



Item No. 4 Town of Atherton

CITY COUNCIL STAFF REPORT – STUDY SESSION

**TO: HONORABLE MAYOR AND CITY COUNCIL
GEORGE RODERICKS, CITY MANAGER**

THROUGH: ROBERT OVADIA, PUBLIC WORKS DIRECTOR

FROM: MARTY HANNEMAN, INTERWEST CONSULTING ENGINEER

DATE: JULY 17, 2019

**SUBJECT: RECEIVE AND PROVIDE FEEDBACK ON THE TOWN WIDE
LOCAL TRAFFIC FLOW/LONG RANGE PLANNING SOLUTIONS
STUDY; AND AUTHORIZE A CONTRACT AMENDMENT WITH
TJKM FOR ADDITIONAL RELATED SERVICES**

RECOMMENDATION

Receive and provide feedback on the Town Wide Local Traffic Flow/Long Range Planning Solutions study; and authorize the City Manager to execute a contract amendment with TJKM in the amount of \$3,500.

BACKGROUND

The City Council has expressed concern regarding local and regional traffic flow utilizing the Town's roadway network. El Camino Real, Middlefield Road, Alameda de las Pulgas, Marsh Road, Atherton Avenue, Valparaiso Avenue, and Stockbridge Avenue are major streets frequently mentioned in complaints regarding by-pass traffic and speeding (list is not all inclusive). Other local residential streets are also impacted as drivers try to find ways around congested major roadways during peak hours. There are currently many large commercial and residential projects that are either being designed or under construction in adjacent communities that will further impact traffic flow in the Town of Atherton. Although the Town provides comments on a regional project's environmental impact reports (EIR), the Town has no jurisdiction to require mitigation impacts. The Town requested that staff engage a consultant to review the Alameda de las Pulgas Corridor and to conduct a Town-wide Traffic Mitigation Study.

On December 20, 2017 City Council authorized the City Attorney to prepare and the City Manager to execute professional services agreements with:

- Stantec Consulting Services Inc. (now Advanced Mobility Group (AMG)) for \$30,000 to perform traffic engineering services necessary to prepare a traffic study/safety analysis

along the Alameda de las Pulgas corridor between Valparaiso Avenue and Woodside Road;
and

- TJKM Transportation Consultants (TJKM), for \$55,000 to perform traffic engineering services and necessary for the completion of a Town wide local traffic flow / long range planning solutions study.

On February 12, 2019, the Transportation Committee (TC) received a presentation on the Alameda de las Pulgas Corridor Traffic Study. The Study reviewed the existing conditions along Alameda de las Pulgas and recommends several improvements along the corridor, both within Town limits and in neighboring jurisdictions. The recommendations included the installation of new signals or round-a-bouts at Stockbridge Avenue and Atherton Avenue, a new signal at Camino al Lago to replace the existing signal south of the intersection, signal timing and phasing improvements at existing signals (outside of the town limits), bus stop relocations, green pavement markings in bike lanes, and other improvements. AMG presented this study and received the following general feedback from the TC:

- General agreement with the recommendations in the report for intersections within Atherton.
- For intersections outside of Atherton, the TC would reach out to those jurisdictions with the recommendations contained in the report.
- Priority should be the intersection of Alameda de las Pulgas and Atherton Avenue, except the TC would like the data adjusted for different sized roundabouts.
- A second priority should be the intersection of Alameda de las Pulgas and Stockbridge Avenue.
- The final priority should be the intersection of Alameda de las Pulgas and Camino Al Lago.

The TC also received a presentation on the Local Traffic Flow/Long Range Planning Solutions Study from TJKM. The Study evaluated existing traffic operations and origin-destination patterns within Town and recommends short- and long-term measures for efficient circulation, improved operations and safety for all modes of transportation. The recommendations included: updating street functional classifications and describing their roles in serving key modes of travel: bicycle, motor vehicle, pedestrian and transit (largely for the General Plan); updating general street design standards to incorporate complete streets components; suggested language for regarding impact criteria related to determining the significance of environmental impacts under CEQA; turning restrictions at key intersections along Alameda de las Pulgas, Valparaiso Avenue, and Middlefield Road; signalization and other improvements at the Alameda de las Pulgas/Atherton Avenue intersection, Middlefield Road at Fair Oaks Lane and Watkins, signal timing and other improvements.

Along the Alameda de las Pulgas corridor, the TC expressed:

- Support for left-turn restrictions from southbound Alameda de las Pulgas to Stockbridge Avenue and Polhemus Avenue during the morning commute period.
- Support for signalization of Alameda de las Pulgas and Atherton Avenue.
- Support to square out the intersection of Alameda de las Pulgas and Atherton Avenue.

- Support to provide a protected left-hand turn phase along Alameda de las Pulgas with westbound right turn overlap for Atherton Avenue.
- Support for metering traffic upon signalization to deter pass through traffic.
- Support for installation of Class II Bike Lanes in one direction along Atherton Avenue.

Along the Valparaiso Avenue corridor the TC expressed:

- Support for traffic signals at the intersection of Valparaiso and Elena and the intersection of Valparaiso and Emilie, depending on overall ranking, but with left and right turn lanes on Emilie Avenue at Valparaiso Avenue and Elena Avenue at Valparaiso Avenue.
- No support for a one-way circulation loop between Elena Avenue and Emilie Avenue.
- No support for turn restrictions at the intersection of Alameda de las Pulgas and Valparaiso Avenue.

Along the Middlefield Road corridor the TC expressed:

- No support for a northbound Middlefield Road left-turn restriction onto Glenwood Avenue during the morning commute.
- Support to study traffic signals at the intersections of Middlefield Road and Fair Oaks Lane and at the intersection of Middlefield Road and Watkins Avenue.
- No support for signal metering at the intersections of Middlefield Road and Fair Oaks Lane, Middlefield Road and Marsh Road, and Middlefield Road and Oak Grove Avenue.
- No support for adjustments to signal timing along Middlefield Road.

Due to time constraints at the February 12 TC meeting, TJKM presented at the March 12 TC meeting, with recommendations to develop short and long-term strategies to address current and future congestion from traffic generated by neighboring projects that may be mitigated through commenting on CEQA Environmental documents, creation of Level of Service (LOS), Vehicle Miles Traveled (VMT) or other applicable significance threshold criteria for the Town to utilize in the CEQA environmental reviews of future development within the Town and/or neighboring jurisdictions. The TC asked questions related to street classifications, particularly if they tied the Town down to minimum street widths and required improvements within a timeframe and discussed the impact thresholds.

At the April 17, 2019 Council meeting, the two traffic consultants AMG and TJKM presented the study results and recommendations to City Council for feedback on the Alameda de las Pulgas Corridor study and the Town Wide Local Traffic Flow/Long Range Planning Solutions study.

After much discussion, the City Council determined that need more time to review the study reports was needed and requested that staff and consultants return in a few months to focus on the Town Wide Local Traffic Flow/Long Range Planning study since it includes the Alameda de las Pulgas corridor. TKJM consultants are present at tonight's meeting to provide a brief presentation and address any questions/comments from the April 17 Council meeting.

DISCUSSION/FEEDBACK

At the April 17 meeting, the Council and staff discussed the need to fine tune the Town's philosophy with respect to through traffic before moving forward with any recommendations from the Study. The overarching question that remains is whether the Town should facilitate the movement of traffic through Town using traffic control devices that encourage through traffic; or, should the Town employ traffic control devices to deter traffic from moving through Town.

The installation of traffic signals and round-a-bouts requires long-term planning, partner agencies, and the identification of funding solutions. These are large financial investments. These devices can ultimately be employed to facilitate the flow of traffic through Town. If the Town is interested in facilitating movement of traffic through Town, the Council's discussion should focus on the identified priority intersections and providing direction to staff to pursue these solutions over the next few years.

However, if the Town is interested in using traffic control devices to discourage the movement of traffic through Town, the Council's discussion should focus on various traffic control measures – such as stop signs, speed humps, turning movement restrictions, and engineered roadway solutions – that can be employed and where they can be employed to potentially assist in reducing through traffic.

There are identifiable areas of Town where speeding and through traffic can be addressed using a traffic control device. Staff can reach out to these areas, neighborhood by neighborhood, and discuss potential solutions. While traffic control devices are not a panacea, there are some solutions that may affect the amount of traffic moving through a particular area. Identifiable areas include:

- Camino al Lago/Fairview/Linda Vista/Monte Vista;
- Elena/Park/Santiago;
- Glenwood/Encinal;
- Oak Grove/Greenoaks/Frederick
- Atherton/Selby/Austin
- Polhemus
- Tuscaloosa/Almendra/Stockbridge

Moving forward with either option will require additional consultant assistance to facilitate the solutions. Staff would return with a recommendation for a scope of work based on the direction the Council desires to go. Part of that scope of work could involve the installation of pilot projects and/or temporary solutions to evaluate the solution for its effectiveness before implementing the final solution (this cannot be done with traffic signals).

There is a tremendous amount of data in the Reports prepared by the consultant. However, beyond the data, is the perception of the community that traffic is worse, congestion and cut-through traffic is more frequent, and the Town is the negative beneficiary of regional development that we do not control. Staff is requesting that the Council reach beyond the data and provide general discussion and direction to staff with respect to philosophy to address through traffic. Staff can then use the

engineering data to assist with crafting specific scopes of work and follow-up based on the direction provided by Council.

