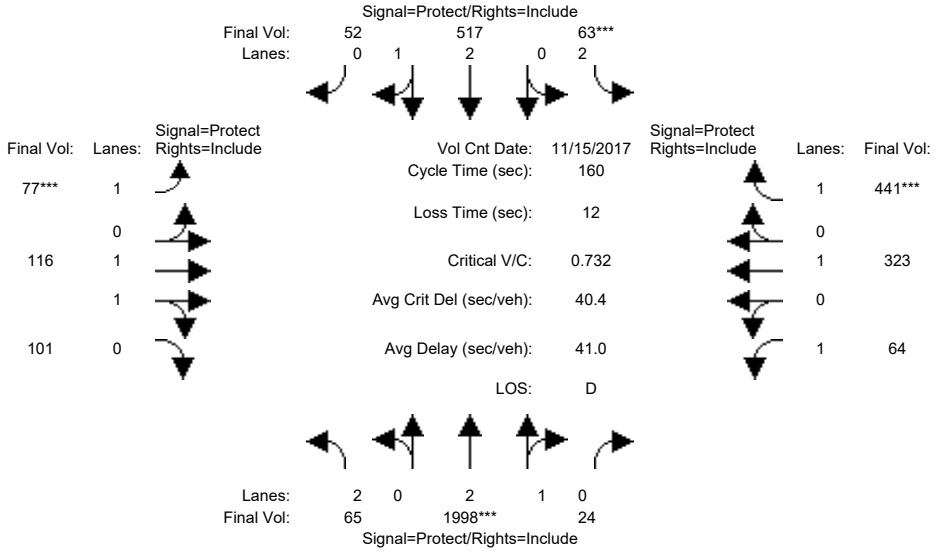



| Street Name: | Fair Oaks Ave | | | | | | Old SF Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 45 | 588 | 198 | 126 | 1076 | 161 | 122 | 439 | 48 | 127 | 260 | 107 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 45 | 588 | 198 | 126 | 1076 | 161 | 122 | 439 | 48 | 127 | 260 | 107 |
| Added Vol: | 0 | 2 | 0 | 0 | 25 | 31 | 3 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 45 | 590 | 198 | 126 | 1101 | 192 | 125 | 439 | 48 | 127 | 260 | 107 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 45 | 590 | 198 | 126 | 1101 | 192 | 125 | 439 | 48 | 127 | 260 | 107 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 45 | 590 | 198 | 126 | 1101 | 192 | 125 | 439 | 48 | 127 | 260 | 107 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 45 | 590 | 198 | 126 | 1101 | 192 | 125 | 439 | 48 | 127 | 260 | 107 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.48 | 0.52 | 1.00 | 1.69 | 0.31 | 1.00 | 1.80 | 0.20 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1750 | 2770 | 929 | 1750 | 3150 | 549 | 1750 | 3335 | 365 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.21 | 0.21 | 0.07 | 0.35 | 0.35 | 0.07 | 0.13 | 0.13 | 0.07 | 0.14 | 0.06 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 7.0 | 58.6 | 58.6 | 19.8 | 71.4 | 71.4 | 14.6 | 27.4 | 27.4 | 15.1 | 28.0 | 47.8 |
| Volume/Cap: | 0.49 | 0.48 | 0.48 | 0.48 | 0.65 | 0.65 | 0.65 | 0.64 | 0.64 | 0.64 | 0.65 | 0.17 |
| Uniform Del: | 61.3 | 26.4 | 26.4 | 51.9 | 21.9 | 21.9 | 56.8 | 48.2 | 48.2 | 56.3 | 48.0 | 29.1 |
| IncremntDel: | 4.0 | 0.2 | 0.2 | 1.4 | 0.8 | 0.8 | 7.7 | 1.8 | 1.8 | 6.7 | 3.8 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 65.3 | 26.7 | 26.7 | 53.3 | 22.7 | 22.7 | 64.4 | 50.1 | 50.1 | 63.1 | 51.8 | 29.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 65.3 | 26.7 | 26.7 | 53.3 | 22.7 | 22.7 | 64.4 | 50.1 | 50.1 | 63.1 | 51.8 | 29.2 |
| LOS by Move: | E | C | C | D- | C+ | C+ | E | D | D | E | D- | C |
| HCM2kAvgQ: | 2 | 11 | 11 | 6 | 19 | 19 | 6 | 10 | 10 | 5 | 10 | 3 |

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

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

Intersection #64: Wolfe Rd & Evelyn Ave

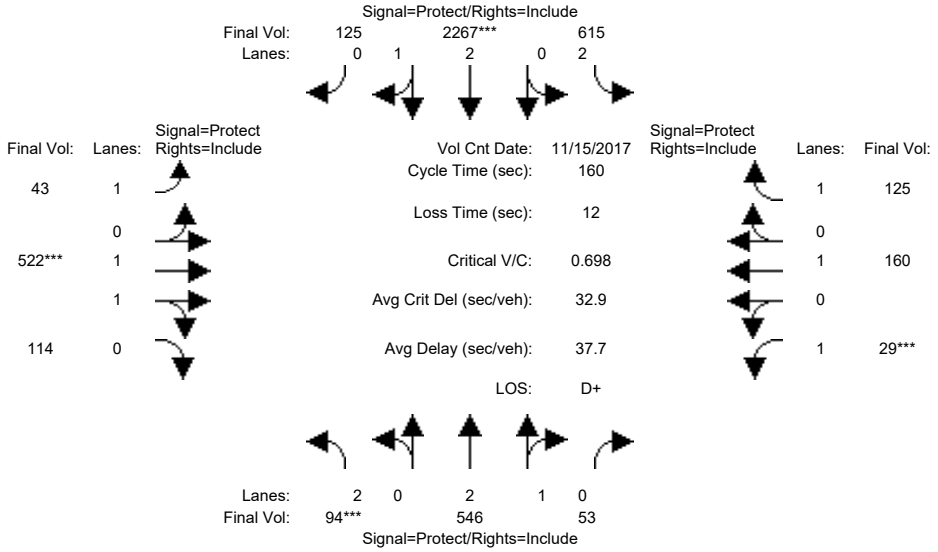



| Street Name: | Wolfe Rd | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 65 | 1966 | 24 | 63 | 511 | 52 | 77 | 116 | 101 | 64 | 323 | 441 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 65 | 1966 | 24 | 63 | 511 | 52 | 77 | 116 | 101 | 64 | 323 | 441 |
| Added Vol: | 0 | 32 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 65 | 1998 | 24 | 63 | 517 | 52 | 77 | 116 | 101 | 64 | 323 | 441 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 65 | 1998 | 24 | 63 | 517 | 52 | 77 | 116 | 101 | 64 | 323 | 441 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 65 | 1998 | 24 | 63 | 517 | 52 | 77 | 116 | 101 | 64 | 323 | 441 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 65 | 1998 | 24 | 63 | 517 | 52 | 77 | 116 | 101 | 64 | 323 | 441 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 1.00 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.96 | 0.04 | 2.00 | 2.72 | 0.28 | 1.00 | 1.04 | 0.96 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 5533 | 66 | 3150 | 5088 | 512 | 1750 | 1977 | 1721 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.36 | 0.36 | 0.02 | 0.10 | 0.10 | 0.04 | 0.06 | 0.06 | 0.04 | 0.17 | 0.25 |
| Crit Moves: | | **** | | **** | | | **** | | | | | **** |
| Green Time: | 25.4 | 77.5 | 77.5 | 7.0 | 59.1 | 59.1 | 9.4 | 37.4 | 37.4 | 26.2 | 54.1 | 54.1 |
| Volume/Cap: | 0.13 | 0.75 | 0.75 | 0.46 | 0.28 | 0.28 | 0.75 | 0.25 | 0.25 | 0.22 | 0.50 | 0.75 |
| Uniform Del: | 57.8 | 33.3 | 33.3 | 74.6 | 35.4 | 35.4 | 74.1 | 49.9 | 49.9 | 58.1 | 42.2 | 46.9 |
| IncremntDel: | 0.1 | 1.2 | 1.2 | 2.4 | 0.1 | 0.1 | 25.3 | 0.2 | 0.2 | 0.4 | 0.6 | 5.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 57.9 | 34.5 | 34.5 | 77.0 | 35.5 | 35.5 | 99.4 | 50.1 | 50.1 | 58.5 | 42.9 | 52.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 57.9 | 34.5 | 34.5 | 77.0 | 35.5 | 35.5 | 99.4 | 50.1 | 50.1 | 58.5 | 42.9 | 52.0 |
| LOS by Move: | E+ | C- | C- | E- | D+ | D+ | F | D | D | E+ | D | D- |
| HCM2kAvgQ: | 2 | 27 | 27 | 2 | 6 | 6 | 4 | 4 | 4 | 3 | 12 | 21 |

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

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

Intersection #64: Wolfe Rd & Evelyn Ave

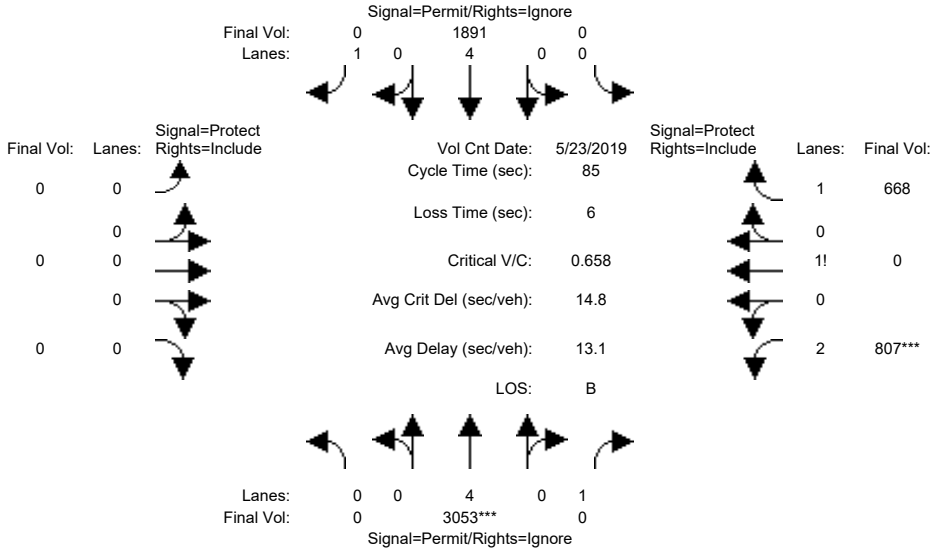



| Street Name: | Wolfe Rd | | | | | | Evelyn Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 94 | 542 | 53 | 615 | 2230 | 125 | 43 | 522 | 114 | 29 | 160 | 125 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 94 | 542 | 53 | 615 | 2230 | 125 | 43 | 522 | 114 | 29 | 160 | 125 |
| Added Vol: | 0 | 4 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 94 | 546 | 53 | 615 | 2267 | 125 | 43 | 522 | 114 | 29 | 160 | 125 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 94 | 546 | 53 | 615 | 2267 | 125 | 43 | 522 | 114 | 29 | 160 | 125 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 94 | 546 | 53 | 615 | 2267 | 125 | 43 | 522 | 114 | 29 | 160 | 125 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 94 | 546 | 53 | 615 | 2267 | 125 | 43 | 522 | 114 | 29 | 160 | 125 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.72 | 0.28 | 2.00 | 2.84 | 0.16 | 1.00 | 1.63 | 0.37 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 5104 | 495 | 3150 | 5307 | 293 | 1750 | 3036 | 663 | 1750 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.11 | 0.11 | 0.20 | 0.43 | 0.43 | 0.02 | 0.17 | 0.17 | 0.02 | 0.08 | 0.07 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 7.0 | 36.3 | 36.3 | 66.2 | 95.5 | 95.5 | 15.5 | 38.5 | 38.5 | 7.0 | 29.9 | 29.9 |
| Volume/Cap: | 0.68 | 0.47 | 0.47 | 0.47 | 0.72 | 0.72 | 0.25 | 0.72 | 0.72 | 0.38 | 0.45 | 0.38 |
| Uniform Del: | 75.4 | 53.5 | 53.5 | 34.1 | 22.7 | 22.7 | 66.9 | 55.8 | 55.8 | 74.4 | 57.7 | 57.0 |
| IncremntDel: | 13.1 | 0.3 | 0.3 | 0.3 | 0.8 | 0.8 | 0.8 | 2.8 | 2.8 | 3.1 | 0.9 | 0.7 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 88.5 | 53.8 | 53.8 | 34.4 | 23.4 | 23.4 | 67.6 | 58.5 | 58.5 | 77.5 | 58.7 | 57.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 88.5 | 53.8 | 53.8 | 34.4 | 23.4 | 23.4 | 67.6 | 58.5 | 58.5 | 77.5 | 58.7 | 57.7 |
| LOS by Move: | F | D- | D- | C- | C | C | E | E+ | E+ | E- | E+ | E+ |
| HCM2kAvgQ: | 3 | 8 | 8 | 12 | 26 | 26 | 2 | 14 | 14 | 2 | 7 | 6 |

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

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

Intersection #67: Lawrence Expwy & US 101 NB Ramps

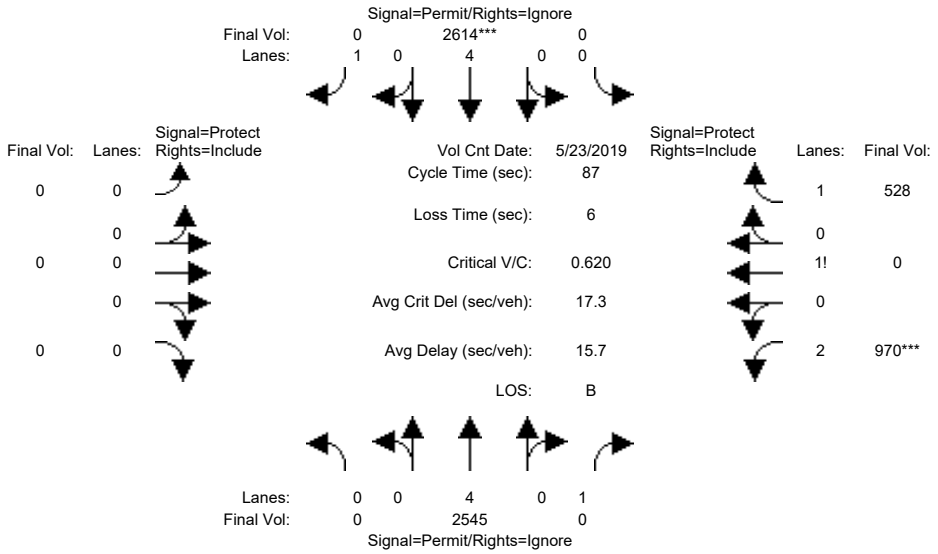



| Street Name: | Lawrence Expwy | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 51 | 0 | 0 | 51 | 0 | 0 | 0 | 0 | 22 | 22 | 22 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 0.0 | 5.0 |
| Volume Module: >> Count Date: 23 May 2019 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 3043 | 676 | 0 | 1837 | 381 | 0 | 0 | 0 | 767 | 0 | 668 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 3043 | 676 | 0 | 1837 | 381 | 0 | 0 | 0 | 767 | 0 | 668 |
| Added Vol: | 0 | 10 | 0 | 0 | 54 | 0 | 0 | 0 | 0 | 40 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 3053 | 676 | 0 | 1891 | 381 | 0 | 0 | 0 | 807 | 0 | 668 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 3053 | 0 | 0 | 1891 | 0 | 0 | 0 | 0 | 807 | 0 | 668 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 3053 | 0 | 0 | 1891 | 0 | 0 | 0 | 0 | 807 | 0 | 668 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 3053 | 0 | 0 | 1891 | 0 | 0 | 0 | 0 | 807 | 0 | 668 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.82 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 0.00 | 0.00 | 0.00 | 2.48 | 0.00 | 1.52 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 0 | 0 | 0 | 3844 | 0 | 2667 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.40 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.00 | 0.25 |
| Crit Moves: | | **** | | | | | | | | **** | | |
| Green Time: | 0.0 | 51.0 | 0.0 | 0.0 | 51.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.7 | 22.7 | 22.7 |
| Volume/Cap: | 0.00 | 0.67 | 0.00 | 0.00 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.79 | 0.00 | 0.94 |
| Uniform Del: | 0.0 | 11.4 | 0.0 | 0.0 | 9.1 | 0.0 | 0.0 | 0.0 | 0.0 | 28.9 | 0.0 | 30.4 |
| IncremntDel: | 0.0 | 0.4 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 | 0.0 | 11.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.58 | 0.00 | 0.00 | 0.58 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 6.9 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 | 0.0 | 0.0 | 31.1 | 0.0 | 41.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 6.9 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 | 0.0 | 0.0 | 31.1 | 0.0 | 41.4 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | C | A | D |
| HCM2kAvgQ: | 0 | 10 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 12 | 0 | 17 |

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

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

Intersection #67: Lawrence Expwy & US 101 NB Ramps

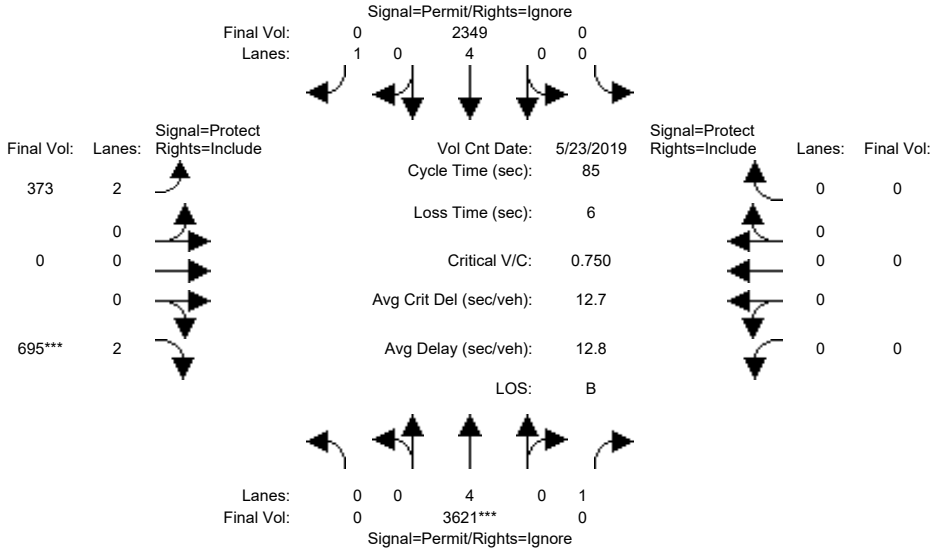



| Street Name: | Lawrence Expwy | | | | | | US 101 NB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 53 | 0 | 0 | 53 | 0 | 0 | 0 | 0 | 22 | 22 | 22 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 0.0 | 5.0 |
| Volume Module: >> Count Date: 23 May 2019 << 4:55 PM - 5:55 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 2483 | 590 | 0 | 2608 | 551 | 0 | 0 | 0 | 965 | 0 | 528 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 2483 | 590 | 0 | 2608 | 551 | 0 | 0 | 0 | 965 | 0 | 528 |
| Added Vol: | 0 | 62 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 5 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 2545 | 590 | 0 | 2614 | 551 | 0 | 0 | 0 | 970 | 0 | 528 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 2545 | 0 | 0 | 2614 | 0 | 0 | 0 | 0 | 970 | 0 | 528 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 2545 | 0 | 0 | 2614 | 0 | 0 | 0 | 0 | 970 | 0 | 528 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 2545 | 0 | 0 | 2614 | 0 | 0 | 0 | 0 | 970 | 0 | 528 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.85 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 0.00 | 0.00 | 0.00 | 2.57 | 0.00 | 1.43 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 0 | 0 | 0 | 4151 | 0 | 2502 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.33 | 0.00 | 0.00 | 0.34 | 0.00 | 0.00 | 0.00 | 0.00 | 0.23 | 0.00 | 0.21 |
| Crit Moves: | | | | | **** | | | | | **** | | |
| Green Time: | 0.0 | 53.2 | 0.0 | 0.0 | 53.2 | 0.0 | 0.0 | 0.0 | 0.0 | 22.7 | 0.0 | 22.7 |
| Volume/Cap: | 0.00 | 0.55 | 0.00 | 0.00 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.90 | 0.00 | 0.81 |
| Uniform Del: | 0.0 | 9.9 | 0.0 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31.0 | 0.0 | 30.1 |
| IncremntDel: | 0.0 | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 6.7 | 0.0 | 2.8 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.42 | 0.00 | 0.00 | 0.55 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 14.1 | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 | 37.7 | 0.0 | 32.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 14.1 | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 | 37.7 | 0.0 | 32.9 |
| LOS by Move: | A | B | A | A | A | A | A | A | A | D+ | A | C- |
| HCM2kAvgQ: | 0 | 13 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 15 | 0 | 12 |

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

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

Intersection #68: Lawrence Expwy & US 101 SB Ramps

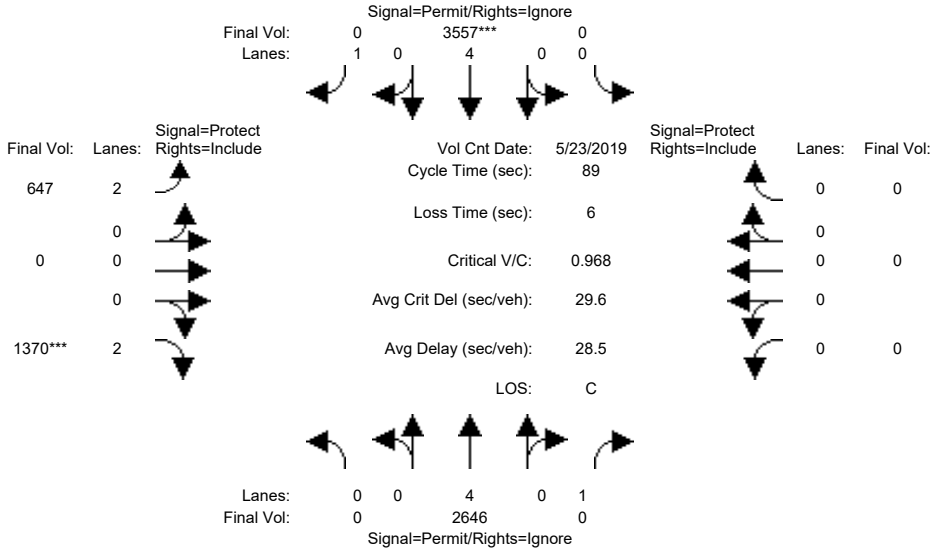



| Street Name: | Lawrence Expwy | | | | | | US 101 SB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 60 | 0 | 0 | 60 | 0 | 14 | 14 | 14 | 0 | 0 | 0 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 5.5 | 0.0 | 5.5 | 0.0 | 0.0 | 0.0 |
| Volume Module: >> Count Date: 23 May 2019 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 3604 | 781 | 0 | 2255 | 340 | 373 | 0 | 655 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 3604 | 781 | 0 | 2255 | 340 | 373 | 0 | 655 | 0 | 0 | 0 |
| Added Vol: | 0 | 17 | 0 | 0 | 94 | 0 | 0 | 0 | 40 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 3621 | 781 | 0 | 2349 | 340 | 373 | 0 | 695 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 3621 | 0 | 0 | 2349 | 0 | 373 | 0 | 695 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 3621 | 0 | 0 | 2349 | 0 | 373 | 0 | 695 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 3621 | 0 | 0 | 2349 | 0 | 373 | 0 | 695 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 2.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 3150 | 0 | 3150 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.48 | 0.00 | 0.00 | 0.31 | 0.00 | 0.12 | 0.00 | 0.22 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | | | | | | **** | | | |
| Green Time: | 0.0 | 60.4 | 0.0 | 0.0 | 47.6 | 0.0 | 12.6 | 12.6 | 18.6 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.67 | 0.00 | 0.00 | 0.55 | 0.00 | 0.80 | 0.00 | 1.01 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 6.8 | 0.0 | 0.0 | 11.9 | 0.0 | 35.0 | 0.0 | 33.2 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.3 | 0.0 | 0.0 | 0.2 | 0.0 | 9.4 | 0.0 | 36.3 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.21 | 0.00 | 0.00 | 0.66 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 1.8 | 0.0 | 0.0 | 8.0 | 0.0 | 44.4 | 0.0 | 69.5 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 1.8 | 0.0 | 0.0 | 8.0 | 0.0 | 44.4 | 0.0 | 69.5 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | A | A | A | A | A | D | A | E | A | A | A |
| HCM2kAvgQ: | 0 | 5 | 0 | 0 | 7 | 0 | 8 | 0 | 17 | 0 | 0 | 0 |

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

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

Intersection #68: Lawrence Expwy & US 101 SB Ramps

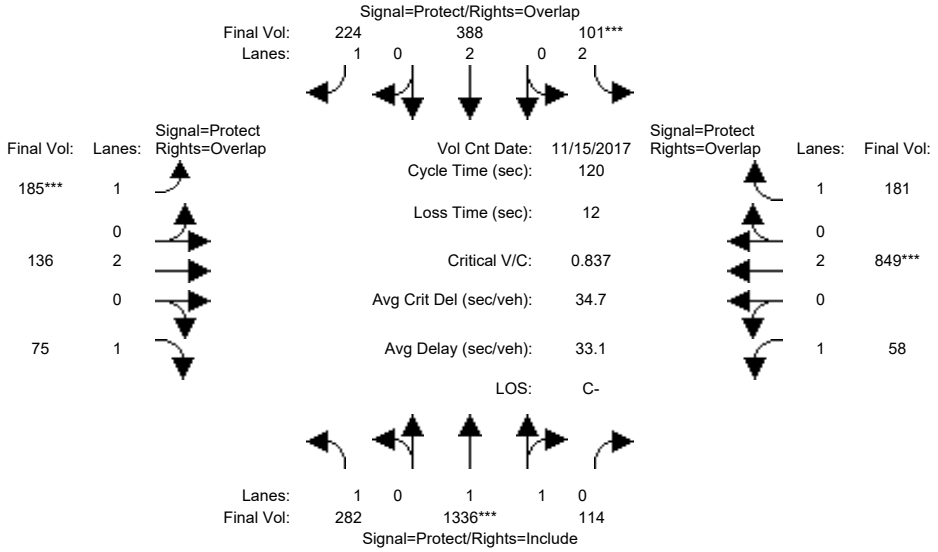



| Street Name: | Lawrence Expwy | | | | | | US 101 SB Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 61 | 0 | 0 | 44 | 0 | 15 | 18 | 15 | 0 | 0 | 0 |
| Y+R: | 0.0 | 6.2 | 0.0 | 0.0 | 6.2 | 0.0 | 5.5 | 0.0 | 5.5 | 0.0 | 0.0 | 0.0 |
| Volume Module: >> Count Date: 23 May 2019 << | | | | | | | | | | | | |
| Base Vol: | 0 | 2537 | 517 | 0 | 3546 | 178 | 647 | 0 | 1365 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 2537 | 517 | 0 | 3546 | 178 | 647 | 0 | 1365 | 0 | 0 | 0 |
| Added Vol: | 0 | 109 | 0 | 0 | 11 | 0 | 0 | 0 | 5 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 2646 | 517 | 0 | 3557 | 178 | 647 | 0 | 1370 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 2646 | 0 | 0 | 3557 | 0 | 647 | 0 | 1370 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 2646 | 0 | 0 | 3557 | 0 | 647 | 0 | 1370 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 2646 | 0 | 0 | 3557 | 0 | 647 | 0 | 1370 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 4.00 | 1.00 | 2.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 7600 | 1750 | 0 | 7600 | 1750 | 3150 | 0 | 3150 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.35 | 0.00 | 0.00 | 0.47 | 0.00 | 0.21 | 0.00 | 0.43 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | | | | **** | | | | **** | | | |
| Green Time: | 0.0 | 61.8 | 0.0 | 0.0 | 44.6 | 0.0 | 15.7 | 18.3 | 38.4 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.50 | 0.00 | 0.00 | 0.93 | 0.00 | 1.16 | 0.00 | 1.01 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 6.4 | 0.0 | 0.0 | 20.8 | 0.0 | 36.7 | 0.0 | 25.3 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.1 | 0.0 | 0.0 | 5.1 | 0.0 | 92.4 | 0.0 | 26.4 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.28 | 0.00 | 0.00 | 0.76 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 1.9 | 0.0 | 0.0 | 21.0 | 0.0 | 129.0 | 0.0 | 51.7 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 1.9 | 0.0 | 0.0 | 21.0 | 0.0 | 129.0 | 0.0 | 51.7 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | A | A | A | C+ | A | F | A | D- | A | A | A |
| HCM2kAvgQ: | 0 | 3 | 0 | 0 | 27 | 0 | 21 | 0 | 31 | 0 | 0 | 0 |

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

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

Intersection #84: Bowers Ave & Kifer Rd

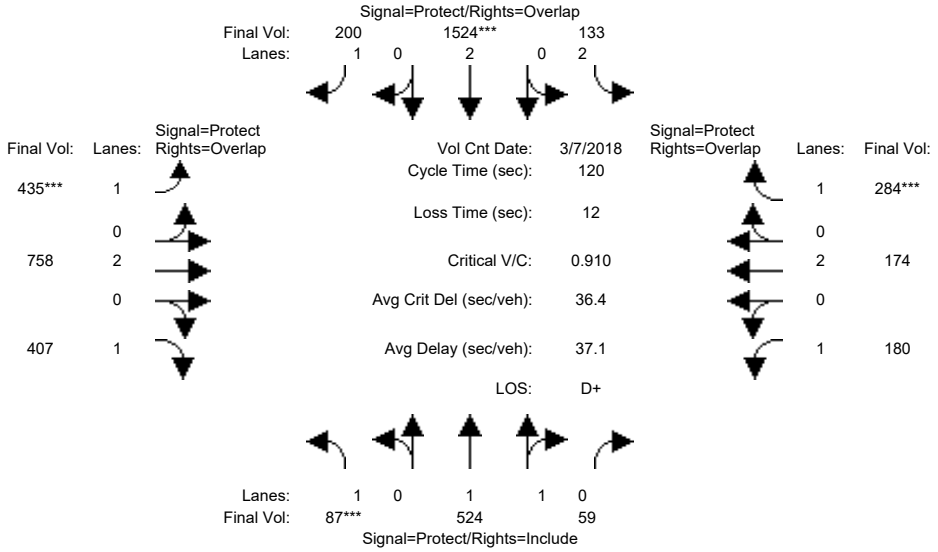



| Street Name: | Bowers Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 5 | 10 | 10 | 8 | 10 | 10 | 5 | 5 | 5 | 5 | 5 | 5 |
| Y+R: | 4.1 | 5.0 | 5.0 | 4.0 | 5.0 | 5.0 | 4.1 | 4.6 | 4.6 | 4.0 | 5.0 | 5.0 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 257 | 1216 | 104 | 92 | 353 | 204 | 168 | 115 | 68 | 53 | 722 | 165 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 257 | 1216 | 104 | 92 | 353 | 204 | 168 | 115 | 68 | 53 | 722 | 165 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 51 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 257 | 1216 | 104 | 92 | 353 | 204 | 168 | 124 | 68 | 53 | 773 | 165 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| PHF Volume: | 282 | 1336 | 114 | 101 | 388 | 224 | 185 | 136 | 75 | 58 | 849 | 181 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 282 | 1336 | 114 | 101 | 388 | 224 | 185 | 136 | 75 | 58 | 849 | 181 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 282 | 1336 | 114 | 101 | 388 | 224 | 185 | 136 | 75 | 58 | 849 | 181 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.84 | 0.16 | 2.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 3408 | 291 | 3150 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.16 | 0.39 | 0.39 | 0.03 | 0.10 | 0.13 | 0.11 | 0.04 | 0.04 | 0.03 | 0.22 | 0.10 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 38.2 | 54.4 | 54.4 | 8.0 | 24.2 | 38.8 | 14.6 | 22.8 | 61.0 | 22.8 | 31.0 | 39.0 |
| Volume/Cap: | 0.51 | 0.87 | 0.87 | 0.48 | 0.51 | 0.40 | 0.87 | 0.19 | 0.08 | 0.18 | 0.87 | 0.32 |
| Uniform Del: | 33.2 | 29.5 | 29.5 | 54.0 | 42.6 | 31.5 | 51.7 | 40.8 | 15.1 | 40.7 | 42.5 | 30.5 |
| IncremntDel: | 0.8 | 5.0 | 5.0 | 1.7 | 0.6 | 0.5 | 28.8 | 0.1 | 0.0 | 0.3 | 8.1 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.69 | 0.45 | 0.45 | 0.95 | 0.83 | 0.68 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 23.7 | 18.2 | 18.2 | 53.2 | 36.0 | 21.9 | 80.5 | 40.9 | 15.2 | 41.0 | 50.7 | 30.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 23.7 | 18.2 | 18.2 | 53.2 | 36.0 | 21.9 | 80.5 | 40.9 | 15.2 | 41.0 | 50.7 | 30.8 |
| LOS by Move: | C | B- | B- | D- | D+ | C+ | F | D | B | D | D | C |
| HCM2kAvgQ: | 7 | 19 | 19 | 2 | 6 | 5 | 8 | 2 | 1 | 2 | 15 | 5 |

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

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

Intersection #84: Bowers Ave & Kifer Rd

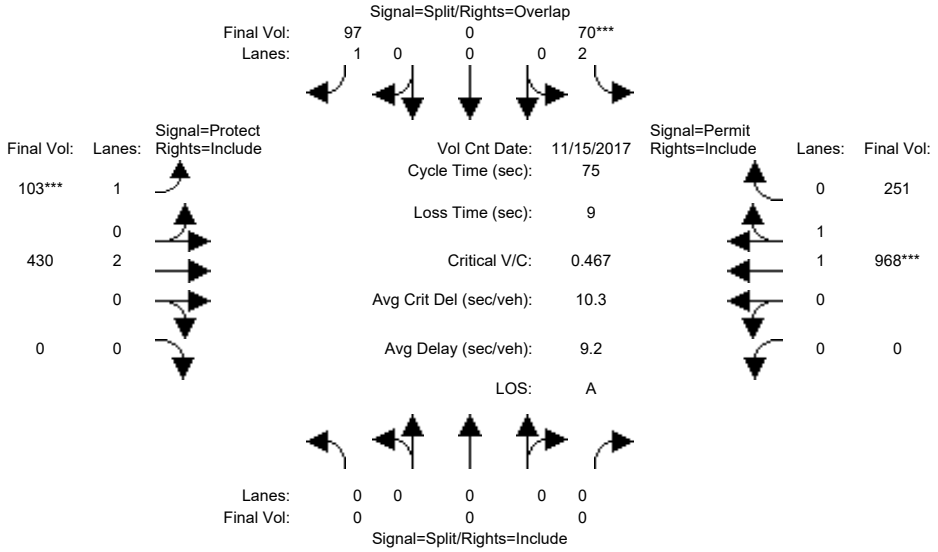



| Street Name: | Bowers Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 5 | 10 | 10 | 8 | 10 | 10 | 5 | 5 | 5 | 5 | 5 | 5 |
| Y+R: | 4.1 | 5.0 | 5.0 | 4.0 | 5.0 | 5.0 | 4.1 | 4.6 | 4.6 | 4.0 | 5.0 | 5.0 |
| Volume Module: >> Count Date: 7 Mar 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 86 | 519 | 58 | 132 | 1509 | 198 | 431 | 691 | 403 | 178 | 166 | 281 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 86 | 519 | 58 | 132 | 1509 | 198 | 431 | 691 | 403 | 178 | 166 | 281 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 0 | 6 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 86 | 519 | 58 | 132 | 1509 | 198 | 431 | 750 | 403 | 178 | 172 | 281 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| PHF Volume: | 87 | 524 | 59 | 133 | 1524 | 200 | 435 | 758 | 407 | 180 | 174 | 284 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 87 | 524 | 59 | 133 | 1524 | 200 | 435 | 758 | 407 | 180 | 174 | 284 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 87 | 524 | 59 | 133 | 1524 | 200 | 435 | 758 | 407 | 180 | 174 | 284 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.79 | 0.21 | 2.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 3328 | 372 | 3150 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.16 | 0.16 | 0.04 | 0.40 | 0.11 | 0.25 | 0.20 | 0.23 | 0.10 | 0.05 | 0.16 |
| Crit Moves: | **** | | | | **** | | **** | | | | | **** |
| Green Time: | 6.5 | 41.7 | 41.7 | 17.7 | 52.9 | 85.7 | 32.8 | 29.9 | 36.5 | 15.4 | 12.6 | 30.3 |
| Volume/Cap: | 0.91 | 0.45 | 0.45 | 0.29 | 0.91 | 0.16 | 0.91 | 0.80 | 0.76 | 0.80 | 0.44 | 0.64 |
| Uniform Del: | 56.4 | 30.3 | 30.3 | 45.6 | 31.4 | 5.5 | 42.2 | 42.2 | 37.9 | 50.8 | 50.4 | 40.1 |
| IncremntDel: | 63.7 | 0.3 | 0.3 | 0.3 | 7.8 | 0.1 | 21.4 | 4.9 | 6.5 | 18.0 | 0.8 | 3.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.96 | 0.64 | 0.64 | 0.88 | 0.47 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 117.9 | 19.8 | 19.8 | 40.7 | 22.7 | 0.1 | 63.6 | 47.1 | 44.4 | 68.8 | 51.1 | 43.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 117.9 | 19.8 | 19.8 | 40.7 | 22.7 | 0.1 | 63.6 | 47.1 | 44.4 | 68.8 | 51.1 | 43.3 |
| LOS by Move: | F | B- | B- | D | C+ | A | E | D | D | E | D- | D |
| HCM2kAvgQ: | 4 | 6 | 6 | 2 | 22 | 0 | 18 | 13 | 15 | 7 | 3 | 10 |

