Traffic and Parking Analysis Report

State Center Community College District Master Plan Update

In the Counties of Fresno and Madera, California

Prepared for:

Darden Architects, Inc.
6790 North West Avenue
Fresno, CA 93711

October 4, 2018

Project No. 009-012

JLB Traffic Engineering, Inc.

Traffic Engineering, Transportation Planning, & Parking Solutions

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
Phone: (559) 570-8991
www.JLBtraffic.com

JLB Traffic Engineering, Inc.

Traffic Engineering, Transportation Planning, & Parking Solutions

Traffic and Parking Analysis Report

State Center Community College District Master Plan Update

In the Counties of Fresno and Madera, California

October 4, 2018

This Traffic and Parking Analysis Report has been prepared under the direction of a licensed Traffic Engineer. The licensed Traffic Engineer attests to the technical information contained therein and has judged the qualifications of any technical specialists providing engineering data from which recommendations, conclusions and decisions are based.

Prepared by:

_____

Jose Luis Benavides, PE, TE

President

JLB Traffic Engineering, Inc.

Traffic Engineering, Transportation Planning, & Parking Solutions

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
Phone: (559) 570-8991
www.JLBtraffic.com

Table of Contents

List of Figures

List of Tables

List of Appendices

Introduction

This report describes JLB Traffic Engineering, Inc.'s (JLB's) Traffic and Parking Analysis for the State Center Community College District (SCCCD) Master Plan Update for Clovis, Fresno, Madera, and Reedley Community College campuses located in the Counties of Fresno and Madera. The SCCCD serves more than 40,000 students throughout the greater Fresno area including Fresno County, Madera County and portions of Tulare County and Kings County on its six (6) campuses. Figures 1 through 4 show the location of the four (4) college campuses (studied within this report) relative to the surrounding roadway network.

The purpose of this Traffic and Parking Analysis is to aid in the development of the SCCCD master plans for the campuses of Clovis Community College (CCC), Fresno City College (FCC), Madera Community College (MCC), and Reedley Community College (RCC).

Summary

The potential traffic and parking impacts of the four (4) campuses were evaluated in accordance with the standards set forth by the level of service policy of the cities of Fresno and Reedley, the counties of Fresno and Madera, and Caltrans, as appropriate.

Clovis Community College

- Although all study intersections operate at an acceptable LOS, it is recommended that the access driveway to parking lot "J" be aligned with the access to parking lots "H" and "G" across the street to improve traffic operations.
- It is also recommended that a second access point to parking lot "J" be added to align itself with the second southernmost east-west parking aisle.
- At present, there is one transit route that serves Clovis Community College.
- Based on the parking demand observation and the current enrollment of 4,991 FTE students, Clovis Community College has an ample supply of parking stalls.
- Given the current parking demand and the projected FTE student enrollment at CCC, it is anticipated that the CCC campus will have sufficient parking supply to accommodate the projected FTE student enrollment in the year 2028.
- The majority of students that travel to the CCC campus:
  - Drive alone;
  - Park on campus; and
  - Are on campus four (4) or more times a week.
- The majority of staff/faculty that travel to the CCC campus:
  - Drive alone;
  - Park on campus; and
  - Are on campus five (5) or more times a week.
- It is recommended that the SCCCD consider implementing a rideshare program that will encourage staff/faculty to carpool or use other modes of transportation.

Fresno City College

- At present, all study intersections operate at an acceptable LOS. However, it should be noted that access to the northern driveway to parking lot "E/F" was limited to right-in and right-out access only. This is currently achieved by the placement of cones and regulatory signage. However, it is recommended that a narrow raised median island with channelizers be installed and that the temporary cones be removed. Another alternative would consider closing this driveway and opening a new driveway to a point just north of the existing midblock crosswalk.
- If the northern driveway is relocated to a point just north of the existing midblock crosswalk, it is recommended that southbound left-turns into parking lot "E/F" be allowed and that all-way STOP controls be implemented in order to promote pedestrian safety and minimize impacts to traffic operations.
- It is recommended that all crosswalks within the FCC campus be upgraded to high visibility crosswalks in an effort to improve pedestrian safety and promote walking to school.
- It is recommended that a one-lane roundabout be planned for the intersection of Calaveras Street and Weldon Avenue as a means to reduce the potential of induced delay in the future.
- It is recommended that the intersection of Campus Drive and Weldon Avenue be signalized with a leading pedestrian interval in the westbound approach and that a dedicated northbound right-turn lane with overlap phasing be added.
- Since the intersection of McKinley Avenue Access and Campus Drive operates at a good LOS with a maximum average delay of 10.7 seconds, JLB does not recommend changes to the geometrics or traffic controls of this intersection.
- It is recommended that "KEEP CLEAR" legends be marked on Campus Drive at its intersection with Parking E/F access road. The addition of the "KEEP CLEAR" legends and the recommendations for the intersection of Campus Drive and Weldon Avenue are anticipated to substantially reduce queuing along Campus Drive.
- At present, there are five (5) FAX transit routes, FAX Routes 1 Q, 20, 28, 39 and 45, that operate in the vicinity of the Fresno City College campus. It is recommended that the SCCCD work with FAX to improve headways of the existing transit routes serving the FCC campus. Furthermore, it is recommended that additional covered bus shelters be added along McKinley Avenue to help promote transit use.
- Between 2012 and 2018, the number of FTEs at FCC increased by more than 4,100.
- While the FCC campus increased the overall number of available on-site parking stalls between 2012 and 2018, those available to the general public decreased by 74 stalls and the number of ADA stalls decreased by 13 stalls. At the same time, the number of staff stalls increased from 456 stalls to 638 stalls, or the equivalent of a 40 percent increase in staff stalls while other users observed a decline.
- During the parking demand peak hour, 208 stalls were available but of these 85 percent were restricted stalls leaving only 31 stalls available for the general public. It should be noted that during the parking demand peak hour, parking lots "B", "C," "D," "E/F", "I", "O", "T" and "V," which accommodate approximately 91 percent of the general public and metered parking stalls, were between 98 and 100 percent occupied.

- The number of general public and metered on-site parking stalls needed to meet the current 2018 demand is 2,629. This equates to a 2018 shortage of 241 general public/metered stalls.
- The number of general public and metered on-site parking stalls needed to meet the current 2028 demand is 2,709. Given that the current number of general public and metered on-site parking stalls is 2,388, it is anticipated that the FCC campus will need to add 321 general public and metered on-site parking stalls to accommodate the projected FTE student enrollment in the year 2028.
- There are current plans to relocate the District Office staff from the Fresno City Campus to an off-site location. When this takes place, the parking supply utilized by the District Office staff and its visitors would be made available to FCC students and other staff and faculty and thereby reducing the overall parking supply needed.
- The majority of students that attend the FCC campus:
  - Drive alone;
  - Those that park off-site do so because they are unable to locate parking on campus; and
  - Are on campus four (4) or more times a week.
- The majority of staff/faculty that travel to the FCC campus:
  - Drive alone;
  - Those that park off-site do so because they are unable to locate parking on campus; and
  - Are on campus five (5) or more times a week.
- It is recommended that the SCCCD consider implementing a rideshare program that will encourage staff/faculty to carpool or use other modes of transportation.

Madera Community College

- At present, all study intersections operate at an acceptable LOS. However, assuming traffic along Avenue 12 increases by an average annual rate of 2.0 percent, the intersection of Campus Main Street and Avenue 12 is projected to operate at an unacceptable LOS by the year 2028. Since the intersection is not projected to meet the peak hour signal warrant in the year 2028, signalization of this intersection is not recommended. However, to improve traffic operations at this location by the year 2028, it is recommended that the SCCCD work with the County of Madera to install a single-lane roundabout.
- At present, there is one (1) fixed route transit service, MAX Route 3 College, adjacent to the Madera Community College campus.
- Based on the parking demand observation and the current enrollment of 2,118 FTE students, Madera Community College has an ample supply of parking stalls.
- Given the current parking demand and the projected FTE student enrollment at MCC, it is anticipated that the MCC campus will have sufficient parking supply to accommodate the projected FTE student enrollment in the year 2028.
- The majority of students that attend the MCC campus:
  - Drive alone,
  - Those that park off-site do so because they are concerned with cost savings, and
  - Are on campus four (4) or more times a week.

- The majority of staff/faculty that travel to the MCC campus:
  - Drive alone,
  - Those that park offsite do so because they are unable for find parking on campus, and
  - Are on campus 5 or more times a week.
- It is recommended that the SCCCD consider implementing a rideshare program that will encourage staff/faculty to carpool or use other modes of transportation.

Reedley Community College

- While, all study intersections operate at an acceptable LOS, it is recommended that left-turns out be prohibited at the intersection of parking lot "B" access driveway and Manning Avenue. Other alternatives for consideration include the addition of a second driveway to the south along Manning Avenue and the construction of a connection between parking lot "B" and the existing campus aisle drive to the north.
- It is recommended that the SCCCD work with the respective transit authorities to improve headways of the existing transit routes serving the Reedley Community College campus. Furthermore, it is recommended that additional covered bus shelters and trees (for shade) be added along Manning Avenue to help promote transit use.
- While the RCC campus has increased the number of available on-site parking stalls, the FTE student enrollment has increased at a higher rate with more than 1,300 additional students in 2018 than in 2012.
- The number of general public and metered on-site parking stalls needed to meet the 2028 demand is 2,629. Given that the current number of general public and metered on-site parking stalls is 1,153, it is anticipated that the RCC campus will need to add 112 general public and metered on-site parking stalls to accommodate the projected parking demand as a result of the estimated FTE student enrollment in the year 2028. It is worth noting that while the consideration of the on-street parking along Manning Avenue and those within the Redeemer's Church site will eliminate the need to add additional general public and metered on-site parking stalls, the SCCCD should work toward providing students with adequate parking supply on-site as the off-site parking supply is not guaranteed to be available for students. The majority of students that attend the RCC campus:
  - Drive alone;
  - Those that choose to park off-site do so because they are unable to located parking on campus; and
  - Are on campus five (5) or more times a week.
- The majority of staff/faculty that travel to the RCC campus:
  - Drive alone;
  - Park on campus; and
  - Are on campus five (5) or more times a week.
- It is recommended that the SCCCD consider implementing a rideshare program that will encourage staff/faculty to carpool or use other modes of transportation.

Study Facilities

The existing peak hour turning movement volume counts were conducted at the study intersections in April and May 2018 while schools in the vicinity of the proposed Project were in session. The intersection turning movement counts included pedestrian volumes. The traffic counts for the existing study intersections are contained in Appendix A. The existing intersection turning movement volumes, intersection geometrics and traffic controls are illustrated in Figures 5 through 8.

Study Intersections

Clovis Community College

1. Parking G/H Access / International Main Street Access
2. Behymer Main Street Access /Parking M1 Access
3. Behymer Main Street Access / Parking B/C Access

Fresno City College

1. Calaveras Street / Weldon Avenue
2. Campus Drive / Weldon Avenue
3. Campus Drive / Parking E/F Access
4. McKinley Avenue / Campus Drive
5. McKinley Main Street / Campus Drive

Madera Community College

1. Campus Main Street / Parking Lot A Access
2. Campus Main Street / Parking Lots B/C Access Road
3. Campus Main Street / Avenue 12

Reedley Community College

1. Reed Avenue / Parking D Access 1
2. Parking C Access / Parking D Access 2
3. Reed Avenue / Parking D Access 2
4. Manning Avenue / Parking B Access

Study Scenarios

Existing Traffic Conditions

This scenario evaluates the Existing Traffic Conditions based on existing traffic volumes and roadway conditions from traffic counts and field surveys conducted in the year 2018 for CCC, FCC, MCC and RCC.

Level of Service Analysis Methodology

Level of Service (LOS) is a qualitative index of the performance of an element of the transportation system. LOS is a rating scale running from "A" to "F", with "A" indicating no congestion of any kind and "F" indicating unacceptable congestion and delays. LOS in this study describes the operating conditions for signalized and unsignalized intersections. The *2010 Highway Capacity Manual* (HCM) is the standard reference published by the Transportation Research Board and contains the specific criteria and methods to be used in assessing LOS. Synchro software was used to define LOS in this study. Details regarding these calculations are included in Appendix B.

A traffic impact is considered significant if it renders an unacceptable LOS on an intersection or roadway segment, or if it worsens an already unacceptable LOS condition on an intersection or roadway segment. At unsignalized intersections, a traffic impact would be considered "adverse but not significant" if the LOS standard is exceeded but the projected traffic does not satisfy traffic signal warrants. Under these conditions, the typical means to completely alleviate delays to stop-controlled vehicles would be to install a traffic signal. However, the unmet signal warrants would imply that the reduction in delay for the stop-controlled vehicles may not justify new delays that would be incurred by the major street traffic, which is currently not stopped. Under these circumstances, the installation of a traffic signal would not be recommended and the substandard LOS for stop-controlled vehicles would be considered an "adverse but not significant" impact.

Criteria of Significance

The County of Madera 1995 General Plan has established LOS C as the acceptable level of traffic congestion on most major streets. Therefore, LOS C is used to evaluate the potential significance of LOS impacts to County of Madera roadway facilities.

The City of Fresno 2035 General Plan has established various degrees of acceptable LOS on its major streets, which are dependent on four (4) Traffic Impact Zones (TIZ) within the City. The standard LOS threshold for TIZ I is LOS F, that for TIZ II is LOS E, that for TIZ III is LOS D, and that for TIZ IV is LOS E. Additionally, the 2035 MEIR made findings of overriding consideration to allow a lower LOS threshold than that established by the underlying TIZ's. For those cases in which a LOS criterion for a roadway segment differs from that of the underlying TIZ, such criteria are identified in the roadway description. As all study facilities fall within TIZ II, LOS E is used to evaluate the potential significance of LOS impacts to City of Fresno roadway facilities. However, for the internal intersections within FCC and CCC, LOS D was used to evaluate the potential significance of LOS impacts.

The City of Reedley 2030 General Plan has established LOS C as the acceptable level of traffic congestion on most major streets. Therefore, LOS C is used to evaluate the potential significance of LOS impacts to City of Reedley roadway facilities and the internal intersections within RCC.

Operational Analysis Assumptions and Defaults

The following operational analysis values, assumptions and defaults were used in this study to ensure a consistent analysis of LOS among the various campuses.

- Yellow time consistent with the California Manual on Uniform Traffic Control Devices (CA MUTCD) based on approach speeds
- Yellow time of 3.2 seconds for left-turn phases
- All-red clearance intervals of 1.0 seconds for all phases
- Walk intervals of 7.0 seconds
- Flashing Don't Walk based on 3.5 feet per second walking speed with yellow plus all-red clearance time subtracted and 2.0 seconds added
- All new or modified signals utilize protective left-turn phasing via exclusive left-turn phase or split phasing
- A 3 percent heavy vehicle factor
- The number of observed pedestrians is utilized at existing intersections
- At existing intersections, the observed approach Peak Hour Factor (PHF) is utilized

Existing Level of Service Traffic Conditions

Roadway Network

The College campuses and surrounding study area are illustrated in Figures 1 through 4. Important roadways serving the Project are discussed below.

Clovis Community College

International Avenue is an existing east-west four-lane divided collector adjacent to Clovis Community College. In this area, International Avenue extends east of Maple Avenue through the City of Fresno and into the City of Clovis SOI. West of Maple Avenue, International Avenue curves northwest to connect to Cedar Avenue. The City of Fresno 2035 General Plan Circulation Element designates International Avenue as a four-lane collector west of Willow Avenue through the City of Fresno.

Willow Avenue is an existing north-south divided super arterial adjacent to Clovis Community College. In this area, Willow Avenue extends south of its connection to Friant Road in the north and continues through the City of Fresno SOI. The City of Fresno 2035 General Plan Circulation Element designates Willow Avenue as a two-lane undivided super arterial between Friant Road and Copper Avenue, a four-lane divided super arterial between Copper River and International Avenue, and a six-lane divided super arterial between International Avenue and Herndon Avenue. The City of Clovis 2035 General Plan designates Willow Avenue as an arterial between Herndon Avenue and Ashlan Avenue. South of Ashlan Avenue, the City of Fresno 2035 General Plan designates Willow Avenue as a four-lane arterial as it curves southwest to connect to Chestnut Avenue. Furthermore, the City of Fresno 2035 General Plan designates Willow Avenue as a four-lane collector between Olive Avenue and Ventura Street, and a two-lane collector south of Ventura Street through the City of Fresno.

Behymer Avenue is an existing east-west predominantly four-lane divided arterial near the vicinity of Clovis Community College. In this area, Behymer Avenue extends east of Granville Avenue through the City of Fresno and into the City of Clovis SOI. The 2035 City of Fresno General Plan Circulation Element designates Behymer Avenue as a four-lane arterial east of Maple Avenue through the City of Fresno.

Fresno City College

Van Ness Avenue is an existing north-south one- to two-lane scenic drive near the vicinity of Fresno City College. In this area, Van Ness Avenue is a one-way northbound street that extends north from Divisadero Street to a point just north of McKinley Avenue where it connects to Maroa Avenue. The 2035 City of Fresno General Plan Circulation Element designates Van Ness Avenue as a two-lane scenic drive between Divisadero Street and Maroa Avenue.

Blackstone Avenue is an existing north-south six-lane divided arterial adjacent to Fresno City College. In this area, Blackstone Avenue exists between Divisadero Street and Nees Avenue. The prolongation of Blackstone Avenue north of Nees Avenue is Friant Road. The 2035 City of Fresno General Plan Circulation Element designates Blackstone Avenue as a six-lane divided arterial between Divisadero Street and Nees Avenue.

McKinley Avenue is an existing east-west four-lane divided arterial adjacent to Fresno City College. In this area, McKinley Avenue is a four-lane divided arterial between Van Ness Avenue and Blackstone Avenue. The 2035 City of Fresno General Plan Circulation Element designates McKinley Avenue as a two-lane collector between Garfield Avenue and Polk Avenue, a four-lane arterial between Polk Avenue and Clovis Avenue, and a two-lane collector east of Sunnyside Avenue through the City of Fresno SOI.

State Route 41 is an existing six-lane freeway near the vicinity of Fresno City College. State Route 41 traverses the City of Fresno is a north-south direction and serves as the principal connection to Yosemite National Park to the north and to Kings County to the south. In this area, State Route 41 connects to city streets at its interchange with McKinley Avenue.

Madera Community College

Avenue 12 is an existing east-west two-lane arterial adjacent to Madera Community College. In this area, Avenue 12 extends west of State Route 41 through the County of Madera. In this area, Avenue 12 is a two-lane divided roadway west of Road 30, a three-lane divided roadway between Road 30 and 850 feet west of Road 30 ½, and a two-lane undivided roadway east of Road 30 ½. The County of Madera 1995 General Plan Circulation Element designates Avenue 12 as a two-lane arterial west of Road 36 and a four-lane arterial between Road 36 and State Route 41. However, County of Madera made appropriate findings to designate LOS D as the criteria of significance for Avenue 12 as a two-lane arterial between State Route 145 and Road 36.

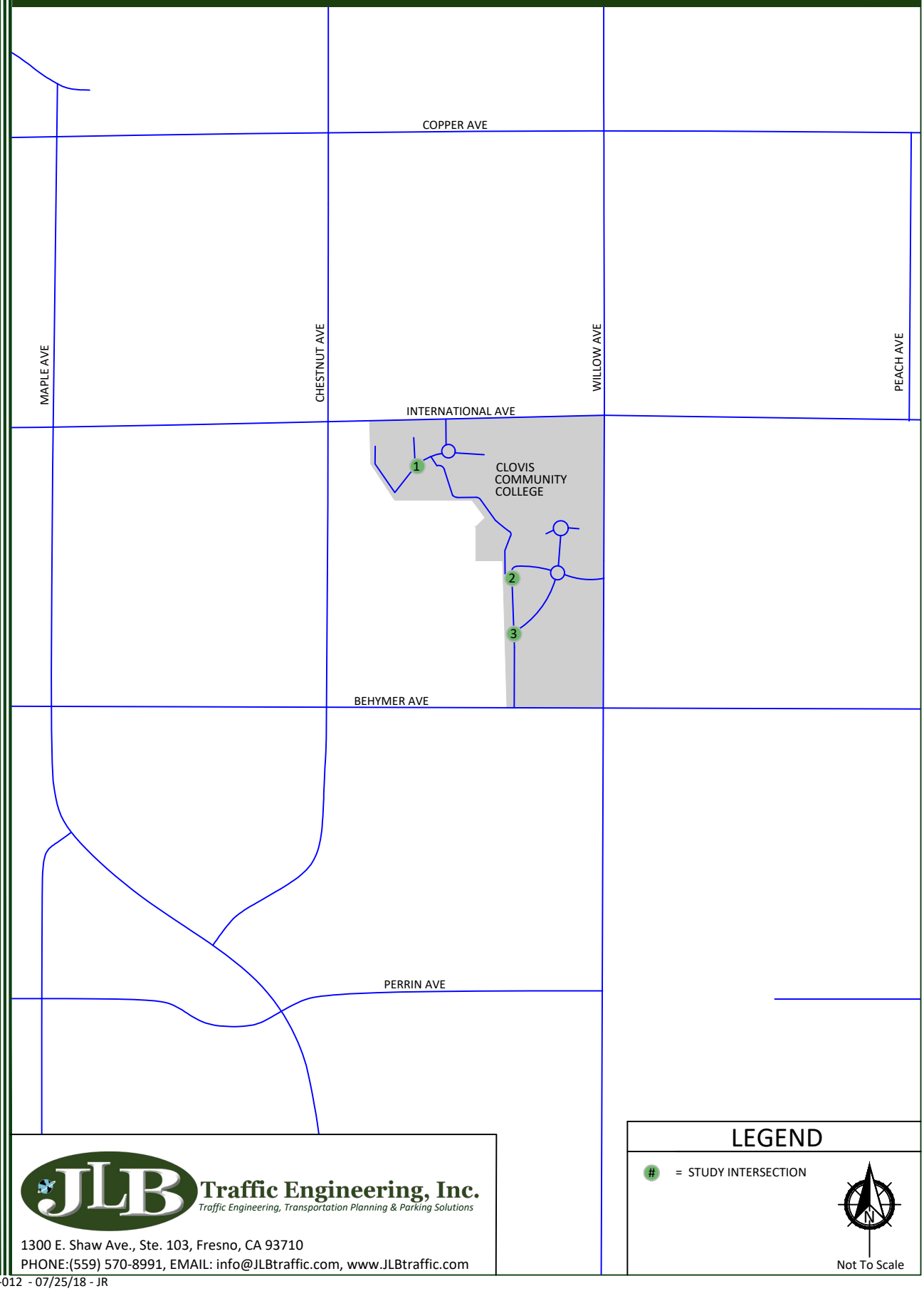
Reedley Community College

Reed Avenue is a north-south two-lane arterial adjacent to Reedley Community College. Reed Avenue extends south of State Route 180 through the City of Reedley and into the County of Tulare. Per the Reed Avenue Corridor Study prepared for the City of Reedley, Reed Avenue is planned as a four-lane divided arterial north of South Avenue as part of a County of Fresno Capital Improvement Project. Between South Avenue and Ponderosa Avenue, the City of Reedley plans to reconstruct Reed Avenue as a two-lane divided arterial.

Manning Avenue is an east-west four-lane divided arterial adjacent to Reedley Community College. Manning Avenue extends east of Interchange 5 through the County of Fresno and into the County of Tulare. Manning Avenue provides a direct connection to State Route 41 and State Route 99 and connects to the communities of San Joaquin, Raisin City, Bowles, Fowler, Selma, Parlier and Orange Cove.

SCCCD Master Plan Update - Counties of Fresno and Madera
Clovis Community College
Vicinity Map

Figure 1



LEGEND

= STUDY INTERSECTION

N

Not To Scale

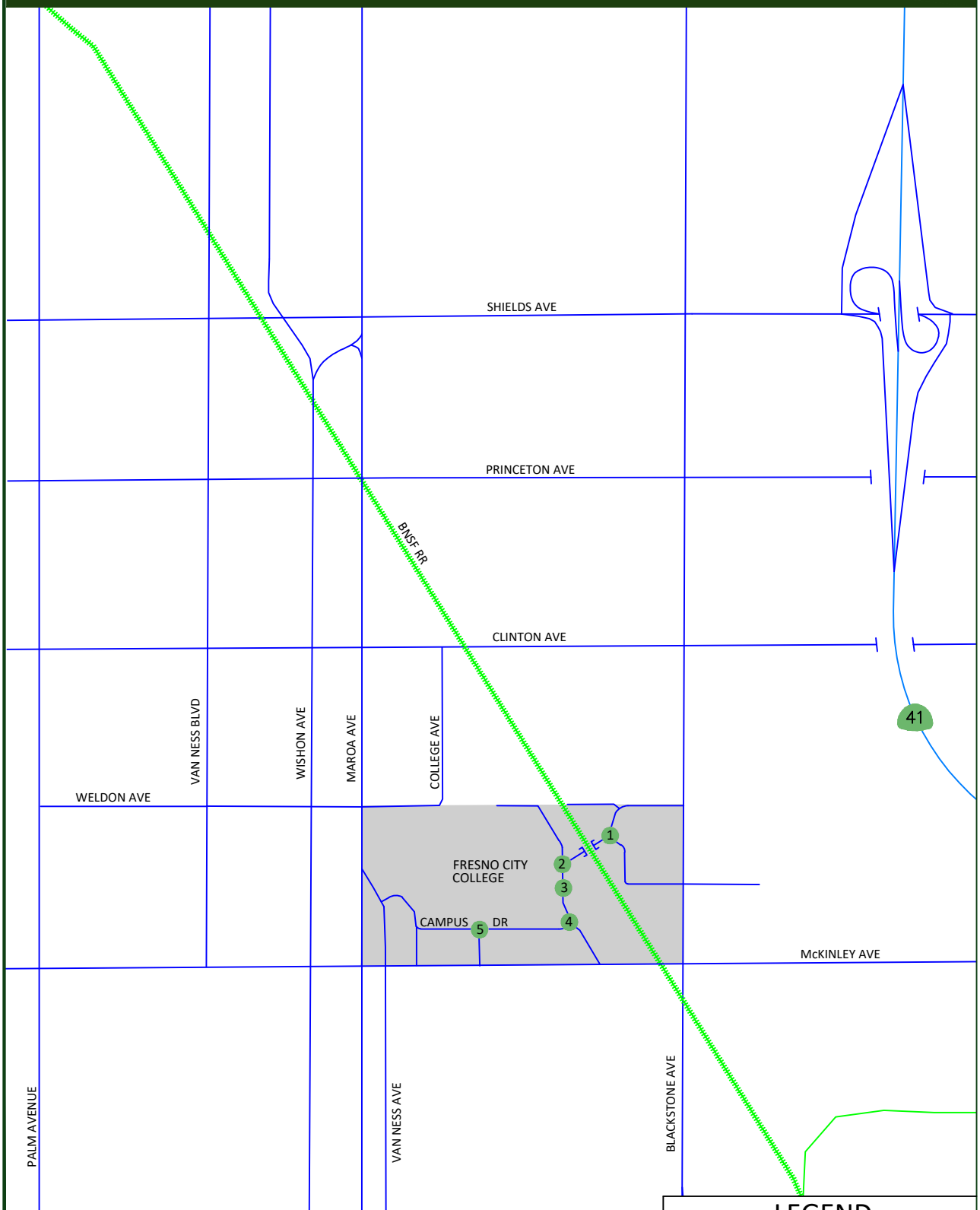
JLB Traffic Engineering, Inc.
Traffic Engineering, Transportation Planning & Parking Solutions

1300 E. Shaw Ave., Ste. 103, Fresno, CA 93710
PHONE:(559) 570-8991, EMAIL: info@JLBtraffic.com, www.JLBtraffic.com

009-012 - 07/25/18 - JR

SCCCD Master Plan Update - Counties of Fresno and Madera
Fresno City College
Vicinity Map

Figure 2



LEGEND

= STUDY INTERSECTION

N

Not To Scale

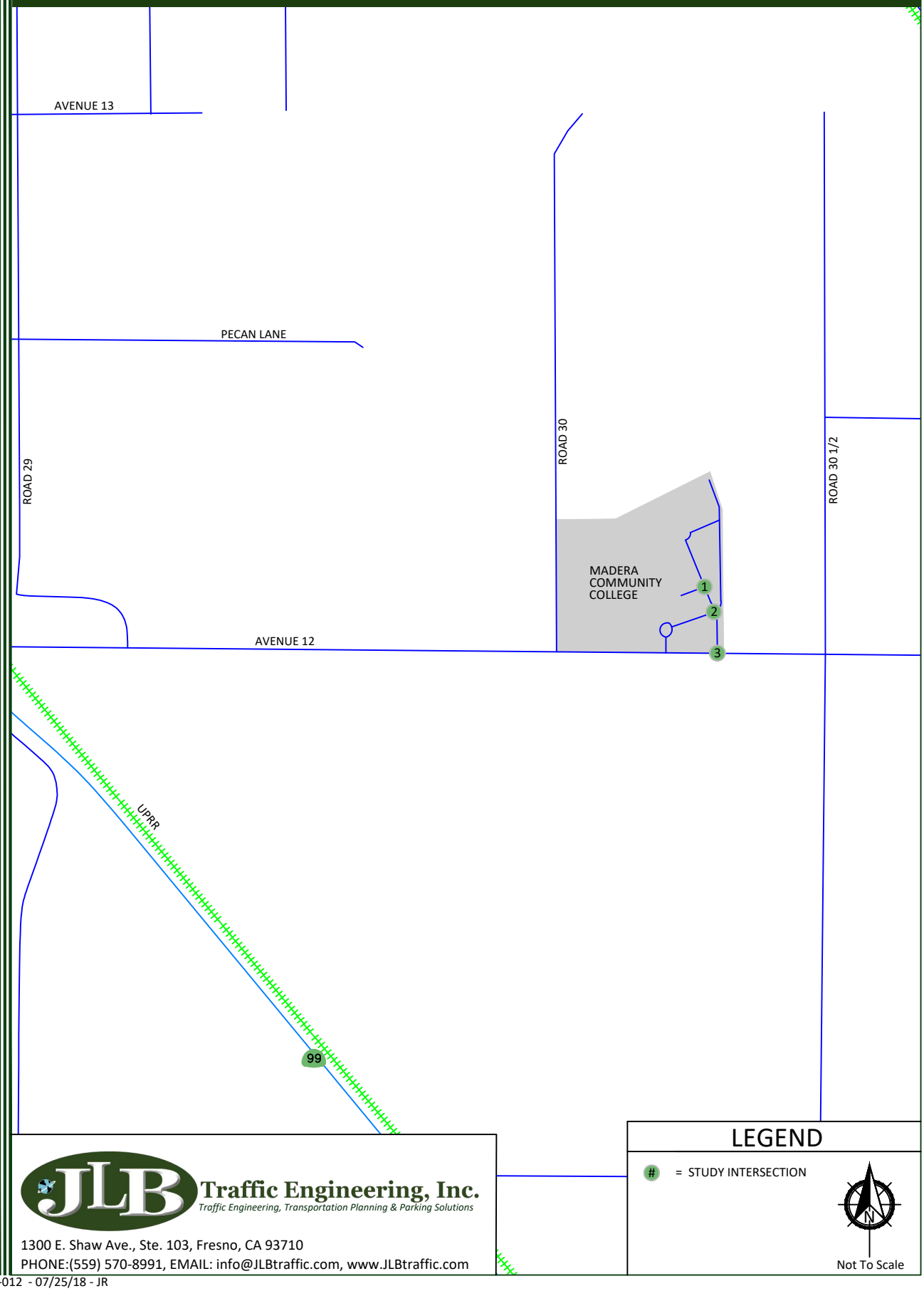
JLB Traffic Engineering, Inc.
Traffic Engineering, Transportation Planning & Parking Solutions

1300 E. Shaw Ave., Ste. 103, Fresno, CA 93710
PHONE:(559) 570-8991, EMAIL: info@JLBtraffic.com, www.JLBtraffic.com

009-012 - 07/25/18 - JR

SCCCD Master Plan Update - Counties of Fresno and Madera
Madera Community College
Vicinity Map

Figure 3



LEGEND

(#) = STUDY INTERSECTION

N

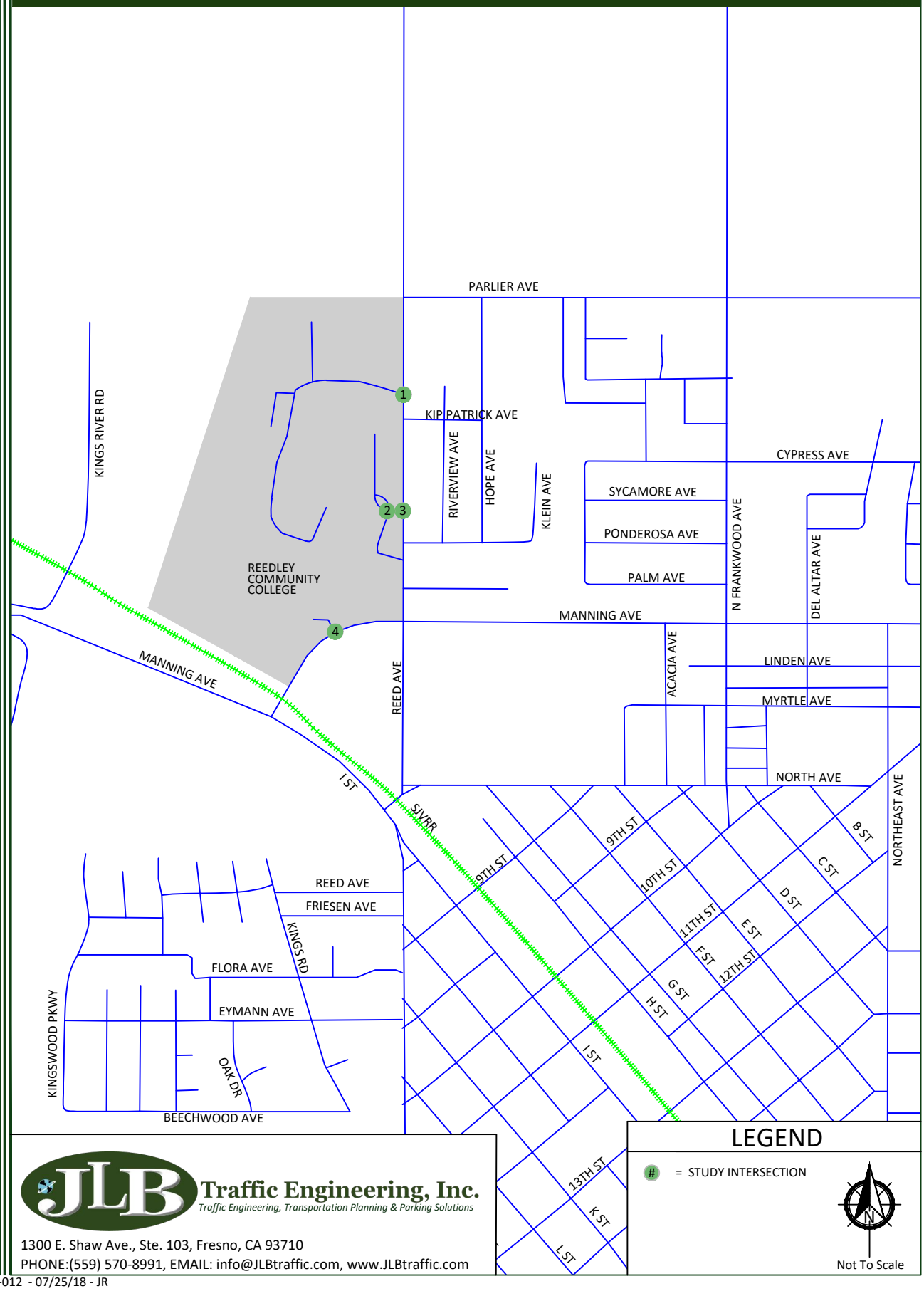
Not To Scale

Traffic Engineering, Inc.
Traffic Engineering, Transportation Planning & Parking Solutions

1300 E. Shaw Ave., Ste. 103, Fresno, CA 93710
PHONE:(559) 570-8991, EMAIL: info@JLBtraffic.com, www.JLBtraffic.com

SCCCD Master Plan Update - Counties of Fresno and Madera
Reedley Community College
Vicinity Map

Figure 4



LEGEND

= STUDY INTERSECTION

Not To Scale

JLB Traffic Engineering, Inc.
Traffic Engineering, Transportation Planning & Parking Solutions
1300 E. Shaw Ave., Ste. 103, Fresno, CA 93710
PHONE:(559) 570-8991, EMAIL: info@JLBtraffic.com, www.JLBtraffic.com

Results of Existing Level of Service Analysis

Clovis Community College

Figure 5 illustrates the Existing turning movement volumes, intersection geometrics and traffic controls for the Clovis Community College campus. LOS worksheets for the Existing Traffic Conditions scenario are provided in Appendix C. Table I presents a summary of the Existing peak hour LOS at the study intersections.

At present, all study intersections operate at an acceptable LOS. However, as attendance at CCC increases it is likely that some traffic operational deficiencies will be observed at study intersection one (1) (Parking G/H Access and International Avenue Access). To improve traffic operations at this location, it is recommended that the access driveway to parking lot "J" be aligned with the access to parking lots "H" and "G" across the street. Furthermore, it is recommended that a second access point to parking lot "J" be added to align itself with the second southernmost east-west parking aisle.

Table I: CCC - Existing Intersection LOS Results

ID	Intersection	Intersection Control	(7-9) AM Peak Hour		(4-6) PM Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	Parking G/H Access / International Main St Access	One-Way Stop	8.7	A	8.9	A
2	Behymer Main St Access / Parking M1 Access	One-Way Stop	9.5	A	8.9	A
3	Behymer Main St Access / Parking B/C Access	All-Way Stop	8.5	A	7.7	A

Note: LOS = Level of Service based on average delay on signalized intersections and All-Way STOP Controls
LOS for two-way and one-way STOP controlled intersections are based on the worst approach/movement of the minor street.

Fresno City College

Figure 6 illustrates the Existing turning movement volumes, intersection geometrics and traffic controls for the Fresno City College campus. LOS worksheets for the Existing Traffic Conditions scenario are provided in Appendix C. Table II presents a summary of the Existing peak hour LOS at the study intersections.

At present, all study intersections operate at an acceptable LOS. However, it should be noted that access to the northern driveway to parking lot "E/F" was limited to right-in and right-out access only. This is currently achieved by the placement of cones and regulatory signage. Still, it is recommended that a narrow raised median island with channelizers be installed and that the temporary cones be removed. Another alternative would consider closing this driveway and opening a new driveway to a point just north of the existing midblock crosswalk. In addition, it is recommended that all crosswalks within the FCC campus be upgraded to high-visibility crosswalks in an effort to improve pedestrian safety and promote walking to school.

JLB performed a LOS analysis on an alternative that considered: a) the installation of a roundabout at the intersection of Calaveras Street and Weldon Avenue, b) a traffic signal at the intersection of Campus Drive and Weldon Avenue and c) the relocation of the northern driveway to parking lot "E/F" to a point just north of the existing midblock crosswalk. As can be seen in Table II, the installation of a roundabout at the intersection of Calaveras Street and Weldon Avenue is projected to significantly reduce the delay during the PM peak period. Conversely, the installation of a traffic signal at the intersection of Campus Drive and Weldon Avenue slightly increases the delay during the PM peak period; however, it is projected to reduce queuing. Given JLB's knowledge of the proposed changes to the FCC campus in this area and a projected increase in traffic as a result of these changes, it is recommended that a one-lane roundabout be planned for the intersection of Calaveras Street and Weldon Avenue as a means to reduce the potential of induced delay in the future. Furthermore, it is recommended that the intersection of Campus Drive and Weldon Avenue be signalized with a leading pedestrian interval in the westbound approach and that a dedicated northbound right-turn lane with overlap phasing be added. The signalization of this intersection will create a "platooning" effect – vehicles waiting for a green light will travel as a group – that will provide safer traffic gaps acceptable to pedestrians wishing to cross at the midblock crosswalk located approximately 300 feet to the south. Not only will the signalization of this intersection create a platooning effect for vehicular traffic, but also for pedestrians since they will be restricted from crossing sporadically.

In the Traffic and Parking Analysis prepared by TJKM Transportation Consultants for the SCCCD dated June 11, 2012 hereby referred to as the TJKM Report, the intersection of McKinley Avenue Access and Campus Drive exceeded its LOS threshold. Therefore, two options for improvement were recommended – all-way stop controls and a roundabout. The TJKM Report deemed the roundabout the preferred option as it was projected to operate at a slightly better LOS when compared to the all-way stop controls. However, in this study, the intersection of McKinley Avenue Access and Campus Drive operates at a good LOS with a maximum average delay of 10.7 seconds. Based on these current findings, JLB does not recommend changes to the geometrics or traffic controls of the intersection of McKinley Avenue Access and Campus Drive. On the other hand, considerable queuing of the eastbound to northbound traffic on Campus Drive between the McKinley Main Street Access and Weldon Avenue was observed around the noon hour (in the Fall semester of 2018). The queuing of the eastbound to northbound traffic spilled back from Weldon Avenue and the pedestrian crossing just south of Weldon Avenue. This queueing caused some minor queuing of approximately four (4) vehicles on the northwest left turn lane and six (6) vehicles on the northwest right turn lane on the Parking E/F access road from McKinley Avenue. This queuing could have been worse if motorists on Campus Drive continuously blocked the intersection; however many of them were courteous and left a gap so that northwest lefts and rights were able to enter the intersection. Therefore, it is recommended that "KEEP CLEAR" legends be marked on Campus Drive at its intersection with Parking E/F access road. The addition of the "KEEP CLEAR" legends and the recommendations for the intersection of Campus Drive and Weldon Avenue are anticipated to substantially reduce queuing along Campus Drive.

Table II: FCC - Existing Intersection LOS Results

ID	Intersection	Intersection Control	(7-9) AM Peak Hour		(4-6) PM Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	Calaveras St / Weldon Ave	One-Way Stop	16.0	C	12.5	B
		Roundabout	7.0	A	6.5	A
2	Campus Dr / Weldon Ave	All-Way Stop	11.0	B	10.9	B
		Signalized	11.1	B	14.5	B
3	Campus Dr / Parking E/F Access	One-Way Stop	9.8	A	10.9	B
4	McKinley Ave / Campus Dr	One-Way Stop	10.7	B	10.6	B
5	McKinley Main St / Campus Dr	All-Way Stop	10.0	A	9.4	A

Note: LOS = Level of Service based on average delay on signalized intersections and All-Way STOP Controls
LOS for two-way and one-way STOP controlled intersections are based on the worst approach/movement of the minor street.

Madera Community College

Figure 7 illustrates the Existing turning movement volumes, intersection geometrics and traffic controls for the Madera Community College campus. LOS worksheets for the Existing Traffic Conditions scenario are provided in Appendix C. Table III presents a summary of the Existing peak hour LOS at the study intersections.

At present, all study intersections operate at an acceptable LOS. However, assuming traffic along Avenue 12 increases by an average annual rate of 2.0 percent, the intersection of Campus Main Street and Avenue 12 is projected to operate at an unacceptable LOS by the year 2028. It is anticipated that the intersection will operate at LOS F with a delay of 55.1 seconds. For two-way and one-way stop-controlled intersections, the recorded delay is for the worst approach. In this case, the worst approach was that for the southbound movement. Since the intersection is not projected to meet the peak hour signal warrant in the year 2028, signalization of this intersection is not recommended. However, to improve traffic operations at this location by the year 2028, it is recommended that the SCCCD work with the County of Madera to install a single-lane roundabout.

Table III: MCC - Existing Intersection LOS Results

ID	Intersection	Intersection Control	(7-9) AM Peak Hour		(4-6) PM Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	Campus Main St / Parking Lot A Access	One-Way Stop	8.4	A	8.6	A
2	Campus Main St / Parking Lots B/C Access Road	Two-Way Stop	11.1	B	13.9	B
3	Campus Main St / Avenue 12	One-Way Stop	17.5	C	31.5	D

Note: LOS = Level of Service based on average delay on signalized intersections and All-Way STOP Controls
LOS for two-way and one-way STOP controlled intersections are based on the worst approach/movement of the minor street.

Reedley Community College

Figure 8 illustrates the Existing turning movement volumes, intersection geometrics and traffic controls for the Reedley Community College campus. LOS worksheets for the Existing Traffic Conditions scenario are provided in Appendix C. Table IV presents a summary of the Existing peak hour LOS at the study intersections.

At present, all study intersections operate at an acceptable LOS. However, as attendance at RCC increases it is likely that some traffic operational deficiencies will be observed at study intersection four (4) (Parking B Access and Manning Avenue). To improve traffic operations at this location, it is recommended that left-turns out be prohibited. Other alternatives for consideration include the addition of a second driveway to the south along Manning Avenue and the construction of a connection between parking lot "B" and the existing campus aisle drive to the north.

Table IV: RCC - Existing Intersection LOS Results

ID	*Intersection*	*Intersection Control*	*(7-9) AM Peak Hour*		*(2-4) PM Peak Hour*	
			Average Delay (sec/veh)	*LOS*	*Average Delay (sec/veh)*	*LOS*
1	Reed Ave / Parking D Access 1	One-Way Stop	28.6	D	21.9	C
2	Parking C Access / Parking D Access 2	One-Way Stop	9.0	A	9.1	A
3	Reed Ave / Parking D Access 2	One-Way Stop	14.8	B	15.4	C
4	Parking B Access / Manning Ave	One-Way Stop	22.8	C	19.5	C

Note: LOS = Level of Service based on average delay on signalized intersections and All-Way STOP Controls
LOS for two-way and one-way STOP controlled intersections are based on the worst approach/movement of the minor street.

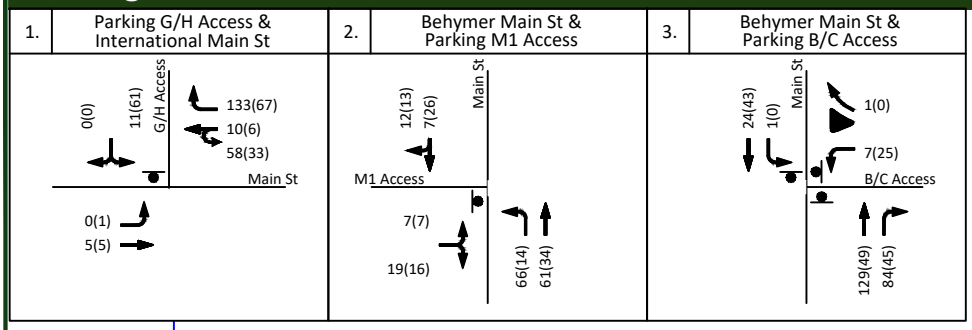
Pedestrian Impacts

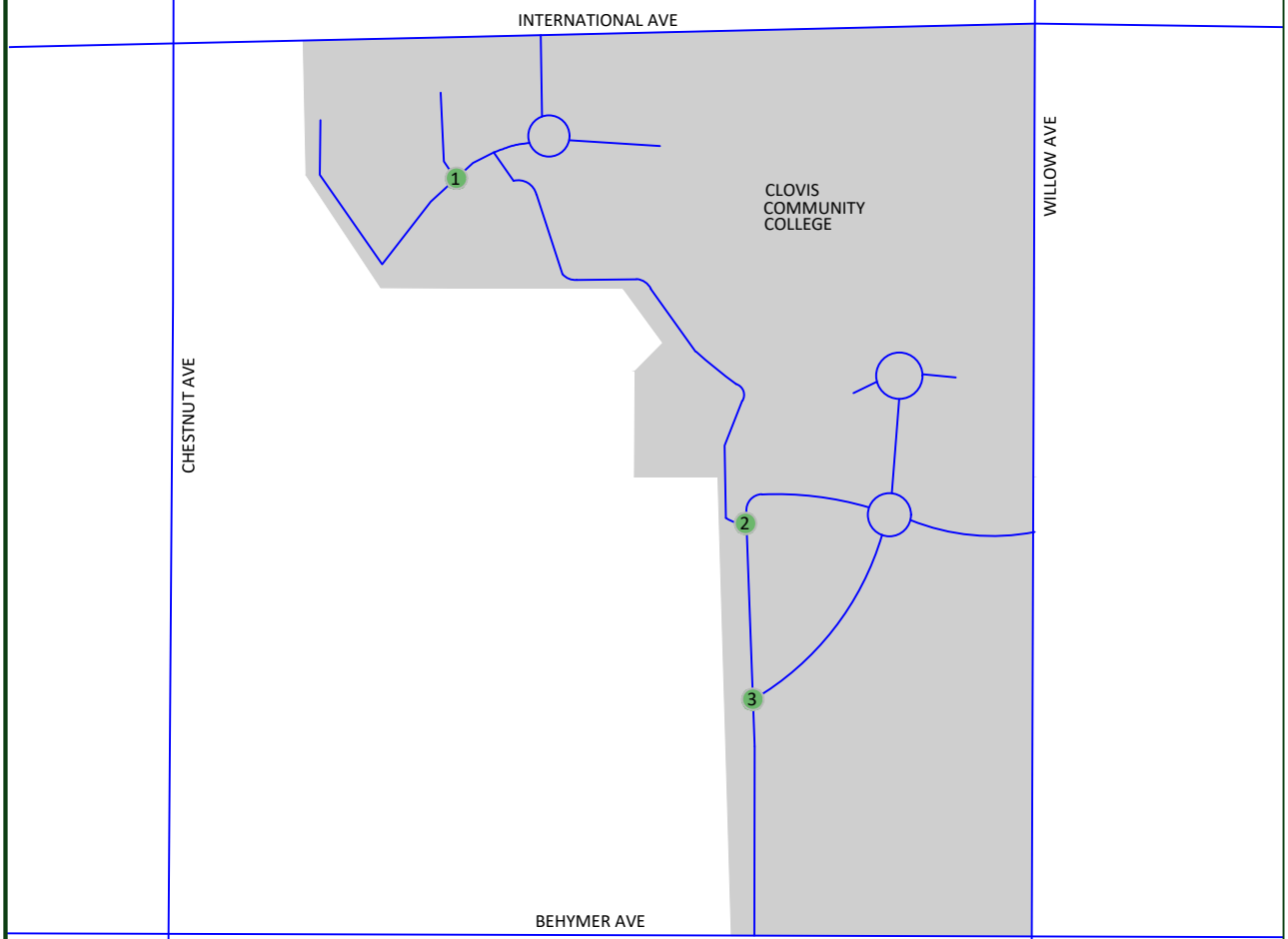
Fresno City College

At present, parking lot "E/F" has a northern and southern access. It was anticipated that relocating the northern access to parking lot "E/F" would improve pedestrian travel paths and improve traffic operations at the intersection of Campus Drive and Weldon Avenue. Furthermore, if the northern driveway is relocated to a point just north of the existing midblock crosswalk, it is recommended that southbound left-turns into parking lot "E/F" be allowed and that all-way STOP controls be implemented in order to promote pedestrian safety and minimize impacts to traffic operations.