TJKM consultants are here tonight to present the Local Traffic Flow/Long Range Planning Solutions study for City Council's feedback.

Additional Traffic Engineering Services

As noted above, on December 20, 2017 City Council authorized the City Manager to execute professional services agreements with TJKM Transportation Consultants (TJKM), for fee of \$55,000 to perform traffic engineering services and other necessary work for the completion of a Town wide local traffic flow/long range planning solutions study. This agreement included multiple presentations to the Transportation Committee but ultimately only one presentation to the Council. Having the consultant here again this evening requires an amendment to the Agreement for the additional time, presentation preparation, and travel.

City Council action is required to authorize the City Manager to amend the TJKM agreement for tonight's work for an additional fee of \$3,500.

POLICY FOCUS

The studies are consistent with the primary goal of advancing projects that promote increased safety and levels of non-motorized activity throughout the Town.

FISCAL IMPACT

Funding for these studies come from the 2017/18 CIP – Traffic Safety Improvement Program Project No. 56064 - Town-wide Traffic Mitigation using Gas Tax Funds. The City Council allocated \$50,000 to look at traffic flow issues in the 5-Year CIP 2017/2021 in this funding area.

PUBLIC NOTICE

Public notification was achieved by posting the agenda, with this agenda item being listed, at least 72 hours prior to the meeting in print and electronically. Information about the project is also disseminated via the Town's electronic News Flash and Atherton Online. There are approximately 1,200 subscribers to the Town's electronic News Flash publications. Subscribers include residents as well as stakeholders – to include, but be not limited to, media outlets, school districts, Menlo Park Fire District, service providers (water, power, and sewer), and regional elected officials. Residents in the immediate vicinity of the project area are notified by mail.

COMMISSION/COMMITTEE FEEDBACK/REFERRAL

This item X has or has not been before a Town Committee or Commission.

 Audit/Finance Committee (meets every other month)

 Bicycle/Pedestrian Committee (meets as needed)

- ☐ Civic Center Advisory Committee (meets as needed)
- ☐ Environmental Programs Committee (meets every other month)
- ☐ Park and Recreation Committee (meets each month)
- ☐ Planning Commission (meets each month)
- ☐ Rail Committee (meets every other month)
- ☒ Transportation Committee (meets every other month)

ATTACHMENTS

ATTACHMENT 1 – Traffic Flow/Long Range Planning Solution Study

ATTACHMENT 2 – ADLP Corridor Study

ATTACHMENT 3 – TJMK Scope of Additional Services



Local Traffic Flow/ Long Range Planning Solutions Study

Project Report

January 25, 2019



VISION THAT MOVES YOUR COMMUNITY



TABLE OF CONTENTS

Executive Summary.....	1
Pass-through & Cut-through Traffic	1
Street Classifications & Transportation Impact Criteria	1
Proposed Street Classification Changes.....	2
Transportation Impact Criteria Recommendations	2
Existing Roadways & Traffic Patterns.....	3
Proposed Strategies & Improvements	5
Alameda De Las Pulgas/Atherton Avenue	5
Valparaiso Avenue	5
Middlefield Road	6
1. Traffic Analysis Overview.....	7
Study Intersections	7
Level of Service (LOS) Analysis Methodology.....	9
Significant Impact Criteria/Level of Service Standards (Proposed)	10
2. Existing Conditions	11
Street Classification System	11
General Street Design Standards.....	12
Bicycle & Pedestrian Master Plan Design Recommendations	12
Existing Roadway Network	13
Bicycle & Pedestrian Facilities on Local & Collector Streets.....	19
Existing Transit Service.....	19
Data Collection.....	22
Average Daily Traffic (ADT) Data.....	22
Intersection Turning Movement Counts (TMC)	25
Existing Signal Timing	25
Origin-Destination (OD) Data.....	25
Existing Conditions (2018) LOS & 95 th Percentile Queue Length Analysis.....	29
Origin-Destination (OD) Analysis.....	34
3. Short-Term and Long-Term Recommendations	47



Alameda De Las Pulgas/Atherton Avenue	47
Valparaiso Avenue	49
Middlefield Road	50
4. Street Classification Recommendations	51
Purpose of Proposed Street Classification Changes	51
Complete Streets Act	51
Proposed Street Classification Changes	52
Proposed Functional Class Definitions	52
Recommended Changes to General Street Design Standards	57
5. Transportation Impact Criteria Recommendations	58
Current Town of Atherton Criteria for Transportation Impacts	58
SB 743 & Vehicles Miles Traveled (VMT)	59
Recommended Criteria	59
Vehicle Miles Traveled (VMT) Impacts	59
Bicycle and Pedestrian Impacts	60
Transit Impacts	60
Emergency Access Impacts	60
Recommended Intersection Level of Service (LOS) Goals	60

Tables

Cut-through Traffic along Atherton Avenue	5
Cut-through Traffic on Valparaiso Avenue	6
Table 1: Signalized Intersection LOS Criteria	9
Table 2: Unsignalized Intersection LOS Criteria	10
Table 3: Current Atherton Street Standards	12
Table 4: Average Daily Traffic Summary for Historical (2015) & Existing (2018)	23
Table 5: List of Schools within the Project Study Area	25
Table 6: Existing Conditions LOS & Delay	30
Table 7: Existing Conditions 95th Percentile Queue Lengths (ft.)	32
Table 8: Vehicle Trips Originating Outside of Atherton	35



Table 9: Cut-through Traffic along Atherton Avenue	47
Table 10: Cut-through Traffic on Valparaiso Avenue.....	49
Table 11: Arterial Street Guidelines (Proposed)	54
Table 12: Collector & Local Street Guidelines (Proposed)	55
Table 13: Proposed General Street Design Standards.....	57
Table 14: VMT Regional Criteria Example: City of San Francisco	60

Figures

Figure 1a: Vicinity Map.....	8
Figure 1b: Existing Street Classifications (Atherton).....	16
Figure 1c: Existing Street Classifications (Atherton & Adjacent Jurisdictions)	17
Figure 1d: Existing & Proposed Bikeway Network.....	18
Figure 2: Average Daily Traffic Map.....	24
Figure 3: Existing Lane Geometry & Traffic Control	26
Figure 4: Existing Peak Hour Traffic Volumes.....	27
Figure 5: Existing Peak Hour Pedestrian & Bicycle Volumes.....	28
Figure 6: Origin, Destination, & Middle Filter Zones for OD Analysis.....	36
Figure 7: Preferred Route Choices from Origin Zone 1.....	37
Figure 8: Preferred Route Choices from Origin Zone 7.....	38
Figure 9: Preferred Route Choices from Origin Zone 8.....	39
Figure 10: Preferred Route Choices from Origin Zone 9	40
Figure 11: Preferred Route Choices from Origin Zone 11.....	41
Figure 12: Preferred Route Choices from Origin Zone 12.....	42
Figure 13: Preferred Route Choices from Origin Zone 14.....	43
Figure 14: Preferred Route Choices from Origin Zone 15.....	44
Figure 15: Proposed Street Classifications (Atherton)	56

Appendices

Appendix A – Traffic Counts

Appendix B – Origin-Destination Study Data

Appendix C – Existing Conditions Synchro & SimTraffic Reports



EXECUTIVE SUMMARY

This study evaluates existing traffic operations and origin-destination (OD) patterns within the Town of Atherton, recommends short- and long-term measures for efficient circulation, smooth progression, improved operations, and safety for all modes of transportation including auto, pedestrian, and bicycles; and provides recommendations concerning changes to the town's transportation impact criteria and functional street classifications that guide street design priorities and standards.

PASS-THROUGH & CUT-THROUGH TRAFFIC

Primary focus of the traffic operations and OD assessment is the Town of Atherton's concern regarding pass-through and cut-through traffic impacting local circulation within the Town's roadway system. For purposes of this study:

- *Pass-through traffic* is defined as motor vehicle traffic that passes through Atherton by entering and exiting the town on the same street, relevant to regional streets such as El Camino Real, Middlefield Road or Alameda De Las Pulgas
- *Cut-through traffic* is defined as motor vehicle traffic that passes through Atherton via multiple streets including non-regional streets such as Atherton Avenue

STREET CLASSIFICATIONS & TRANSPORTATION IMPACT CRITERIA

Recommendations concerning updates to the town's street classifications and transportation impact criteria are relevant to these concerns, while also necessary for ensuring the town's concurrent *General Plan Circulation Element* update is consistent with recent State legislation including the California Complete Streets Act and Senate Bill (SB) 743.