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

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

Intersection #85: Corvin Dr & Kifer Rd

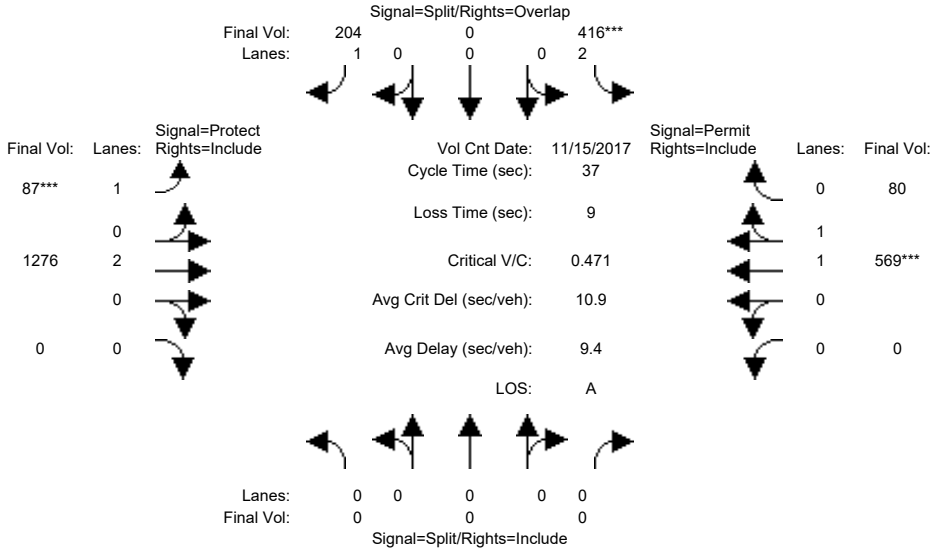



| Street Name: | Corvin Dr | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 5 | 0 | 5 | 5 | 10 | 0 | 0 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.5 | 5.5 | 4.0 | 4.0 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 63 | 0 | 87 | 93 | 378 | 0 | 0 | 820 | 226 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 63 | 0 | 87 | 93 | 378 | 0 | 0 | 820 | 226 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 51 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 63 | 0 | 87 | 93 | 387 | 0 | 0 | 871 | 226 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| PHF Volume: | 0 | 0 | 0 | 70 | 0 | 97 | 103 | 430 | 0 | 0 | 968 | 251 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 70 | 0 | 97 | 103 | 430 | 0 | 0 | 968 | 251 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 70 | 0 | 97 | 103 | 430 | 0 | 0 | 968 | 251 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 1.58 | 0.42 |
| Final Sat.: | 0 | 0 | 0 | 3150 | 0 | 1750 | 1750 | 3800 | 0 | 0 | 2937 | 762 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.06 | 0.06 | 0.11 | 0.00 | 0.00 | 0.33 | 0.33 |
| Crit Moves: | | | | **** | | | **** | | | | **** | |
| Green Time: | 0.0 | 0.0 | 0.0 | 8.9 | 0.0 | 17.6 | 8.7 | 57.1 | 0.0 | 0.0 | 48.4 | 48.4 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.19 | 0.00 | 0.24 | 0.51 | 0.15 | 0.00 | 0.00 | 0.51 | 0.51 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 29.8 | 0.0 | 23.3 | 31.2 | 2.4 | 0.0 | 0.0 | 7.0 | 7.0 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.3 | 2.2 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 30.1 | 0.0 | 23.6 | 33.3 | 2.4 | 0.0 | 0.0 | 7.2 | 7.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 30.1 | 0.0 | 23.6 | 33.3 | 2.4 | 0.0 | 0.0 | 7.2 | 7.2 |
| LOS by Move: | A | A | A | C | A | C | C- | A | A | A | A | A |
| HCM2kAvgQ: | 0 | 0 | 0 | 1 | 0 | 2 | 2 | 1 | 0 | 0 | 7 | 7 |

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

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

Intersection #85: Corvin Dr & Kifer Rd

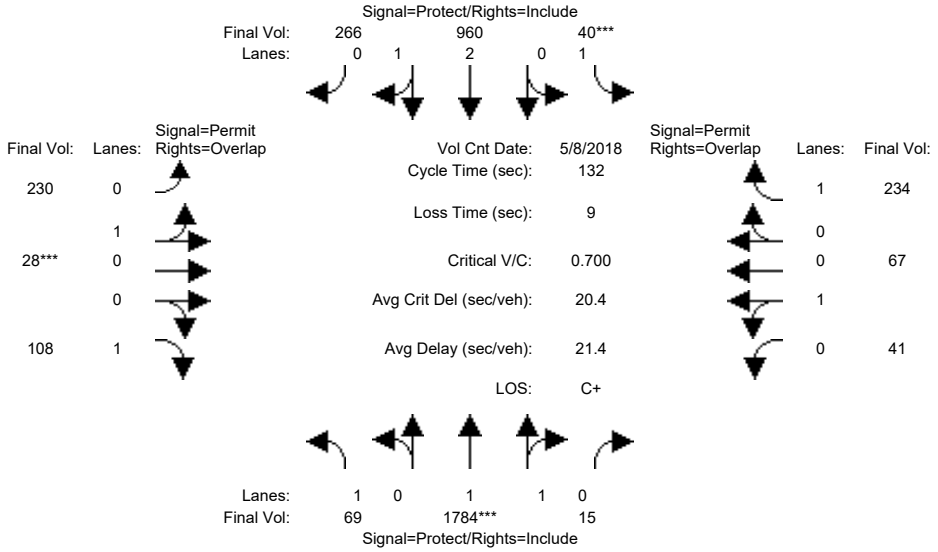



| Street Name: | Corvin Dr | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 5 | 0 | 5 | 5 | 10 | 0 | 0 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.5 | 5.5 | 4.0 | 4.0 | 5.5 | 5.5 |
| Volume Module: >> Count Date: 15 Nov 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 370 | 0 | 182 | 77 | 1077 | 0 | 0 | 500 | 71 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 370 | 0 | 182 | 77 | 1077 | 0 | 0 | 500 | 71 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 0 | 6 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 370 | 0 | 182 | 77 | 1136 | 0 | 0 | 506 | 71 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| PHF Volume: | 0 | 0 | 0 | 416 | 0 | 204 | 87 | 1276 | 0 | 0 | 569 | 80 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 416 | 0 | 204 | 87 | 1276 | 0 | 0 | 569 | 80 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 416 | 0 | 204 | 87 | 1276 | 0 | 0 | 569 | 80 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 1.75 | 0.25 |
| Final Sat.: | 0 | 0 | 0 | 3150 | 0 | 1750 | 1750 | 3800 | 0 | 0 | 3244 | 455 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.13 | 0.00 | 0.12 | 0.05 | 0.34 | 0.00 | 0.00 | 0.18 | 0.18 |
| Crit Moves: | | | | **** | | | **** | | | | **** | |
| Green Time: | 0.0 | 0.0 | 0.0 | 9.9 | 0.0 | 14.9 | 5.0 | 18.1 | 0.0 | 0.0 | 13.1 | 13.1 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.49 | 0.00 | 0.29 | 0.37 | 0.69 | 0.00 | 0.00 | 0.49 | 0.49 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 11.4 | 0.0 | 7.5 | 14.6 | 7.3 | 0.0 | 0.0 | 9.3 | 9.3 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.2 | 1.0 | 1.1 | 0.0 | 0.0 | 0.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 11.9 | 0.0 | 7.7 | 15.5 | 8.3 | 0.0 | 0.0 | 9.6 | 9.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 11.9 | 0.0 | 7.7 | 15.5 | 8.3 | 0.0 | 0.0 | 9.6 | 9.6 |
| LOS by Move: | A | A | A | B+ | A | A | B | A | A | A | A | A |
| HCM2kAvgQ: | 0 | 0 | 0 | 2 | 0 | 2 | 1 | 5 | 0 | 0 | 3 | 3 |

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

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

Intersection #91: Fair Oaks Ave & Ahwanee Ave

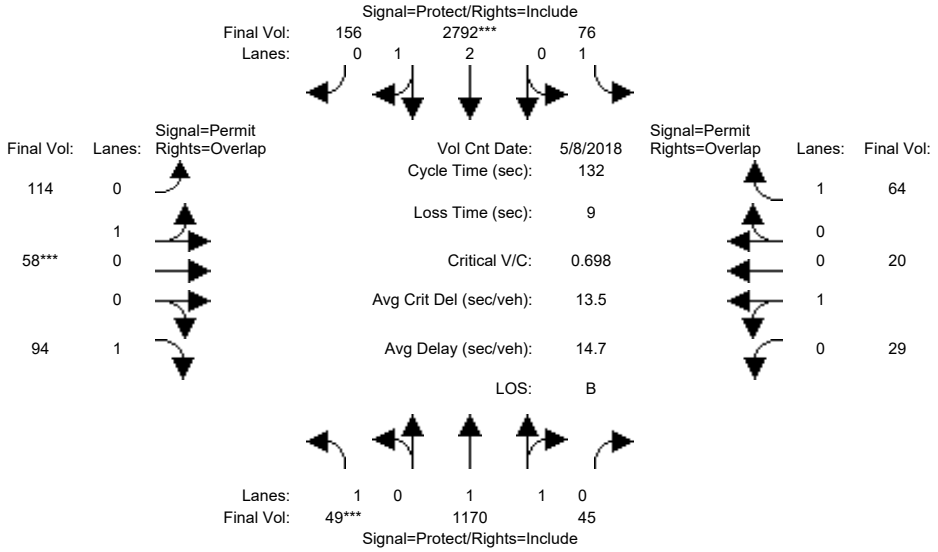



| Street Name: | Fair Oaks Ave | | | | | | Ahwanee Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 69 | 1777 | 15 | 40 | 920 | 266 | 230 | 28 | 108 | 41 | 67 | 234 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 69 | 1777 | 15 | 40 | 920 | 266 | 230 | 28 | 108 | 41 | 67 | 234 |
| Added Vol: | 0 | 7 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 69 | 1784 | 15 | 40 | 960 | 266 | 230 | 28 | 108 | 41 | 67 | 234 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 69 | 1784 | 15 | 40 | 960 | 266 | 230 | 28 | 108 | 41 | 67 | 234 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 69 | 1784 | 15 | 40 | 960 | 266 | 230 | 28 | 108 | 41 | 67 | 234 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 69 | 1784 | 15 | 40 | 960 | 266 | 230 | 28 | 108 | 41 | 67 | 234 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.92 | 0.99 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes: | 1.00 | 1.98 | 0.02 | 1.00 | 2.33 | 0.67 | 0.89 | 0.11 | 1.00 | 0.38 | 0.62 | 1.00 |
| Final Sat.: | 1750 | 3669 | 31 | 1750 | 4383 | 1215 | 1605 | 195 | 1750 | 683 | 1117 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.49 | 0.49 | 0.02 | 0.22 | 0.22 | 0.14 | 0.14 | 0.06 | 0.06 | 0.06 | 0.13 |
| Crit Moves: | | **** | | **** | | | | **** | | | | |
| Green Time: | 18.8 | 89.6 | 89.6 | 7.0 | 77.8 | 77.8 | 26.4 | 26.4 | 45.2 | 26.4 | 26.4 | 33.4 |
| Volume/Cap: | 0.28 | 0.72 | 0.72 | 0.43 | 0.37 | 0.37 | 0.72 | 0.72 | 0.18 | 0.30 | 0.30 | 0.53 |
| Uniform Del: | 50.5 | 13.3 | 13.3 | 60.6 | 14.3 | 14.3 | 49.3 | 49.3 | 30.4 | 44.9 | 44.9 | 42.5 |
| IncremntDel: | 0.6 | 1.0 | 1.0 | 3.2 | 0.1 | 0.1 | 6.8 | 6.8 | 0.1 | 0.5 | 0.5 | 1.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 51.1 | 14.3 | 14.3 | 63.8 | 14.3 | 14.3 | 56.0 | 56.0 | 30.5 | 45.4 | 45.4 | 43.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 51.1 | 14.3 | 14.3 | 63.8 | 14.3 | 14.3 | 56.0 | 56.0 | 30.5 | 45.4 | 45.4 | 43.7 |
| LOS by Move: | D- | B | B | E | B | B | E+ | E+ | C | D | D | D |
| HCM2kAvgQ: | 3 | 23 | 23 | 2 | 9 | 9 | 11 | 11 | 3 | 4 | 4 | 9 |

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

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

Intersection #91: Fair Oaks Ave & Ahwanee Ave

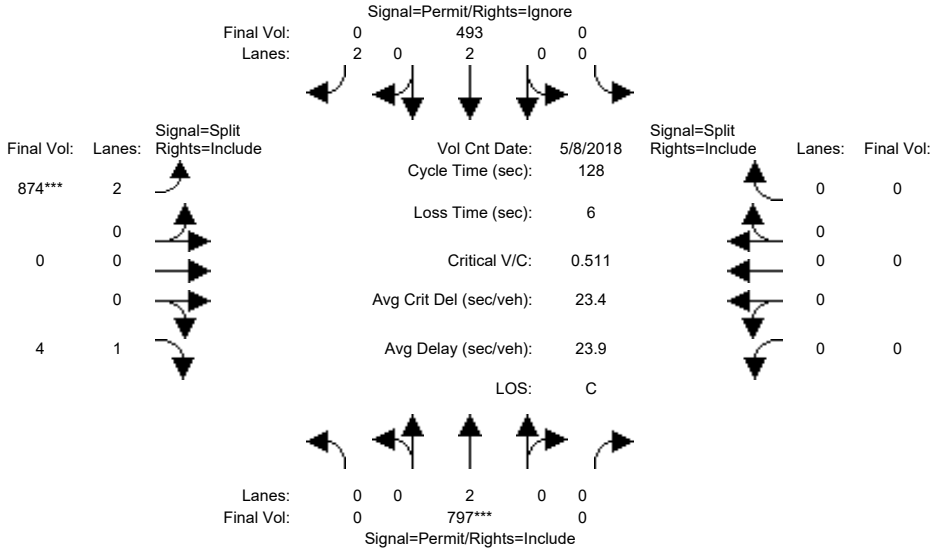



| Street Name: | Fair Oaks Ave | | | | | | Ahwanee Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 49 | 1123 | 45 | 76 | 2787 | 156 | 114 | 58 | 94 | 29 | 20 | 64 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 49 | 1123 | 45 | 76 | 2787 | 156 | 114 | 58 | 94 | 29 | 20 | 64 |
| Added Vol: | 0 | 47 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 49 | 1170 | 45 | 76 | 2792 | 156 | 114 | 58 | 94 | 29 | 20 | 64 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 49 | 1170 | 45 | 76 | 2792 | 156 | 114 | 58 | 94 | 29 | 20 | 64 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 49 | 1170 | 45 | 76 | 2792 | 156 | 114 | 58 | 94 | 29 | 20 | 64 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 49 | 1170 | 45 | 76 | 2792 | 156 | 114 | 58 | 94 | 29 | 20 | 64 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes: | 1.00 | 1.92 | 0.08 | 1.00 | 2.84 | 0.16 | 0.66 | 0.34 | 1.00 | 0.59 | 0.41 | 1.00 |
| Final Sat.: | 1750 | 3563 | 137 | 1750 | 5303 | 296 | 1193 | 607 | 1750 | 1065 | 735 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.33 | 0.33 | 0.04 | 0.53 | 0.53 | 0.10 | 0.10 | 0.05 | 0.03 | 0.03 | 0.04 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |
| Green Time: | 7.0 | 90.6 | 90.6 | 14.6 | 98.2 | 98.2 | 17.8 | 17.8 | 24.8 | 17.8 | 17.8 | 32.4 |
| Volume/Cap: | 0.53 | 0.48 | 0.48 | 0.39 | 0.71 | 0.71 | 0.71 | 0.71 | 0.29 | 0.20 | 0.20 | 0.15 |
| Uniform Del: | 60.9 | 9.7 | 9.7 | 54.6 | 9.1 | 9.1 | 54.6 | 54.6 | 46.0 | 50.8 | 50.8 | 39.0 |
| IncremntDel: | 5.6 | 0.1 | 0.1 | 1.3 | 0.6 | 0.6 | 9.2 | 9.2 | 0.5 | 0.4 | 0.4 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 66.5 | 9.8 | 9.8 | 55.9 | 9.7 | 9.7 | 63.8 | 63.8 | 46.5 | 51.2 | 51.2 | 39.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 66.5 | 9.8 | 9.8 | 55.9 | 9.7 | 9.7 | 63.8 | 63.8 | 46.5 | 51.2 | 51.2 | 39.1 |
| LOS by Move: | E | A | A | E+ | A | A | E | E | D | D- | D- | D |
| HCM2kAvgQ: | 2 | 11 | 11 | 3 | 22 | 22 | 8 | 8 | 4 | 2 | 2 | 2 |

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

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

Intersection #92: Fair Oaks Ave & Wolfe Rd

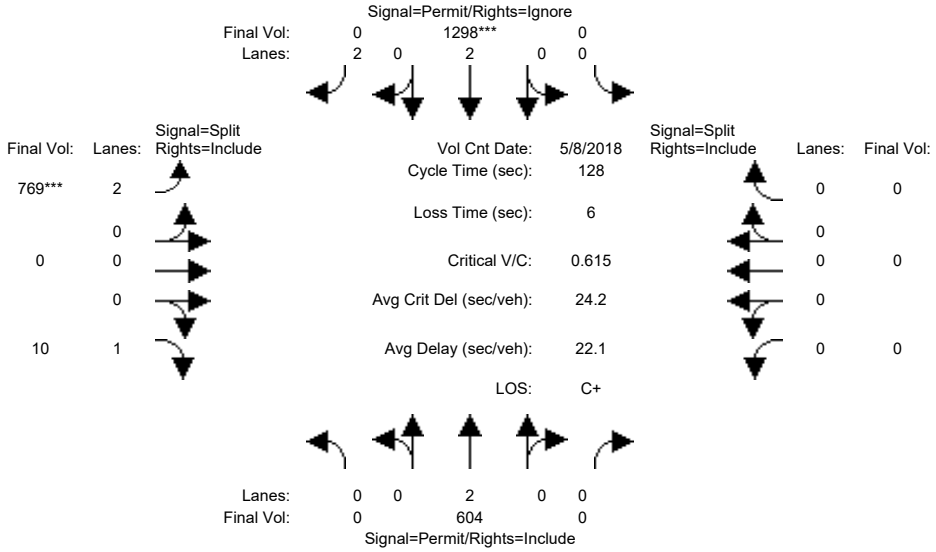



| Street Name: | Fair Oaks Ave | | | | | | Wolfe Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 10 | 10 | 0 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 787 | 0 | 0 | 453 | 746 | 874 | 0 | 4 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 787 | 0 | 0 | 453 | 746 | 874 | 0 | 4 | 0 | 0 | 0 |
| Added Vol: | 0 | 10 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 797 | 0 | 0 | 493 | 746 | 874 | 0 | 4 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 797 | 0 | 0 | 493 | 0 | 874 | 0 | 4 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 797 | 0 | 0 | 493 | 0 | 874 | 0 | 4 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 797 | 0 | 0 | 493 | 0 | 874 | 0 | 4 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3800 | 0 | 0 | 3800 | 3150 | 3150 | 0 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.21 | 0.00 | 0.00 | 0.13 | 0.00 | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | | | | **** | | | | | |
| Green Time: | 0.0 | 52.5 | 0.0 | 0.0 | 52.5 | 0.0 | 69.5 | 0.0 | 69.5 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.51 | 0.00 | 0.00 | 0.32 | 0.00 | 0.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 28.2 | 0.0 | 0.0 | 25.6 | 0.0 | 18.5 | 0.0 | 13.4 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 28.4 | 0.0 | 0.0 | 25.7 | 0.0 | 18.8 | 0.0 | 13.4 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 28.4 | 0.0 | 0.0 | 25.7 | 0.0 | 18.8 | 0.0 | 13.4 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | C | A | A | C | A | B- | A | B | A | A | A |
| HCM2kAvgQ: | 0 | 11 | 0 | 0 | 6 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |

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

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

Intersection #92: Fair Oaks Ave & Wolfe Rd

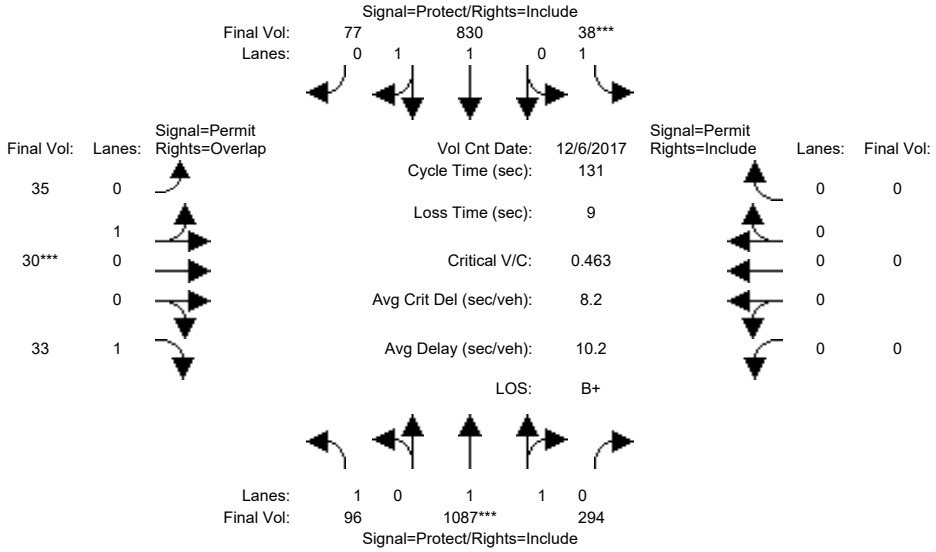



| Street Name: | Fair Oaks Ave | | | | | | Wolfe Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 0 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 539 | 0 | 0 | 1293 | 1272 | 769 | 0 | 10 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 539 | 0 | 0 | 1293 | 1272 | 769 | 0 | 10 | 0 | 0 | 0 |
| Added Vol: | 0 | 65 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 604 | 0 | 0 | 1298 | 1272 | 769 | 0 | 10 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 604 | 0 | 0 | 1298 | 0 | 769 | 0 | 10 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 604 | 0 | 0 | 1298 | 0 | 769 | 0 | 10 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 604 | 0 | 0 | 1298 | 0 | 769 | 0 | 10 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3800 | 0 | 0 | 3800 | 3150 | 3150 | 0 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.16 | 0.00 | 0.00 | 0.34 | 0.00 | 0.24 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | | | | **** | | **** | | | | | |
| Green Time: | 0.0 | 71.1 | 0.0 | 0.0 | 71.1 | 0.0 | 50.9 | 0.0 | 50.9 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.29 | 0.00 | 0.00 | 0.61 | 0.00 | 0.61 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 15.0 | 0.0 | 0.0 | 19.2 | 0.0 | 30.8 | 0.0 | 23.4 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.1 | 0.0 | 0.0 | 0.5 | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 15.1 | 0.0 | 0.0 | 19.7 | 0.0 | 31.7 | 0.0 | 23.4 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 15.1 | 0.0 | 0.0 | 19.7 | 0.0 | 31.7 | 0.0 | 23.4 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | B | A | A | B- | A | C | A | C | A | A | A |
| HCM2kAvgQ: | 0 | 6 | 0 | 0 | 16 | 0 | 15 | 0 | 0 | 0 | 0 | 0 |

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

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

Intersection #95: Fair Oaks Ave & California Ave

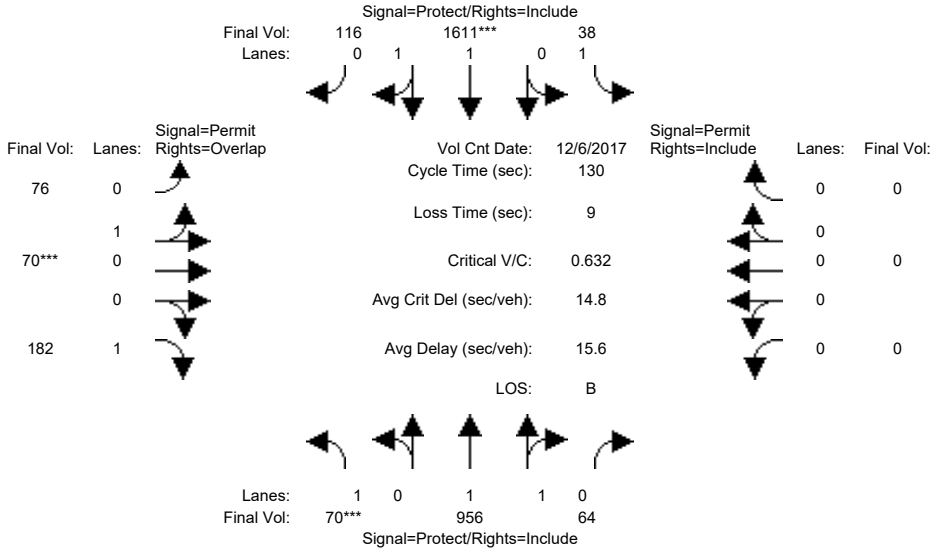



| Street Name: | Fair Oaks Ave | | | | | | California Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 96 | 1082 | 294 | 38 | 830 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 96 | 1082 | 294 | 38 | 830 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Added Vol: | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 96 | 1087 | 294 | 38 | 830 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 96 | 1087 | 294 | 38 | 830 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 96 | 1087 | 294 | 38 | 830 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 96 | 1087 | 294 | 38 | 830 | 77 | 35 | 30 | 33 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.56 | 0.44 | 1.00 | 1.83 | 0.17 | 0.54 | 0.46 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1750 | 2912 | 788 | 1750 | 3386 | 314 | 969 | 831 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.37 | 0.37 | 0.02 | 0.25 | 0.25 | 0.04 | 0.04 | 0.02 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | | **** | | | | |
| Green Time: | 20.5 | 105 | 104.9 | 7.0 | 91.4 | 91.4 | 10.1 | 10.1 | 30.6 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.35 | 0.47 | 0.47 | 0.41 | 0.35 | 0.35 | 0.47 | 0.47 | 0.08 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 49.4 | 4.2 | 4.2 | 60.0 | 7.9 | 7.9 | 57.8 | 57.8 | 39.2 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.8 | 0.1 | 0.1 | 2.9 | 0.1 | 0.1 | 2.5 | 2.5 | 0.1 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 50.1 | 4.3 | 4.3 | 62.9 | 8.0 | 8.0 | 60.3 | 60.3 | 39.3 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 50.1 | 4.3 | 4.3 | 62.9 | 8.0 | 8.0 | 60.3 | 60.3 | 39.3 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | D | A | A | E | A | A | E | E | D | A | A | A |
| HCM2kAvgQ: | 4 | 9 | 9 | 2 | 7 | 7 | 3 | 3 | 1 | 0 | 0 | 0 |

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

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

Intersection #95: Fair Oaks Ave & California Ave

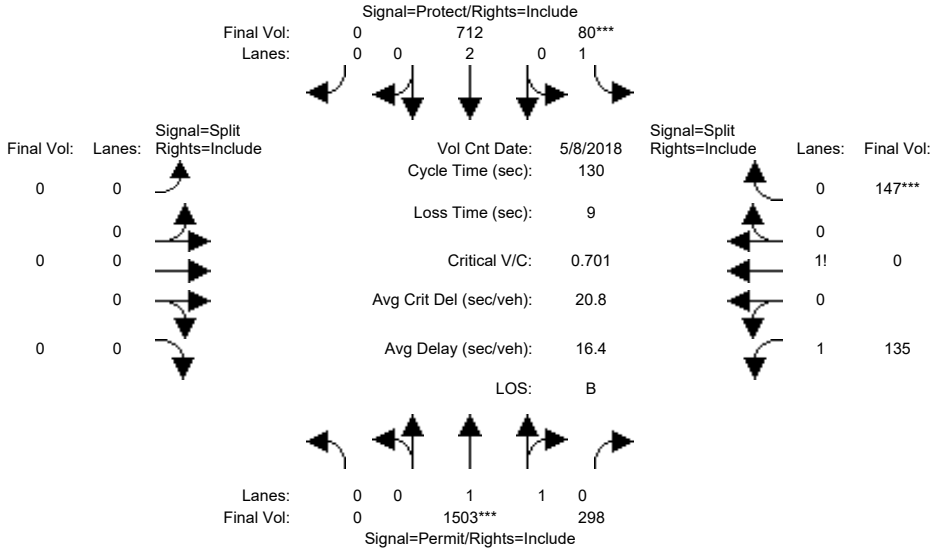



| Street Name: | Fair Oaks Ave | | | | | | California Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 70 | 925 | 64 | 38 | 1611 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 70 | 925 | 64 | 38 | 1611 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Added Vol: | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 70 | 956 | 64 | 38 | 1611 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 70 | 956 | 64 | 38 | 1611 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 70 | 956 | 64 | 38 | 1611 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 70 | 956 | 64 | 38 | 1611 | 116 | 76 | 70 | 182 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.87 | 0.13 | 1.00 | 1.86 | 0.14 | 0.52 | 0.48 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1750 | 3468 | 232 | 1750 | 3451 | 249 | 937 | 863 | 1750 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.28 | 0.28 | 0.02 | 0.47 | 0.47 | 0.08 | 0.08 | 0.10 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |
| Green Time: | 8.2 | 87.3 | 87.3 | 17.0 | 96.1 | 96.1 | 16.7 | 16.7 | 24.9 | 0.0 | 0.0 | 0.0 |
| Volume/Cap: | 0.63 | 0.41 | 0.41 | 0.17 | 0.63 | 0.63 | 0.63 | 0.63 | 0.54 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 59.4 | 9.7 | 9.7 | 50.2 | 8.3 | 8.3 | 53.7 | 53.7 | 47.4 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 11.2 | 0.1 | 0.1 | 0.3 | 0.5 | 0.5 | 5.6 | 5.6 | 1.8 | 0.0 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 70.6 | 9.8 | 9.8 | 50.5 | 8.8 | 8.8 | 59.3 | 59.3 | 49.2 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 70.6 | 9.8 | 9.8 | 50.5 | 8.8 | 8.8 | 59.3 | 59.3 | 49.2 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | E | A | A | D | A | A | E+ | E+ | D | A | A | A |
| HCM2kAvgQ: | 3 | 9 | 9 | 1 | 16 | 16 | 6 | 6 | 7 | 0 | 0 | 0 |

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

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

Intersection #96: Fair Oaks Ave & Kifer Rd

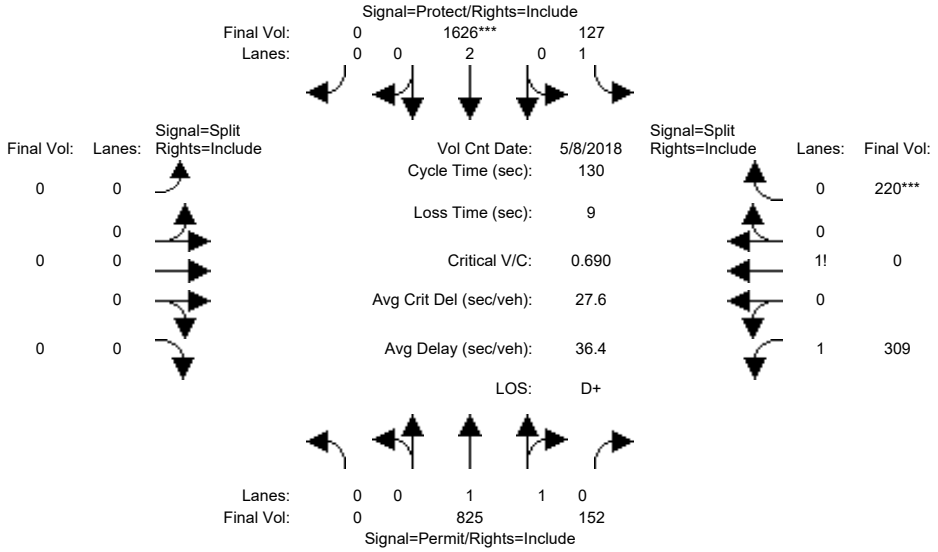



| Street Name: | Fair Oaks Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 10 | 10 | 7 | 10 | 0 | 0 | 0 | 0 | 10 | 0 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:15 AM - 9:15 AM | | | | | | | | | | | | |
| Base Vol: | 0 | 1503 | 239 | 80 | 712 | 0 | 0 | 0 | 0 | 124 | 0 | 142 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1503 | 239 | 80 | 712 | 0 | 0 | 0 | 0 | 124 | 0 | 142 |
| Added Vol: | 0 | 0 | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 5 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 1503 | 298 | 80 | 712 | 0 | 0 | 0 | 0 | 135 | 0 | 147 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1503 | 298 | 80 | 712 | 0 | 0 | 0 | 0 | 135 | 0 | 147 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1503 | 298 | 80 | 712 | 0 | 0 | 0 | 0 | 135 | 0 | 147 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 1503 | 298 | 80 | 712 | 0 | 0 | 0 | 0 | 135 | 0 | 147 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.95 |
| Lanes: | 0.00 | 1.66 | 0.34 | 1.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.32 | 0.00 | 0.68 |
| Final Sat.: | 0 | 3087 | 612 | 1750 | 3800 | 0 | 0 | 0 | 0 | 2311 | 0 | 1223 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.49 | 0.49 | 0.05 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.00 | 0.12 |
| Crit Moves: | | **** | | **** | | | | | | | | **** |
| Green Time: | 0.0 | 90.2 | 90.2 | 8.5 | 98.7 | 0.0 | 0.0 | 0.0 | 0.0 | 22.3 | 0.0 | 22.3 |
| Volume/Cap: | 0.00 | 0.70 | 0.70 | 0.70 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.34 | 0.00 | 0.70 |
| Uniform Del: | 0.0 | 11.8 | 11.8 | 59.5 | 4.6 | 0.0 | 0.0 | 0.0 | 0.0 | 47.4 | 0.0 | 50.7 |
| IncremntDel: | 0.0 | 0.9 | 0.9 | 17.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 5.5 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 12.7 | 12.7 | 77.3 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 47.6 | 0.0 | 56.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 12.7 | 12.7 | 77.3 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 47.6 | 0.0 | 56.2 |
| LOS by Move: | A | B | B | E- | A | A | A | A | A | D | A | E+ |
| HCM2kAvgQ: | 0 | 21 | 21 | 4 | 4 | 0 | 0 | 0 | 0 | 4 | 0 | 8 |

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

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

Intersection #96: Fair Oaks Ave & Kifer Rd

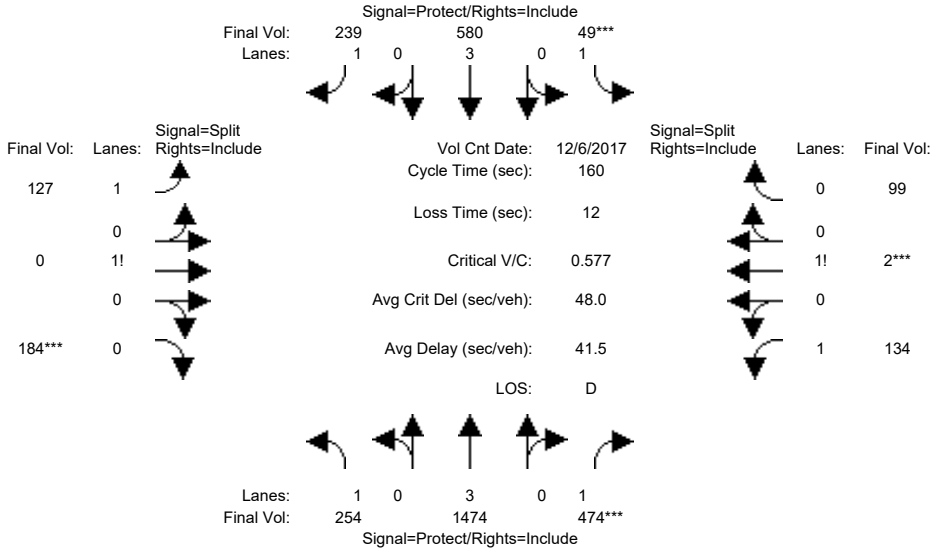



| Street Name: | Fair Oaks Ave | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 10 | 10 | 7 | 10 | 0 | 0 | 0 | 0 | 10 | 0 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 5:15 PM - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 825 | 145 | 127 | 1626 | 0 | 0 | 0 | 0 | 240 | 0 | 189 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 825 | 145 | 127 | 1626 | 0 | 0 | 0 | 0 | 240 | 0 | 189 |
| Added Vol: | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 69 | 0 | 31 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 825 | 152 | 127 | 1626 | 0 | 0 | 0 | 0 | 309 | 0 | 220 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 825 | 152 | 127 | 1626 | 0 | 0 | 0 | 0 | 309 | 0 | 220 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 825 | 152 | 127 | 1626 | 0 | 0 | 0 | 0 | 309 | 0 | 220 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 825 | 152 | 127 | 1626 | 0 | 0 | 0 | 0 | 309 | 0 | 220 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 0.00 | 1.68 | 0.32 | 1.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.41 | 0.00 | 0.59 |
| Final Sat.: | 0 | 3124 | 576 | 1750 | 3800 | 0 | 0 | 0 | 0 | 2472 | 0 | 1028 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.26 | 0.26 | 0.07 | 0.43 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 | 0.00 | 0.21 |
| Crit Moves: | | | | | **** | | | | | | | **** |
| Green Time: | 0.0 | 35.3 | 35.3 | 57.1 | 92.4 | 0.0 | 0.0 | 0.0 | 0.0 | 28.6 | 0.0 | 28.6 |
| Volume/Cap: | 0.00 | 0.97 | 0.97 | 0.17 | 0.60 | 0.00 | 0.00 | 0.00 | 0.00 | 0.57 | 0.00 | 0.97 |
| Uniform Del: | 0.0 | 46.9 | 46.9 | 22.0 | 9.5 | 0.0 | 0.0 | 0.0 | 0.0 | 45.2 | 0.0 | 50.3 |
| IncremntDel: | 0.0 | 22.1 | 22.1 | 0.1 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 31.8 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 69.0 | 69.0 | 22.1 | 9.9 | 0.0 | 0.0 | 0.0 | 0.0 | 46.0 | 0.0 | 82.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 69.0 | 69.0 | 22.1 | 9.9 | 0.0 | 0.0 | 0.0 | 0.0 | 46.0 | 0.0 | 82.1 |
| LOS by Move: | A | E | E | C+ | A | A | A | A | A | D | A | F |
| HCM2kAvgQ: | 0 | 23 | 23 | 3 | 16 | 0 | 0 | 0 | 0 | 8 | 0 | 18 |