SCCCD Master Plan Update - Counties of Fresno and Madera
Clovis Community College
Existing Traffic Volumes, Geometrics and Controls

Figure 5





LEGEND

- # = STUDY INTERSECTION
- XX = AM PEAK HOUR TRIPS
- (XX) = PM PEAK HOUR TRIPS
- = STOP SIGN
- = CHANNELIZED MEDIAN

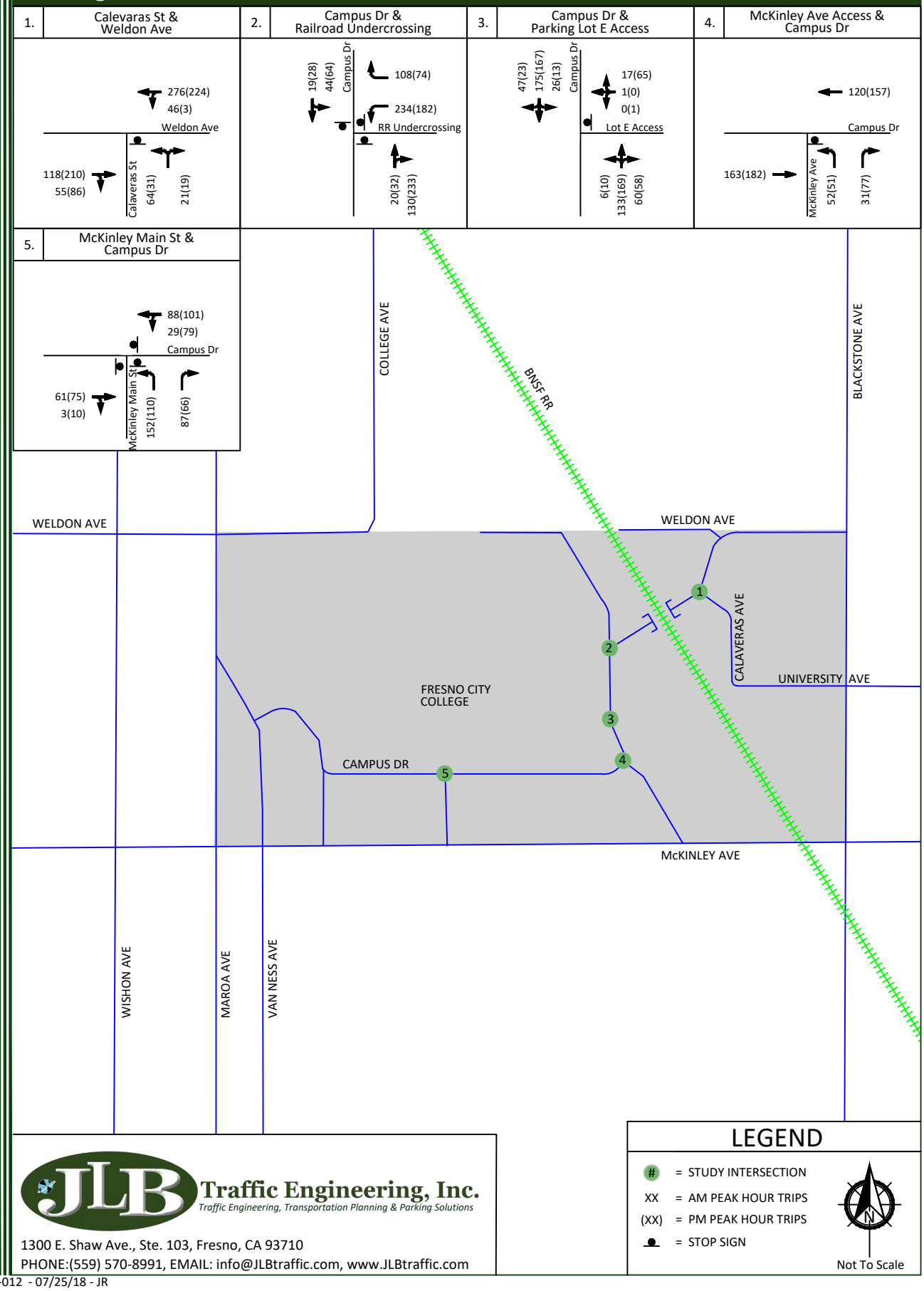
N

Not To Scale

JLB Traffic Engineering, Inc.
Traffic Engineering, Transportation Planning & Parking Solutions
1300 E. Shaw Ave., Ste. 103, Fresno, CA 93710
PHONE:(559) 570-8991, EMAIL: info@JLBtraffic.com, www.JLBtraffic.com

SCCCD Master Plan Update - Counties of Fresno and Madera
Fresno City College
Existing Traffic Volumes, Geometrics and Controls

Figure 6



LEGEND

- # = STUDY INTERSECTION
- XX = AM PEAK HOUR TRIPS
- (XX) = PM PEAK HOUR TRIPS
- = STOP SIGN

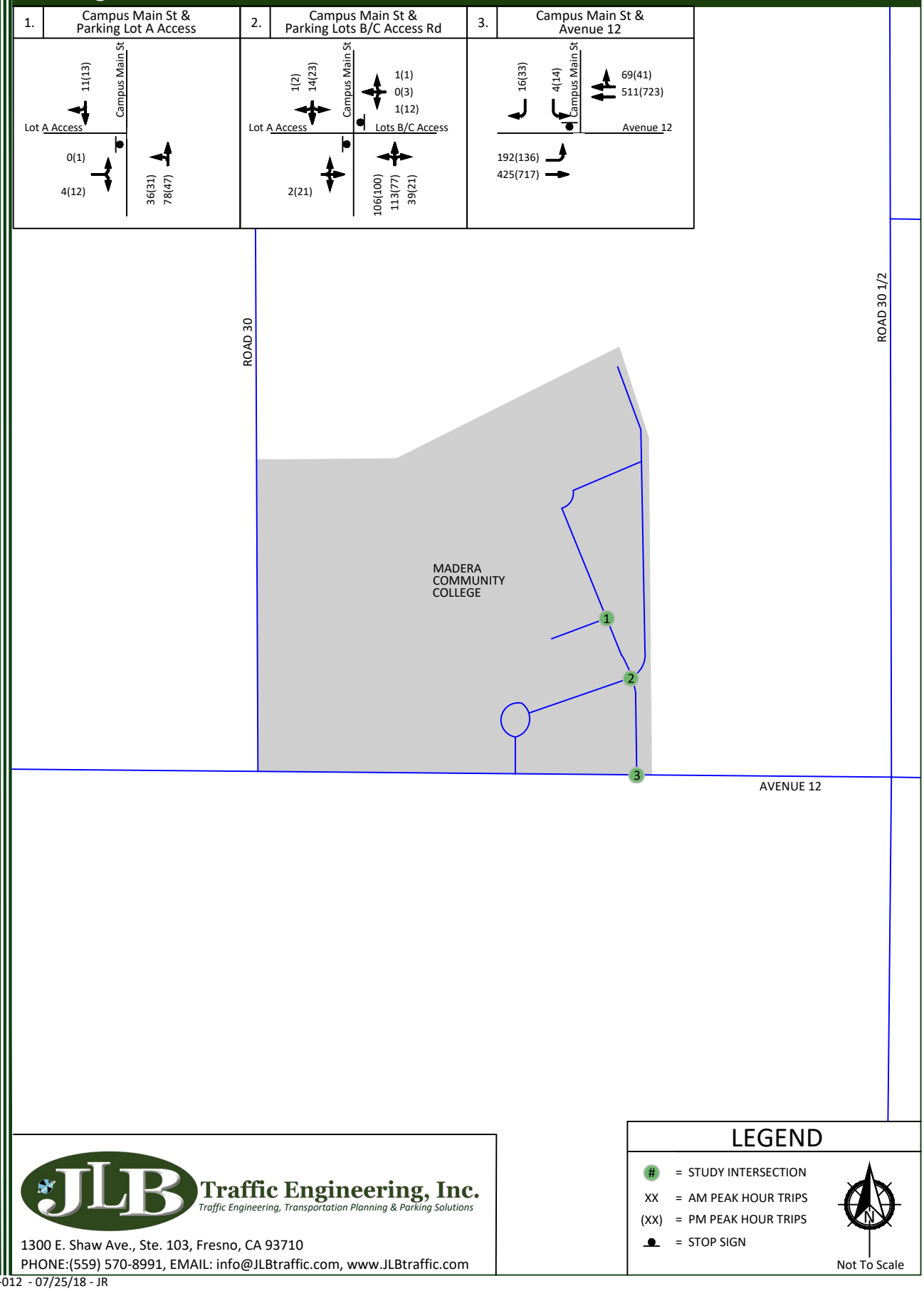
N

Not To Scale

JLB Traffic Engineering, Inc.
Traffic Engineering, Transportation Planning & Parking Solutions
1300 E. Shaw Ave., Ste. 103, Fresno, CA 93710
PHONE:(559) 570-8991, EMAIL: info@JLBtraffic.com, www.JLBtraffic.com

SCCCD Master Plan Update - Counties of Fresno and Madera
Madera Community College
Existing Traffic Volumes, Geometrics and Controls

Figure 7



LEGEND

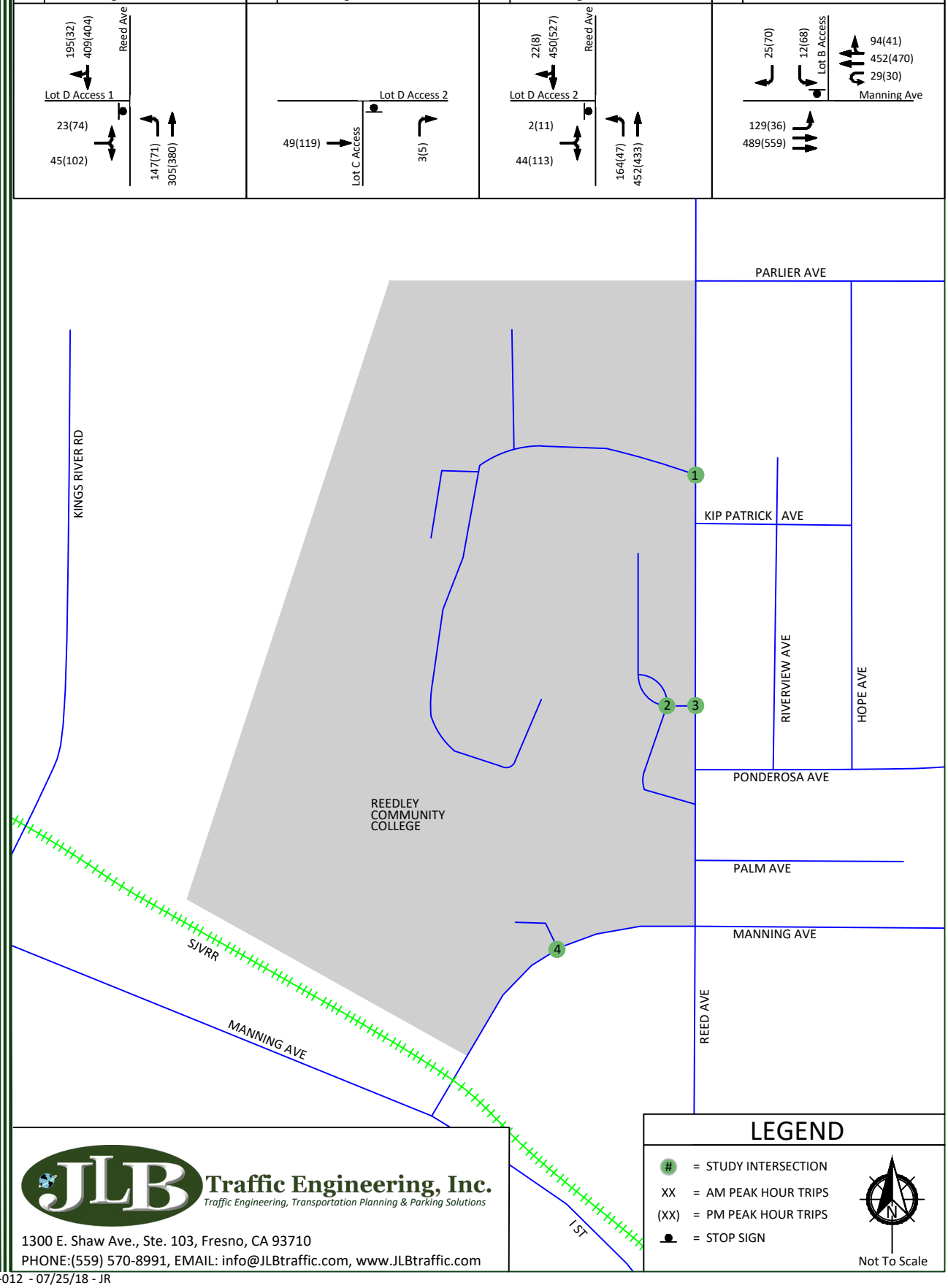
- # = STUDY INTERSECTION
- XX = AM PEAK HOUR TRIPS
- (XX) = PM PEAK HOUR TRIPS
- = STOP SIGN

Not To Scale

JLB Traffic Engineering, Inc.
Traffic Engineering, Transportation Planning & Parking Solutions
1300 E. Shaw Ave., Ste. 103, Fresno, CA 93710
PHONE:(559) 570-8991, EMAIL: info@JLBtraffic.com, www.JLBtraffic.com

SCCCD Master Plan Update - Counties of Fresno and Madera
Reedley Community College
Existing Traffic Volumes, Geometrics and Controls

Figure 8



LEGEND

- # = STUDY INTERSECTION
- XX = AM PEAK HOUR TRIPS
- (XX) = PM PEAK HOUR TRIPS
- = STOP SIGN

Not To Scale

JLB Traffic Engineering, Inc.
Traffic Engineering, Transportation Planning & Parking Solutions
1300 E. Shaw Ave., Ste. 103, Fresno, CA 93710
PHONE:(559) 570-8991, EMAIL: info@JLBtraffic.com, www.JLBtraffic.com

Transit

Clovis Community College

Fresno Area Express (FAX) is the transit operator in the City of Fresno. Starting August 13, 2018, the Clovis Community College started providing an express shuttle service to transport students between River Park and the Clovis Community College campus. River Park Shuttle Express operates at 25-minute intervals on Monday through Friday between 7:00 AM and 5:00 PM. Its stop at CCC campus is by parking lot "D" near the soccer bleachers by the grass soccer field and its stop at River Park is the FAX bus stop on Blackstone Avenue and El Paso in front of Macaroni Grill. Students can simply take any of the Fresno FAX buses to River Park and then ride the shuttle to Clovis Community College. Riders of the River Park Shuttle Express must have a current Student ID Card from any of the following colleges: Clovis Community College, Fresno City College, Reedley College, Madera Community College, and Oakhurst Community College. Retention of the existing and expansion of future transit routes is dependent on transit ridership demand and available funding.

Fresno City College

Fresno Area Express (FAX) is the transit operator in the City of Fresno. At present, there are five (5) FAX transit routes that operate in the vicinity of the Fresno City College campus. FAX Route 1 Q runs on Blackstone Avenue and operates at 15-minute intervals on weekdays, with the exception that it operates at 10-minute intervals from approximately 6:00 AM to 9:00 AM and 2:35 PM to 7:00 PM, and at 15-minute intervals on weekends. Its nearest stops to the Fresno City College campus are located at the northeast and southwest corners of Blackstone Avenue and Weldon Avenue. This route provides a direct connection to Fort Miller Middle School, Northgate Shopping Center, Manchester Shopping Center, Cesar E. Chavez Adult School, Fulton Mall, City Hall, County Library, Fresno City Personnel Office, Social Services Department, and Sunnyside High School.

FAX Route 20 runs on McKinley Avenue and operates at 30-minute intervals on weekdays and weekends. Its nearest stops to the Fresno City College campus are located at the southeast corner of Van Ness Avenue and McKinley Avenue, at the southwest corner of San Pablo Avenue and McKinley Avenue, and the northwest corner of the Main Access Driveway and McKinley Avenue. This route provides a direct connection to Fresno High School, Copper Middle School, Fresno City College, Fulton Mall, Cesar E. Chavez Adult School, and Fresno City Hall. On this route, it is recommended that headways during the weekdays be reduced to 15-minute intervals between the hours of 6:00 AM and 6:00 PM.

FAX Route 28 runs on Van Ness Avenue and operates at 20- to 25-minute intervals on weekdays and 20- to 30-minute intervals on weekends. Its nearest stop to the Fresno City College campus is located along the east side of Van Ness Avenue approximately 200 feet south of Maroa Avenue. This route provides a direct connection to Fort Miller School, Tioga School, Fresno State, Fresno Pacific University, Eastgate Shopping Center, PG&E, Fashion Fair Shopping Center, Manchester Shopping Center, and Fulton Mall.

FAX Route 39 runs on Clinton Avenue and operates at 20- to 30-minute intervals on weekdays and 30-minute intervals on weekends. Its nearest stops to the Fresno City College campus are located on the northwest and southeast corners of Maroa Avenue and Clinton Avenue as well as Blackstone Avenue and Clinton Avenue. This route provides a direct connection to Fresno Yosemite International Airport, McLane

High School, Fresno Art Museum, Veterans Medical Center, Fresno City College, SaveMart Center, Fresno High School.

FAX Route 45 runs on Van Ness Avenue/Maroa Avenue and operates at 60-minute intervals on weekdays and weekends. Its nearest stop to the Fresno City College campus is located along the east side of Van Ness Avenue approximately 200 feet south of Maroa Avenue. This route provides a direct connection to Bullard High School, Fresno High School, Fresno City College, Manchester Mall Transit Center, and the ARC Fresno Production Center.

It is worth noting that the recent implementation of the BRT system has provided for shelters at the intersection of Blackstone Avenue and Weldon Avenue, thus improving conditions for patrons. However, it is recommended that additional covered bus shelters be added along McKinley Avenue to help promote transit use during inclement weather conditions such as rain and extreme heat. An observation made by JLB noted that that the number of transit users in the vicinity of Fresno City College is relatively high and these patrons are not well served by a single bus shelter. Where possible, consideration should be given to the planting of trees to provide shade and help reduce heat during the summer months. Retention of the existing and expansion of future transit routes is dependent on transit ridership demand and available funding.

Madera Community College

Madera Area Express (MAX) is the transit operator in the City of Madera. At present, there is one (1) fixed route transit service adjacent to the Madera Community College campus. MAX Route 3 College runs on Avenue 12 and operates at 15-minute intervals to the campus and 47-minute intervals from the campus on weekdays from 7:00 AM to 5:00 PM. This route provides a direct connection to Walgreens, P Street Transfer Point, Madera High South Campus, and Madera Community College. Retention of the existing and expansion of future transit routes is dependent on transit ridership demand and available funding.

Reedley Community College

The City of Reedley's Community Services Department runs an advance reservation van and an on-call door-to-door van service. The 12-passenger vans operate Monday through Friday between the hours of 7:30 AM and 4:30 PM. These vans provide service to City Hall, the Post Office, the Community Medical Center, Adventist Medical Center Hospital and other locations within a two-mile radius of Reedley. The vans are also used to transport children from house to school.

Fresno County Rural Transit Agency (FCRTA) provides transit services for those communities not served by FAX or Clovis Stageline. FCRTA has 18 transit subsystems available to those within the cities of Coalinga, Firebaugh, Fowler, Huron, Kerman, Mendota, Orange Cove, Parlier, Reedley, Sanger, San Joaquin, and Selma. Within the City of Reedley, FCRTA has set up Reedley Transit to provide Demand Responsive service between 7:00 AM and 4:30 PM Monday through Friday and between 8:00 AM and 4:30 PM on Saturdays.

Orange Cove Inter-City Transit, also part of FCRTA, operates a transit route that serves the cities of Orange Cove, Reedley, Parlier, Sanger and Fresno. Orange Cove Inter-City Transit provides service twice a day – one is at 7:18 AM and the other at 1:03 PM. The stops within the City of Reedley are limited to the Reedley Shopping Center, the Reedley Community Center and the Reedley Community College. On this route, it is recommended that an additional morning bus start around 6:00 AM and return from Fresno at 5:45 PM.

Kingsburg-Reedley Inter-City Transit, also part of FCRTA, operates a transit route that serves the cities of Kingsburg, Selma, Fowler, Parlier and Reedley. Kingsburg-Reedley Inter-City Transit provides service three times a day – the first is at 7:00 AM, the second is at 1:00 AM, and the third is at 2:30 PM. The only stop within the City of Reedley is to the Reedley Community College. On this route, it is recommended that an additional morning bus start around 6:00 AM and return from Fresno at 5:45 PM.

Sanger Express, also part of FCRTA, operates a transit route that serves Sanger Community Center and Reedley Community College. Sanger Express provides service between 6:45 AM and 4:05 PM.

Dinuba Area Regional Transit (DART) developed Dinuba Connection in partnership with FCRTA to provide regional transit services between the cities of Dinuba and Reedley. Dinuba Connection runs on Reed Avenue and Manning Avenue and operates at 60-minute intervals on weekdays. The nearest transit stop to the Reedley Community College is located on Reed Avenue and Manning Avenue. This route provides a direct connection to Dinuba Transit Center, Tulare Works, SaveMart, Adventist Medical Center, Reedley Community College, Palm Village, the Department of Motor Vehicles, and Walmart. It is recommended that FCRTA and Reedley Community College work with DART to possibly reduce the headways to 30- or 40-minute intervals between the hours of 7:00 AM and 4:00 PM.

In addition to the specific recommendations for each of the above transit routes serving Reedley Community College, it is also recommended that covered bus shelters be added to help promote transit use during inclement weather conditions such as rain and extreme hear. Where possible, consideration should also be given to the planting of trees adjacent to bus stops/shelters along Manning Avenue to provide shade and help reduce heat during the summer months. Retention of existing transit routes and implementation of the recommended improved headways and transit amenities are dependent on ridership demand and available funding.

Parking Analysis

Clovis Community College

Parking generation for the typical operations of the Clovis Community College campus were based on one observation conducted on Tuesday, May 8, 2018. This parking demand observation included four (4) sweeps at 60-minute intervals starting with 9:00 AM and ending at 12:00 PM. The parking surveys are contained in Appendix D. Based on the existing data, there are a grand total of 1,867 parking stalls, of which 115 spaces are on-street parking stalls are located along the south side of International Avenue. Therefore, CCC has a total of 1,752 on-site parking stalls. Of the 1,752 on-site parking stalls, 1,505 spaces are for the general public, 15 spaces are metered, 180 spaces are for staff, 46 spaces are ADA, 4 spaces are for motorcycles, and 2 spaces are time-restricted. The enrollment at Clovis Community College at the time that the parking demand data was collected was 4,991 full-time equivalent (FTE) students. Therefore, the current ratio of general public and metered available on-site parking stalls per FTE student is 0.305 (1,520 available on-site (general public and metered) parking stalls ÷ 4,991 FTE students = 0.305 available on-site parking stalls per FTE student). This ratio does not account for restricted stalls (i.e. ADA, staff, motorcycle, etc.), which most students are not able to utilize.

Based on the data collected, the typical non-event parking demand peaks at 11:00 AM with a maximum of 1,157 parked vehicles on campus, or 66 percent of the available stalls occupied. During the peak hour, 595 stalls are available, of which 434 stalls are within parking lots “B,” “H,” “I” and “J.” It should be noted that during the peak hour, parking lot “E,” which contains six (6) general public and one (1) ADA stall, was 100 percent occupied. Overall, the CCC campus has an ample supply of parking stalls, considering the current enrollment of 4,991 FTE students.

During the 11:00 AM peak hour, the general public, metered and off-site parking demand is calculated to be 0.217 (1,084 general public, metered and off-site parking stalls assumed to be occupied by students during the 11:00 AM peak hour ÷ 4,991 FTE students = 0.217). Assuming that the future (2028) FTE student enrollment increases to 6,257, the CCC campus would need 1,360 general public and metered on-site parking stalls to meet the projected demand (0.217 current parking demand x 6,257 projected FTE students in 2028 = 1,360 general public and metered parking stalls). However, in general, the functional capacity available to the public and vacancies observed should be compared to a measure of “effective capacity.” Effective capacity is generally an occupancy rate of 95 percent, at which point a parking facility feels “full” to a user due to the delay in finding a vacant space. Therefore, it is recommended that parking not exceed 95 percent of the parking supply. With this in mind the number of general public and metered on-site parking stalls needed becomes 1,432 general public and metered parking stalls. Given that the current number of general public and metered on-site parking stalls is 1,520, it is anticipated that the CCC campus will have sufficient parking supply to accommodate the projected parking demand as a result of the estimated FTE student enrollment in the year 2028.

Fresno City College

Parking generation for the typical operations of the Fresno City College campus were based on one observation conducted on Wednesday, September 5, 2018. The parking demand observation included four (4) sweeps at 60-minute intervals starting with 9:00 AM and ending at 12:00 PM. The parking surveys are contained in Appendix D. Based on the existing data, there are a grand total of 3,349 parking stalls, of which 152 spaces are on-street parking stalls adjacent to the campus. Therefore, FCC has a total of 3,197 on-site parking stalls. Of the 3,197 on-site parking stalls, 2,304 spaces are for the general public, 84 spaces are metered, 638 spaces are for staff, 101 spaces are ADA, 53 spaces are for motorcycles, 15 spaces are time-restricted and two (2) are other. The enrollment at Fresno City College at the time that the parking demand data was collected was 15,493 FTE students. Therefore, the current ratio of general public and metered available on-site parking stalls per FTE student was 0.154 (2,388 available on-site parking stalls ÷ 15,493 FTE students = 0.154 available on-site parking stalls per FTE student). This ratio does not account for restricted stalls (i.e. ADA, staff, motorcycle, time-restricted etc.), which most students are not able to utilize. The available on-site parking stalls per enrolled student ratio presented in the TJKM Report was 0.210 (2,378 available on-site parking stalls ÷ 11,335 total students enrolled = 0.210 available on-site parking stalls per FTE student). Therefore, the ratio of available on-site parking stalls per FTE student has decreased from 0.210 in 2012 to 0.154 in 2018. The decrease in available parking supply for students equates to a reduction of approximately 27 percent between 2012 and 2018. While the FCC campus has increased the overall number of available on-site parking stalls, those available to the general public decreased by 74 stalls and the number of ADA stalls decreased by 13 stalls. At the same time, the number of staff stalls increased from 456 stalls to 638 stalls, or the equivalent of a 40 percent increase. Furthermore, the FTE student enrollment has increased at a higher rate with more than 4,100 additional students in 2018 than in 2012.

Based on the data collected, the typical non-event parking demand peaks at 10:00 AM with a maximum of 2,989 parked vehicles on campus, or 93 percent of the overall on-site parking stalls occupied. During the parking demand peak hour, 208 stalls were available but of these 85 percent were restricted stalls leaving only 31 stalls available for the general public. It should be noted that during the parking demand peak hour, parking lots "B", “C,” “D,” “E/F”, "I", "O", "T" and "V," which accommodate approximately 91 percent of the general public and metered parking stalls, were between 98 and 100 percent occupied. These very high levels of parking occupancy tend to increase traffic congestion on-site and off-site as students are forced to roam through campus parking lots to find an available unrestricted parking stall. It was also observed that approximately two (2) percent of motorists occupying the general public parking stalls remained in the vehicle for nearly an hour or more. It can only be assumed that these motorists opted to arrive much earlier than needed to find an available parking stall.

During the 10:00 AM peak hour, the general public, metered and off-site parking demand is calculated to be 0.161 (2,497 general public, metered and off-site parking stalls occupied during the 10:00 AM peak hour ÷ 15,493 FTE students = 0.161). Assuming that the future (2028) FTE student enrollment increases to 15,962, the FCC campus would need 2,573 general public and metered on-site parking stalls to meet the projected demand at 100 percent occupancy (0.161 current parking demand x 15,962 projected FTE students in 2028 = 2,573 parking stalls). However, effective capacity is generally an occupancy rate of 95 percent, at which point a parking facility feels "full" to a user due to the delay in finding a vacant space. Therefore, it is recommended that parking demand not exceed 95 percent of the parking supply. With this in mind, the number of general public and metered on-site parking stalls needed to meet the current 2018 demand is 2,629 (2,497 general public, metered and off-site parking stalls occupied during the 10:00 AM peak hour ÷ 0.95 = 2,629). This equates to a 2018 shortage of 241 general public and metered stalls. While the projected demand for 2028 becomes 2,709 general public and metered parking stalls. Given that the current number of general public and metered on-site parking stalls is 2,388, it is anticipated that the FCC campus will need to add 321 general public and metered on-site parking stalls in order to accommodate the projected parking demand as a result of the estimated FTE student enrollment in the year 2028.

It is JLB's understanding that there are current plans to relocate the District Office staff from the Fresno City Campus to an off-site location. When this takes place, the parking supply utilized by the District Office staff and its visitors would be made available to FCC students and other staff and faculty. However, at the time of preparation of this report JLB had not received staffing data for the District Office so the number of stalls that could be freed up cannot be calculated.

Madera Community College

Parking generation for the typical operations of the Madera Community College campus were based on one observation conducted on Thursday, May 3, 2018. The parking demand observation included four (4) sweeps at 60-minute intervals starting with 9:00 AM and ending at 12:00 PM. The parking surveys are contained in Appendix D. Based on the existing data, there are a grand total of 933 parking stalls, of which 119 spaces are unmarked stalls located on the east side of Road 30. Therefore, MCC has a total of 814 on-site parking stalls. Of the 814 on-site parking stalls, 727 are for the general public, 6 are metered, 42 are for staff, 17 are ADA, 8 are for motorcycles, and 14 are time-restricted. The enrollment at Madera Community College at the time that the parking demand data was collected was 2,118 FTE students. Therefore, the ratio of available on-site parking stalls per FTE student was 0.346 (733 available on-site parking stalls ÷ 2,118 FTE students = 0.346 available on-site parking stalls per FTE student). This ratio does not account for restricted stalls (i.e. ADA, staff, motorcycle, time restricted etc.), which most students are not able to utilize.

Based on the data collected, the typical non-event parking demand peaks at 11:00 AM with a maximum of 454 parked on-site vehicles, or 56 percent of the available on-site parking stalls occupied. It should be noted that during the peak hour, there were 119 parked vehicles along Road 30 north of Avenue 12. During the peak hour, 360 stalls were available, of which 287 stalls were within parking lot "C." Overall, MCC campus has an ample supply of parking stalls, considering the current enrollment of 2,118 FTE students.

During the 11:00 AM peak hour, the general public, metered and off-site parking demand is calculated to be 0.246 (522 general public, metered and off-site parking stalls assumed to be occupied by students during the 11:00 AM peak hour ÷ 2,118 FTE students = 0.246). Assuming that the future (2028) FTE student enrollment increases to 2,373, the MCC campus would need 585 general public and metered on-site parking stalls to meet the projected demand at 100 percent occupancy (0.246 current parking demand x 2,373 projected FTE students in 2028 = 585 parking stalls). However, effective capacity is generally an occupancy rate of 95 percent, at which point a parking facility feels "full" to a user due to the delay in finding a vacant space. Therefore, it is recommended that parking demand not exceed 95 percent of the parking supply. With this in mind, the number of general public and metered on-site parking stalls needed becomes 616. Given that the current number of general public and metered on-site parking stalls is 733, it is anticipated that the MCC campus will have sufficient parking supply to accommodate the projected parking demand as a result of the estimated FTE student enrollment in the year 2028.

Reedley Community College

Parking generation for the typical operations of the Reedley Community College campus were based on one observation conducted on Thursday, April 26, 2018. The parking demand observation included four (4) sweeps at 60-minute intervals starting with 9:00 AM and ending at 12:00 PM. The parking surveys are contained in Appendix D. Based on the existing data, there are a grand total of 1,648 parking stalls, of which 24 spaces are on-street parking stalls located along the north side of Manning Avenue and another 132 spaces are located at the southeast corner of Reed Avenue and Parlier Avenue (Redeemer's Church). Therefore, RCC has a total of 1,492 on-site parking stalls. Of the 1,492 on-site parking stalls, 1,117 are for the general public, 36 are metered, 67 are resident stalls, 210 are for staff, 52 are ADA, 3 are for motorcycles, and 1 is a visitor stall. The enrollment at Reedley Community College at the time that the parking demand data was collected was 4,766 FTE students. Therefore, the ratio of available on-site general public and metered parking stalls per FTE student was 0.242 (1,153 available on-site parking stalls ÷ 4,766 FTE students = 0.242 available on-site parking stalls per FTE student). This ratio does not account for restricted stalls (i.e. ADA, resident, staff, motorcycle, etc.), which most students are not able to utilize. The available on-site parking stalls per enrolled student ratio presented in the TJKM Report was 0.321 (1,096 available on-site parking stalls ÷ 3,411 total students enrolled = 0.321 available on-site parking stalls per enrolled student). Therefore, the ratio of available on-site parking stalls per FTE student has decreased from 0.321 in 2012 to 0.242 in 2018. While the RCC campus has increased the number of available on-site parking stalls, the FTE student enrollment has increased at a higher rate with more than 1,300 additional students in 2018 than in 2012.

Looking at the demographics of the City of Reedley, it is highly likely that a majority of students travel from the surrounding area (i.e., Fresno, Sanger, Selma, Dinuba, Parlier, Fowler, Orange Cove, Cutler, Orosi etc.) in their own vehicle and, as a result, the parking demand by students is higher at RCC versus FCC.

Based on the data collected, the typical non-event parking demand peaks at 11:00 AM with a maximum of 1,158 parked vehicles on campus, or 78 percent of the available stalls occupied. During the peak hour,334 stalls were available. Of the 334 available parking stalls, 157 parking stalls were general public or metered while the remaining stalls were restricted stalls. It was also observed that during the 11:00 AM peak hour, parking lot "B" was 95 percent occupied. This level of parking occupancy tends to increase traffic congestion on-site and off-site as students are forced to roam through campus parking lots to find an available, unrestricted parking stall.

During the 11:00 AM peak hour, the general public, metered and off-site parking demand is calculated to be 0.209 (996 general public, metered and off-site parking stalls occupied during the 11:00 AM peak hour ÷ 4,766 FTE students = 0.209). Assuming that the future (2028) FTE student enrollment increases to 5,743, the RCC campus would need 1,201 general public and metered on-site parking stalls to meet the projected demand at 100 percent occupancy (0.209 current parking demand x 5,743 projected FTE students in 2028 = 1,201 parking stalls). However, effective capacity is generally an occupancy rate of 95 percent, at which point a parking facility feels "full" to a user due to the delay in finding a vacant space. Therefore, it is recommended that parking demand not exceed 95 percent of the parking supply. With this in mind, the number of general public and metered on-site parking stalls needed to meet the 2028 demand is 2,629 (1,201 general public, metered and off-site parking stalls occupied during the 11:00 AM peak hour ÷ 0.95 = 1,265). Given that the current number of general public and metered on-site parking stalls is 1,153, it is anticipated that the RCC campus will need to add 112 general public and metered on-site parking stalls to accommodate the projected parking demand as a result of the estimated FTE student enrollment in the year 2028. It is worth noting that while the consideration of the on-street parking along Manning Avenue and those within the Redeemer's Church site will eliminate the need to add additional general public and metered on-site parking stalls, the SCCCD should work toward providing students with adequate parking supply on-site as the off-site parking supply is not guaranteed to be available for students.

SCCCD 2018 Survey Analysis

During the preparation of this report, the SCCCD conducted a survey that included 31 questions to better understand issues related to parking and travel to and from the SCCCD campuses. A total of 4,780 surveys were collected, of these 3,893 came from students, 872 from staff/faculty, and the remaining from future students or visitors. Of the 31 questions, six (6) were selected to be included in this report due to their relevance with parking demand. These six questions are as follow: 1) "How do you typically (i.e. most often) travel to campus?", 2) "If you drive to campus or a district office location and park off-campus in nearby neighborhoods, indicate why you choose to park off-campus.", 3) "What factors prevent you from carpooling/vanpooling to work/campus more often?", 4) "What time do you usually arrive to campus?", 5) "What time do you usually depart campus?", and 6) "How many trips to you make to campus every week?". The responses to these questions are included in the Appendix E and are also summarized for Clovis Community College, Fresno City College, Madera Community College and Reedley College.

Clovis Community College

Of the student respondents that travel to the CCC campus, 93 percent most often drive alone for various reasons. 46 percent of students report that they have work before or after school, 29 percent report that they have conflicting class times with other students, and 28 percent report that they don't want to ride with strangers as a reason for not carpooling/vanpooling to campus. 22 percent of CCC students report that they choose to park off-site because they are unable to find parking while 23 percent of students indicate that they choose to park off-site to save on parking fees. It is interesting to note that CCC students listed inability to find parking as a reason for parking off-site as CCC has a current excess of general public parking supply. Furthermore, 61 percent of student respondents indicated that they don't park off-site when they travel to campus - the highest percentage of students compared to all other campuses. 40 percent of students arrive between 8:00 AM and 10:00 AM and depart before 4:00 PM. 38 percent of students travel to campus five (5) or more times a week, 22 percent travel to campus four (4) times a week, 15 percent travel to campus three (3) times a week, and 25 percent of students travel to campus two (2) or less times a week.

Based on the survey responses, the majority of students that travel to the CCC campus drive alone, park on campus and are on campus four (4) or more times a week.

Of the staff/faculty respondents that travel to the CCC campus most often, 98 percent drive alone for various reasons. 31 percent of staff/faculty respondents report that they have other reasons not presented within the answer selection that prevent them from carpooling/vanpooling and 23 percent reported that they have to drop-off/pick-up a child before or after work. Furthermore, 83 percent of staff/faculty don't park off-site when they travel to campus. 37 percent of staff/faculty arrive between 8:00 AM and 10:00 AM and 53 percent of staff/faculty depart between 4:00 PM and 6:00 PM. Also, 70 percent of staff/faculty are on campus five (5) or more times a week.

Based on the survey responses, the majority of staff/faculty that travel to the CCC campus drive alone, park on campus and are on campus five (5) or more times a week. Therefore, it is recommended that the SCCCD consider implementing a rideshare program that will encourage staff/faculty to carpool or use other modes of transportation. (See RideAmigos website (www.rideamigos.com) for information on commuter management and rideshare solutions.)

Fresno City College

Of the student respondents that travel to the FCC campus, 86 percent most often drive alone for various reasons. 43 percent of students report that they have work before or after school, 26 percent report that they don't want to ride with strangers, and 25 percent report that they have conflicting class times with other students as reasons for not carpooling/vanpooling to campus. 47 percent of FCC students report that they choose to park off-site because they are unable to find parking while 27 percent of students indicate that they choose to park off-site to save on parking fees. 36 percent of students arrive between 6:00 AM and 8:00 AM and 44 percent of students depart before 4:00 PM. 35 percent of students travel to campus five (5) or more times a week, 26 percent travel to campus four (4) times a week, 19 percent travel to campus three (3) times a week, and 20 percent of students travel to campus two (2) or less times a week.

Based on the survey responses, the majority of students that attend the FCC campus drive alone, and the majority of those that park off-site because they are unable to locate parking on campus and are on campus four (4) or more times a week.

Of the staff/faculty respondents that travel to the FCC campus most often, 90 percent drive alone for various reasons. 36 percent of staff/faculty respondents report that they have other reasons not presented within the answer selection that prevent them from carpooling/vanpooling and 19 percent reported that they have to drop-off/pick-up a child before or after work. Furthermore, while 67 percent of staff/faculty don't park off-site when they travel to campus, 31 percent report that they are unable to locate parking on campus. 61 percent of staff/faculty arrive between 6:00 AM and 8:00 AM and 56 percent depart between 4:00 PM and 6:00 PM. Also, 73 percent of staff/faculty are on campus five (5) or more times a week.

Based on the survey responses, the majority of staff/faculty that travel to the FCC campus drive alone, and those that park off-site do so because they are unable to locate parking on campus, and are on campus five (5) or more times a week. Therefore, it is recommended that the SCCCD consider implementing a rideshare program that will encourage staff/faculty to carpool or use other modes of transportation.

Madera Community College

Of the student respondents that travel to the MCC campus, 89 percent most often drive alone for various reasons. 35 percent of students report that they have work before or after school, 26 percent report that they have conflicting class times with other students as reasons for not carpooling/vanpooling to campus, and 22 percent report that they don't want to ride with strangers. 18 percent of MCC students report that they choose to park off-site because they are unable to find parking while 35 percent of students indicate that they choose to park off-site to save on parking fees. It is interesting to note that MCC students listed inability to find parking as a reason for parking offsite as MCC has a current excess of general public parking supply. 33 percent of students travel to campus five (5) or more times a week, 27 percent travel to campus four (4) times a week, 18 percent travel to campus three (3) times a week, and 22 percent of students travel to campus two (2) or less times a week.

Based on the survey responses, the majority of students that attend the MCC campus drive alone, park off-site because they are concerned with cost savings, and are on campus four (4) or more times a week.

Of the staff/faculty respondents that travel to the MCC campus most often, 98 percent drive alone for various reasons. 41 percent of staff/faculty respondents report that they have other reasons not presented within the answer selection that prevent them from carpooling/vanpooling and 19 percent reported that they have work before or after school and another 19 percent reported that they have to drop-off/pick-up a child before or after work. Furthermore, 89 percent of staff/faculty don't park off-site when they travel to campus. 53 percent of staff/faculty arrive between 6:00 AM and 8:00 AM and 51 percent depart between 4:00 PM and 6:00 PM. Also, 56 percent of staff/faculty are on campus five (5) or more times a week.

Based on the survey responses, the majority of staff/faculty that travel to the MCC campus drive alone, and those that park off-site do so because they are unable for find parking on campus and are on campus 5 or more times a week. Therefore, it is recommended that the SCCCD consider implementing a rideshare program that will encourage staff/faculty to carpool or use other modes of transportation.

Reedley Community College

Of the student respondents that travel to the RCC campus most often, 89 percent drive alone for various reasons. 34 percent of students report that they have work before or after school, 32 percent report that they have conflicting class times with other students as reasons for not carpooling/vanpooling to campus, and 23 percent report that they don't want to ride with strangers. 45 percent of RCC students report that they choose to park off-site because they are unable to find parking while 35 percent of students indicate that they choose to park off-site to save on parking fees. 42 percent of students arrive between 8:00 AM and 10:00 AM and 54 percent of students depart before 4:00 PM. 52 percent of students travel to campus five (5) or more times a week, 21 percent travel to campus four (4) times a week, 11 percent travel to campus three (3) times a week, and 16 percent of students travel to campus two (2) or less times a week.

Based on the survey responses, the majority of students that attend the RCC campus drive alone, those that choose to park off-site do so because they are unable to located parking on campus, and are on campus five (5) or more times a week.

Of the staff/faculty respondents that travel to the RCC campus most often, 95 percent drive alone for various reasons. 33 percent of staff/faculty respondents reported that they have to drop-off/pick-up a child before or after work, 32 percent reported that they have other reasons not presented within the answer selection that prevent them from carpooling/vanpooling, and 16 percent reported that they don't want to ride with strangers. Furthermore, while 79 percent of staff/faculty don't park off-site when they travel to campus, 18 percent report that they are unable to locate parking on campus. 68 percent of staff/faculty arrive between 6:00 AM and 8:00 AM and 65 percent depart between 4:00 PM and 6:00 PM. Also, 79 percent of staff/faculty are on campus five (5) or more times a week.

Based on the survey responses, the majority of staff/faculty that travel to the RCC campus drive alone, park on campus, and are on campus five (5) or more times a week. Therefore, it is recommended that the SCCCD consider implementing a rideshare program that will encourage staff/faculty to carpool or use other modes of transportation.

Conclusions and Recommendations

Conclusions and recommendations regarding the proposed Project are presented below.

Clovis Community College

- Although all study intersections operate at an acceptable LOS, it is recommended that the access driveway to parking lot "J" be aligned with the access to parking lots "H" and "G" across the street to improve traffic operations.
- It is also recommended that a second access point to parking lot "J" be added to align itself with the second southernmost east-west parking aisle.
- At present, there is one transit route that serves Clovis Community College.
- Based on the parking demand observation and the current enrollment of 4,991 FTE students, Clovis Community College has an ample supply of parking stalls.
- Given the current parking demand and the projected FTE student enrollment at CCC, it is anticipated that the CCC campus will have sufficient parking supply to accommodate the projected FTE student enrollment in the year 2028.
- The majority of students that travel to the CCC campus:
  - Drive alone;
  - Park on campus; and
  - Are on campus four (4) or more times a week.
- The majority of staff/faculty that travel to the CCC campus:
  - Drive alone;
  - Park on campus; and
  - Are on campus five (5) or more times a week.
- It is recommended that the SCCCD consider implementing a rideshare program that will encourage staff/faculty to carpool or use other modes of transportation.

Fresno City College

- At present, all study intersections operate at an acceptable LOS. However, it should be noted that access to the northern driveway to parking lot "E/F" was limited to right-in and right-out access only. This is currently achieved by the placement of cones and regulatory signage. However, it is recommended that a narrow raised median island with channelizers be installed and that the temporary cones be removed. Another alternative would consider closing this driveway and opening a new driveway to a point just north of the existing midblock crosswalk.
- If the northern driveway is relocated to a point just north of the existing midblock crosswalk, it is recommended that southbound left-turns into parking lot "E/F" be allowed and that all-way STOP controls be implemented in order to promote pedestrian safety and minimize impacts to traffic operations.
- It is recommended that all crosswalks within the FCC campus be upgraded to high visibility crosswalks in an effort to improve pedestrian safety and promote walking to school.
- It is recommended that a one-lane roundabout be planned for the intersection of Calaveras Street and Weldon Avenue as a means to reduce the potential of induced delay in the future.

- It is recommended that the intersection of Campus Drive and Weldon Avenue be signalized with a leading pedestrian interval in the westbound approach and that a dedicated northbound right-turn lane with overlap phasing be added.
- Since the intersection of McKinley Avenue Access and Campus Drive operates at a good LOS with a maximum average delay of 10.7 seconds, JLB does not recommend changes to the geometrics or traffic controls of this intersection.
- It is recommended that "KEEP CLEAR" legends be marked on Campus Drive at its intersection with Parking E/F access road. The addition of the "KEEP CLEAR" legends and the recommendations for the intersection of Campus Drive and Weldon Avenue are anticipated to substantially reduce queuing along Campus Drive.
- At present, there are five (5) FAX transit routes, FAX Routes 1 Q, 20, 28, 39 and 45, that operate in the vicinity of the Fresno City College campus. It is recommended that the SCCCD work with FAX to improve headways of the existing transit routes serving the FCC campus. Furthermore, it is recommended that additional covered bus shelters be added along McKinley Avenue to help promote transit use.
- Between 2012 and 2018, the number of FTEs at FCC increased by more than 4,100.
- While the FCC campus increased the overall number of available on-site parking stalls between 2012 and 2018, those available to the general public decreased by 74 stalls and the number of ADA stalls decreased by 13 stalls. At the same time, the number of staff stalls increased from 456 stalls to 638 stalls, or the equivalent of a 40 percent increase in staff stalls while other users observed a decline.
- During the parking demand peak hour, 208 stalls were available but of these 85 percent were restricted stalls leaving only 31 stalls available for the general public. It should be noted that during the parking demand peak hour, parking lots "B", “C,” “D,” “E/F”, "I", "O", "T" and "V," which accommodate approximately 91 percent of the general public and metered parking stalls, were between 98 and 100 percent occupied.
- The number of general public and metered on-site parking stalls needed to meet the current 2018 demand is 2,629. This equates to a 2018 shortage of 241 general public/metered stalls.
- The number of general public and metered on-site parking stalls needed to meet the current 2028 demand is 2,709. Given that the current number of general public and metered on-site parking stalls is 2,388, it is anticipated that the FCC campus will need to add 321 general public and metered on-site parking stalls to accommodate the projected FTE student enrollment in the year 2028.
- There are current plans to relocate the District Office staff from the Fresno City Campus to an off-site location. When this takes place, the parking supply utilized by the District Office staff and its visitors would be made available to FCC students and other staff and faculty and thereby reducing the overall parking supply needed.
- The majority of students that attend the FCC campus:
  - Drive alone;
  - Those that park off-site do so because they are unable to locate parking on campus; and
  - Are on campus four (4) or more times a week.