- Atherton's current street classifications, and accompanying general street design standards, are described in the town's *General Plan Circulation Element* that was last updated in 2002, but focus entirely on the function of each street for purposes of accommodating motor vehicle travel. Existing street classifications in Atherton are described in Chapter 2, and illustrated on Figures 1b and 1c.
- Atherton's street classifications do not yet describe the role of each street for purposes of bicycle, pedestrian or transit travel, nor do the town's street and right-of-way standards include provision of bicycle lanes or pedestrian paths.
- Atherton's *Bicycle & Pedestrian Master Plan* (BPMP), adopted in 2014, recommended that the town's street classifications and accompanying general street design standards be updated to allow the types of improvements proposed by the BPMP, such as bicycle lanes and shoulder pedestrian paths on minor arterial and collector streets.
- In addition, as shown on Figure 1c: Atherton's current street classifications do not match that of adjacent jurisdictions for several key street. El Camino Real is classified as a highway by the Town of Atherton, but classified as a boulevard (major arterial) by the City of Menlo Park. Similarly, Valparaiso and Ravenswood Avenue are classified as collector streets by Atherton, while Menlo Park classifies both as minor arterials.



The General Plan Update thus provides an opportunity for Atherton to refine its functional street classifications and general street design standards to account for bicycle, pedestrian and transit travel. In recent years many cities and towns have modernized their street classifications to include specific multi-modal components, often by adding additional sub-classifications to each of the arterial-collector-local classifications, and specifying desired levels of pedestrian, bicycle, motor vehicle, and transit access for each classification and/or sub-classification.

- The Complete Streets Act adopted in 2008 requires that cities and other public agencies incorporate "Complete Street" components when updating their *General Plan Circulation Element* with an emphasis on making travel safe for all users, including bicyclists, pedestrians, motorists, transit vehicles, and people of all ages and abilities.
- SB 743 mandates that traffic level of service (LOS) will no longer be an acceptable metric for evaluating traffic impacts under CEQA, to be replaced with metrics focusing on vehicle miles traveled (VMT) when fully implemented statewide (now anticipated by July 2020).

Proposed Street Classification Changes

Recommended changes to street classifications to incorporate are described in Chapter 4 of this report and illustrated on Figure 15. Key recommendations are:

- The definitions of each functional street classification would be updated to describe the role of each classification for serving all key modes of travel: bicycle, motor vehicle, pedestrian and transit. This would include defining the relative travel mode priorities for each classification, and identifying specific collector and local streets where school access would be prioritized.
- The general street design standards accompanying each street classification would be updated to incorporate complete street components, and allow the types of design treatments proposed in the Atherton Bicycle & Pedestrian Master Plan (adopted 2014), where relevant.
- The "freeway and highway" classification that is currently applied to El Camino Real would be eliminated and replaced with a new classification titled "boulevard", consistent with the City of Menlo Park designation for El Camino Real and also supportive of the regional Grand Boulevard initiative. The "boulevard" classification would be defined as being a type of "primary arterial" street.
- The designation of both Valparaiso and Ringwood Avenues would be changed from collector to avenue (minor arterial), consistent with the classification of both streets by the City of Menlo Park.

Transportation Impact Criteria Recommendations

Recommendations concerning updated transportation impact criteria are described in Chapter 5 of this report. The town's current criteria for determining the significance of environmental impacts under CEQA is limited to traffic operations criteria based on LOS (which must be replaced by VMT thresholds by July 2020), and the town has not yet adopted impact criteria relevant to determining the significance of impacts to bicycle, pedestrian or transit circulation. The recommended impact criteria language by transportation topic is shown below:



Vehicle Miles Traveled (VMT) Impacts: A project would result in potentially significant impacts to vehicle miles traveled (VMT) if project VMT per capita (i.e., per resident and/or per employee) would exceed 85 percent of existing VMT per capita for the region. *Note: each jurisdiction has discretion in selecting an appropriate "region" to define for purposes of defining a VMT impact threshold 15 percent below the selected regional average. The majority of cities, towns and counties in California have not yet adopted VMT criteria, and it may be advisable for the Town of Atherton to consult with other jurisdictions in San Mateo County prior to settling on a specific threshold.*

Bicycle and Pedestrian Impacts: Impacts to bicycle and pedestrian travel would be potentially significant if:

- A project would not provide adequate pedestrian or bicycle facilities to connect to the area circulation system; or
- Vehicles would cross pedestrian facilities on a regular basis without adequate design and/or warning systems, causing safety hazards; or
- Project design would cause increased potential for bicycle/vehicle conflicts; or
- A project would include elements that conflict with applicable bicycle and pedestrian policies.

Transit Impacts: Impacts to public transit would be potentially significant if:

- A project would generate a substantial increase in transit riders that cannot be adequately serviced by the existing transit services; or
- A project would generate demand for transit services in an area that is more than one-quarter mile from existing transit routes; or
- A project would include elements that conflict with applicable transit policies; or
- A project would cause a substantial increase in transit delays or transit operating costs such that significant adverse impacts in transit service levels could result

Emergency Access Impacts: Impacts would be potentially significant if a project were to result in inadequate emergency access.

EXISTING ROADWAYS & TRAFFIC PATTERNS

This report contains a comprehensive summary of the existing roadway infrastructure, traffic patterns and operations within the Town, described in Chapters 1 and 2. Methods used for existing conditions analysis include data collection, evaluation of existing roadway infrastructure, OD analysis to understand existing traffic patterns within the Town of Atherton's roadway network, and development of traffic simulation models using Synchro/SimTraffic software to report existing level of service (LOS), delay, and 95th percentile queue lengths at selected study intersections. The following sections of the report explain the analysis methodology and results in detail. Data collected for the analyses and traffic simulation model outputs are provided in the Appendices.

Average daily traffic (ADT) and intersection turning movement counts (TMC) were collected for existing conditions analysis during a typical weekday with normal weather conditions and when schools were in session. Additionally, the StreetLight Insight® data platform, which utilizes big data, was used for OD



analysis. The OD analysis was conducted using eight origin/destination zones and nine middle filter zones resulting in 640 route choices evaluated as a part of the study to determine traffic behavior within the study area.

Existing roadway network and results of the analyses conducted show that El Camino Real (a state highway that operates as a major arterial) and minor arterials Alameda De Las Pulgas and Middlefield Road provide intercity connectivity to and through the Town, consistent with their intended purpose as defined by the town's adopted street classification definitions, and run parallel to US 101, which is generally congested during peak hours of travel and are currently at capacity. This results in diversion of traffic from the freeway on to the Town streets and arterials and vice versa indicating pass through and cut-through traffic. The results show that majority of the trips captured at the origin zones were pass through trips, along Alameda De Las Pulgas (approximately 89%), El Camino Real (approximately 86%), and Middlefield Road (approximately 56%). The highest amount of pass through trips were observed on El Camino Real, and the highest amount of diversion or cut-through from one major thoroughfare to another was observed along Middlefield Road.

The traffic operations analysis evaluated 12 intersections for existing LOS, motor vehicle delay, and 95th percentile queue lengths. Based on the analysis conducted, it was observed that most of the study intersections do not operate with acceptable LOS thresholds per the Town's currently proposed LOS standards described in the *Draft Circulation Element* update prepared in January 2018.

With the exception of Valparaiso Avenue/University Drive, all of the study intersections are unsignalized. The unacceptable LOS and delay at these intersections during peak commute hours indicate the inability of the vehicles on side streets, and conflicting left-turn movements on major streets, to safely find a gap and navigate amidst the heavily used arterials. This is prominently observed along Middlefield Road, which harbors unsignalized intersections with one-way or two-way stop control on the side streets with Middlefield Road remaining uncontrolled. TJKM conducted peak hour signal warrant analysis at all study intersections to ascertain where installation of traffic signal is warranted. The following intersections met the peak hour traffic signal warrant analysis.

1. Alameda De Las Pulgas/Atherton Avenue
2. Valparaiso Avenue/Emilie Avenue
3. Valparaiso Avenue/Elena Avenue
4. Middlefield Road/Fair Oaks Lane-Palmer Lane
5. Middlefield Road/Watkins Avenue



PROPOSED STRATEGIES & IMPROVEMENTS

Based on the analysis conducted under Existing Conditions, the following short- and long-range strategies and potential physical improvements were identified as described in Chapter 3, to improve mobility, safety and traffic conditions at selected study intersections:

Alameda De Las Pulgas/Atherton Avenue

Alameda De Las Pulgas experiences 89% & 60% southbound (SB) & northbound (NB) pass-through traffic respectively averaged over all peak periods. The a.m. and p.m. peak direction of travel is SB and NB respectively with stop-and-go traffic conditions during the a.m. peak hour with limited gaps for conflicting left-turns on major street and side-street left-turn movements. Alameda De Las Pulgas/Atherton Avenue acts as the controlling intersection along Atherton Avenue. This intersection operates at LOS F during all peak periods and meet peak hour signal warrants. Atherton Avenue experiences cut-through traffic between Alameda De Las Pulgas and El Camino Real as provided on table below:

Cut-through Traffic along Atherton Avenue

Direction	AM	School PM	PM
EB	19% (92)	6% (20)	12% (37)
WB	13% (97)	10% (67)	15% (153)

Note: Percentage % (No. of Vehicles)

TJKM proposes the following recommendations at this intersection to improve operations and reduce cut-through and pass-through traffic along the corridor.

1. Provide Left-Turn restrictions from Alameda De Las Pulgas onto Stockbridge Avenue and Polhemus Avenue during the a.m. peak period.
2. Signalization of Alameda De Las Pulgas/Atherton Avenue.
3. Square-out intersection by removing existing pork-chop and adding an exclusive right-turn lane making it safer for all modes of transportation.
4. Provide protected left-turn phasing along Alameda De Las Pulgas with westbound right-turn overlap for Atherton Avenue.
5. Metering traffic upon signalization to deter pass-through traffic.