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

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

Intersection #97: Wolfe Rd & Central Expwy Ramps

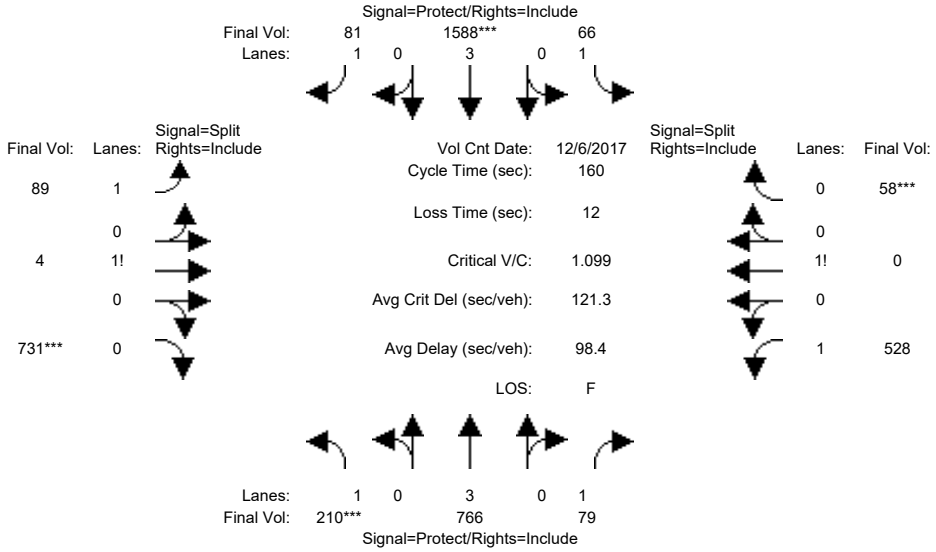



| Street Name: | Wolfe Rd | | | | | | Central Expwy Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 249 | 1464 | 474 | 49 | 540 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 249 | 1464 | 474 | 49 | 540 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| Added Vol: | 5 | 10 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 254 | 1474 | 474 | 49 | 580 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 254 | 1474 | 474 | 49 | 580 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 254 | 1474 | 474 | 49 | 580 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 254 | 1474 | 474 | 49 | 580 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.95 | 0.92 | 0.92 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.26 | 0.00 | 0.74 | 1.40 | 0.01 | 0.59 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 2208 | 0 | 1328 | 2448 | 21 | 1031 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.15 | 0.26 | 0.27 | 0.03 | 0.10 | 0.14 | 0.06 | 0.00 | 0.14 | 0.05 | 0.10 | 0.10 |
| Crit Moves: | | | **** | **** | | | | | **** | | **** | |
| Green Time: | 42.7 | 75.2 | 75.2 | 7.8 | 40.2 | 40.2 | 38.4 | 0.0 | 38.4 | 26.6 | 26.6 | 26.6 |
| Volume/Cap: | 0.54 | 0.55 | 0.58 | 0.58 | 0.40 | 0.54 | 0.24 | 0.00 | 0.58 | 0.33 | 0.58 | 0.58 |
| Uniform Del: | 50.3 | 30.3 | 30.9 | 74.5 | 49.9 | 51.9 | 49.0 | 0.0 | 53.6 | 58.8 | 61.5 | 61.5 |
| IncremntDel: | 1.3 | 0.2 | 1.0 | 9.4 | 0.2 | 1.4 | 0.1 | 0.0 | 1.5 | 0.3 | 2.0 | 2.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 51.6 | 30.6 | 31.9 | 83.9 | 50.1 | 53.3 | 49.1 | 0.0 | 55.2 | 59.1 | 63.5 | 63.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 51.6 | 30.6 | 31.9 | 83.9 | 50.1 | 53.3 | 49.1 | 0.0 | 55.2 | 59.1 | 63.5 | 63.5 |
| LOS by Move: | D- | C | C | F | D | D- | D | A | E+ | E+ | E | E |
| HCM2kAvgQ: | 11 | 16 | 17 | 3 | 8 | 11 | 4 | 0 | 12 | 5 | 9 | 9 |

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

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

Intersection #97: Wolfe Rd & Central Expwy Ramps

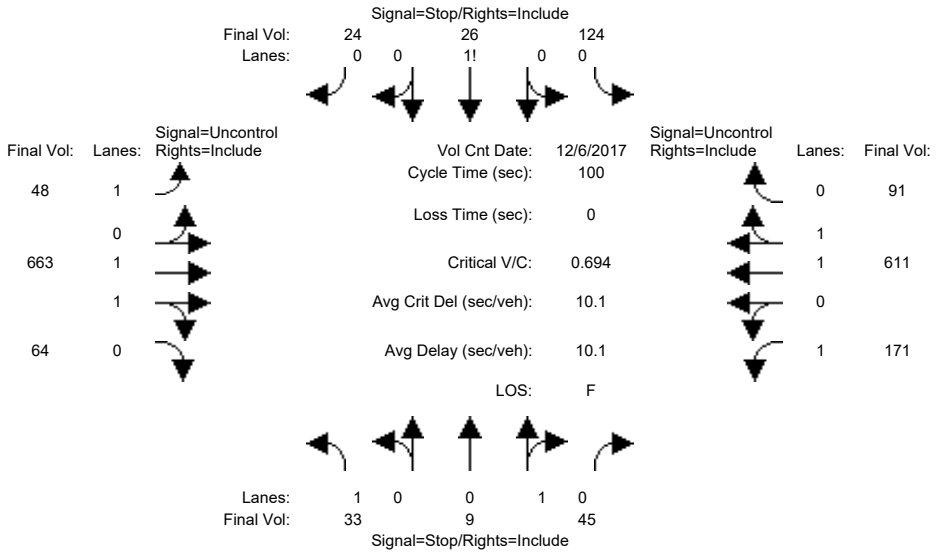



| Street Name: | Wolfe Rd | | | | | | Central Expwy Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 179 | 701 | 79 | 66 | 1583 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 179 | 701 | 79 | 66 | 1583 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| Added Vol: | 31 | 65 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 210 | 766 | 79 | 66 | 1588 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 210 | 766 | 79 | 66 | 1588 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 210 | 766 | 79 | 66 | 1588 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 210 | 766 | 79 | 66 | 1588 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.06 | 0.01 | 0.93 | 1.82 | 0.00 | 0.18 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 1853 | 9 | 1685 | 3185 | 0 | 315 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.13 | 0.05 | 0.04 | 0.28 | 0.05 | 0.05 | 0.43 | 0.43 | 0.17 | 0.00 | 0.18 |
| Crit Moves: | **** | | | | **** | | | | **** | | | **** |
| Green Time: | 17.5 | 43.8 | 43.8 | 14.3 | 40.6 | 40.6 | 63.2 | 63.2 | 63.2 | 26.8 | 0.0 | 26.8 |
| Volume/Cap: | 1.10 | 0.49 | 0.16 | 0.42 | 1.10 | 0.18 | 0.12 | 1.10 | 1.10 | 0.99 | 0.00 | 1.10 |
| Uniform Del: | 71.3 | 48.8 | 44.2 | 69.0 | 59.7 | 46.7 | 30.8 | 48.4 | 48.4 | 66.5 | 0.0 | 66.6 |
| IncremntDel: | 94.0 | 0.2 | 0.2 | 1.9 | 55.5 | 0.2 | 0.0 | 63.2 | 63.2 | 34.3 | 0.0 | 68.7 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 165.3 | 49.0 | 44.4 | 70.8 | 115 | 46.9 | 30.8 | 112 | 111.6 | 100.8 | 0.0 | 135.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 165.3 | 49.0 | 44.4 | 70.8 | 115 | 46.9 | 30.8 | 112 | 111.6 | 100.8 | 0.0 | 135.3 |
| LOS by Move: | F | D | D | E | F | D | C | F | F | F | A | F |
| HCM2kAvgQ: | 15 | 10 | 3 | 3 | 33 | 3 | 3 | 52 | 52 | 20 | 0 | 24 |

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

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background + Project AM (Intuitive)

Intersection #98: Commercial St & Kifer Rd




| Street Name: | Commercial St | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| **Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM** | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 96 | 0 | 24 | 48 | 595 | 0 | 0 | 607 | 90 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 96 | 0 | 24 | 48 | 595 | 0 | 0 | 607 | 90 |
| Added Vol: | 33 | 9 | 46 | 28 | 26 | 0 | 0 | 68 | 64 | 171 | 4 | 1 |
| Volume Adju: | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 33 | 9 | 45 | 124 | 26 | 24 | 48 | 663 | 64 | 171 | 611 | 91 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 33 | 9 | 45 | 124 | 26 | 24 | 48 | 663 | 64 | 171 | 611 | 91 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 33 | 9 | 45 | 124 | 26 | 24 | 48 | 663 | 64 | 171 | 611 | 91 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 1452 | 1835 | 364 | 1431 | 1822 | 351 | 702 | xxxx | xxxxx | 727 | xxxx | xxxxx |
| Potent Cap.: | 93 | 77 | 639 | 97 | 78 | 651 | 905 | xxxx | xxxxx | 886 | xxxx | xxxxx |
| Move Cap.: | 49 | 59 | 639 | 65 | 60 | 651 | 905 | xxxx | xxxxx | 886 | xxxx | xxxxx |
| Total Cap: | 193 | 175 | xxxxx | 179 | 160 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.17 | 0.05 | 0.07 | 0.69 | 0.16 | 0.04 | 0.05 | xxxx | xxxx | 0.19 | xxxx | xxxx |
| **Level Of Service Module:** | | | | | | | | | | | | |
| 2Way95thQ: | 0.6 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.2 | xxxx | xxxxx | 0.7 | xxxx | xxxxx |
| Control Del: | 27.4 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 9.2 | xxxx | xxxxx | 10.0 | xxxx | xxxxx |
| LOS by Move: | D | * | * | * | * | * | A | * | * | B | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | 443 | xxxx | 195 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | 0.4 | xxxxx | 6.9 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | 14.3 | xxxxx | 89.0 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | B | * | F | * | * | * | * | * | * | * |
| ApproachDel: | | 19.2 | | | 89.0 | | | xxxxx | | | xxxxx | |
| ApproachLOS: | | C | | | F | | | * | | | * | |

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

Peak Hour Delay Signal Warrant Report

**********

Intersection #98 Commercial St & Kifer Rd

**********

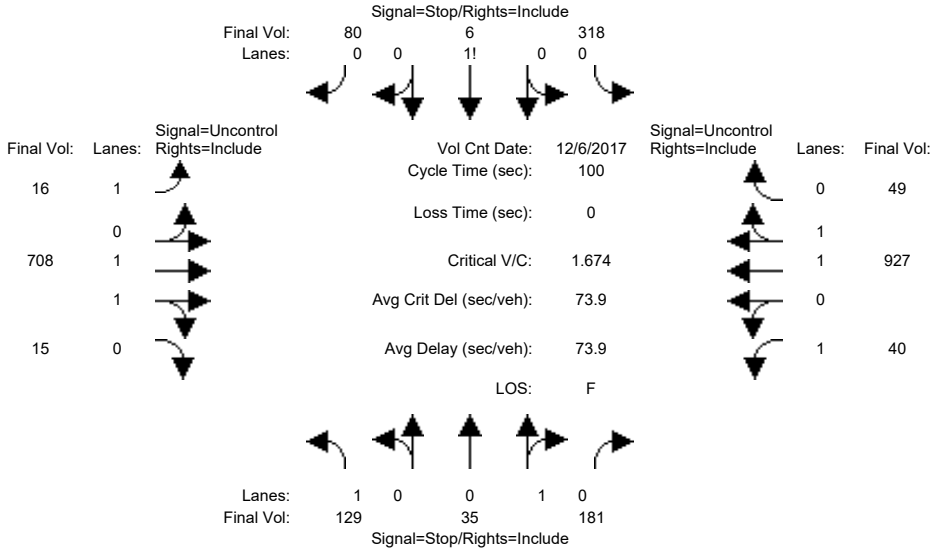
```
Future Volume Alternative: Peak Hour Warrant Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        1  0  0  1  0    0  0  1! 0  0    1  0  1  1  0    1  0  1  1  0
Initial Vol:   33    9    45   124   26    24    48  663    64   171  611    91
ApproachDel:      19.2             89.0           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.5]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=87]
   FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1909]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=4.3]
   SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=174]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1909]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #98 Commercial St & Kifer Rd
********************************************************************************
Future Volume Alternative: Peak Hour Warrant Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        1  0  0  1  0    0  0  1! 0  0    1  0  1  1  0    1  0  1  1  0
Initial Vol:   33    9    45   124   26    24    48  663    64   171  611    91
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1648
Minor Approach Volume:           174
Minor Approach Volume Threshold: 113
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background + Project PM (Intuitive)

Intersection #98: Commercial St & Kifer Rd




| Street Name: | Commercial St | | | | | | Kifer Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: >> Count Date: 6 Dec 2017 << 4:45 PM - 5:45 PM | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 318 | 0 | 80 | 16 | 708 | 0 | 0 | 823 | 21 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 318 | 0 | 80 | 16 | 708 | 0 | 0 | 823 | 21 |
| Added Vol: | 129 | 35 | 181 | 0 | 6 | 0 | 0 | 0 | 15 | 40 | 104 | 28 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 129 | 35 | 181 | 318 | 6 | 80 | 16 | 708 | 15 | 40 | 927 | 49 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 129 | 35 | 181 | 318 | 6 | 80 | 16 | 708 | 15 | 40 | 927 | 49 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 129 | 35 | 181 | 318 | 6 | 80 | 16 | 708 | 15 | 40 | 927 | 49 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 1294 | 1804 | 362 | 1435 | 1787 | 488 | 976 | xxxx | xxxxx | 723 | xxxx | xxxxx |
| Potent Cap.: | 122 | 80 | 641 | 96 | 82 | 531 | 715 | xxxx | xxxxx | 889 | xxxx | xxxxx |
| Move Cap.: | 93 | 75 | 641 | 42 | 77 | 531 | 715 | xxxx | xxxxx | 889 | xxxx | xxxxx |
| Total Cap: | 265 | 227 | xxxxx | 190 | 232 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.49 | 0.15 | 0.28 | 1.67 | 0.03 | 0.15 | 0.02 | xxxx | xxxx | 0.05 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 2.5 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.1 | xxxx | xxxxx | 0.1 | xxxx | xxxxx |
| Control Del: | 30.9 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 10.2 | xxxx | xxxxx | 9.2 | xxxx | xxxxx |
| LOS by Move: | D | * | * | * | * | * | B | * | * | A | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | 495 | xxxx | 218 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | 2.2 | xxxxx | 28.5 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | 17.8 | xxxxx | 437 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | C | * | F | * | * | * | * | * | * | * |
| ApproachDel: | | 22.7 | | | 437.2 | | | xxxxxx | | | xxxxxx | |
| ApproachLOS: | | C | | | F | | | * | | | * | |

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

Peak Hour Delay Signal Warrant Report

**********

Intersection #98 Commercial St & Kifer Rd

**********

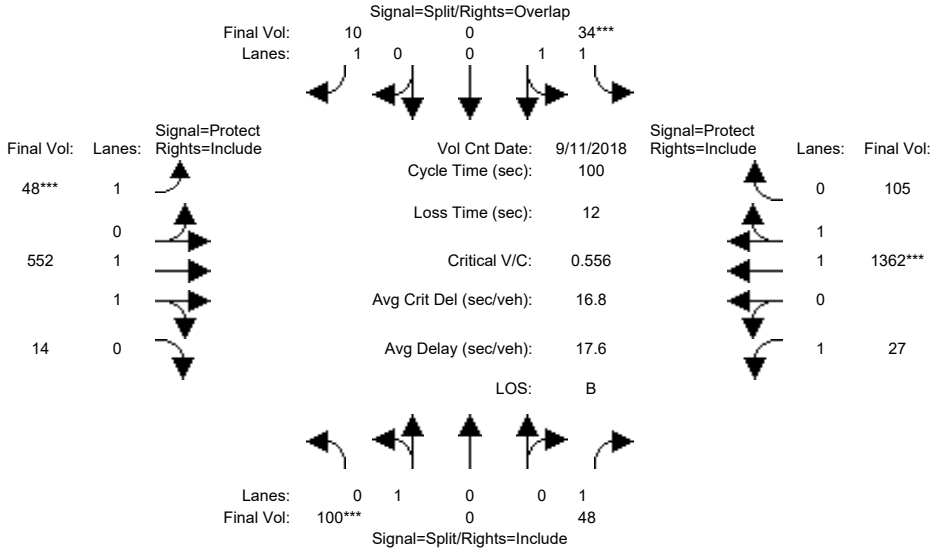
```
Future Volume Alternative: Peak Hour Warrant Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        1  0  0  1  0    0  0  1! 0  0    1  0  1  1  0    1  0  1  1  0
Initial Vol:  129   35   181   318    6    80    16  708    15    40  927    49
ApproachDel:      22.7            437.2           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=2.2]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=345]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2504]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=49.1]
   SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=404]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2504]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #98 Commercial St & Kifer Rd
********************************************************************************
Future Volume Alternative: Peak Hour Warrant Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        1  0  0  1  0    0  0  1! 0  0    1  0  1  1  0    1  0  1  1  0
Initial Vol:  129   35   181   318    6    80    16  708    15    40  927    49
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1755
Minor Approach Volume:           404
Minor Approach Volume Threshold: 91 [less than minimum of 100]
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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

Intersection #99: Semiconductor Dr & Kifer Rd

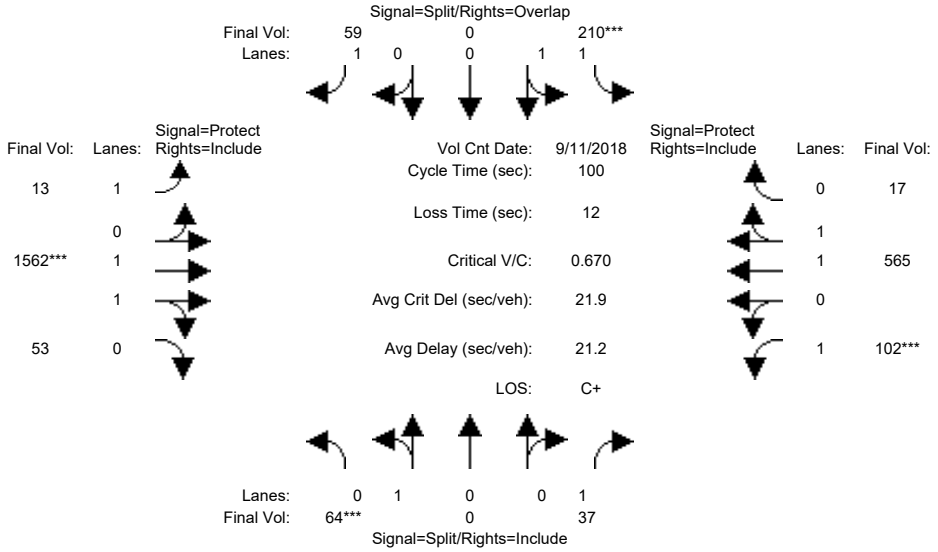



| Street Name: | Semiconductor Drive | | | | | | Kifer Road | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 11 Sep 2018 << 8:45AM-9:45AM | | | | | | | | | | | | |
| Base Vol: | 100 | 0 | 48 | 34 | 0 | 10 | 48 | 501 | 14 | 27 | 1009 | 105 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 100 | 0 | 48 | 34 | 0 | 10 | 48 | 501 | 14 | 27 | 1009 | 105 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 51 | 0 | 0 | 353 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 100 | 0 | 48 | 34 | 0 | 10 | 48 | 552 | 14 | 27 | 1362 | 105 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 100 | 0 | 48 | 34 | 0 | 10 | 48 | 552 | 14 | 27 | 1362 | 105 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 100 | 0 | 48 | 34 | 0 | 10 | 48 | 552 | 14 | 27 | 1362 | 105 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 100 | 0 | 48 | 34 | 0 | 10 | 48 | 552 | 14 | 27 | 1362 | 105 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.95 | 0.95 | 0.92 | 0.93 | 1.00 | 0.92 | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 1.00 | 0.00 | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 1.95 | 0.05 | 1.00 | 1.85 | 0.15 |
| Final Sat.: | 1800 | 0 | 1750 | 3550 | 0 | 1750 | 1750 | 3608 | 92 | 1750 | 3435 | 265 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.00 | 0.03 | 0.01 | 0.00 | 0.01 | 0.03 | 0.15 | 0.15 | 0.02 | 0.40 | 0.40 |
| Crit Moves: | **** | | | **** | | | **** | | | | **** | |
| Green Time: | 10.0 | 0.0 | 10.0 | 10.0 | 0.0 | 17.0 | 7.0 | 46.7 | 46.7 | 21.3 | 61.0 | 61.0 |
| Volume/Cap: | 0.56 | 0.00 | 0.27 | 0.10 | 0.00 | 0.03 | 0.39 | 0.33 | 0.33 | 0.07 | 0.65 | 0.65 |
| Uniform Del: | 42.9 | 0.0 | 41.6 | 40.9 | 0.0 | 34.6 | 44.5 | 16.8 | 16.8 | 31.4 | 12.6 | 12.6 |
| IncremntDel: | 3.8 | 0.0 | 0.9 | 0.1 | 0.0 | 0.0 | 2.1 | 0.1 | 0.1 | 0.1 | 0.7 | 0.7 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 46.7 | 0.0 | 42.5 | 41.0 | 0.0 | 34.7 | 46.5 | 16.9 | 16.9 | 31.5 | 13.3 | 13.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 46.7 | 0.0 | 42.5 | 41.0 | 0.0 | 34.7 | 46.5 | 16.9 | 16.9 | 31.5 | 13.3 | 13.3 |
| LOS by Move: | D | A | D | D | A | C- | D | B | B | C | B | B |
| HCM2kAvgQ: | 4 | 0 | 2 | 1 | 0 | 0 | 2 | 5 | 5 | 1 | 14 | 14 |

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

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

Intersection #99: Semiconductor Dr & Kifer Rd

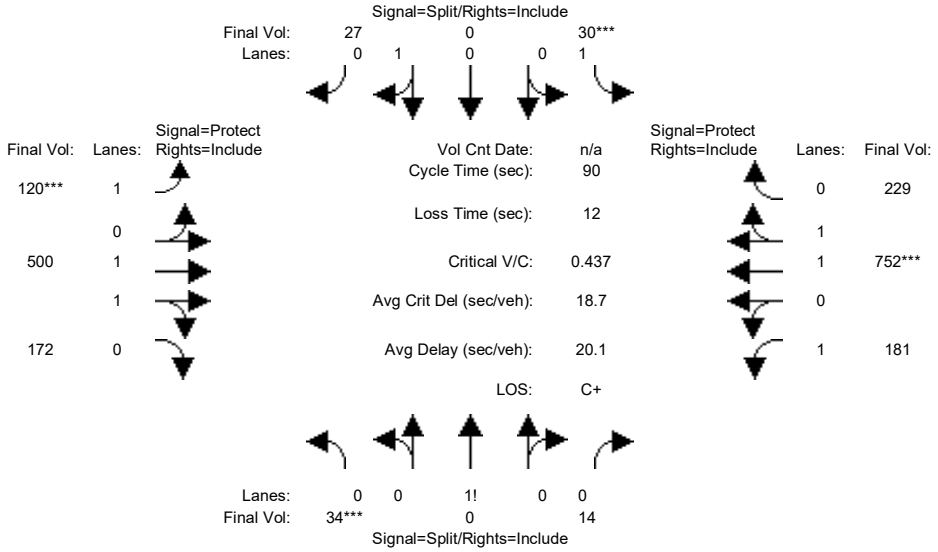



| Street Name: | Semiconductor Drive | | | | | | Kifer Road | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 11 Sep 2018 << 4:45PM-5:45PM | | | | | | | | | | | | |
| Base Vol: | 64 | 0 | 37 | 210 | 0 | 59 | 13 | 1235 | 53 | 102 | 524 | 17 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 64 | 0 | 37 | 210 | 0 | 59 | 13 | 1235 | 53 | 102 | 524 | 17 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 327 | 0 | 0 | 41 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 64 | 0 | 37 | 210 | 0 | 59 | 13 | 1562 | 53 | 102 | 565 | 17 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 64 | 0 | 37 | 210 | 0 | 59 | 13 | 1562 | 53 | 102 | 565 | 17 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 64 | 0 | 37 | 210 | 0 | 59 | 13 | 1562 | 53 | 102 | 565 | 17 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 64 | 0 | 37 | 210 | 0 | 59 | 13 | 1562 | 53 | 102 | 565 | 17 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.95 | 0.95 | 0.92 | 0.93 | 1.00 | 0.92 | 0.92 | 0.97 | 0.95 | 0.92 | 0.97 | 0.95 |
| Lanes: | 1.00 | 0.00 | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 1.93 | 0.07 | 1.00 | 1.94 | 0.06 |
| Final Sat.: | 1800 | 0 | 1750 | 3550 | 0 | 1750 | 1750 | 3578 | 121 | 1750 | 3592 | 108 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.00 | 0.02 | 0.06 | 0.00 | 0.03 | 0.01 | 0.44 | 0.44 | 0.06 | 0.16 | 0.16 |
| Crit Moves: | **** | | | **** | | | | **** | | **** | | |
| Green Time: | 10.0 | 0.0 | 10.0 | 10.0 | 0.0 | 30.9 | 20.9 | 60.0 | 60.0 | 8.0 | 47.1 | 47.1 |
| Volume/Cap: | 0.36 | 0.00 | 0.21 | 0.59 | 0.00 | 0.11 | 0.04 | 0.73 | 0.73 | 0.73 | 0.33 | 0.33 |
| Uniform Del: | 42.0 | 0.0 | 41.4 | 43.0 | 0.0 | 24.7 | 31.5 | 14.2 | 14.2 | 44.9 | 16.6 | 16.6 |
| IncremntDel: | 1.2 | 0.0 | 0.6 | 2.7 | 0.0 | 0.1 | 0.0 | 1.2 | 1.2 | 17.4 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 43.2 | 0.0 | 42.0 | 45.7 | 0.0 | 24.8 | 31.5 | 15.4 | 15.4 | 62.3 | 16.7 | 16.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 43.2 | 0.0 | 42.0 | 45.7 | 0.0 | 24.8 | 31.5 | 15.4 | 15.4 | 62.3 | 16.7 | 16.7 |
| LOS by Move: | D | A | D | D | A | C | C | B | B | E | B | B |
| HCM2kAvgQ: | 2 | 0 | 1 | 4 | 0 | 1 | 0 | 18 | 18 | 3 | 5 | 5 |

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

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

Intersection #100: 1020 Kifer Rd Dwy & Kifer Rd

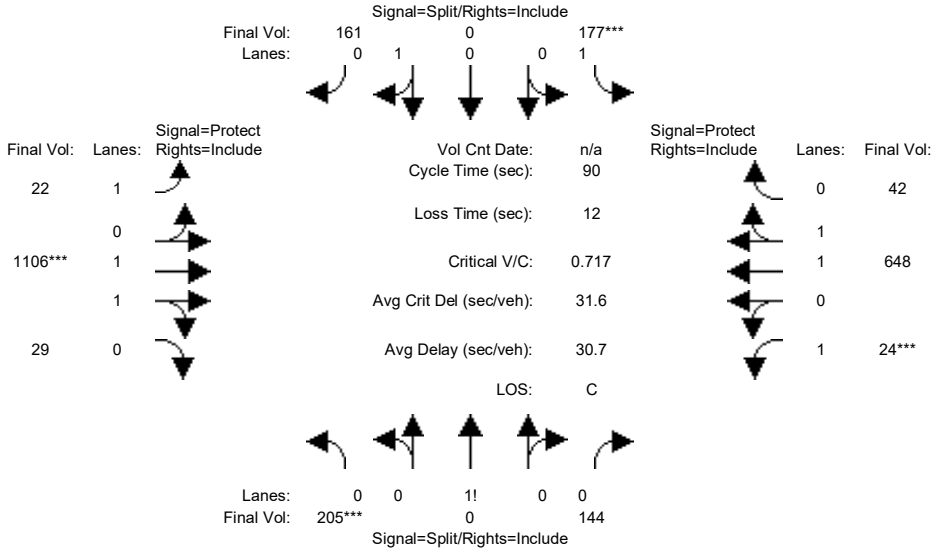



| Street Name: | 1020 Kifer Road Driveway | | | | | | Kifer Road | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 34 | 0 | 14 | 0 | 0 | 0 | 0 | 478 | 172 | 181 | 628 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 34 | 0 | 14 | 0 | 0 | 0 | 0 | 478 | 172 | 181 | 628 | 0 |
| Added Vol: | 0 | 0 | 0 | 30 | 0 | 27 | 120 | 22 | 0 | 0 | 124 | 229 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 34 | 0 | 14 | 30 | 0 | 27 | 120 | 500 | 172 | 181 | 752 | 229 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 34 | 0 | 14 | 30 | 0 | 27 | 120 | 500 | 172 | 181 | 752 | 229 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 34 | 0 | 14 | 30 | 0 | 27 | 120 | 500 | 172 | 181 | 752 | 229 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 34 | 0 | 14 | 30 | 0 | 27 | 120 | 500 | 172 | 181 | 752 | 229 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.71 | 0.00 | 0.29 | 1.00 | 0.00 | 1.00 | 1.00 | 1.47 | 0.53 | 1.00 | 1.52 | 0.48 |
| Final Sat.: | 1240 | 0 | 510 | 1750 | 0 | 1800 | 1750 | 2752 | 947 | 1750 | 2836 | 864 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.00 | 0.03 | 0.02 | 0.00 | 0.02 | 0.07 | 0.18 | 0.18 | 0.10 | 0.27 | 0.27 |
| Crit Moves: | **** | | | **** | | | **** | | | | **** | |
| Green Time: | 10.0 | 0.0 | 10.0 | 10.0 | 0.0 | 10.0 | 11.9 | 37.0 | 37.0 | 21.0 | 46.1 | 46.1 |
| Volume/Cap: | 0.25 | 0.00 | 0.25 | 0.15 | 0.00 | 0.14 | 0.52 | 0.44 | 0.44 | 0.44 | 0.52 | 0.52 |
| Uniform Del: | 36.6 | 0.0 | 36.6 | 36.2 | 0.0 | 36.1 | 36.4 | 19.1 | 19.1 | 29.5 | 14.6 | 14.6 |
| IncremntDel: | 0.7 | 0.0 | 0.7 | 0.4 | 0.0 | 0.3 | 2.1 | 0.2 | 0.2 | 0.8 | 0.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 37.2 | 0.0 | 37.2 | 36.5 | 0.0 | 36.4 | 38.4 | 19.3 | 19.3 | 30.2 | 14.8 | 14.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 37.2 | 0.0 | 37.2 | 36.5 | 0.0 | 36.4 | 38.4 | 19.3 | 19.3 | 30.2 | 14.8 | 14.8 |
| LOS by Move: | D+ | A | D+ | D+ | A | D+ | D+ | B- | B- | C | B | B |
| HCM2kAvgQ: | 2 | 0 | 2 | 1 | 0 | 1 | 3 | 6 | 6 | 4 | 9 | 9 |

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

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

Intersection #100: 1020 Kifer Rd Dwy & Kifer Rd

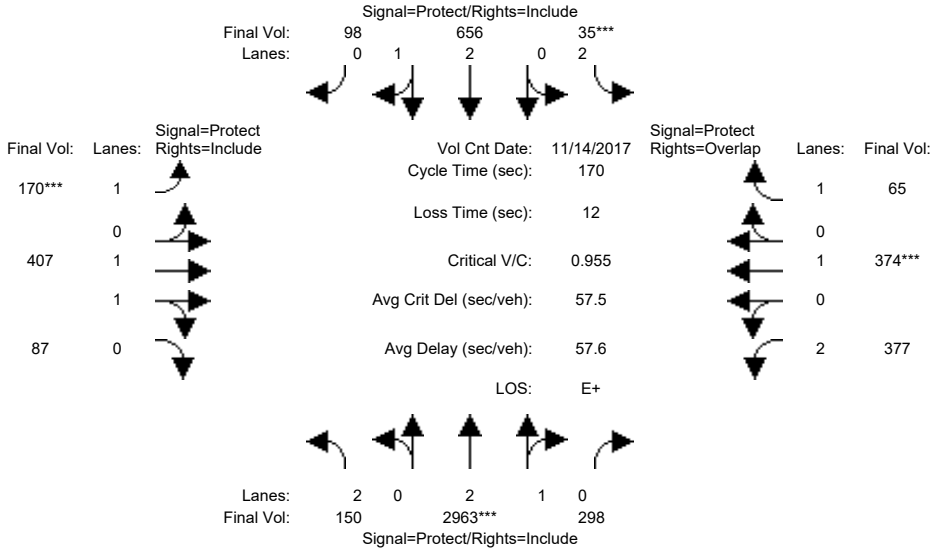



| Street Name: | 1020 Kifer Road Driveway | | | | | | Kifer Road | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 205 | 0 | 144 | 0 | 0 | 0 | 0 | 956 | 29 | 24 | 649 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 205 | 0 | 144 | 0 | 0 | 0 | 0 | 956 | 29 | 24 | 649 | 0 |
| Added Vol: | 0 | 0 | 0 | 177 | 0 | 161 | 22 | 150 | 0 | 0 | -1 | 42 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 205 | 0 | 144 | 177 | 0 | 161 | 22 | 1106 | 29 | 24 | 648 | 42 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 205 | 0 | 144 | 177 | 0 | 161 | 22 | 1106 | 29 | 24 | 648 | 42 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 205 | 0 | 144 | 177 | 0 | 161 | 22 | 1106 | 29 | 24 | 648 | 42 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 205 | 0 | 144 | 177 | 0 | 161 | 22 | 1106 | 29 | 24 | 648 | 42 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.95 | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.59 | 0.00 | 0.41 | 1.00 | 0.00 | 1.00 | 1.00 | 1.95 | 0.05 | 1.00 | 1.87 | 0.13 |
| Final Sat.: | 1028 | 0 | 722 | 1750 | 0 | 1800 | 1750 | 3605 | 95 | 1750 | 3475 | 225 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.20 | 0.00 | 0.20 | 0.10 | 0.00 | 0.09 | 0.01 | 0.31 | 0.31 | 0.01 | 0.19 | 0.19 |
| Crit Moves: | **** | | | **** | | | | **** | | **** | | |
| Green Time: | 23.3 | 0.0 | 23.3 | 11.8 | 0.0 | 11.8 | 12.6 | 35.9 | 35.9 | 7.0 | 30.2 | 30.2 |
| Volume/Cap: | 0.77 | 0.00 | 0.77 | 0.77 | 0.00 | 0.68 | 0.09 | 0.77 | 0.77 | 0.18 | 0.55 | 0.55 |
| Uniform Del: | 30.9 | 0.0 | 30.9 | 37.8 | 0.0 | 37.3 | 33.7 | 23.5 | 23.5 | 38.8 | 24.4 | 24.4 |
| IncremntDel: | 7.9 | 0.0 | 7.9 | 14.6 | 0.0 | 7.8 | 0.2 | 2.5 | 2.5 | 0.6 | 0.6 | 0.6 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 38.7 | 0.0 | 38.7 | 52.4 | 0.0 | 45.1 | 33.9 | 26.0 | 26.0 | 39.4 | 24.9 | 24.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 38.7 | 0.0 | 38.7 | 52.4 | 0.0 | 45.1 | 33.9 | 26.0 | 26.0 | 39.4 | 24.9 | 24.9 |
| LOS by Move: | D+ | A | D+ | D- | A | D | C- | C | C | D | C | C |
| HCM2kAvgQ: | 12 | 0 | 12 | 7 | 0 | 6 | 1 | 13 | 13 | 1 | 8 | 8 |

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

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

Intersection #1402: Sunnyvale-Saratoga Rd / Remington Dr

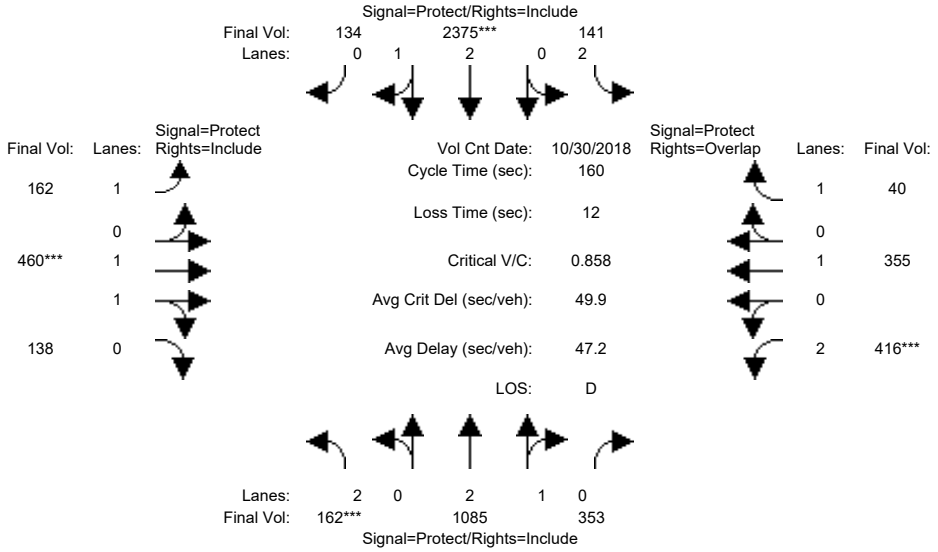



| Street Name: | Sunnyvale-Saratoga Road | | | | | | Remington Drive | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 14 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 150 | 2963 | 276 | 35 | 656 | 98 | 170 | 407 | 87 | 373 | 374 | 65 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 150 | 2963 | 276 | 35 | 656 | 98 | 170 | 407 | 87 | 373 | 374 | 65 |
| Added Vol: | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 150 | 2963 | 298 | 35 | 656 | 98 | 170 | 407 | 87 | 377 | 374 | 65 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 150 | 2963 | 298 | 35 | 656 | 98 | 170 | 407 | 87 | 377 | 374 | 65 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 150 | 2963 | 298 | 35 | 656 | 98 | 170 | 407 | 87 | 377 | 374 | 65 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 150 | 2963 | 298 | 35 | 656 | 98 | 170 | 407 | 87 | 377 | 374 | 65 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.72 | 0.28 | 2.00 | 2.60 | 0.40 | 1.00 | 1.64 | 0.36 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 5088 | 512 | 3150 | 4871 | 728 | 1750 | 3048 | 652 | 3150 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.58 | 0.58 | 0.01 | 0.13 | 0.13 | 0.10 | 0.13 | 0.13 | 0.12 | 0.20 | 0.04 |
| Crit Moves: | | **** | | | **** | | | **** | | | **** | |
| Green Time: | 28.0 | 100 | 100.3 | 7.0 | 79.3 | 79.3 | 16.7 | 26.7 | 26.7 | 23.9 | 33.9 | 40.9 |
| Volume/Cap: | 0.29 | 0.99 | 0.99 | 0.27 | 0.29 | 0.29 | 0.99 | 0.85 | 0.85 | 0.85 | 0.99 | 0.15 |
| Uniform Del: | 62.2 | 34.2 | 34.2 | 79.0 | 28.0 | 28.0 | 76.5 | 69.7 | 69.7 | 71.3 | 67.8 | 50.9 |
| IncremntDel: | 0.3 | 12.7 | 12.7 | 1.1 | 0.1 | 0.1 | 64.4 | 11.4 | 11.4 | 14.4 | 42.5 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 62.5 | 46.8 | 46.8 | 80.1 | 28.0 | 28.0 | 141.0 | 81.1 | 81.1 | 85.7 | 110 | 51.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 62.5 | 46.8 | 46.8 | 80.1 | 28.0 | 28.0 | 141.0 | 81.1 | 81.1 | 85.7 | 110 | 51.1 |
| LOS by Move: | E | D | D | F | C | C | F | F | F | F | F | D- |
| HCM2kAvgQ: | 4 | 63 | 63 | 1 | 8 | 8 | 13 | 15 | 15 | 12 | 21 | 3 |