- The majority of staff/faculty that travel to the FCC campus:
  - Drive alone;
  - Those that park off-site do so because they are unable to locate parking on campus; and
  - Are on campus five (5) or more times a week.
- It is recommended that the SCCCD consider implementing a rideshare program that will encourage staff/faculty to carpool or use other modes of transportation.

Madera Community College

- At present, all study intersections operate at an acceptable LOS. However, assuming traffic along Avenue 12 increases by an average annual rate of 2.0 percent, the intersection of Campus Main Street and Avenue 12 is projected to operate at an unacceptable LOS by the year 2028. Since the intersection is not projected to meet the peak hour signal warrant in the year 2028, signalization of this intersection is not recommended. However, to improve traffic operations at this location by the year 2028, it is recommended that the SCCCD work with the County of Madera to install a single-lane roundabout.
- At present, there is one (1) fixed route transit service, MAX Route 3 College, adjacent to the Madera Community College campus.
- Based on the parking demand observation and the current enrollment of 2,118 FTE students, Madera Community College has an ample supply of parking stalls.
- Given the current parking demand and the projected FTE student enrollment at MCC, it is anticipated that the MCC campus will have sufficient parking supply to accommodate the projected FTE student enrollment in the year 2028.
- The majority of students that attend the MCC campus:
  - Drive alone,
  - Those that park off-site do so because they are concerned with cost savings, and
  - Are on campus four (4) or more times a week.
- The majority of staff/faculty that travel to the MCC campus:
  - Drive alone,
  - Those that park offsite do so because they are unable for find parking on campus, and
  - Are on campus 5 or more times a week.
- It is recommended that the SCCCD consider implementing a rideshare program that will encourage staff/faculty to carpool or use other modes of transportation.

Reedley Community College

- While, all study intersections operate at an acceptable LOS, it is recommended that left-turns out be prohibited at the intersection of parking lot “B” access driveway and Manning Avenue. Other alternatives for consideration include the addition of a second driveway to the south along Manning Avenue and the construction of a connection between parking lot “B” and the existing campus aisle drive to the north.

- It is recommended that the SCCCD work with the respective transit authorities to improve headways of the existing transit routes serving the Reedley Community College campus. Furthermore, it is recommended that additional covered bus shelters and trees (for shade) be added along Manning Avenue to help promote transit use.
- While the RCC campus has increased the number of available on-site parking stalls, the FTE student enrollment has increased at a higher rate with more than 1,300 additional students in 2018 than in 2012.
- The number of general public and metered on-site parking stalls needed to meet the 2028 demand is 2,629. Given that the current number of general public and metered on-site parking stalls is 1,153, it is anticipated that the RCC campus will need to add 112 general public and metered on-site parking stalls to accommodate the projected parking demand as a result of the estimated FTE student enrollment in the year 2028. It is worth noting that while the consideration of the on-street parking along Manning Avenue and those within the Redeemer's Church site will eliminate the need to add additional general public and metered on-site parking stalls, the SCCCD should work toward providing students with adequate parking supply on-site as the off-site parking supply is not guaranteed to be available for students. The majority of students that attend the RCC campus:
  - Drive alone;
  - Those that choose to park off-site do so because they are unable to located parking on campus; and
  - Are on campus five (5) or more times a week.
- The majority of staff/faculty that travel to the RCC campus:
  - Drive alone;
  - Park on campus; and
  - Are on campus five (5) or more times a week.
- It is recommended that the SCCCD consider implementing a rideshare program that will encourage staff/faculty to carpool or use other modes of transportation.

Study Participants

JLB Traffic Engineering, Inc. Personnel:

Jose Luis Benavides, PE, TE	Project Manager
Susana Maciel, EIT	Engineer I/II
Alan Miao, EIT	Engineer I/II
Javier Rios	Engineer I/II
Jove Alcazar	Engineer I/II
Dennis Wynn	Sr. Engineering Technician

Persons Consulted:

Robert L. Petithomme, AIA	Darden Architects
Marty Dietz	Darden Architects

References

1. *Trip Generation,* 10th Edition, Washington D.C., Institute of Transportation Engineers, 2017.

Appendix A: Traffic Counts

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 1
Site Code : 00041818
Start Date : 4/18/2018
Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

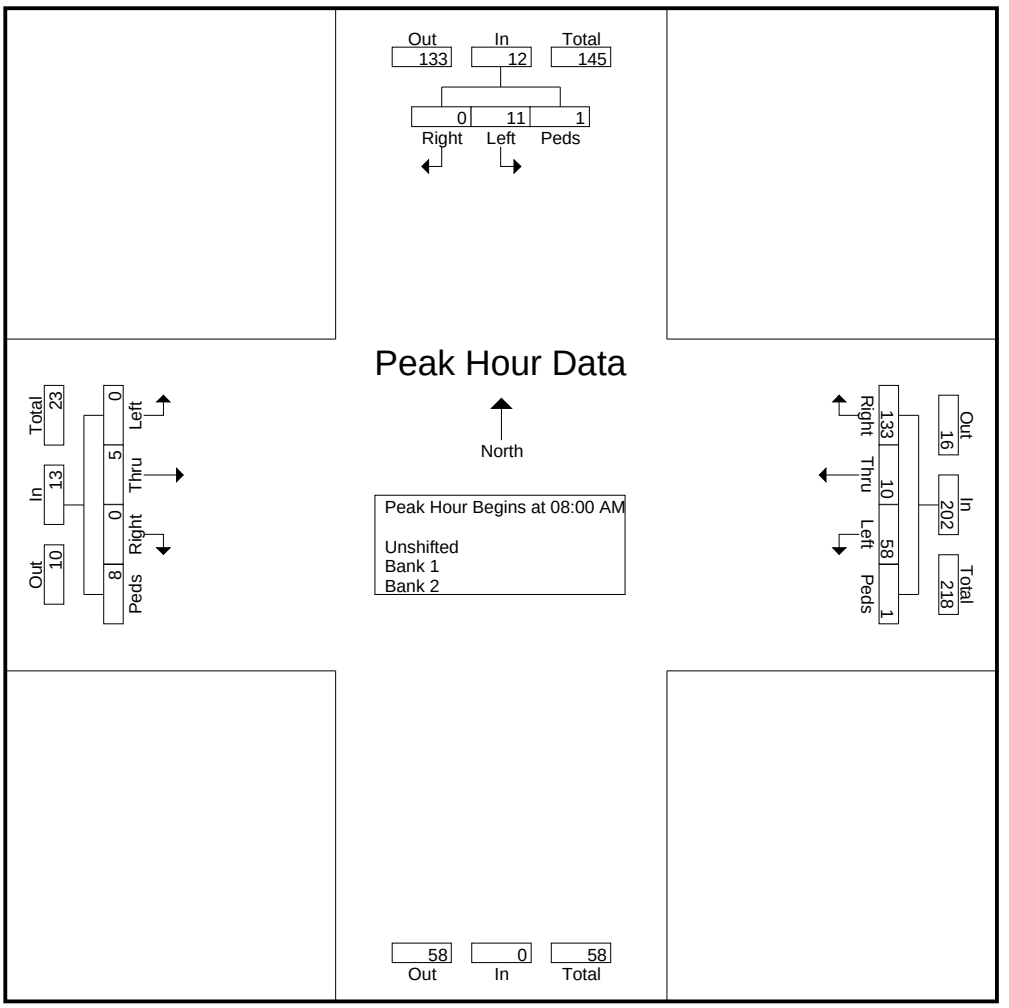
	Southbound				Westbound					Eastbound					
Start Time	Left	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	1	2	1	0	4	0	0	0	0	0	4
07:15 AM	0	0	0	0	2	0	4	0	6	0	0	0	0	0	6
07:30 AM	1	0	0	1	3	1	19	0	23	0	1	0	0	1	25
07:45 AM	3	0	0	3	15	3	47	0	65	0	2	0	0	2	70
Total	4	0	0	4	21	6	71	0	98	0	3	0	0	3	105
08:00 AM	4	0	0	4	16	3	28	0	47	0	1	0	0	1	52
08:15 AM	1	0	0	1	9	1	35	0	45	0	1	0	1	2	48
08:30 AM	4	0	0	4	11	2	29	0	42	0	0	0	2	2	48
08:45 AM	2	0	1	3	22	4	41	1	68	0	3	0	5	8	79
Total	11	0	1	12	58	10	133	1	202	0	5	0	8	13	227
******															
04:00 PM	11	0	0	11	3	0	5	0	8	0	0	0	0	0	19
04:15 PM	6	0	0	6	0	1	3	0	4	0	0	0	0	0	10
04:30 PM	14	0	0	14	3	0	3	0	6	0	0	0	0	0	20
04:45 PM	15	0	0	15	2	0	5	0	7	0	0	0	0	0	22
Total	46	0	0	46	8	1	16	0	25	0	0	0	0	0	71
05:00 PM	19	0	0	19	4	1	11	0	16	0	2	0	0	2	37
05:15 PM	18	0	0	18	9	1	14	0	24	0	1	0	0	1	43
05:30 PM	14	0	0	14	6	3	22	1	32	1	1	0	1	3	49
05:45 PM	10	0	0	10	14	1	20	2	37	0	1	0	3	4	51
Total	61	0	0	61	33	6	67	3	109	1	5	0	4	10	180
Grand Total	122	0	1	123	120	23	287	4	434	1	13	0	12	26	583
Apprch %	99.2	0	0.8		27.6	5.3	66.1	0.9		3.8	50	0	46.2		
Total %	20.9	0	0.2	21.1	20.6	3.9	49.2	0.7	74.4	0.2	2.2	0	2.1	4.5	
Unshifted	122	0	1	123	0	23	287	4	314	1	13	0	12	26	463
% Unshifted	100	0	100	100	0	100	100	100	72.4	100	100	0	100	100	79.4
Bank 1	0	0	0	0	120	0	0	0	120	0	0	0	0	0	120
% Bank 1	0	0	0	0	100	0	0	0	27.6	0	0	0	0	0	20.6
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 1
Site Code : 00041818
Start Date : 4/18/2018
Page No : 2

	Southbound				Westbound					Eastbound					
Start Time	Left	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1															
Peak Hour for Entire Intersection Begins at 08:00 AM															
08:00 AM	**4**	0	0	**4**	16	3	28	0	47	0	1	0	0	1	52
08:15 AM	1	0	0	1	9	1	35	0	45	0	1	0	1	2	48
08:30 AM	4	0	0	4	11	2	29	0	42	0	0	0	2	2	48
08:45 AM	2	0	**1**	3	**22**	**4**	**41**	**1**	**68**	0	**3**	0	**5**	**8**	**79**
Total Volume	11	0	1	12	58	10	133	1	202	0	5	0	8	13	227
% App. Total	91.7	0	8.3		28.7	5	65.8	0.5		0	38.5	0	61.5		
PHF	.688	.000	.250	.750	.659	.625	.811	.250	.743	.000	.417	.000	.400	.406	.718

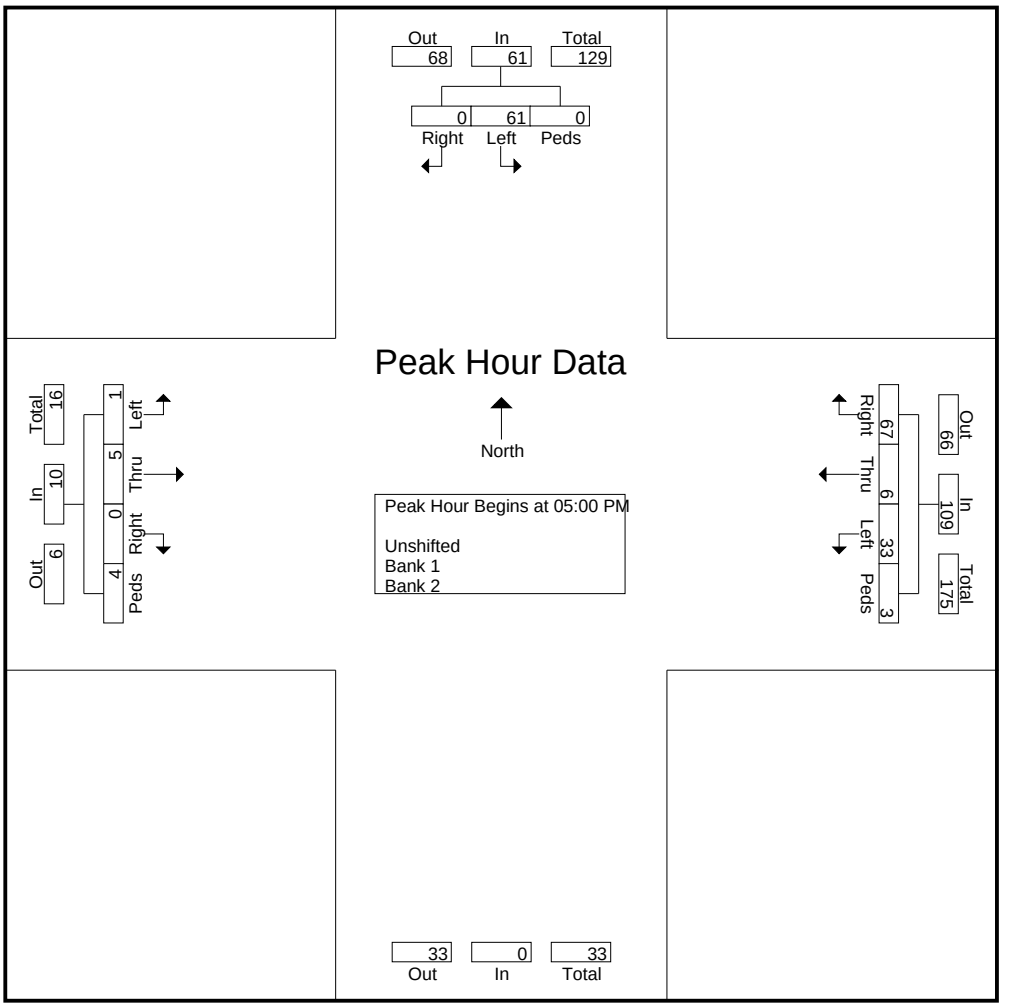


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 1
Site Code : 00041818
Start Date : 4/18/2018
Page No : 3

	Southbound				Westbound					Eastbound					
Start Time	Left	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1															
Peak Hour for Entire Intersection Begins at 05:00 PM															
05:00 PM	**19**	0	0	**19**	4	1	11	0	16	0	**2**	0	0	2	37
05:15 PM	18	0	0	18	9	1	14	0	24	0	1	0	0	1	43
05:30 PM	14	0	0	14	6	**3**	**22**	1	32	**1**	1	0	1	3	49
05:45 PM	10	0	0	10	**14**	1	20	**2**	**37**	0	1	0	**3**	**4**	**51**
Total Volume	61	0	0	61	33	6	67	3	109	1	5	0	4	10	180
% App. Total	100	0	0		30.3	5.5	61.5	2.8		10	50	0	40		
PHF	.803	.000	.000	.803	.589	.500	.761	.375	.736	.250	.625	.000	.333	.625	.882



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 1
Site Code : 00041818
Start Date : 4/18/2018
Page No : 1

Groups Printed- Bank 1 - Bank 2

	Southbound				Westbound					Eastbound					
Start Time	Left	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
07:15 AM	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
07:30 AM	0	0	0	0	3	0	0	0	3	0	0	0	0	0	3
07:45 AM	0	0	0	0	15	0	0	0	15	0	0	0	0	0	15
Total	0	0	0	0	21	0	0	0	21	0	0	0	0	0	21
08:00 AM	0	0	0	0	16	0	0	0	16	0	0	0	0	0	16
08:15 AM	0	0	0	0	9	0	0	0	9	0	0	0	0	0	9
08:30 AM	0	0	0	0	11	0	0	0	11	0	0	0	0	0	11
08:45 AM	0	0	0	0	22	0	0	0	22	0	0	0	0	0	22
Total	0	0	0	0	58	0	0	0	58	0	0	0	0	0	58
******															
04:00 PM	0	0	0	0	3	0	0	0	3	0	0	0	0	0	3
******															
04:30 PM	0	0	0	0	3	0	0	0	3	0	0	0	0	0	3
04:45 PM	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
Total	0	0	0	0	8	0	0	0	8	0	0	0	0	0	8
05:00 PM	0	0	0	0	4	0	0	0	4	0	0	0	0	0	4
05:15 PM	0	0	0	0	9	0	0	0	9	0	0	0	0	0	9
05:30 PM	0	0	0	0	6	0	0	0	6	0	0	0	0	0	6
05:45 PM	0	0	0	0	14	0	0	0	14	0	0	0	0	0	14
Total	0	0	0	0	33	0	0	0	33	0	0	0	0	0	33
Grand Total	0	0	0	0	120	0	0	0	120	0	0	0	0	0	120
Apprch %	0	0	0		100	0	0	0		0	0	0	0		
Total %	0	0	0	0	100	0	0	0	100	0	0	0	0	0	
Bank 1	0	0	0	0	120	0	0	0	120	0	0	0	0	0	120
% Bank 1	0	0	0	0	100	0	0	0	100	0	0	0	0	0	100
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 2
Site Code : 00041818
Start Date : 4/18/2018
Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

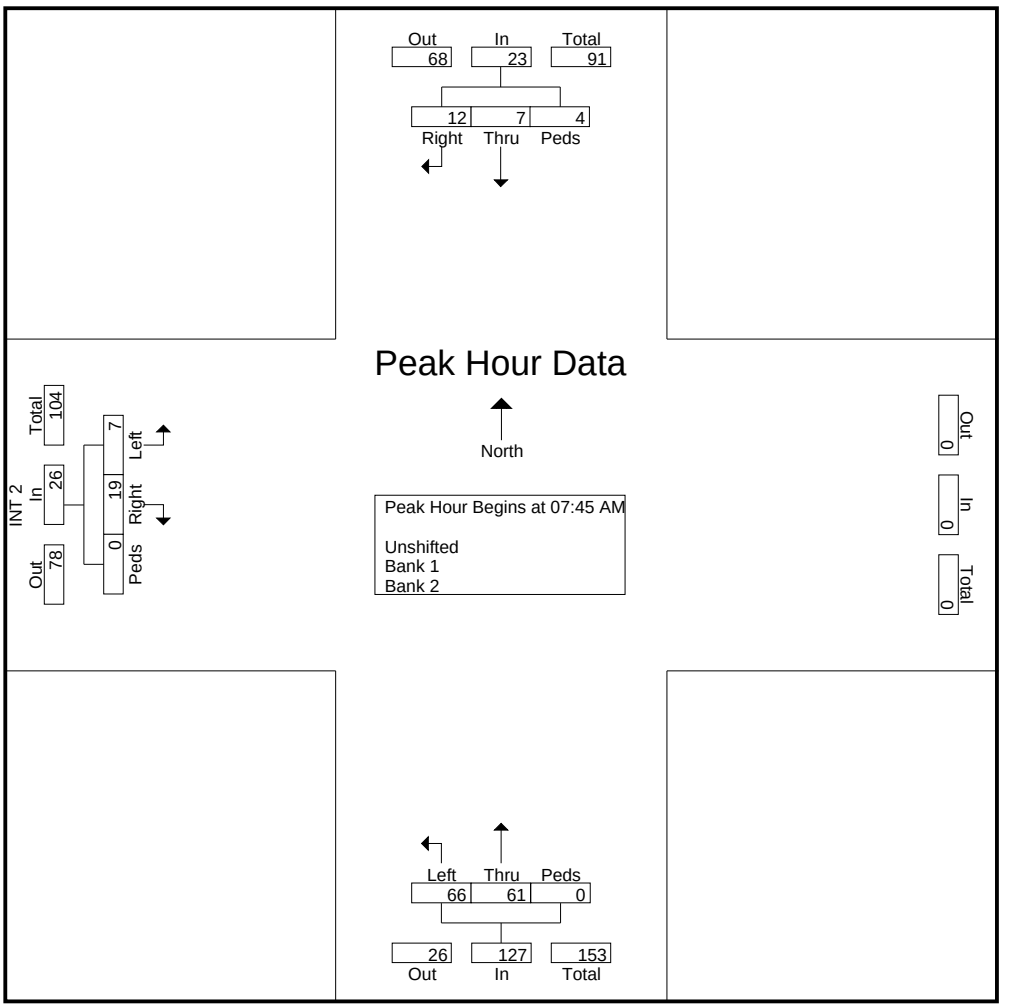
	Southbound				Northbound				INT 2 Eastbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	0	2	1	3	3	0	0	3	1	0	0	1	7
07:15 AM	1	0	1	2	5	6	0	11	0	0	0	0	13
07:30 AM	0	5	3	8	11	8	0	19	2	2	0	4	31
07:45 AM	2	2	4	8	40	25	0	65	2	6	0	8	81
Total	3	9	9	21	59	39	0	98	5	8	0	13	132
08:00 AM	2	4	0	6	19	10	0	29	3	11	0	14	49
08:15 AM	2	0	0	2	3	6	0	9	1	1	0	2	13
08:30 AM	1	6	0	7	4	20	0	24	1	1	0	2	33
08:45 AM	14	7	0	21	4	27	0	31	1	0	0	1	53
Total	19	17	0	36	30	63	0	93	6	13	0	19	148
******													
04:00 PM	8	1	1	10	0	2	0	2	2	2	0	4	16
04:15 PM	10	2	0	12	0	2	0	2	0	3	0	3	17
04:30 PM	5	2	0	7	0	4	0	4	1	1	0	2	13
04:45 PM	10	3	0	13	2	4	0	6	1	3	0	4	23
Total	33	8	1	42	2	12	0	14	4	9	0	13	69
05:00 PM	8	2	0	10	2	4	0	6	1	1	0	2	18
05:15 PM	12	3	0	15	5	12	0	17	1	7	0	8	40
05:30 PM	4	5	0	9	3	8	0	11	2	4	0	6	26
05:45 PM	2	3	0	5	4	10	0	14	3	4	0	7	26
Total	26	13	0	39	14	34	0	48	7	16	0	23	110
Grand Total	81	47	10	138	105	148	0	253	22	46	0	68	459
Apprch %	58.7	34.1	7.2		41.5	58.5	0		32.4	67.6	0		
Total %	17.6	10.2	2.2	30.1	22.9	32.2	0	55.1	4.8	10	0	14.8	
Unshifted	81	47	10	138	105	148	0	253	22	46	0	68	459
% Unshifted	100	100	100	100	100	100	0	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 2
Site Code : 00041818
Start Date : 4/18/2018

	Southbound				Northbound				INT 2 Eastbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	**2**	2	**4**	**8**	**40**	**25**	0	**65**	2	6	0	8	**81**
08:00 AM	2	4	0	6	19	10	0	29	**3**	**11**	0	**14**	49
08:15 AM	2	0	0	2	3	6	0	9	1	1	0	2	13
08:30 AM	1	**6**	0	7	4	20	0	24	1	1	0	2	33
Total Volume	7	12	4	23	66	61	0	127	7	19	0	26	176
% App. Total	30.4	52.2	17.4		52	48	0		26.9	73.1	0		
PHF	.875	.500	.250	.719	.413	.610	.000	.488	.583	.432	.000	.464	.543

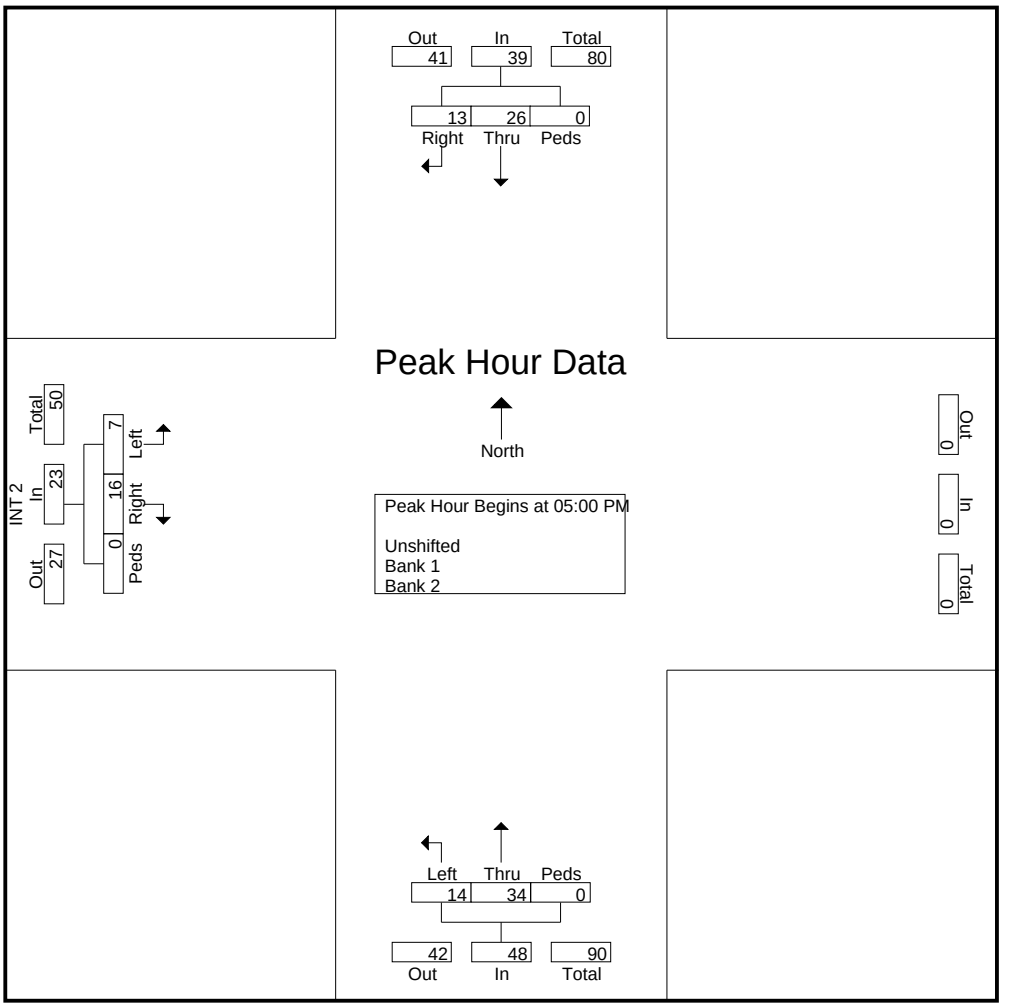


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 2
Site Code : 00041818
Start Date : 4/18/2018
Page No : 3

	Southbound				Northbound				INT 2 Eastbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	8	2	0	10	2	4	0	6	1	1	0	2	18
05:15 PM	**12**	3	0	**15**	**5**	**12**	0	**17**	1	**7**	0	**8**	**40**
05:30 PM	4	**5**	0	9	3	8	0	11	2	4	0	6	26
05:45 PM	2	3	0	5	4	10	0	14	**3**	4	0	7	26
Total Volume	26	13	0	39	14	34	0	48	7	16	0	23	110
% App. Total	66.7	33.3	0		29.2	70.8	0		30.4	69.6	0		
PHF	.542	.650	.000	.650	.700	.708	.000	.706	.583	.571	.000	.719	.688



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 3
Site Code : 00000000
Start Date : 4/18/2018
Page No : 1

Groups Printed- Unshifted

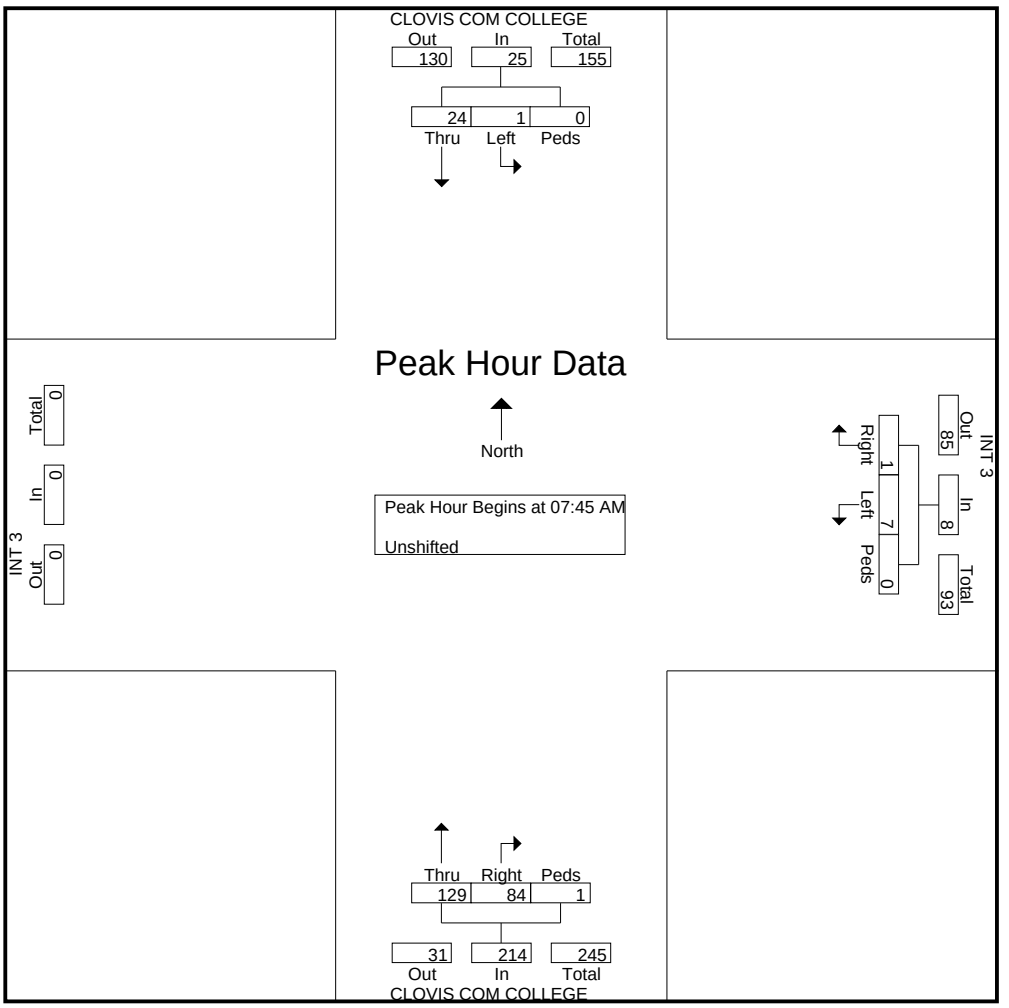
	CLOVIS COM COLLEGE Southbound				INT 3 Westbound				CLOVIS COM COLLEGE Northbound				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:15 AM	0	1	0	1	1	0	0	1	8	4	0	12	14
07:30 AM	0	2	0	2	0	0	0	0	17	14	0	31	33
07:45 AM	0	4	0	4	5	0	0	5	66	36	1	103	112
Total	0	7	0	7	6	0	0	6	91	54	1	146	159
08:00 AM	0	14	0	14	2	0	0	2	34	17	0	51	67
08:15 AM	0	3	0	3	0	1	0	1	7	12	0	19	23
08:30 AM	1	3	0	4	0	0	0	0	22	19	0	41	45
08:45 AM	1	9	0	10	9	0	0	9	32	33	0	65	84
Total	2	29	0	31	11	1	0	12	95	81	0	176	219
******													
04:00 PM	0	11	0	11	5	0	0	5	3	4	0	7	23
04:15 PM	0	13	0	13	6	0	0	6	2	1	0	3	22
04:30 PM	0	5	0	5	8	0	1	9	4	1	0	5	19
04:45 PM	0	13	0	13	8	1	0	9	6	4	0	10	32
Total	0	42	0	42	27	1	1	29	15	10	0	25	96
05:00 PM	0	10	0	10	15	0	0	15	6	3	0	9	34
05:15 PM	0	18	0	18	9	0	0	9	18	10	0	28	55
05:30 PM	0	10	0	10	1	0	0	1	11	16	0	27	38
05:45 PM	0	5	0	5	0	0	0	0	14	16	0	30	35
Total	0	43	0	43	25	0	0	25	49	45	0	94	162
Grand Total	2	121	0	123	69	2	1	72	250	190	1	441	636
Apprch %	1.6	98.4	0		95.8	2.8	1.4		56.7	43.1	0.2		
Total %	0.3	19	0	19.3	10.8	0.3	0.2	11.3	39.3	29.9	0.2	69.3	

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 3
Site Code : 00000000
Start Date : 4/18/2018
Page No : 2

	CLOVIS COM COLLEGE Southbound				INT 3 Westbound				CLOVIS COM COLLEGE Northbound				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	0	4	0	4	**5**	0	0	**5**	**66**	**36**	**1**	**103**	**112**
08:00 AM	0	**14**	0	**14**	2	0	0	2	34	17	0	51	67
08:15 AM	0	3	0	3	0	**1**	0	1	7	12	0	19	23
08:30 AM	**1**	3	0	4	0	0	0	0	22	19	0	41	45
Total Volume	1	24	0	25	7	1	0	8	129	84	1	214	247
% App. Total	4	96	0		87.5	12.5	0		60.3	39.3	0.5		
PHF	.250	.429	.000	.446	.350	.250	.000	.400	.489	.583	.250	.519	.551

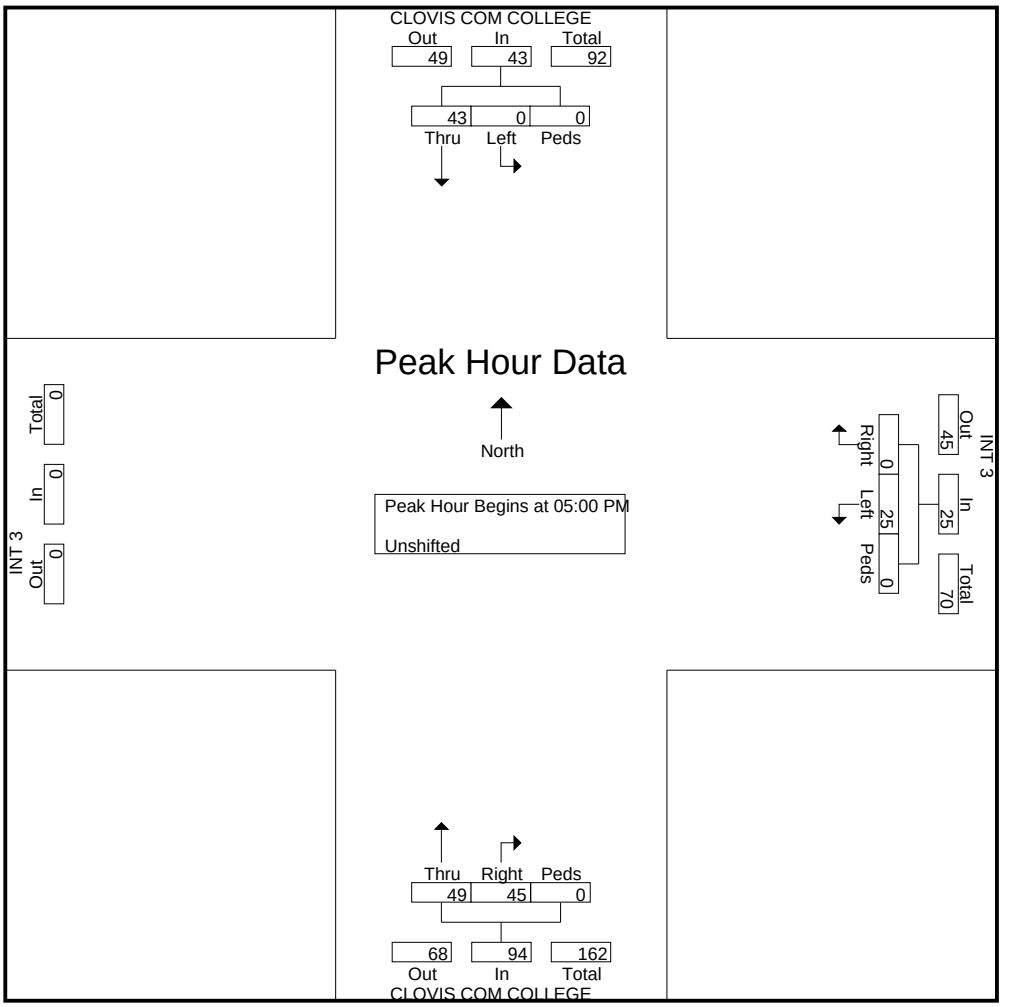


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 3
Site Code : 00000000
Start Date : 4/18/2018
Page No : 3

	CLOVIS COM COLLEGE Southbound				INT 3 Westbound				CLOVIS COM COLLEGE Northbound				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	0	10	0	10	**15**	0	0	**15**	6	3	0	9	34
05:15 PM	0	**18**	0	**18**	9	0	0	9	**18**	10	0	28	**55**
05:30 PM	0	10	0	10	1	0	0	1	11	**16**	0	27	38
05:45 PM	0	5	0	5	0	0	0	0	14	16	0	**30**	35
Total Volume	0	43	0	43	25	0	0	25	49	45	0	94	162
% App. Total	0	100	0		100	0	0		52.1	47.9	0		
PHF	.000	.597	.000	.597	.417	.000	.000	.417	.681	.703	.000	.783	.736



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Caleveras at Weldon (RR Crossing) 05.01.18
Site Code : 00050118
Start Date : 5/1/2018
Page No : 1

Groups Printed- Unshifted

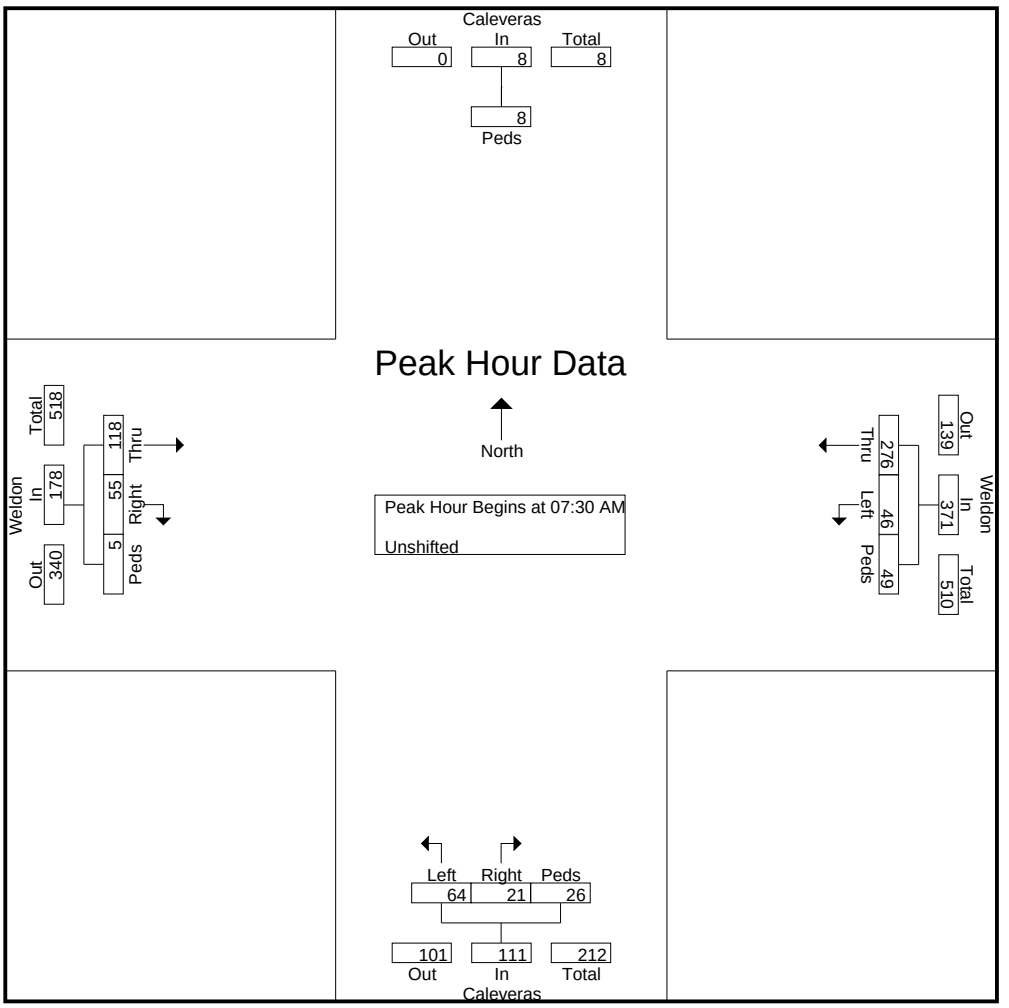
	Caleveras Southbound		Weldon Westbound				Caleveras Northbound				Weldon Eastbound				
Start Time	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	3	30	0	33	15	2	0	17	15	7	0	22	72
07:15 AM	1	1	3	48	5	56	20	4	0	24	9	9	0	18	99
07:30 AM	0	0	3	80	9	92	15	1	2	18	19	11	0	30	140
07:45 AM	4	4	21	92	21	134	18	11	10	39	27	15	1	43	220
Total	5	5	30	250	35	315	68	18	12	98	70	42	1	113	531
08:00 AM	2	2	10	71	9	90	22	5	9	36	37	19	2	58	186
08:15 AM	2	2	12	33	10	55	9	4	5	18	35	10	2	47	122
08:30 AM	0	0	8	31	9	48	13	5	2	20	26	16	4	46	114
08:45 AM	3	3	15	35	14	64	14	8	5	27	32	16	2	50	144
Total	7	7	45	170	42	257	58	22	21	101	130	61	10	201	566
******															
04:00 PM	1	1	1	29	1	31	8	4	0	12	66	20	8	94	138
04:15 PM	0	0	1	18	2	21	6	6	0	12	56	11	5	72	105
04:30 PM	1	1	1	34	2	37	4	3	0	7	58	24	8	90	135
04:45 PM	1	1	4	37	2	43	5	6	0	11	65	22	6	93	148
Total	3	3	7	118	7	132	23	19	0	42	245	77	27	349	526
05:00 PM	1	1	1	35	6	42	7	3	2	12	73	19	12	104	159
05:15 PM	1	1	0	53	3	56	7	5	0	12	39	28	8	75	144
05:30 PM	0	0	1	60	2	63	12	7	0	19	44	21	3	68	150
05:45 PM	2	2	1	76	7	84	5	4	0	9	54	18	5	77	172
Total	4	4	3	224	18	245	31	19	2	52	210	86	28	324	625
Grand Total	19	19	85	762	102	949	180	78	35	293	655	266	66	987	2248
Apprch %	100		9	80.3	10.7		61.4	26.6	11.9		66.4	27	6.7		
Total %	0.8	0.8	3.8	33.9	4.5	42.2	8	3.5	1.6	13	29.1	11.8	2.9	43.9	

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Caleveras at Weldon (RR Crossing) 05.01.18
Site Code : 00050118
Start Date : 5/1/2018
Page No : 2

	Caleveras Southbound		Weldon Westbound				Caleveras Northbound				Weldon Eastbound				
Start Time	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1															
Peak Hour for Entire Intersection Begins at 07:30 AM															
07:30 AM	0	0	3	80	9	92	15	1	2	18	19	11	0	30	140
07:45 AM	**4**	**4**	**21**	**92**	**21**	**134**	18	**11**	**10**	**39**	27	15	1	43	**220**
08:00 AM	2	2	10	71	9	90	**22**	5	9	36	**37**	**19**	**2**	**58**	186
08:15 AM	2	2	12	33	10	55	9	4	5	18	35	10	2	47	122
Total Volume	8	8	46	276	49	371	64	21	26	111	118	55	5	178	668
% App. Total	100		12.4	74.4	13.2		57.7	18.9	23.4		66.3	30.9	2.8		
PHF	.500	.500	.548	.750	.583	.692	.727	.477	.650	.712	.797	.724	.625	.767	.759

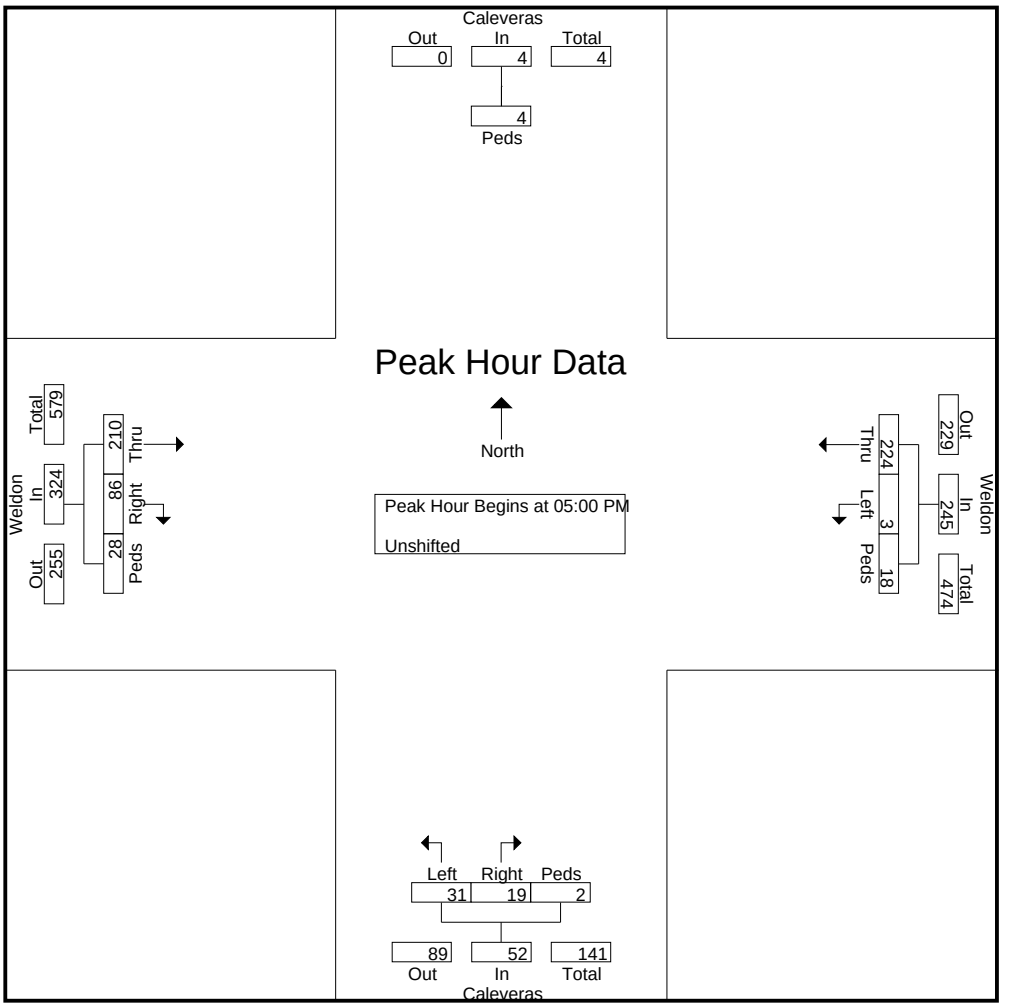


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Caleveras at Weldon (RR Crossing) 05.01.18
Site Code : 00050118
Start Date : 5/1/2018

	Caleveras Southbound		Weldon Westbound				Caleveras Northbound				Weldon Eastbound				
Start Time	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1															
Peak Hour for Entire Intersection Begins at 05:00 PM															
05:00 PM	1	1	**1**	35	6	42	7	3	**2**	12	**73**	19	**12**	**104**	159
05:15 PM	1	1	0	53	3	56	7	5	0	12	39	**28**	8	75	144
05:30 PM	0	0	1	60	2	63	**12**	**7**	0	**19**	44	21	3	68	150
05:45 PM	**2**	**2**	1	**76**	**7**	**84**	5	4	0	9	54	18	5	77	**172**
Total Volume	4	4	3	224	18	245	31	19	2	52	210	86	28	324	625
% App. Total	100		1.2	91.4	7.3		59.6	36.5	3.8		64.8	26.5	8.6		
PHF	.500	.500	.750	.737	.643	.729	.646	.679	.250	.684	.719	.768	.583	.779	.908



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : FCC Campus Drive at RR Undercrossing 05.01.18
Site Code : 00000000
Start Date : 5/1/2018
Page No : 1