With the signalization of Alameda De Las Pulgas/Atherton Avenue, the intersection operates at LOS C during all peak periods. Possibility of installing a roundabout was also analyzed at the intersection but due to right-of way (ROW) constraints and need of property acquisition this would not be a viable option at this time.

Valparaiso Avenue

Valparaiso Avenue connects Alameda De Las Pulgas to El Camino Real. The peak direction of travel during the a.m. and p.m. peak period is eastbound and westbound direction respectively with stop-and-go traffic conditions during the a.m. peak period with limited gaps for conflicting left-turns on major street and side-street left-turn movements.



This corridor experiences cut-through traffic from El Camino Real and Alameda De Las Pulgas. The cut-through traffic percentage along this corridor is provided on table below.

Cut-through Traffic on Valparaiso Avenue

Direction	AM	School PM	PM
EB	13% (138)	18% (170)	6% (50)
WB	26% (188)	15% (161)	8% (73)

Note: Percentage % (No. of Vehicles)

The intersections of Valparaiso Avenue/Emilie Avenue and Valparaiso Avenue/Elena Avenue operate with LOS F during all study peak periods. These intersections meet peak hour signal warrants, but for the intersections to operate at acceptable level of service exclusive left-turn lanes have to be provided along with the signalization at the intersections which would require ROW take. Due to ROW constraints this would not be a viable option at this time. TJKM also evaluated a one-way circulation loop between Elena Avenue and Emilie Avenue although Town may need to work with City of Menlo Park analyze the intersection of Alameda De Las Pulgas/Valparaiso Avenue and provide turn restrictions.

Middlefield Road

Middlefield Road experiences 56% & 60% southbound (SB) & northbound (NB) pass-through traffic respectively averaged over all peak periods. The a.m. and p.m. peak direction of travel is SB and NB respectively with stop-and-go traffic conditions during the a.m. peak hour with limited gaps for conflicting left-turns on major street and side-street left-turn movements. Intersection of Middlefield Road/Fair Oaks Lane, Middlefield Road/Marsh Road and Middlefield Road/Oak Grove Avenue acts as the controlling intersection along this corridor. These intersections operates at LOS F during all peak periods. Intersection of Middlefield Road/Fair Oaks Lane and Lane Middlefield Road/Watkins Avenue are unsignalized intersections along the corridor and meet peak hour signal warrant analysis.

TJKM proposes the following recommendations along Middlefield Road to improve operations and reduce cut-through and pass-through traffic along the corridor.

1. Signalization of Middlefield Road/Fair Oaks Lane and Middlefield Road/Watkins Avenue.
2. Improve signal timings along Middlefield Road by updating the coordination plans through the corridor.
3. Provide Northbound Left-Turn restrictions from Middlefield Road onto Glenwood Avenue during the a.m. peak period
4. Meter the traffic along the corridor at controlling intersections like Middlefield Road/Fair Oaks Lane, Middlefield Road/Marsh Road and Middlefield Road/Oak Grove Avenue to deter pass-through as well as cut-through traffic.



1. TRAFFIC ANALYSIS OVERVIEW

The town is concerned with the impact of cut-through and pass-through traffic on the streets in Atherton during the peak travel periods (weekday a.m., school p.m., and p.m. peak periods). This includes both pass-through regional traffic on Atherton's arterial and collector streets, as well as cut-through traffic on local residential streets. The objective of the evaluation includes improving throughput through the arterials while reducing the effect of cut-through traffic, identifying short-range and long-range strategies and improvement options at key locations, updating the Town's significance criteria for evaluating transportation impacts, and providing recommendations for the Town's street classifications for the 2018 Circulation Element update.

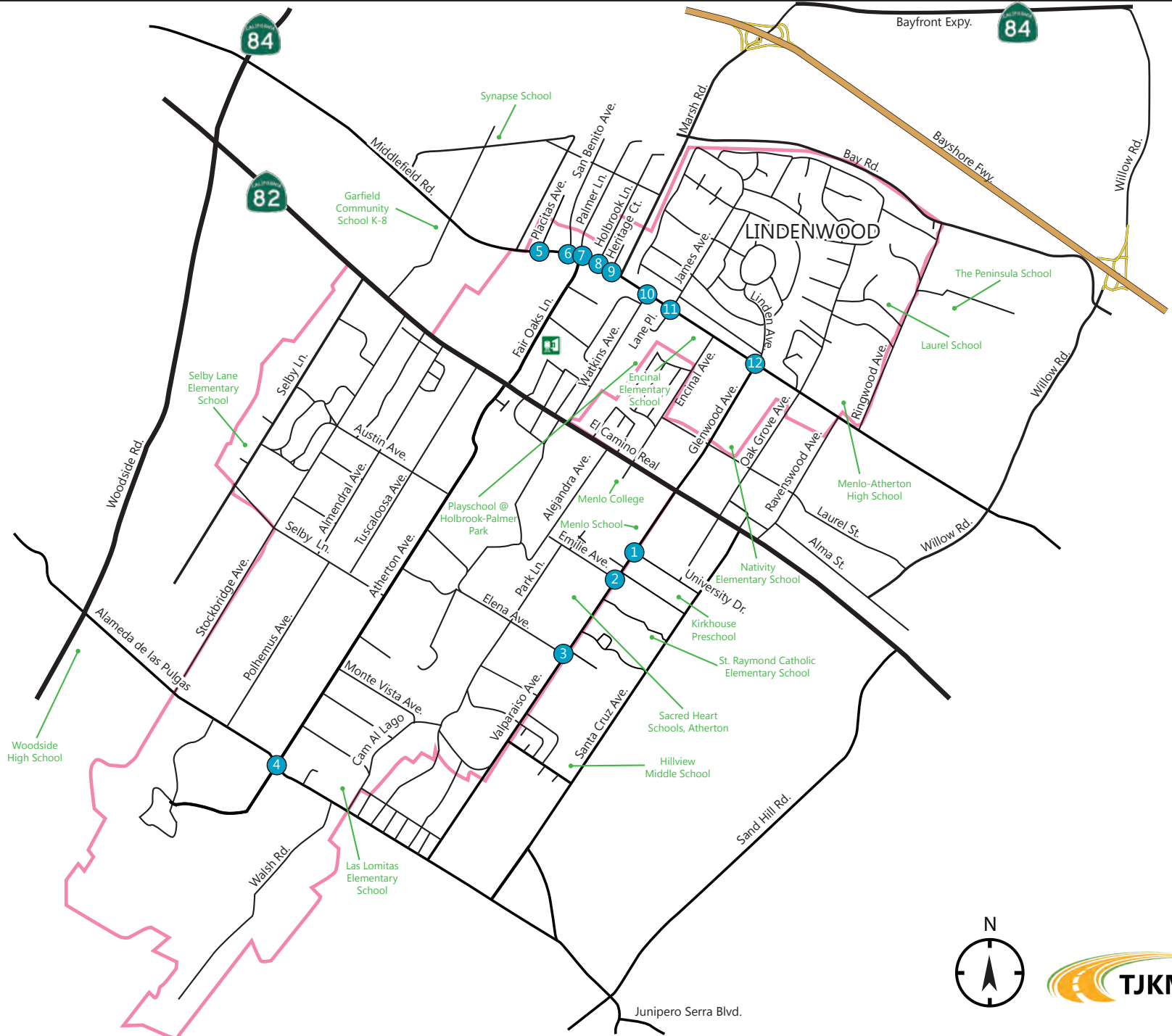
As a part of the study, TJKM collected intersection TMC at key study locations, ADT counts for focused roadways within the Town, and an OD study to ascertain the impacts of potential cut-through traffic within Atherton. This report summarizes the data collected, results of the existing conditions analysis, including LOS and delay and 95th percentile queue lengths at each study intersection, and the Existing Conditions OD analysis conducted.

STUDY INTERSECTIONS

The study intersections selected for the project are listed below and illustrated in **Figure 1a**.

Valparaiso Avenue/University Drive (Signalized)
Valparaiso Avenue/Emilie Avenue (One-Way Stop Control)
Valparaiso Avenue/Elena Avenue (One-Way Stop Control)
Alameda De Las Pulgas/Atherton Avenue (All-Way Stop Control)
Middlefield Road/Placitas Avenue (One-Way Stop Control)
Middlefield Road/San Benito Avenue (One-Way Stop Control)
Middlefield Road/Fair Oaks Lane-Palmer Lane (Two-Way Stop Control)
Middlefield Road/Holbrook Lane (One-Way Stop Control)
Middlefield Road/Heritage Court (One-Way Stop Control)
Middlefield Road/Watkins Avenue (One-Way Stop Control)
Middlefield Road/James Avenue-Lane Place (Two-Way Stop Control)
Middlefield Road/Glenwood Avenue-Linden Avenue (Two-Way Stop Control)

Vicinity Map





LEVEL OF SERVICE (LOS) ANALYSIS METHODOLOGY

LOS is a standard measure of traffic service along a roadway or at an intersection. It ranges from A to F, with LOS A being best and LOS F being worst. In very general terms, LOS A, B, and C indicate conditions where traffic can move relatively freely. LOS D describes conditions where delay is more noticeable and average travel speeds are more unstable. LOS E indicates significant delays and average travel speeds vary greatly and are unpredictable; traffic volumes are generally at, or close to, capacity. Finally, LOS F characterizes traffic flow at very slow speeds (stop-and-go) and significant delays with queuing at unsignalized intersections, which typically means traffic demand on the roadway exceeds the roadway's capacity.