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

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

Intersection #1402: Sunnyvale-Saratoga Rd / Remington Dr



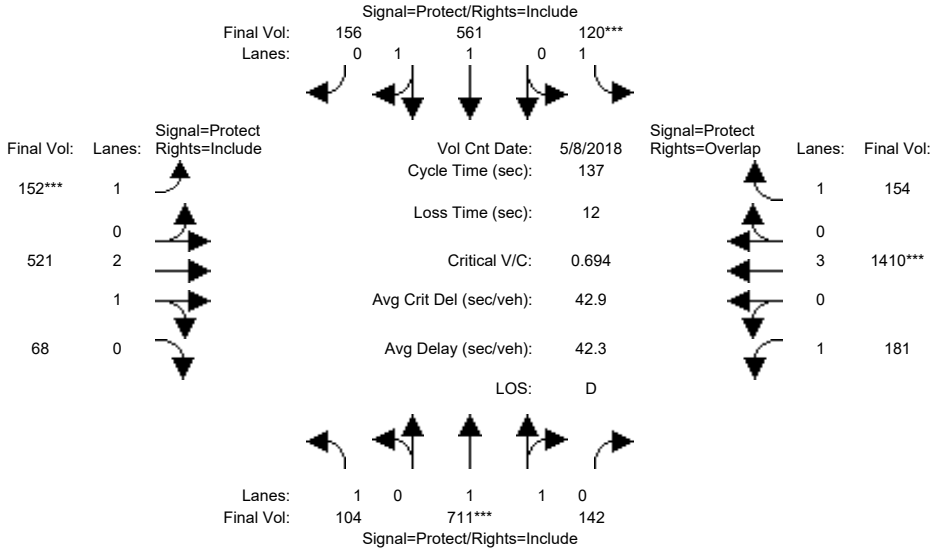

Street Name: Sunnyvale-Saratoga Road Remington Drive

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 30 Oct 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 162 | 1085 | 351 | 141 | 2375 | 134 | 162 | 460 | 138 | 391 | 355 | 40 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 162 | 1085 | 351 | 141 | 2375 | 134 | 162 | 460 | 138 | 391 | 355 | 40 |
| Added Vol: | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 162 | 1085 | 353 | 141 | 2375 | 134 | 162 | 460 | 138 | 416 | 355 | 40 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 162 | 1085 | 353 | 141 | 2375 | 134 | 162 | 460 | 138 | 416 | 355 | 40 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 162 | 1085 | 353 | 141 | 2375 | 134 | 162 | 460 | 138 | 416 | 355 | 40 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 162 | 1085 | 353 | 141 | 2375 | 134 | 162 | 460 | 138 | 416 | 355 | 40 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.24 | 0.76 | 2.00 | 2.83 | 0.17 | 1.00 | 1.53 | 0.47 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 3150 | 4224 | 1374 | 3150 | 5301 | 299 | 1750 | 2846 | 854 | 3150 | 1900 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.26 | 0.26 | 0.04 | 0.45 | 0.45 | 0.09 | 0.16 | 0.16 | 0.13 | 0.19 | 0.02 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 9.6 | 79.4 | 79.4 | 13.8 | 83.6 | 83.6 | 18.2 | 30.2 | 30.2 | 24.6 | 36.6 | 50.5 |
| Volume/Cap: | 0.86 | 0.52 | 0.52 | 0.52 | 0.86 | 0.86 | 0.82 | 0.86 | 0.86 | 0.86 | 0.82 | 0.07 |
| Uniform Del: | 74.5 | 27.3 | 27.3 | 69.9 | 33.0 | 33.0 | 69.3 | 62.8 | 62.8 | 66.0 | 58.5 | 38.4 |
| IncremntDel: | 30.1 | 0.2 | 0.2 | 1.8 | 2.7 | 2.7 | 22.3 | 10.3 | 10.3 | 14.1 | 11.4 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 104.6 | 27.5 | 27.5 | 71.6 | 35.8 | 35.8 | 91.6 | 73.2 | 73.2 | 80.1 | 69.8 | 38.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 104.6 | 27.5 | 27.5 | 71.6 | 35.8 | 35.8 | 91.6 | 73.2 | 73.2 | 80.1 | 69.8 | 38.4 |
| LOS by Move: | F | C | C | E | D+ | D+ | F | E | E | F | E | D+ |
| HCM2kAvgQ: | 5 | 16 | 16 | 4 | 37 | 37 | 10 | 17 | 17 | 13 | 17 | 1 |

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

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

Intersection #1404: El Camino Real (SR 82) / Fair Oaks Ave

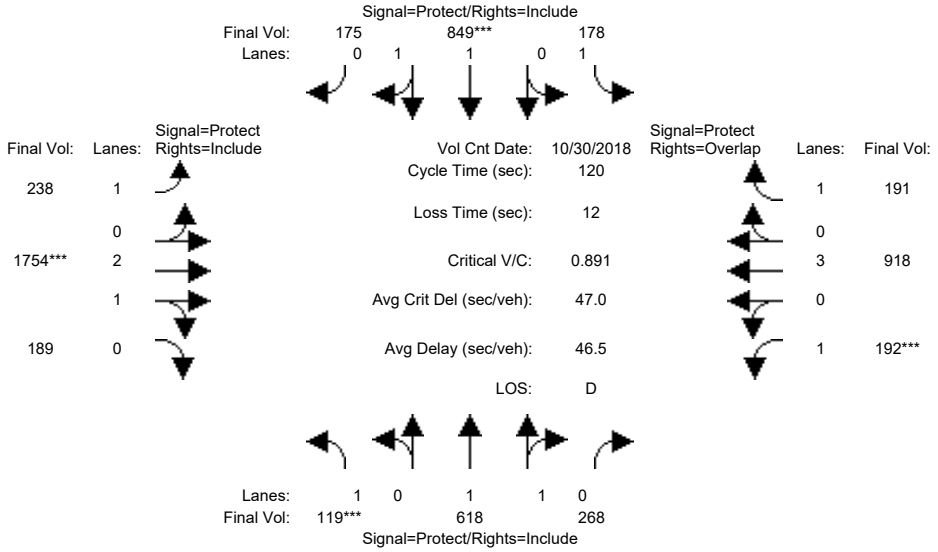



| Street Name: | Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 8 May 2018 << 8:45 AM - 9:45 AM | | | | | | | | | | | | |
| Base Vol: | 104 | 689 | 142 | 120 | 557 | 156 | 152 | 521 | 68 | 181 | 1410 | 154 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 104 | 689 | 142 | 120 | 557 | 156 | 152 | 521 | 68 | 181 | 1410 | 154 |
| Added Vol: | 0 | 22 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 104 | 711 | 142 | 120 | 561 | 156 | 152 | 521 | 68 | 181 | 1410 | 154 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 104 | 711 | 142 | 120 | 561 | 156 | 152 | 521 | 68 | 181 | 1410 | 154 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 104 | 711 | 142 | 120 | 561 | 156 | 152 | 521 | 68 | 181 | 1410 | 154 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 104 | 711 | 142 | 120 | 561 | 156 | 152 | 521 | 68 | 181 | 1410 | 154 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.66 | 0.34 | 1.00 | 1.55 | 0.45 | 1.00 | 2.64 | 0.36 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 3084 | 616 | 1750 | 2894 | 805 | 1750 | 4953 | 646 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.23 | 0.23 | 0.07 | 0.19 | 0.19 | 0.09 | 0.11 | 0.11 | 0.10 | 0.25 | 0.09 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 13.9 | 45.5 | 45.5 | 13.5 | 45.2 | 45.2 | 17.1 | 33.3 | 33.3 | 32.7 | 48.8 | 62.4 |
| Volume/Cap: | 0.59 | 0.69 | 0.69 | 0.69 | 0.59 | 0.59 | 0.69 | 0.43 | 0.43 | 0.43 | 0.69 | 0.19 |
| Uniform Del: | 58.8 | 39.7 | 39.7 | 59.7 | 38.2 | 38.2 | 57.4 | 43.9 | 43.9 | 44.3 | 37.7 | 22.3 |
| IncremntDel: | 5.1 | 1.7 | 1.7 | 11.6 | 0.8 | 0.8 | 9.3 | 0.2 | 0.2 | 0.7 | 1.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 63.9 | 41.5 | 41.5 | 71.3 | 38.9 | 38.9 | 66.7 | 44.1 | 44.1 | 45.0 | 38.8 | 22.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 63.9 | 41.5 | 41.5 | 71.3 | 38.9 | 38.9 | 66.7 | 44.1 | 44.1 | 45.0 | 38.8 | 22.4 |
| LOS by Move: | E | D | D | E | D+ | D+ | E | D | D | D | D+ | C+ |
| HCM2kAvgQ: | 4 | 15 | 15 | 5 | 13 | 13 | 7 | 7 | 7 | 7 | 16 | 4 |

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

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

Intersection #1404: El Camino Real (SR 82) / Fair Oaks Ave

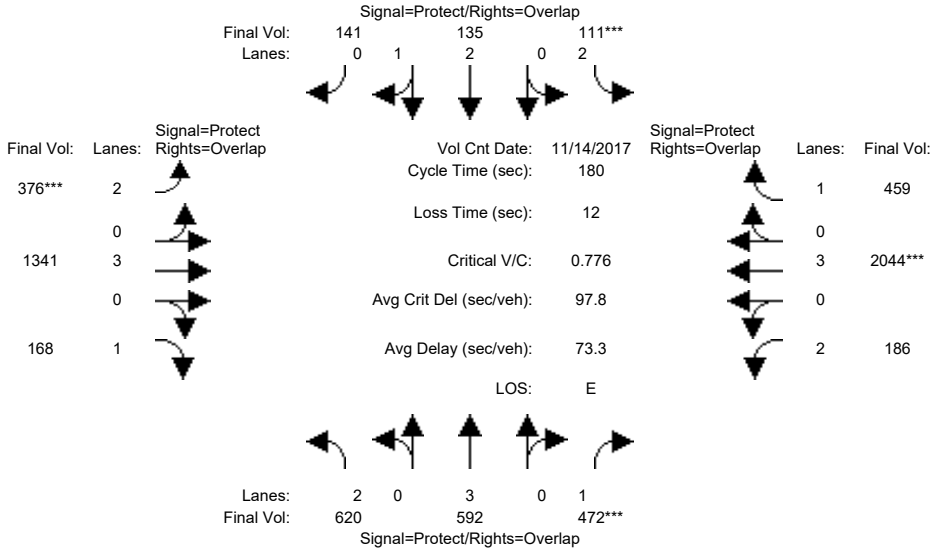



| Street Name: | Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 30 Oct 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 119 | 616 | 268 | 178 | 824 | 175 | 238 | 1754 | 189 | 192 | 918 | 191 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 119 | 616 | 268 | 178 | 824 | 175 | 238 | 1754 | 189 | 192 | 918 | 191 |
| Added Vol: | 0 | 2 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 119 | 618 | 268 | 178 | 849 | 175 | 238 | 1754 | 189 | 192 | 918 | 191 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 119 | 618 | 268 | 178 | 849 | 175 | 238 | 1754 | 189 | 192 | 918 | 191 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 119 | 618 | 268 | 178 | 849 | 175 | 238 | 1754 | 189 | 192 | 918 | 191 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 119 | 618 | 268 | 178 | 849 | 175 | 238 | 1754 | 189 | 192 | 918 | 191 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.38 | 0.62 | 1.00 | 1.65 | 0.35 | 1.00 | 2.70 | 0.30 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 2580 | 1119 | 1750 | 3067 | 632 | 1750 | 5055 | 545 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.24 | 0.24 | 0.10 | 0.28 | 0.28 | 0.14 | 0.35 | 0.35 | 0.11 | 0.16 | 0.11 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 9.2 | 32.6 | 32.6 | 13.8 | 37.3 | 37.3 | 28.2 | 46.8 | 46.8 | 14.8 | 33.4 | 47.2 |
| Volume/Cap: | 0.89 | 0.88 | 0.88 | 0.88 | 0.89 | 0.89 | 0.58 | 0.89 | 0.89 | 0.89 | 0.58 | 0.28 |
| Uniform Del: | 54.9 | 41.8 | 41.8 | 52.3 | 39.4 | 39.4 | 40.7 | 34.2 | 34.2 | 51.8 | 37.3 | 24.8 |
| IncremntDel: | 46.5 | 9.2 | 9.2 | 33.1 | 8.9 | 8.9 | 2.1 | 5.0 | 5.0 | 33.4 | 0.5 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 101.4 | 51.0 | 51.0 | 85.4 | 48.3 | 48.3 | 42.7 | 39.3 | 39.3 | 85.2 | 37.8 | 25.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 101.4 | 51.0 | 51.0 | 85.4 | 48.3 | 48.3 | 42.7 | 39.3 | 39.3 | 85.2 | 37.8 | 25.0 |
| LOS by Move: | F | D- | D- | F | D | D | D | D | D | F | D+ | C |
| HCM2kAvgQ: | 5 | 17 | 17 | 8 | 19 | 19 | 8 | 25 | 25 | 9 | 10 | 5 |

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

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

Intersection #5320: CENTRAL EXPWY/MARY AVE

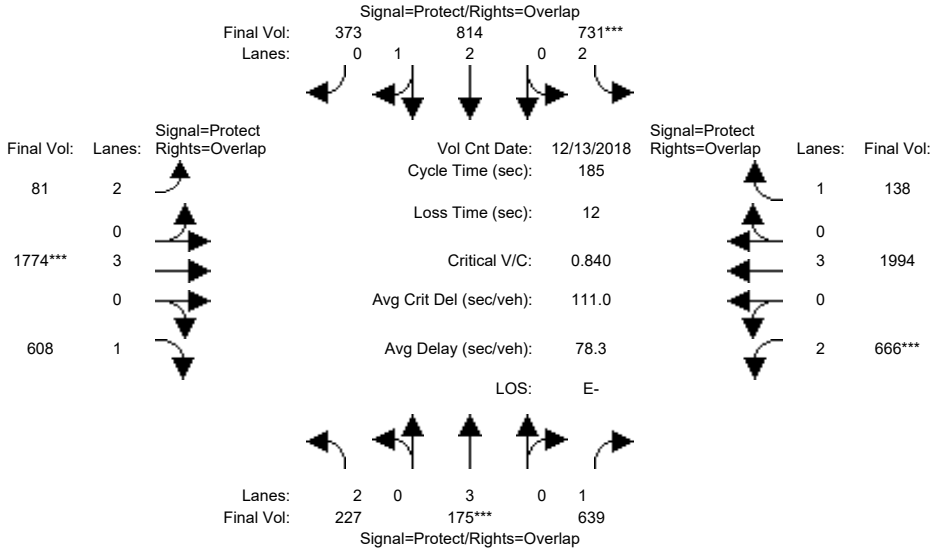



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 6.1 | 6.0 | 6.0 | 6.2 | 5.9 | 5.9 | 6.2 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 14 Nov 2017 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 620 | 592 | 472 | 111 | 135 | 141 | 376 | 1287 | 168 | 186 | 2034 | 459 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 620 | 592 | 472 | 111 | 135 | 141 | 376 | 1287 | 168 | 186 | 2034 | 459 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 0 | 10 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 620 | 592 | 472 | 111 | 135 | 141 | 376 | 1341 | 168 | 186 | 2044 | 459 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 620 | 592 | 472 | 111 | 135 | 141 | 376 | 1341 | 168 | 186 | 2044 | 459 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 620 | 592 | 472 | 111 | 135 | 141 | 376 | 1341 | 168 | 186 | 2044 | 459 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 620 | 592 | 472 | 111 | 135 | 141 | 376 | 1341 | 168 | 186 | 2044 | 459 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.20 | 0.10 | 0.27 | 0.04 | 0.04 | 0.08 | 0.12 | 0.24 | 0.10 | 0.06 | 0.36 | 0.26 |
| Crit Moves: | | | **** | **** | | | **** | | | | **** | |
| Green Time: | 38.9 | 58.0 | 76.7 | 11.8 | 32.1 | 44.9 | 12.8 | 66.8 | 105.7 | 18.7 | 72.8 | 84.6 |
| Volume/Cap: | 0.91 | 0.32 | 0.63 | 0.54 | 0.20 | 0.32 | 1.68 | 0.63 | 0.16 | 0.57 | 0.89 | 0.56 |
| Uniform Del: | 68.9 | 46.1 | 40.6 | 81.4 | 63.0 | 55.1 | 83.6 | 46.5 | 17.0 | 76.8 | 49.8 | 34.3 |
| IncremntDel: | 16.4 | 0.1 | 1.8 | 2.8 | 0.1 | 0.2 | 324.2 | 0.6 | 0.1 | 2.4 | 4.6 | 0.9 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 85.3 | 46.2 | 42.4 | 84.2 | 63.1 | 55.4 | 407.8 | 47.2 | 17.0 | 79.2 | 54.4 | 35.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 85.3 | 46.2 | 42.4 | 84.2 | 63.1 | 55.4 | 407.8 | 47.2 | 17.0 | 79.2 | 54.4 | 35.1 |
| LOS by Move: | F | D | D | F | E | E+ | F | D | B | E- | D- | D+ |
| HCM2kAvgQ: | 22 | 8 | 22 | 4 | 3 | 7 | 25 | 20 | 4 | 7 | 37 | 19 |

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

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

Intersection #5320: CENTRAL EXPWY/MARY AVE

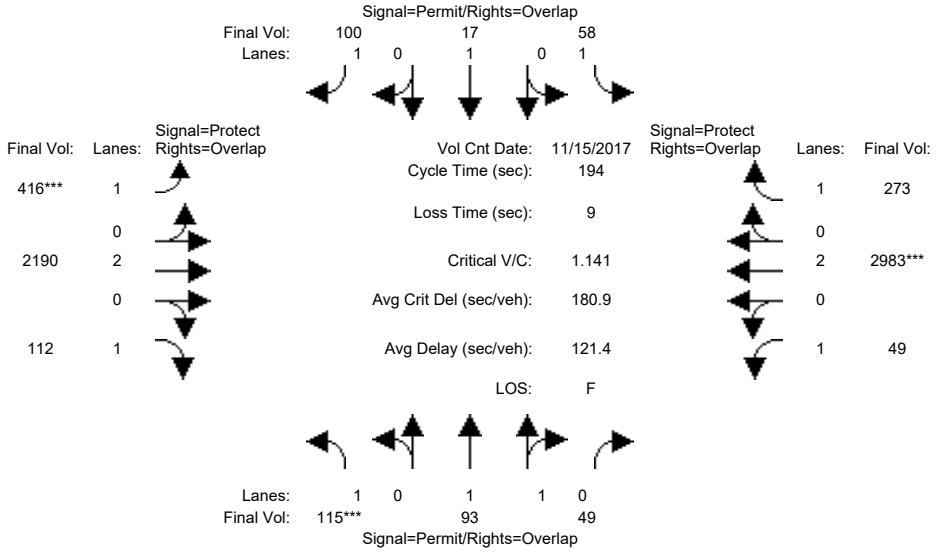



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 16 | 37 | 37 | 29 | 50 | 50 | 9 | 52 | 52 | 43 | 86 | 86 |
| Y+R: | 6.1 | 6.0 | 6.0 | 6.2 | 5.9 | 5.9 | 6.2 | 6.2 | 6.2 | 6.3 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 13 Dec 2018 << 4:45 - 5:45 PM | | | | | | | | | | | | |
| Base Vol: | 227 | 175 | 639 | 731 | 814 | 373 | 81 | 1768 | 608 | 666 | 1932 | 138 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 227 | 175 | 639 | 731 | 814 | 373 | 81 | 1768 | 608 | 666 | 1932 | 138 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 62 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 227 | 175 | 639 | 731 | 814 | 373 | 81 | 1774 | 608 | 666 | 1994 | 138 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 227 | 175 | 639 | 731 | 814 | 373 | 81 | 1774 | 608 | 666 | 1994 | 138 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 227 | 175 | 639 | 731 | 814 | 373 | 81 | 1774 | 608 | 666 | 1994 | 138 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 227 | 175 | 639 | 731 | 814 | 373 | 81 | 1774 | 608 | 666 | 1994 | 138 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 2.02 | 0.98 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 3838 | 1759 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.03 | 0.37 | 0.23 | 0.21 | 0.21 | 0.03 | 0.31 | 0.35 | 0.21 | 0.35 | 0.08 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 18.6 | 37.0 | 80.0 | 39.7 | 58.1 | 67.2 | 9.1 | 53.3 | 71.9 | 43.0 | 87.2 | 126.9 |
| Volume/Cap: | 0.72 | 0.15 | 0.84 | 1.08 | 0.68 | 0.58 | 0.52 | 1.08 | 0.89 | 0.91 | 0.74 | 0.11 |
| Uniform Del: | 80.6 | 61.1 | 46.9 | 72.6 | 55.2 | 47.6 | 85.8 | 65.9 | 53.0 | 69.1 | 39.8 | 9.9 |
| IncremntDel: | 7.6 | 0.1 | 8.6 | 58.5 | 1.1 | 0.4 | 3.2 | 47.5 | 14.3 | 15.4 | 1.1 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.06 | 1.13 | 1.02 | 1.21 | 1.61 |
| Delay/Veh: | 88.3 | 61.1 | 55.6 | 131.1 | 56.3 | 48.0 | 89.0 | 117 | 74.0 | 86.1 | 49.1 | 16.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 88.3 | 61.1 | 55.6 | 131.1 | 56.3 | 48.0 | 89.0 | 117 | 74.0 | 86.1 | 49.1 | 16.0 |
| LOS by Move: | F | E | E+ | F | E+ | D | F | F | E | F | D | B |
| HCM2kAvgQ: | 8 | 3 | 36 | 32 | 20 | 18 | 3 | 42 | 38 | 25 | 33 | 5 |

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

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

Intersection #5325: CENTRAL EXPWY/CORVIN DR-OAKMEAD PKWY

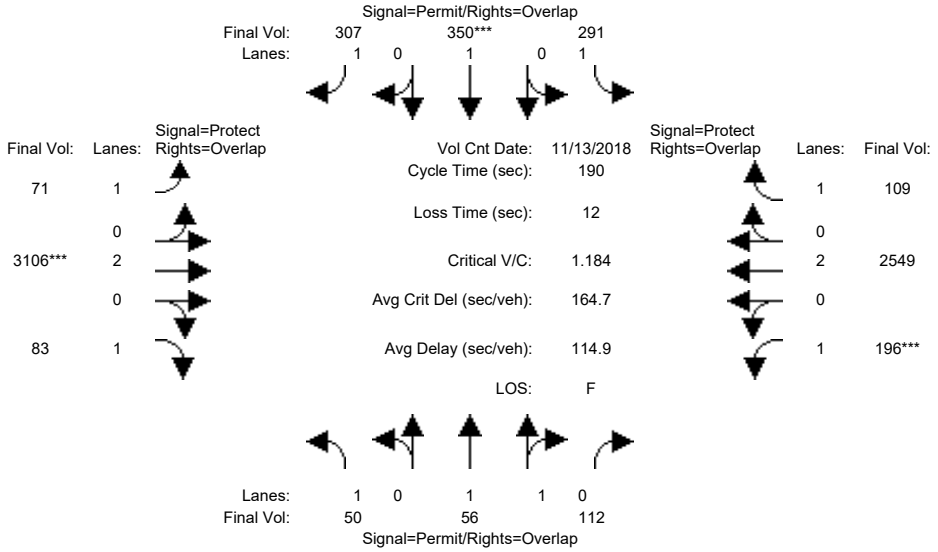



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 23 | 23 | 23 | 23 | 23 | 23 | 34 | 137 | 137 | 14 | 117 | 117 |
| Y+R: | 6.3 | 6.3 | 6.3 | 6.1 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2180 | 112 | 49 | 2929 | 273 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2180 | 112 | 49 | 2929 | 273 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 54 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2190 | 112 | 49 | 2983 | 273 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2190 | 112 | 49 | 2983 | 273 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2190 | 112 | 49 | 2983 | 273 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2190 | 112 | 49 | 2983 | 273 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.29 | 0.71 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 2422 | 1276 | 1750 | 1900 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.04 | 0.04 | 0.03 | 0.01 | 0.06 | 0.24 | 0.58 | 0.06 | 0.03 | 0.79 | 0.16 |
| Crit Moves: | **** | | | | | | **** | | | | **** | |
| Green Time: | 23.7 | 23.7 | 37.9 | 23.9 | 23.9 | 58.4 | 34.5 | 138 | 137.8 | 14.2 | 118 | 117.8 |
| Volume/Cap: | 0.54 | 0.31 | 0.20 | 0.27 | 0.07 | 0.19 | 1.34 | 0.81 | 0.09 | 0.38 | 1.29 | 0.26 |
| Uniform Del: | 80.0 | 77.7 | 65.3 | 77.1 | 75.2 | 50.3 | 79.8 | 19.2 | 8.7 | 85.7 | 38.1 | 17.7 |
| IncremntDel: | 2.7 | 0.4 | 0.1 | 0.7 | 0.1 | 0.2 | 171.9 | 2.0 | 0.0 | 1.9 | 135 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.14 | 2.63 | 2.63 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 82.7 | 78.1 | 65.4 | 77.8 | 75.4 | 50.4 | 263.1 | 52.6 | 22.9 | 87.6 | 173 | 17.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 82.7 | 78.1 | 65.4 | 77.8 | 75.4 | 50.4 | 263.1 | 52.6 | 22.9 | 87.6 | 173 | 17.9 |
| LOS by Move: | F | E- | E | E- | E- | D | F | D- | C+ | F | F | B |
| HCM2kAvgQ: | 7 | 4 | 3 | 3 | 1 | 5 | 42 | 60 | 5 | 3 | 123 | 7 |

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

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

Intersection #5325: CENTRAL EXPWY/CORVIN DR-OAKMEAD PKWY

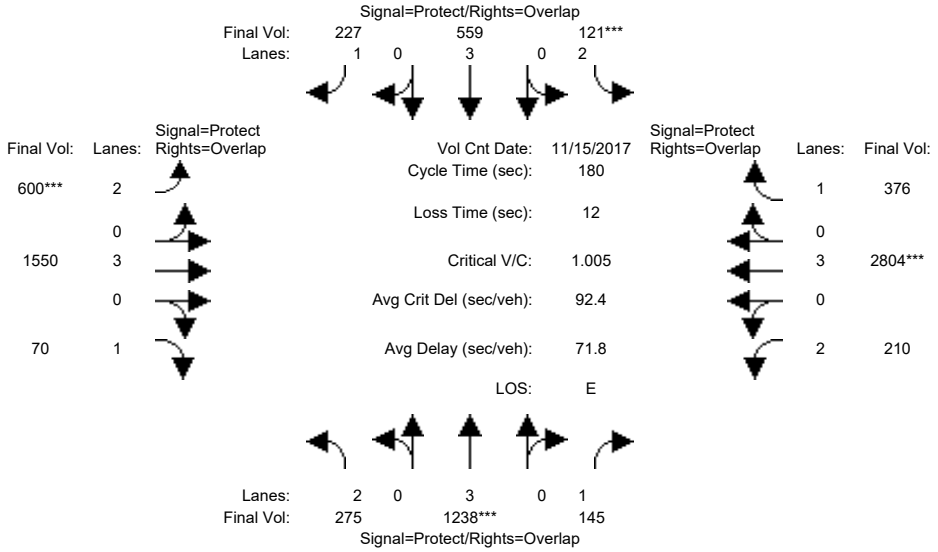



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 39 | 39 | 39 | 39 | 39 | 39 | 13 | 133 | 133 | 18 | 138 | 138 |
| Y+R: | 5.7 | 5.7 | 5.7 | 5.5 | 5.5 | 5.5 | 5.0 | 6.2 | 6.2 | 5.1 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 13 Nov 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3044 | 83 | 196 | 2543 | 109 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3044 | 83 | 196 | 2543 | 109 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 0 | 0 | 6 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3106 | 83 | 196 | 2549 | 109 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3106 | 83 | 196 | 2549 | 109 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3106 | 83 | 196 | 2549 | 109 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3106 | 83 | 196 | 2549 | 109 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 1900 | 1750 | 1750 | 1900 | 1750 | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.03 | 0.06 | 0.17 | 0.18 | 0.18 | 0.04 | 0.82 | 0.05 | 0.11 | 0.67 | 0.06 |
| Crit Moves: | | | | | **** | | | **** | | **** | | |
| Green Time: | 36.7 | 36.7 | 53.6 | 36.7 | 36.7 | 48.9 | 12.2 | 125 | 125.1 | 16.9 | 130 | 129.8 |
| Volume/Cap: | 0.15 | 0.15 | 0.23 | 0.86 | 0.95 | 0.68 | 0.63 | 1.24 | 0.07 | 1.26 | 0.98 | 0.09 |
| Uniform Del: | 67.7 | 67.8 | 55.6 | 78.9 | 80.6 | 67.5 | 92.2 | 34.5 | 12.4 | 92.0 | 30.8 | 10.8 |
| IncremntDel: | 0.2 | 0.1 | 0.2 | 19.6 | 35.0 | 4.2 | 11.0 | 112 | 0.0 | 157.1 | 13.6 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.53 | 1.53 | 1.00 | 1.60 | 1.60 |
| Delay/Veh: | 67.9 | 67.8 | 55.8 | 98.5 | 116 | 71.8 | 103.1 | 165 | 18.9 | 249.1 | 62.9 | 17.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 67.9 | 67.8 | 55.8 | 98.5 | 116 | 71.8 | 103.1 | 165 | 18.9 | 249.1 | 62.9 | 17.3 |
| LOS by Move: | E | E | E+ | F | F | E | F | F | B- | F | E | B |
| HCM2kAvgQ: | 3 | 3 | 5 | 20 | 23 | 18 | 6 | 129 | 3 | 19 | 81 | 4 |

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

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

Intersection #5329: CENTRAL EXPWY/BOWERS AVE

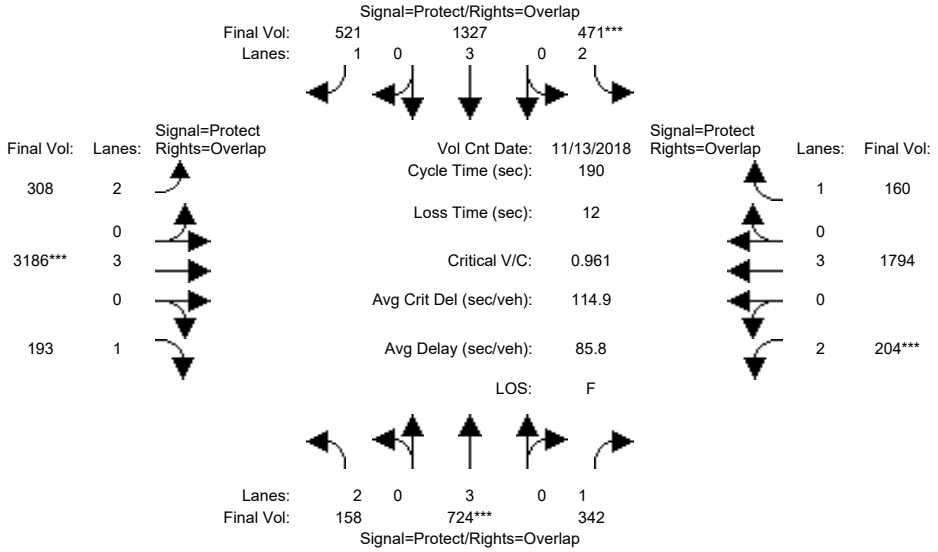



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 14 | 10 | 10 | 14 | 10 | 10 | 14 | 78 | 78 | 14 | 85 | 85 |
| Y+R: | 7.3 | 6.3 | 6.3 | 7.3 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1540 | 70 | 210 | 2750 | 376 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1540 | 70 | 210 | 2750 | 376 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 54 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1550 | 70 | 210 | 2804 | 376 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1550 | 70 | 210 | 2804 | 376 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1550 | 70 | 210 | 2804 | 376 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1550 | 70 | 210 | 2804 | 376 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.22 | 0.08 | 0.04 | 0.10 | 0.13 | 0.19 | 0.27 | 0.04 | 0.07 | 0.49 | 0.21 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 19.7 | 40.2 | 56.6 | 13.9 | 34.6 | 60.4 | 25.8 | 97.4 | 117.1 | 16.4 | 88.4 | 102.3 |
| Volume/Cap: | 0.80 | 0.97 | 0.26 | 0.50 | 0.51 | 0.39 | 1.33 | 0.50 | 0.06 | 0.73 | 1.00 | 0.38 |
| Uniform Del: | 78.2 | 69.4 | 46.1 | 79.7 | 65.1 | 45.7 | 77.1 | 26.0 | 11.5 | 79.7 | 45.8 | 21.4 |
| IncremntDel: | 12.3 | 18.9 | 0.3 | 1.6 | 0.4 | 0.4 | 162.8 | 0.1 | 0.0 | 9.3 | 17.4 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 90.5 | 88.3 | 46.4 | 81.3 | 65.5 | 46.1 | 239.9 | 26.2 | 11.5 | 88.9 | 63.2 | 21.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 90.5 | 88.3 | 46.4 | 81.3 | 65.5 | 46.1 | 239.9 | 26.2 | 11.5 | 88.9 | 63.2 | 21.6 |
| LOS by Move: | F | F | D | F | E | D | F | C | B+ | F | E | C+ |
| HCM2kAvgQ: | 9 | 23 | 6 | 4 | 9 | 10 | 30 | 17 | 1 | 8 | 58 | 12 |

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

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

Intersection #5329: CENTRAL EXPWY/BOWERS AVE

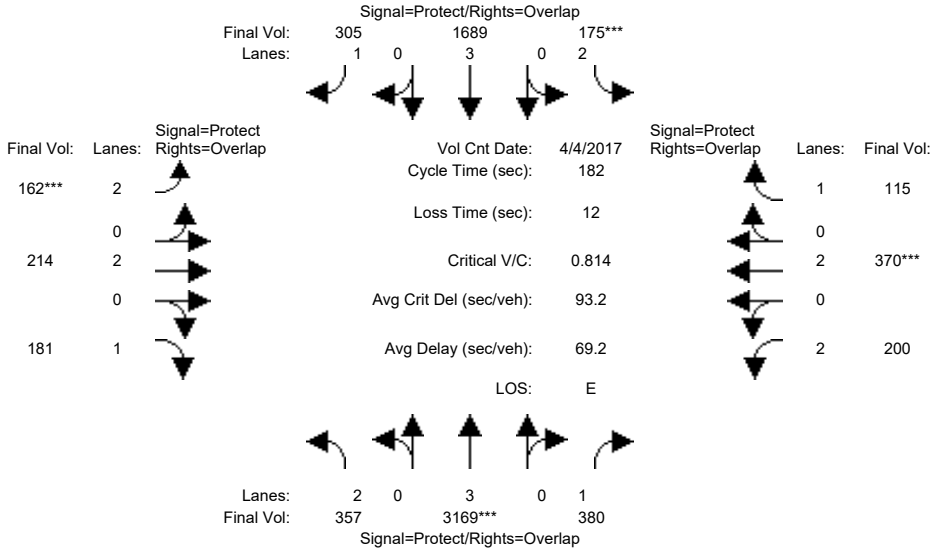



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 15 | 39 | 39 | 16 | 40 | 40 | 16 | 96 | 96 | 14 | 95 | 95 |
| Y+R: | 7.3 | 6.3 | 6.3 | 7.3 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 13 Nov 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3124 | 193 | 204 | 1788 | 160 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3124 | 193 | 204 | 1788 | 160 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 0 | 0 | 6 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3186 | 193 | 204 | 1794 | 160 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3186 | 193 | 204 | 1794 | 160 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3186 | 193 | 204 | 1794 | 160 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3186 | 193 | 204 | 1794 | 160 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.13 | 0.20 | 0.15 | 0.23 | 0.30 | 0.10 | 0.56 | 0.11 | 0.06 | 0.31 | 0.09 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 16.6 | 39.0 | 53.0 | 26.4 | 48.8 | 66.4 | 17.6 | 98.6 | 115.2 | 14.0 | 95.0 | 121.4 |
| Volume/Cap: | 0.58 | 0.62 | 0.70 | 1.08 | 0.91 | 0.85 | 1.05 | 1.08 | 0.18 | 0.88 | 0.63 | 0.14 |
| Uniform Del: | 83.3 | 68.7 | 61.4 | 81.8 | 68.4 | 57.2 | 86.2 | 45.7 | 16.6 | 87.2 | 34.7 | 13.6 |
| IncremntDel: | 3.0 | 1.0 | 4.5 | 65.2 | 8.4 | 11.0 | 67.7 | 41.7 | 0.1 | 29.5 | 0.5 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.07 | 1.72 | 2.03 | 1.00 | 0.77 | 0.47 |
| Delay/Veh: | 86.3 | 69.8 | 65.9 | 147.0 | 76.8 | 68.2 | 159.8 | 120 | 33.6 | 116.6 | 27.0 | 6.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 86.3 | 69.8 | 65.9 | 147.0 | 76.8 | 68.2 | 159.8 | 120 | 33.6 | 116.6 | 27.0 | 6.5 |
| LOS by Move: | F | E | E | F | E- | E | F | F | C- | F | C | A |
| HCM2kAvgQ: | 5 | 12 | 19 | 20 | 26 | 31 | 11 | 67 | 9 | 9 | 20 | 2 |