Groups Printed- Unshifted

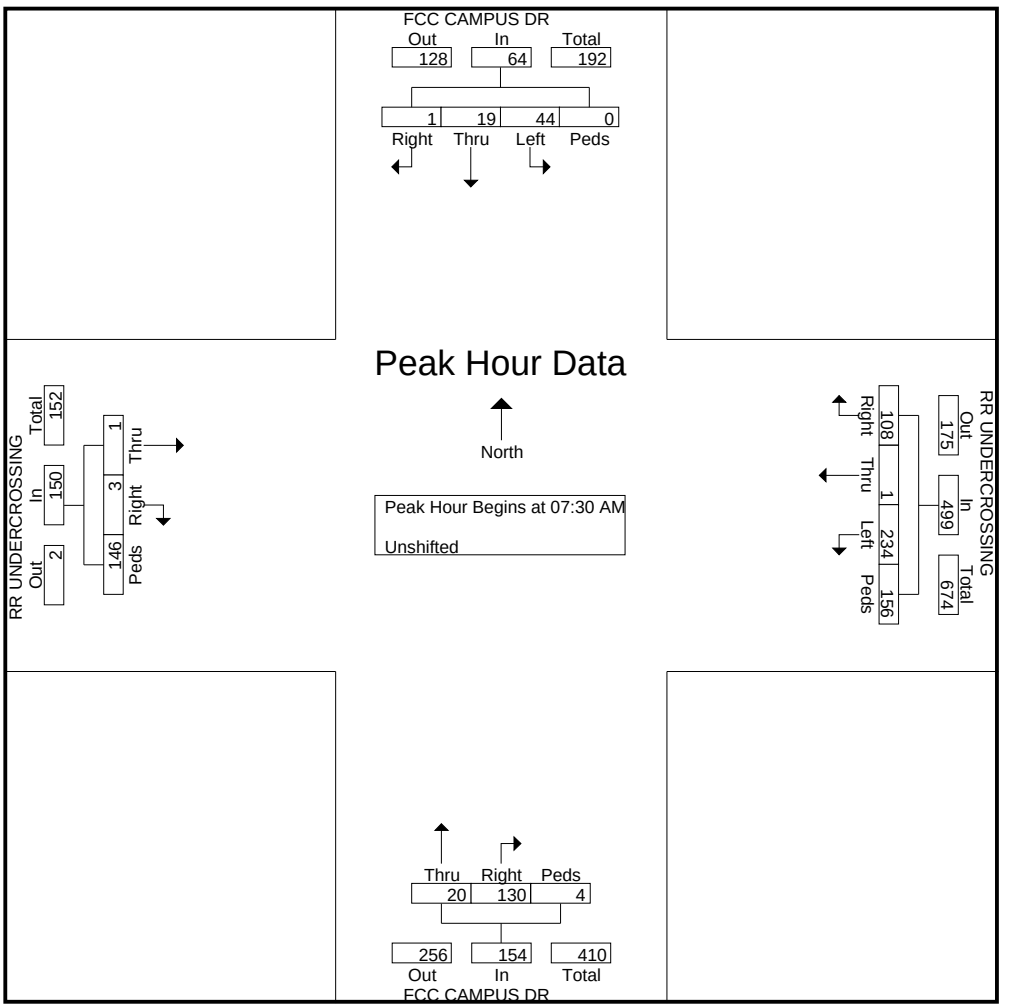
	FCC CAMPUS DR Southbound					RR UNDERCROSSING Westbound					FCC CAMPUS DR Northbound				RR UNDERCROSSING Eastbound				
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	7	1	0	0	8	27	0	19	16	62	3	14	0	17	0	0	6	6	93
07:15 AM	4	4	0	0	8	45	0	23	8	76	9	12	0	21	0	0	9	9	114
07:30 AM	5	8	0	0	13	62	1	34	28	125	9	25	1	35	0	1	17	18	191
07:45 AM	13	2	0	0	15	75	0	34	59	168	8	30	2	40	0	2	61	63	286
Total	29	15	0	0	44	209	1	110	111	431	29	81	3	113	0	3	93	96	684
08:00 AM	18	5	0	0	23	65	0	31	48	144	2	34	0	36	0	0	42	42	245
08:15 AM	8	4	1	0	13	32	0	9	21	62	1	41	1	43	1	0	26	27	145
08:30 AM	17	4	0	0	21	36	0	8	37	81	5	24	0	29	0	0	29	29	160
08:45 AM	14	7	0	0	21	33	1	15	60	109	5	35	1	41	1	0	30	31	202
Total	57	20	1	0	78	166	1	63	166	396	13	134	2	149	2	0	127	129	752
******																			
04:00 PM	23	2	0	0	25	27	0	11	25	63	1	67	0	68	0	2	6	8	164
04:15 PM	14	6	0	0	20	17	1	8	14	40	3	51	0	54	0	0	7	7	121
04:30 PM	12	5	0	0	17	27	0	10	18	55	1	67	0	68	0	0	9	9	149
04:45 PM	21	7	0	0	28	33	1	10	21	65	5	69	2	76	0	0	9	9	178
Total	70	20	0	0	90	104	2	39	78	223	10	254	2	266	0	2	31	33	612
05:00 PM	27	6	0	0	33	28	0	16	14	58	2	63	0	65	0	0	16	16	172
05:15 PM	18	6	0	0	24	44	0	13	17	74	8	51	0	59	0	0	13	13	170
05:30 PM	8	7	0	0	15	54	1	20	15	90	12	56	0	68	0	0	16	16	189
05:45 PM	11	9	0	0	20	56	0	25	33	114	10	63	1	74	0	0	40	40	248
Total	64	28	0	0	92	182	1	74	79	336	32	233	1	266	0	0	85	85	779
Grand Total	220	83	1	0	304	661	5	286	434	1386	84	702	8	794	2	5	336	343	2827
Apprch %	72.4	27.3	0.3	0		47.7	0.4	20.6	31.3		10.6	88.4	1		0.6	1.5	98		
Total %	7.8	2.9	0	0	10.8	23.4	0.2	10.1	15.4	49	3	24.8	0.3	28.1	0.1	0.2	11.9	12.1	

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : FCC Campus Drive at RR Undercrossing 05.01.18
Site Code : 00000000
Start Date : 5/1/2018
Page No : 2

	FCC CAMPUS DR Southbound					RR UNDERCROSSING Westbound					FCC CAMPUS DR Northbound				RR UNDERCROSSING Eastbound				
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:30 AM																			
07:30 AM	5	**8**	0	0	13	62	**1**	**34**	28	125	**9**	25	1	35	0	1	17	18	191
07:45 AM	13	2	0	0	15	**75**	0	34	**59**	**168**	8	30	**2**	40	0	**2**	**61**	**63**	**286**
08:00 AM	**18**	5	0	0	**23**	65	0	31	48	144	2	34	0	36	0	0	42	42	245
08:15 AM	8	4	**1**	0	13	32	0	9	21	62	1	**41**	1	**43**	**1**	0	26	27	145
Total Volume	44	19	1	0	64	234	1	108	156	499	20	130	4	154	1	3	146	150	867
% App. Total	68.8	29.7	1.6	0		46.9	0.2	21.6	31.3		13	84.4	2.6		0.7	2	97.3		
PHF	.611	.594	.250	.000	.696	.780	.250	.794	.661	.743	.556	.793	.500	.895	.250	.375	.598	.595	.758

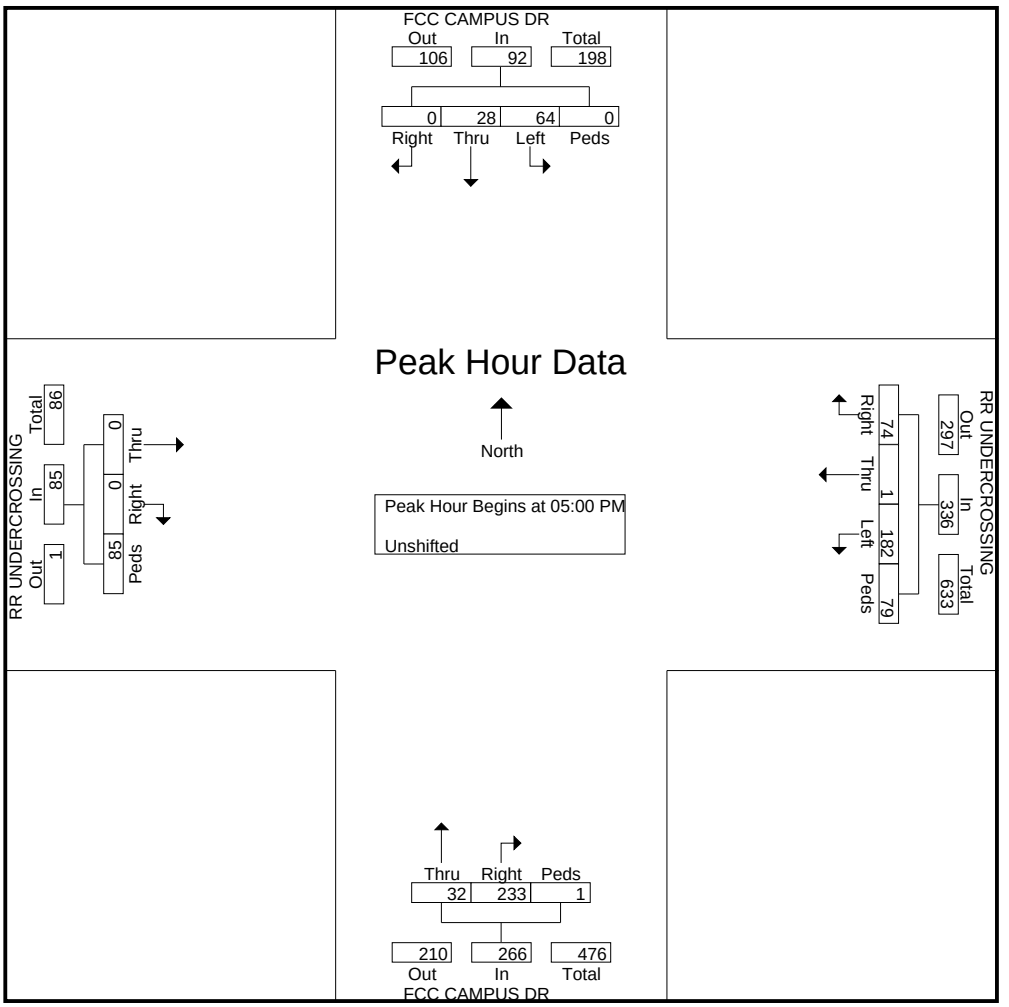


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : FCC Campus Drive at RR Undercrossing 05.01.18
Site Code : 00000000
Start Date : 5/1/2018
Page No : 3

	FCC CAMPUS DR Southbound					RR UNDERCROSSING Westbound					FCC CAMPUS DR Northbound				RR UNDERCROSSING Eastbound				
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	**27**	6	0	0	**33**	28	0	16	14	58	2	**63**	0	65	0	0	16	16	172
05:15 PM	18	6	0	0	24	44	0	13	17	74	8	51	0	59	0	0	13	13	170
05:30 PM	8	7	0	0	15	54	**1**	20	15	90	**12**	56	0	68	0	0	16	16	189
05:45 PM	11	**9**	0	0	20	**56**	0	**25**	**33**	**114**	10	63	**1**	**74**	0	0	**40**	**40**	**248**
Total Volume	64	28	0	0	92	182	1	74	79	336	32	233	1	266	0	0	85	85	779
% App. Total	69.6	30.4	0	0		54.2	0.3	22	23.5		12	87.6	0.4		0	0	100		
PHF	.593	.778	.000	.000	.697	.813	.250	.740	.598	.737	.667	.925	.250	.899	.000	.000	.531	.531	.785



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Campus Drive & Northern Lot E Driveway
Site Code : 00005118
Start Date : 5/1/2018
Page No : 1

Groups Printed- Unshifted

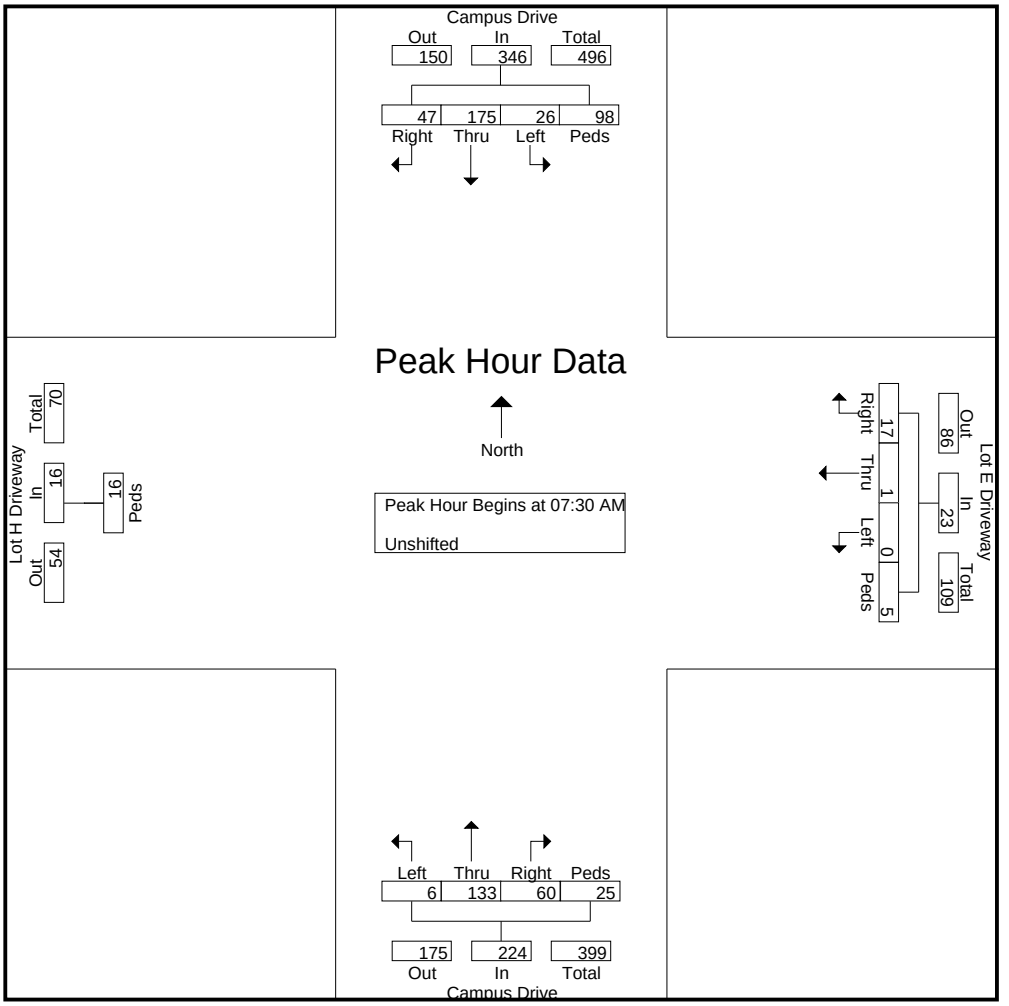
	Campus Drive Southbound					Lot E Driveway Westbound					Campus Drive Northbound					Lot H Driveway Eastbound		
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Peds	App. Total	Int. Total
07:00 AM	10	14	0	9	33	0	0	2	0	2	5	11	7	0	23	0	0	58
07:15 AM	8	33	10	6	57	0	0	1	2	3	3	17	12	4	36	2	2	98
07:30 AM	5	41	20	10	76	0	1	5	1	7	2	37	18	2	59	4	4	146
07:45 AM	9	58	11	41	119	0	0	3	3	6	1	32	23	12	68	4	4	197
Total	32	146	41	66	285	0	1	11	6	18	11	97	60	18	186	10	10	499
08:00 AM	8	47	11	27	93	0	0	2	1	3	2	34	12	5	53	5	5	154
08:15 AM	4	29	5	20	58	0	0	7	0	7	1	30	7	6	44	3	3	112
08:30 AM	5	29	6	19	59	0	0	3	2	5	0	25	11	3	39	4	4	107
08:45 AM	4	27	6	23	60	0	0	6	0	6	1	36	9	13	59	2	2	127
Total	21	132	28	89	270	0	0	18	3	21	4	125	39	27	195	14	14	500
******																		
04:00 PM	3	21	5	12	41	1	0	17	0	18	0	44	3	8	55	1	1	115
04:15 PM	1	20	2	16	39	0	0	16	0	16	0	41	5	2	48	3	3	106
04:30 PM	0	25	7	12	44	0	0	22	0	22	5	49	6	8	68	5	5	139
04:45 PM	2	32	5	17	56	0	0	16	1	17	1	53	5	4	63	2	2	138
Total	6	98	19	57	180	1	0	71	1	73	6	187	19	22	234	11	11	498
05:00 PM	2	28	2	17	49	1	0	10	3	14	0	59	4	3	66	0	0	129
05:15 PM	1	43	5	6	55	0	0	19	6	25	3	39	12	9	63	2	2	145
05:30 PM	3	44	12	8	67	0	0	17	4	21	3	50	15	1	69	9	9	166
05:45 PM	7	52	4	17	80	0	0	19	1	20	4	51	27	5	87	10	10	197
Total	13	167	23	48	251	1	0	65	14	80	10	199	58	18	285	21	21	637
Grand Total	72	543	111	260	986	2	1	165	24	192	31	608	176	85	900	56	56	2134
Apprch %	7.3	55.1	11.3	26.4		1	0.5	85.9	12.5		3.4	67.6	19.6	9.4		100		
Total %	3.4	25.4	5.2	12.2	46.2	0.1	0	7.7	1.1	9	1.5	28.5	8.2	4	42.2	2.6	2.6	

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Campus Drive & Northern Lot E Driveway
Site Code : 00005118
Start Date : 5/1/2018

	Campus Drive Southbound					Lot E Driveway Westbound					Campus Drive Northbound					Lot H Driveway Eastbound		
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:30 AM																		
07:30 AM	5	41	**20**	10	76	0	**1**	5	1	**7**	**2**	**37**	18	2	59	4	4	146
07:45 AM	**9**	**58**	11	**41**	**119**	0	0	3	**3**	6	1	32	**23**	**12**	**68**	4	4	**197**
08:00 AM	8	47	11	27	93	0	0	2	1	3	2	34	12	5	53	**5**	**5**	154
08:15 AM	4	29	5	20	58	0	0	**7**	0	7	1	30	7	6	44	3	3	112
Total Volume	26	175	47	98	346	0	1	17	5	23	6	133	60	25	224	16	16	609
% App. Total	7.5	50.6	13.6	28.3		0	4.3	73.9	21.7		2.7	59.4	26.8	11.2		100		
PHF	.722	.754	.588	.598	.727	.000	.250	.607	.417	.821	.750	.899	.652	.521	.824	.800	.800	.773

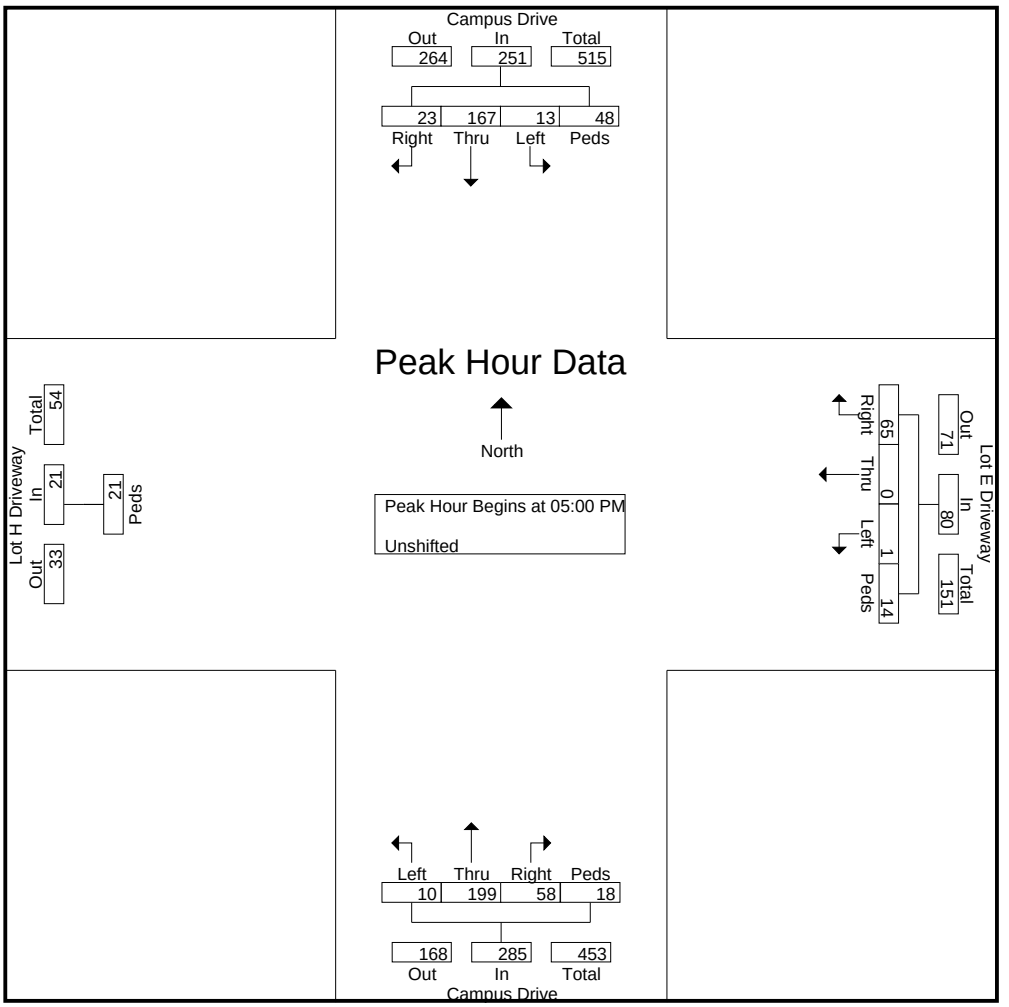


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Campus Drive & Northern Lot E Driveway
Site Code : 00005118
Start Date : 5/1/2018
Page No : 3

	Campus Drive Southbound					Lot E Driveway Westbound					Campus Drive Northbound					Lot H Driveway Eastbound		
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 05:00 PM																		
05:00 PM	2	28	2	**17**	49	**1**	0	10	3	14	0	**59**	4	3	66	0	0	129
05:15 PM	1	43	5	6	55	0	0	**19**	**6**	**25**	3	39	12	**9**	63	2	2	145
05:30 PM	3	44	**12**	8	67	0	0	17	4	21	3	50	15	1	69	9	9	166
05:45 PM	**7**	**52**	4	17	**80**	0	0	19	1	20	**4**	51	**27**	5	**87**	**10**	**10**	**197**
Total Volume	13	167	23	48	251	1	0	65	14	80	10	199	58	18	285	21	21	637
% App. Total	5.2	66.5	9.2	19.1		1.2	0	81.2	17.5		3.5	69.8	20.4	6.3		100		
PHF	.464	.803	.479	.706	.784	.250	.000	.855	.583	.800	.625	.843	.537	.500	.819	.525	.525	.808



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Campus Drive & Driveway 3
Site Code : 00005218
Start Date : 5/2/2018
Page No : 1

Groups Printed- Unshifted

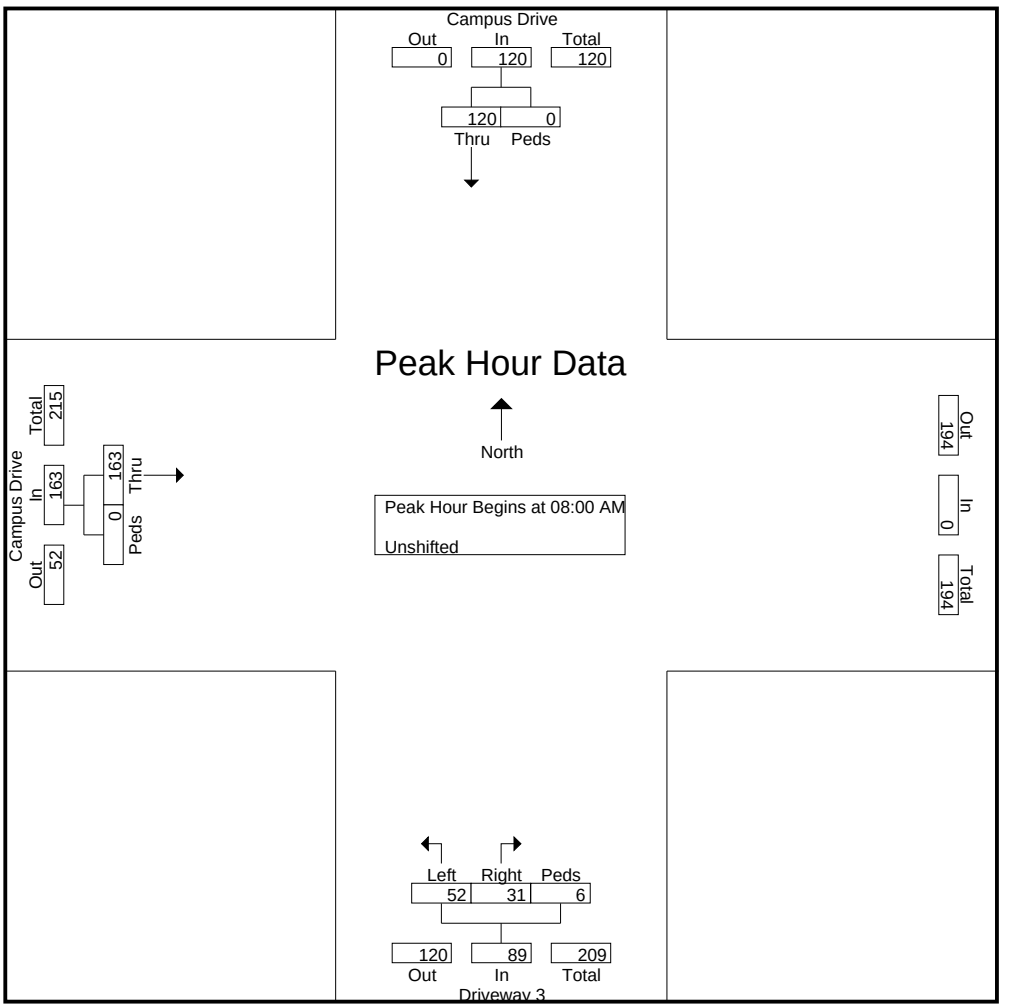
	Campus Drive Southbound			Driveway 3 Northbound				Campus Drive Eastbound			
Start Time	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Peds	App. Total	Int. Total
07:00 AM	16	1	17	4	8	0	12	12	0	12	41
07:15 AM	21	0	21	5	16	0	21	16	0	16	58
07:30 AM	31	0	31	9	12	2	23	25	0	25	79
07:45 AM	44	2	46	14	14	2	30	35	1	36	112
Total	112	3	115	32	50	4	86	88	1	89	290
08:00 AM	37	0	37	12	9	3	24	41	0	41	102
08:15 AM	13	0	13	10	7	1	18	26	0	26	57
08:30 AM	34	0	34	10	7	0	17	42	0	42	93
08:45 AM	36	0	36	20	8	2	30	54	0	54	120
Total	120	0	120	52	31	6	89	163	0	163	372
******											
04:00 PM	32	3	35	7	16	1	24	35	2	37	96
04:15 PM	22	5	27	11	10	2	23	24	3	27	77
04:30 PM	32	1	33	15	12	1	28	58	8	66	127
04:45 PM	34	0	34	12	29	1	42	45	4	49	125
Total	120	9	129	45	67	5	117	162	17	179	425
05:00 PM	35	2	37	9	16	0	25	38	0	38	100
05:15 PM	33	3	36	14	19	4	37	46	1	47	120
05:30 PM	50	1	51	20	19	0	39	42	1	43	133
05:45 PM	39	5	44	8	23	1	32	56	5	61	137
Total	157	11	168	51	77	5	133	182	7	189	490
Grand Total	509	23	532	180	225	20	425	595	25	620	1577
Apprch %	95.7	4.3		42.4	52.9	4.7		96	4		
Total %	32.3	1.5	33.7	11.4	14.3	1.3	26.9	37.7	1.6	39.3	

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Campus Drive & Driveway 3
Site Code : 00005218
Start Date : 5/2/2018

	Campus Drive Southbound			Driveway 3 Northbound				Campus Drive Eastbound			
Start Time	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 08:00 AM											
08:00 AM	**37**	0	**37**	12	**9**	**3**	24	41	0	41	102
08:15 AM	13	0	13	10	7	1	18	26	0	26	57
08:30 AM	34	0	34	10	7	0	17	42	0	42	93
08:45 AM	36	0	36	**20**	8	2	**30**	**54**	0	**54**	**120**
Total Volume	120	0	120	52	31	6	89	163	0	163	372
% App. Total	100	0		58.4	34.8	6.7		100	0		
PHF	.811	.000	.811	.650	.861	.500	.742	.755	.000	.755	.775

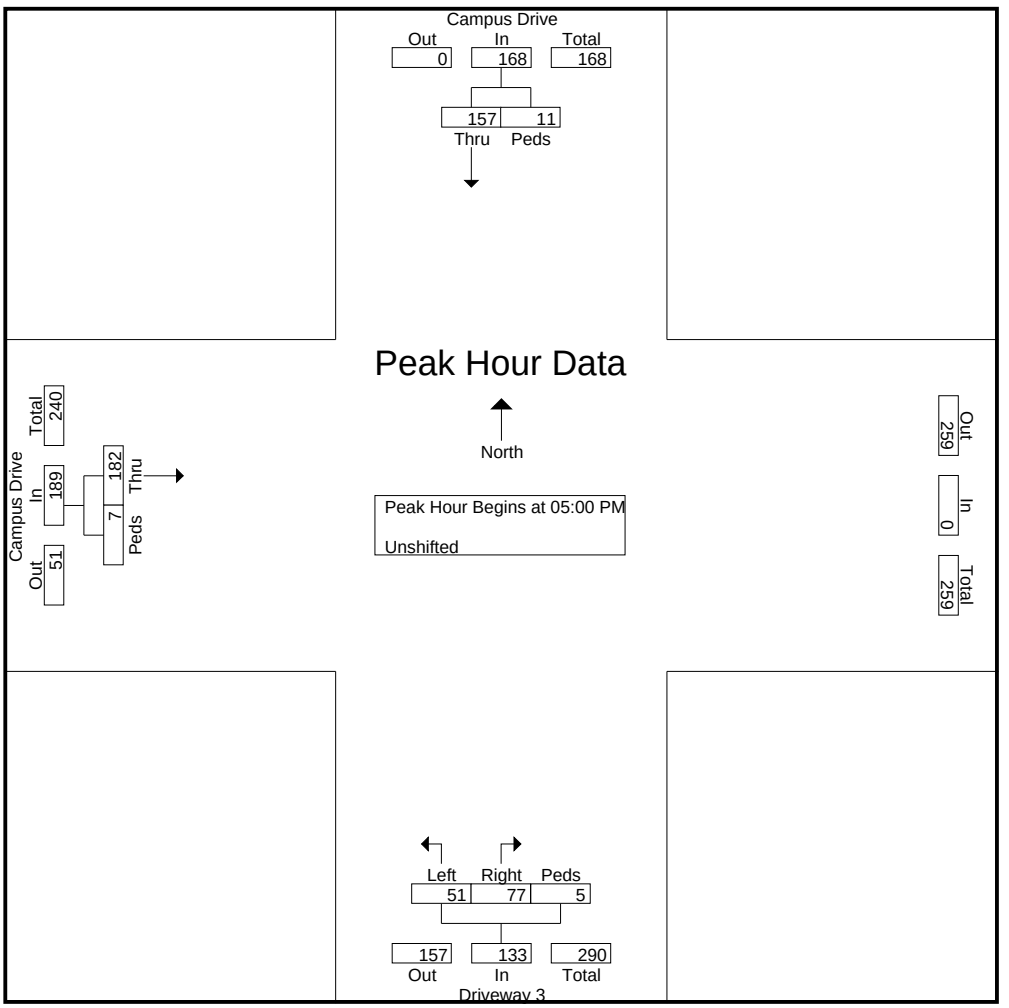


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Campus Drive & Driveway 3
Site Code : 00005218
Start Date : 5/2/2018
Page No : 3

	Campus Drive Southbound			Driveway 3 Northbound				Campus Drive Eastbound			
Start Time	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 05:00 PM											
05:00 PM	35	2	37	9	16	0	25	38	0	38	100
05:15 PM	33	3	36	14	19	**4**	37	46	1	47	120
05:30 PM	**50**	1	**51**	**20**	19	0	**39**	42	1	43	133
05:45 PM	39	**5**	44	8	**23**	1	32	**56**	**5**	**61**	**137**
Total Volume	157	11	168	51	77	5	133	182	7	189	490
% App. Total	93.5	6.5		38.3	57.9	3.8		96.3	3.7		
PHF	.785	.550	.824	.638	.837	.313	.853	.813	.350	.775	.894



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : FCC Main Entrance at Campus Dr 05.02.18
Site Code : 00000000
Start Date : 5/2/2018
Page No : 1

Groups Printed- Unshifted

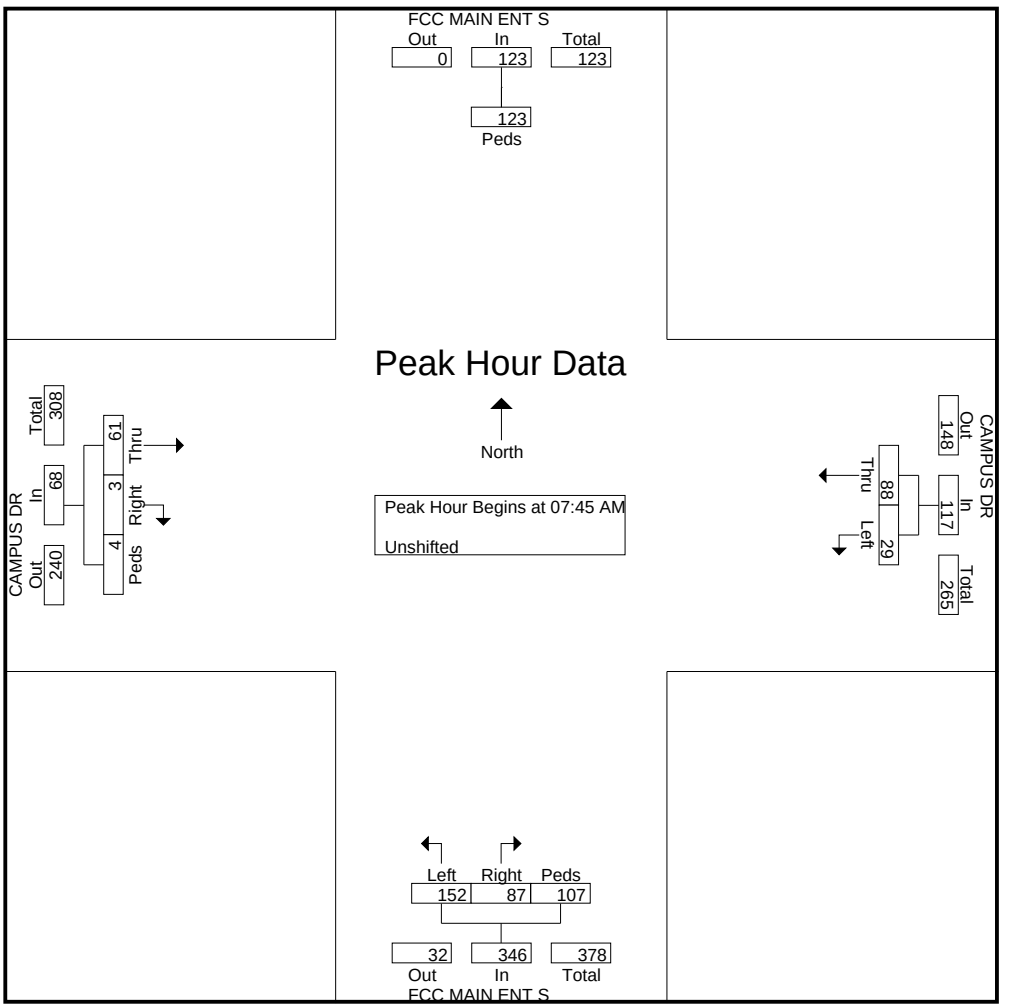
	FCC MAIN ENT S Southbound		CAMPUS DR Westbound			FCC MAIN ENT S Northbound				CAMPUS DR Eastbound				
Start Time	Peds	App. Total	Left	Thru	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	8	8	2	7	9	11	13	7	31	3	0	0	3	51
07:15 AM	15	15	5	10	15	20	15	8	43	6	0	0	6	79
07:30 AM	22	22	6	16	22	39	21	9	69	10	1	0	11	124
07:45 AM	54	54	17	27	44	53	25	46	124	20	1	1	22	244
Total	99	99	30	60	90	123	74	70	267	39	2	1	42	498
08:00 AM	30	30	2	32	34	44	28	35	107	14	0	1	15	186
08:15 AM	16	16	5	14	19	26	9	9	44	12	1	2	15	94
08:30 AM	23	23	5	15	20	29	25	17	71	15	1	0	16	130
08:45 AM	61	61	12	27	39	48	29	22	99	20	5	1	26	225
Total	130	130	24	88	112	147	91	83	321	61	7	4	72	635
******														
04:00 PM	28	28	20	19	39	13	9	29	51	16	2	1	19	137
04:15 PM	16	16	22	17	39	15	6	18	39	10	0	3	13	107
04:30 PM	30	30	17	30	47	17	18	32	67	33	4	1	38	182
04:45 PM	25	25	21	33	54	28	11	23	62	14	5	0	19	160
Total	99	99	80	99	179	73	44	102	219	73	11	5	89	586
05:00 PM	26	26	21	20	41	18	10	16	44	19	3	1	23	134
05:15 PM	27	27	23	24	47	30	13	22	65	17	2	0	19	158
05:30 PM	24	24	23	25	48	24	18	21	63	20	4	0	24	159
05:45 PM	40	40	12	32	44	38	25	33	96	19	1	4	24	204
Total	117	117	79	101	180	110	66	92	268	75	10	5	90	655
Grand Total	445	445	213	348	561	453	275	347	1075	248	30	15	293	2374
Apprch %	100		38	62		42.1	25.6	32.3		84.6	10.2	5.1		
Total %	18.7	18.7	9	14.7	23.6	19.1	11.6	14.6	45.3	10.4	1.3	0.6	12.3	

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : FCC Main Entrance at Campus Dr 05.02.18
Site Code : 00000000
Start Date : 5/2/2018
Page No : 2

	FCC MAIN ENT S Southbound		CAMPUS DR Westbound			FCC MAIN ENT S Northbound				CAMPUS DR Eastbound				
Start Time	Peds	App. Total	Left	Thru	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1														
Peak Hour for Entire Intersection Begins at 07:45 AM														
07:45 AM	**54**	**54**	**17**	27	**44**	**53**	25	**46**	**124**	**20**	**1**	1	**22**	**244**
08:00 AM	30	30	2	**32**	34	44	**28**	35	107	14	0	1	15	186
08:15 AM	16	16	5	14	19	26	9	9	44	12	1	**2**	15	94
08:30 AM	23	23	5	15	20	29	25	17	71	15	1	0	16	130
Total Volume	123	123	29	88	117	152	87	107	346	61	3	4	68	654
% App. Total	100		24.8	75.2		43.9	25.1	30.9		89.7	4.4	5.9		
PHF	.569	.569	.426	.688	.665	.717	.777	.582	.698	.763	.750	.500	.773	.670

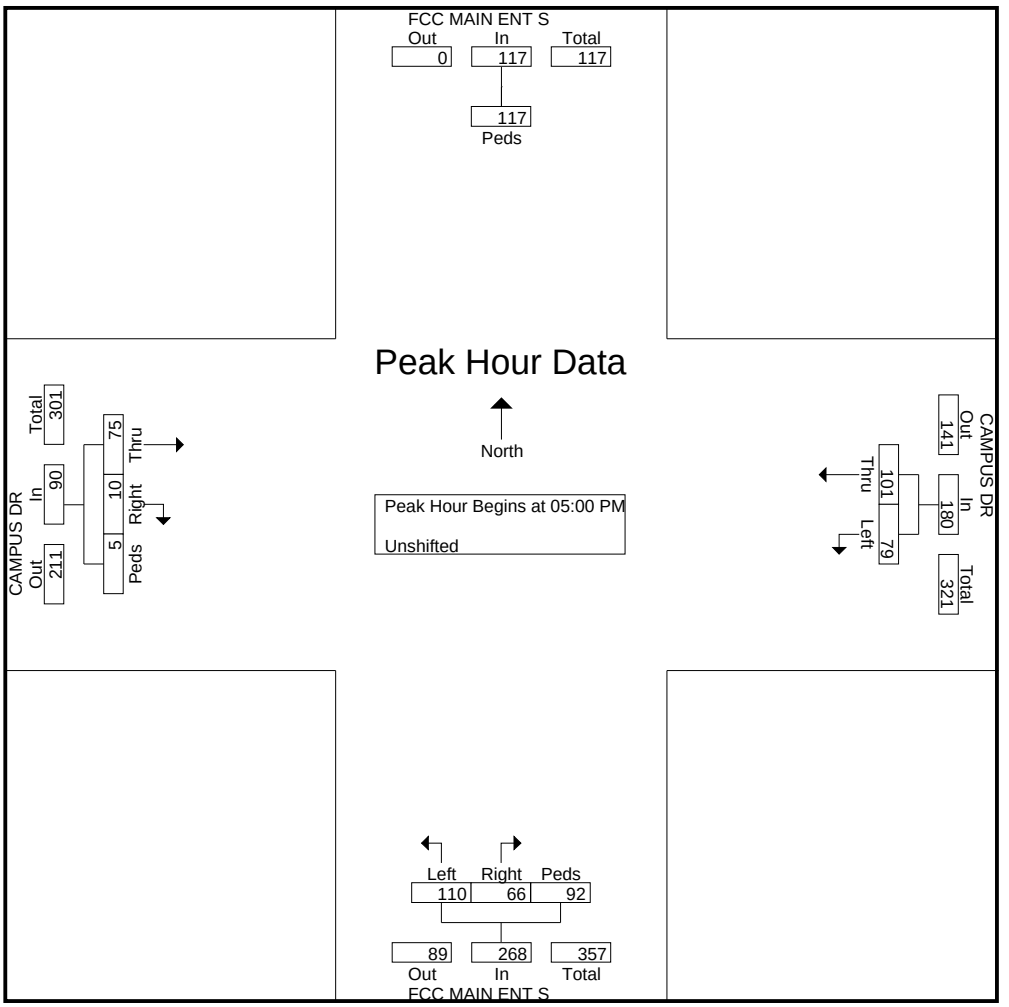


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : FCC Main Entrance at Campus Dr 05.02.18
Site Code : 00000000
Start Date : 5/2/2018
Page No : 3

	FCC MAIN ENT S Southbound		CAMPUS DR Westbound			FCC MAIN ENT S Northbound				CAMPUS DR Eastbound				
Start Time	Peds	App. Total	Left	Thru	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1														
Peak Hour for Entire Intersection Begins at 05:00 PM														
05:00 PM	26	26	21	20	41	18	10	16	44	19	3	1	23	134
05:15 PM	27	27	**23**	24	47	30	13	22	65	17	2	0	19	158
05:30 PM	24	24	23	25	**48**	24	18	21	63	**20**	**4**	0	**24**	159
05:45 PM	**40**	**40**	12	**32**	44	**38**	**25**	**33**	**96**	19	1	**4**	24	**204**
Total Volume	117	117	79	101	180	110	66	92	268	75	10	5	90	655
% App. Total	100		43.9	56.1		41	24.6	34.3		83.3	11.1	5.6		
PHF	.731	.731	.859	.789	.938	.724	.660	.697	.698	.938	.625	.313	.938	.803



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 2
Site Code : 00042518
Start Date : 4/25/2018
Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

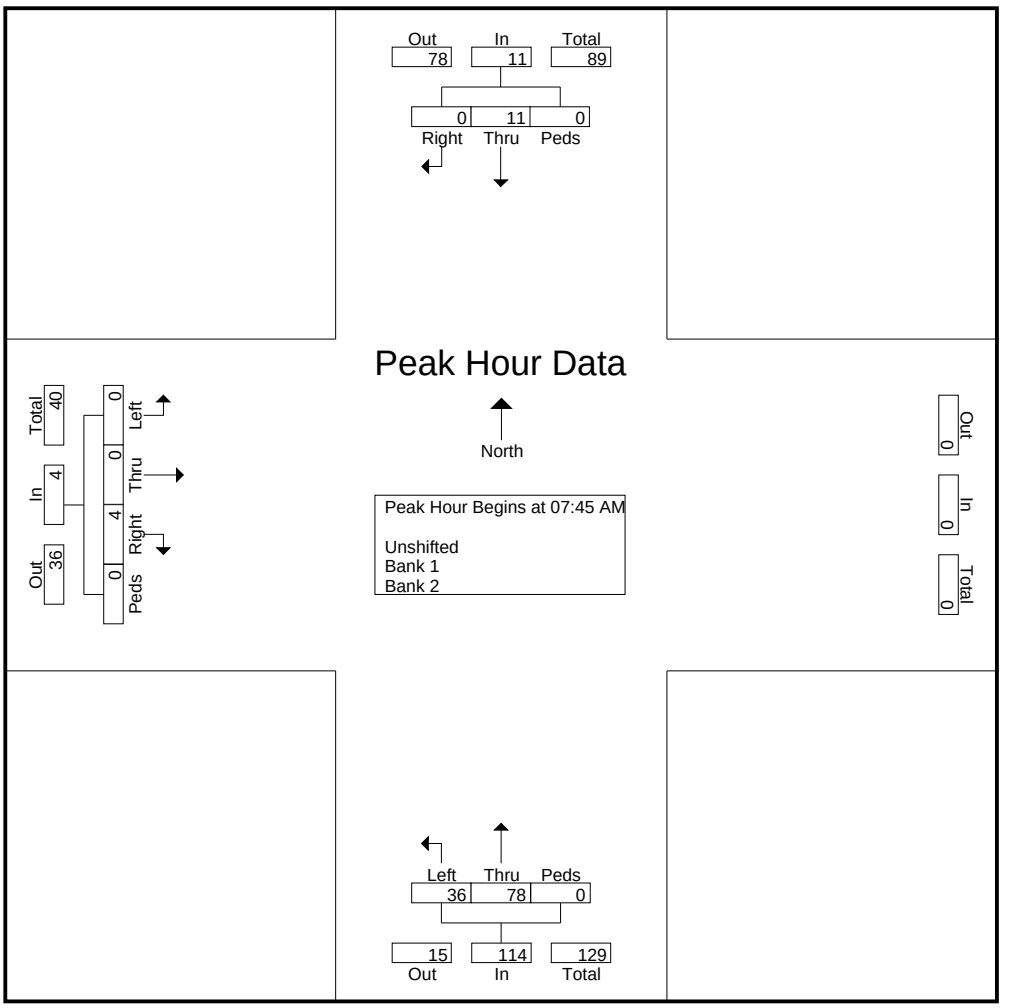
	Southbound				Northbound				Eastbound					
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	1	1	1	2	0	3	0	0	1	0	1	5
07:15 AM	0	0	0	0	1	6	0	7	0	0	0	0	0	7
07:30 AM	2	0	0	2	6	8	0	14	0	0	0	0	0	16
07:45 AM	3	0	0	3	14	29	0	43	0	0	0	0	0	46
Total	5	0	1	6	22	45	0	67	0	0	1	0	1	74
08:00 AM	2	0	0	2	10	20	0	30	0	0	3	0	3	35
08:15 AM	5	0	0	5	7	13	0	20	0	0	0	0	0	25
08:30 AM	1	0	0	1	5	16	0	21	0	0	1	0	1	23
08:45 AM	1	0	0	1	4	11	0	15	1	0	2	0	3	19
Total	9	0	0	9	26	60	0	86	1	0	6	0	7	102
******														
04:00 PM	11	0	1	12	6	4	0	10	0	0	5	0	5	27
04:15 PM	6	0	0	6	3	2	0	5	0	0	4	0	4	15
04:30 PM	10	0	0	10	0	5	0	5	0	0	3	0	3	18
04:45 PM	9	0	0	9	1	2	0	3	0	0	0	0	0	12
Total	36	0	1	37	10	13	0	23	0	0	12	0	12	72
05:00 PM	6	0	2	8	3	4	0	7	0	0	6	0	6	21
05:15 PM	1	0	0	1	5	13	0	18	0	0	3	0	3	22
05:30 PM	3	0	0	3	9	9	0	18	0	0	3	0	3	24
05:45 PM	3	0	0	3	14	21	0	35	1	0	0	0	1	39
Total	13	0	2	15	31	47	0	78	1	0	12	0	13	106
Grand Total	63	0	4	67	89	165	0	254	2	0	31	0	33	354
Apprch %	94	0	6		35	65	0		6.1	0	93.9	0		
Total %	17.8	0	1.1	18.9	25.1	46.6	0	71.8	0.6	0	8.8	0	9.3	
Unshifted	63	0	4	67	89	165	0	254	2	0	31	0	33	354
% Unshifted	100	0	100	100	100	100	0	100	100	0	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 2
Site Code : 00042518
Start Date : 4/25/2018
Page No : 2

	Southbound				Northbound				Eastbound					
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1														
Peak Hour for Entire Intersection Begins at 07:45 AM														
07:45 AM	3	0	0	3	**14**	**29**	0	**43**	0	0	0	0	0	**46**
08:00 AM	2	0	0	2	10	20	0	30	0	0	**3**	0	**3**	35
08:15 AM	**5**	0	0	**5**	7	13	0	20	0	0	0	0	0	25
08:30 AM	1	0	0	1	5	16	0	21	0	0	1	0	1	23
Total Volume	11	0	0	11	36	78	0	114	0	0	4	0	4	129
% App. Total	100	0	0		31.6	68.4	0		0	0	100	0		
PHF	.550	.000	.000	.550	.643	.672	.000	.663	.000	.000	.333	.000	.333	.701