The *Highway Capacity Manual (HCM)*, 6th Edition is the standard reference published by the Transportation Research Board, and contains the specific criteria and methods to be used in assessing LOS. There are several software packages that have been developed to implement HCM. In this study, Synchro Software was used to calculate the LOS at the study intersections.

Signalized intersection LOS is based on the capacity of the intersection as a whole and average delay experienced by a driver. Unsignalized intersection LOS is defined by the average delay experienced by a driver for the minor approach worst movement or major approach critical movement. **Tables 1 and 2** provide the relationship between LOS rating and delay for signalized and unsignalized intersections respectively.

Table 1: Signalized Intersection LOS Criteria

Level of Service	Description	Average Control Delay (Seconds Per Vehicle)
A	Operations with very low delay occurring with favorable progression &/or short cycle lengths.	≤ 10.0
B	Operations with low delay occurring with good progression &/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression &/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, &/or high volume-to-capacity (V/C) ratios. Many vehicles stop & individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths & high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.1 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	> 80.0

Source: Transportation Research Board, 2000 Highway Capacity Manual



Table 2: Unsignalized Intersection LOS Criteria

Level of Service	Description	Average Control Delay (Seconds Per Vehicle)
A	Little or no delays	≤ 10.0
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays with intersection capacity exceeded (for an all-stop), or with approach/turn movement capacity exceeded (for a side street stop controlled intersection)	> 50.0

Source: Transportation Research Board, 2000 Highway Capacity Manual

Significant Impact Criteria/Level of Service Standards (Proposed)

Currently, the Town of Atherton has proposed adoption of the following minimum acceptable intersection LOS standards (not yet adopted) as part of the General Plan update:

- Highways will operate at a minimum LOS E (C/CAG adopted standard)
- Minor arterials and collector streets will operate at a minimum LOS D
- Local Streets will operate at a minimum LOS C



2. EXISTING CONDITIONS

STREET CLASSIFICATION SYSTEM

The Atherton *General Plan* defines the functional street classification system for each type of street. The town's current street classifications are focused entirely on the function of each street for purposes of accommodating motor vehicle travel, but do not yet describe the function of each street for purposes of bicycle, pedestrian or transit travel. Atherton's current street classifications and right-of-way standards do not require provisions for bicycle, pedestrian or transit circulation or access. Updating the *General Plan* street design standards to accommodate bicycle lanes, and adopting a more rigorous policy for pedestrian accommodation were among the policy recommendations contained in the Atherton *Bicycle and Pedestrian Master Plan* (BPMP) adopted in 2014.

The roads in the town of Atherton are currently divided into four classifications, highways, minor arterial streets, collector streets, and local streets as described below. The 2002 *Atherton General Plan* specified that no street under town jurisdiction shall have more than two travel lanes.

Freeways and Highways are defined by the Atherton *General Plan* as "multilane facilities with no fixed interruptions to traffic flow" (i.e., no traffic signals or stop signs). The adopted 2002 *General Plan* further states that freeways and highways should provide capacity to serve a traffic volume of over 50,000 daily vehicles. Currently, there are no freeways in the Town of Atherton. El Camino Real, which is under Caltrans jurisdiction and passes through the town, is classified as a highway by the town, which is now an out-of-date definition since traffic signals have been installed at multiple intersections on El Camino Real, while the existing daily traffic volume on El Camino Real within Atherton is less than 40,000 daily vehicles (well under the desired capacity identified by the Atherton *General Plan*).

Minor Arterials are defined by the Atherton *General Plan* as "streets with traffic signals that serve through traffic and provide access to abutting properties (such as residential and commercial sites) as a secondary function". The Atherton *General Plan* defines a desired capacity of 10,000 to 25,000 daily vehicles for Minor Arterials. Middlefield Road, Marsh Road and Alameda de las Pulgas are classified as Minor Arterials (although no traffic signals are provided on Alameda de las Pulgas within Atherton). Traffic volumes on each of Atherton's minor arterials are generally within the desired range identified by the *General Plan*. In the Town of Atherton, minor arterials also serve as emergency service and evacuation routes.

Collector Streets are defined by the Atherton *General Plan* as being streets that "provide land access and traffic circulation within residential areas". (In other cities, collectors also serve non-residential areas). The *General Plan* further states that "collector streets should be designed to carry through traffic", while their main purpose "is to connect local traffic generators and local streets to arterials". The *General Plan* identifies a desired capacity of up to 12,000 daily vehicles on collector streets.

Local Streets are defined by the *General Plan* as providing access to abutting properties, locations for easements, access to open space, and fire breaks between buildings. The *General Plan* specifies that carrying traffic is a secondary function of local streets, and that local streets should be designed to



discourage through traffic. The General Plan identifies a desired daily volume of less than 1,000 daily vehicles on local streets.

General Street Design Standards

The general standards for street and right-of-way improvements as described in the adopted 2002 Atherton General Plan *Circulation Element* are summarized on **Table 3** below.

Table 3: Current Atherton Street Standards

Functional Classification	Right-of-Way Width	Roadway Width	Number of Motor Vehicle Lanes	Pedestrian Path Width	Bicycle Lane included?	Desired Traffic Capacity (ADT)
Freeways and Highways	Not specified	Not specified	4 to 10	Not specified	No	> 50,000 daily vehicles
Minor Arterial	60 feet	24 feet	2	Not specified	No	10,000 to 25,000
Collector	50 feet	24 feet	2	Not specified	No	2,500 to 12,000
Local	40 feet	20 feet	2	Not specified	Not applicable	<1,000

Source: Atherton General Plan 2002

Bicycle & Pedestrian Master Plan Design Recommendations

The BPMP, adopted by the town in 2014, contained bikeway design recommendations and pedestrian walkway concepts that differ from the town's minimum street design standards, including:

- BPMP recommended increasing the minimum roadway width on minor arterial and collector streets from 24 to 32 feet on streets where bicycle lanes are provided or proposed. This would apply to all of town's minor arterial streets (Alameda De Las Pulgas and Middlefield Avenue), and some collector streets (Atherton Avenue and Valparaiso Avenue).
- BPMP recommends updating the General Plan to require pedestrian accommodations (such as adjacent pedestrian paths or shoulder pathways) on all minor arterial and collector streets.



EXISTING ROADWAY NETWORK

The existing functional street classifications for highways, minor arterials and collector streets within the Town are illustrated in **Figure 1b**. All other streets within Atherton are designated as local streets.

The regional context of Atherton's street classifications are highlighted in **Figure 1c**, which shows the equivalent street classifications of adjacent jurisdictions, which differs from Atherton designations in some cases. For example:

- Valparaiso and Ravenswood Highway are classified as collector streets by the Town of Atherton, and as minor arterials by the City of Menlo Park.
- El Camino Real is classified as a highway by the Town of Atherton, and as a boulevard (major arterial) by the City of Menlo Park.

Existing and proposed bikeways as identified in the BPMP (adopted in 2014) are illustrated on **Figure 1d**. Under existing conditions, bicycle lanes within Atherton are provided on Alameda De Las Pulgas, Middlefield Road, Valparaiso Avenue and a portion of Selby Lane. The BPMP proposes provision of a Class I Trail along the west side of El Camino Real that would accommodate both bicyclists and pedestrians, and installation of Class II bicycle lanes on Valparaiso Avenue and additional segments of Selby Lane. In addition, the BPMP proposes Class III bikeway designations on several local streets, and proposes enhancements to the existing bicycle lanes on Alameda De Las Pulgas, Middlefield Road and Valparaiso Avenue.

Streets in Atherton generally do not follow a true north-south or east-west alignment. For the purpose of this study, El Camino Real and US 101 are both considered to have a north-south alignment. The alignment designation of all other streets was established based on the street's relative position to US 101 and/or El Camino Real. Following are descriptions of regional routes in the project vicinity.

El Camino Real (State Route (SR) 82) is a primary north-south regional street that functions as a major arterial, is designated as a highway by the Town of Atherton and as a boulevard (major arterial) by the City of Menlo Park, and serves a key north-south commercial and mixed-use corridor in the San Francisco Peninsula. El Camino Real is one of the routes included in the San Mateo County Smart Corridor project, an Intelligent Transportation System program designed to improve mobility along the US 101 corridor (including parallel routes) in San Mateo County. Within the study area, El Camino Real has three vehicle lanes in northbound and southbound direction from Spruce Avenue to Selby Lane, and two vehicle lanes in northbound and three vehicle lanes in southbound direction between Valparaiso Avenue-Glenwood Avenue and Spruce Avenue within the town's limits. The segment between Selby Lane to Valparaiso Avenue-Glenwood Avenue is separated by concrete median. The street has a posted speed limit of 35 miles per hour (mph) within Atherton. As a regional route, El Camino Real begins in Santa Clara County and continues through Daly City where it continues as Mission Street into San Francisco. El Camino Real passes through the jurisdictions of Menlo Park, Atherton, Palo Alto, Redwood City, and various other jurisdictions including Santa Clara County and San Mateo County.