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

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

Intersection #5611: LAWRENCE EXPWY/ARQUES AVE

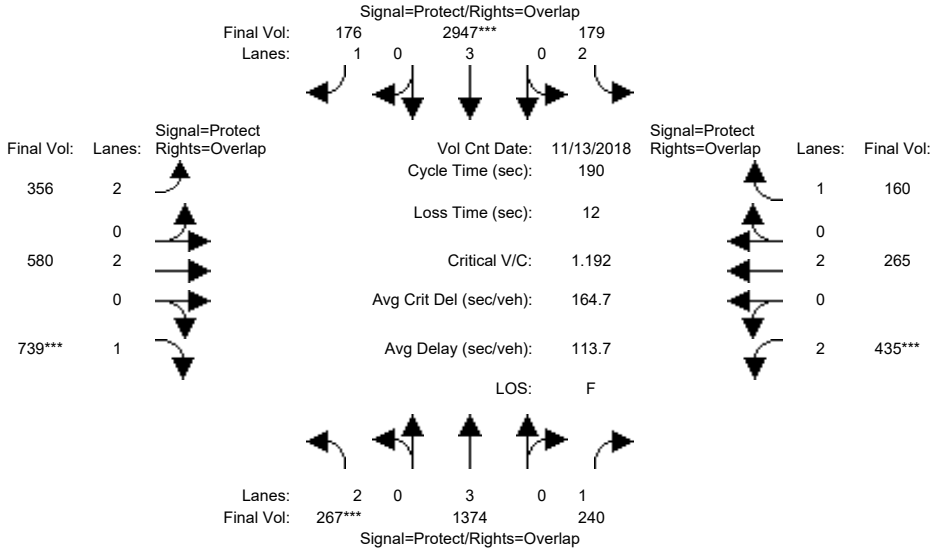



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 23 | 94 | 94 | 17 | 88 | 88 | 16 | 32 | 32 | 15 | 31 | 31 |
| Y+R: | 6.3 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.9 | 5.7 | 5.7 | 5.9 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 4 Apr 2017 << 7:45 AM - 8:45 AM | | | | | | | | | | | | |
| Base Vol: | 357 | 3618 | 380 | 175 | 1790 | 305 | 162 | 214 | 181 | 200 | 370 | 115 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 357 | 3618 | 380 | 175 | 1790 | 305 | 162 | 214 | 181 | 200 | 370 | 115 |
| Added Vol: | 0 | 24 | 0 | 0 | 151 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 357 | 3642 | 380 | 175 | 1941 | 305 | 162 | 214 | 181 | 200 | 370 | 115 |
| User Adj: | 1.00 | 0.87 | 1.00 | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 357 | 3169 | 380 | 175 | 1689 | 305 | 162 | 214 | 181 | 200 | 370 | 115 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 357 | 3169 | 380 | 175 | 1689 | 305 | 162 | 214 | 181 | 200 | 370 | 115 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 357 | 3169 | 380 | 175 | 1689 | 305 | 162 | 214 | 181 | 200 | 370 | 115 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.84 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1601 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.56 | 0.22 | 0.06 | 0.30 | 0.17 | 0.05 | 0.06 | 0.11 | 0.06 | 0.10 | 0.07 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 23.4 | 94.0 | 109.0 | 17.1 | 87.4 | 103.0 | 15.6 | 31.9 | 55.3 | 15.0 | 31.3 | 48.4 |
| Volume/Cap: | 0.88 | 1.08 | 0.36 | 0.59 | 0.62 | 0.31 | 0.60 | 0.32 | 0.37 | 0.77 | 0.57 | 0.25 |
| Uniform Del: | 77.9 | 44.0 | 18.7 | 79.1 | 34.9 | 20.8 | 80.2 | 65.6 | 49.7 | 81.8 | 69.1 | 52.5 |
| IncremntDel: | 19.6 | 41.5 | 0.2 | 3.2 | 0.4 | 0.2 | 3.7 | 0.3 | 0.5 | 13.2 | 1.2 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.26 | 1.39 | 1.00 | 0.80 | 0.65 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 97.5 | 96.9 | 26.3 | 82.2 | 28.2 | 13.7 | 83.9 | 65.9 | 50.2 | 95.0 | 70.3 | 52.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 97.5 | 96.9 | 26.3 | 82.2 | 28.2 | 13.7 | 83.9 | 65.9 | 50.2 | 95.0 | 70.3 | 52.8 |
| LOS by Move: | F | F | C | F | C | B | F | E | D | F | E | D- |
| HCM2kAvgQ: | 14 | 70 | 15 | 5 | 18 | 6 | 5 | 5 | 8 | 7 | 9 | 5 |

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

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

Intersection #5611: LAWRENCE EXPWY/ARQUES AVE

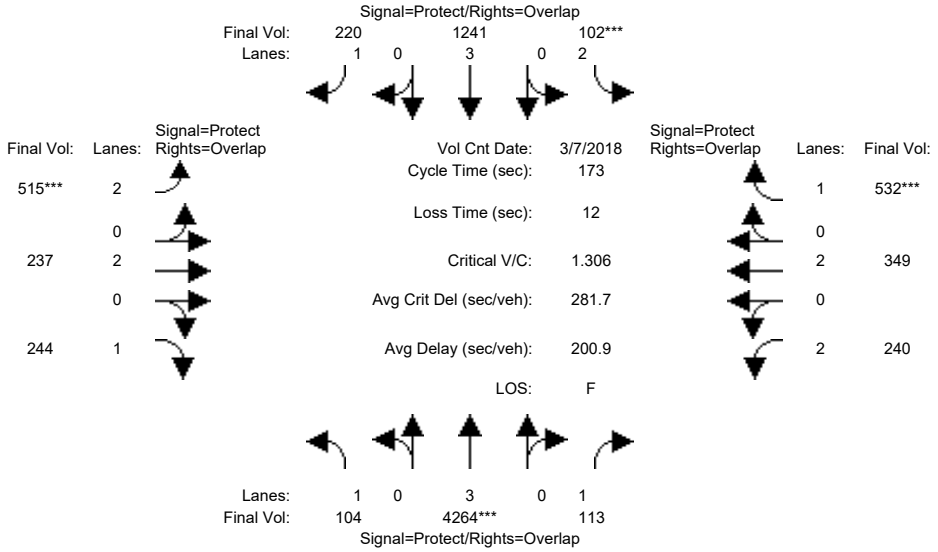



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 22 | 86 | 86 | 15 | 79 | 79 | 24 | 41 | 41 | 24 | 41 | 41 |
| Y+R: | 6.3 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.9 | 5.7 | 5.7 | 5.9 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 13 Nov 2018 << 4:30 - 5:30 PM | | | | | | | | | | | | |
| Base Vol: | 267 | 1894 | 240 | 179 | 3667 | 176 | 356 | 580 | 739 | 435 | 265 | 160 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 267 | 1894 | 240 | 179 | 3667 | 176 | 356 | 580 | 739 | 435 | 265 | 160 |
| Added Vol: | 0 | 156 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 267 | 2050 | 240 | 179 | 3684 | 176 | 356 | 580 | 739 | 435 | 265 | 160 |
| User Adj: | 1.00 | 0.67 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 267 | 1374 | 240 | 179 | 2947 | 176 | 356 | 580 | 739 | 435 | 265 | 160 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 267 | 1374 | 240 | 179 | 2947 | 176 | 356 | 580 | 739 | 435 | 265 | 160 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 267 | 1374 | 240 | 179 | 2947 | 176 | 356 | 580 | 739 | 435 | 265 | 160 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.84 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1601 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.24 | 0.14 | 0.06 | 0.52 | 0.10 | 0.11 | 0.15 | 0.46 | 0.14 | 0.07 | 0.09 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green Time: | 22.0 | 86.1 | 110.1 | 15.0 | 79.1 | 107.5 | 28.4 | 52.9 | 74.9 | 24.0 | 48.5 | 63.5 |
| Volume/Cap: | 0.73 | 0.53 | 0.24 | 0.72 | 1.24 | 0.18 | 0.76 | 0.55 | 1.17 | 1.09 | 0.27 | 0.27 |
| Uniform Del: | 81.2 | 37.4 | 19.5 | 85.4 | 55.4 | 19.9 | 77.5 | 58.4 | 57.6 | 83.0 | 56.6 | 46.3 |
| IncremntDel: | 7.4 | 0.2 | 0.1 | 9.7 | 113 | 0.1 | 6.9 | 0.6 | 93.0 | 72.6 | 0.2 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.83 | 0.62 | 1.00 | 1.15 | 1.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 88.6 | 31.4 | 12.2 | 95.2 | 176 | 26.7 | 84.4 | 59.0 | 150.6 | 155.6 | 56.8 | 46.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 88.6 | 31.4 | 12.2 | 95.2 | 176 | 26.7 | 84.4 | 59.0 | 150.6 | 155.6 | 56.8 | 46.6 |
| LOS by Move: | F | C | B | F | F | C | F | E+ | F | F | E+ | D |
| HCM2kAvgQ: | 10 | 15 | 4 | 6 | 76 | 7 | 12 | 14 | 61 | 19 | 6 | 7 |

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

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

Intersection #5613: LAWRENCE EXPWY/REED AVE

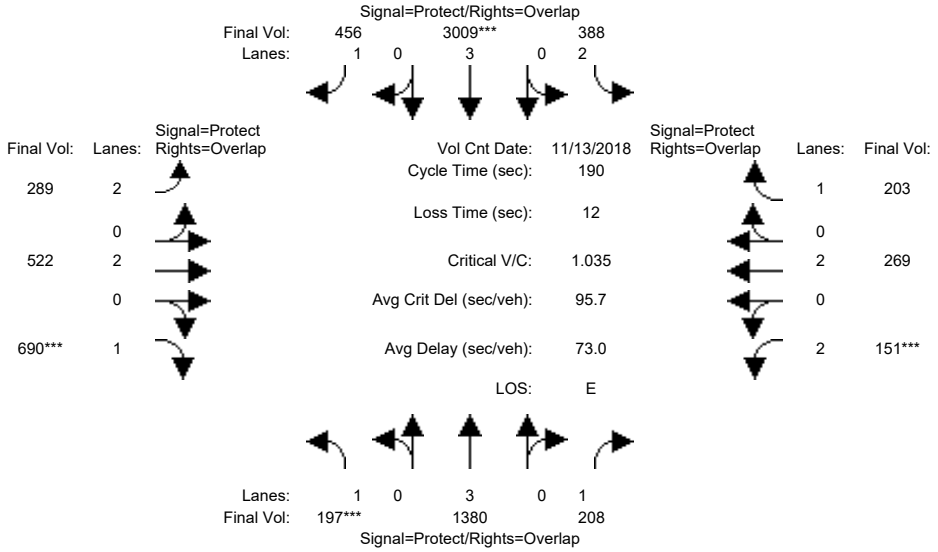



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 14 | 81 | 81 | 13 | 80 | 80 | 23 | 39 | 39 | 17 | 33 | 33 |
| Y+R: | 6.0 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.7 | 5.6 | 5.6 | 5.6 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 7 Mar 2018 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 104 | 4804 | 113 | 102 | 1409 | 220 | 515 | 237 | 244 | 240 | 349 | 532 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 104 | 4804 | 113 | 102 | 1409 | 220 | 515 | 237 | 244 | 240 | 349 | 532 |
| Added Vol: | 0 | 97 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 104 | 4901 | 113 | 102 | 1427 | 220 | 515 | 237 | 244 | 240 | 349 | 532 |
| User Adj: | 1.00 | 0.87 | 1.00 | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 104 | 4264 | 113 | 102 | 1241 | 220 | 515 | 237 | 244 | 240 | 349 | 532 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 104 | 4264 | 113 | 102 | 1241 | 220 | 515 | 237 | 244 | 240 | 349 | 532 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 104 | 4264 | 113 | 102 | 1241 | 220 | 515 | 237 | 244 | 240 | 349 | 532 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.75 | 0.06 | 0.03 | 0.22 | 0.13 | 0.16 | 0.06 | 0.14 | 0.08 | 0.09 | 0.30 |
| Crit Moves: | | **** | | **** | | | **** | | | | | **** |
| Green Time: | 14.1 | 80.5 | 97.8 | 13.2 | 79.7 | 102.8 | 23.1 | 38.5 | 52.6 | 17.3 | 32.5 | 45.7 |
| Volume/Cap: | 0.73 | 1.61 | 0.11 | 0.42 | 0.47 | 0.21 | 1.22 | 0.28 | 0.46 | 0.76 | 0.49 | 1.15 |
| Uniform Del: | 77.6 | 46.3 | 17.5 | 76.3 | 32.2 | 16.3 | 75.0 | 55.8 | 48.7 | 75.8 | 62.8 | 63.6 |
| IncremntDel: | 17.3 | 275 | 0.1 | 1.2 | 0.1 | 0.1 | 120.6 | 0.2 | 0.6 | 10.4 | 0.5 | 90.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.82 | 0.65 | 1.00 | 0.82 | 0.59 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 94.9 | 313 | 11.4 | 77.5 | 26.6 | 9.7 | 195.6 | 56.0 | 49.3 | 86.3 | 63.3 | 153.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 94.9 | 313 | 11.4 | 77.5 | 26.6 | 9.7 | 195.6 | 56.0 | 49.3 | 86.3 | 63.3 | 153.8 |
| LOS by Move: | F | F | B+ | E- | C | A | F | E+ | D | F | E | F |
| HCM2kAvgQ: | 6 | 136 | 2 | 3 | 12 | 3 | 24 | 5 | 11 | 8 | 8 | 40 |

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

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

Intersection #5613: LAWRENCE EXPWY/REED AVE

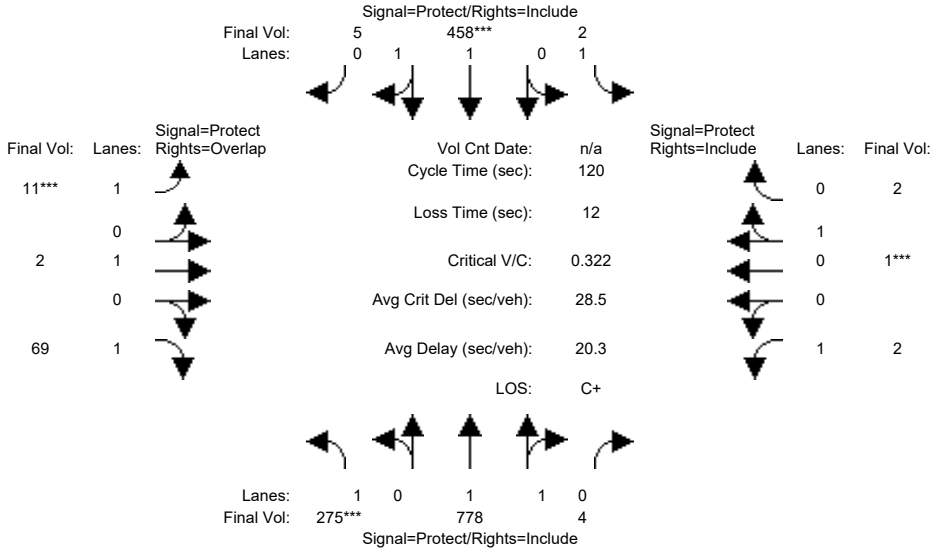



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 17 | 90 | 90 | 27 | 100 | 100 | 15 | 35 | 35 | 14 | 34 | 34 |
| Y+R: | 6.0 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 5.7 | 5.6 | 5.6 | 5.6 | 5.7 | 5.7 |
| Volume Module: >> Count Date: 13 Nov 2018 << 4:45 - 5:45 PM | | | | | | | | | | | | |
| Base Vol: | 197 | 1693 | 208 | 388 | 4067 | 456 | 289 | 522 | 690 | 151 | 269 | 203 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 197 | 1693 | 208 | 388 | 4067 | 456 | 289 | 522 | 690 | 151 | 269 | 203 |
| Added Vol: | 0 | 11 | 0 | 0 | 112 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 197 | 1704 | 208 | 388 | 4179 | 456 | 289 | 522 | 690 | 151 | 269 | 203 |
| User Adj: | 1.00 | 0.81 | 1.00 | 1.00 | 0.72 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 197 | 1380 | 208 | 388 | 3009 | 456 | 289 | 522 | 690 | 151 | 269 | 203 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 197 | 1380 | 208 | 388 | 3009 | 456 | 289 | 522 | 690 | 151 | 269 | 203 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 197 | 1380 | 208 | 388 | 3009 | 456 | 289 | 522 | 690 | 151 | 269 | 203 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 1750 | 5700 | 1750 | 3150 | 5700 | 1750 | 3150 | 3800 | 1750 | 3150 | 3800 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.24 | 0.12 | 0.12 | 0.53 | 0.26 | 0.09 | 0.14 | 0.39 | 0.05 | 0.07 | 0.12 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green Time: | 18.3 | 91.0 | 105.0 | 27.3 | 100 | 120.2 | 20.2 | 45.7 | 64.0 | 14.0 | 39.5 | 66.8 |
| Volume/Cap: | 1.17 | 0.51 | 0.22 | 0.86 | 1.00 | 0.41 | 0.86 | 0.57 | 1.17 | 0.65 | 0.34 | 0.33 |
| Uniform Del: | 85.9 | 34.0 | 21.6 | 79.5 | 45.0 | 17.3 | 83.5 | 63.5 | 63.0 | 85.6 | 64.2 | 45.2 |
| IncremntDel: | 122.7 | 0.2 | 0.1 | 15.0 | 17.1 | 0.3 | 19.7 | 0.9 | 93.9 | 6.4 | 0.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 0.80 | 0.68 | 1.00 | 1.27 | 1.46 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 208.5 | 27.3 | 14.7 | 94.4 | 74.5 | 25.6 | 103.2 | 64.4 | 156.9 | 92.0 | 64.4 | 45.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 208.5 | 27.3 | 14.7 | 94.4 | 74.5 | 25.6 | 103.2 | 64.4 | 156.9 | 92.0 | 64.4 | 45.5 |
| LOS by Move: | F | C | B | F | E | C | F | E | F | F | E | D |
| HCM2kAvgQ: | 17 | 14 | 4 | 12 | 57 | 18 | 11 | 13 | 57 | 5 | 6 | 9 |

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

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

Intersection #9300: Wolfe Rd & Maude Ave (Signalized)

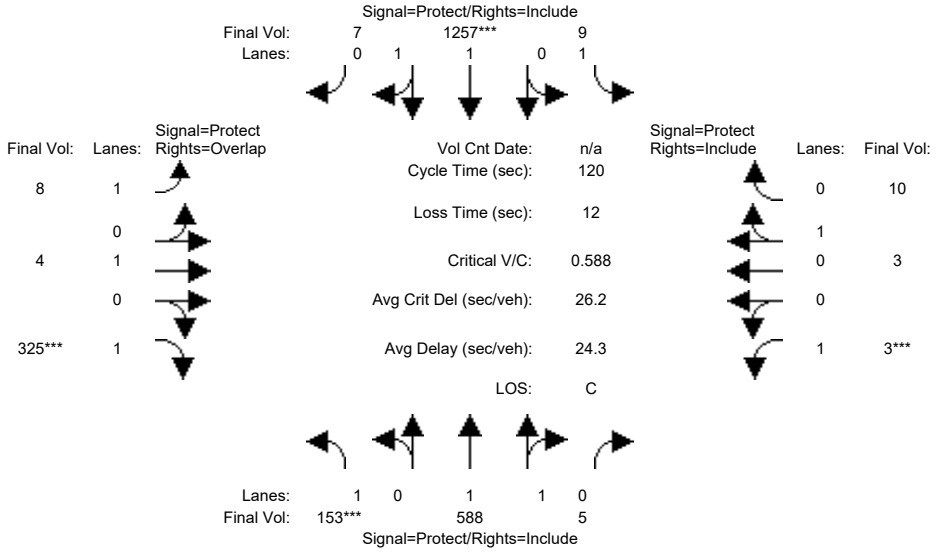



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 275 | 778 | 4 | 2 | 458 | 5 | 11 | 2 | 69 | 2 | 1 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 275 | 778 | 4 | 2 | 458 | 5 | 11 | 2 | 69 | 2 | 1 | 2 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 275 | 778 | 4 | 2 | 458 | 5 | 11 | 2 | 69 | 2 | 1 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 275 | 778 | 4 | 2 | 458 | 5 | 11 | 2 | 69 | 2 | 1 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 275 | 778 | 4 | 2 | 458 | 5 | 11 | 2 | 69 | 2 | 1 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 275 | 778 | 4 | 2 | 458 | 5 | 11 | 2 | 69 | 2 | 1 | 2 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.92 | 0.97 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 |
| Lanes: | 1.00 | 1.99 | 0.01 | 1.00 | 1.98 | 0.02 | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.67 |
| Final Sat.: | 1750 | 3681 | 19 | 1750 | 3660 | 40 | 1750 | 1900 | 1750 | 1750 | 600 | 1200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.16 | 0.21 | 0.21 | 0.00 | 0.13 | 0.13 | 0.01 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 50.7 | 71.3 | 71.3 | 19.7 | 40.3 | 40.3 | 7.0 | 10.0 | 60.7 | 7.0 | 10.0 | 10.0 |
| Volume/Cap: | 0.37 | 0.36 | 0.36 | 0.01 | 0.37 | 0.37 | 0.11 | 0.01 | 0.08 | 0.02 | 0.02 | 0.02 |
| Uniform Del: | 23.8 | 12.5 | 12.5 | 42.0 | 30.2 | 30.2 | 53.5 | 50.5 | 15.3 | 53.3 | 50.5 | 50.5 |
| IncremntDel: | 0.3 | 0.1 | 0.1 | 0.0 | 0.2 | 0.2 | 0.5 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 24.1 | 12.6 | 12.6 | 42.0 | 30.4 | 30.4 | 54.0 | 50.5 | 15.3 | 53.3 | 50.6 | 50.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 24.1 | 12.6 | 12.6 | 42.0 | 30.4 | 30.4 | 54.0 | 50.5 | 15.3 | 53.3 | 50.6 | 50.6 |
| LOS by Move: | C | B | B | D | C | C | D- | D | B | D- | D | D |
| HCM2kAvgQ: | 7 | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 1 | 0 | 0 | 0 |

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

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

Intersection #9300: Wolfe Rd & Maude Ave (Signalized)

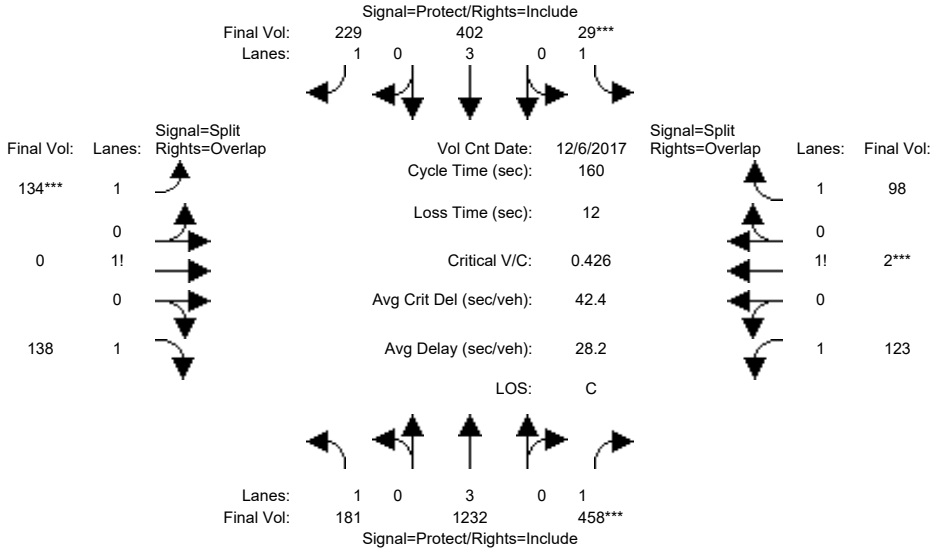



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 153 | 588 | 5 | 9 | 1257 | 7 | 8 | 4 | 325 | 3 | 3 | 10 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 153 | 588 | 5 | 9 | 1257 | 7 | 8 | 4 | 325 | 3 | 3 | 10 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 153 | 588 | 5 | 9 | 1257 | 7 | 8 | 4 | 325 | 3 | 3 | 10 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 153 | 588 | 5 | 9 | 1257 | 7 | 8 | 4 | 325 | 3 | 3 | 10 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 153 | 588 | 5 | 9 | 1257 | 7 | 8 | 4 | 325 | 3 | 3 | 10 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 153 | 588 | 5 | 9 | 1257 | 7 | 8 | 4 | 325 | 3 | 3 | 10 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.92 | 0.97 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 |
| Lanes: | 1.00 | 1.98 | 0.02 | 1.00 | 1.99 | 0.01 | 1.00 | 1.00 | 1.00 | 1.00 | 0.23 | 0.77 |
| Final Sat.: | 1750 | 3669 | 31 | 1750 | 3679 | 20 | 1750 | 1900 | 1750 | 1750 | 415 | 1385 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.16 | 0.16 | 0.01 | 0.34 | 0.34 | 0.00 | 0.00 | 0.19 | 0.00 | 0.01 | 0.01 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green Time: | 16.7 | 60.2 | 60.2 | 21.9 | 65.4 | 65.4 | 10.6 | 18.8 | 35.6 | 7.0 | 15.2 | 15.2 |
| Volume/Cap: | 0.63 | 0.32 | 0.32 | 0.03 | 0.63 | 0.63 | 0.05 | 0.01 | 0.63 | 0.03 | 0.06 | 0.06 |
| Uniform Del: | 48.7 | 17.7 | 17.7 | 40.3 | 18.8 | 18.8 | 50.1 | 42.7 | 36.5 | 53.3 | 46.1 | 46.1 |
| IncremntDel: | 5.1 | 0.1 | 0.1 | 0.0 | 0.6 | 0.6 | 0.1 | 0.0 | 2.4 | 0.1 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 53.8 | 17.8 | 17.8 | 40.3 | 19.5 | 19.5 | 50.2 | 42.8 | 38.9 | 53.4 | 46.2 | 46.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 53.8 | 17.8 | 17.8 | 40.3 | 19.5 | 19.5 | 50.2 | 42.8 | 38.9 | 53.4 | 46.2 | 46.2 |
| LOS by Move: | D- | B | B | D | B- | B- | D | D | D+ | D- | D | D |
| HCM2kAvgQ: | 7 | 6 | 6 | 0 | 17 | 17 | 0 | 0 | 12 | 0 | 0 | 0 |

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

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

Intersection #97: Wolfe Rd & Central Expwy Ramps

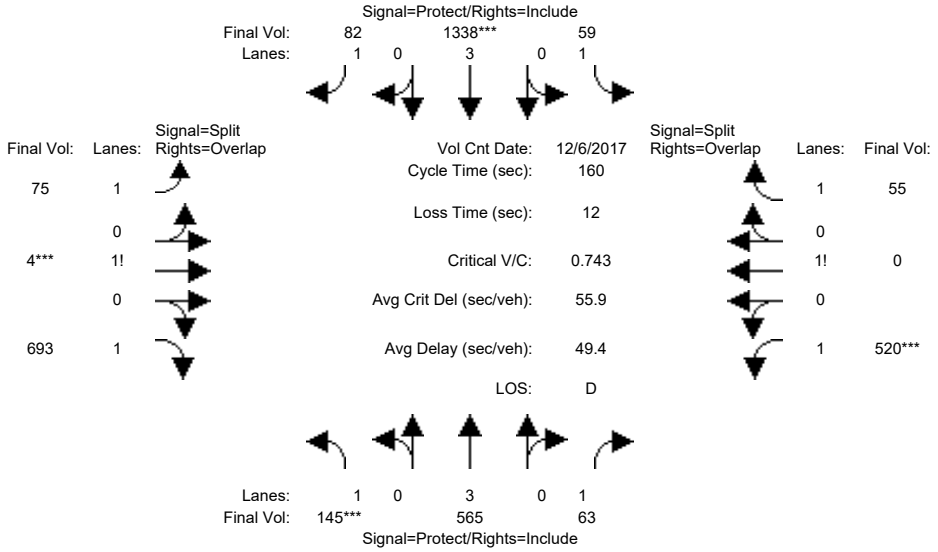



| Street Name: | Wolfe Rd | | | | | | Central Expwy Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 176 | 1222 | 458 | 29 | 362 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 176 | 1222 | 458 | 29 | 362 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| Added Vol: | 5 | 10 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 181 | 1232 | 458 | 29 | 402 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 181 | 1232 | 458 | 29 | 402 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 181 | 1232 | 458 | 29 | 402 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 181 | 1232 | 458 | 29 | 402 | 229 | 134 | 0 | 138 | 123 | 2 | 98 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.92 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.49 | 0.00 | 1.51 | 1.55 | 0.02 | 1.43 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 2612 | 0 | 2638 | 2707 | 31 | 2512 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.22 | 0.26 | 0.02 | 0.07 | 0.13 | 0.05 | 0.00 | 0.05 | 0.05 | 0.06 | 0.04 |
| Crit Moves: | | | **** | **** | | | **** | | | | **** | |
| Green Time: | 46.3 | 97.8 | 97.8 | 7.0 | 58.5 | 58.5 | 19.2 | 0.0 | 65.4 | 24.0 | 24.0 | 31.0 |
| Volume/Cap: | 0.36 | 0.35 | 0.43 | 0.38 | 0.19 | 0.36 | 0.43 | 0.00 | 0.13 | 0.30 | 0.43 | 0.20 |
| Uniform Del: | 45.1 | 15.4 | 16.4 | 74.4 | 34.6 | 37.0 | 65.3 | 0.0 | 29.5 | 60.5 | 61.7 | 54.1 |
| IncremntDel: | 0.4 | 0.1 | 0.3 | 3.1 | 0.0 | 0.3 | 0.5 | 0.0 | 0.0 | 0.2 | 0.6 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 45.5 | 15.5 | 16.7 | 77.5 | 34.7 | 37.4 | 65.8 | 0.0 | 29.5 | 60.8 | 62.3 | 54.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 45.5 | 15.5 | 16.7 | 77.5 | 34.7 | 37.4 | 65.8 | 0.0 | 29.5 | 60.8 | 62.3 | 54.2 |
| LOS by Move: | D | B | B | E- | C- | D+ | E | A | C | E | E | D- |
| HCM2kAvgQ: | 7 | 9 | 12 | 1 | 4 | 8 | 5 | 0 | 3 | 4 | 6 | 3 |

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

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

Intersection #97: Wolfe Rd & Central Expwy Ramps

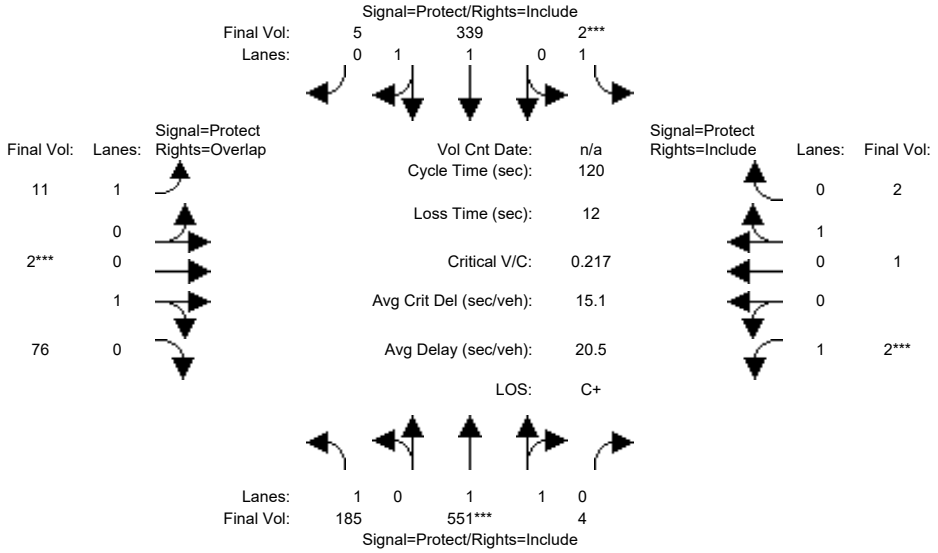



| Street Name: | Wolfe Rd | | | | | | Central Expwy Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 6.1 | 6.1 | 6.1 | 5.0 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 5.9 | 5.9 | 5.9 |
| Volume Module: >> Count Date: 6 Dec 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 114 | 500 | 63 | 59 | 1333 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 114 | 500 | 63 | 59 | 1333 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| Added Vol: | 31 | 65 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 145 | 565 | 63 | 59 | 1338 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 145 | 565 | 63 | 59 | 1338 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 145 | 565 | 63 | 59 | 1338 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 145 | 565 | 63 | 59 | 1338 | 82 | 75 | 4 | 693 | 520 | 0 | 55 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 | 0.93 | 1.00 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.10 | 0.01 | 1.89 | 1.90 | 0.00 | 1.10 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 1923 | 19 | 3403 | 3378 | 0 | 1920 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.10 | 0.04 | 0.03 | 0.23 | 0.05 | 0.04 | 0.22 | 0.20 | 0.15 | 0.00 | 0.03 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 17.8 | 47.4 | 47.4 | 20.9 | 50.5 | 50.5 | 46.5 | 46.5 | 64.4 | 33.1 | 0.0 | 54.1 |
| Volume/Cap: | 0.74 | 0.33 | 0.12 | 0.26 | 0.74 | 0.15 | 0.13 | 0.74 | 0.51 | 0.74 | 0.00 | 0.08 |
| Uniform Del: | 68.9 | 44.0 | 41.1 | 62.5 | 48.9 | 39.3 | 41.9 | 51.3 | 35.9 | 59.5 | 0.0 | 36.1 |
| IncremntDel: | 14.3 | 0.1 | 0.1 | 0.6 | 1.7 | 0.1 | 0.0 | 2.9 | 0.3 | 3.9 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 83.2 | 44.1 | 41.2 | 63.1 | 50.7 | 39.4 | 41.9 | 54.3 | 36.2 | 63.4 | 0.0 | 36.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 83.2 | 44.1 | 41.2 | 63.1 | 50.7 | 39.4 | 41.9 | 54.3 | 36.2 | 63.4 | 0.0 | 36.1 |
| LOS by Move: | F | D | D | E | D | D | D | D- | D+ | E | A | D+ |
| HCM2kAvgQ: | 8 | 7 | 2 | 3 | 19 | 3 | 3 | 19 | 14 | 15 | 0 | 2 |

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

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

Intersection #9300: Wolfe Rd & Maude Ave (Signalized)

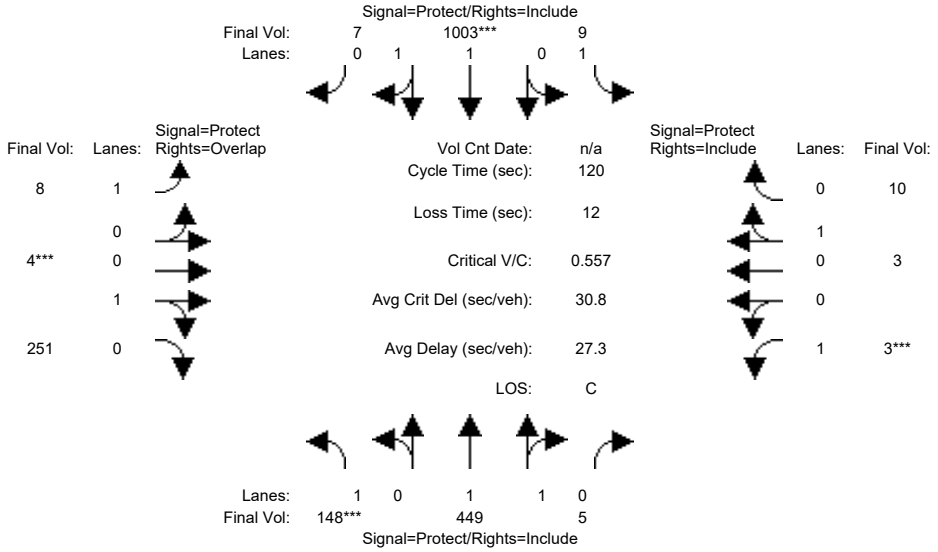



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 185 | 551 | 4 | 2 | 339 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 185 | 551 | 4 | 2 | 339 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 185 | 551 | 4 | 2 | 339 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 185 | 551 | 4 | 2 | 339 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 185 | 551 | 4 | 2 | 339 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 185 | 551 | 4 | 2 | 339 | 5 | 11 | 2 | 76 | 2 | 1 | 2 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.92 | 0.97 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 |
| Lanes: | 1.00 | 1.99 | 0.01 | 1.00 | 1.97 | 0.03 | 1.00 | 0.03 | 0.97 | 1.00 | 0.33 | 0.67 |
| Final Sat.: | 1750 | 3673 | 27 | 1750 | 3646 | 54 | 1750 | 46 | 1754 | 1750 | 600 | 1200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.15 | 0.15 | 0.00 | 0.09 | 0.09 | 0.01 | 0.04 | 0.04 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 42.5 | 72.9 | 72.9 | 7.0 | 37.4 | 37.4 | 11.6 | 21.1 | 63.6 | 7.0 | 16.5 | 16.5 |
| Volume/Cap: | 0.30 | 0.25 | 0.25 | 0.02 | 0.30 | 0.30 | 0.07 | 0.25 | 0.08 | 0.02 | 0.01 | 0.01 |
| Uniform Del: | 28.0 | 10.9 | 10.9 | 53.3 | 31.3 | 31.3 | 49.3 | 42.6 | 13.9 | 53.3 | 44.7 | 44.7 |
| IncremntDel: | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.4 | 0.0 | 0.1 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 28.2 | 10.9 | 10.9 | 53.3 | 31.5 | 31.5 | 49.5 | 43.0 | 13.9 | 53.3 | 44.7 | 44.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 28.2 | 10.9 | 10.9 | 53.3 | 31.5 | 31.5 | 49.5 | 43.0 | 13.9 | 53.3 | 44.7 | 44.7 |
| LOS by Move: | C | B+ | B+ | D- | C | C | D | D | B | D- | D | D |
| HCM2kAvgQ: | 5 | 5 | 5 | 0 | 5 | 5 | 0 | 3 | 1 | 0 | 0 | 0 |