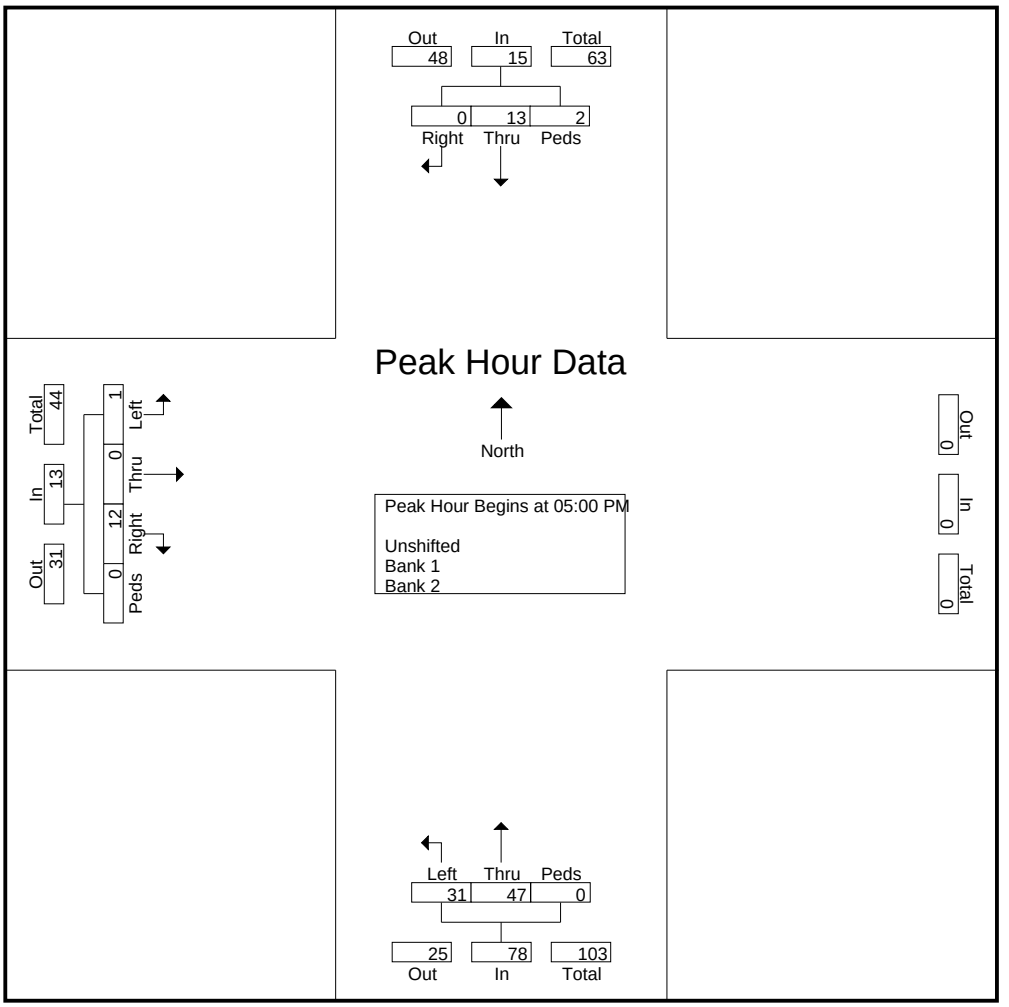


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 2
Site Code : 00042518
Start Date : 4/25/2018
Page No : 3

	Southbound				Northbound				Eastbound					
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1														
Peak Hour for Entire Intersection Begins at 05:00 PM														
05:00 PM	**6**	0	**2**	**8**	3	4	0	7	0	0	**6**	0	**6**	21
05:15 PM	1	0	0	1	5	13	0	18	0	0	3	0	3	22
05:30 PM	3	0	0	3	9	9	0	18	0	0	3	0	3	24
05:45 PM	3	0	0	3	**14**	**21**	0	**35**	**1**	0	0	0	1	**39**
Total Volume	13	0	2	15	31	47	0	78	1	0	12	0	13	106
% App. Total	86.7	0	13.3		39.7	60.3	0		7.7	0	92.3	0		
PHF	.542	.000	.250	.469	.554	.560	.000	.557	.250	.000	.500	.000	.542	.679



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 1
Site Code : 00000000
Start Date : 4/25/2018
Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

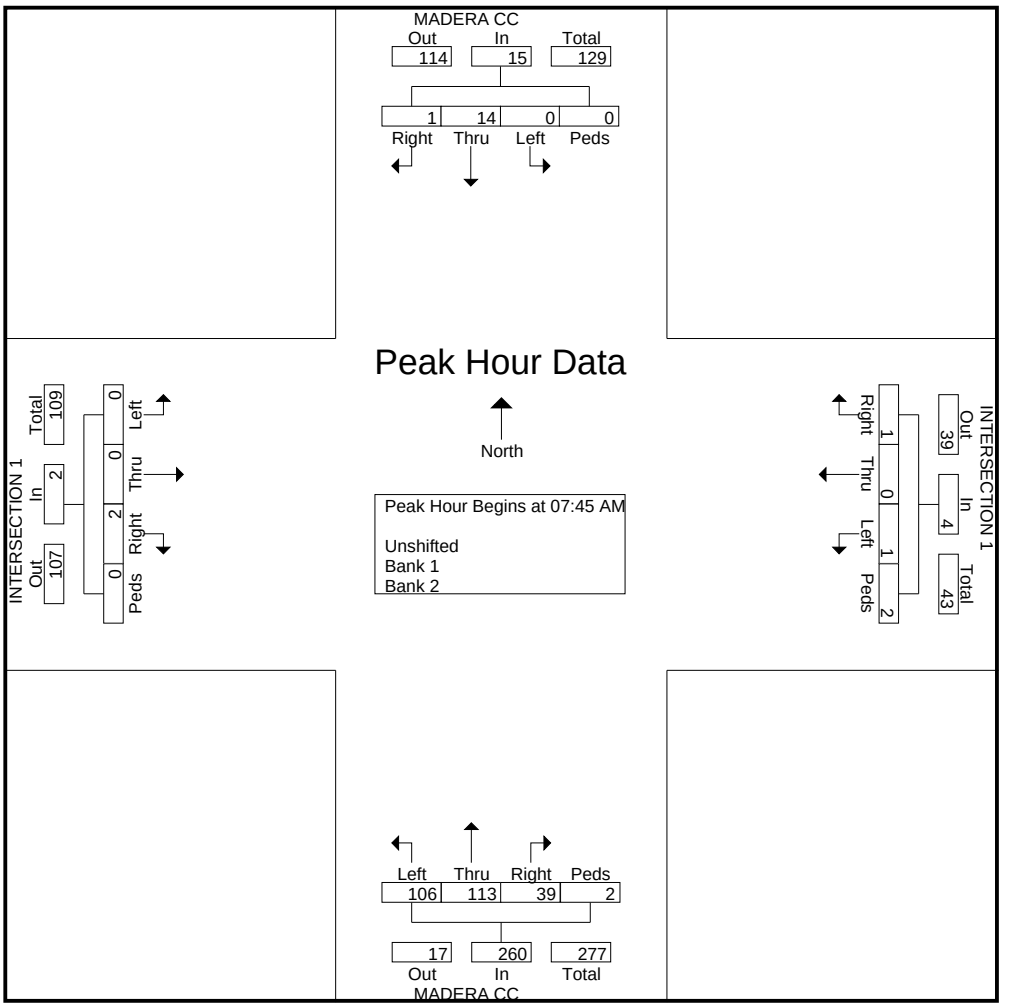
	MADERA CC Southbound					INTERSECTION 1 Westbound					MADERA CC Northbound					INTERSECTION 1 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	2	2	2	0	6	0	0	0	0	0	6
07:15 AM	0	1	0	0	1	0	0	0	0	0	5	7	2	0	14	0	0	1	0	1	16
07:30 AM	0	2	0	0	2	1	0	0	0	1	8	14	4	0	26	0	0	1	0	1	30
07:45 AM	0	3	0	0	3	1	0	1	0	2	38	42	7	0	87	0	0	0	0	0	92
Total	0	6	0	0	6	2	0	1	0	3	53	65	15	0	133	0	0	2	0	2	144
08:00 AM	0	5	0	0	5	0	0	0	0	0	29	30	13	0	72	0	0	0	0	0	77
08:15 AM	0	4	1	0	5	0	0	0	0	0	22	21	8	0	51	0	0	0	0	0	56
08:30 AM	0	2	0	0	2	0	0	0	2	2	17	20	11	2	50	0	0	2	0	2	56
08:45 AM	0	3	0	0	3	0	0	0	0	0	25	15	13	0	53	0	0	2	0	2	58
Total	0	14	1	0	15	0	0	0	2	2	93	86	45	2	226	0	0	4	0	4	247
******																					
04:00 PM	0	18	0	0	18	4	0	0	0	4	4	10	2	0	16	0	0	8	0	8	46
04:15 PM	0	10	0	0	10	1	0	0	0	1	3	5	2	0	10	0	0	5	0	5	26
04:30 PM	0	13	0	0	13	14	1	0	0	15	8	5	1	0	14	0	0	4	0	4	46
04:45 PM	0	9	0	0	9	2	1	0	0	3	7	3	3	0	13	0	0	5	0	5	30
Total	0	50	0	0	50	21	2	0	0	23	22	23	8	0	53	0	0	22	0	22	148
05:00 PM	0	13	0	0	13	1	0	0	0	1	3	7	3	0	13	0	0	5	0	5	32
05:15 PM	0	3	1	0	4	3	1	0	0	4	18	18	10	0	46	0	0	6	0	6	60
05:30 PM	0	5	1	0	6	6	1	0	0	7	27	18	2	0	47	0	0	4	0	4	64
05:45 PM	0	2	0	0	2	2	1	1	0	4	52	34	6	0	92	0	0	6	0	6	104
Total	0	23	2	0	25	12	3	1	0	16	100	77	21	0	198	0	0	21	0	21	260
Grand Total	0	93	3	0	96	35	5	2	2	44	268	251	89	2	610	0	0	49	0	49	799
Apprch %	0	96.9	3.1	0		79.5	11.4	4.5	4.5		43.9	41.1	14.6	0.3		0	0	100	0		
Total %	0	11.6	0.4	0	12	4.4	0.6	0.3	0.3	5.5	33.5	31.4	11.1	0.3	76.3	0	0	6.1	0	6.1	
Unshifted	0	93	3	0	96	35	5	2	2	44	268	251	89	2	610	0	0	49	0	49	799
% Unshifted																					
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 1
Site Code : 00000000
Start Date : 4/25/2018
Page No : 2

	MADERA CC Southbound					INTERSECTION 1 Westbound					MADERA CC Northbound					INTERSECTION 1 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	3	0	0	3	**1**	0	**1**	0	**2**	**38**	**42**	7	0	**87**	0	0	0	0	0	**92**
08:00 AM	0	**5**	0	0	**5**	0	0	0	0	0	29	30	**13**	0	72	0	0	0	0	0	77
08:15 AM	0	4	**1**	0	5	0	0	0	0	0	22	21	8	0	51	0	0	0	0	0	56
08:30 AM	0	2	0	0	2	0	0	0	**2**	2	17	20	11	**2**	50	0	0	**2**	0	**2**	56
Total Volume	0	14	1	0	15	1	0	1	2	4	106	113	39	2	260	0	0	2	0	2	281
% App. Total	0	93.3	6.7	0		25	0	25	50		40.8	43.5	15	0.8		0	0	100	0		
PHF	.000	.700	.250	.000	.750	.250	.000	.250	.250	.500	.697	.673	.750	.250	.747	.000	.000	.250	.000	.250	.764

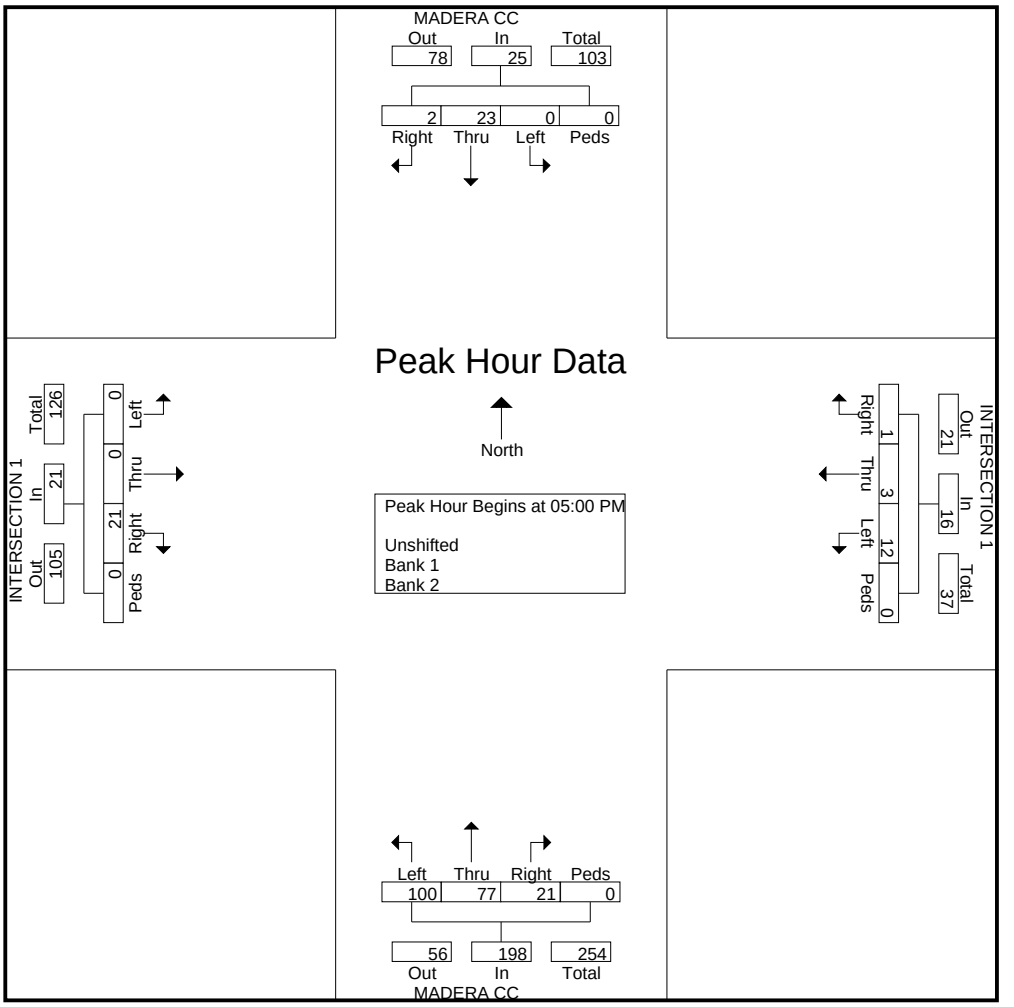


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Internal Intersection 1
Site Code : 00000000
Start Date : 4/25/2018
Page No : 3

	MADERA CC Southbound					INTERSECTION 1 Westbound					MADERA CC Northbound					INTERSECTION 1 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	**13**	0	0	**13**	1	0	0	0	1	3	7	3	0	13	0	0	5	0	5	32
05:15 PM	0	3	**1**	0	4	3	**1**	0	0	4	18	18	**10**	0	46	0	0	**6**	0	**6**	60
05:30 PM	0	5	1	0	6	**6**	1	0	0	**7**	27	18	2	0	47	0	0	4	0	4	64
05:45 PM	0	2	0	0	2	2	1	**1**	0	4	**52**	**34**	6	0	**92**	0	0	6	0	6	**104**
Total Volume	0	23	2	0	25	12	3	1	0	16	100	77	21	0	198	0	0	21	0	21	260
% App. Total	0	92	8	0		75	18.8	6.2	0		50.5	38.9	10.6	0		0	0	100	0		
PHF	.000	.442	.500	.000	.481	.500	.750	.250	.000	.571	.481	.566	.525	.000	.538	.000	.000	.875	.000	.875	.625



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Madera SCCCD Entrance at Avenue 12 05.03.18
Site Code : 00000000
Start Date : 5/3/2018
Page No : 1

Groups Printed- Unshifted - Bank 1

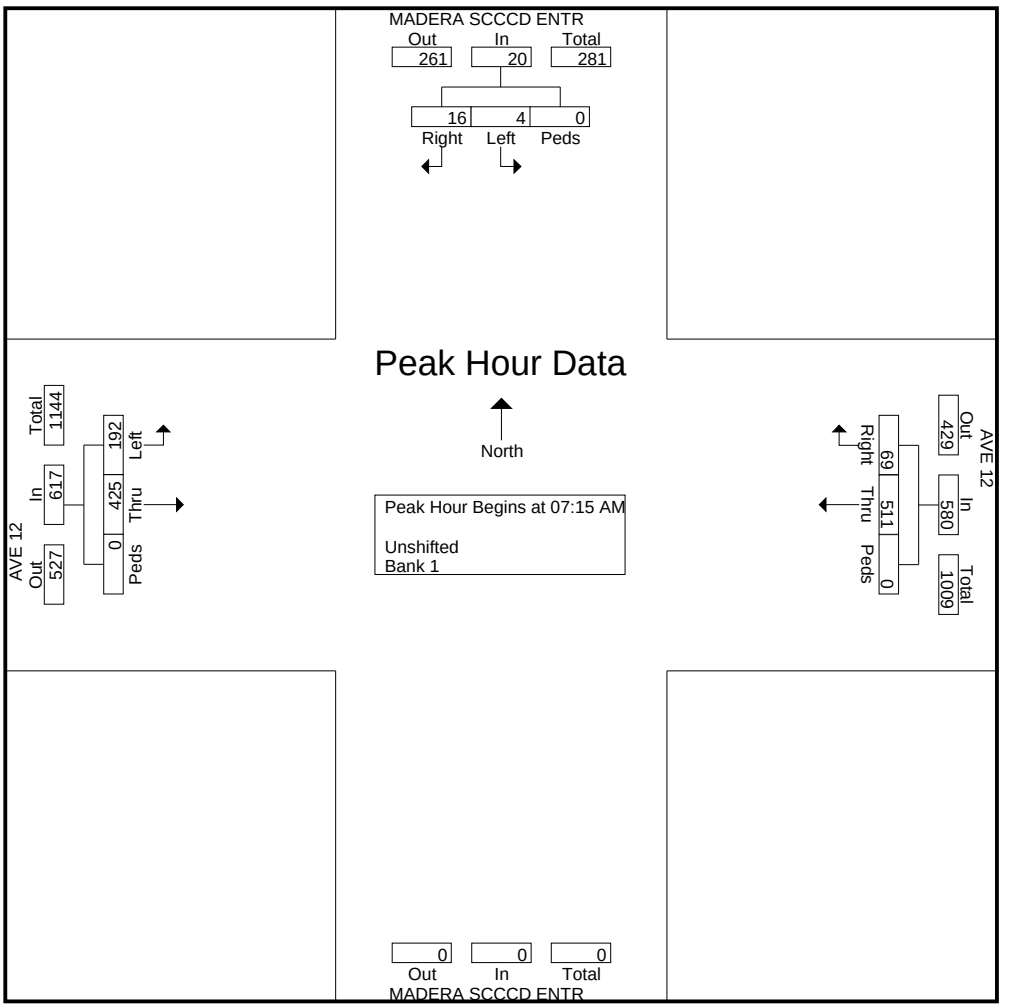
	MADERA SCCCD ENTR Southbound				AVE 12 Westbound				AVE 12 Eastbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
07:00 AM	0	1	0	1	99	3	0	102	4	100	0	104	207
07:15 AM	1	3	0	4	118	6	0	124	16	99	0	115	243
07:30 AM	0	2	0	2	151	11	0	162	31	106	0	137	301
07:45 AM	1	2	0	3	122	25	0	147	73	115	0	188	338
Total	2	8	0	10	490	45	0	535	124	420	0	544	1089
08:00 AM	2	9	0	11	120	27	0	147	72	105	0	177	335
08:15 AM	1	2	0	3	78	10	0	88	46	93	0	139	230
08:30 AM	1	8	0	9	73	9	0	82	30	92	0	122	213
08:45 AM	4	16	0	20	73	19	0	92	63	64	0	127	239
Total	8	35	0	43	344	65	0	409	211	354	0	565	1017
******													
04:00 PM	16	25	0	41	111	1	0	112	3	155	0	158	311
04:15 PM	7	13	0	20	115	2	0	117	8	117	0	125	262
04:30 PM	7	17	0	24	97	4	0	101	10	143	0	153	278
04:45 PM	4	10	0	14	162	2	0	164	2	134	0	136	314
Total	34	65	0	99	485	9	0	494	23	549	0	572	1165
05:00 PM	7	8	0	15	151	4	0	155	19	188	0	207	377
05:15 PM	3	4	0	7	205	6	0	211	11	211	0	222	440
05:30 PM	3	9	0	12	180	14	0	194	35	179	0	214	420
05:45 PM	1	12	0	13	187	17	0	204	71	139	0	210	427
Total	14	33	0	47	723	41	0	764	136	717	0	853	1664
******													
Grand Total	58	141	0	199	2042	160	0	2202	494	2040	0	2534	4935
Apprch %	29.1	70.9	0		92.7	7.3	0		19.5	80.5	0		
Total %	1.2	2.9	0	4	41.4	3.2	0	44.6	10	41.3	0	51.3	
Unshifted	58	141	0	199	2042	160	0	2202	474	2040	0	2514	4915
% Unshifted	100	100	0	100	100	100	0	100	96	100	0	99.2	99.6
Bank 1	0	0	0	0	0	0	0	0	20	0	0	20	20
% Bank 1	0	0	0	0	0	0	0	0	4	0	0	0.8	0.4

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Madera SCCCD Entrance at Avenue 12 05.03.18
Site Code : 00000000
Start Date : 5/3/2018
Page No : 2

	MADERA SCCCD ENTR Southbound				AVE 12 Westbound				AVE 12 Eastbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	1	3	0	4	118	6	0	124	16	99	0	115	243
07:30 AM	0	2	0	2	**151**	11	0	**162**	31	106	0	137	301
07:45 AM	1	2	0	3	122	25	0	147	**73**	**115**	0	**188**	**338**
08:00 AM	**2**	**9**	0	**11**	120	**27**	0	147	72	105	0	177	335
Total Volume	4	16	0	20	511	69	0	580	192	425	0	617	1217
% App. Total	20	80	0		88.1	11.9	0		31.1	68.9	0		
PHF	.500	.444	.000	.455	.846	.639	.000	.895	.658	.924	.000	.820	.900

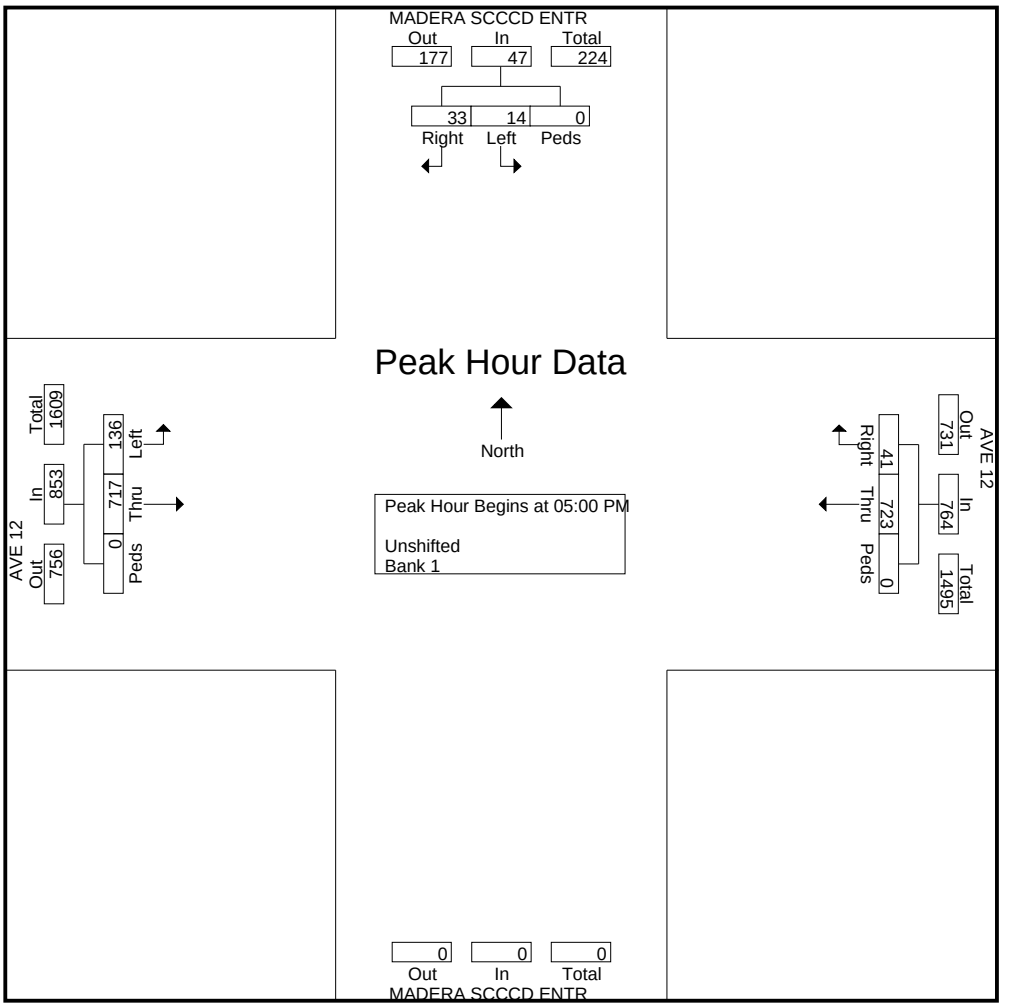


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Madera SCCCD Entrance at Avenue 12 05.03.18
Site Code : 00000000
Start Date : 5/3/2018
Page No : 3

	MADERA SCCCD ENTR Southbound				AVE 12 Westbound				AVE 12 Eastbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 06:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	**7**	8	0	**15**	151	4	0	155	19	188	0	207	377
05:15 PM	3	4	0	7	**205**	6	0	**211**	11	**211**	0	**222**	**440**
05:30 PM	3	9	0	12	180	14	0	194	35	179	0	214	420
05:45 PM	1	**12**	0	13	187	**17**	0	204	**71**	139	0	210	427
Total Volume	14	33	0	47	723	41	0	764	136	717	0	853	1664
% App. Total	29.8	70.2	0		94.6	5.4	0		15.9	84.1	0		
PHF	.500	.688	.000	.783	.882	.603	.000	.905	.479	.850	.000	.961	.945



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : 4.26.18 Reed Avenue Northern Driveway (220 ft north of Kip Patrick)
Site Code : 00000000
Start Date : 4/26/2018
Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

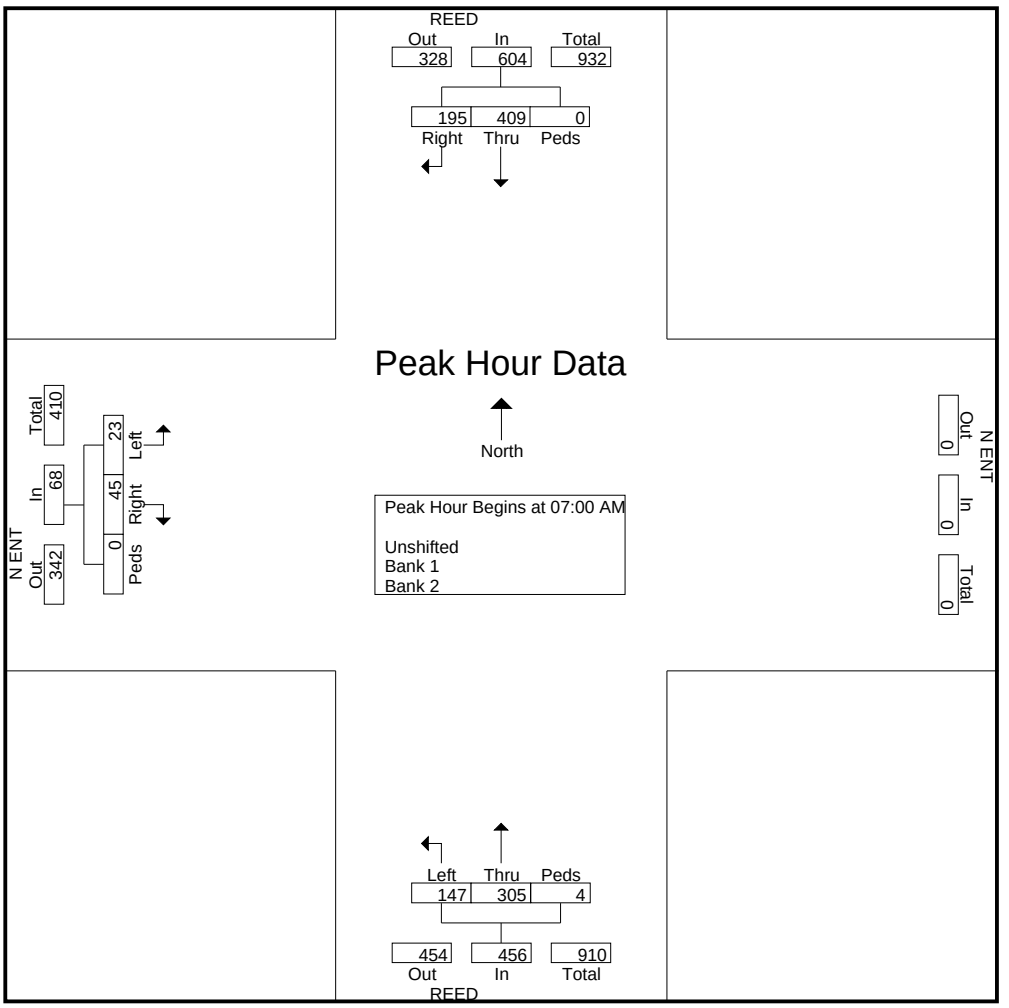
	REED Southbound				REED Northbound				N ENT Eastbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	84	19	0	103	36	66	0	102	2	4	0	6	211
07:15 AM	90	32	0	122	31	73	1	105	11	8	0	19	246
07:30 AM	124	51	0	175	43	82	1	126	2	12	0	14	315
07:45 AM	111	93	0	204	37	84	2	123	8	21	0	29	356
Total	409	195	0	604	147	305	4	456	23	45	0	68	1128
08:00 AM	85	24	0	109	22	67	1	90	5	2	0	7	206
08:15 AM	64	23	0	87	16	65	3	84	4	6	1	11	182
08:30 AM	81	21	0	102	27	58	1	86	3	4	0	7	195
08:45 AM	87	26	0	113	28	64	5	97	11	31	0	42	252
Total	317	94	0	411	93	254	10	357	23	43	1	67	835
******													
02:00 PM	77	4	0	81	6	73	1	80	14	21	0	35	196
02:15 PM	63	7	0	70	15	76	1	92	15	23	0	38	200
02:30 PM	93	7	0	100	4	76	0	80	11	14	0	25	205
02:45 PM	87	11	2	100	11	66	0	77	13	39	1	53	230
Total	320	29	2	351	36	291	2	329	53	97	1	151	831
03:00 PM	100	12	0	112	22	73	2	97	24	41	0	65	274
03:15 PM	89	3	0	92	16	111	0	127	26	29	0	55	274
03:30 PM	106	11	0	117	21	102	0	123	14	21	0	35	275
03:45 PM	109	6	1	116	12	94	1	107	10	11	0	21	244
Total	404	32	1	437	71	380	3	454	74	102	0	176	1067
Grand Total	1450	350	3	1803	347	1230	19	1596	173	287	2	462	3861
Apprch %	80.4	19.4	0.2		21.7	77.1	1.2		37.4	62.1	0.4		
Total %	37.6	9.1	0.1	46.7	9	31.9	0.5	41.3	4.5	7.4	0.1	12	
Unshifted	1450	350	3	1803	347	1230	19	1596	173	287	2	462	3861
% Unshifted	100	100	100	100	100	100	100	100	100	100	100	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : 4.26.18 Reed Avenue Northern Driveway (220 ft north of Kip Patrick)
Site Code : 00000000
Start Date : 4/26/2018
Page No : 2

	REED Southbound				REED Northbound				N ENT Eastbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	84	19	0	103	36	66	0	102	2	4	0	6	211
07:15 AM	90	32	0	122	31	73	1	105	**11**	8	0	19	246
07:30 AM	**124**	51	0	175	**43**	82	1	**126**	2	12	0	14	315
07:45 AM	111	**93**	0	**204**	37	**84**	**2**	123	8	**21**	0	**29**	**356**
Total Volume	409	195	0	604	147	305	4	456	23	45	0	68	1128
% App. Total	67.7	32.3	0		32.2	66.9	0.9		33.8	66.2	0		
PHF	.825	.524	.000	.740	.855	.908	.500	.905	.523	.536	.000	.586	.792

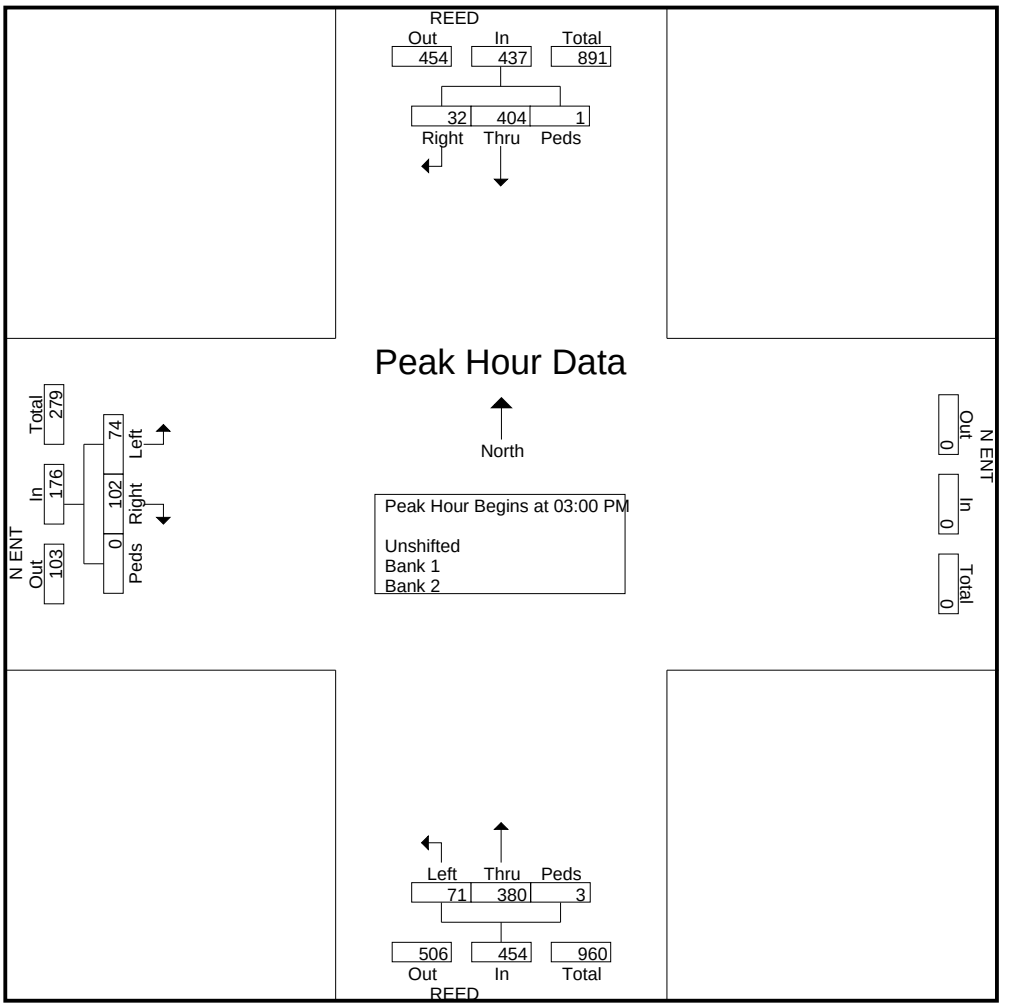


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : 4.26.18 Reed Avenue Northern Driveway (220 ft north of Kip Patrick)
Site Code : 00000000
Start Date : 4/26/2018
Page No : 3

	REED Southbound				REED Northbound				N ENT Eastbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 03:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 03:00 PM													
03:00 PM	100	**12**	0	112	**22**	73	**2**	97	24	**41**	0	**65**	274
03:15 PM	89	3	0	92	16	**111**	0	**127**	**26**	29	0	55	274
03:30 PM	106	11	0	**117**	21	102	0	123	14	21	0	35	**275**
03:45 PM	**109**	6	**1**	116	12	94	1	107	10	11	0	21	244
Total Volume	404	32	1	437	71	380	3	454	74	102	0	176	1067
% App. Total	92.4	7.3	0.2		15.6	83.7	0.7		42	58	0		
PHF	.927	.667	.250	.934	.807	.856	.375	.894	.712	.622	.000	.677	.970



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Main Access Driveway & Connection to Staff Parking - Edited Version 2
Site Code : 00041918
Start Date : 4/19/2018
Page No : 1

Groups Printed- Unshifted

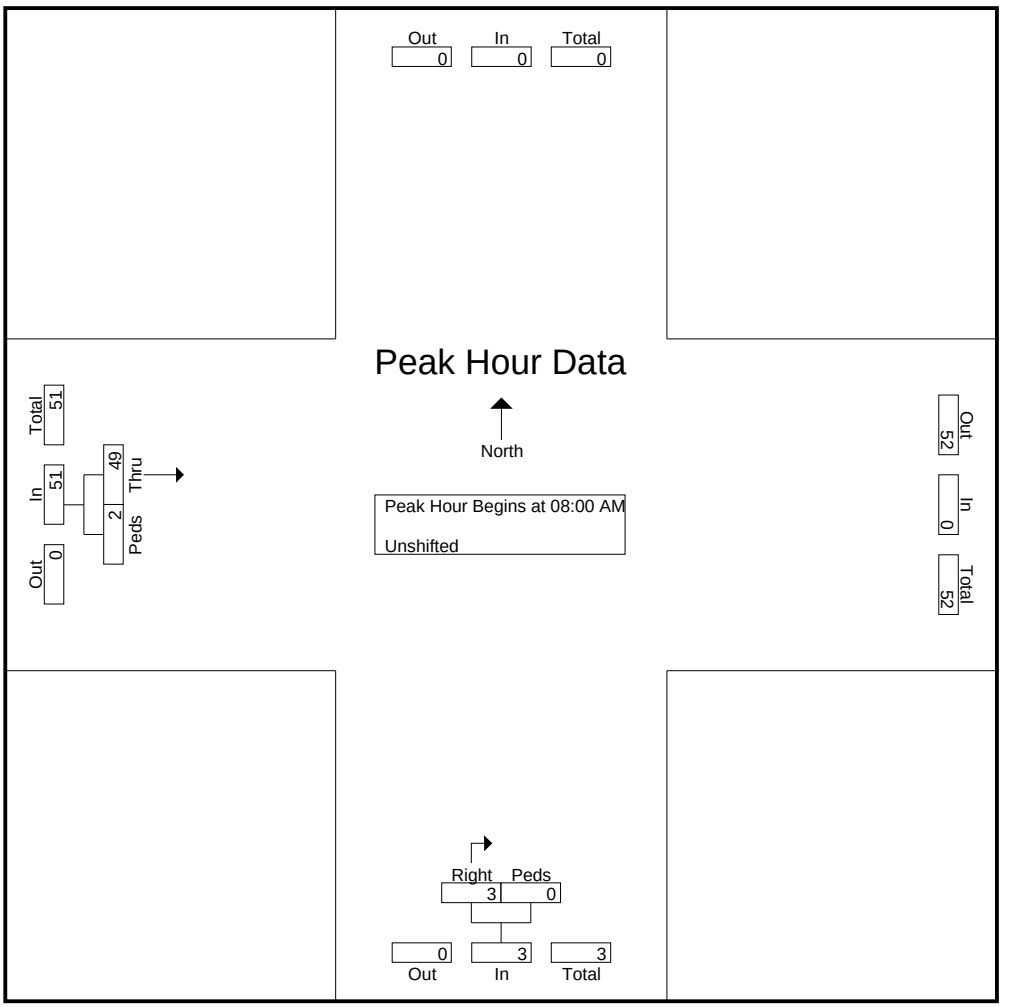
	Northbound			Eastbound			
Start Time	Right	Peds	App. Total	Thru	Peds	App. Total	Int. Total
07:00 AM	0	0	0	2	0	2	2
07:15 AM	0	0	0	6	0	6	6
07:30 AM	0	0	0	13	0	13	13
07:45 AM	0	0	0	19	3	22	22
Total	0	0	0	40	3	43	43
08:00 AM	0	0	0	7	0	7	7
08:15 AM	0	0	0	5	0	5	5
08:30 AM	0	0	0	6	0	6	6
08:45 AM	3	0	3	31	2	33	36
Total	3	0	3	49	2	51	54
******							
02:00 PM	0	0	0	21	0	21	21
02:15 PM	1	0	1	24	0	24	25
02:30 PM	1	0	1	17	0	17	18
02:45 PM	2	0	2	21	0	21	23
Total	4	0	4	83	0	83	87
03:00 PM	0	0	0	28	0	28	28
03:15 PM	1	0	1	38	0	38	39
03:30 PM	1	0	1	26	0	26	27
03:45 PM	3	0	3	27	0	27	30
Total	5	0	5	119	0	119	124
Grand Total	12	0	12	291	5	296	308
Apprch %	100	0		98.3	1.7		
Total %	3.9	0	3.9	94.5	1.6	96.1	

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Main Access Driveway & Connection to Staff Parking - Edited Version 2
Site Code : 00041918
Start Date : 4/19/2018
Page No : 2

	Northbound			Eastbound			
Start Time	Right	Peds	App. Total	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1							
Peak Hour for Entire Intersection Begins at 08:00 AM							
08:00 AM	0	0	0	7	0	7	7
08:15 AM	0	0	0	5	0	5	5
08:30 AM	0	0	0	6	0	6	6
08:45 AM	**3**	0	**3**	**31**	**2**	**33**	**36**
Total Volume	3	0	3	49	2	51	54
% App. Total	100	0		96.1	3.9		
PHF	.250	.000	.250	.395	.250	.386	.375

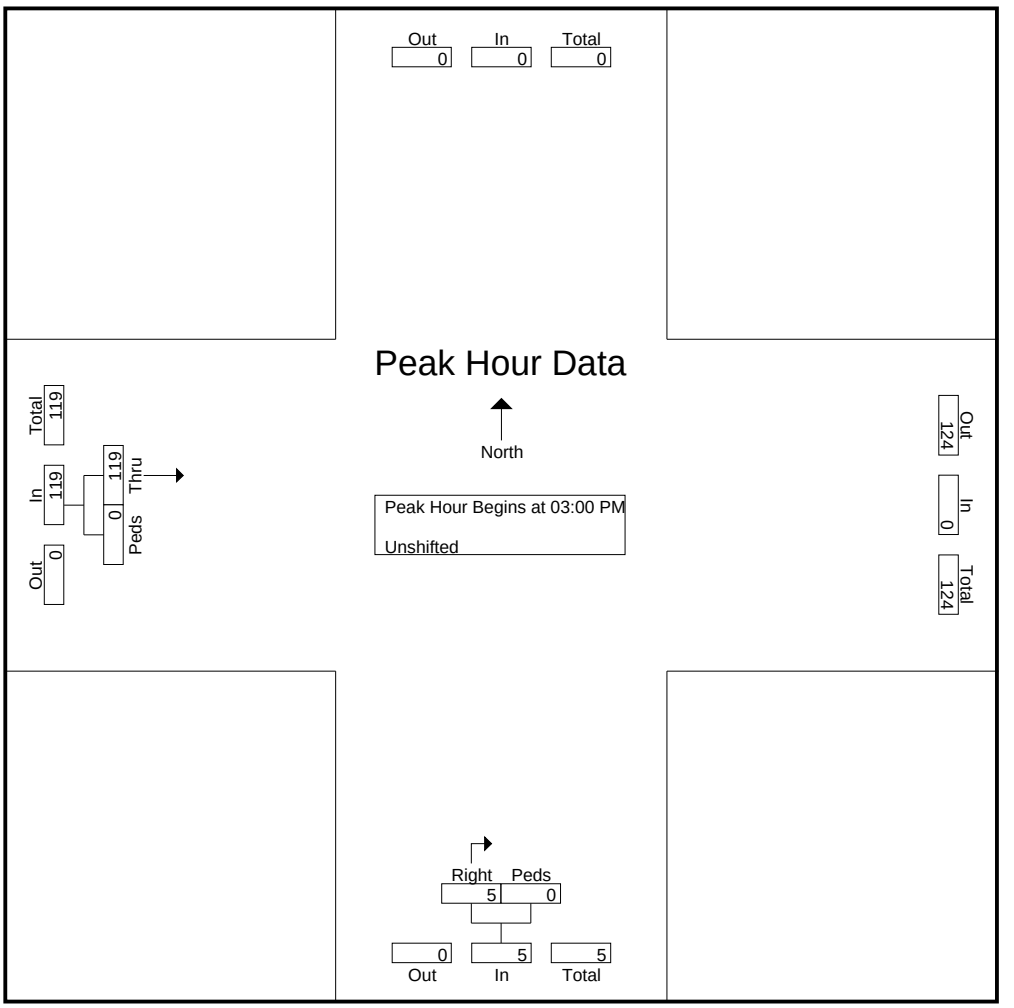


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Main Access Driveway & Connection to Staff Parking - Edited Version 2
Site Code : 00041918
Start Date : 4/19/2018
Page No : 3

	Northbound			Eastbound			
Start Time	Right	Peds	App. Total	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 03:45 PM - Peak 1 of 1							
Peak Hour for Entire Intersection Begins at 03:00 PM							
03:00 PM	0	0	0	28	0	28	28
03:15 PM	1	0	1	**38**	0	**38**	**39**
03:30 PM	1	0	1	26	0	26	27
03:45 PM	**3**	0	**3**	27	0	27	30
Total Volume	5	0	5	119	0	119	124
% App. Total	100	0		100	0		
PHF	.417	.000	.417	.783	.000	.783	.795



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Main Access Driveway & Connection to Staff Parking - Edited Version
Site Code : 00041918
Start Date : 4/19/2018
Page No : 1

Groups Printed- Unshifted

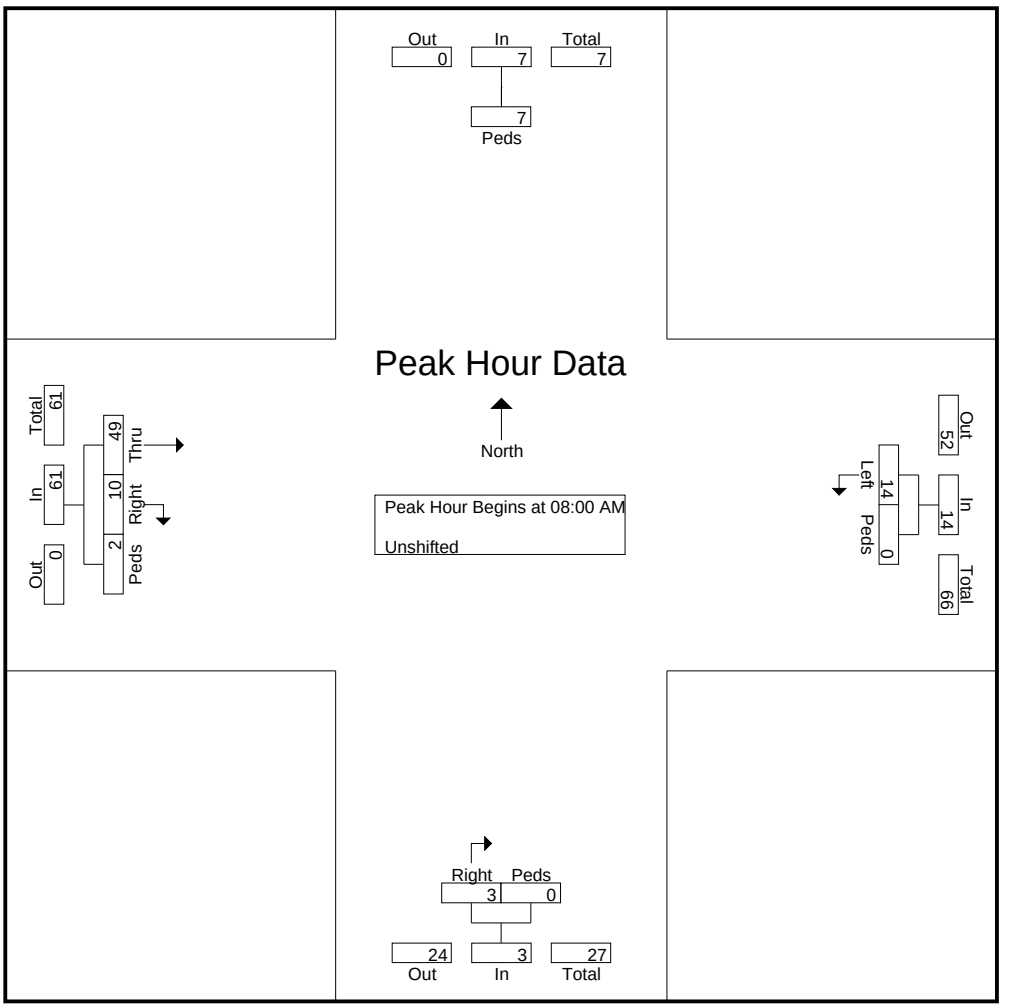
	Southbound		Westbound			Northbound			Eastbound				
Start Time	Peds	App. Total	Left	Peds	App. Total	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	1	1	0	1	0	0	0	2	1	0	3	5
07:15 AM	0	0	2	0	2	0	0	0	6	3	0	9	11
07:30 AM	2	2	2	0	2	0	0	0	13	2	0	15	19
07:45 AM	3	3	6	0	6	0	0	0	19	7	3	29	38
Total	6	6	11	0	11	0	0	0	40	13	3	56	73
08:00 AM	2	2	0	0	0	0	0	0	7	1	0	8	10
08:15 AM	0	0	2	0	2	0	0	0	5	2	0	7	9
08:30 AM	1	1	3	0	3	0	0	0	6	1	0	7	11
08:45 AM	4	4	9	0	9	3	0	3	31	6	2	39	55
Total	7	7	14	0	14	3	0	3	49	10	2	61	85
******													
02:00 PM	3	3	1	0	1	0	0	0	21	1	0	22	26
02:15 PM	2	2	2	0	2	1	0	1	24	3	0	27	32
02:30 PM	1	1	1	0	1	1	0	1	17	1	0	18	21
02:45 PM	0	0	1	0	1	2	0	2	21	2	0	23	26
Total	6	6	5	0	5	4	0	4	83	7	0	90	105
03:00 PM	0	0	5	0	5	0	0	0	28	2	0	30	35
03:15 PM	4	4	4	0	4	1	0	1	38	3	0	41	50
03:30 PM	0	0	4	0	4	1	0	1	26	3	0	29	34
03:45 PM	2	2	3	0	3	3	0	3	27	2	0	29	37
Total	6	6	16	0	16	5	0	5	119	10	0	129	156
Grand Total	25	25	46	0	46	12	0	12	291	40	5	336	419
Apprch %	100		100	0		100	0		86.6	11.9	1.5		
Total %	6	6	11	0	11	2.9	0	2.9	69.5	9.5	1.2	80.2	