There are no existing bicycle lanes or designated bicycle route segments on El Camino Real within the town's limits. The BPMP proposes removal of one southbound motor vehicle lane to provide a Class I Trail along the west side of El Camino Real that would also accommodate pedestrians. Frequent bus service is provided on El Camino Real by SamTrans. Sidewalks are provided on the east side of El Camino Real from Alejandra Avenue to Watkins Avenue, within town limits, and from Wilburn Avenue to Selby Lane, directly outside of the town border in the North Fair Oaks area. No sidewalks are provided on the west side of El Camino Real within the town limits. On-street parking is permitted along certain segments of El Camino Real in the northbound direction only directly adjacent to town limits, in the North Fair Oaks unincorporated area.

Middlefield Road is a north-south minor arterial with a posted speed limit of 30 mph that extends from Redwood City south through Atherton, Menlo Park and Palo Alto to Mountain View. Middlefield Road has two through lanes per direction both north and south of Atherton. Within Atherton, Middlefield Road narrows to one through motor vehicle lane in each direction between the Redwood City/Atherton border and Ringwood Avenue, before widening to two lanes in each direction south of Ringwood Avenue. Middlefield Road provides direct access to residential, office, school areas, and Redwood City and Menlo Park commercial developments. The southbound segment from Ringwood Avenue to Ravenswood Avenue falls under the jurisdiction of Menlo Park and all other segments within the town limits fall under the Town of Atherton's jurisdiction. Middlefield Road, within town limits, has Class II bike lanes in both directions. Middlefield Road has sidewalks on both sides from Ringwood Avenue to Ravenswood Avenue, with the east side within town limits and the west side in Menlo Park, and on the east side only from Ravenswood Avenue to Oak Grove Avenue and from Encinal Avenue to Marsh Road. There is currently no on-street motor vehicle parking on Middlefield Road.

Atherton Avenue is an east-west collector street and extends between Ridgeview Drive and El Camino Real. Atherton Avenue has one through lane in each direction. Atherton Avenue connects to Middlefield Road via Fair Oaks Lane. The posted speed limit is 25 to 35 mph. Class III bicycle route signage is provided in both directions from Alameda de Las Pulgas to El Camino Real. There are no existing sidewalks on this roadway. On-street parking is permitted in both directions from Alameda De Las Pulgas to El Camino Real.

Alameda De Las Pulgas is a north-south minor arterial which extends from north of Redwood City to south of Atherton at Sand Hill Road, including segments between Camino Al Lago and Stockbridge Avenue within the Town of Atherton. Alameda De Las Pulgas has one through motor vehicle lane in each direction and school bus service provided by SamTrans. The posted speed limit is 30 mph. Class II bicycles lanes are provided from Stockbridge Avenue to Camino al Lago in both directions. There are no existing sidewalks for this roadway segment. On-street parking is currently not allowed within the town limits.

Ravenswood Avenue is an east-west street connecting El Camino Real and Middlefield Road, designated as an avenue (minor arterial) by the City of Menlo Park and as a collector by the Town of Atherton. Ravenswood Avenue has one motor vehicle lane in each direction with a posted speed limit of 30 mph, and provides direct access to both commercial and residential uses. The eastbound segment of Ravenswood Avenue falls under Menlo Park's Jurisdiction while the westbound falls under the Town of Atherton. Class II bicycle lanes and Class III bicycle route designations are provided in both directions



from El Camino Real to Middlefield Road within town limits. Sidewalks are provided on the south side from El Camino Real to Middlefield Road, and on portions of the north side within Menlo Park from El Camino Real to Marcussen Drive and El Camino Real to Merrill Street. There is no on-street parking permitted on Ravenswood Avenue.

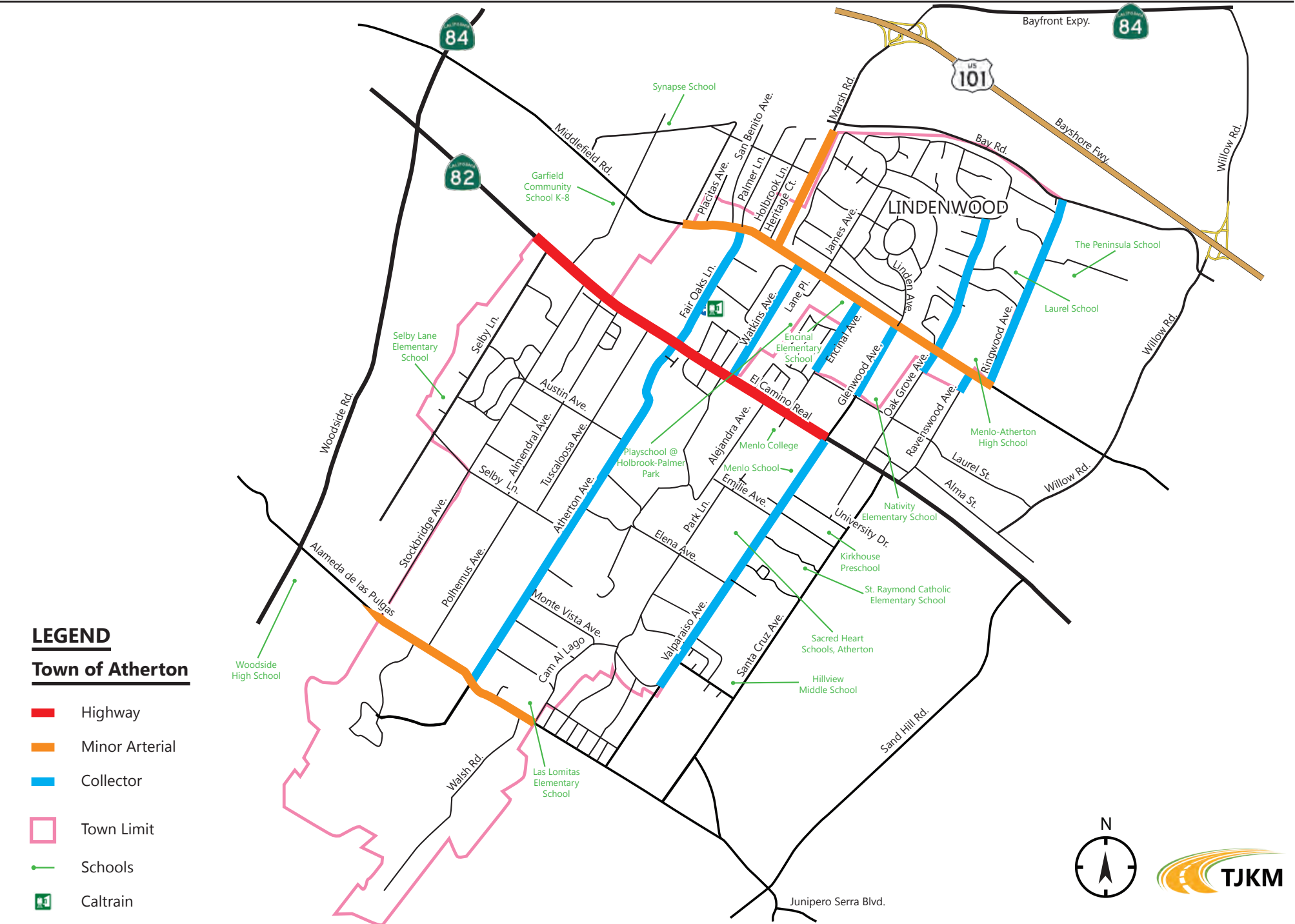
Ringwood Avenue is an east-west collector between Middlefield Road and the Bay Road. Ringwood Avenue has one motor vehicle lane in each direction with a posted speed limit of 30 mph. The eastbound direction of Ringwood Avenue is under San Mateo County's jurisdiction and the westbound direction is under the Town of Atherton's jurisdiction. Class II bicycle lanes are provided in the eastbound direction from Middlefield Road to Arlington Way and in both directions from Arlington Way to Bay Road. Sidewalks are provided on both sides from Middlefield Road to Arlington Way and on the south side from Edge Road to Colby Avenue. Street parking is limited on westbound Ringwood Avenue from Arlington Way to Edge Road.

Marsh Road is an east-west two-to-four lane minor arterial between Middlefield Road in the Town of Atherton and US 101/Bayfront Expressway interchange in City of Redwood City, and connects with Bayfront Expressway (State Route 84) which provides access to portions of Menlo Park and East Palo Alto before connecting with the Dumbarton Bridge. It also provides access to the North Fair Oaks neighborhood of San Mateo County via Fair Oaks Avenue. The segment from Middlefield Road to south of Fair Oaks Avenue falls under the jurisdiction of the Town of Atherton, while the segment from Fair Oaks Avenue to Bay road falls under the jurisdiction of the North Fair Oaks unincorporated area. The westbound segment of Marsh Road from Fair Oaks Avenue to Bay Road falls under San Mateo County's jurisdiction. The posted speed limit is 30 mph. There are currently no bicycle facilities on Marsh Road. Sidewalks are provided for westbound pedestrians from Fair Oaks Avenue to Bay Road. Street Parking is permitted from Fair Oaks Avenue to Bay Road in the westbound direction, outside of town limits. Street parking is not permitted on Marsh Road within the Town of Atherton.