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

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

Intersection #9300: Wolfe Rd & Maude Ave (Signalized)

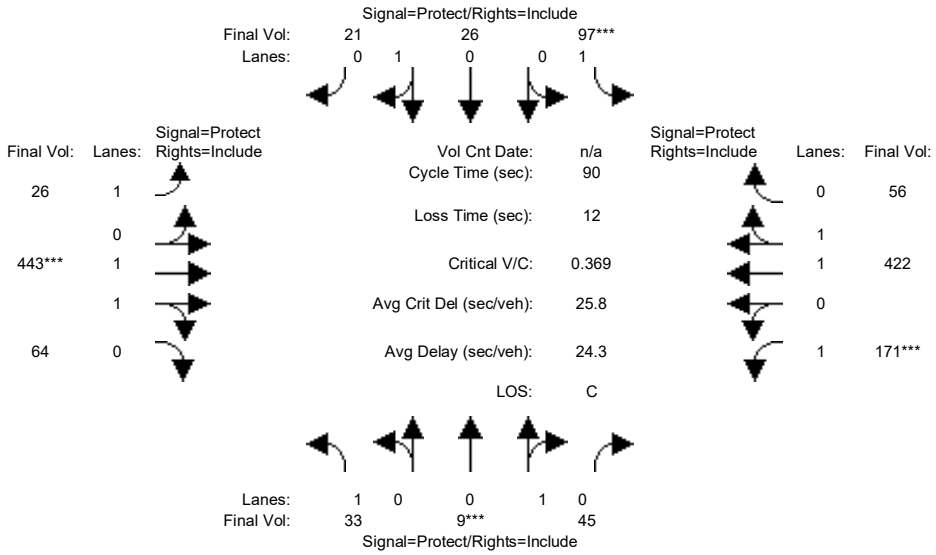



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 148 | 449 | 5 | 9 | 1003 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 148 | 449 | 5 | 9 | 1003 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 148 | 449 | 5 | 9 | 1003 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 148 | 449 | 5 | 9 | 1003 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 148 | 449 | 5 | 9 | 1003 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 148 | 449 | 5 | 9 | 1003 | 7 | 8 | 4 | 251 | 3 | 3 | 10 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.95 | 0.92 | 0.97 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 |
| Lanes: | 1.00 | 1.98 | 0.02 | 1.00 | 1.99 | 0.01 | 1.00 | 0.02 | 0.98 | 1.00 | 0.23 | 0.77 |
| Final Sat.: | 1750 | 3659 | 41 | 1750 | 3674 | 26 | 1750 | 28 | 1772 | 1750 | 415 | 1385 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.12 | 0.12 | 0.01 | 0.27 | 0.27 | 0.00 | 0.14 | 0.14 | 0.00 | 0.01 | 0.01 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green Time: | 17.1 | 49.0 | 49.0 | 23.3 | 55.2 | 55.2 | 14.7 | 28.7 | 45.8 | 7.0 | 21.0 | 21.0 |
| Volume/Cap: | 0.59 | 0.30 | 0.30 | 0.03 | 0.59 | 0.59 | 0.04 | 0.59 | 0.37 | 0.03 | 0.04 | 0.04 |
| Uniform Del: | 48.2 | 23.9 | 23.9 | 39.2 | 24.0 | 24.0 | 46.4 | 40.5 | 26.7 | 53.3 | 41.2 | 41.2 |
| IncremntDel: | 3.8 | 0.1 | 0.1 | 0.0 | 0.6 | 0.6 | 0.1 | 2.2 | 0.3 | 0.1 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 52.0 | 24.0 | 24.0 | 39.2 | 24.6 | 24.6 | 46.5 | 42.7 | 27.1 | 53.4 | 41.2 | 41.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 52.0 | 24.0 | 24.0 | 39.2 | 24.6 | 24.6 | 46.5 | 42.7 | 27.1 | 53.4 | 41.2 | 41.2 |
| LOS by Move: | D- | C | C | D | C | C | D | D | C | D- | D | D |
| HCM2kAvgQ: | 6 | 6 | 6 | 0 | 14 | 14 | 0 | 9 | 7 | 0 | 0 | 0 |

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

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

Intersection #9800: Commercial St & Kifer Rd (Signalized)

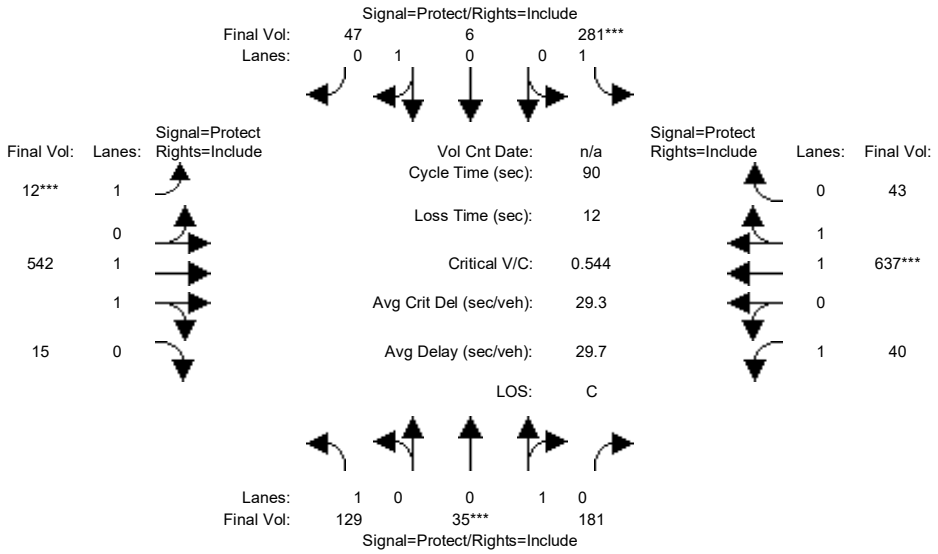



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 33 | 9 | 45 | 97 | 26 | 21 | 26 | 443 | 64 | 171 | 422 | 56 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 33 | 9 | 45 | 97 | 26 | 21 | 26 | 443 | 64 | 171 | 422 | 56 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 33 | 9 | 45 | 97 | 26 | 21 | 26 | 443 | 64 | 171 | 422 | 56 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 33 | 9 | 45 | 97 | 26 | 21 | 26 | 443 | 64 | 171 | 422 | 56 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 33 | 9 | 45 | 97 | 26 | 21 | 26 | 443 | 64 | 171 | 422 | 56 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 33 | 9 | 45 | 97 | 26 | 21 | 26 | 443 | 64 | 171 | 422 | 56 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 1.00 | 0.17 | 0.83 | 1.00 | 0.55 | 0.45 | 1.00 | 1.74 | 0.26 | 1.00 | 1.76 | 0.24 |
| Final Sat.: | 1750 | 300 | 1500 | 1750 | 996 | 804 | 1750 | 3233 | 467 | 1750 | 3266 | 433 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.03 | 0.03 | 0.06 | 0.03 | 0.03 | 0.01 | 0.14 | 0.14 | 0.10 | 0.13 | 0.13 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 9.5 | 10.0 | 10.0 | 13.0 | 13.5 | 13.5 | 20.7 | 32.1 | 32.1 | 22.9 | 34.3 | 34.3 |
| Volume/Cap: | 0.18 | 0.27 | 0.27 | 0.38 | 0.17 | 0.17 | 0.06 | 0.38 | 0.38 | 0.38 | 0.34 | 0.34 |
| Uniform Del: | 36.7 | 36.7 | 36.7 | 34.9 | 33.4 | 33.4 | 27.1 | 21.6 | 21.6 | 27.7 | 19.8 | 19.8 |
| IncremntDel: | 0.5 | 0.7 | 0.7 | 1.0 | 0.3 | 0.3 | 0.1 | 0.2 | 0.2 | 0.6 | 0.1 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 37.2 | 37.4 | 37.4 | 35.9 | 33.7 | 33.7 | 27.2 | 21.8 | 21.8 | 28.3 | 19.9 | 19.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 37.2 | 37.4 | 37.4 | 35.9 | 33.7 | 33.7 | 27.2 | 21.8 | 21.8 | 28.3 | 19.9 | 19.9 |
| LOS by Move: | D+ | D+ | D+ | D+ | C- | C- | C | C+ | C+ | C | B- | B- |
| HCM2kAvgQ: | 1 | 2 | 2 | 3 | 1 | 1 | 1 | 5 | 5 | 4 | 5 | 5 |

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

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

Intersection #9800: Commercial St & Kifer Rd (Signalized)

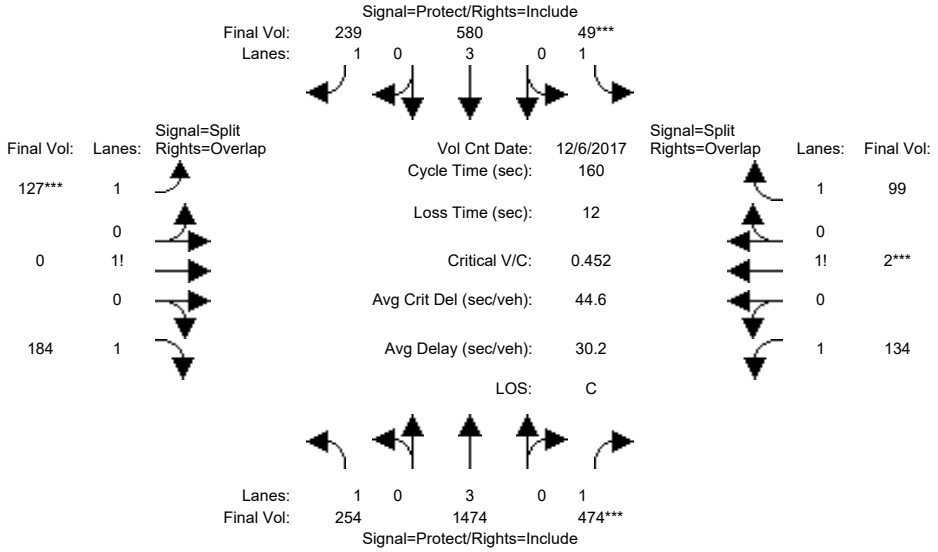



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 129 | 35 | 181 | 281 | 6 | 47 | 12 | 542 | 15 | 40 | 637 | 43 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 129 | 35 | 181 | 281 | 6 | 47 | 12 | 542 | 15 | 40 | 637 | 43 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 129 | 35 | 181 | 281 | 6 | 47 | 12 | 542 | 15 | 40 | 637 | 43 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 129 | 35 | 181 | 281 | 6 | 47 | 12 | 542 | 15 | 40 | 637 | 43 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 129 | 35 | 181 | 281 | 6 | 47 | 12 | 542 | 15 | 40 | 637 | 43 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 129 | 35 | 181 | 281 | 6 | 47 | 12 | 542 | 15 | 40 | 637 | 43 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 1.00 | 0.16 | 0.84 | 1.00 | 0.11 | 0.89 | 1.00 | 1.94 | 0.06 | 1.00 | 1.87 | 0.13 |
| Final Sat.: | 1750 | 292 | 1508 | 1750 | 204 | 1596 | 1750 | 3600 | 100 | 1750 | 3466 | 234 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.12 | 0.12 | 0.16 | 0.03 | 0.03 | 0.01 | 0.15 | 0.15 | 0.02 | 0.18 | 0.18 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 17.7 | 18.3 | 18.3 | 24.6 | 25.2 | 25.2 | 7.0 | 23.1 | 23.1 | 12.0 | 28.1 | 28.1 |
| Volume/Cap: | 0.38 | 0.59 | 0.59 | 0.59 | 0.11 | 0.11 | 0.09 | 0.59 | 0.59 | 0.17 | 0.59 | 0.59 |
| Uniform Del: | 31.4 | 32.4 | 32.4 | 28.3 | 24.0 | 24.0 | 38.5 | 29.2 | 29.2 | 34.6 | 26.1 | 26.1 |
| IncremntDel: | 0.7 | 2.5 | 2.5 | 1.9 | 0.1 | 0.1 | 0.3 | 0.9 | 0.9 | 0.4 | 0.8 | 0.8 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 32.1 | 34.9 | 34.9 | 30.3 | 24.1 | 24.1 | 38.8 | 30.2 | 30.2 | 35.0 | 26.9 | 26.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 32.1 | 34.9 | 34.9 | 30.3 | 24.1 | 24.1 | 38.8 | 30.2 | 30.2 | 35.0 | 26.9 | 26.9 |
| LOS by Move: | C- | C- | C- | C | C | C | D+ | C | C | C- | C | C |
| HCM2kAvgQ: | 4 | 6 | 6 | 8 | 1 | 1 | 0 | 8 | 8 | 1 | 9 | 9 |

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

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

Intersection #97: Wolfe Rd & Central Expwy Ramps

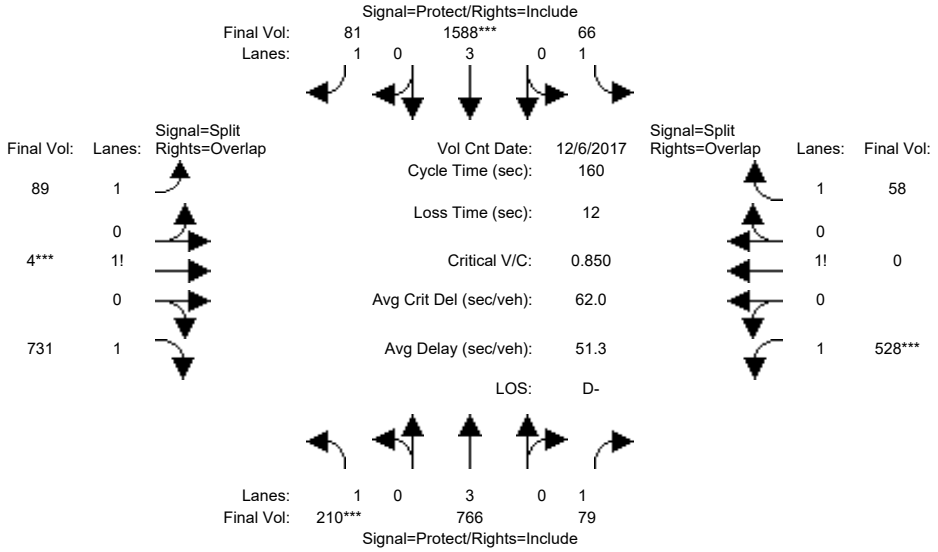



| Street Name: | Wolfe Rd | | | | | | Central Expwy Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: >> Count Date: 6 Dec 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 249 | 1464 | 474 | 49 | 540 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 249 | 1464 | 474 | 49 | 540 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| Added Vol: | 5 | 10 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 254 | 1474 | 474 | 49 | 580 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 254 | 1474 | 474 | 49 | 580 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 254 | 1474 | 474 | 49 | 580 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 254 | 1474 | 474 | 49 | 580 | 239 | 127 | 0 | 184 | 134 | 2 | 99 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.92 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.41 | 0.00 | 1.59 | 1.56 | 0.02 | 1.42 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 2465 | 0 | 2785 | 2739 | 30 | 2481 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.15 | 0.26 | 0.27 | 0.03 | 0.10 | 0.14 | 0.05 | 0.00 | 0.07 | 0.05 | 0.07 | 0.04 |
| Crit Moves: | | | **** | **** | | | **** | | | | **** | |
| Green Time: | 54.5 | 95.9 | 95.9 | 9.9 | 51.3 | 51.3 | 18.2 | 0.0 | 72.7 | 24.0 | 24.0 | 33.9 |
| Volume/Cap: | 0.43 | 0.43 | 0.45 | 0.45 | 0.32 | 0.43 | 0.45 | 0.00 | 0.15 | 0.33 | 0.45 | 0.19 |
| Uniform Del: | 40.7 | 17.3 | 17.6 | 72.4 | 41.1 | 42.8 | 66.2 | 0.0 | 25.5 | 60.8 | 62.0 | 51.8 |
| IncremntDel: | 0.5 | 0.1 | 0.3 | 3.0 | 0.1 | 0.5 | 0.5 | 0.0 | 0.0 | 0.3 | 0.6 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 41.2 | 17.4 | 17.9 | 75.4 | 41.2 | 43.3 | 66.7 | 0.0 | 25.5 | 61.1 | 62.7 | 51.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 41.2 | 17.4 | 17.9 | 75.4 | 41.2 | 43.3 | 66.7 | 0.0 | 25.5 | 61.1 | 62.7 | 51.8 |
| LOS by Move: | D | B | B | E- | D | D | E | A | C | E | E | D- |
| HCM2kAvgQ: | 10 | 12 | 13 | 2 | 7 | 10 | 5 | 0 | 3 | 4 | 6 | 3 |

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

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

Intersection #97: Wolfe Rd & Central Expwy Ramps

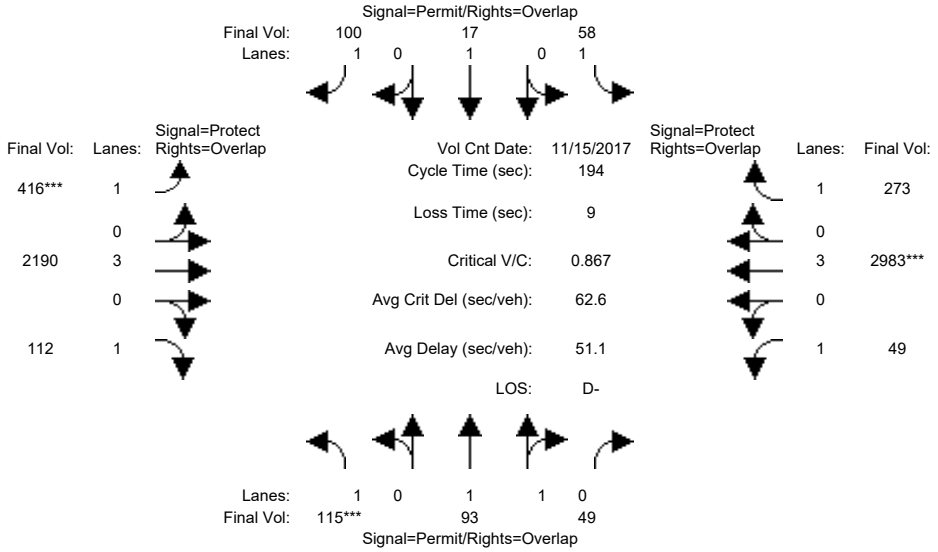



| Street Name: | Wolfe Rd | | | | | | Central Expwy Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Y+R: | 6.1 | 6.1 | 6.1 | 5.0 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 5.9 | 5.9 | 5.9 |
| Volume Module: >> Count Date: 6 Dec 2017 << 5:00 PM - 6:00 PM | | | | | | | | | | | | |
| Base Vol: | 179 | 701 | 79 | 66 | 1583 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 179 | 701 | 79 | 66 | 1583 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| Added Vol: | 31 | 65 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 210 | 766 | 79 | 66 | 1588 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 210 | 766 | 79 | 66 | 1588 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 210 | 766 | 79 | 66 | 1588 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 210 | 766 | 79 | 66 | 1588 | 81 | 89 | 4 | 731 | 528 | 0 | 58 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 | 0.93 | 1.00 | 0.92 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.11 | 0.01 | 1.88 | 1.90 | 0.00 | 1.10 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 1943 | 17 | 3384 | 3372 | 0 | 1925 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.13 | 0.05 | 0.04 | 0.28 | 0.05 | 0.05 | 0.23 | 0.22 | 0.16 | 0.00 | 0.03 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 22.6 | 56.6 | 56.6 | 18.4 | 52.5 | 52.5 | 43.4 | 43.4 | 66.0 | 29.5 | 0.0 | 47.9 |
| Volume/Cap: | 0.85 | 0.38 | 0.13 | 0.33 | 0.85 | 0.14 | 0.17 | 0.85 | 0.52 | 0.85 | 0.00 | 0.10 |
| Uniform Del: | 67.0 | 38.6 | 35.0 | 65.1 | 50.1 | 37.9 | 44.5 | 55.2 | 35.2 | 63.1 | 0.0 | 40.5 |
| IncremntDel: | 23.3 | 0.1 | 0.1 | 1.0 | 3.9 | 0.1 | 0.0 | 7.2 | 0.3 | 9.8 | 0.0 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 90.3 | 38.7 | 35.1 | 66.0 | 54.0 | 38.0 | 44.5 | 62.4 | 35.5 | 72.9 | 0.0 | 40.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 90.3 | 38.7 | 35.1 | 66.0 | 54.0 | 38.0 | 44.5 | 62.4 | 35.5 | 72.9 | 0.0 | 40.5 |
| LOS by Move: | F | D+ | D+ | E | D- | D+ | D | E | D+ | E | A | D |
| HCM2kAvgQ: | 12 | 9 | 3 | 3 | 25 | 3 | 3 | 22 | 15 | 16 | 0 | 2 |

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

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

Intersection #5325: CENTRAL EXPWY/CORVIN DR-OAKMEAD PKWY

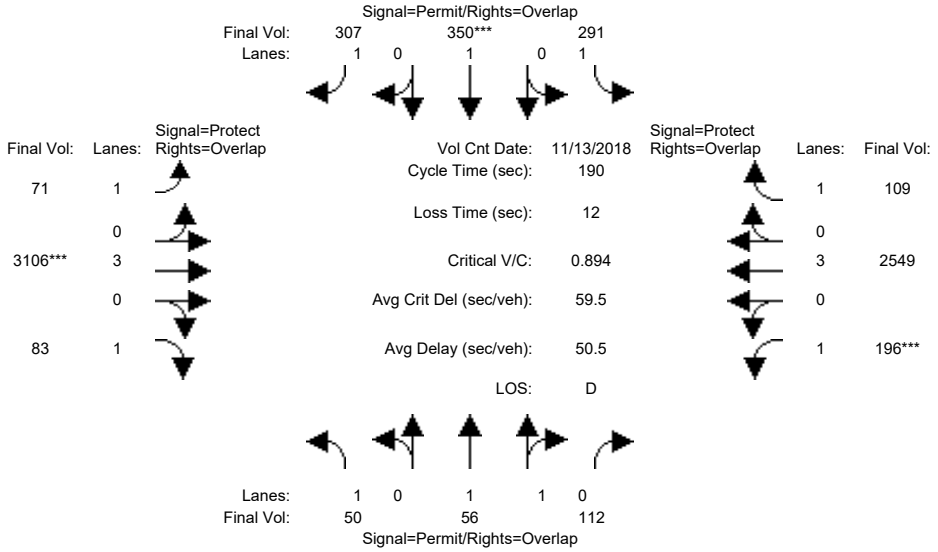



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 23 | 23 | 23 | 23 | 23 | 23 | 34 | 137 | 137 | 14 | 117 | 117 |
| Y+R: | 6.3 | 6.3 | 6.3 | 6.1 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2180 | 112 | 49 | 2929 | 273 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2180 | 112 | 49 | 2929 | 273 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 54 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2190 | 112 | 49 | 2983 | 273 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2190 | 112 | 49 | 2983 | 273 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2190 | 112 | 49 | 2983 | 273 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 115 | 93 | 49 | 58 | 17 | 100 | 416 | 2190 | 112 | 49 | 2983 | 273 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.29 | 0.71 | 1.00 | 1.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 2422 | 1276 | 1750 | 1900 | 1750 | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.04 | 0.04 | 0.03 | 0.01 | 0.06 | 0.24 | 0.38 | 0.06 | 0.03 | 0.52 | 0.16 |
| Crit Moves: | **** | | | | | | **** | | | | **** | |
| Green Time: | 23.7 | 23.7 | 37.9 | 23.9 | 23.9 | 58.4 | 34.5 | 138 | 137.8 | 14.2 | 118 | 117.8 |
| Volume/Cap: | 0.54 | 0.31 | 0.20 | 0.27 | 0.07 | 0.19 | 1.34 | 0.54 | 0.09 | 0.38 | 0.86 | 0.26 |
| Uniform Del: | 80.0 | 77.7 | 65.3 | 77.1 | 75.2 | 50.3 | 79.8 | 13.2 | 8.7 | 85.7 | 31.4 | 17.7 |
| IncremntDel: | 2.7 | 0.4 | 0.1 | 0.7 | 0.1 | 0.2 | 171.9 | 0.1 | 0.0 | 1.9 | 2.4 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.14 | 2.63 | 2.63 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 82.7 | 78.1 | 65.4 | 77.8 | 75.4 | 50.4 | 263.1 | 35.0 | 22.9 | 87.6 | 33.8 | 17.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 82.7 | 78.1 | 65.4 | 77.8 | 75.4 | 50.4 | 263.1 | 35.0 | 22.9 | 87.6 | 33.8 | 17.9 |
| LOS by Move: | F | E- | E | E- | E- | D | F | C- | C+ | F | C- | B |
| HCM2kAvgQ: | 7 | 4 | 3 | 3 | 1 | 5 | 42 | 36 | 5 | 3 | 45 | 7 |

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

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

Intersection #5325: CENTRAL EXPWY/CORVIN DR-OAKMEAD PKWY

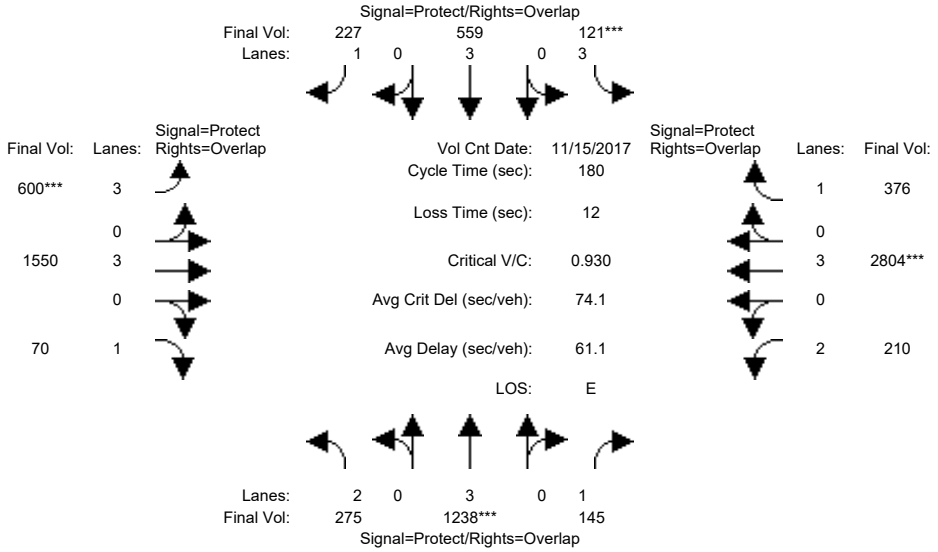



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 39 | 39 | 39 | 39 | 39 | 39 | 13 | 133 | 133 | 18 | 138 | 138 |
| Y+R: | 5.7 | 5.7 | 5.7 | 5.5 | 5.5 | 5.5 | 5.0 | 6.2 | 6.2 | 5.1 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 13 Nov 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3044 | 83 | 196 | 2543 | 109 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3044 | 83 | 196 | 2543 | 109 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 0 | 0 | 6 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3106 | 83 | 196 | 2549 | 109 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3106 | 83 | 196 | 2549 | 109 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3106 | 83 | 196 | 2549 | 109 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 50 | 56 | 112 | 291 | 350 | 307 | 71 | 3106 | 83 | 196 | 2549 | 109 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 1900 | 1750 | 1750 | 1900 | 1750 | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.03 | 0.06 | 0.17 | 0.18 | 0.18 | 0.04 | 0.54 | 0.05 | 0.11 | 0.45 | 0.06 |
| Crit Moves: | | | | | **** | | | **** | | **** | | |
| Green Time: | 36.7 | 36.7 | 53.6 | 36.7 | 36.7 | 48.9 | 12.2 | 125 | 125.1 | 16.9 | 130 | 129.8 |
| Volume/Cap: | 0.15 | 0.15 | 0.23 | 0.86 | 0.95 | 0.68 | 0.63 | 0.83 | 0.07 | 1.26 | 0.65 | 0.09 |
| Uniform Del: | 67.7 | 67.8 | 55.6 | 78.9 | 80.6 | 67.5 | 92.2 | 25.9 | 12.4 | 92.0 | 18.3 | 10.8 |
| IncremntDel: | 0.2 | 0.1 | 0.2 | 19.6 | 35.0 | 4.2 | 11.0 | 1.6 | 0.0 | 157.1 | 0.4 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.53 | 1.53 | 1.00 | 1.60 | 1.60 |
| Delay/Veh: | 67.9 | 67.8 | 55.8 | 98.5 | 116 | 71.8 | 103.1 | 41.2 | 18.9 | 249.1 | 29.7 | 17.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 67.9 | 67.8 | 55.8 | 98.5 | 116 | 71.8 | 103.1 | 41.2 | 18.9 | 249.1 | 29.7 | 17.3 |
| LOS by Move: | E | E | E+ | F | F | E | F | D | B- | F | C | B |
| HCM2kAvgQ: | 3 | 3 | 5 | 20 | 23 | 18 | 6 | 55 | 3 | 19 | 39 | 4 |

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

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

Intersection #5329: CENTRAL EXPWY/BOWERS AVE

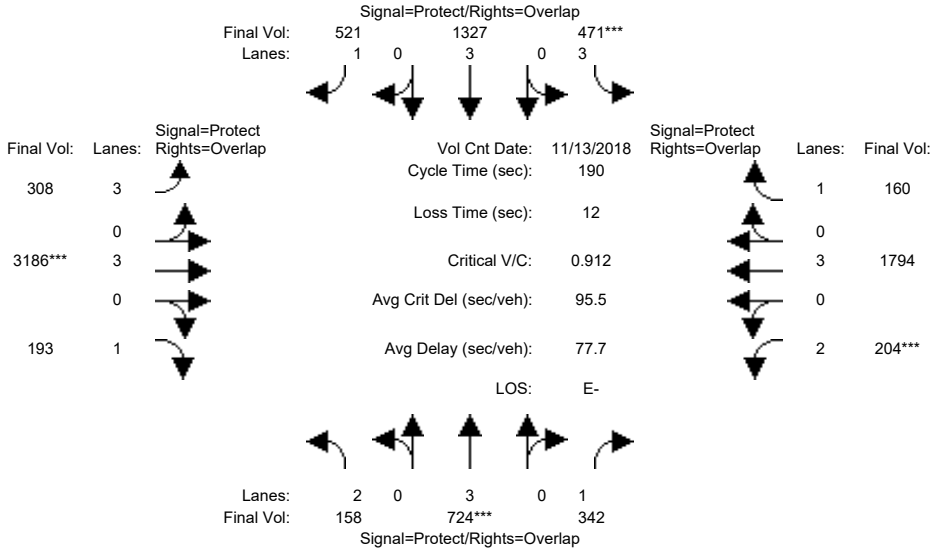



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 14 | 10 | 10 | 14 | 10 | 10 | 14 | 78 | 78 | 14 | 85 | 85 |
| Y+R: | 7.3 | 6.3 | 6.3 | 7.3 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 15 Nov 2017 << 8:00 AM - 9:00 AM | | | | | | | | | | | | |
| Base Vol: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1540 | 70 | 210 | 2750 | 376 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1540 | 70 | 210 | 2750 | 376 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 54 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1550 | 70 | 210 | 2804 | 376 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1550 | 70 | 210 | 2804 | 376 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1550 | 70 | 210 | 2804 | 376 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 275 | 1238 | 145 | 121 | 559 | 227 | 600 | 1550 | 70 | 210 | 2804 | 376 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.80 | 1.00 | 0.92 | 0.80 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 3.00 | 3.00 | 1.00 | 3.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 4551 | 5700 | 1750 | 4551 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.22 | 0.08 | 0.03 | 0.10 | 0.13 | 0.13 | 0.27 | 0.04 | 0.07 | 0.49 | 0.21 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 19.7 | 40.2 | 56.6 | 13.9 | 34.6 | 60.4 | 25.8 | 97.4 | 117.1 | 16.4 | 88.4 | 102.3 |
| Volume/Cap: | 0.80 | 0.97 | 0.26 | 0.34 | 0.51 | 0.39 | 0.92 | 0.50 | 0.06 | 0.73 | 1.00 | 0.38 |
| Uniform Del: | 78.2 | 69.4 | 46.1 | 78.7 | 65.1 | 45.7 | 76.1 | 26.0 | 11.5 | 79.7 | 45.8 | 21.4 |
| IncremntDel: | 12.3 | 18.9 | 0.3 | 0.6 | 0.4 | 0.4 | 18.3 | 0.1 | 0.0 | 9.3 | 17.4 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 90.5 | 88.3 | 46.4 | 79.3 | 65.5 | 46.1 | 94.4 | 26.2 | 11.5 | 88.9 | 63.2 | 21.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 90.5 | 88.3 | 46.4 | 79.3 | 65.5 | 46.1 | 94.4 | 26.2 | 11.5 | 88.9 | 63.2 | 21.6 |
| LOS by Move: | F | F | D | E- | E | D | F | C | B+ | F | E | C+ |
| HCM2kAvgQ: | 9 | 23 | 6 | 3 | 9 | 10 | 15 | 17 | 1 | 8 | 58 | 12 |

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

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

Intersection #5329: CENTRAL EXPWY/BOWERS AVE

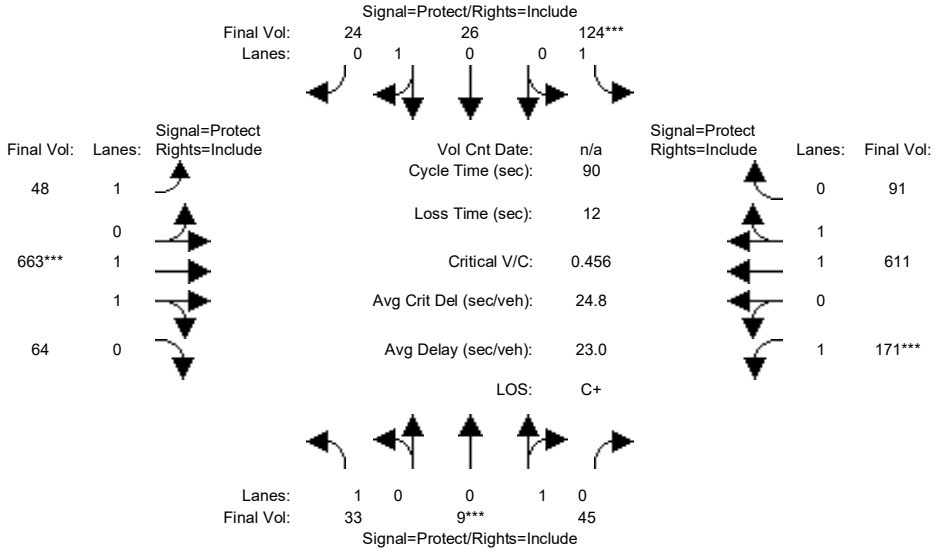



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 15 | 39 | 39 | 16 | 40 | 40 | 16 | 96 | 96 | 14 | 95 | 95 |
| Y+R: | 7.3 | 6.3 | 6.3 | 7.3 | 6.1 | 6.1 | 5.5 | 6.2 | 6.2 | 5.8 | 6.2 | 6.2 |
| Volume Module: >> Count Date: 13 Nov 2018 << 5:15 - 6:15 PM | | | | | | | | | | | | |
| Base Vol: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3124 | 193 | 204 | 1788 | 160 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3124 | 193 | 204 | 1788 | 160 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 0 | 0 | 6 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3186 | 193 | 204 | 1794 | 160 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3186 | 193 | 204 | 1794 | 160 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3186 | 193 | 204 | 1794 | 160 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 158 | 724 | 342 | 471 | 1327 | 521 | 308 | 3186 | 193 | 204 | 1794 | 160 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 1.00 | 0.92 | 0.80 | 1.00 | 0.92 | 0.80 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 2.00 | 3.00 | 1.00 | 3.00 | 3.00 | 1.00 | 3.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5700 | 1750 | 4551 | 5700 | 1750 | 4551 | 5700 | 1750 | 3150 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.13 | 0.20 | 0.10 | 0.23 | 0.30 | 0.07 | 0.56 | 0.11 | 0.06 | 0.31 | 0.09 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 15.0 | 39.0 | 53.0 | 19.5 | 43.5 | 60.7 | 17.2 | 105 | 120.5 | 14.0 | 102 | 121.8 |
| Volume/Cap: | 0.64 | 0.62 | 0.70 | 1.01 | 1.02 | 0.93 | 0.75 | 1.01 | 0.17 | 0.88 | 0.58 | 0.14 |
| Uniform Del: | 84.8 | 68.7 | 61.4 | 85.2 | 73.2 | 62.6 | 84.3 | 42.3 | 14.3 | 87.2 | 29.6 | 13.5 |
| IncremntDel: | 5.3 | 1.0 | 4.5 | 43.3 | 29.0 | 22.4 | 7.3 | 17.7 | 0.1 | 29.5 | 0.3 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.07 | 1.83 | 2.16 | 1.00 | 0.70 | 0.47 |
| Delay/Veh: | 90.2 | 69.8 | 65.9 | 128.6 | 102 | 85.0 | 97.2 | 95.1 | 30.9 | 116.6 | 21.1 | 6.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 90.2 | 69.8 | 65.9 | 128.6 | 102 | 85.0 | 97.2 | 95.1 | 30.9 | 116.6 | 21.1 | 6.3 |
| LOS by Move: | F | E | E | F | F | F | F | F | C | F | C+ | A |
| HCM2kAvgQ: | 5 | 12 | 19 | 13 | 29 | 34 | 7 | 65 | 9 | 9 | 17 | 2 |