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Main Access Driveway & Connection to Staff Parking - Edited Version
Site Code : 00041918
Start Date : 4/19/2018
Page No : 2

	Southbound		Westbound			Northbound			Eastbound				
Start Time	Peds	App. Total	Left	Peds	App. Total	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	2	2	0	0	0	0	0	0	7	1	0	8	10
08:15 AM	0	0	2	0	2	0	0	0	5	2	0	7	9
08:30 AM	1	1	3	0	3	0	0	0	6	1	0	7	11
08:45 AM	**4**	**4**	**9**	0	**9**	**3**	0	**3**	**31**	**6**	**2**	**39**	**55**
Total Volume	7	7	14	0	14	3	0	3	49	10	2	61	85
% App. Total	100		100	0		100	0		80.3	16.4	3.3		
PHF	.438	.438	.389	.000	.389	.250	.000	.250	.395	.417	.250	.391	.386

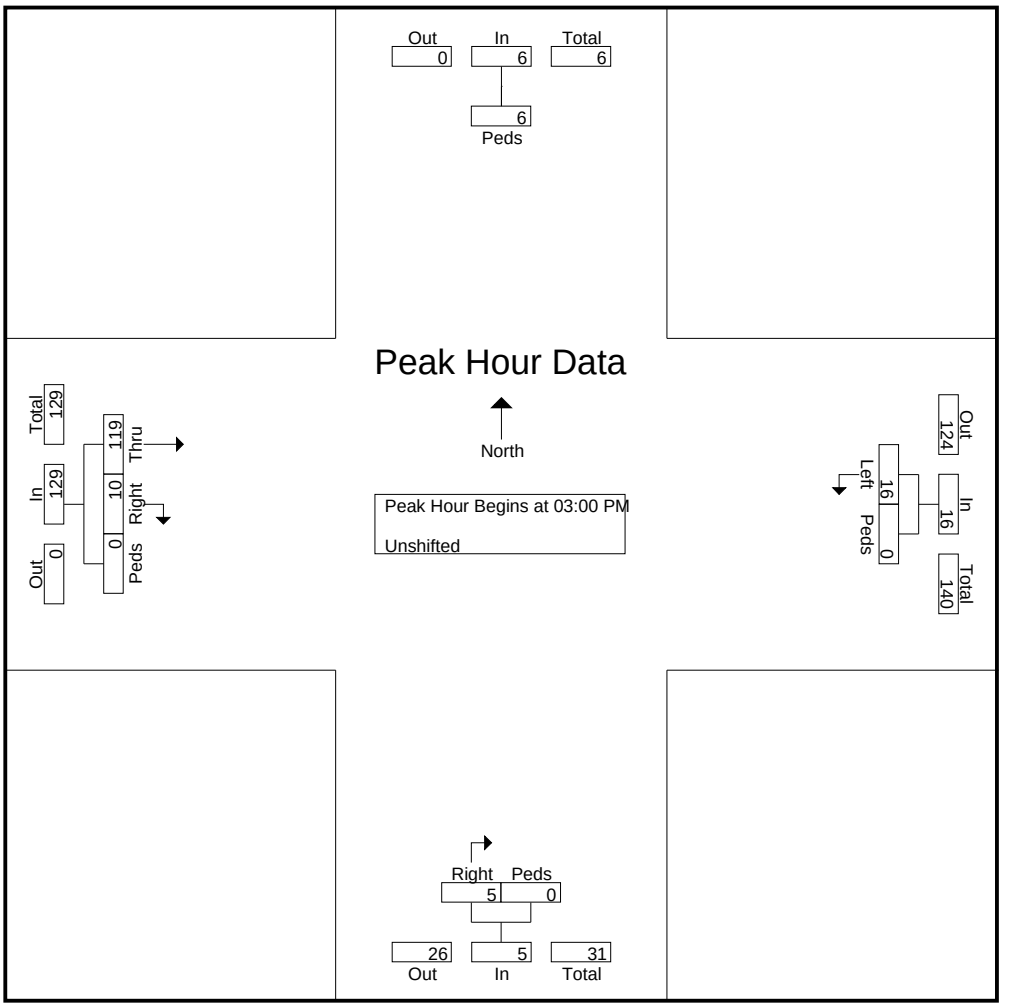


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Main Access Driveway & Connection to Staff Parking - Edited Version
Site Code : 00041918
Start Date : 4/19/2018
Page No : 3

	Southbound		Westbound			Northbound			Eastbound				
Start Time	Peds	App. Total	Left	Peds	App. Total	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 03:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 03:00 PM													
03:00 PM	0	0	**5**	0	**5**	0	0	0	28	2	0	30	35
03:15 PM	**4**	**4**	4	0	4	1	0	1	**38**	**3**	0	**41**	**50**
03:30 PM	0	0	4	0	4	1	0	1	26	3	0	29	34
03:45 PM	2	2	3	0	3	**3**	0	**3**	27	2	0	29	37
Total Volume	6	6	16	0	16	5	0	5	119	10	0	129	156
% App. Total	100		100	0		100	0		92.2	7.8	0		
PHF	.375	.375	.800	.000	.800	.417	.000	.417	.783	.833	.000	.787	.780



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Reed at Main Access Driveway (280 ft north of Pederosa)
Site Code : 00000000
Start Date : 4/19/2018
Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

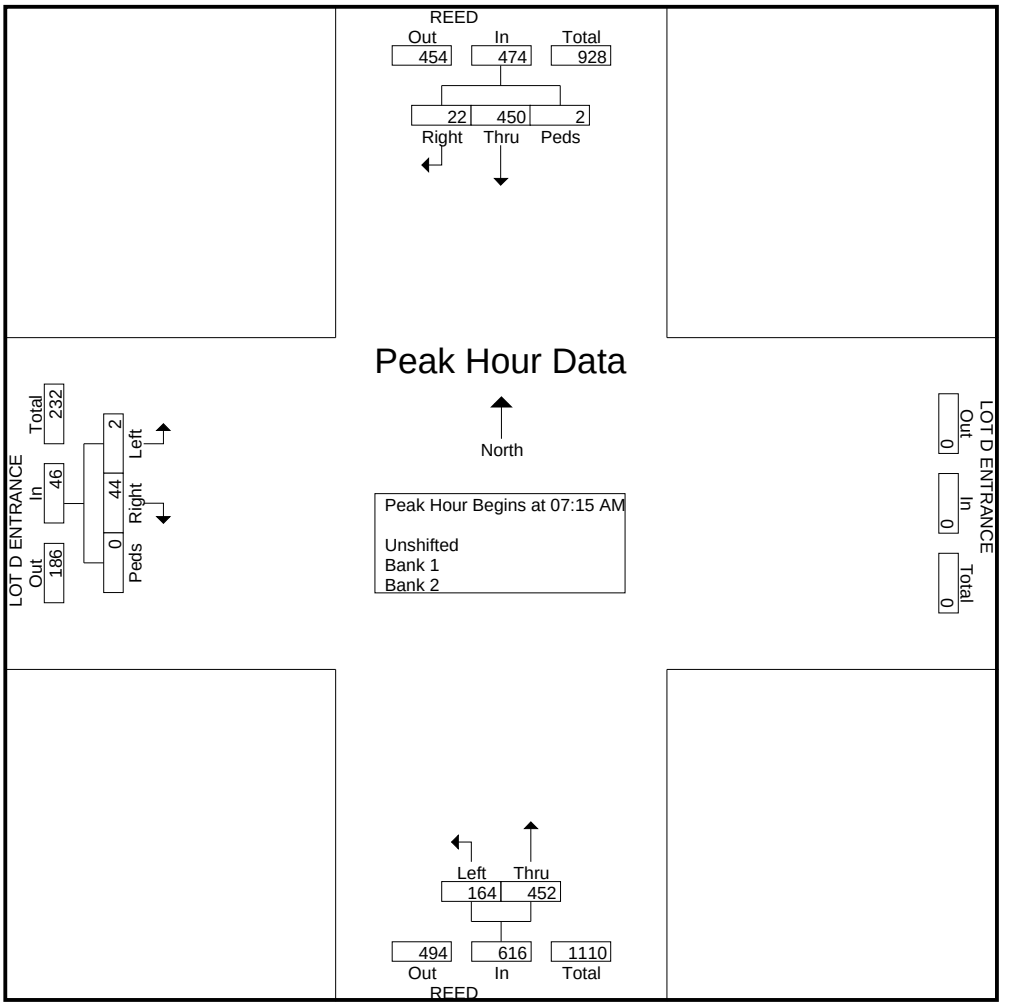
	REED Southbound				REED Northbound			LOT D ENTRANCE Eastbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	79	0	1	80	6	81	87	0	2	0	2	169
07:15 AM	92	1	0	93	9	88	97	1	5	0	6	196
07:30 AM	135	4	2	141	38	119	157	0	14	0	14	312
07:45 AM	135	10	0	145	76	134	210	0	19	0	19	374
Total	441	15	3	459	129	422	551	1	40	0	41	1051
08:00 AM	88	7	0	95	41	111	152	1	6	0	7	254
08:15 AM	79	3	0	82	16	68	84	1	4	0	5	171
08:30 AM	82	4	0	86	21	68	89	0	6	0	6	181
08:45 AM	99	4	0	103	33	80	113	6	31	1	38	254
Total	348	18	0	366	111	327	438	8	47	1	56	860
******												
02:00 PM	80	0	2	82	9	82	91	3	20	0	23	196
02:15 PM	91	1	0	92	6	90	96	5	20	0	25	213
02:30 PM	130	1	0	131	4	73	77	3	15	0	18	226
02:45 PM	101	0	0	101	6	91	97	5	17	0	22	220
Total	402	2	2	406	25	336	361	16	72	0	88	855
03:00 PM	135	3	0	138	11	87	98	3	27	0	30	266
03:15 PM	148	2	0	150	5	121	126	4	33	0	37	313
03:30 PM	129	1	1	131	18	107	125	0	27	0	27	283
03:45 PM	115	2	4	121	13	118	131	4	26	0	30	282
Total	527	8	5	540	47	433	480	11	113	0	124	1144
Grand Total	1718	43	10	1771	312	1518	1830	36	272	1	309	3910
Apprch %	97	2.4	0.6		17	83		11.7	88	0.3		
Total %	43.9	1.1	0.3	45.3	8	38.8	46.8	0.9	7	0	7.9	
Unshifted	1718	43	10	1771	312	1518	1830	36	272	1	309	3910
% Unshifted	100	100	100	100	100	100	100	100	100	100	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Reed at Main Access Driveway (280 ft north of Pederosa)
Site Code : 00000000
Start Date : 4/19/2018

	REED Southbound				REED Northbound			LOT D ENTRANCE Eastbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 07:15 AM												
07:15 AM	92	1	0	93	9	88	97	**1**	5	0	6	196
07:30 AM	**135**	4	**2**	141	38	119	157	0	14	0	14	312
07:45 AM	135	**10**	0	**145**	**76**	**134**	**210**	0	**19**	0	**19**	**374**
08:00 AM	88	7	0	95	41	111	152	1	6	0	7	254
Total Volume	450	22	2	474	164	452	616	2	44	0	46	1136
% App. Total	94.9	4.6	0.4		26.6	73.4		4.3	95.7	0		
PHF	.833	.550	.250	.817	.539	.843	.733	.500	.579	.000	.605	.759

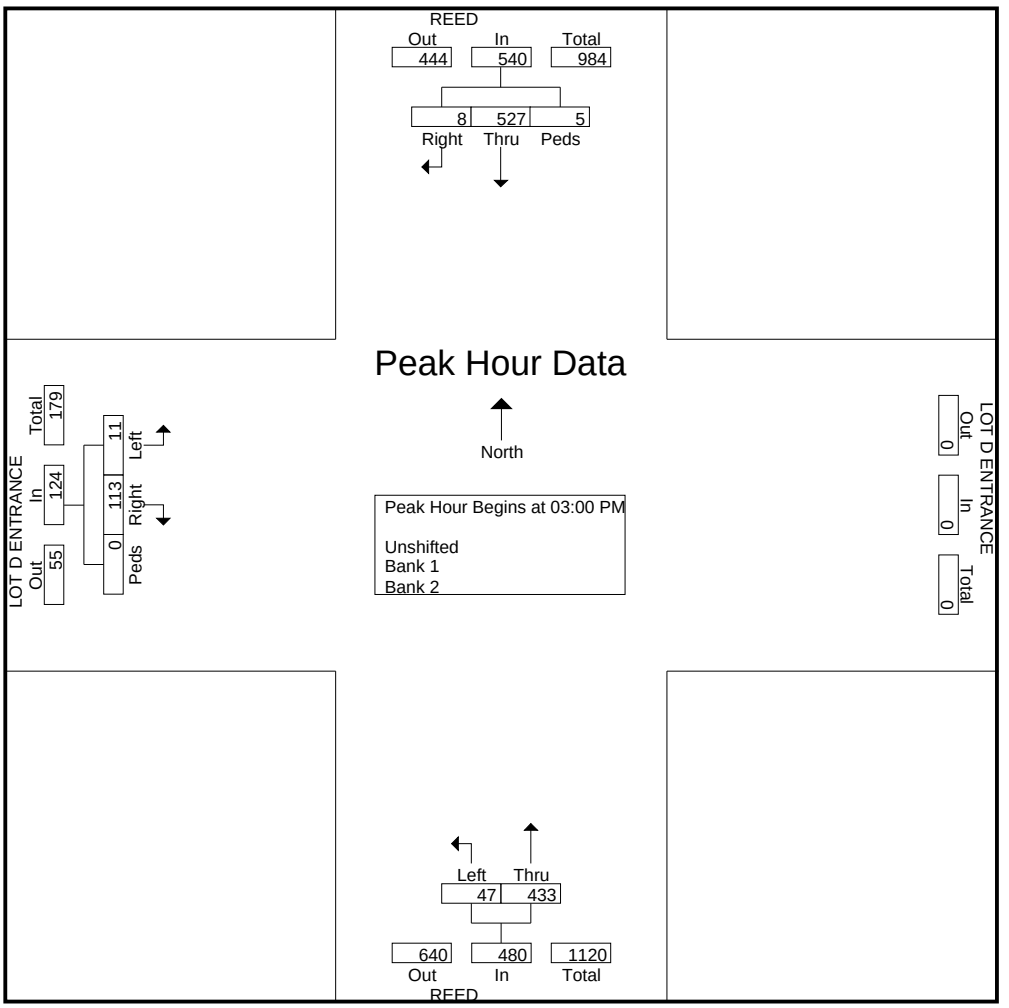


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : Reed at Main Access Driveway (280 ft north of Pederosa)
Site Code : 00000000
Start Date : 4/19/2018
Page No : 3

	REED Southbound				REED Northbound			LOT D ENTRANCE Eastbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 03:45 PM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 03:00 PM												
03:00 PM	135	**3**	0	138	11	87	98	3	27	0	30	266
03:15 PM	**148**	2	0	**150**	5	**121**	126	**4**	**33**	0	**37**	**313**
03:30 PM	129	1	1	131	**18**	107	125	0	27	0	27	283
03:45 PM	115	2	**4**	121	13	118	**131**	4	26	0	30	282
Total Volume	527	8	5	540	47	433	480	11	113	0	124	1144
% App. Total	97.6	1.5	0.9		9.8	90.2		8.9	91.1	0		
PHF	.890	.667	.313	.900	.653	.895	.916	.688	.856	.000	.838	.914



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : 4.26.18 Manning Avenue & Driveway 560 feet west of Reed Ave
Site Code : 00042618
Start Date : 4/26/2018
Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

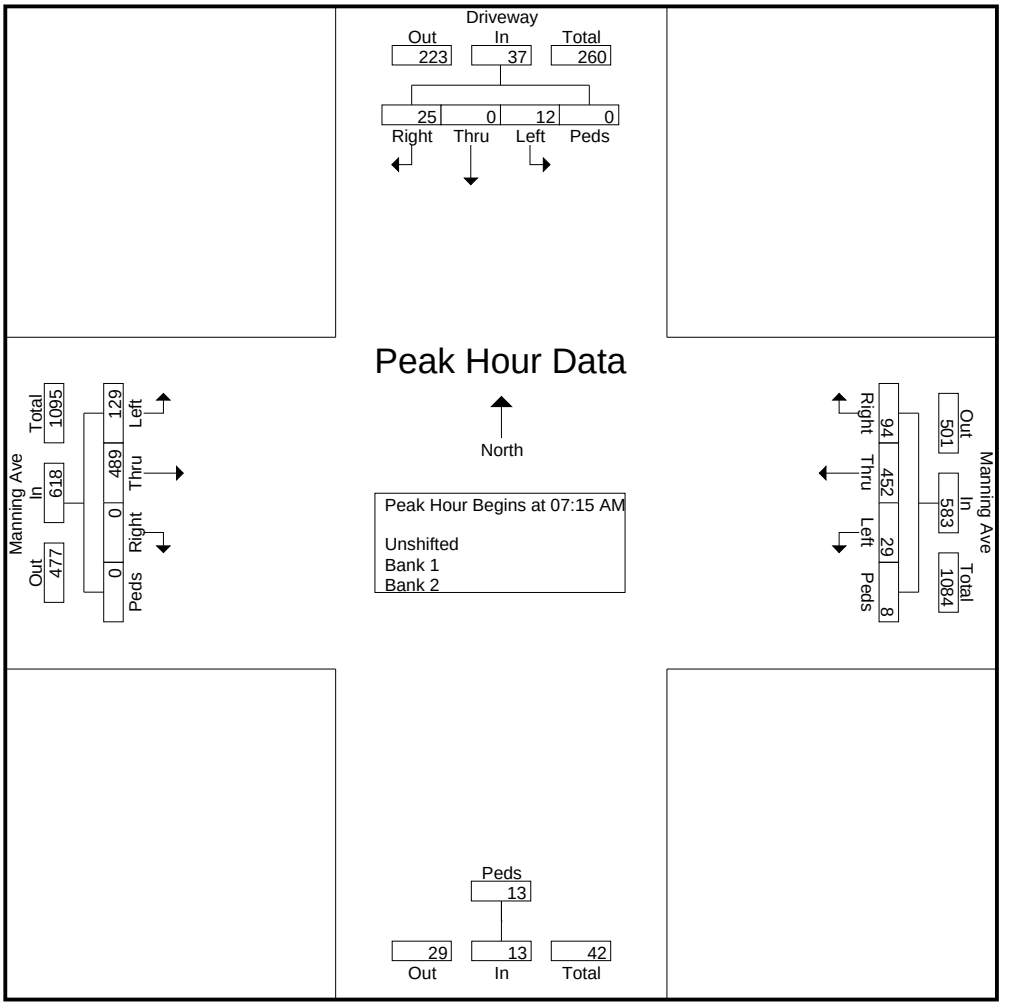
	Driveway Southbound					Manning Ave Westbound					Northbound		Manning Ave Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	0	0	2	3	3	89	7	1	100	1	1	5	75	0	0	80	184
07:15 AM	1	0	2	0	3	6	116	3	0	125	2	2	10	86	0	0	96	226
07:30 AM	0	0	7	0	7	7	128	33	3	171	4	4	34	148	0	0	182	364
07:45 AM	6	0	12	0	18	5	112	45	5	167	3	3	62	151	0	0	213	401
Total	8	0	21	2	31	21	445	88	9	563	10	10	111	460	0	0	571	1175
08:00 AM	5	0	4	0	9	11	96	13	0	120	4	4	23	104	0	0	127	260
08:15 AM	5	0	5	4	14	4	70	8	1	83	2	2	21	74	0	0	95	194
08:30 AM	6	0	6	4	16	4	77	10	1	92	6	6	18	83	0	0	101	215
08:45 AM	20	0	16	1	37	12	72	21	1	106	5	5	31	74	0	0	105	253
Total	36	0	31	9	76	31	315	52	3	401	17	17	93	335	0	0	428	922
******																		
02:00 PM	5	0	13	1	19	13	89	9	1	112	6	6	12	97	0	0	109	246
02:15 PM	22	0	25	0	47	7	119	7	1	134	8	8	6	85	0	0	91	280
02:30 PM	10	0	11	1	22	4	74	8	0	86	3	3	2	103	0	0	105	216
02:45 PM	6	0	12	2	20	2	111	9	1	123	2	2	11	91	0	0	102	247
Total	43	0	61	4	108	26	393	33	3	455	19	19	31	376	0	0	407	989
03:00 PM	33	0	20	0	53	7	131	11	0	149	5	5	11	127	0	0	138	345
03:15 PM	16	0	19	1	36	7	120	11	0	138	3	3	7	115	0	0	122	299
03:30 PM	13	0	18	1	32	9	112	11	0	132	8	8	7	165	0	0	172	344
03:45 PM	6	0	13	0	19	7	107	8	0	122	1	1	11	152	0	0	163	305
Total	68	0	70	2	140	30	470	41	0	541	17	17	36	559	0	0	595	1293
Grand Total	155	0	183	17	355	108	1623	214	15	1960	63	63	271	1730	0	0	2001	4379
Apprch %	43.7	0	51.5	4.8		5.5	82.8	10.9	0.8		100		13.5	86.5	0	0		
Total %	3.5	0	4.2	0.4	8.1	2.5	37.1	4.9	0.3	44.8	1.4	1.4	6.2	39.5	0	0	45.7	
Unshifted	155	0	183	17	355	0	1623	214	15	1852	63	63	253	1730	0	0	1983	4253
% Unshifted	100	0	100	100	100	0	100	100	100	94.5	100	100	93.4	100	0	0	99.1	97.1
Bank 1	0	0	0	0	0	108	0	0	0	108	0	0	18	0	0	0	18	126
% Bank 1	0	0	0	0	0	100	0	0	0	5.5	0	0	6.6	0	0	0	0.9	2.9
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : 4.26.18 Manning Avenue & Driveway 560 feet west of Reed Ave
Site Code : 00042618
Start Date : 4/26/2018
Page No : 2

	Driveway Southbound					Manning Ave Westbound					Northbound		Manning Ave Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:15 AM																		
07:15 AM	1	0	2	0	3	6	116	3	0	125	2	2	10	86	0	0	96	226
07:30 AM	0	0	7	0	7	7	**128**	33	3	**171**	**4**	**4**	34	148	0	0	182	364
07:45 AM	**6**	0	**12**	0	**18**	5	112	**45**	**5**	167	3	3	**62**	**151**	0	0	**213**	**401**
08:00 AM	5	0	4	0	9	**11**	96	13	0	120	4	4	23	104	0	0	127	260
Total Volume	12	0	25	0	37	29	452	94	8	583	13	13	129	489	0	0	618	1251
% App. Total	32.4	0	67.6	0		5	77.5	16.1	1.4		100		20.9	79.1	0	0		
PHF	.500	.000	.521	.000	.514	.659	.883	.522	.400	.852	.813	.813	.520	.810	.000	.000	.725	.780

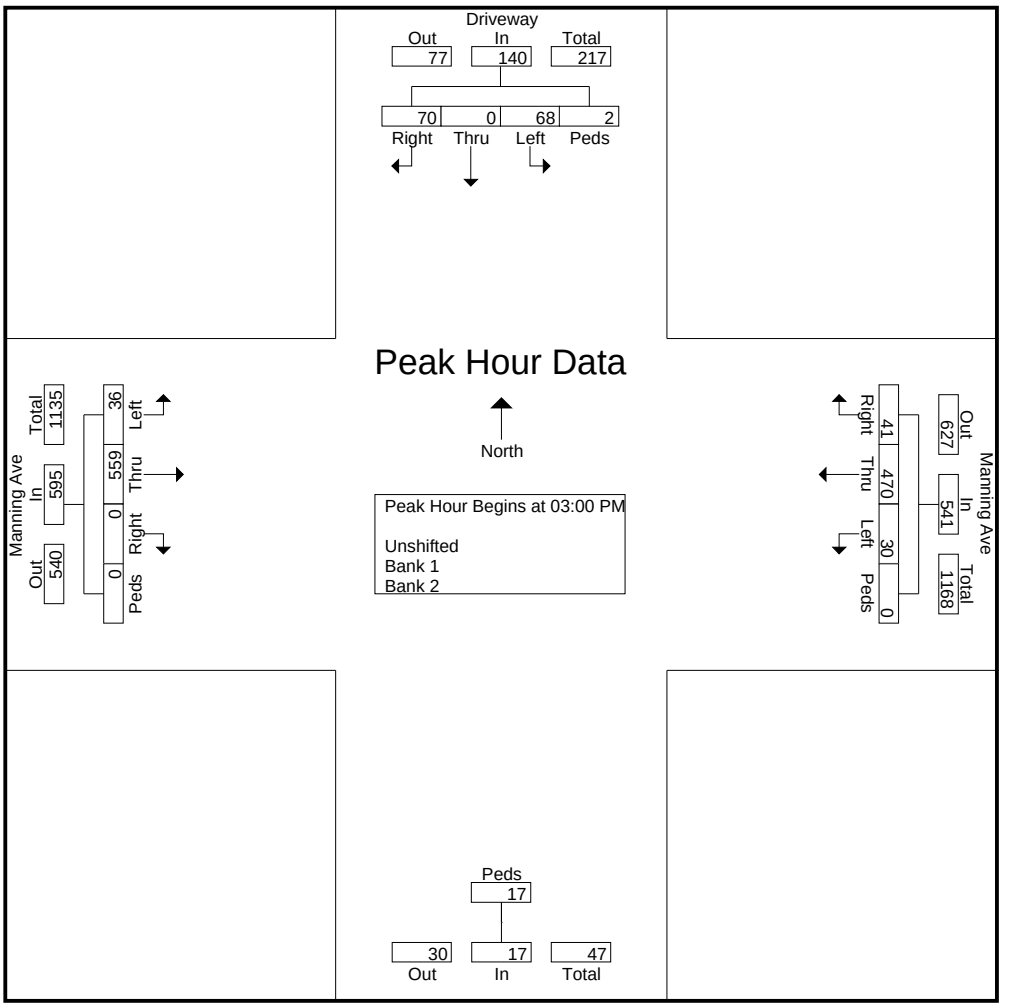


JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : 4.26.18 Manning Avenue & Driveway 560 feet west of Reed Ave
Site Code : 00042618
Start Date : 4/26/2018
Page No : 3

	Driveway Southbound					Manning Ave Westbound					Northbound		Manning Ave Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 03:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 03:00 PM																		
03:00 PM	**33**	0	**20**	0	**53**	7	**131**	**11**	0	**149**	5	5	**11**	127	0	0	138	**345**
03:15 PM	16	0	19	**1**	36	7	120	11	0	138	3	3	7	115	0	0	122	299
03:30 PM	13	0	18	1	32	**9**	112	11	0	132	**8**	**8**	7	**165**	0	0	**172**	344
03:45 PM	6	0	13	0	19	7	107	8	0	122	1	1	11	152	0	0	163	305
Total Volume	68	0	70	2	140	30	470	41	0	541	17	17	36	559	0	0	595	1293
% App. Total	48.6	0	50	1.4		5.5	86.9	7.6	0		100		6.1	93.9	0	0		
PHF	.515	.000	.875	.500	.660	.833	.897	.932	.000	.908	.531	.531	.818	.847	.000	.000	.865	.937



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103
Fresno, CA 93710
(559) 570-8991
Traffic Engineering, Transportation Planning & Parking Solutions
www.JLBtraffic.com

File Name : 4.26.18 Manning Avenue & Driveway 560 feet west of Reed Ave
Site Code : 00042618
Start Date : 4/26/2018
Page No : 1

Groups Printed- Bank 1 - Bank 2

	Driveway Southbound					Manning Ave Westbound					Northbound		Manning Ave Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	3
07:15 AM	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	6
07:30 AM	0	0	0	0	0	7	0	0	0	7	0	0	1	0	0	0	1	8
07:45 AM	0	0	0	0	0	5	0	0	0	5	0	0	5	0	0	0	5	10
Total	0	0	0	0	0	21	0	0	0	21	0	0	6	0	0	0	6	27
08:00 AM	0	0	0	0	0	11	0	0	0	11	0	0	0	0	0	0	0	11
08:15 AM	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	4
08:30 AM	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	4
08:45 AM	0	0	0	0	0	12	0	0	0	12	0	0	2	0	0	0	2	14
Total	0	0	0	0	0	31	0	0	0	31	0	0	2	0	0	0	2	33
******																		
02:00 PM	0	0	0	0	0	13	0	0	0	13	0	0	2	0	0	0	2	15
02:15 PM	0	0	0	0	0	7	0	0	0	7	0	0	2	0	0	0	2	9
02:30 PM	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	4
02:45 PM	0	0	0	0	0	2	0	0	0	2	0	0	2	0	0	0	2	4
Total	0	0	0	0	0	26	0	0	0	26	0	0	6	0	0	0	6	32
03:00 PM	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	7
03:15 PM	0	0	0	0	0	7	0	0	0	7	0	0	2	0	0	0	2	9
03:30 PM	0	0	0	0	0	9	0	0	0	9	0	0	1	0	0	0	1	10
03:45 PM	0	0	0	0	0	7	0	0	0	7	0	0	1	0	0	0	1	8
Total	0	0	0	0	0	30	0	0	0	30	0	0	4	0	0	0	4	34
Grand Total	0	0	0	0	0	108	0	0	0	108	0	0	18	0	0	0	18	126
Apprch %	0	0	0	0		100	0	0	0		0		100	0	0	0		
Total %	0	0	0	0	0	85.7	0	0	0	85.7	0	0	14.3	0	0	0	14.3	
Bank 1	0	0	0	0	0	108	0	0	0	108	0	0	18	0	0	0	18	126
% Bank 1	0	0	0	0	0	100	0	0	0	100	0	0	100	0	0	0	100	100
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix B: Methodology

Levels of Service Methodology

The description and procedures for calculating capacity and level of service (LOS) are found in the Transportation Research Board, Highway Capacity Manual (HCM). The HCM 2010 represents the research on capacity and quality of service for transportation facilities.

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience.

Six levels of service are defined for each type of facility that has analysis procedures available. Letters designate each level of service (LOS), from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each LOS represents a range of operating conditions and the driver's perception of these conditions. Safety is not included in the measures that establish a LOS.

Urban Streets (Automobile Mode)

The term "urban streets" refers to urban arterials and collectors, including those in downtown areas. Arterial streets are roads that primarily serve longer through trips. However, providing access to abutting commercial and residential land uses is also an important function of arterials. Collector streets provide both land access and traffic circulation within residential, commercial and industrial areas. Their access function is more important than that of arterials, and unlike arterials their operation is not always dominated by traffic signals. Downtown streets are signalized facilities that often resemble arterials. They not only move through traffic but also provide access to local businesses for passenger cars, transit buses, and trucks. Pedestrian conflicts and lane obstructions created by stopping or standing taxicabs, buses, trucks and parking vehicles that cause turbulence in the traffic flow are typical of downtown streets.

Flow Characteristics

The speed of vehicles on urban streets is influenced by three main factors, street environment, interaction among vehicles and traffic control.

The street environment includes the geometric characteristics of the facility, the character of roadside activity, and adjacent land uses. Thus, the environment reflects the number and width of lanes, type of median, driveway/access point density, spacing between signalized intersections, existence of parking, level of pedestrian and bicyclist activity and speed limit.

The interaction among vehicles is determined by traffic density, the proportion of trucks and buses, and turning movements. This interaction affects the operation of vehicles at intersections and, to a lesser extent, between signals.

Traffic controls (including signals and signs) forces a portion of all vehicles to slow or stop. The delays and speed changes caused by traffic control devices reduce vehicle speeds; however, such controls are needed to establish right-of-way.

Levels of Service (automobile Mode)

The average travel speed for through vehicles along an urban street is the determinant of the operating level of service (LOS). The travel speed along a segment, section or entire length of an urban street is dependent on the running speed between signalized intersections and the amount of control delay incurred at signalized intersections.

LOS A describes primarily free-flow operation. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal. Travel speeds exceed 85 of the base free flow speed (FFS).

LOS B describes reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted and control delay at the boundary intersections is not significant. The travel speed is between 67 and 85 percent of the base FFS.

LOS C describes stable operations. The ability to maneuver and change lanes in midblock location may be more restricted than at LOS B. Longer queues at the boundary intersections may contribute to lower travel speeds. The travel speed is between 50 and 67 percent of the base FFS.

LOS D indicates a less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volumes, inappropriate signal timing, at the boundary intersections. The travel speed is between 40 and 50 percent of the base FFS.

LOS E is characterized unstable operation and significant delay. Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the boundary intersections. The travel speed is between 30 and 40 percent of the base FFS.

LOS F is characterized by street flow at extremely low speed. Congestion is likely occurring at the boundary intersections, as indicated by high delay and extensive queuing. The travel speed is 30 percent or less of the base FFS.

Table A-1: Urban Street Levels of Service (Automobile Mode)

Travel Speed as a Percentage of Base Free-Flow Speed (%)	LOS by Critical Volume-to-Capacity Ratio[a]	
	≤1.0	>1.0
>85	A	F
>67 to 85	B	F
>50 to 67	C	F
>40 to 50	D	F
>30 to 40	E	F
≤30	F	F

a = The Critical volume-to-capacity ratio is based on consideration of the through movement-to-capacity ratio at each boundary intersection in the subject direction of travel. The critical volume-to-capacity ratio is the largest ratio of those considered.
Source: Highway Capacity Manual 2010, Exhibit 16-4. Urban Street LOS Criteria (Automobile Mode)

Intersection Levels of Service

One of the more important elements limiting, and often interrupting the flow of traffic on a highway is the intersection. Flow on an interrupted facility is usually dominated by points of fixed operation such as traffic signals, stop and yield signs.

Signalized Intersections – Performance Measures

For signalized intersections the performance measures include automobile volume-to-capacity ratio, automobile delay, queue storage length, ratio of pedestrian delay, pedestrian circulation area, pedestrian perception score, bicycle delay, and bicycle perception score. LOS is also considered a performance measure. For the automobile mode average control delay per vehicle per approach is determined for the peak hour. A weighted average of control delay per vehicle is then determined for the intersection. A LOS designation is given to the weighted average control delay to better describe the level of operation. A description of LOS for signalized intersections is found in Table A-2.

Table A-2: Signalized Intersection Level of Service Description (Automobile Mode)

Level of Service	Description	Average Control Delay (seconds per vehicle)
A	Operations with a control delay of 10 seconds/vehicle or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when volume-to-capacity ratio is and either progression is exceptionally favorable or the cycle length is very short. If it's due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Operations with control delay between 10.1 to 20.0 seconds/vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.	>10.0 to 20.0
C	Operations with average control delays between 20.1 to 35.0 seconds/vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 to 35
D	Operations with control delay between 35.1 to 55.0 seconds/vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop, and i ndividual cycle failures are noticeable.	>35 to 55
E	Operations with control delay between 55.1 to 80.0 seconds/vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	>55 to 80
F	Operations with unacceptable control delay exceeding 80.0 seconds/vehicle and a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80

Source: Highway Capacity Manual 2010

Unsignalized Intersections

The HCM 2010 procedures use control delay as a measure of effectiveness to determine level of service. Delay is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, i. e., in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Control delay is the increased time of travel for a vehicle approaching and passing through an unsignalized intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection.

All-Way Stop Controlled Intersections

All-way stop controlled intersections is a form of traffic controls in which all approaches to an intersection are required to stop. Similar to signalized intersections, at all-way stop controlled intersections the average control delay per vehicle per approach is determined for the peak hour. A weighted average of control delay per vehicle is then determined for the intersection as a whole. In other words the delay measured for all-way stop controlled intersections is a measure of the average delay for all vehicles passing through the intersection during the peak hour. A LOS designation is given to the weighted average control delay to better describe the level of operation.

Two-Way Stop Controlled Intersections

Two-way stop controlled (TWSC) intersections in which stop signs are used to assign the right-of-way, are the most prevalent type of intersection in the United States. At TWSC intersections the stop-controlled approaches are referred as the minor street approaches and can be either public streets or private driveways. The approaches that are not controlled by stop signs are referred to as the major street approaches.

The capacity of movements subject to delay are determined using the "critical gap" method of capacity analysis. Expected average control delay based on movement volume and movement capacity is calculated. A LOS for TWSC intersection is determined by the computed or measured control delay for each minor movement. LOS is not defined for the intersection as a whole for three main reasons: (a) major-street through vehicles are assumed to experience zero delay; (b) the disproportionate number of major-street through vehicles at the typical TWSC intersection skews the weighted average of all movements, resulting in a very low overall average delay from all vehicles; and (c) the resulting low delay can mask important LOS deficiencies for minor movements. Table A-3 provides a description of LOS at unsignalized intersections.

Table A-3: Unsignalized Intersection Level of Service Description (Automobile Mode)

Control Delay (seconds per vehicle)	LOS by Volume-to-Capacity Ratio	
	v/c ≤ 1.0	**v/c > 1.0**
≤10	A	F
>10 to 15	B	F
>15 to 25	C	F
>25 to 35	D	F
>35 to 50	E	F
>50	F	F

Source: HCM 2010 Exhibit 19-1.

Appendix C: Existing Traffic Conditions

Intersection	
Int Delay, s/veh	0.4

Movement	SEL	SER	NEL	NET	SWU	SWT	SWR
Lane Configurations							
Traffic Vol, veh/h	11	0	0	5	58	10	133
Future Vol, veh/h	11	0	0	5	58	10	133
Conflicting Peds, #/hr	0	1	1	0	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	50	-	-	-	0
Veh in Median Storage, #	0	-	-	0	-	0	-
Grade, %	0	-	-	0	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72
Heavy Vehicles, %	3	3	3	3	3	3	3
Mvmt Flow	15	0	0	7	81	14	185

Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	22	16	200	0	-	-	0
Stage 1	15	-	-	-	-	-	-
Stage 2	7	-	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-	-
Pot Cap-1 Maneuver	992	1060	1366	-	-	-	-
Stage 1	1005	-	-	-	-	-	-
Stage 2	1013	-	-	-	-	-	-
Platoon blocked, %				-		-	-
Mov Cap-1 Maneuver	990	1058	1365	-	-	-	-
Mov Cap-2 Maneuver	990	-	-	-	-	-	-
Stage 1	1004	-	-	-	-	-	-
Stage 2	1012	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	8.7	0	
HCM LOS	A		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1365	-	990	-	-
HCM Lane V/C Ratio	-	-	0.015	-	-
HCM Control Delay (s)	0	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	19	66	61	7	12
Future Vol, veh/h	7	19	66	61	7	12
Conflicting Peds, #/hr	0	0	4	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	13	35	122	113	13	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	385	28	39	0	-	0
Stage 1	28	-	-	-	-	-
Stage 2	357	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	616	1044	1565	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	706	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	564	1040	1559	-	-	-
Mov Cap-2 Maneuver	564	-	-	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	703	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	3.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1559	-	847	-	-
HCM Lane V/C Ratio	0.078	-	0.057	-	-
HCM Control Delay (s)	7.5	-	9.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	129	84	1	24	7	1
Future Vol, veh/h	129	84	1	24	7	1
Peak Hour Factor	0.55	0.55	0.55	0.55	0.55	0.55
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	235	153	2	44	13	2
Number of Lanes	1	1	1	1	1	1

Approach	NB	SB	SW
Opposing Approach	SB	NB	
Opposing Lanes	2	2	0
Conflicting Approach Left		SW	NB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	SW		SB
Conflicting Lanes Right	2	0	2
HCM Control Delay	8.6	7.9	8.6
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	SBLn1	SBLn2	SWLn1	SWLn2
Vol Left, %	0%	0%	100%	0%	100%	0%
Vol Thru, %	100%	0%	0%	100%	0%	0%
Vol Right, %	0%	100%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	84	1	24	7	1
LT Vol	0	0	1	0	7	0
Through Vol	129	0	0	24	0	0
RT Vol	0	84	0	0	0	1
Lane Flow Rate	235	153	2	44	13	2
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.3	0.165	0.003	0.059	0.021	0.002
Departure Headway (Hd)	4.598	3.898	5.38	4.879	5.984	4.779
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	781	918	669	738	602	753
Service Time	2.33	1.629	3.08	2.579	3.685	2.481
HCM Lane V/C Ratio	0.301	0.167	0.003	0.06	0.022	0.003
HCM Control Delay	9.3	7.4	8.1	7.9	8.8	7.5
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	1.3	0.6	0	0.2	0.1	0

Intersection	
Int Delay, s/veh	3.2

Movement	SEL	SER	NEL	NET	SWU	SWT	SWR
Lane Configurations							
Traffic Vol, veh/h	61	0	1	5	33	6	67
Future Vol, veh/h	61	0	1	5	33	6	67
Conflicting Peds, #/hr	0	0	3	0	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	50	-	-	-	0
Veh in Median Storage, #	0	-	-	0	-	0	-
Grade, %	0	-	-	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88
Heavy Vehicles, %	3	3	3	3	3	3	3
Mvmt Flow	69	0	1	6	38	7	76

Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	18	10	86	0	-	-	0
Stage 1	10	-	-	-	-	-	-
Stage 2	8	-	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-	-
Pot Cap-1 Maneuver	997	1068	1504	-	-	-	-
Stage 1	1010	-	-	-	-	-	-
Stage 2	1012	-	-	-	-	-	-
Platoon blocked, %				-		-	-
Mov Cap-1 Maneuver	990	1065	1500	-	-	-	-
Mov Cap-2 Maneuver	990	-	-	-	-	-	-
Stage 1	1006	-	-	-	-	-	-
Stage 2	1009	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	8.9	1.2	
HCM LOS	A		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1500	-	990	-	-
HCM Lane V/C Ratio	0.001	-	0.07	-	-
HCM Control Delay (s)	7.4	-	8.9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	16	14	34	26	13
Future Vol, veh/h	7	16	14	34	26	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	10	23	20	49	38	19

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	137	48	57	0	-	0
Stage 1	48	-	-	-	-	-
Stage 2	89	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	854	1018	1541	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	932	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	843	1018	1541	-	-	-
Mov Cap-2 Maneuver	843	-	-	-	-	-
Stage 1	959	-	-	-	-	-
Stage 2	932	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	2.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1541	-	958	-	-
HCM Lane V/C Ratio	0.013	-	0.035	-	-
HCM Control Delay (s)	7.4	-	8.9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	49	45	0	43	25	0
Future Vol, veh/h	49	45	0	43	25	0
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	66	61	0	58	34	0
Number of Lanes	1	1	1	1	1	1

Approach	NB	SB	SW
Opposing Approach	SB	NB	
Opposing Lanes	2	2	0
Conflicting Approach Left		SW	NB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	SW		SB
Conflicting Lanes Right	2	0	2
HCM Control Delay	7.4	7.8	8.5
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	SBLn1	SBLn2	SWLn1	SWLn2
Vol Left, %	0%	0%	0%	0%	100%	0%
Vol Thru, %	100%	0%	100%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	45	0	43	25	0
LT Vol	0	0	0	0	25	0
Through Vol	49	0	0	43	0	0
RT Vol	0	45	0	0	0	0
Lane Flow Rate	66	61	0	58	34	0
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.085	0.067	0	0.075	0.051	0
Departure Headway (Hd)	4.64	3.939	4.675	4.675	5.478	4.976
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	767	902	0	760	658	0
Service Time	2.395	1.694	2.442	2.442	3.178	2.676
HCM Lane V/C Ratio	0.086	0.068	0	0.076	0.052	0
HCM Control Delay	7.8	7	7.4	7.8	8.5	7.7
HCM Lane LOS	A	A	N	A	A	N
HCM 95th-tile Q	0.3	0.2	0	0.2	0.2	0

Intersection: 1: International Main Street & Parking G/H Access

Movement	SE
Directions Served	LR
Maximum Queue (ft)	29
Average Queue (ft)	5
95th Queue (ft)	22
Link Distance (ft)	311
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Behymer Main Street/Parking C/D Access & Parking M1 Access

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	58	31
Average Queue (ft)	28	2
95th Queue (ft)	54	14
Link Distance (ft)	217	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Behymer Main Street & Parking B/C Access

Movement	NB	NB	SB	SB	SW
Directions Served	T	R	L	T	L
Maximum Queue (ft)	126	79	31	55	30
Average Queue (ft)	49	37	2	24	4
95th Queue (ft)	81	61	13	52	20
Link Distance (ft)	183	183		480	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			170		100
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: International Main Street & Parking G/H Access

Movement	SE
Directions Served	LR
Maximum Queue (ft)	76
Average Queue (ft)	31
95th Queue (ft)	58
Link Distance (ft)	311
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Behymer Main Street/Parking C/D Access & Parking M1 Access

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	32	31
Average Queue (ft)	11	2
95th Queue (ft)	35	15
Link Distance (ft)	217	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Behymer Main Street & Parking B/C Access

Movement	NB	NB	SB	SW
Directions Served	T	R	T	L
Maximum Queue (ft)	56	54	55	54
Average Queue (ft)	29	30	25	21
95th Queue (ft)	46	46	48	48
Link Distance (ft)	183	183	480	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 0

Intersection	
Int Delay, s/veh	3

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	118	55	46	276	64	21
Future Vol, veh/h	118	55	46	276	64	21
Conflicting Peds, #/hr	0	5	5	0	8	26
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	155	72	61	363	84	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	232	0	689	222
Stage 1	-	-	-	-	196	-
Stage 2	-	-	-	-	493	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1330	-	410	815
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	612	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1324	-	381	791
Mov Cap-2 Maneuver	-	-	-	-	381	-
Stage 1	-	-	-	-	782	-
Stage 2	-	-	-	-	607	-

Approach	NB	SB	NW
HCM Control Delay, s	0	1.1	16
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	437	1324	-
HCM Lane V/C Ratio	-	-	0.256	0.046	-
HCM Control Delay (s)	-	-	16	7.8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1	0.1	-

Intersection	
Intersection Delay, s/veh	7.0
Intersection LOS	A

Approach	NB	SB	NW
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	227	424	112
Demand Flow Rate, veh/h	234	437	116
Vehicles Circulating, veh/h	63	87	160
Vehicles Exiting, veh/h	461	189	137
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	8	26	5
Ped Cap Adj	0.999	0.996	0.999
Approach Delay, s/veh	5.6	8.3	5.0
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	TR	LT	LR
Assumed Moves	TR	LT	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	234	437	116
Cap Entry Lane, veh/h	1061	1036	963
Entry HV Adj Factor	0.972	0.970	0.966
Flow Entry, veh/h	227	424	112
Cap Entry, veh/h	1030	1002	929
V/C Ratio	0.221	0.423	0.121
Control Delay, s/veh	5.6	8.3	5.0
LOS	A	A	A
95th %tile Queue, veh	1	2	0

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	20	130	44	19	234	108
Future Vol, veh/h	20	130	44	19	234	108
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	26	171	58	25	308	142
Number of Lanes	1	0	0	1	1	1

Approach	NB	SB	SW
Opposing Approach	SB	NB	
Opposing Lanes	1	1	0
Conflicting Approach Left		SW	NB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	SW		SB
Conflicting Lanes Right	2	0	1
HCM Control Delay	9.3	9.3	12.1
HCM LOS	A	A	B

Lane	NBLn1	SBLn1	SWLn1	SWLn2
Vol Left, %	0%	70%	100%	0%
Vol Thru, %	13%	30%	0%	0%
Vol Right, %	87%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	150	63	234	108
LT Vol	0	44	234	0
Through Vol	20	19	0	0
RT Vol	130	0	0	108
Lane Flow Rate	197	83	308	142
Geometry Grp	2	2	7	7
Degree of Util (X)	0.255	0.125	0.489	0.178
Departure Headway (Hd)	4.648	5.441	5.715	4.508
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	770	656	628	790
Service Time	2.692	3.502	3.478	2.271
HCM Lane V/C Ratio	0.256	0.127	0.49	0.18
HCM Control Delay	9.3	9.3	13.9	8.3
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	1	0.4	2.7	0.6

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	20	130	44	19	234	108
Future Volume (vph)	20	130	44	19	234	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.2	4.2	4.2
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		0.97	0.95	1.00
Satd. Flow (prot)	1845	1568		1782	1752	1568
Flt Permitted	1.00	1.00		0.97	0.95	1.00
Satd. Flow (perm)	1845	1568		1782	1752	1568
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	26	171	58	25	308	142
RTOR Reduction (vph)	0	84	0	0	0	38
Lane Group Flow (vph)	26	87	0	83	308	104
Turn Type	NA	pm+ov	Split	NA	Prot	Perm
Protected Phases	2	8	6	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	1.3	25.6		4.0	24.3	24.3
Effective Green, g (s)	1.3	25.6		4.0	24.3	24.3
Actuated g/C Ratio	0.03	0.51		0.08	0.48	0.48
Clearance Time (s)	4.0	4.2		4.2	4.2	4.2
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	47	796		141	844	756
v/s Ratio Prot	c0.01	0.05		c0.05	c0.18	
v/s Ratio Perm		0.00				0.07
v/c Ratio	0.55	0.11		0.59	0.36	0.14
Uniform Delay, d1	24.3	6.5		22.4	8.2	7.2
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	13.3	0.1		6.2	0.3	0.1
Delay (s)	37.6	6.5		28.6	8.5	7.3
Level of Service	D	A		C	A	A
Approach Delay (s)	10.6			28.6	8.1	
Approach LOS	B			C	A	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	50.4	Sum of lost time (s)	16.6
Intersection Capacity Utilization	30.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	1	17	6	133	60	26	175	47
Future Vol, veh/h	0	0	0	0	1	17	6	133	60	26	175	47
Conflicting Peds, #/hr	0	0	0	16	0	5	98	0	25	25	0	98
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	1	22	8	173	78	34	227	61