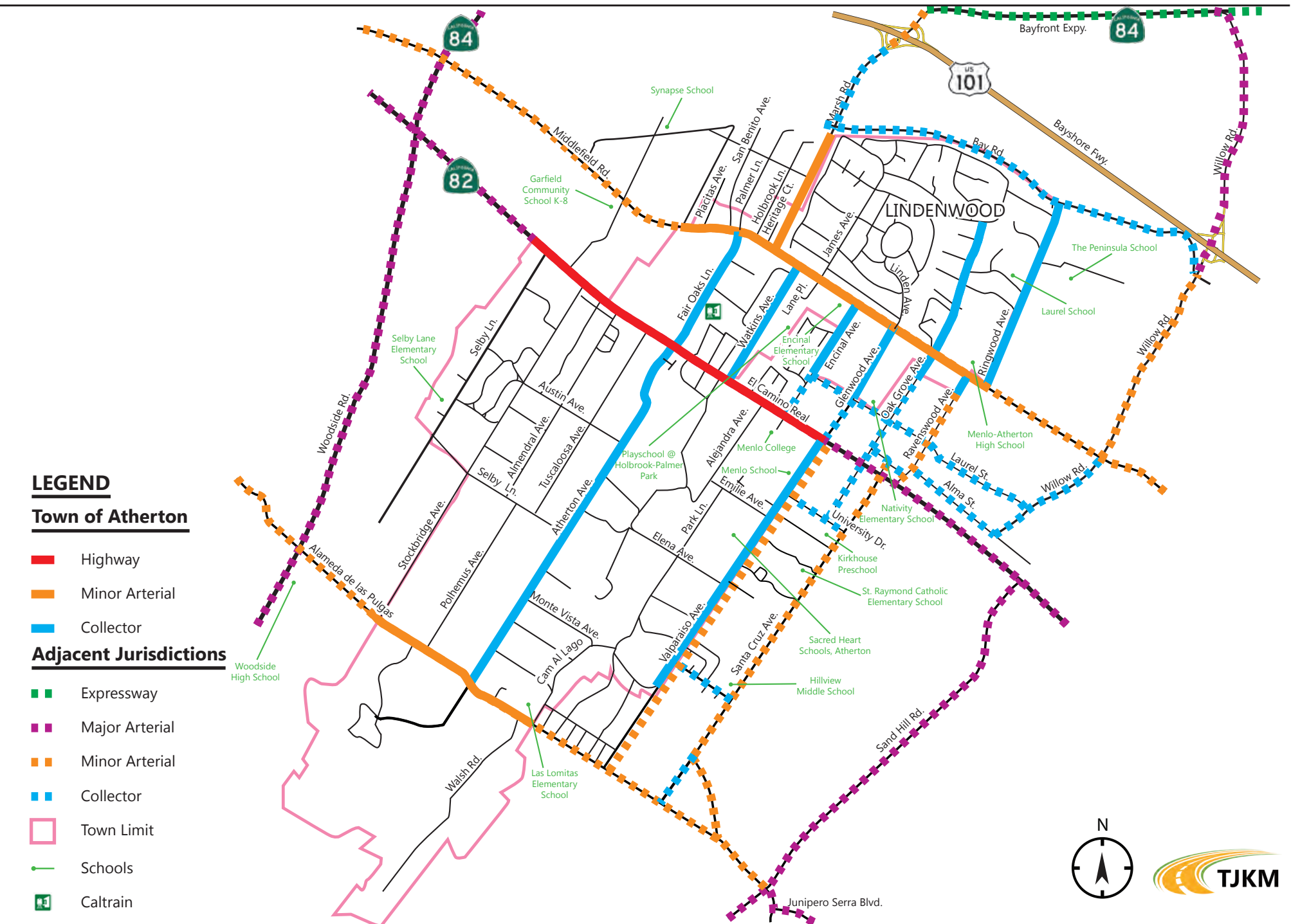
Valparaiso Avenue is an east-west street between North Lemon Avenue and El Camino Real that is designated as a collector street by the Town of Atherton, and as an avenue (minor arterial) by the City of Menlo Park. Valparaiso Avenue has one motor vehicle lane in each direction with a posted speed limit of 35 mph. The westbound segment from North Lemon Avenue to El Camino Real falls under the jurisdiction of the Town of Atherton while the eastbound segment falls under the jurisdiction of Menlo Park. Class II bicycle lanes are provided from North Lemon Avenue to El Camino Real in both directions. Sidewalks are provided on the south side (under Menlo Park's jurisdiction) from North Lemon Avenue to El Camino Real. On-street parking is permitted in the eastbound direction but is limited in the westbound direction from North Lemon Avenue to El Camino Real.

Fair Oaks Lane is a two-lane collector street that connects El Camino Real with Middlefield Road and provides access to the Atherton Caltrain Station. Fair Oaks Lane also connects to Alameda De Las Pulgas via Atherton Avenue and provides connectivity to the Town of Atherton's Civic Center. The posted speed limit is 25 mph. Fair Oaks Lane has existing Class III bicycle route signage but no sidewalks provided for pedestrians despite providing access to Atherton's Caltrain station. On-street parking is permitted in the westbound direction but limited in the eastbound direction.

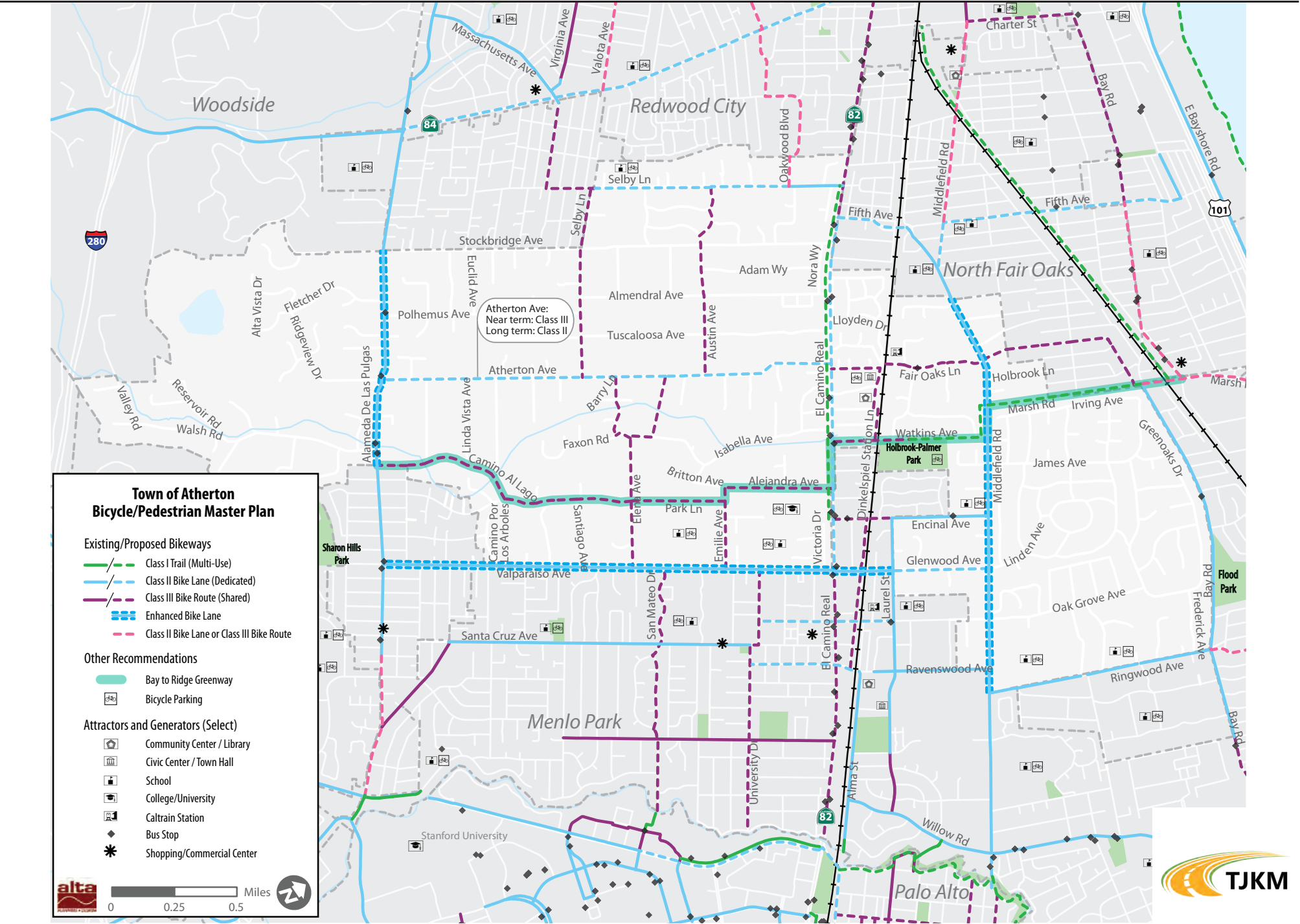
Existing Street Classifications (Atherton)



Existing Street Classifications (Atherton and Adjacent Jurisdictions)



Existing & Proposed Bikeway Network





BICYCLE & PEDESTRIAN FACILITIES ON LOCAL & COLLECTOR STREETS

This section describes other bicycle and dedicated pedestrian facilities on Atherton's smaller local and collector streets network.