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

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

Intersection #9800: Commercial St & Kifer Rd (Signalized)

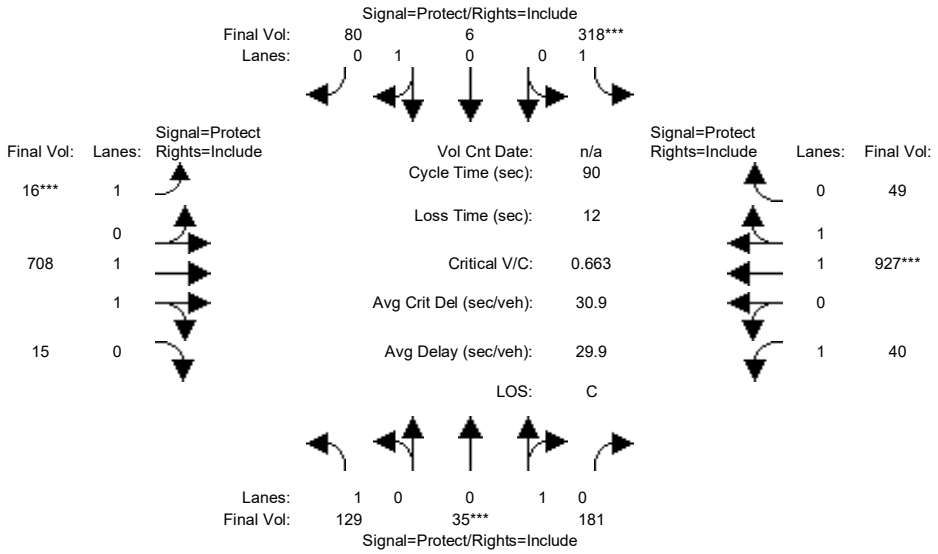



| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 33 | 9 | 45 | 124 | 26 | 24 | 48 | 663 | 64 | 171 | 611 | 91 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 33 | 9 | 45 | 124 | 26 | 24 | 48 | 663 | 64 | 171 | 611 | 91 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 33 | 9 | 45 | 124 | 26 | 24 | 48 | 663 | 64 | 171 | 611 | 91 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 33 | 9 | 45 | 124 | 26 | 24 | 48 | 663 | 64 | 171 | 611 | 91 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 33 | 9 | 45 | 124 | 26 | 24 | 48 | 663 | 64 | 171 | 611 | 91 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 33 | 9 | 45 | 124 | 26 | 24 | 48 | 663 | 64 | 171 | 611 | 91 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 1.00 | 0.17 | 0.83 | 1.00 | 0.52 | 0.48 | 1.00 | 1.82 | 0.18 | 1.00 | 1.73 | 0.27 |
| Final Sat.: | 1750 | 300 | 1500 | 1750 | 936 | 864 | 1750 | 3374 | 326 | 1750 | 3220 | 480 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.03 | 0.03 | 0.07 | 0.03 | 0.03 | 0.03 | 0.20 | 0.20 | 0.10 | 0.19 | 0.19 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 9.6 | 10.0 | 10.0 | 13.2 | 13.6 | 13.6 | 15.9 | 36.6 | 36.6 | 18.2 | 38.9 | 38.9 |
| Volume/Cap: | 0.18 | 0.27 | 0.27 | 0.48 | 0.18 | 0.18 | 0.15 | 0.48 | 0.48 | 0.48 | 0.44 | 0.44 |
| Uniform Del: | 36.6 | 36.7 | 36.7 | 35.3 | 33.3 | 33.3 | 31.3 | 19.7 | 19.7 | 31.7 | 17.9 | 17.9 |
| IncremntDel: | 0.5 | 0.7 | 0.7 | 1.4 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 1.0 | 0.2 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 37.1 | 37.4 | 37.4 | 36.7 | 33.6 | 33.6 | 31.6 | 20.0 | 20.0 | 32.8 | 18.1 | 18.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 37.1 | 37.4 | 37.4 | 36.7 | 33.6 | 33.6 | 31.6 | 20.0 | 20.0 | 32.8 | 18.1 | 18.1 |
| LOS by Move: | D+ | D+ | D+ | D+ | C- | C- | C | B- | B- | C- | B- | B- |
| HCM2kAvgQ: | 1 | 2 | 2 | 4 | 1 | 1 | 1 | 8 | 8 | 5 | 7 | 7 |

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

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

Intersection #9800: Commercial St & Kifer Rd (Signalized)



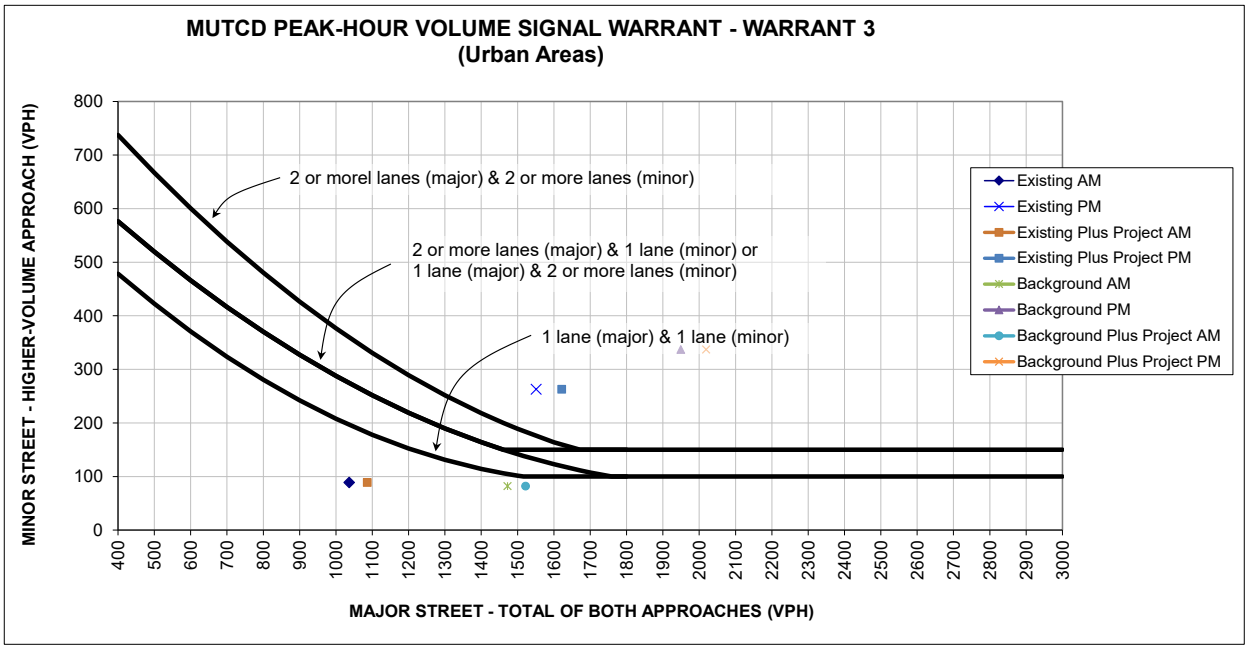

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 129 | 35 | 181 | 318 | 6 | 80 | 16 | 708 | 15 | 40 | 927 | 49 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 129 | 35 | 181 | 318 | 6 | 80 | 16 | 708 | 15 | 40 | 927 | 49 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 129 | 35 | 181 | 318 | 6 | 80 | 16 | 708 | 15 | 40 | 927 | 49 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 129 | 35 | 181 | 318 | 6 | 80 | 16 | 708 | 15 | 40 | 927 | 49 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 129 | 35 | 181 | 318 | 6 | 80 | 16 | 708 | 15 | 40 | 927 | 49 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 129 | 35 | 181 | 318 | 6 | 80 | 16 | 708 | 15 | 40 | 927 | 49 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 1.00 | 0.16 | 0.84 | 1.00 | 0.07 | 0.93 | 1.00 | 1.96 | 0.04 | 1.00 | 1.90 | 0.10 |
| Final Sat.: | 1750 | 292 | 1508 | 1750 | 126 | 1674 | 1750 | 3623 | 77 | 1750 | 3514 | 186 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.12 | 0.12 | 0.18 | 0.05 | 0.05 | 0.01 | 0.20 | 0.20 | 0.02 | 0.26 | 0.26 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 15.6 | 15.1 | 15.1 | 22.8 | 22.3 | 22.3 | 7.0 | 28.7 | 28.7 | 11.4 | 33.1 | 33.1 |
| Volume/Cap: | 0.43 | 0.72 | 0.72 | 0.72 | 0.19 | 0.19 | 0.12 | 0.61 | 0.61 | 0.18 | 0.72 | 0.72 |
| Uniform Del: | 33.2 | 35.4 | 35.4 | 30.6 | 26.8 | 26.8 | 38.6 | 25.9 | 25.9 | 35.1 | 24.4 | 24.4 |
| IncremntDel: | 1.0 | 8.0 | 8.0 | 5.5 | 0.2 | 0.2 | 0.4 | 1.0 | 1.0 | 0.4 | 1.9 | 1.9 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 34.2 | 43.5 | 43.5 | 36.2 | 27.0 | 27.0 | 39.0 | 26.9 | 26.9 | 35.5 | 26.3 | 26.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 34.2 | 43.5 | 43.5 | 36.2 | 27.0 | 27.0 | 39.0 | 26.9 | 26.9 | 35.5 | 26.3 | 26.3 |
| LOS by Move: | C- | D | D | D+ | C | C | D | C | C | D+ | C | C |
| HCM2kAvgQ: | 4 | 8 | 8 | 10 | 2 | 2 | 1 | 9 | 9 | 1 | 13 | 13 |

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

# Appendix D
## Signal Warrant Worksheets

# Intuitive Surgical Campus Expansion TIA - Signal Warrant Analysis

## Wolfe Avenue (major) & Maude Avenue (minor)




Source: Figure 4C-3 of the Manual on Unifrom Traffic Control and Devices (MUTCD) 2014 Edition from California Department of Transportation (Caltrans).
* 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes
and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

AM Peak Hour

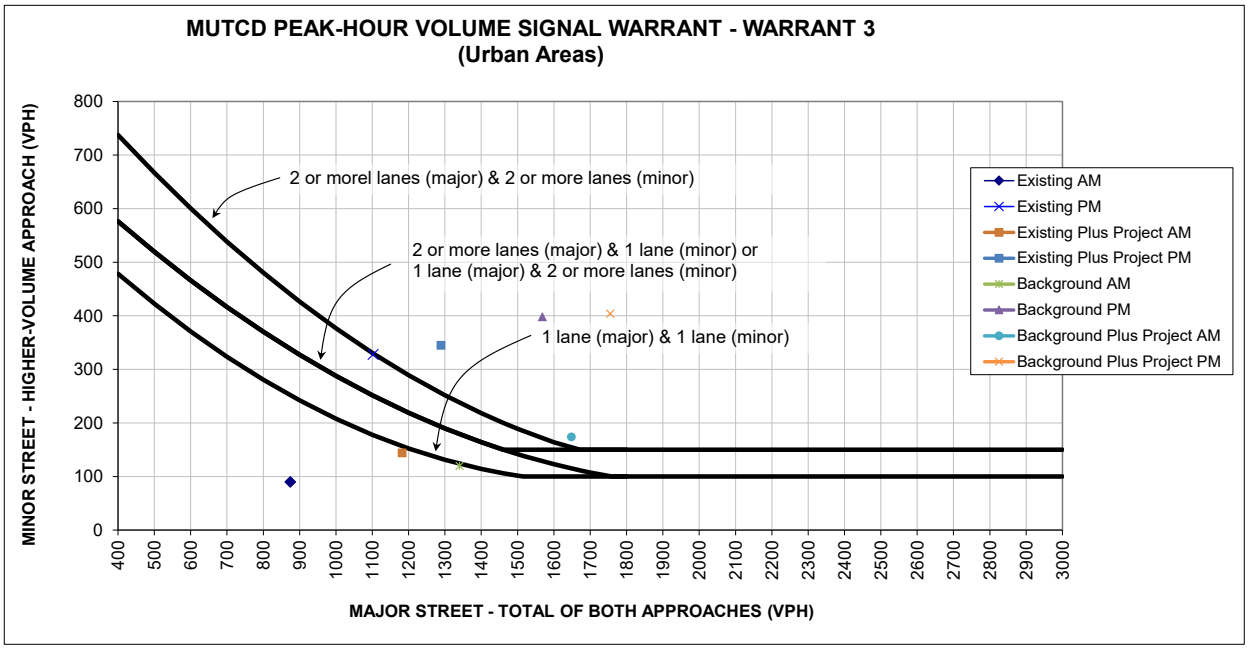
| | | Existing Approach Lanes: One | Existing Approach Lanes: 2 or More | Existing AM | Existing Plus Project AM | Background AM | Background Plus Project AM |
|---|---|---|---|---|---|---|---|
| Major Street - Both Approaches | Wolfe Avenue | | X | 1036 | 1086 | 1472 | 1522 |
| Minor Street - Highest Approach | Maude Avenue | X | | 89 | 89 | 82 | 82 |
| Maximum warrant threshold for minor street volume | | | | 274 | 256 | 148 | 137 |
| Difference between warrant threshold & minor street volume | | | | 185 | 167 | 66 | 55 |
| | | Warrant Met? | | No | No | No | No |

PM Peak Hour

| | | Existing Approach Lanes: One | Existing Approach Lanes: 2 or More | Existing PM | Existing Plus Project PM | Background PM | Background Plus Project PM |
|---|---|---|---|---|---|---|---|
| Major Street - Both Approaches | Wolfe Avenue | | X | 1551 | 1621 | 1949 | 2019 |
| Minor Street - Highest Approach | Maude Avenue | X | | 263 | 263 | 337 | 337 |
| Maximum warrant threshold for minor street volume | | | | 132 | 119 | 100 | 100 |
| Difference between warrant threshold & minor street volume | | | | 131 | 144 | 237 | 237 |
| | | Warrant Met? | | Yes | Yes | Yes | Yes |

# Intuitive Surgical Campus Expansion TIA - Signal Warrant Analysis

## Commercial Street (minor) & Kifer Road (major)




Source: Figure 4C-3 of the Manual on Unifrom Traffic Control and Devices (MUTCD) 2014 Edition from California Department of Transportation (Caltrans).
* 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

AM Peak Hour

| | | Existing Approach Lanes: One | Existing Approach Lanes: 2 or More | Existing AM | Existing Plus Project AM | Background AM | Background Plus Project AM |
|---|---|---|---|---|---|---|---|
| Major Street - Both Approaches | Kifer Road | | X | 874 | 1182 | 1340 | 1648 |
| Minor Street - Highest Approach | Commercial Street | X | | 90 | 144 | 120 | 174 |
| Maximum warrant threshold for minor street volume | | | | 338 | 225 | 179 | 115 |
| Difference between warrant threshold & minor street volume | | | | 248 | 81 | 59 | 59 |
| | | Warrant Met? | | No | No | No | **Yes** |

PM Peak Hour

| | | Existing Approach Lanes: One | Existing Approach Lanes: 2 or More | Existing PM | Existing Plus Project PM | Background PM | Background Plus Project PM |
|---|---|---|---|---|---|---|---|
| Major Street - Both Approaches | Kifer Road | | X | 1102 | 1289 | 1568 | 1755 |
| Minor Street - Highest Approach | Commercial Street | X | | 328 | 345 | 398 | 404 |
| Maximum warrant threshold for minor street volume | | | | 251 | 193 | 129 | 100 |
| Difference between warrant threshold & minor street volume | | | | 77 | 152 | 269 | 304 |
| | | Warrant Met? | | **Yes** | **Yes** | **Yes** | **Yes** |

# Appendix E
## Intuitive Campus TDM Plan

# Intuitive
# Intuitive Campus
# TDM Plan

Final | February 28, 2020

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 263902-17

560 Mission Street
Suite 700
San Francisco 94105
United States of America
www.arup.com

ARUP

# Contents

| | | | Page |
|---|---|---|---|
| **1** | **Introduction and Project Description** | | **1** |
| | 1.1 | Project Description | 1 |
| | 1.2 | Trip Reduction Goals | 2 |
| | 1.3 | Area Map | 2 |
| | 1.4 | Site Plan | 3 |
| **2** | **Trip Reduction Program and Mitigation Measures** | | **6** |
| | 2.1 | Baseline TDM Programs | 6 |
| | 2.2 | Optional TDM Programs | 9 |
| **3** | **Planning and Design Measures** | | **10** |
| | 3.1 | Transit Service | 10 |
| | 3.2 | Bicycle and Pedestrian Access | 19 |
| | 3.3 | Parking Management | 19 |
| | 3.4 | Passenger Loading | 20 |
| | 3.5 | Project Amenities | 20 |
| **4** | **Implementation Mechanism** | | **21** |
| **5** | **Monitoring and Evaluation** | | **21** |
| | 5.1 | Preliminary Schedule | 21 |
| | 5.2 | Acknowledgment of Annual Monitoring | 21 |
| | 5.3 | City TDM Program Contact Information | 21 |
| | 5.4 | TDM Coordinator Contact Information | 22 |

## Appendices

**Appendix A**

City of Sunnyvale TDM Form

**Appendix B**

Parking Calculations

# 1 Introduction and Project Description

Transportation Demand Management (TDM) is the incorporation of a variety of incentives, services, and actions that influence the reduction of single-occupant automobile trips to provide additional relief from congestion, parking, and air quality impacts[1].

This TDM plan has been completed in accordance with the City of Sunnyvale TDM Tool Kit, the City of Sunnyvale Draft TDM Program Guidelines and is also consistent with the Lawrence Station Area Plan (LSAP) Trip Reduction guidelines and incorporates comments received from the City of Sunnyvale.

## 1.1 Project Description

The project includes 364,000 sq ft of corporate office on 945 and 955 Kifer Road (the north site) and 847,000 sq ft of manufacturing and research and development (R&D) on 932 and 950 Kifer Road (the south site). The north site is bounded to the north and south by Central Expressway and Kifer Road respectively with access from Kifer Road only. The south site is bounded to the north and south by Kifer Road and the Caltrain right-of-way respectively with access from Kifer Road only.

Parking will be provided to meet City requirements. In total, 2,550 parking spaces will be provided – 822 on the north site and 1,728 on the south site. For the north site, parking will be provided in a two-level basement underneath the office building with 31 surface parking spaces also provided in the southwest corner of the site. For the south site, parking will be provided in a five-level parking structure with 57 surface parking spaces also provided in the northwest corner of the site. Of the 2,550 parking spaces, 50 will be ADA accessible, including 11 van ADA accessible spaces, 128 for carpool and 78 for electric vehicles.

Figure 1 presents a map of the site location and Figure 2 presents the proposed site plan.

Long-term (Class I) and short-term (Class II) bicycle parking will be provided in line with City requirements. In total, 148 Class I bicycle parking spaces will be provided in the amenity building on the north site and in the parking structure on the south site. Class II bicycle parking will be provided for 50 bicycles and will be conveniently located near building entrances.

Pedestrian and bicycle facilities are provided in and around the site to connect the external pedestrian and bicycle paths to internal entrances and parking.

[1] City of Sunnyvale Draft TDM Program Guidelines, November 2015

## 1.2 Trip Reduction Goals

The trip reduction mitigation measures in the TDM plan are essential to achieve the trip reduction goals for the project, defined as follows in the TDM Policies of the LSAP:

*TDM-P2* *Achieve a daily trip reduction target of 20 percent and a peak hour trip reduction target of 30 percent for new Office/R&D development.*

Table 1 shows the estimated weekday AM and PM peak hour vehicle trips for the project using Institute of Transportation Engineers (ITE) vehicle trip generation rates. The table also shows the trip generation allowance after applying the prescribed TDM trip reductions given above.

Table 1: Trip Allowance Calculation for Intuitive Campus

| Site | Land Use | ITE Code | Area (sf) | Daily | | AM Peak Hour | | PM Peak Hour | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Rate | Trips | Rate | Trips | Rate | Trips |
| North Site | General Office Building | 710 | 364,000 | 9.74 | 3,545 | 1.16 | 422 | 1.15 | 419 |
| | **Maximum Allowable Trips with 20%/30% Trip Reduction** | | | **20%** | **2,836** | **30%** | **296** | **30%** | **293** |
| South Site | Manufacturing and R&D | 760 | 847,000 | 11.26 | 9,537 | 0.42 | 356 | 0.49 | 415 |
| | **Maximum Allowable Trips with 20%/30% Trip Reduction** | | | **20%** | **7,630** | **30%** | **249** | **30%** | **291** |
| **Total Maximum Allowable Trips** | | | | **10,466** | | **545** | | **584** | |

Source: ITE Trip Generation Manual 10th Edition; average rate per 1,000 square feet of gross floor area; peak hour of adjacent street traffic (one hour between 7-9AM and between 4-6PM)

Note: Trip generation is based on current development program at time of submittal. A Traffic Impact Analysis (TIA) is being conducting separately from the TDM plan. Trip generation numbers should match for both the TIA and TDM. If necessary, TDM will be updated to match approved TIA trip generation.

The maximum allowable daily trips for both the north site and the south site of the Intuitive Campus, after the 20 percent reduction, is 10,466. The maximum allowable peak hour trips for both the north site and the south site, after the 30 percent reduction, are 545 and 584 in the AM peak hour and PM peak hour respectively.

## 1.3 Area Map

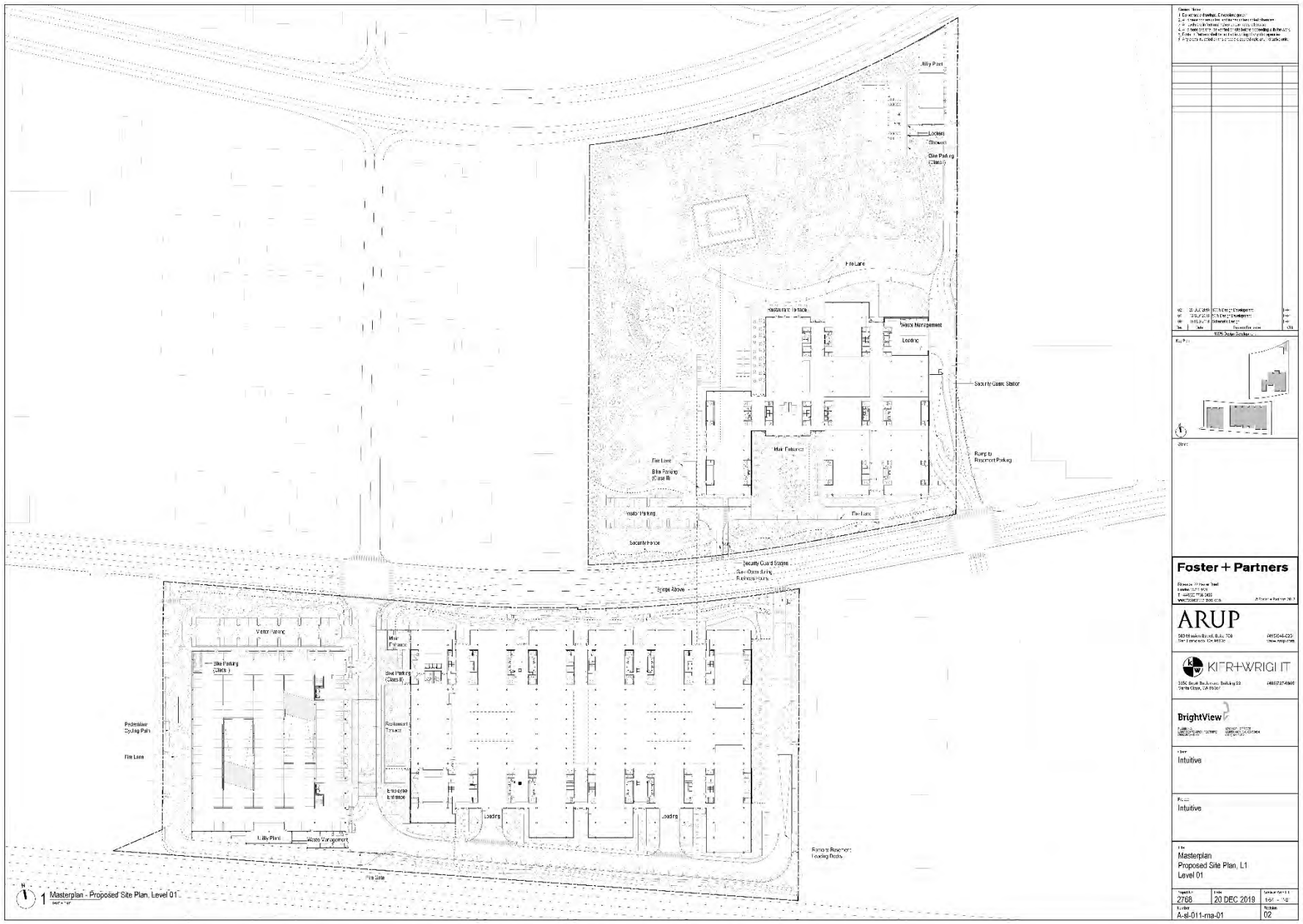
See Figure 1 for a map showing the location of the Intuitive Campus. The office building will be located on the site to the north of Kifer Road comprised of parcels 945 and 955 Kifer Road. The manufacturing and R&D building will be located on the site to the south of Kifer Road comprised of parcels 932 and 950 Kifer Road.

## 1.4 Site Plan

See Figure 2 for a proposed site plan of the Intuitive Campus.

Figure 1: Location of Intuitive Campus

Figure 2: Intuitive Campus Site Plan



# 2 Trip Reduction Program and Mitigation Measures

Intuitive will offer the following programs to achieve the trip reduction goals. The programs are organized into two categories: baseline measures, which Intuitive will include in their TDM plan, and optional measures that may be included to help meet the trip reduction goals.

## 2.1 Baseline TDM Programs

The baseline TDM programs that the project will implement are described below.

### 2.1.1 On-Site TDM Coordinator

Intuitive has a dedicated on-site TDM coordinator whose role is to proactively plan for changes in travel demand, adjust and implement new services, and monitor the impacts of changes, all while responding to a host of day-to-day operational challenges. The TDM Plan proposed for the Intuitive Campus will be administered and managed through the on-site TDM coordinator.

### 2.1.2 Membership in Transportation Management Association (TMA)

A Transportation Management Association (TMA) is an organized group (typically non-profit) that works to support TDM and related commuter transportation strategies for both private and public employers and their employees. A TMA typically provides:

- Commuter resources
- Carpool and vanpool matching
- Transportation consulting
- Employee commute surveys
- Guaranteed Ride Home
- Enhanced bicycle facilities
- Car and vanpool incentives
- Transit advocacy
- Information on local issues
- Training
- Marketing programs
- Promotional assistance
- Newsletters

**Carpool Parking** Photo © Arup

Intuitive participates in and is a part of the SVBC Sunnyvale team and remains connected about alternative commute programs, incentives, and transportation projects affecting LSAP businesses.

### 2.1.3 Priority Parking for Carpools, Vanpools, and Clean-Fuel Vehicles

Priority parking for ADA, carpools and vanpools as well as personal electric vehicles is provided close to the main building entrances. The number and type of parking spaces provided is summarized in Table 2.

Table 2: Intuitive Vehicle Parking Provision

| Type of Parking | Parking Spaces Provided | | |
|---|---|---|---|
| | North Site | South Site | Total |
| Total shared and commercial parking spaces | 822 | 1,728 | 2,550 |
| ADA spaces | 20 (5 of which are ADA van accessible) | 30 (6 of which are ADA van accessible) | 50 (11 of which are ADA van accessible) |
| Carpool (and vanpool) spaces | 47 | 81 | 128 |
| Electric vehicle parking spaces | 29 | 49 | 78 |

### 2.1.4 Bicycle Parking, Sharing and Facilities

To facilitate cycling as a major mode of transportation, secure and ample bicycle parking is required. This includes providing both long-term and short-term bicycle parking. Long-term or Class I secured bicycle parking is defined as lockable facilities such as individual lockers or enclosed, locked, limited-access areas for parking of bicycles. Short-term or Class II bike racks are defined as stationary objects to which a bicycle can be locked such as “inverted U” racks or “ribbon wave” racks. As shown in Table 3, 148 long-term bicycle parking spaces and 50 short-term bicycle racks will be provided.

In addition, Intuitive has its own inter-campus bicycle program, Zagster, and currently provides 36 bikes, with dedicated racks and locks, for employees to use between their various campuses in Sunnyvale. This program will be extended to serve the new Intuitive Campus.

Also, to complement a worksite’s bicycle and active transportation, showers and changing facilities are important for employees who walk or bike to work or for those who wish to change after commuting via alternative modes of transportation. Showers with changing facilities and lockers will be provided in the amenity building on the north site and on level 1 of the manufacturing and R&D building on the south site.

Table 3: Bicycle Parking Provision

| Type of Parking | Parking Spaces Provided | | |
|---|---|---|---|
| | North Site | South Site | Total |
| Short-term/Class II bicycle parking (racks lockable in two points on a bike) | 15 | 35 | 50 |
| Long-term/Class I bicycle parking (covered, lockable enclosure protected from weather) | 44 | 104 | 148 |

### 2.1.5 Rideshare Matching Services

Intuitive employees have access to an internal commuter/transportation webpage which allows them to search for individuals who they could carpool/vanpool with. Carpoolers and vanpoolers can use the designated carpool parking spaces.

### 2.1.6 Pre-tax Commuter Benefits

Pre-tax commuter benefits are provided through payroll. Consistent with the provisions in the federal tax code, employees can pay for transit passes and/or bicycle tune ups using pre-tax dollars.

### 2.1.7 Marketing and Information

Intuitive will lead the marketing and promotion of the TDM programs, which is critical to the success of the TDM measures. In addition to providing information on transit and bike maps, rideshare matching services, and pre-tax commuter benefits, Intuitive will promote special events and recurring TDM programs to employees. This may include active transportation events such as Bike to Work Day, monthly or quarterly bike repair and commute workshops, fitness competitions, and other incentive programs.

Additional ways to promote the TDM programs include:

- Embedded materials within new hire packets and orientation
- Transportation fairs; combined with benefits/health fairs to increase attendance
- Regularly published electronic newsletters
- Informational email blasts
- Commuter information boards/kiosks located in prominent, central locations like the building lobby
- Employer/TMA website with information and links to local relevant agencies, forms, and services

## 2.2 Optional TDM Programs

This section provides additional TDM programs which may be implemented at the Intuitive Campus.

### 2.2.1 Employer Commuter Shuttle Services

Intuitive currently provides free daily shuttles to/from its existing campuses in Sunnyvale and may extend these services to the Intuitive Campus. Existing shuttle routes include:

- Intercampus shuttles which operate as a loop between the Intuitive buildings and Lawrence Caltrain Station from 7:15AM to 6:00PM
- Shuttles to/from Santa Clara Great America Station and Intuitive buildings between 5:15AM and 8:10AM and also between 3:00PM and 6:35PM
- Commuter shuttles to/from the East Bay with pick-up/drop-off at Fremont Civic Center Park and Ride and Fremont BART station between 5:15AM and 8:10AM and also between 3:00PM and 6:35PM

Shuttle users are guaranteed a ride home (Uber voucher, taxi reimbursement, etc) should shuttle service go down for any reason.

### 2.2.2 Flexible Work Schedule Program

Flexible work schedules provide versatility to employees and can reduce the number of commuters during typical peak work hours. Intuitive currently offers the following options which they may extent to employees at Intuitive Campus:

- Working from other offices or remote locations, including the Intuitive satellite office in San Francisco
- Flexible work program (for certain groups)

### 2.2.3 Subsidized or Free Transit Passes

Intuitive currently provides a free Caltrain Go Pass to its employees who commute by Caltrain. The Caltrain Go Pass provides unlimited Caltrain rides seven days a week. In 2018, 765 employees signed up for this benefit which may also be extended to employees at the Intuitive Campus.

# 3 Planning and Design Measures

The project's location and physical context provides access to public transit and bicycle routes, which will complement the TDM program measures listed in Section 2.

## 3.1 Transit Service

Figure 3 shows the public transit that operates within Sunnyvale near the site including Caltrain and a number of VTA bus routes. Not shown on the map but given in Figure 4 is the Altamont Corridor Express (ACE) Gray Shuttle which runs along Kifer Road in front of the development site.

**Caltrain**

Caltrain provides a commuter rail service along the San Francisco Peninsula, through the South Bay to San Jose and Gilroy. The service operates seven days a week with various frequencies during the peak morning and evening hours. Intuitive operates a shuttle between its Sunnyvale campuses and the Lawrence Caltrain Station.

**Altamont Corridor Express (ACE)**

ACE provides a shuttle for commuters from the east (as far east as Stockton, passing through Lathrop, Tracy, Livermore, Pleasanton, and Fremont). The ACE Gray Shuttle (Figure 4) connects the Great America Station and the Intuitive Campus and Intuitive also operates a shuttle to/from its campuses and the Great America Station.

Figure 3: VTA Bus and Rail Map

Figure 4: ACE Gray Shuttle 822 (source: VTA)

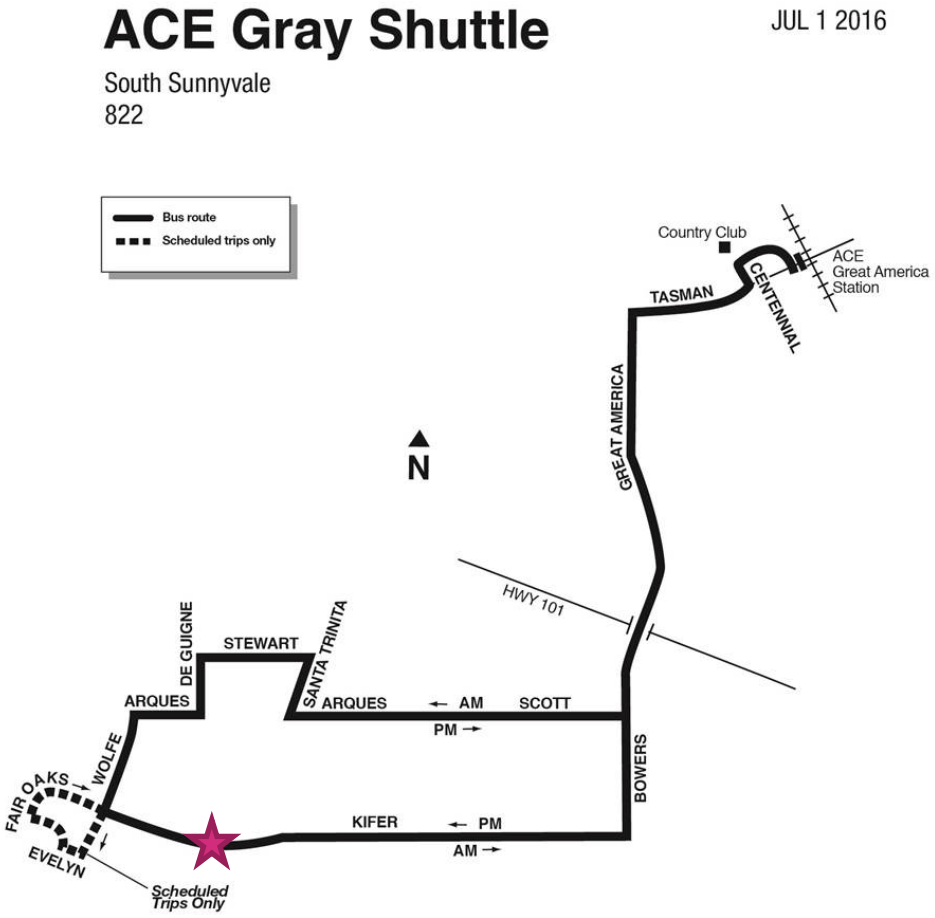



Table 4 shows a summary of the existing transit services near the Intuitive Campus. The VTA bus routes are given in Figure 5 to Figure 9. It is understood that these routes may change when the VTA Next Network project is implemented and the anticipated changes are also noted in Table 4.