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	595	707	242	386	0	0	276	0	0
Stage 1	253	253	-	-	-	-	-	-	-
Stage 2	342	454	-	-	-	-	-	-	-
Critical Hdwy	6.43	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	5.43	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	465	359	794	1167	-	-	1281	-	-
Stage 1	787	696	-	-	-	-	-	-	-
Stage 2	717	568	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	429	0	771	1167	-	-	1251	-	-
Mov Cap-2 Maneuver	429	0	-	-	-	-	-	-	-
Stage 1	737	0	-	-	-	-	-	-	-
Stage 2	706	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0.2	0.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1167	-	-	771	1251	-	-
HCM Lane V/C Ratio	0.007	-	-	0.03	0.027	-	-
HCM Control Delay (s)	8.1	0	-	9.8	8	0	-
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↑			↑	↰	↱
Traffic Vol, veh/h	163	0	0	120	52	31
Future Vol, veh/h	163	0	0	120	52	31
Conflicting Peds, #/hr	0	0	0	0	0	6
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	209	0	0	154	67	40

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	363	215
Stage 1	-	-	-	-	209	-
Stage 2	-	-	-	-	154	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	0	0	-	634	822
Stage 1	-	0	0	-	824	-
Stage 2	-	0	0	-	872	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	634	817
Mov Cap-2 Maneuver	-	-	-	-	634	-
Stage 1	-	-	-	-	824	-
Stage 2	-	-	-	-	872	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NWLn1	NWLn2	SBT
Capacity (veh/h)	-	634	817	-
HCM Lane V/C Ratio	-	0.105	0.049	-
HCM Control Delay (s)	-	11.3	9.6	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	0.4	0.2	-

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	61	3	29	88	152	87
Future Vol, veh/h	61	3	29	88	152	87
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	91	4	43	131	227	130
Number of Lanes	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	8.9	9.7	10.4
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1
Vol Left, %	100%	0%	0%	25%
Vol Thru, %	0%	0%	95%	75%
Vol Right, %	0%	100%	5%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	152	87	64	117
LT Vol	152	0	0	29
Through Vol	0	0	61	88
RT Vol	0	87	3	0
Lane Flow Rate	227	130	96	175
Geometry Grp	7	7	2	2
Degree of Util (X)	0.36	0.163	0.134	0.243
Departure Headway (Hd)	5.72	4.513	5.032	5.003
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	626	791	710	716
Service Time	3.472	2.265	3.081	3.045
HCM Lane V/C Ratio	0.363	0.164	0.135	0.244
HCM Control Delay	11.7	8.2	8.9	9.7
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.6	0.6	0.5	0.9

Intersection	
Int Delay, s/veh	1.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	210	86	3	224	31	19
Future Vol, veh/h	210	86	3	224	31	19
Conflicting Peds, #/hr	0	28	28	0	4	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	231	95	3	246	34	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	354	0	563	309
Stage 1	-	-	-	-	307	-
Stage 2	-	-	-	-	256	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1199	-	486	729
Stage 1	-	-	-	-	744	-
Stage 2	-	-	-	-	784	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1167	-	469	708
Mov Cap-2 Maneuver	-	-	-	-	469	-
Stage 1	-	-	-	-	722	-
Stage 2	-	-	-	-	781	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0.1	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	538	1167	-
HCM Lane V/C Ratio	-	-	0.102	0.003	-
HCM Control Delay (s)	-	-	12.5	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Intersection Delay, s/veh	6.5
Intersection LOS	A

Approach	NB	SB	NW
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	389	299	66
Demand Flow Rate, veh/h	400	308	68
Vehicles Circulating, veh/h	4	42	284
Vehicles Exiting, veh/h	346	310	120
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	8	26	5
Ped Cap Adj	0.999	0.996	0.999
Approach Delay, s/veh	6.9	6.2	5.1
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	TR	LT	LR
Assumed Moves	TR	LT	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	400	308	68
Cap Entry Lane, veh/h	1125	1083	851
Entry HV Adj Factor	0.972	0.971	0.971
Flow Entry, veh/h	389	299	66
Cap Entry, veh/h	1093	1049	825
V/C Ratio	0.356	0.285	0.080
Control Delay, s/veh	6.9	6.2	5.1
LOS	A	A	A
95th %tile Queue, veh	2	1	0

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	32	233	64	28	182	74
Future Vol, veh/h	32	233	64	28	182	74
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	41	295	81	35	230	94
Number of Lanes	1	0	0	1	1	1

Approach	NB	SB	SW
Opposing Approach	SB	NB	
Opposing Lanes	1	1	0
Conflicting Approach Left		SW	NB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	SW		SB
Conflicting Lanes Right	2	0	1
HCM Control Delay	10.7	9.6	11.5
HCM LOS	B	A	B

Lane	NBLn1	SBLn1	SWLn1	SWLn2
Vol Left, %	0%	70%	100%	0%
Vol Thru, %	12%	30%	0%	0%
Vol Right, %	88%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	265	92	182	74
LT Vol	0	64	182	0
Through Vol	32	28	0	0
RT Vol	233	0	0	74
Lane Flow Rate	335	116	230	94
Geometry Grp	2	2	7	7
Degree of Util (X)	0.415	0.173	0.388	0.126
Departure Headway (Hd)	4.457	5.356	6.067	4.856
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	805	665	587	729
Service Time	2.505	3.431	3.861	2.65
HCM Lane V/C Ratio	0.416	0.174	0.392	0.129
HCM Control Delay	10.7	9.6	12.7	8.4
HCM Lane LOS	B	A	B	A
HCM 95th-tile Q	2.1	0.6	1.8	0.4

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	32	233	64	28	182	74
Future Volume (vph)	32	233	64	28	182	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.2	4.2	4.2
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		0.97	0.95	1.00
Satd. Flow (prot)	1845	1568		1783	1752	1568
Flt Permitted	1.00	1.00		0.97	0.95	1.00
Satd. Flow (perm)	1845	1568		1783	1752	1568
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	42	307	84	37	239	97
RTOR Reduction (vph)	0	173	0	0	0	39
Lane Group Flow (vph)	42	134	0	121	239	58
Turn Type	NA	pm+ov	Split	NA	Prot	Perm
Protected Phases	2	8	6	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	1.4	20.5		5.6	19.1	19.1
Effective Green, g (s)	1.4	20.5		5.6	19.1	19.1
Actuated g/C Ratio	0.03	0.44		0.12	0.41	0.41
Clearance Time (s)	4.0	4.2		4.2	4.2	4.2
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	54	682		211	710	635
v/s Ratio Prot	c0.02	0.08		c0.07	c0.14	
v/s Ratio Perm		0.01				0.04
v/c Ratio	0.78	0.20		0.57	0.34	0.09
Uniform Delay, d1	22.7	8.2		19.6	9.6	8.6
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	49.7	0.1		3.7	0.3	0.1
Delay (s)	72.4	8.4		23.4	9.9	8.7
Level of Service	E	A		C	A	A
Approach Delay (s)	16.1			23.4	9.6	
Approach LOS	B			C	A	

Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	47.1	Sum of lost time (s)	16.6
Intersection Capacity Utilization	28.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	1	0	65	10	199	58	13	167	23
Future Vol, veh/h	0	0	0	1	0	65	10	199	58	13	167	23
Conflicting Peds, #/hr	0	0	0	21	0	14	48	0	18	18	0	48
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	1	0	80	12	246	72	16	206	28

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	597	638	314	282	0	0	336	0	0
Stage 1	324	324	-	-	-	-	-	-	-
Stage 2	273	314	-	-	-	-	-	-	-
Critical Hdwy	6.43	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	5.43	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	464	393	724	1275	-	-	1218	-	-
Stage 1	731	648	-	-	-	-	-	-	-
Stage 2	771	654	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	435	0	702	1275	-	-	1197	-	-
Mov Cap-2 Maneuver	435	0	-	-	-	-	-	-	-
Stage 1	700	0	-	-	-	-	-	-	-
Stage 2	756	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0.3	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1275	-	-	696	1197	-	-
HCM Lane V/C Ratio	0.01	-	-	0.117	0.013	-	-
HCM Control Delay (s)	7.9	0	-	10.9	8	0	-
HCM Lane LOS	A	A	-	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↑			↑	↰	↱
Traffic Vol, veh/h	182	0	0	157	51	77
Future Vol, veh/h	182	0	0	157	51	77
Conflicting Peds, #/hr	0	0	0	0	11	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	204	0	0	176	57	87

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	391	209
Stage 1	-	-	-	-	204	-
Stage 2	-	-	-	-	187	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	0	0	-	611	829
Stage 1	-	0	0	-	828	-
Stage 2	-	0	0	-	843	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	605	825
Mov Cap-2 Maneuver	-	-	-	-	605	-
Stage 1	-	-	-	-	828	-
Stage 2	-	-	-	-	835	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NWLn1	NWLn2	SBT
Capacity (veh/h)	-	605	825	-
HCM Lane V/C Ratio	-	0.095	0.105	-
HCM Control Delay (s)	-	11.6	9.9	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	0.3	0.4	-

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	75	10	79	101	110	66
Future Vol, veh/h	75	10	79	101	110	66
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	94	13	99	126	138	83
Number of Lanes	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	8.5	9.8	9.4
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1
Vol Left, %	100%	0%	0%	44%
Vol Thru, %	0%	0%	88%	56%
Vol Right, %	0%	100%	12%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	66	85	180
LT Vol	110	0	0	79
Through Vol	0	0	75	101
RT Vol	0	66	10	0
Lane Flow Rate	138	82	106	225
Geometry Grp	7	7	2	2
Degree of Util (X)	0.223	0.106	0.139	0.296
Departure Headway (Hd)	5.838	4.63	4.725	4.739
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	615	771	758	758
Service Time	3.58	2.372	2.762	2.769
HCM Lane V/C Ratio	0.224	0.106	0.14	0.297
HCM Control Delay	10.3	7.9	8.5	9.8
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	0.8	0.4	0.5	1.2

Intersection: 1: Weldon Avenue & Calaveras Street

Movement	NB	SB	NW
Directions Served	TR	LT	LR
Maximum Queue (ft)	52	74	117
Average Queue (ft)	10	18	42
95th Queue (ft)	37	59	77
Link Distance (ft)	393	342	227
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Campus Drive & Weldon Avenue

Movement	NB	SB	SW	SW
Directions Served	TR	LT	L	R
Maximum Queue (ft)	80	55	132	54
Average Queue (ft)	52	33	70	42
95th Queue (ft)	79	54	111	55
Link Distance (ft)	68	493	393	
Upstream Blk Time (%)	2			
Queuing Penalty (veh)	3			
Storage Bay Dist (ft)				25
Storage Blk Time (%)			26	2
Queuing Penalty (veh)			28	4

Intersection: 3: Campus Drive & Parking E Access

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	70	76	54
Average Queue (ft)	20	9	6
95th Queue (ft)	54	42	28
Link Distance (ft)	150	91	68
Upstream Blk Time (%)		0	0
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Campus Drive & McKinley Avenue

Movement	NW	NW
Directions Served	L	R
Maximum Queue (ft)	53	46
Average Queue (ft)	28	17
95th Queue (ft)	57	36
Link Distance (ft)	329	329
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: McKinley Main Street & Campus Drive

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	106	123	96	133
Average Queue (ft)	35	45	42	38
95th Queue (ft)	65	83	70	80
Link Distance (ft)	561	595	224	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 35

Intersection: 1: Weldon Avenue & Calaveras Street

Movement	SB	NW
Directions Served	LT	LR
Maximum Queue (ft)	53	73
Average Queue (ft)	5	34
95th Queue (ft)	26	62
Link Distance (ft)	342	227
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Campus Drive & Weldon Avenue

Movement	NB	SB	SW	SW
Directions Served	TR	LT	L	R
Maximum Queue (ft)	79	142	88	66
Average Queue (ft)	57	41	50	38
95th Queue (ft)	85	83	81	64
Link Distance (ft)	68	493	393	
Upstream Blk Time (%)	4			
Queuing Penalty (veh)	10			
Storage Bay Dist (ft)				25
Storage Blk Time (%)			15	1
Queuing Penalty (veh)			11	2

Intersection: 3: Campus Drive & Parking E Access

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	103	65	55
Average Queue (ft)	36	13	7
95th Queue (ft)	62	43	30
Link Distance (ft)	150	91	68
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Campus Drive & McKinley Avenue

Movement	NB	SB	NW	NW
Directions Served	T	T	L	R
Maximum Queue (ft)	55	19	53	47
Average Queue (ft)	4	1	24	20
95th Queue (ft)	23	6	48	36
Link Distance (ft)	79	153	329	329
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: McKinley Main Street & Campus Drive

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	98	115	76	56
Average Queue (ft)	39	49	37	30
95th Queue (ft)	70	79	62	47
Link Distance (ft)	561	595	224	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 23

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	36	78	11	0
Future Vol, veh/h	0	4	36	78	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	6	51	111	16	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	229	16	16	0	-	0
Stage 1	16	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	757	1060	1595	-	-	-
Stage 1	1004	-	-	-	-	-
Stage 2	820	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	731	1060	1595	-	-	-
Mov Cap-2 Maneuver	731	-	-	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	820	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	2.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1595	-	1060	-	-
HCM Lane V/C Ratio	0.032	-	0.005	-	-
HCM Control Delay (s)	7.3	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	1	0	1	106	113	39	0	14	1
Future Vol, veh/h	0	0	2	1	0	1	106	113	39	0	14	1
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	3	1	0	1	139	149	51	0	18	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	474	499	19	475	474	179	19	0	0	202	0	0
Stage 1	19	19	-	455	455	-	-	-	-	-	-	-
Stage 2	455	480	-	20	19	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	499	472	1056	498	488	861	1591	-	-	1364	-	-
Stage 1	997	878	-	583	567	-	-	-	-	-	-	-
Stage 2	583	553	-	996	878	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	460	424	1056	458	439	858	1591	-	-	1361	-	-
Mov Cap-2 Maneuver	460	424	-	458	439	-	-	-	-	-	-	-
Stage 1	898	878	-	524	510	-	-	-	-	-	-	-
Stage 2	523	497	-	994	878	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	11.1	3.1	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1591	-	-	1056	597	1361	-	-
HCM Lane V/C Ratio	0.088	-	-	0.002	0.004	-	-	-
HCM Control Delay (s)	7.5	0	-	8.4	11.1	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	192	425	511	69	4	16
Future Vol, veh/h	192	425	511	69	4	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	213	472	568	77	4	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	645	0	-	0	1505	323
Stage 1	-	-	-	-	607	-
Stage 2	-	-	-	-	898	-
Critical Hdwy	4.145	-	-	-	6.645	6.945
Critical Hdwy Stg 1	-	-	-	-	5.845	-
Critical Hdwy Stg 2	-	-	-	-	5.445	-
Follow-up Hdwy	2.2285	-	-	-	3.5285	3.3285
Pot Cap-1 Maneuver	932	-	-	-	121	671
Stage 1	-	-	-	-	505	-
Stage 2	-	-	-	-	394	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	932	-	-	-	93	671
Mov Cap-2 Maneuver	-	-	-	-	93	-
Stage 1	-	-	-	-	389	-
Stage 2	-	-	-	-	394	-

Approach	EB	WB	SB
HCM Control Delay, s	3.1	0	17.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	932	-	-	-	93	671
HCM Lane V/C Ratio	0.229	-	-	-	0.048	0.026
HCM Control Delay (s)	10	-	-	-	45.6	10.5
HCM Lane LOS	B	-	-	-	E	B
HCM 95th %tile Q(veh)	0.9	-	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	12	31	47	13	0
Future Vol, veh/h	1	12	31	47	13	0
Conflicting Peds, #/hr	0	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	18	46	69	19	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	182	21	21	0	-	0
Stage 1	21	-	-	-	-	-
Stage 2	161	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	805	1054	1588	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	865	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	778	1052	1585	-	-	-
Mov Cap-2 Maneuver	778	-	-	-	-	-
Stage 1	967	-	-	-	-	-
Stage 2	863	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	2.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1585	-	1024	-	-
HCM Lane V/C Ratio	0.029	-	0.019	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	21	12	3	1	100	77	21	0	23	2
Future Vol, veh/h	0	0	21	12	3	1	100	77	21	0	23	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	33	19	5	2	159	122	33	0	37	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	499	512	39	512	497	139	40	0	0	155	0	0
Stage 1	39	39	-	457	457	-	-	-	-	-	-	-
Stage 2	460	473	-	55	40	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	480	464	1030	471	473	907	1563	-	-	1419	-	-
Stage 1	973	860	-	581	566	-	-	-	-	-	-	-
Stage 2	579	557	-	955	860	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	434	412	1030	417	420	907	1563	-	-	1419	-	-
Mov Cap-2 Maneuver	434	412	-	417	420	-	-	-	-	-	-	-
Stage 1	864	860	-	516	503	-	-	-	-	-	-	-
Stage 2	508	495	-	924	860	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.6	13.9	3.8	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1563	-	-	1030	432	1419	-	-
HCM Lane V/C Ratio	0.102	-	-	0.032	0.059	-	-	-
HCM Control Delay (s)	7.6	0	-	8.6	13.9	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	136	717	723	41	14	33
Future Vol, veh/h	136	717	723	41	14	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	143	755	761	43	15	35

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	804	0	-	0	1824	402
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	1041	-
Critical Hdwy	4.145	-	-	-	6.645	6.945
Critical Hdwy Stg 1	-	-	-	-	5.845	-
Critical Hdwy Stg 2	-	-	-	-	5.445	-
Follow-up Hdwy	2.2285	-	-	-	3.5285	3.3285
Pot Cap-1 Maneuver	813	-	-	-	76	596
Stage 1	-	-	-	-	410	-
Stage 2	-	-	-	-	337	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	813	-	-	-	63	596
Mov Cap-2 Maneuver	-	-	-	-	63	-
Stage 1	-	-	-	-	338	-
Stage 2	-	-	-	-	337	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	31.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	813	-	-	-	63	596
HCM Lane V/C Ratio	0.176	-	-	-	0.234	0.058
HCM Control Delay (s)	10.4	-	-	-	78.8	11.4
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.6	-	-	-	0.8	0.2

Intersection: 1: Campus Main Street & Parking A Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	32
Average Queue (ft)	5
95th Queue (ft)	24
Link Distance (ft)	214
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Campus Main Street & Parking A Access/Parking B/C Access Road

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	30	26	55
Average Queue (ft)	5	1	3
95th Queue (ft)	23	9	25
Link Distance (ft)	385	615	57
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Avenue 12 & Campus Main Street

Movement	EB	WB	SB	SB
Directions Served	L	TR	L	R
Maximum Queue (ft)	120	45	51	74
Average Queue (ft)	58	5	6	18
95th Queue (ft)	106	23	29	48
Link Distance (ft)		417	220	220
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	250			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Campus Main Street & Parking A Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	32
Average Queue (ft)	15
95th Queue (ft)	39
Link Distance (ft)	214
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Campus Main Street & Parking A Access/Parking B/C Access Road

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	54	27	31
Average Queue (ft)	19	8	3
95th Queue (ft)	47	27	18
Link Distance (ft)	385	615	57
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Avenue 12 & Campus Main Street

Movement	EB	WB	SB	SB
Directions Served	L	TR	L	R
Maximum Queue (ft)	112	22	138	31
Average Queue (ft)	50	1	37	20
95th Queue (ft)	93	7	95	44
Link Distance (ft)		417	220	220
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	250			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 0

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	192	518	623	69	4	16
Future Vol, veh/h	192	518	623	69	4	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	213	576	692	77	4	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	769	0	-	0	1733	385
Stage 1	-	-	-	-	731	-
Stage 2	-	-	-	-	1002	-
Critical Hdwy	4.145	-	-	-	6.645	6.945
Critical Hdwy Stg 1	-	-	-	-	5.845	-
Critical Hdwy Stg 2	-	-	-	-	5.445	-
Follow-up Hdwy	2.2285	-	-	-	3.5285	3.3285
Pot Cap-1 Maneuver	838	-	-	-	87	612
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	352	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	838	-	-	-	65	612
Mov Cap-2 Maneuver	-	-	-	-	65	-
Stage 1	-	-	-	-	325	-
Stage 2	-	-	-	-	352	-

Approach	EB	WB	SB
HCM Control Delay, s	2.9	0	21.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	838	-	-	-	65	612
HCM Lane V/C Ratio	0.255	-	-	-	0.068	0.029
HCM Control Delay (s)	10.8	-	-	-	64.4	11.1
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	1	-	-	-	0.2	0.1

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	136	874	881	41	14	33
Future Vol, veh/h	136	874	881	41	14	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	143	920	927	43	15	35

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	970	0	-	0	2155	485
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	1206	-
Critical Hdwy	4.145	-	-	-	6.645	6.945
Critical Hdwy Stg 1	-	-	-	-	5.845	-
Critical Hdwy Stg 2	-	-	-	-	5.445	-
Follow-up Hdwy	2.2285	-	-	-	3.5285	3.3285
Pot Cap-1 Maneuver	703	-	-	-	46	527
Stage 1	-	-	-	-	336	-
Stage 2	-	-	-	-	281	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	703	-	-	-	37	527
Mov Cap-2 Maneuver	-	-	-	-	37	-
Stage 1	-	-	-	-	268	-
Stage 2	-	-	-	-	281	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	55.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	703	-	-	-	37	527
HCM Lane V/C Ratio	0.204	-	-	-	0.398	0.066
HCM Control Delay (s)	11.4	-	-	-	156	12.3
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.8	-	-	-	1.3	0.2

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	23	45	147	305	409	195
Future Vol, veh/h	23	45	147	305	409	195
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	160	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	29	57	186	386	518	247

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1400	642	765	0	-	0
Stage 1	642	-	-	-	-	-
Stage 2	758	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	154	472	844	-	-	-
Stage 1	522	-	-	-	-	-
Stage 2	461	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	120	472	844	-	-	-
Mov Cap-2 Maneuver	120	-	-	-	-	-
Stage 1	407	-	-	-	-	-
Stage 2	461	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	28.6	3.4	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	844	-	237	-	-
HCM Lane V/C Ratio	0.22	-	0.363	-	-
HCM Control Delay (s)	10.5	-	28.6	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	0.8	-	1.6	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↱
Traffic Vol, veh/h	49	0	0	186	0	3
Future Vol, veh/h	49	0	0	186	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	38	38	38	38	38	38
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	129	0	0	489	0	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	129
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.327
Pot Cap-1 Maneuver	-	0	0	-	0	918
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	918
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	918	-	-
HCM Lane V/C Ratio	0.009	-	-
HCM Control Delay (s)	9	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	44	164	452	450	22
Future Vol, veh/h	2	44	164	452	450	22
Conflicting Peds, #/hr	0	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	125	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	58	216	595	592	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1636	609	623	0	-	0
Stage 1	609	-	-	-	-	-
Stage 2	1027	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	110	493	953	-	-	-
Stage 1	541	-	-	-	-	-
Stage 2	344	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	85	492	951	-	-	-
Mov Cap-2 Maneuver	112	-	-	-	-	-
Stage 1	417	-	-	-	-	-
Stage 2	343	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.8	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	951	-	429	-	-
HCM Lane V/C Ratio	0.227	-	0.141	-	-
HCM Control Delay (s)	9.9	-	14.8	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.9	-	0.5	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBU	WBT	WBR	SEL	SER
Lane Configurations							
Traffic Vol, veh/h	129	489	29	452	94	12	25
Future Vol, veh/h	129	489	29	452	94	12	25
Conflicting Peds, #/hr	8	0	0	0	8	13	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	200	-	140	-	-	0	50
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78
Heavy Vehicles, %	3	3	3	3	3	3	3
Mvmt Flow	165	627	37	579	121	15	32

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	708	0	627	-	0	1379	358
Stage 1	-	-	-	-	-	722	-
Stage 2	-	-	-	-	-	657	-
Critical Hdwy	4.16	-	6.46	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	2.53	-	-	3.53	3.33
Pot Cap-1 Maneuver	880	-	571	-	-	134	636
Stage 1	-	-	-	-	-	439	-
Stage 2	-	-	-	-	-	475	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	871	-	571	-	-	100	630
Mov Cap-2 Maneuver	-	-	-	-	-	100	-
Stage 1	-	-	-	-	-	330	-
Stage 2	-	-	-	-	-	470	-

Approach	EB	WB	SE
HCM Control Delay, s	2.1	0.6	22.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBU	WBT	WBR	SELn1	SELn2
Capacity (veh/h)	871	-	571	-	-	100	630
HCM Lane V/C Ratio	0.19	-	0.065	-	-	0.154	0.051
HCM Control Delay (s)	10.1	-	11.7	-	-	47.4	11
HCM Lane LOS	B	-	B	-	-	E	B
HCM 95th %tile Q(veh)	0.7	-	0.2	-	-	0.5	0.2

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	74	102	71	380	404	32
Future Vol, veh/h	74	102	71	380	404	32
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	160	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	76	105	73	392	416	33

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	972	434	450	0	-	0
Stage 1	434	-	-	-	-	-
Stage 2	538	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	279	620	1105	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	260	619	1104	-	-	-
Mov Cap-2 Maneuver	260	-	-	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	582	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.9	1.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1104	-	392	-	-
HCM Lane V/C Ratio	0.066	-	0.463	-	-
HCM Control Delay (s)	8.5	-	21.9	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	2.4	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↱
Traffic Vol, veh/h	119	0	0	55	0	5
Future Vol, veh/h	119	0	0	55	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	149	0	0	69	0	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	149
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.327
Pot Cap-1 Maneuver	-	0	0	-	0	895
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	895
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	895	-	-
HCM Lane V/C Ratio	0.007	-	-
HCM Control Delay (s)	9.1	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	113	47	433	527	8
Future Vol, veh/h	11	113	47	433	527	8
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	125	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	12	124	52	476	579	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1169	589	593	0	-	0
Stage 1	589	-	-	-	-	-
Stage 2	580	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	212	506	978	-	-	-
Stage 1	553	-	-	-	-	-
Stage 2	558	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	199	504	973	-	-	-
Mov Cap-2 Maneuver	324	-	-	-	-	-
Stage 1	521	-	-	-	-	-
Stage 2	555	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.4	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	973	-	480	-	-
HCM Lane V/C Ratio	0.053	-	0.284	-	-
HCM Control Delay (s)	8.9	-	15.4	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.2	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBU	WBT	WBR	SEL	SER
Lane Configurations							
Traffic Vol, veh/h	36	559	30	470	41	68	70
Future Vol, veh/h	36	559	30	470	41	68	70
Conflicting Peds, #/hr	0	0	0	0	0	17	2
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	200	-	140	-	-	0	50
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3	3
Mvmt Flow	38	595	32	500	44	72	74

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	544	0	595	-	0	977	274
Stage 1	-	-	-	-	-	586	-
Stage 2	-	-	-	-	-	391	-
Critical Hdwy	4.16	-	6.46	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	2.53	-	-	3.53	3.33
Pot Cap-1 Maneuver	1014	-	599	-	-	246	721
Stage 1	-	-	-	-	-	517	-
Stage 2	-	-	-	-	-	650	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	1014	-	599	-	-	224	720
Mov Cap-2 Maneuver	-	-	-	-	-	224	-
Stage 1	-	-	-	-	-	472	-
Stage 2	-	-	-	-	-	650	-

Approach	EB	WB	SE
HCM Control Delay, s	0.5	0.6	19.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBU	WBT	WBR	SELn1	SELn2
Capacity (veh/h)	1014	-	599	-	-	224	720
HCM Lane V/C Ratio	0.038	-	0.053	-	-	0.323	0.103
HCM Control Delay (s)	8.7	-	11.3	-	-	28.6	10.6
HCM Lane LOS	A	-	B	-	-	D	B
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-	1.3	0.3

Intersection: 1: Reed Avenue & Parking D Access 1

Movement	EB	NB	SB
Directions Served	LR	L	TR
Maximum Queue (ft)	115	92	52
Average Queue (ft)	42	41	7
95th Queue (ft)	76	74	32
Link Distance (ft)	633		763
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		160	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Parking C Access & Parking D Access 2

Movement	EB
Directions Served	T
Maximum Queue (ft)	21
Average Queue (ft)	1
95th Queue (ft)	7
Link Distance (ft)	91
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Reed Avenue & Parking D Access 2

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	67	72
Average Queue (ft)	25	29
95th Queue (ft)	59	54
Link Distance (ft)	64	
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		125
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Manning Avenue & Parking B Access

Movement	EB	EB	WB	WB	WB	SE	SE
Directions Served	L	T	U	T	TR	L	R
Maximum Queue (ft)	145	55	51	53	33	49	57
Average Queue (ft)	47	3	14	4	5	11	17
95th Queue (ft)	93	21	40	27	22	35	44
Link Distance (ft)		541		477	477	399	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	200		140				50
Storage Blk Time (%)						2	0
Queuing Penalty (veh)						1	0

Network Summary

Network wide Queuing Penalty: 1

Intersection: 1: Reed Avenue & Parking D Access 1

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	158	32
Average Queue (ft)	70	14
95th Queue (ft)	123	39
Link Distance (ft)	633	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		160
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Parking C Access & Parking D Access 2

Movement	NB
Directions Served	R
Maximum Queue (ft)	29
Average Queue (ft)	4
95th Queue (ft)	20
Link Distance (ft)	246
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Reed Avenue & Parking D Access 2

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	77	54
Average Queue (ft)	38	17
95th Queue (ft)	66	46
Link Distance (ft)	64	
Upstream Blk Time (%)	1	
Queuing Penalty (veh)	1	
Storage Bay Dist (ft)		125
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Manning Avenue & Parking B Access

Movement	EB	EB	WB	WB	WB	SE	SE
Directions Served	L	T	U	T	TR	L	R
Maximum Queue (ft)	31	125	64	54	51	115	68
Average Queue (ft)	16	17	16	8	3	37	35
95th Queue (ft)	40	70	46	34	20	76	57
Link Distance (ft)		541		477	477	399	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	200		140				50
Storage Blk Time (%)						7	1
Queuing Penalty (veh)						5	1

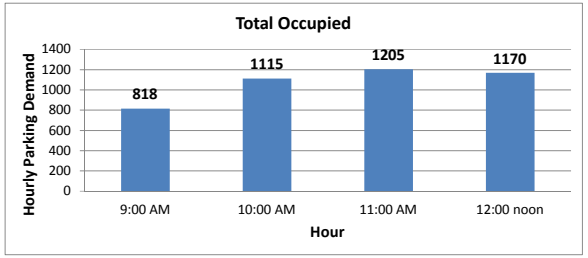
Network Summary

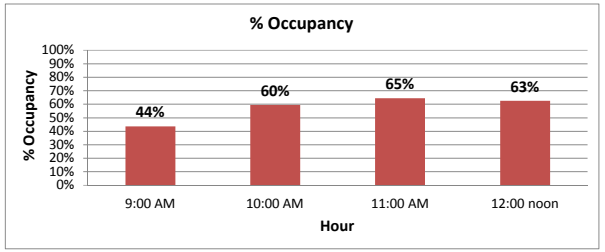
Network wide Queuing Penalty: 6

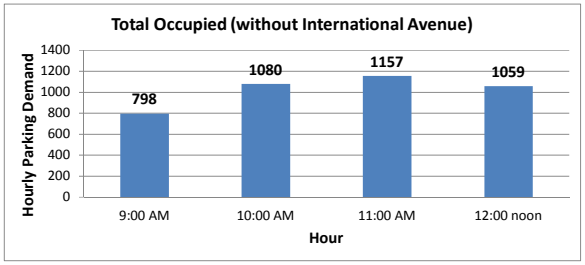
Appendix D: Parking Surveys

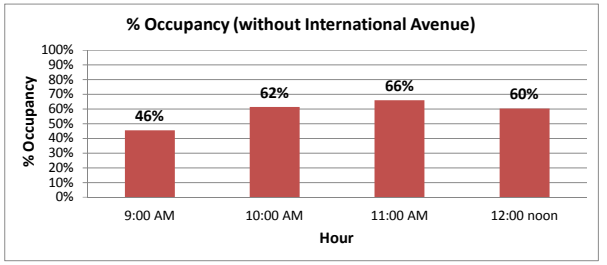
Clovis Community College Parking Demand Tuesday May 8, 2018

Parking Lot	On Street	General	Meter	Resident	Staff	ADA	Motorcycle	Time Restricted	Visitor	Total	9:00 AM	% Occupied	10:00 AM	% Occupied2	11:00 AM	% Occupied3	12:00 noon	% Occupied4
A	0	124	0	0	78	15	0	0	0	217	177	82%	195	90%	197	91%	197	91%
B	0	225	0	0	0	2	0	0	0	227	24	11%	79	35%	93	41%	87	38%
C	0	285	0	0	0	0	0	0	0	285	31	11%	174	61%	244	86%	202	71%
D	0	217	13	0	55	12	2	0	0	299	225	75%	230	77%	225	75%	214	72%
E	0	6	0	0	0	1	0	0	0	7	4	57%	5	71%	7	100%	6	86%
F	0	1	2	0	16	9	0	2	0	30	22	73%	22	73%	25	83%	25	83%
G	0	104	0	0	28	6	2	0	0	140	110	79%	126	90%	127	91%	126	90%
H	0	266	0	0	0	0	0	0	0	266	95	36%	120	45%	108	41%	76	29%
I	0	74	0	0	0	0	0	0	0	74	3	4%	6	8%	10	14%	10	14%
J	0	196	0	0	0	0	0	0	0	196	100	51%	116	59%	115	59%	105	54%
M1	0	7	0	0	3	1	0	0	0	11	7	64%	7	64%	6	55%	11	100%
International Ave	115	0	0	0	0	0	0	0	0	115	20	17%	35	30%	48	42%	111	97%
Grand Total	115	1505	15	0	180	46	4	2	0	1867	818	44%	1115	60%	1205	65%	1170	63%
Total without International Avenue	0	1505	15	0	180	46	4	2	0	1752	798	46%	1080	62%	1157	66%	1059	60%



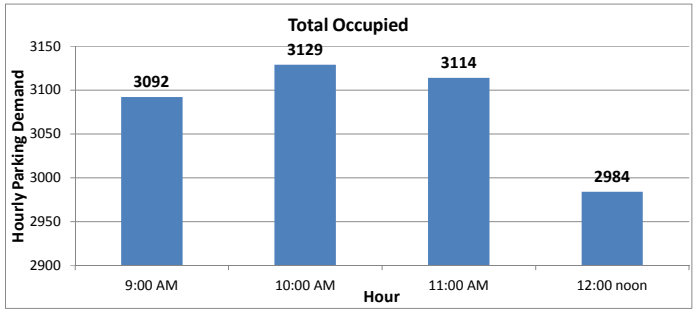


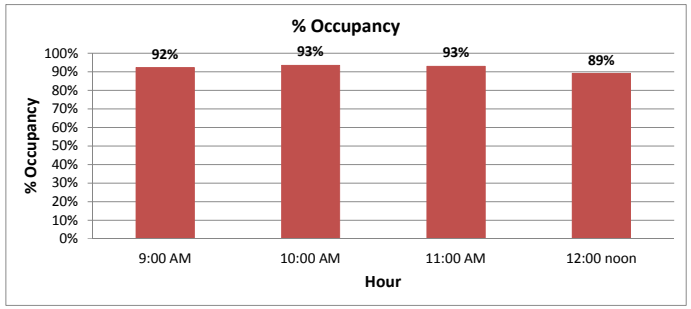


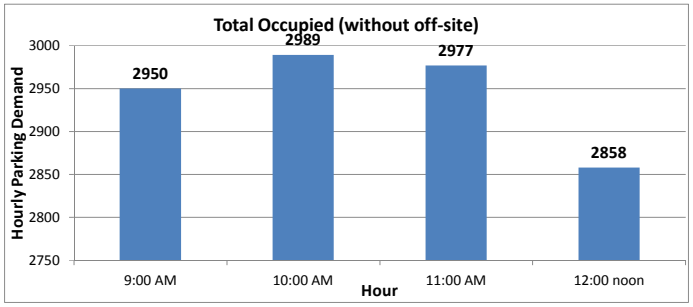


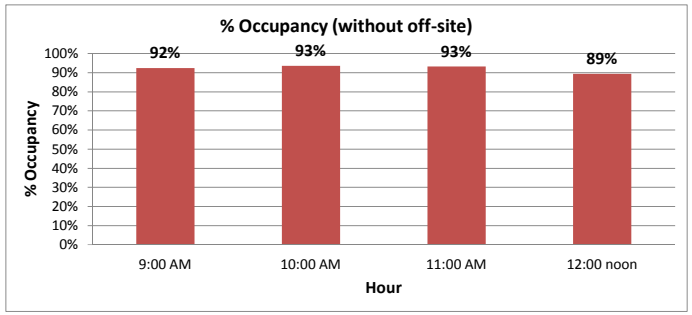
Fresno City College Parking Demand Wednesday, September 5, 2018

Parking Lot	On Street	General	Meter	Resident	Staff	ADA	Motorcycle	Time Restricted	Other Reserved	Total	9:00 AM	% Occupied	10:00 AM	% Occupied2	11:00 AM	% Occupied3	12:00 noon	% Occupied4
A	0	0	0	0	16	5	0	0	0	21	19	90%	19	90%	17	81%	18	86%
B	0	74	20	0	85	17	9	0	0	205	172	84%	188	92%	196	96%	189	92%
C	0	274	11	0	0	1	0	0	0	286	286	100%	286	100%	286	100%	285	100%
D	0	423	27	0	55	15	25	0	0	545	517	95%	517	95%	523	96%	519	95%
E/F	0	625	0	0	30	9	11	0	0	675	662	98%	667	99%	660	98%	655	97%
F	0	93	0	0	0	0	4	0	0	97	93	96%	94	97%	95	98%	91	94%
G	0	0	0	0	12	0	0	0	0	12	11	92%	11	92%	11	92%	9	75%
H	0	0	0	0	30	2	0	0	0	32	30	94%	30	94%	30	94%	29	91%
I	0	0	16	0	9	4	4	0	0	33	25	76%	30	91%	29	88%	30	91%
J	0	0	0	0	29	0	0	0	0	29	26	90%	27	93%	28	97%	27	93%
K	0	0	0	0	122	5	0	0	0	127	117	92%	115	91%	117	92%	115	91%
L	0	0	0	0	13	1	0	0	0	14	14	100%	11	79%	13	93%	11	79%
M	0	0	0	0	97	0	0	0	0	97	52	54%	37	38%	37	38%	41	42%
O	0	52	0	0	0	3	0	0	0	55	52	95%	52	95%	47	85%	34	62%
P	0	0	0	0	16	1	0	0	0	17	15	88%	16	94%	16	94%	14	82%
Q	0	110	10	0	15	10	0	2	0	147	144	98%	138	94%	137	93%	128	87%
R	0	0	0	0	16	0	0	0	0	16	15	94%	14	88%	14	88%	12	75%
S	0	0	0	0	53	3	0	4	0	60	54	90%	55	92%	55	92%	52	87%
T	0	171	0	0	0	10	0	0	0	181	175	97%	175	97%	172	95%	160	88%
U	0	0	0	0	18	2	0	2	0	22	17	77%	19	86%	19	86%	18	82%
V	0	260	0	0	6	0	0	0	2	268	268	100%	264	99%	247	92%	220	82%
W	0	0	0	0	8	1	0	1	0	10	9	90%	8	80%	9	90%	9	90%
X	0	222	0	0	8	12	0	6	0	248	177	71%	216	87%	219	88%	192	77%
University Ave west of Blackstone	13	0	0	0	0	0	0	1	0	14	13	93%	13	93%	10	71%	7	50%
Calaveras	18	0	0	0	0	0	0	0	0	18	18	100%	17	94%	14	78%	14	78%
College	14	0	0	0	0	6	0	0	0	20	18	90%	18	90%	18	90%	16	80%
Weldon	22	0	0	0	0	0	0	0	0	22	21	95%	20	91%	21	95%	21	95%
Van Ness	32	0	0	0	0	0	0	0	0	32	29	91%	30	94%	32	100%	31	97%
Mckinley Btwn Van Ness & Main Dwy	12	0	0	0	0	0	0	0	0	12	10	83%	9	75%	11	92%	9	75%
Mckinley Btwn Main Dwy & RR	34	0	0	0	0	0	0	0	0	34	33	97%	33	97%	31	91%	28	82%
Grand Total	145	2304	84	0	638	107	53	16	2	3349	3092	92%	3129	93%	3114	93%	2984	89%
Total without On Street Parking	0	2304	84	0	638	101	53	15	2	3197	2950	92%	2989	93%	2977	93%	2858	89%


Total Occupied
Hourly Parking Demand
3150
3100
3050
3000
2950
2900
3092
3129
3114
2984
9:00 AM
10:00 AM
11:00 AM
12:00 noon
Hour


% Occupancy
% Occupancy
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
92%
93%
93%
89%
9:00 AM
10:00 AM
11:00 AM
12:00 noon
Hour


Total Occupied (without off-site)
Hourly Parking Demand
3000
2950
2900
2850
2800
2750
2950
2989
2977
2858
9:00 AM
10:00 AM
11:00 AM
12:00 noon
Hour

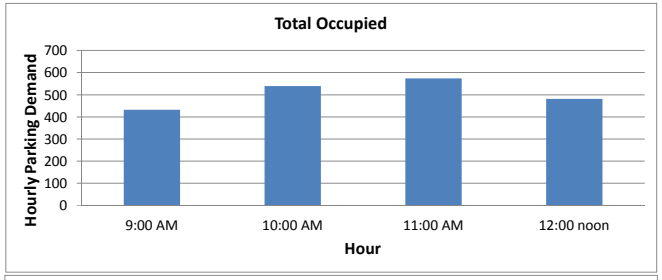

% Occupancy (without off-site)
% Occupancy
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
92%
93%
93%
89%
9:00 AM
10:00 AM
11:00 AM
12:00 noon
Hour

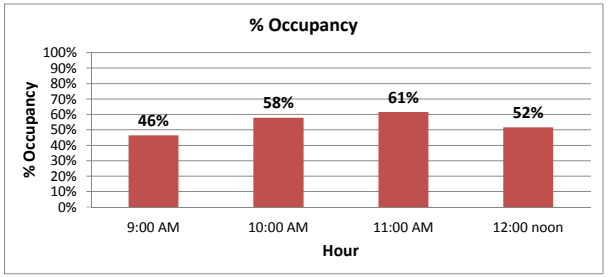
Fresno City College
Student Parking Occupancy
September 5, 2018
Parking Demand Survey

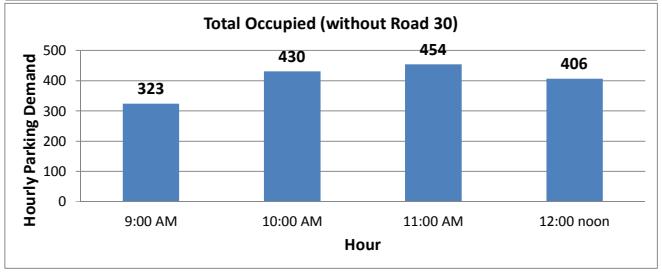
				10AM			
Lot ID	**Total Number of Regular Stalls in Lot**	**Total Number of Metered Stalls in Lot**	**Total Number of On-Street Stalls**	**Regular Stalls Occupied**	**Metered Stalls Occupied**	**Off-Site**	**% Occupied**
B	74	20	0	73	20	0	99%
C	274	11	0	274	11	0	100%
D	423	27	0	421	26	0	99%
E	625	0	0	625	0	0	100%
F	93	0	0	94	0	0	101%
I	0	16	0	0	16	0	100%
O	52	0	0	52	0	0	100%
Q	110	10	0	103	9	0	93%
T	171	0	0	169	0	0	99%
V	260	0	0	254	0	0	98%
X	222	0	0	210	0	0	95%
On-Street	0	0	152	0	0	140	92%
Total	**2304**	**84**	**152**	**2275**	**82**	**140**	**98%**

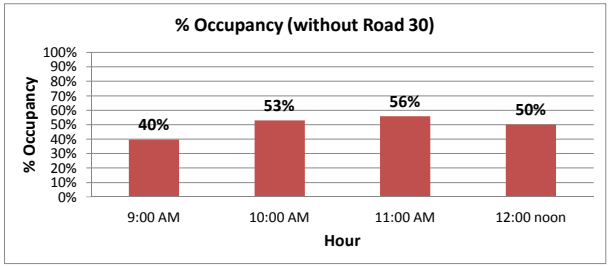
Madera Community College Parking Demand Thursday May 3, 2018

Parking Lot Number	On Street	General	Meter	Resident	Staff	ADA	Motorcycle	Time Restricted	Visitor	Total	9:00 AM	% Occupied	10:00 AM	% Occupied2	11:00 AM	% Occupied3	12:00 noon	% Occupied4
A	0	328	6	0	31	7	1	0	0	373	251	67%	322	86%	333	89%	306	82%
B	0	51	0	0	9	3	2	0	0	65	22	34%	26	40%	42	65%	41	63%
C	0	348	0	0	2	7	5	0	0	362	50	14%	81	22%	75	21%	59	16%
White Curb Loading Zone (S/O Lot A)	0	0	0	0	0	0	0	7	0	7	0	0%	1	14%	3	43%	0	0%
White Curb Loading Zone (N/O Lot A)	0	0	0	0	0	0	0	7	0	7	0	0%	0	0%	1	14%	0	0%
Road 30 Street Parking (North of Ave 12)	119	0	0	0	0	0	0	0	0	119	109	92%	108	91%	119	100%	75	63%
Grand Total	119	727	6	0	42	17	8	14	0	933	432	46%	538	58%	573	61%	481	52%
Total without Road 30 Parking	0	727	6	0	42	17	8	14	0	814	323	40%	430	53%	454	56%	406	50%

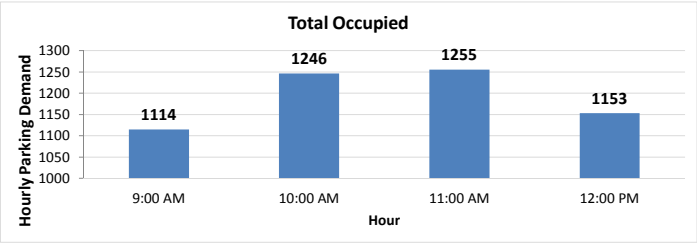


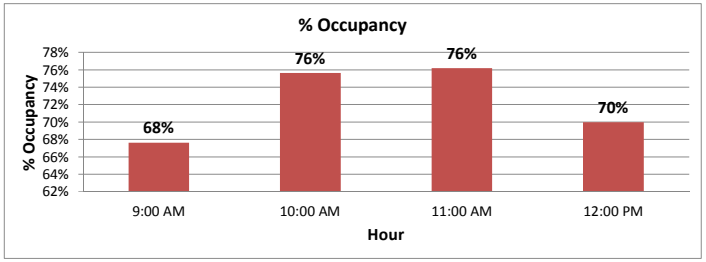


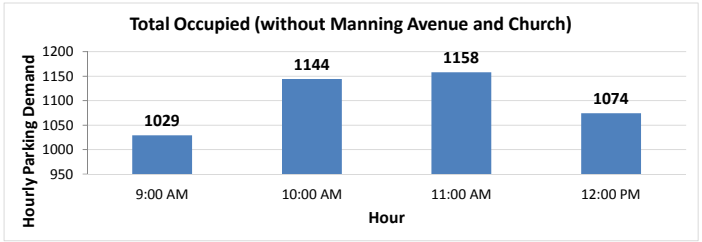


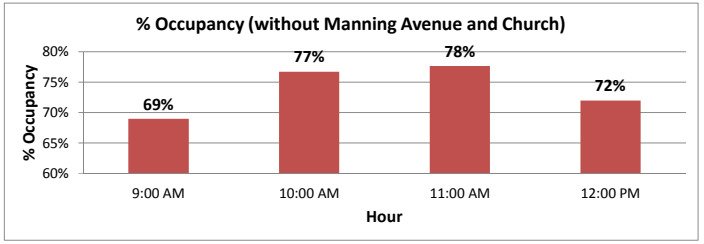


Reedley Community College Parking Demand Thursday April 26, 2018																		
Parking Lot	On Street	General	Meter	Resident	Staff	ADA	Motorcycle	Time Restricted	Visitor	Total	9:00 AM	% Occupied	10:00 AM	% Occupied2	11:00 AM	% Occupied3	12:00 PM	% Occupied4
A	0	64	0	32	3	5	0	0	0	104	25	24%	25	24%	26	25%	24	23%
Residence Parking (bet. A & B)	0	39	2	29	1	6	0	0	0	77	34	44%	43	56%	55	71%	50	65%
B	0	273	20	0	36	8	1	0	0	338	263	78%	292	86%	320	95%	279	83%
C	0	0	8	1	68	5	1	0	0	83	68	82%	79	95%	75	90%	72	87%
D	0	617	6	0	24	11	0	0	1	659	441	67%	506	77%	497	75%	449	68%
E	0	0	0	2	10	2	0	0	0	14	10	71%	10	71%	9	64%	9	64%
F	0	0	0	0	9	0	0	0	0	9	9	100%	8	89%	8	89%	8	89%
G	0	0	0	0	14	1	0	0	0	15	15	100%	13	87%	15	100%	13	87%
H	0	2	0	0	14	1	1	0	0	18	16	89%	20	111%	17	94%	15	83%
I (Staff)	0	0	0	0	2	2	0	0	0	4	2	50%	4	100%	4	100%	4	100%
J	0	0	0	0	20	1	0	0	0	21	15	71%	18	86%	17	81%	16	76%
K	0	10	0	0	0	1	0	0	0	11	6	55%	6	55%	6	55%	10	91%
L	0	112	0	0	9	5	0	0	0	126	121	96%	117	93%	106	84%	121	96%
Manning Avenue (Near Lot A)	24	0	0	0	0	0	0	0	0	24	21	88%	18	75%	19	79%	19	79%
Middle Campus Lot (East of Circular)	6	0	0	3	0	4	0	0	0	13	4	31%	3	23%	3	23%	4	31%
Church Lot on SE Corner of Reed & Parlier	0	126	0	0	0	6	0	0	0	132	64	48%	84	64%	78	59%	60	45%
Grand Total	30	1243	36	67	210	58	3	0	1	1648	1114	68%	1246	76%	1255	76%	1153	70%
Total without Manning Avenue	6	1243	36	67	210	58	3	0	1	1624	1093	67%	1228	76%	1236	76%	1134	70%
Total without Church Lot or Manning Avenue	6	1117	36	67	210	52	3	0	1	1492	1029	69%	1144	77%	1158	78%	1074	72%
1153																		







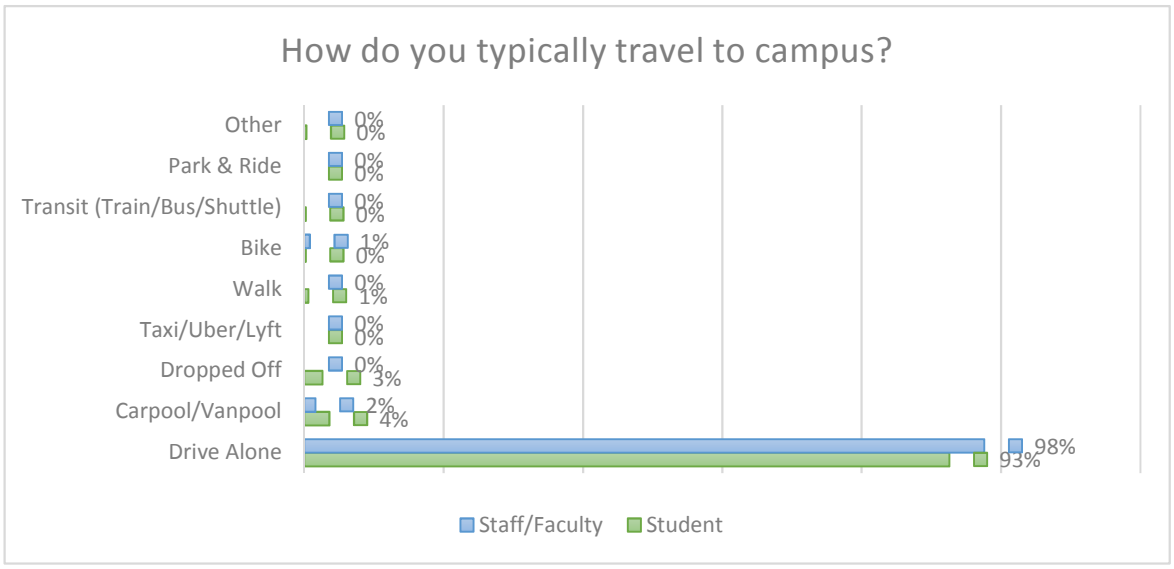


Appendix E: Survey Analysis

CCC

How do you typically travel to campus? (Greatest length)

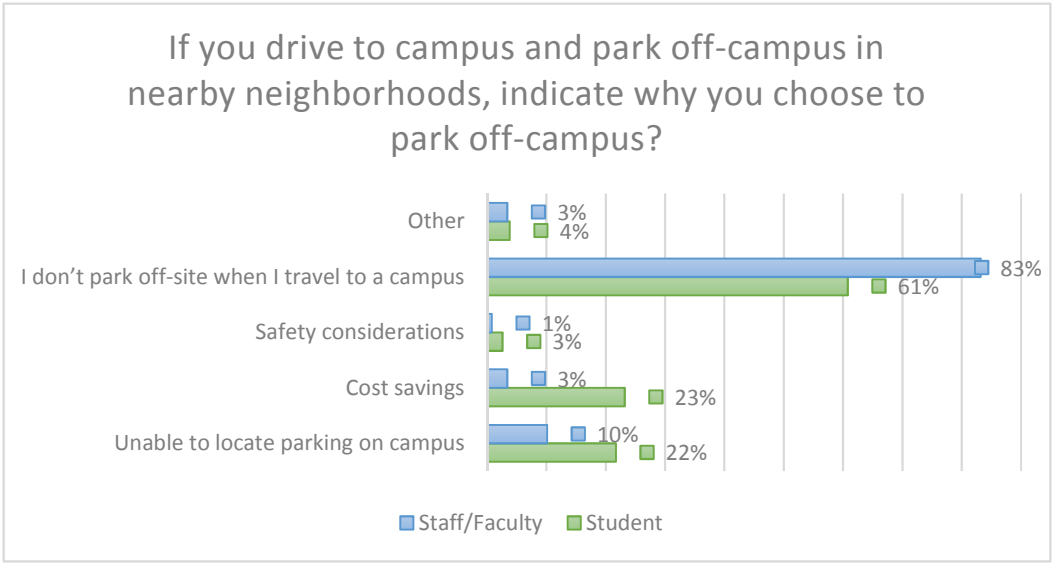
	Student		Staff/Faculty	
Drive Alone	597	93%	124	98%
Carpool/Vanpool	23	4%	2	2%
Dropped Off	17	3%	0	0%
Taxi/Uber/Lyft	0	0%	0	0%
Walk	4	1%	0	0%
Bike	1	0%	1	1%
Transit (Train/Bus/Shuttle)	1	0%	0	0%
Park & Ride	0	0%	0	0%
Other	2	0%	0	0%



CCC

If you drive to campus and park off-campus in nearby neighborhoods, indicate why you choose to park off-campus?

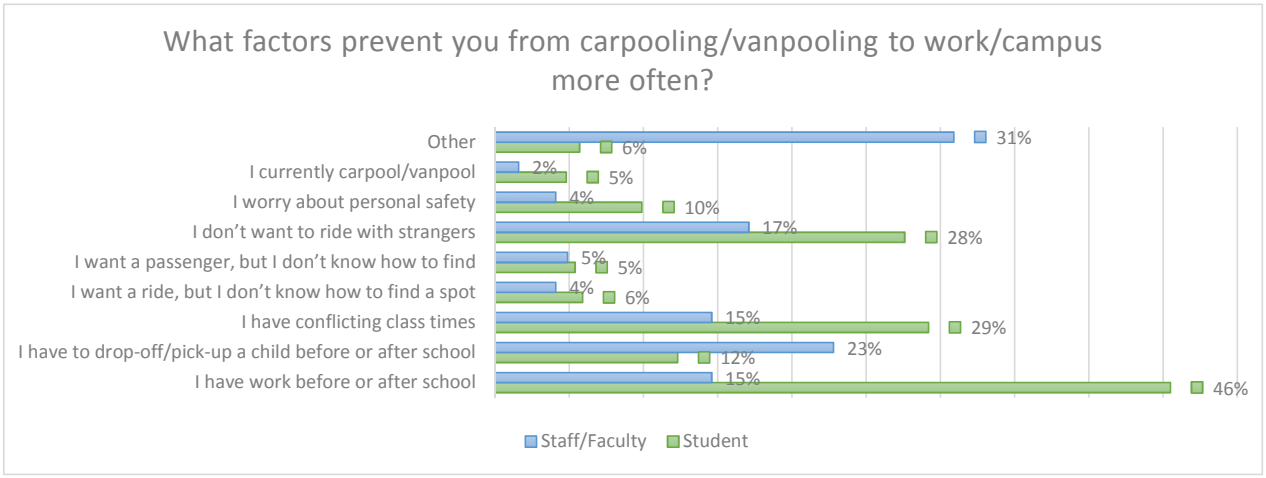
	Student		Staff/Faculty	
Unable to locate parking on campus	131	22%	12	10%
Cost savings	140	23%	4	3%
Safety considerations	16	3%	1	1%
I don't park off-site when I travel to a campus	367	61%	99	83%
Other	23	4%	4	3%



CCC

What factors prevent you from carpooling/vanpooling to work/campus more often?

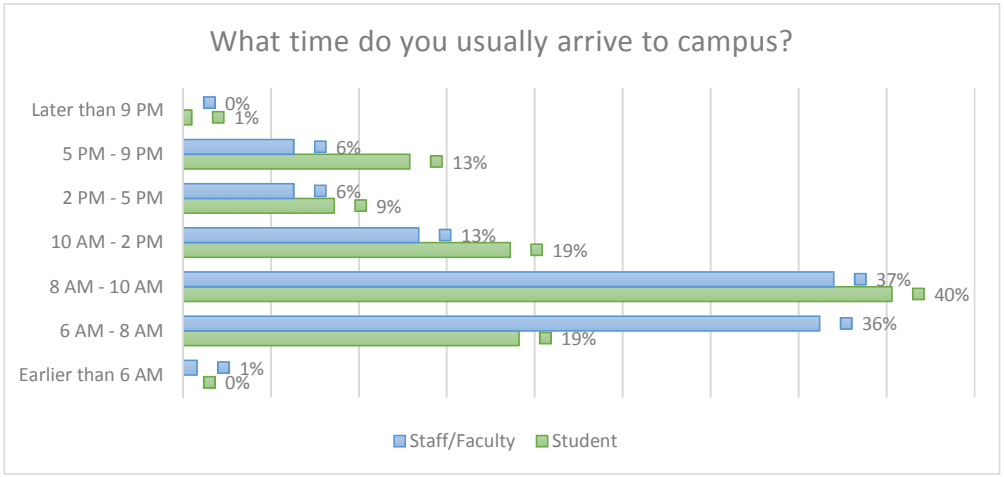
	Student		Staff/Faculty	
I have work before or after school	277	46%	18	15%
I have to drop-off/pick-up a child before or after school	75	12%	28	23%
I have conflicting class times	178	29%	18	15%
I want a ride, but I don't know how to find a spot	36	6%	5	4%
I want a passenger, but I don't know how to find	33	5%	6	5%
I don't want to ride with strangers	168	28%	21	17%
I worry about personal safety	60	10%	5	4%
I currently carpool/vanpool	29	5%	2	2%
Other	35	6%	38	31%



CCC

What time do you usually arrive to campus?

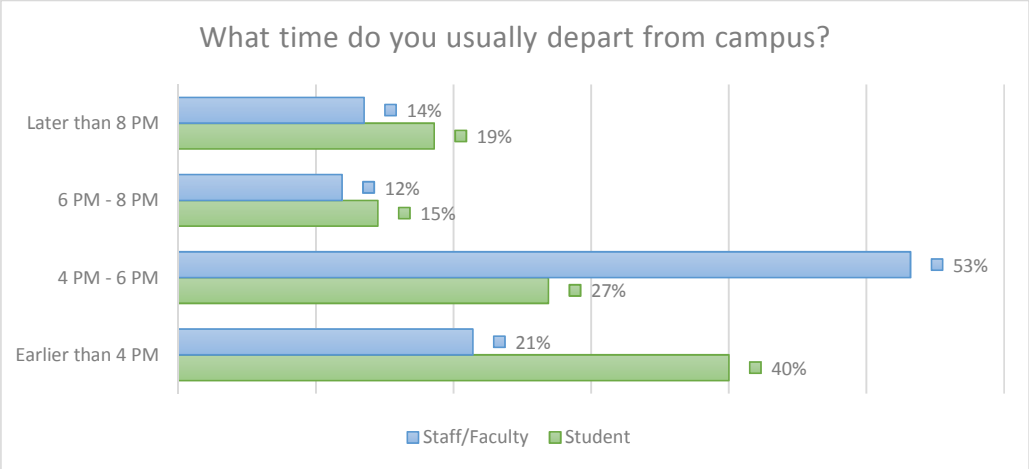
	Student		Staff/Faculty	
Earlier than 6 AM	0	0%	1	1%
6 AM - 8 AM	116	19%	46	36%
8 AM - 10 AM	244	40%	47	37%
10 AM - 2 PM	113	19%	17	13%
2 PM - 5 PM	52	9%	8	6%
5 PM - 9 PM	78	13%	8	6%
Later than 9 PM	3	1%	0	0%



CCC

What time do you usually depart from campus?

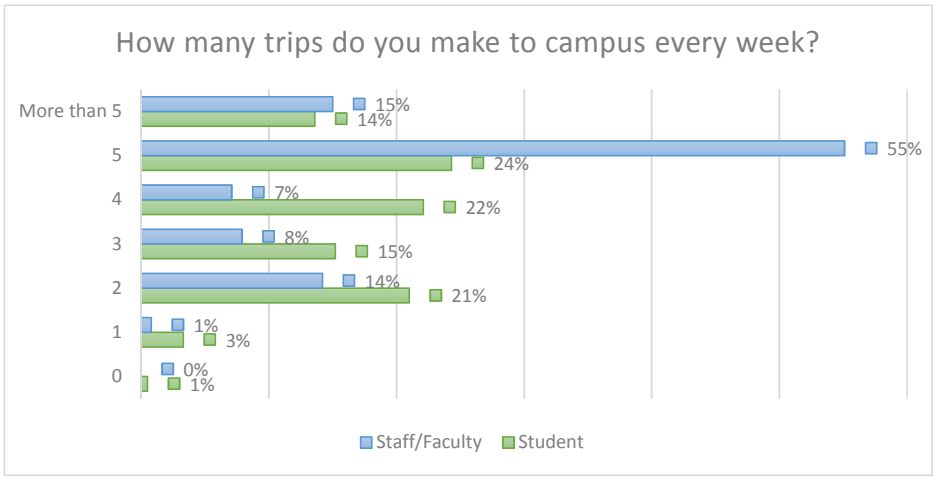
	Student		Staff/Faculty	
Earlier than 4 PM	243	40%	27	21%
4 PM - 6 PM	163	27%	67	53%
6 PM - 8 PM	88	15%	15	12%
Later than 8 PM	113	19%	17	14%



CCC

How many trips do you make to campus every week?

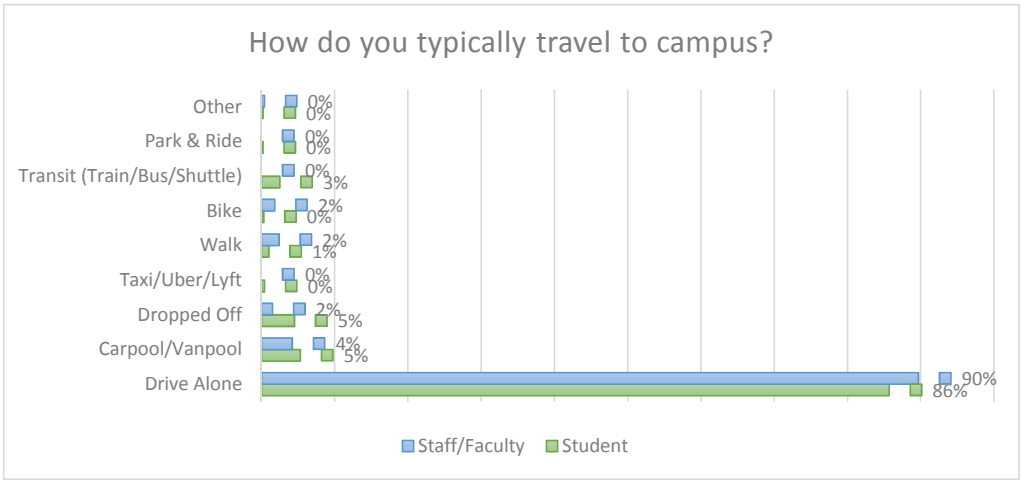
	Student		Staff/Faculty	
0	3	1%	0	0%
1	20	3%	1	1%
2	128	21%	18	14%
3	93	15%	10	8%
4	135	22%	9	7%
5	148	24%	70	55%
More than 5	83	14%	19	15%



FCC

How do you typically travel to campus? (Greatest length)

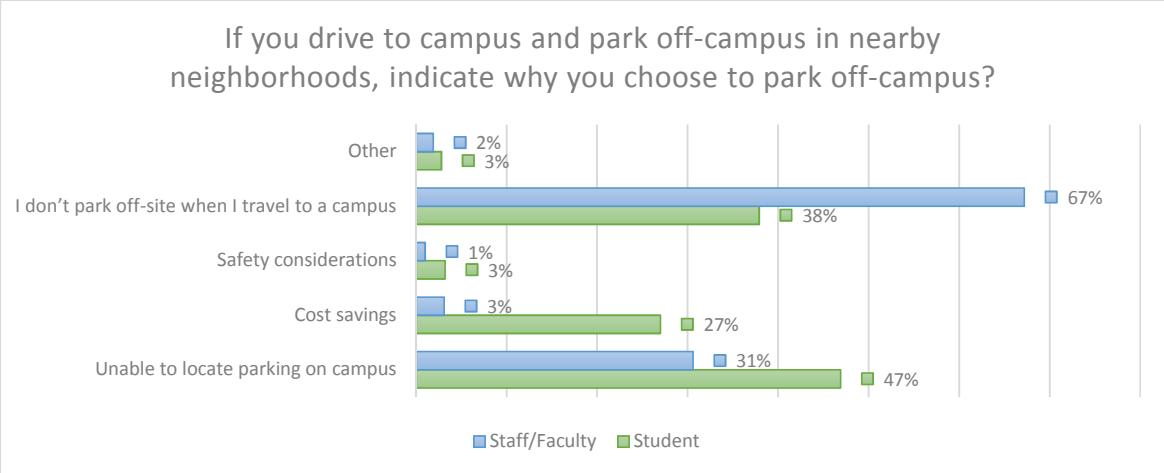
	Student		Staff/Faculty	
Drive Alone	1943	86%	409	90%
Carpool/Vanpool	121	5%	19	4%
Dropped Off	101	5%	7	2%
Taxi/Uber/Lyft	8	0%	0	0%
Walk	22	1%	11	2%
Bike	7	0%	8	2%
Transit (Train/Bus/Shuttle)	56	3%	0	0%
Park & Ride	5	0%	0	0%
Other	5	0%	2	0%



FCC

If you drive to campus and park off-campus in nearby neighborhoods, indicate why you choose to park off-campus?

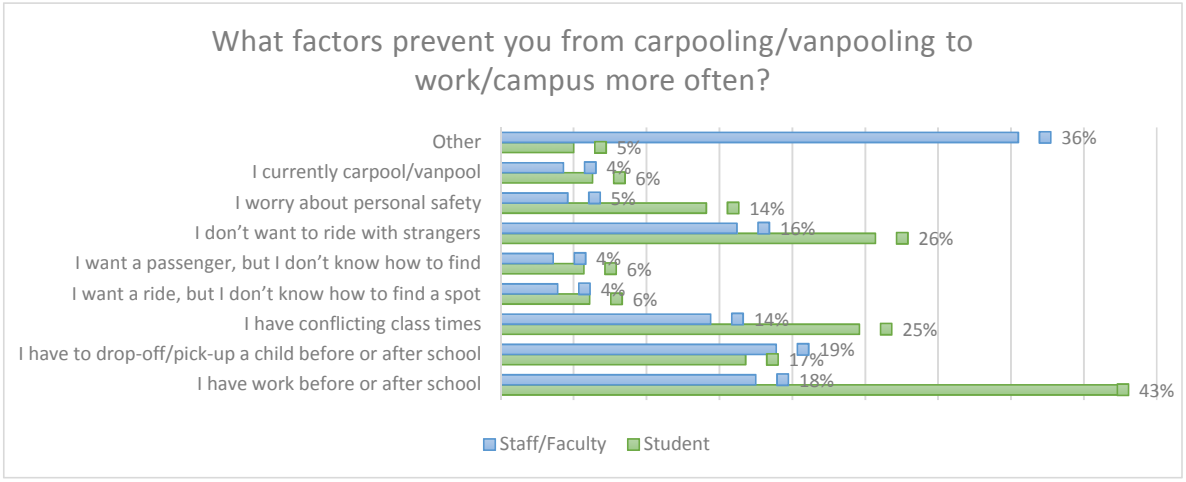
	Student		Staff/Faculty	
Unable to locate parking on campus	993	47%	128	31%
Cost savings	571	27%	13	3%
Safety considerations	67	3%	4	1%
I don't park off-site when I travel to a campus	802	38%	281	67%
Other	59	3%	8	2%



FCC

What factors prevent you from carpooling/vanpooling to work/campus more often?

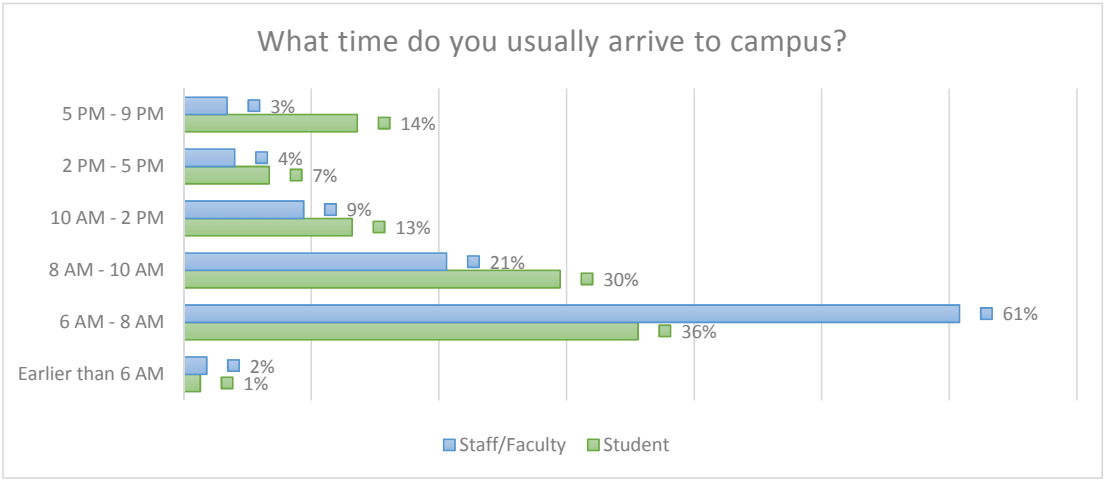
	Student		Staff/Faculty	
I have work before or after school	912	43%	77	18%
I have to drop-off/pick-up a child before or after school	361	17%	83	19%
I have conflicting class times	528	25%	63	14%
I want a ride, but I don't know how to find a spot	131	6%	17	4%
I want a passenger, but I don't know how to find	123	6%	16	4%
I don't want to ride with strangers	551	26%	71	16%
I worry about personal safety	303	14%	20	5%
I currently carpool/vanpool	135	6%	19	4%
Other	108	5%	156	36%



FCC

What time do you usually arrive to campus?

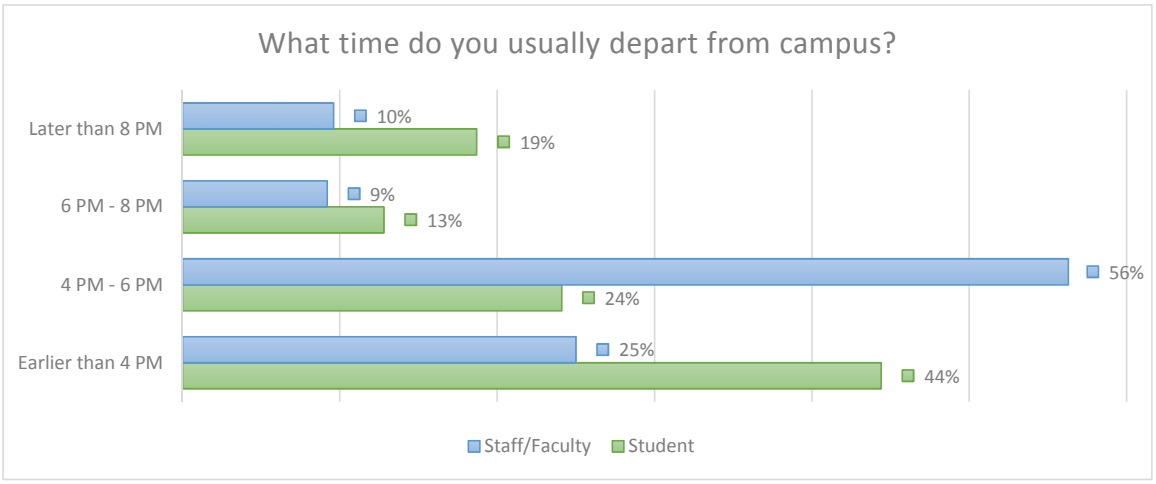
	Student		Staff/Faculty	
Earlier than 6 AM	28	1%	8	2%
6 AM - 8 AM	766	36%	271	61%
8 AM - 10 AM	635	30%	92	21%
10 AM - 2 PM	284	13%	42	9%
2 PM - 5 PM	145	7%	18	4%
5 PM - 9 PM	294	14%	15	3%
Later than 9 PM	2	0%	0	0%



FCC

What time do you usually depart from campus?

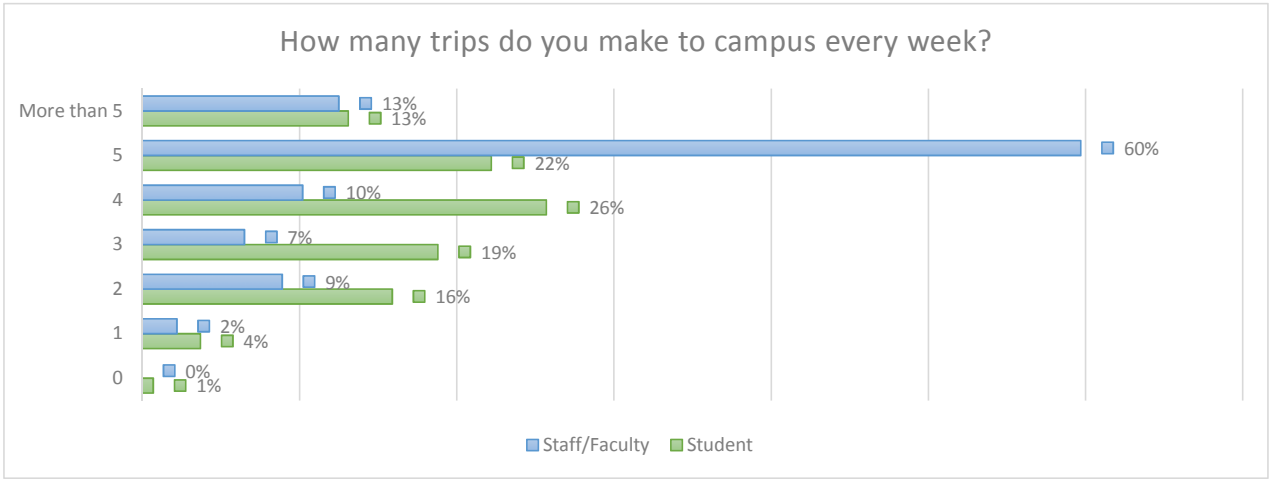
	Student		Staff/Faculty	
Earlier than 4 PM	957	44%	112	25%
4 PM - 6 PM	519	24%	252	56%
6 PM - 8 PM	276	13%	41	9%
Later than 8 PM	404	19%	43	10%



FCC

How many trips do you make to campus every week?

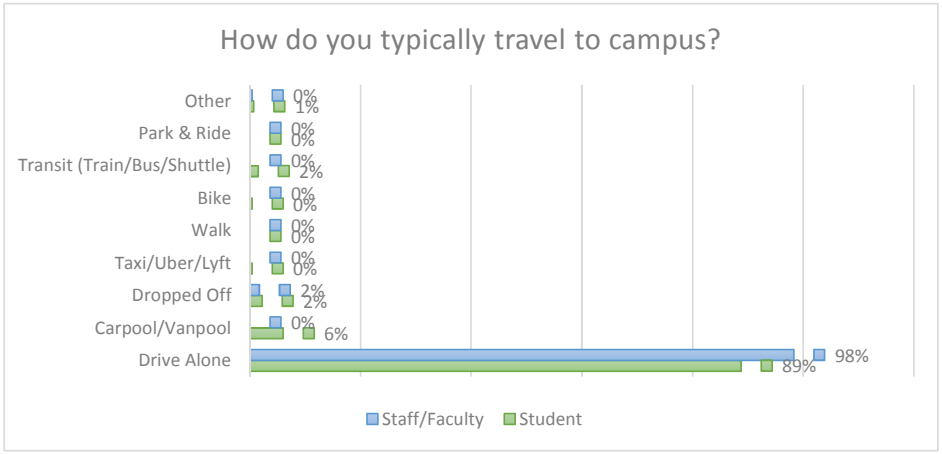
	Student		Staff/Faculty	
0	15	1%	0	0%
1	79	4%	10	2%
2	343	16%	40	9%
3	405	19%	29	7%
4	554	26%	46	10%
5	478	22%	268	60%
More than 5	282	13%	56	13%



MCC

How do you typically travel to campus? (Greatest length)

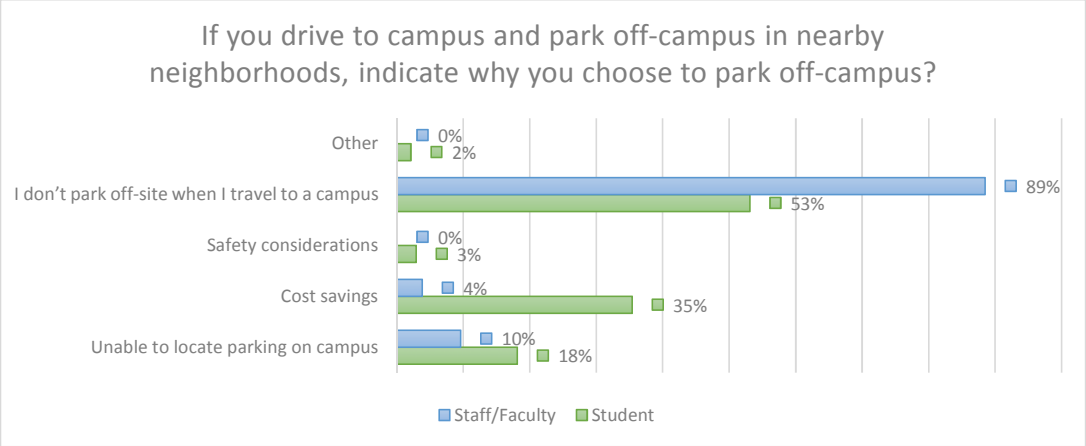
	Student		Staff/Faculty	
Drive Alone	237	89%	58	98%
Carpool/Vanpool	16	6%	0	0%
Dropped Off	6	2%	1	2%
Taxi/Uber/Lyft	1	0%	0	0%
Walk	0	0%	0	0%
Bike	1	0%	0	0%
Transit (Train/Bus/Shuttle)	4	2%	0	0%
Park & Ride	0	0%	0	0%
Other	2	1%	0	0%



MCC

If you drive to campus and park off-campus in nearby neighborhoods, indicate why you choose to park off-campus?

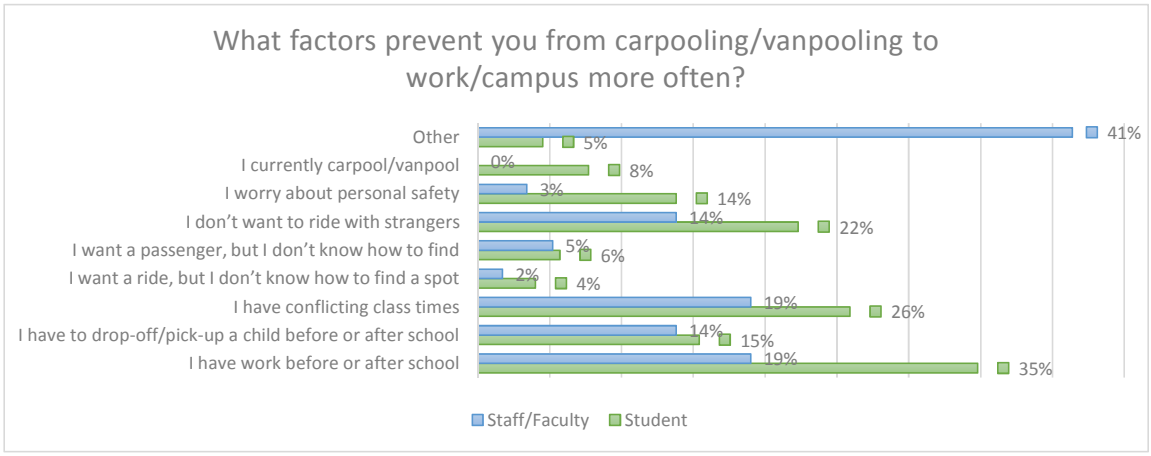
	Student		Staff/Faculty	
Unable to locate parking on campus	44	18%	5	10%
Cost savings	86	35%	2	4%
Safety considerations	7	3%	0	0%
I don't park off-site when I travel to a campus	129	53%	46	89%
Other	5	2%	0	0%



MCC

What factors prevent you from carpooling/vanpooling to work/campus more often?

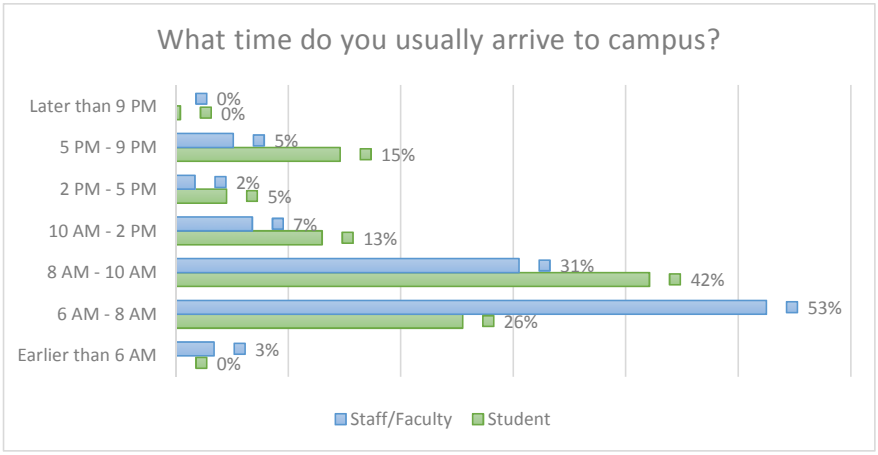
	Student		Staff/Faculty	
I have work before or after school	86	35%	11	19%
I have to drop-off/pick-up a child before or after school	38	15%	8	14%
I have conflicting class times	64	26%	11	19%
I want a ride, but I don't know how to find a spot	10	4%	1	2%
I want a passenger, but I don't know how to find	14	6%	3	5%
I don't want to ride with strangers	55	22%	8	14%
I worry about personal safety	34	14%	2	3%
I currently carpool/vanpool	19	8%	0	0%
Other	11	5%	24	41%



MCC

What time do you usually arrive to campus?

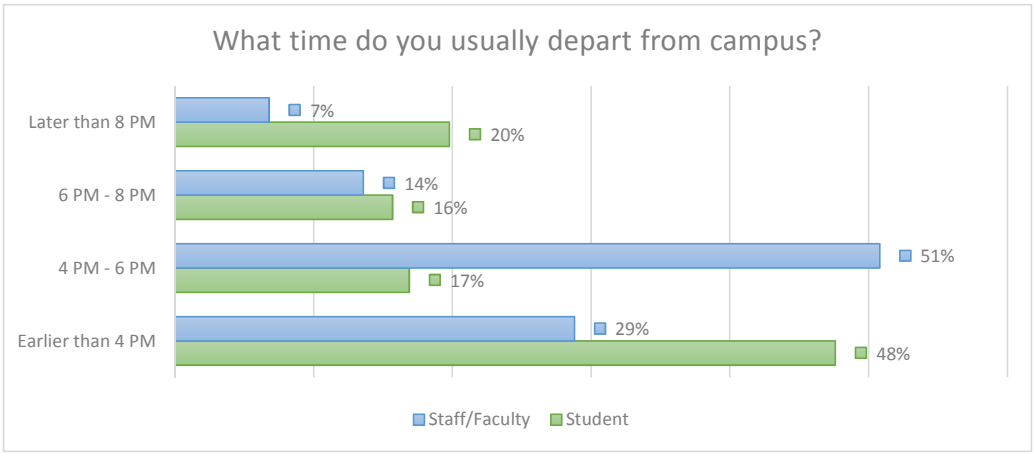
	Student		Staff/Faculty	
Earlier than 6 AM	0	0%	2	3%
6 AM - 8 AM	63	26%	31	53%
8 AM - 10 AM	104	42%	18	31%
10 AM - 2 PM	32	13%	4	7%
2 PM - 5 PM	11	5%	1	2%
5 PM - 9 PM	36	15%	3	5%
Later than 9 PM	1	0%	0	0%



MCC

What time do you usually depart from campus?

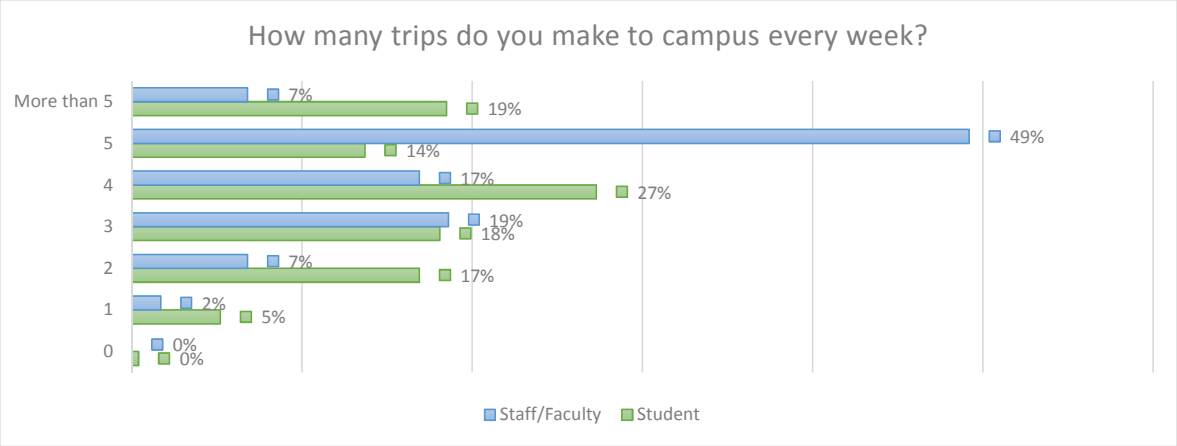
	Student		Staff/Faculty	
Earlier than 4 PM	118	48%	17	29%
4 PM - 6 PM	42	17%	30	51%
6 PM - 8 PM	39	16%	8	14%
Later than 8 PM	49	20%	4	7%



MCC

How many trips do you make to campus every week?

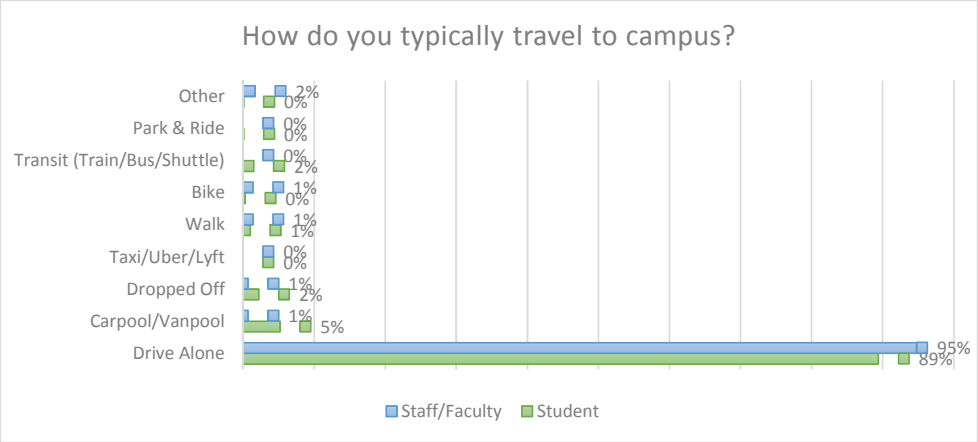
	Student		Staff/Faculty	
0	1	0%	0	0%
1	13	5%	1	2%
2	42	17%	4	7%
3	45	18%	11	19%
4	68	27%	10	17%
5	34	14%	29	49%
More than 5	46	19%	4	7%



RCC

How do you typically travel to campus? (Greatest length)

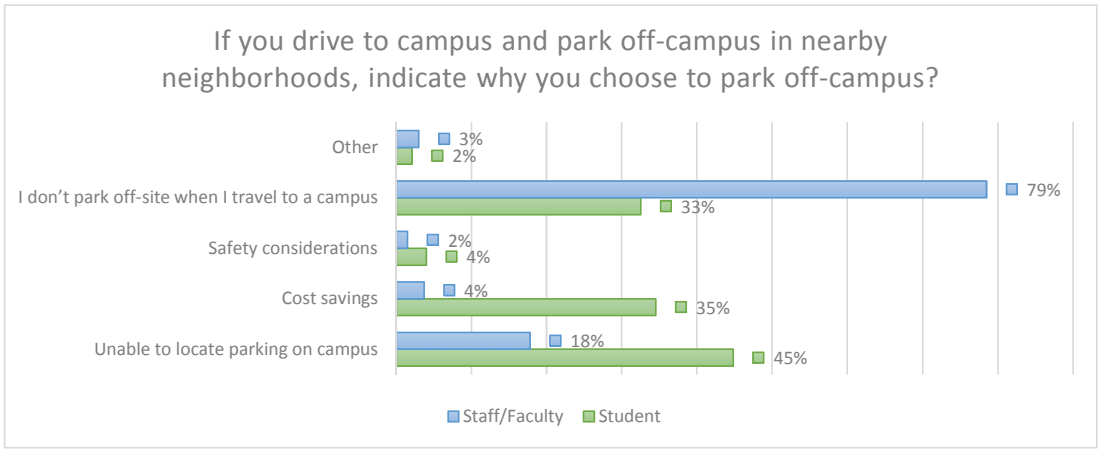
	Student		Staff/Faculty	
Drive Alone	597	89%	138	95%
Carpool/Vanpool	35	5%	1	1%
Dropped Off	15	2%	1	1%
Taxi/Uber/Lyft	0	0%	0	0%
Walk	7	1%	2	1%
Bike	2	0%	2	1%
Transit (Train/Bus/Shuttle)	10	2%	0	0%
Park & Ride	1	0%	0	0%
Other	1	0%	1	2%



RCC

If you drive to campus and park off-campus in nearby neighborhoods, indicate why you choose to park off-campus?

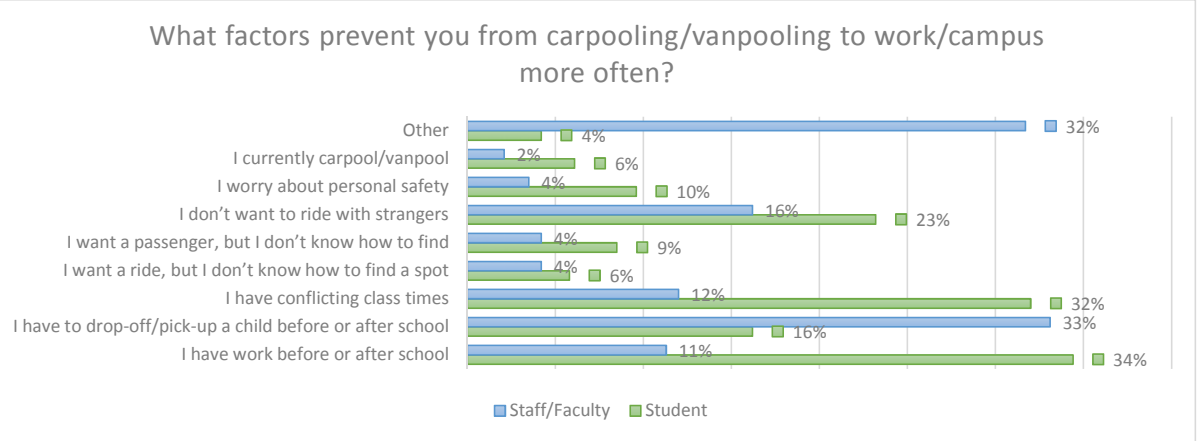
	Student		Staff/Faculty	
Unable to locate parking on campus	277	45%	24	18%
Cost savings	213	35%	5	4%
Safety considerations	25	4%	2	2%
I don't park off-site when I travel to a campus	201	33%	106	79%
Other	13	2%	4	3%



RCC

What factors prevent you from carpooling/vanpooling to work/campus more often?

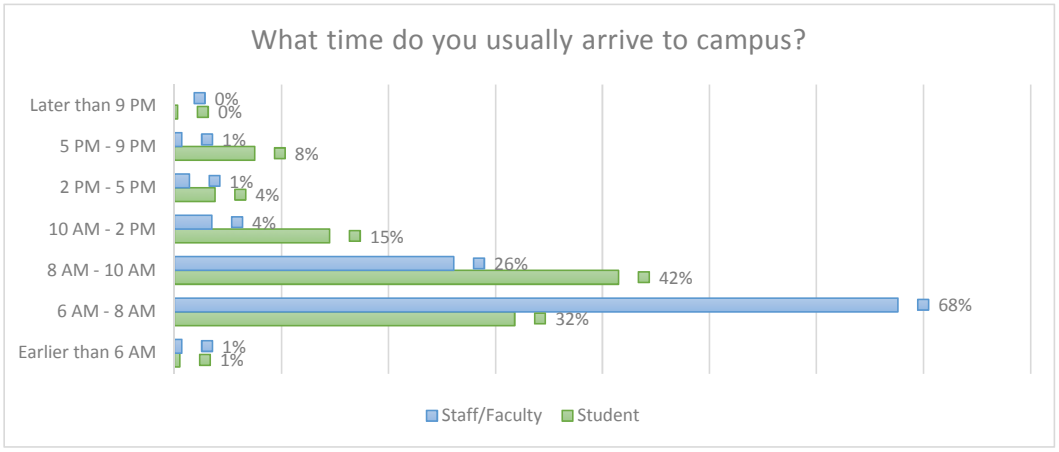
	Student		Staff/Faculty	
I have work before or after school	214	34%	16	11%
I have to drop-off/pick-up a child before or after school	101	16%	47	33%
I have conflicting class times	199	32%	17	12%
I want a ride, but I don't know how to find a spot	36	6%	6	4%
I want a passenger, but I don't know how to find	53	9%	6	4%
I don't want to ride with strangers	144	23%	23	16%
I worry about personal safety	60	10%	5	4%
I currently carpool/vanpool	38	6%	3	2%
Other	26	4%	45	32%



RCC

What time do you usually arrive to campus?

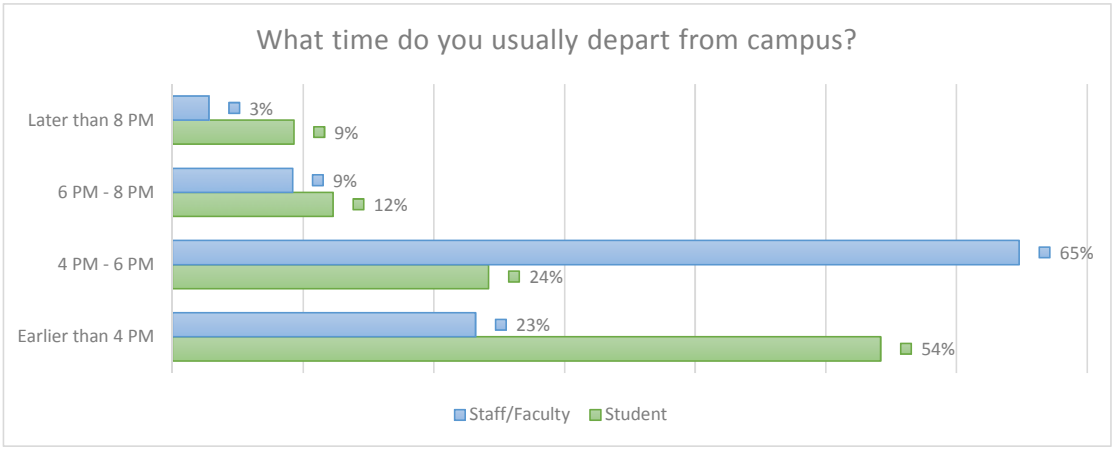
	Student		Staff/Faculty	
Earlier than 6 AM	3	1%	1	1%
6 AM - 8 AM	199	32%	96	68%
8 AM - 10 AM	260	42%	37	26%
10 AM - 2 PM	91	15%	5	4%
2 PM - 5 PM	24	4%	2	1%
5 PM - 9 PM	47	8%	1	1%
Later than 9 PM	2	0%	0	0%



RCC

What time do you usually depart from campus?

	Student		Staff/Faculty	
Earlier than 4 PM	339	54%	33	23%
4 PM - 6 PM	151	24%	92	65%
6 PM - 8 PM	77	12%	13	9%
Later than 8 PM	58	9%	4	3%



RCC

How many trips do you make to campus every week?

	Student		Staff/Faculty	
0	5	1%	1	1%
1	11	2%	5	4%
2	86	14%	5	4%
3	69	11%	5	4%
4	131	21%	13	9%
5	231	37%	94	66%
More than 5	93	15%	19	13%