Table 4: Transit Services Serving Intuitive Campus

| Service | Description | Nearby Stops | Service Hours | VTA Next Network |
|---|---|---|---|---|
| Caltrain | Caltrain Service to Lawrence Caltrain Station | Lawrence Caltrain Station (0.8 mi) | Northbound: 4:39AM-10:40PM<br>Southbound: 6:15AM-1:29AM | |

| Service | Description | Nearby Stops | Service Hours | VTA Next Network |
|---|---|---|---|---|
| ACE Gray Shuttle 822 | ACE Gray Shuttle (South Sunnyvale) | Kifer & Commercial (<0.1 mi) | Southbound: 6:16AM-9.36AM<br>Northbound: 3:09PM-6:39PM | |
| VTA Bus 304 | South San Jose - Sunnyvale Transit Center | Arques & Wolfe (0.8 mi) | Northbound: 5:52AM-8:49AM<br>Southbound: 3:33PM-7:07PM | Route 304 would be discontinued |
| VTA Bus 26 | Lockheed Martin Transit Center - Eastridge via Westgate | Fair Oaks & Kifer (0.7 mi) | 5:13AM-11:50PM (weekdays) | Route 26 would be broken into two routes: Route 26 and Route 56<br>Route 56 would serve the site |
| VTA Bus 55 | De Anza College - Great America | Fair Oaks & Kifer (0.7 mi) | 5:38AM-10:54PM (weekdays) | Route 55 would stay on Sunnyvale Avenue rather than serve Fair Oaks. Weekday frequency would decrease during commute periods from 15 minutes to 30 minutes |
| VTA Bus 328 | Almaden Expressway & Camden - Lockheed Martin | Lawrence Expressway & Kifer (0.7 miles) | Northbound: 5:57AM-8:43AM<br>Southbound: 4:53PM-7:14PM | Route 328 would be discontinued |
| VTA Bus 32 | San Antonio Shopping Center - Santa Clara Transit Center | Evelyn & Wolfe (0.8 mi) | 5:45AM-8:35PM (weekdays) | Route 32 would merge with route 35 and be renamed route 21 |

Figure 5: VTA Bus Route 304 (source: VTA)

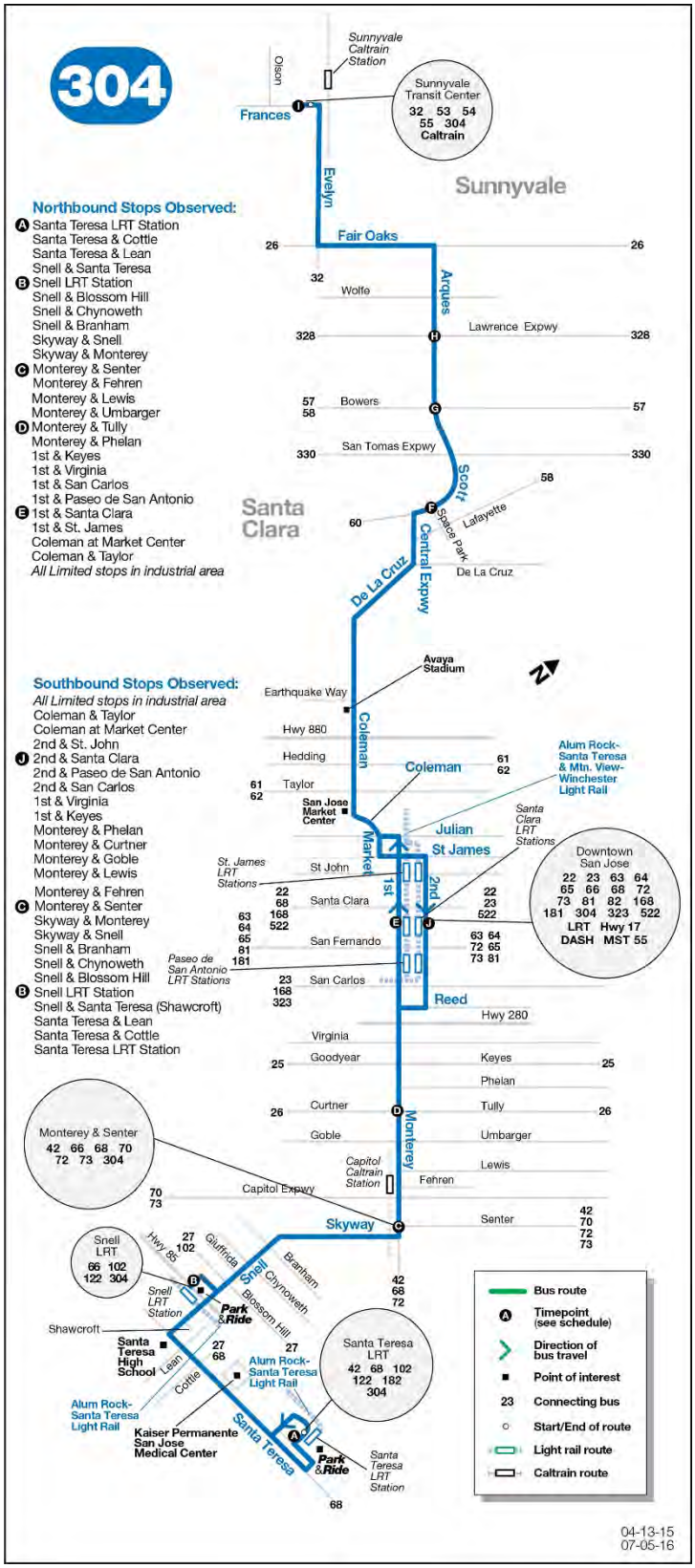


Figure 6: VTA Bus Route 26 (source: VTA)

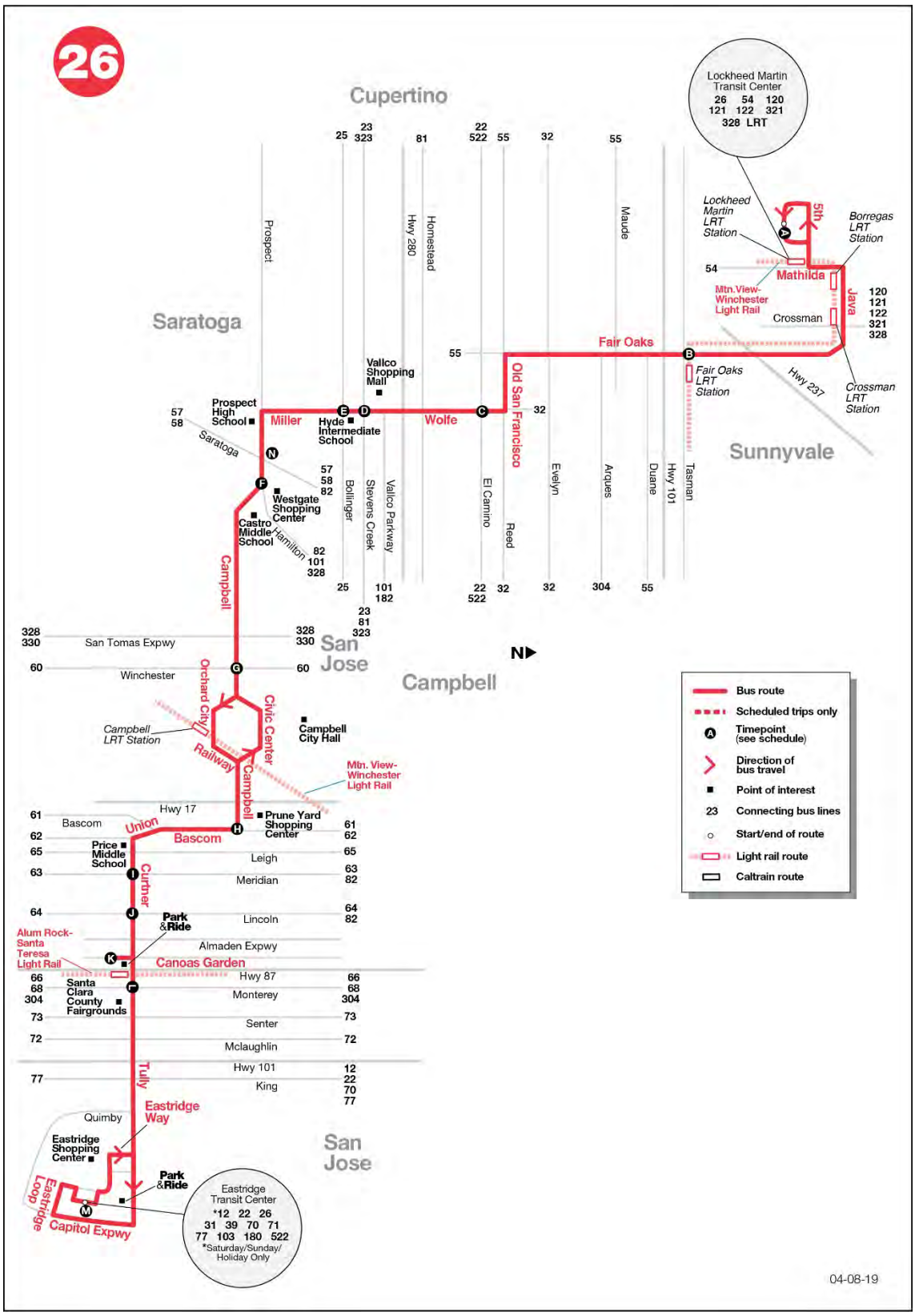


Figure 7: VTA Bus Route 55 (source: VTA)

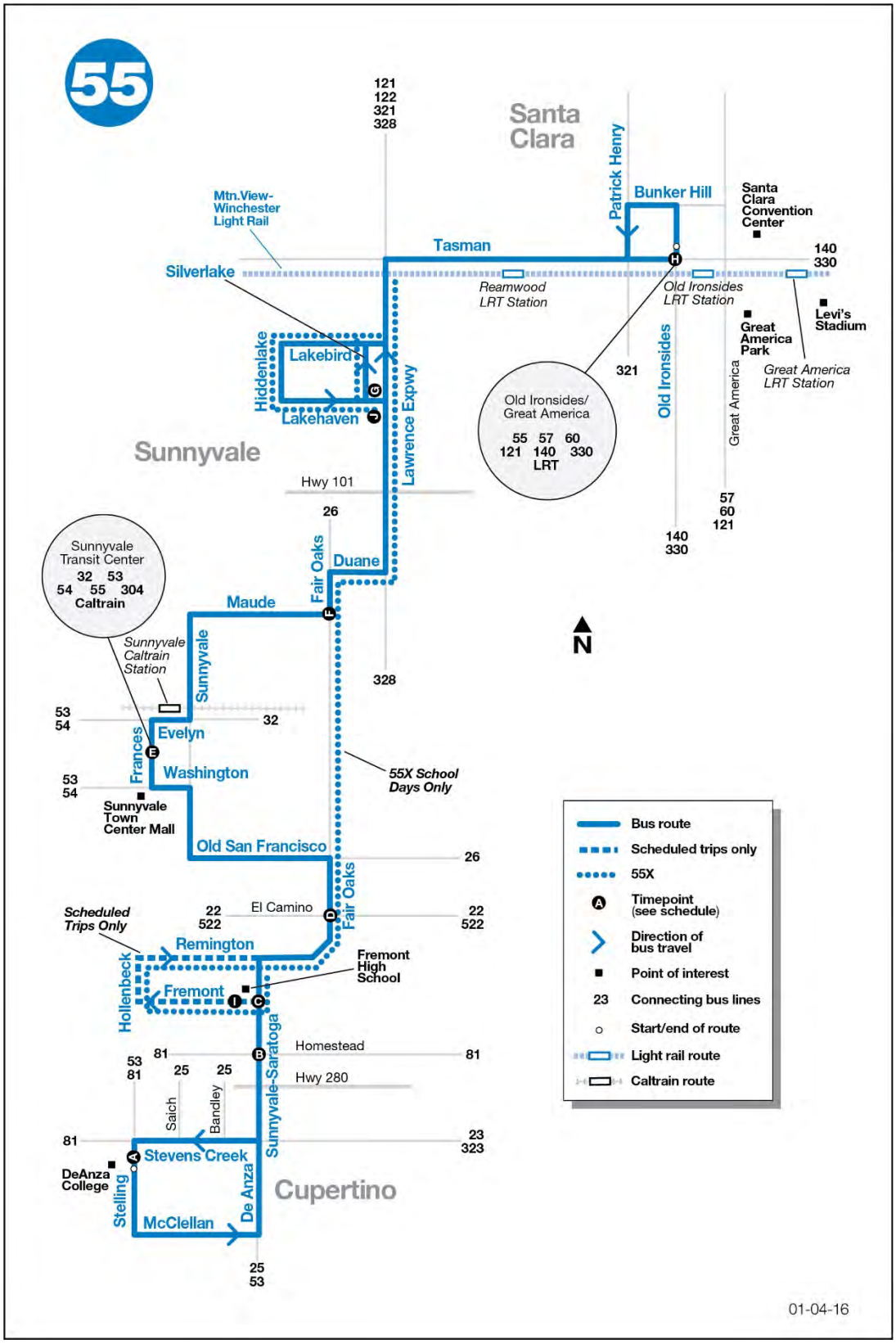


Figure 8: VTA Bus Route 328 (source: VTA)

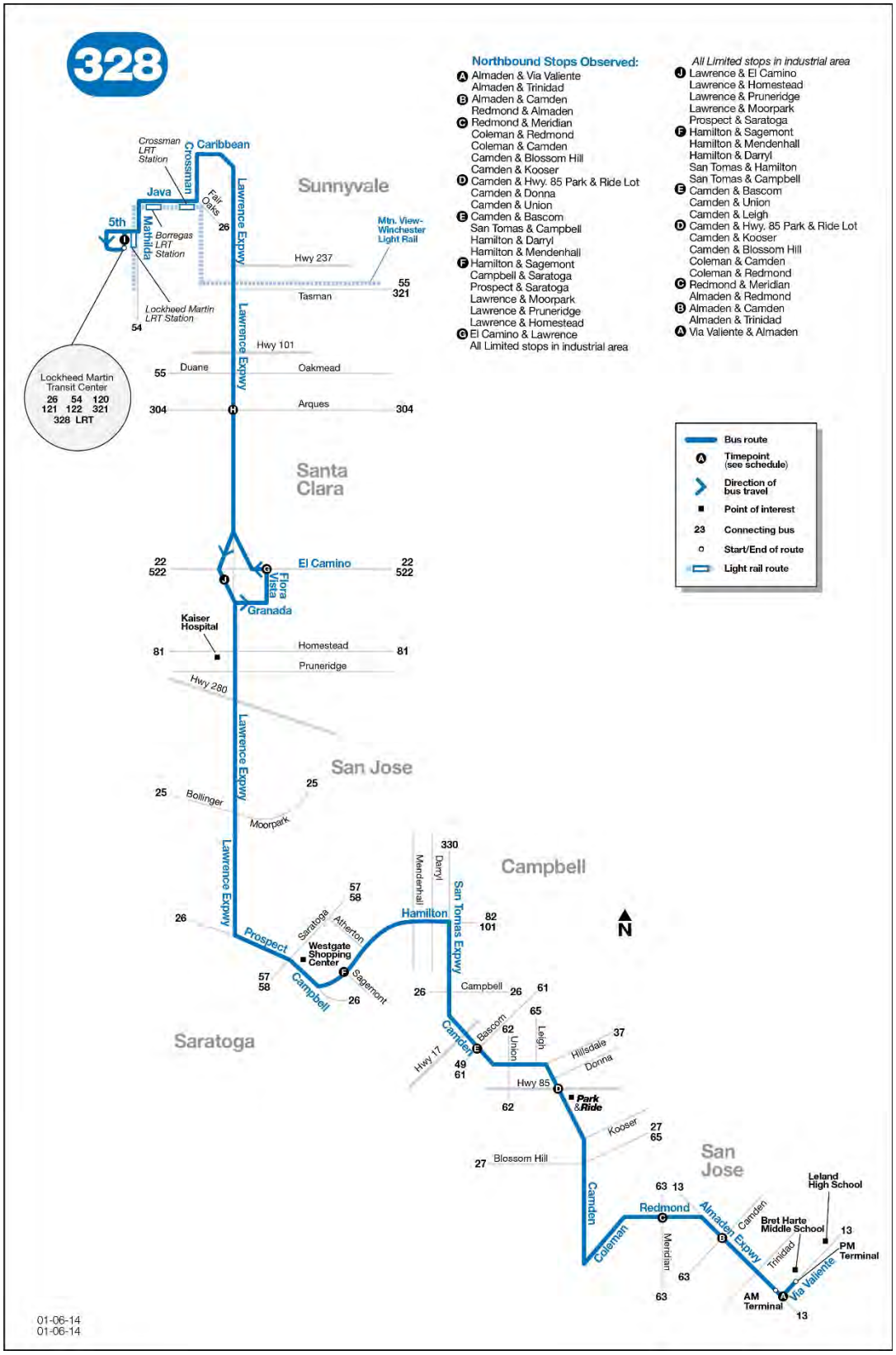
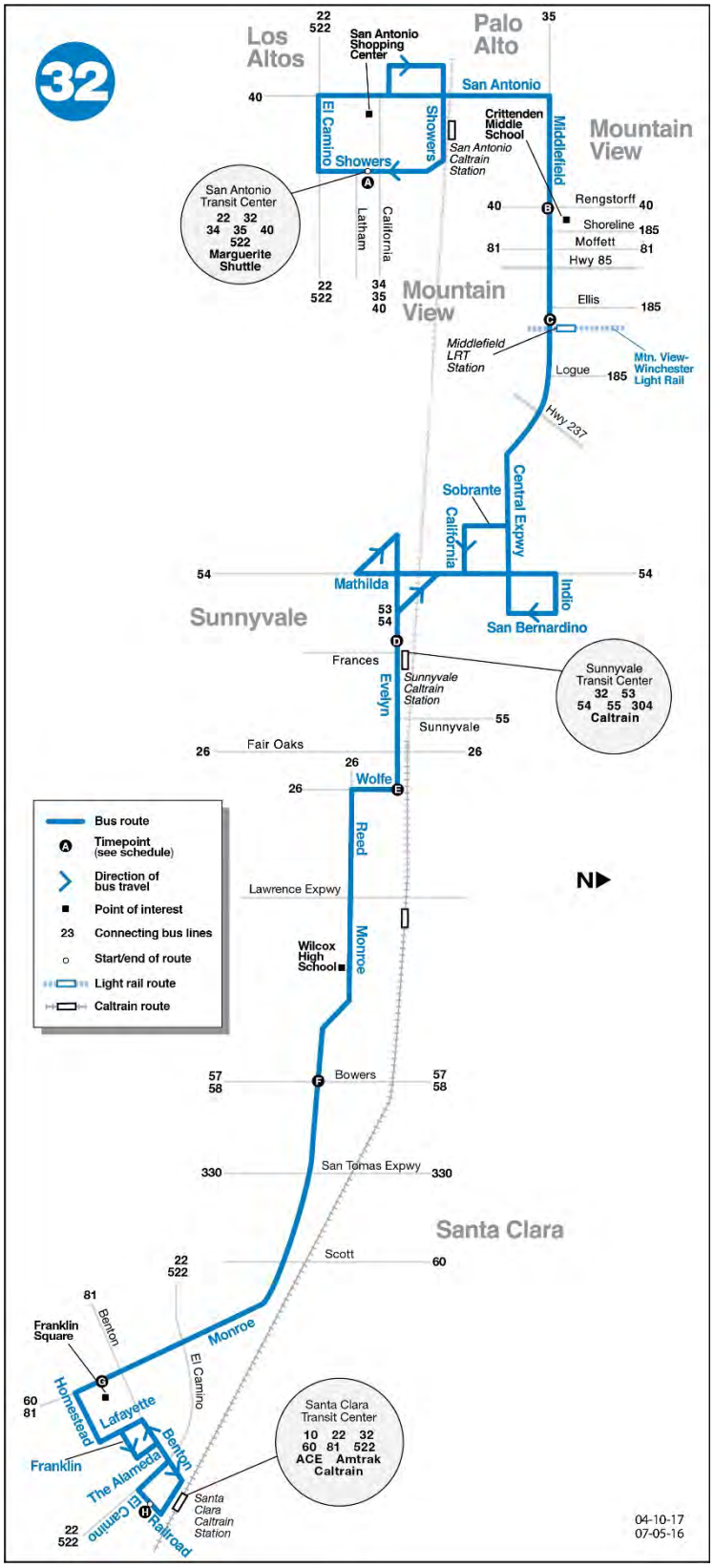


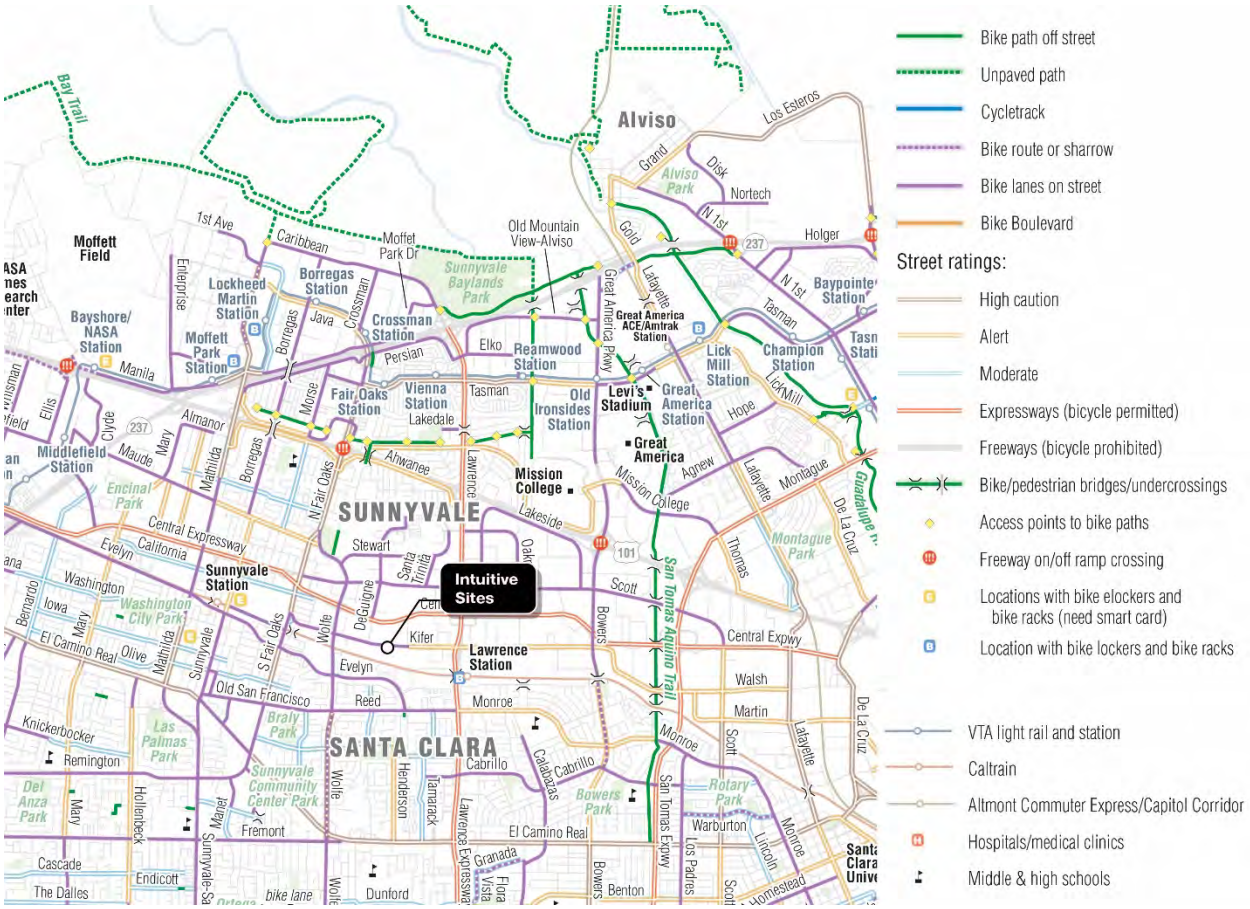
Figure 9: VTA Bus Route 32 (source: VTA)



## 3.2 Bicycle and Pedestrian Access

Figure 10 shows the existing bicycle paths within the vicinity of the site. Sidewalks also exist on either side of Kifer Road and crosswalks are provided at signalized intersections. The site includes a network of pedestrian and bicycle pathways to connect external facilities with internal bike parking and access. A pedestrian bridge is proposed over Kifer Road to facilitate pedestrian movement between the buildings on the north and south sites.

Figure 10: Sunnyvale Bikeways (source: Santa Clara Valley Transportation Authority)




## 3.3 Parking Management

The supply of parking can directly affect the behavior of commuters. As such, managing the supply and use of parking should enhance and encourage the TDM measures.

In line with City standards, to facilitate compliance with the City's TDM requirements and to encourage the use of alternative modes of travel, this project proposes to reduce required parking by 3%. Therefore 2,550 parking spaces will be provided – 822 on the north site and 1,728 on the south site.

For the north site, parking will be provided in a two-level basement underneath the office building with 31 surface parking spaces also provided in the southwest corner of the site. For the south site, parking will be provided in a five-level parking structure with 57 surface parking spaces also provided in the northwest corner of the site. Of the 2,550 parking spaces, 50 will be ADA accessible, including 11 van ADA accessible spaces, 128 for carpool and 78 for electric vehicles. Preferential parking will be made available for alternative commute modes, including carpools and electric vehicles.

Access to all of the parking will be via Kifer Road. A signalized intersection at Commercial Avenue will provide access to the south site parking. The surface parking on the north site will be accessed via a side street stop controlled intersection to the east of Commercial Avenue. Access to the main parking at the north site will be from a signalized intersection, approximately 1,200ft east of the Kifer Road / Commercial Avenue intersection.

## 3.4 Passenger Loading

Some employees and visitors to Intuitive Campus are expected to be dropped off at the campus or use shared ride services such as Lyft and Uber. Although convenience is important for maintaining a high-quality user experience, the campus prioritizes active mobility and safety over vehicle mobility, so dedicated drop-off areas will be provided on both the north and south site. On the north site, the drop off area will be located at the turn around in front of the building which is accessible from the side street stop controlled intersection on Kifer Road. On the south site, passenger loading will take place to the east of the building, also accessible from a side street stop controlled intersection. The drop-off areas are located adjacent to the buildings, in a location that avoids the need for passengers to cross the roadway after drop-off.

## 3.5 Project Amenities

The on-site amenities and services provided at Intuitive Campus reduce the number of trips that employees need to take during the day and increase the feasibility of using an alternative to driving alone. The project has plans for many on-site amenities, which include:

- Onsite showers and changing facilities
- Bicycle storage
- Onsite towel service
- Onsite dry-cleaning
- Onsite yoga
- Cafés

- Public plazas with greenery and seating
- Pedestrian and bike pathways throughout and around the site

# 4 Implementation Mechanism

Intuitive will be responsible for implementing the TDM programs. TDM programs shall be complete, active, and in place upon 75% building occupancy.

Upon implementation of the program, as per requirements outlined in the TDM Program Guidelines, Intuitive shall contact the City in writing to identify the designated TDM Coordinator, their contact information, occupancy date, and implementation date of the TDM plan. Such notification shall be sent to the City TDM Program.

# 5 Monitoring and Evaluation

Intuitive will be responsible for annual monitoring and evaluating the TDM programs. Intuitive's TDM Coordinator(s) shall produce annual reports to the City.

## 5.1 Preliminary Schedule

First day of business of Intuitive Campus is expected to be in the third quarter of 2022.

## 5.2 Acknowledgment of Annual Monitoring

Intuitive acknowledges that the City will administer monitoring beginning at 75% occupancy and agrees to pay all costs for monitoring. Monitoring could include driveway counts, intercept counts and/or employee surveys. Intuitive will agree an appropriate means of monitoring with the City before annual monitoring begins. Intuitive acknowledges that non-compliance fees will apply and recognizes that the fees are subject to change.

## 5.3 City TDM Program Contact Information

Mailing Address: City of Sunnyvale
Transportation Demand Program Manager
456 W. Olive Avenue
Sunnyvale, CA 94086

Phone Number: (408) 730-7415

## 5.4 TDM Coordinator Contact Information

The TDM Coordinator for Intuitive Campus is as follows:

| | |
|---|---|
| Name: | Cynthia Arteaga |
| Firm: | Intuitive |
| Mailing Address: | 1020 Kifer Road |
| | Sunnyvale, CA 94086-5304 |
| Email: | cynthia.arteaga@intusurg.com |
| Phone Number: | +1 408 523 2100 |

# Appendix A

City of Sunnyvale TDM Form

DOTAT File Number: _____

**CITY OF SUNNYVALE**
**DIVISION OF TRANSPORTATION AND TRAFFIC**

## TRANSPORTATION DEMAND MANAGEMENT (TDM) FORM

A Transportation Demand Management (TDM) program is the incorporation of a variety of incentives, services, and actions that influence the reduction of automobile trips in order to provide additional relief from congestion, parking and air quality impacts. Projects within the City of Sunnyvale that require the implementation of a TDM program must have a TDM Form approved by the City prior to issuance of building permits. The site and TDM coordinator contact information must be kept up to date with the City at all times; this information can be updated at any time by submitting an updated TDM Form. One TDM Form must be submitted and approved per site. Parcels sharing driveway access are to be considered a single site and single parcels with two or more separate access points are also considered a single site.

**Project Information**

| | | | |
|---|---|---|---|
| Project Number: | | Project Name: | Intuitive Campus |
| Project Description: | The proposed project includes a 364,000 GSF office building (on the north site) and 847,000 GSF manufacturing and research and development building (on the south site) | | |
| Site Address: | North Site: 945 and 955 Kifer Road / South Site: 932 and 950 Kifer Road, Sunnyvale, CA | | |
| Floor Area (s.f.): | North Site: 364,000 GSF / South Site: 847,000 GSF | Expected 75% Occupancy Date: | 12/31/2022 |
| Required Trip Reduction: | 30 % AM, 30 % PM | | |

**Project Applicant or Representative**

| | | | |
|---|---|---|---|
| Name: | Blake Reinhardt | Firm: | Intuitive |
| Mailing Address: | 1020 Kifer Road, Sunnyvale, CA 94086-5304 | | |
| Email: | blake.reinhardt@intusurg.com | Phone Number: | (408) 523-0732 |

**Owner**

| | | | |
|---|---|---|---|
| Name: | Blake Reinhardt | Firm: | Intuitive |
| Mailing Address: | 1020 Kifer Road, Sunnyvale, CA 94086-5304 | | |
| Email: | Blake.Reinhardt@intusurg.com | Phone Number: | (408) 523-0732 |

**TDM Coordinator Contact**

| | | | |
|---|---|---|---|
| Name: | Cynthia Arteaga | Firm: | Intuitive |
| Mailing Address: | 1020 Kifer Road, Sunnyvale, CA 94086-5304 | | |
| Email: | Cynthia.Arteaga@intusurg.com | Phone Number: | (408) 523-2100 |

**Trip Information**

| | Code[1] | Land Use Description[1] | Units | Unit Type[2] | AM Trips | PM Trips |
|---|---|---|---|---|---|---|
| Project use – 1 | 710 | General Office Building | 364 | KSF | 422 | 419 |
| Project use – 2[3] | 760 | Research & Development | 847 | KSF | 356 | 415 |
| Project use – 3[3] | | | | | | |
| Site Baseline Total | | | | | 778 | 834 |
| Trip Reduction Requirement | | | | | 30% | 30% |
| Maximum Allowable Average Trips | | | | | 545 | 584 |

Notes:
1. All trip generation calculations shall be done per the latest version of the ITE Trip Generation Manual at the time of project approval. The edition applicable to this project is 10th Edition.
2. Unit type per ITE Trip Generation Manual (e.g. dwellings, occupied rooms, KSF)
3. Only applicable for multi-use projects.

**Attachments**

The following documents must be attached to this form:

❑ Site Map (Letter-size)

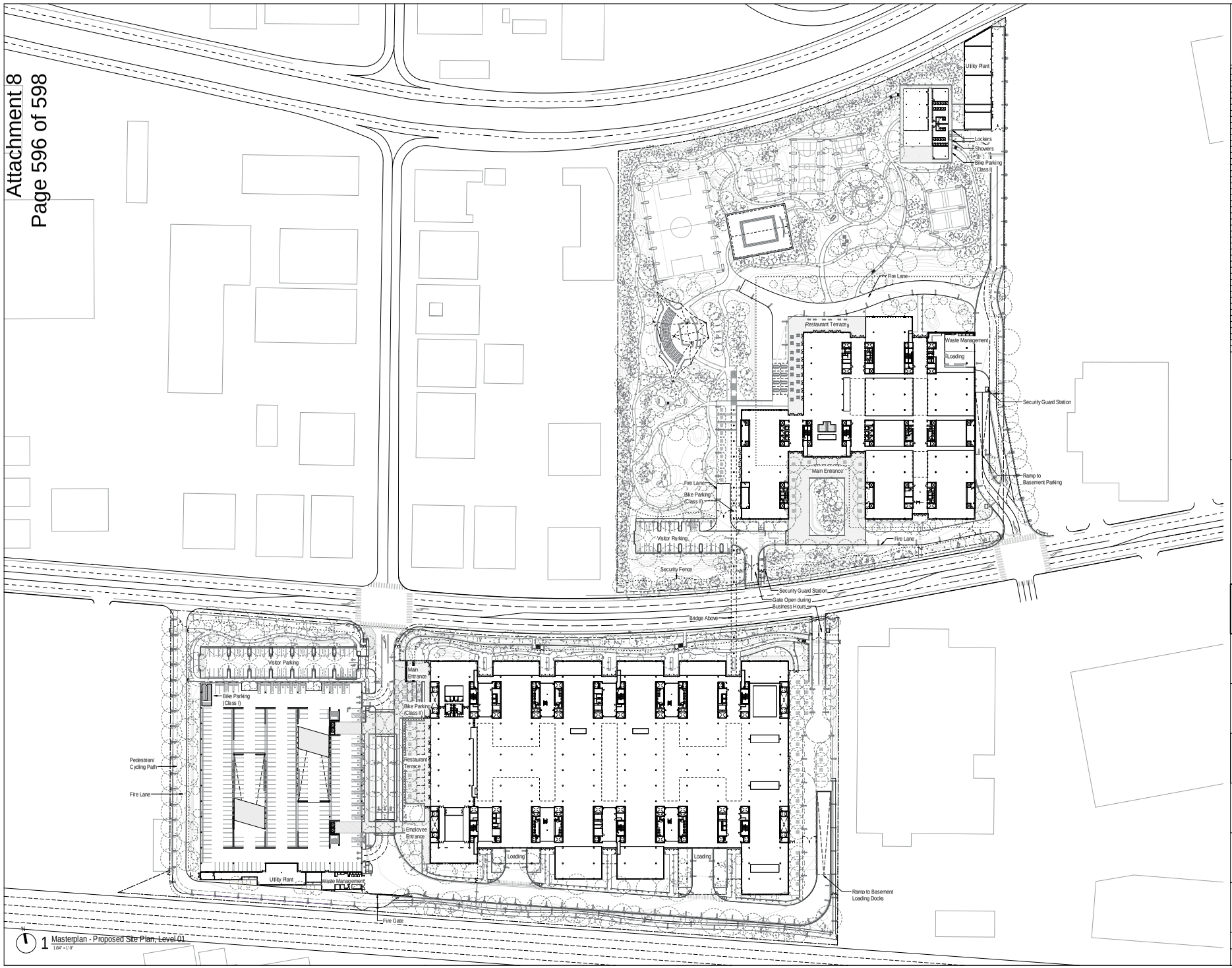
❑ Copy of Project Conditions of Approval pertaining to TDM requirements

-Because the project is still in the design stage, the Conditions of Approval are not yet available. Updated Conditions of Approval will be provided once available.

**DOTAT USE ONLY**

Received Date: _____ Completed Sections:
Received By: _____
Approval: ❑ Approved (Date:_____)
❑ Incomplete – Notes:

❑ Project Information
❑ Project Applicant/Representative
❑ Owner
❑ Trip Information
❑ Site Map
❑ COA's




1 Masterplan - Proposed Site Plan, Level 01
1/64" =1'-0"

General Notes
1. Do not scale drawings. Dimensions govern.
2. All dimensions are in feet and inches unless noted otherwise.
3. All levels are in feet and inches unless noted otherwise.
4. All dimensions shall be verified on site before proceeding with the work.
5. Foster + Partners shall be notified in writing of any discrepancies.
6. Any areas indicated on this sheet are approximate and indicative only.

| Rev. | Date | Reason For Issue | Chk |
|---|---|---|---|
| 02 | 20 DEC 2019 | 100% Design Development | F+P |
| 01 | 13 SEP 2019 | 50% Design Development | F+P |
| 00 | 15 FEB 2019 | Schematic Design | F+P |

100% Design Development

Key Plan

Stamp

**Foster + Partners**
Riverside, 22 Hester Road
London SW11 4AN
T +44(0)20 7738 0455
www.fosterandpartners.com
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ARUP
560 Mission Street, Suite 700
San Francisco, CA 94105
(415)946-0201
www.arup.com

KIER+WRIGHT
3360 Scott Boulevard, Building 22
Santa Clara, CA 95054
(408)727-6665

BrightView
PLANNING
LANDSCAPE ARCHITECTURE
URBAN DESIGN
1715 - 16TH STREET
SANTA MONICA, CA 90404
(310) 828-4702

Client
Intuitive

Project
Intuitive

Title
Masterplan
Proposed Site Plan, L1
Level 01

| Project No. | Date | Scale at Arch E1 |
|---|---|---|
| 2768 | 20 DEC 2019 | 1/64" = 1'-0" |
| Number | | Revision |
| A-sl-011-ma-01 | | 02 |

# Appendix B

Parking Calculations

| Site | North site | | | South site | | |
|---|---|---|---|---|---|---|
| Land use | Corporate office | | | Manufacturing and R&D | | |
| GSF | 364,000 | | | 847,000 | | |
| Restaurant | 13,000 | | | 16,000 | | |
| Adjusted GSF | 351,000 | | | 831,000 | | |
| | Required parking ratio | Required number of parking spaces with 3% Reduction | Provided number of parking spaces | Required parking ratio | Required number of parking spaces with 3% Reduction | Provided number of parking spaces |
| Total vehicle parking (LSAP requirement) | 2.75 | 937 | 822 | 2 | 1613 | 1728 |
| Accessible parking spaces (includes Van-accessible parking and electric vehicle spaces) | Garage 2% of total parking | 17 | 17 | Garage 20 plus 1 for each | 27 | 27 |
| | Surface 1 2 per 26-50 spaces | 2 | 2 | Surface 1 3 per 51-75 spaces | 3 | 3 |
| | Surface 2 1 per 1-25 spaces | 1 | 1 | | | |
| Van-accessible parking spaces | Garage | 3 | 3 | Garage | 5 | 5 |
| | Surface 1 1 out of every 6 accessible spaces | 1 | 1 | Surface 1 1 out of every 6 accessible spaces | 1 | 1 |
| | Surface 2 | 1 | 1 | | | |
| Carpool spaces | 5% of total parking | 47 | 47 | 5% of total parking | 81 | 81 |
| Electric vehicle spaces | 3% of total parking spaces | 29 | 29 | 3% of total parking spaces | 49 | 49 |
| | Standard ADA 1 per 26-50 EV spaces | 1 | 1 | Standard ADA 1 per 26-50 EV spaces | 1 | 1 |
| | Van ADA 1 per 26-50 EV spaces | 1 | 1 | Van ADA 1 per 26-50 EV spaces | 1 | 1 |
| Class I bicycle parking | 1 per 75% of 6,000 SF | 44 | | 1 per 75% of 6,000 SF | 104 | |
| Class II bicycle parking | 1 per 25% of 6,000 SF | 15 | | 1 per 25% of 6,000 SF | 35 | |
| Total bicycle parking (Class I and Class II) | | 59 | 59 | | 139 | 139 |