Selby Lane has Class II bicycle lanes in both directions from El Camino Real to Oakwood Boulevard and Class III bicycle facilities in both directions from Oakwood Boulevard to Atherton Avenue. Selby Lane currently has no existing dedicated pedestrian facilities.

Austin Avenue is designated as a Class III bikeway from Selby Lane to Atherton Avenue in both directions. There are currently no existing dedicated pedestrian facilities on Austin Avenue.

Camino Al Lago/Park Lane has Class III bicycle facilities in both directions from Alameda de Las Pulgas to Emilie Avenue and has no existing dedicated pedestrian facilities.

Elena Avenue has existing Class III bicycle facilities from Atherton Avenue to Valparaiso Avenue in both directions. There are no existing dedicated pedestrian facilities along Elena Avenue.

Emilie Avenue has Class III facilities in both directions from Alejandra Avenue to Valparaiso Avenue. There is a sidewalk along the Sacred Heart School soccer field on the west side of Emilie Avenue from Park Lane to MacBain Avenue.

Alejandra Avenue has Class III bicycle facilities in both directions from Emilie Avenue to El Camino Real. Alejandra Avenue has a sidewalk on the south side from Menlo College Tennis Courts to Cartan Athletic Fields.

Dinkelspiel Station Lane has Class III bicycle facilities running from Fair Oaks Lane to Watkins Avenue in both directions. On the west side, there is a sidewalk from Ashfield Road to Maple Avenue.

Watkins Avenue has Class III bicycle facilities in both directions from El Camino Real to Middlefield Road. There is currently a sidewalk on the east side of Watkins Avenue near the El Camino Real/Watkins Avenue intersection and from the Watkins Avenue Caltrain grade crossing to Middlefield Road.

Encinal Avenue has Class II bicycle lanes from Laurel Street to Middlefield Road in both directions. There is a sidewalk in the westbound direction from Middlefield Road to the west end of the Menlo Park City School District.

Bay Road has Class II bicycle lanes in both directions from Marsh Road to Ringwood Avenue. In the northbound direction, there is a sidewalk present from Marsh Road to Del Norte Avenue.

EXISTING TRANSIT SERVICE

The public transit network within San Mateo County is primarily comprised of SamTrans bus service and Caltrain passenger rail service between Santa Clara County and San Francisco, including service to the Atherton, Menlo Park and Redwood City Caltrain stations. Service to the Atherton Station is currently limited to weekends only. Caltrain serves over 65,000 average weekday passengers, most of whom pass through Atherton, helping to alleviate regional cut-through traffic. There are two at-grade road crossings of the Caltrain tracks in Atherton; one on Fair Oaks Lane and the other on Watkins Avenue.



SamTrans operates fixed bus routes through Atherton, providing public bus access throughout San Mateo County and into San Francisco and Palo Alto. The principal SamTrans line runs along El Camino Real, providing connecting service to Peninsula transit stations between Palo Alto and Daly City including the Redwood City and Menlo Park Caltrain Stations. Other lines run on Middlefield Road and Bay Road. Service is available to local elementary and high schools on school-days, including service on Alameda de las Pulgas.

SamTrans also operates the Menlo Park Caltrain Shuttle which provides service through Atherton between the Menlo Park Caltrain Station and the Bohannon Industrial Park east of Atherton.

There are eight active bus routes within the Town, as described below.

Route 87: Route 87 is active during school days only. The eastbound route is active in the morning between 7:00 a.m. and 7:35 a.m. going to Woodside High School from Portola Valley. The westbound route leaving Woodside High School is active between 12:15 p.m. and 12:51 p.m. and between 2:20 p.m. and 2:56 p.m. on Wednesdays, and between 3:25 p.m. and 4:01 p.m. on all weekdays except Wednesdays. Within the Town of Atherton, bus stops are located at Alameda de las Pulgas/Polhemus Avenue, Alameda de las Pulgas/Atherton Avenue, Alameda de Las Pulgas/ Walsh Road, Alameda de las Pulgas/Manzanita Avenue, and Alameda de las Pulgas/Valparaiso Avenue.

Route ECR: Route ECR is active on weekdays and weekends. The northbound route goes to Daly City BART and the southbound route to Palo Alto Transit Center. The northbound weekday service is scheduled to operate from 4:06 a.m. to 2:08 a.m. and the southbound weekday service is scheduled to operate from 4:40 a.m. to 2:06 a.m. Northbound Saturday Service is scheduled to operate from 4:47 a.m. to 1:55 a.m. and the southbound Saturday service is scheduled to operate from 5:45 a.m. to 2:21 a.m. The northbound Sunday service is scheduled from 4:50 a.m. to 1:56 a.m. and the southbound Sunday service is scheduled to operate from 5:41 a.m. to 2:15 a.m. Within the Town of Atherton, bus stops are located at El Camino Real/Encinal Avenue, El Camino Real/Watkins Avenue, El Camino Real/Almendral Avenue, and El Camino Real/Amherst-Fifth Avenue. Route ECR also provides late night bus service that includes limited bus stations.

Route 84: Route 84 is active during school days only. The westbound route is active in the morning between 7:41 a.m. and 8:10 a.m. going to Hillview School. The westbound route leaving Hillview School is active between 2:40 p.m. and 3:11 p.m. on Wednesdays and Thursdays, and between 3:22 p.m. and 3:56 p.m. on Mondays, Tuesdays, and Fridays. Within the Town of Atherton, bus stops are located at Valparaiso Avenue/Elder Avenue, Valparaiso Avenue/Arbor Road, Valparaiso Avenue/University Drive, Middlefield Road/Oak Grove Avenue, Middlefield Road/Encinal Avenue, Middlefield Road/Lane Place, El Camino Real/Encinal Avenue, El Camino Real/Watkins Avenue, and Fair Oaks Lane/Mc Cormick Lane.

Route 296: Route 296 is active on weekdays and weekends. The northbound route goes to the Redwood City Transit Center and the southbound route to the Bayshore/Donohoe/Palo Alto Transit Center. The northbound weekday service is scheduled to operate from 3:46 a.m. to 12:23 a.m., and the northbound weekend service is scheduled from 3:45 a.m. to 12:26 a.m. The southbound weekday service is scheduled to operate from 6:05 a.m. to 2:44 a.m., and the southbound weekend service is scheduled from 6:43 a.m.



to 2:20 a.m. Within the Town of Atherton, bus stops are located at Middlefield Road/Oak Grove Avenue, Middlefield Road/James Avenue-Lane Place, Middlefield Road/Palmer Lane, and Middlefield Road/San Benito Avenue.

Route 397: Route 397 is active on weekdays and weekends. The northbound route goes to San Francisco and the southbound route to Palo Alto Transit Center. The weekday and weekend northbound service is scheduled to operate from 12:46 a.m. to 5:26 a.m., and the southbound service is scheduled to operate from 1:06 a.m. to 6:23 a.m. Within the Town of Atherton, bus stops are located at Middlefield Road/Oak Grove Avenue, Middlefield Road/James Avenue-Lane Place, Middlefield Road/Palmer Lane, and Middlefield Road/San Benito Avenue.

Route 88: Route 88 is active during school days only. The westbound route is active in the morning between 7:27 a.m. and 8:00 a.m. going to Encinal Elementary School from Bay/Marsh. The eastbound route leaving Encinal Elementary School is active between 2:02 p.m. and 2:33 p.m. on Thursdays, and between 3:12 p.m. and 3:43 p.m. on all weekdays except Thursdays. Within the Town of Atherton, bus stops are located at Middlefield Road/Oak Grove Avenue and Encinal Avenue/Felton Drive.

Route 286: Route 286 is active on weekdays only. The eastbound route goes to Menlo Park Caltrain and Middlefield Road/Oak Grove Avenue and the westbound route to Corte Madera High School and Sharon Green Apartments. The weekday eastbound service is scheduled to operate from 7:12 a.m. to 5:17 p.m. and the westbound service is scheduled to operate from 7:53 a.m. to 6:02 p.m. Within the Town of Atherton, bus stops are located at Middlefield Road/Oak Grove Avenue and Middlefield Road/Ringwood Avenue.

Route 82: Route 82 is active during school days only. The westbound route is active in the morning on all weekdays between 7:40 a.m. and 8:10 a.m. going to Hillview School. The westbound route leaving Hillview School is active between 2:45 p.m. and 3:12 p.m. on Wednesdays and Thursdays only. Within the Town of Atherton, bus stops are located at Valparaiso Avenue/Elder Avenue, Valparaiso Avenue/Arbor Road, Valparaiso Avenue/University Drive, Ringwood Avenue/Edge Road, Ringwood Avenue/Colby Avenue, Ringwood Avenue Frederick Avenue, and Bay Road/Del Norte Avenue.

Atherton Caltrain Station: Atherton Station is now a weekend-only Caltrain Station due to low ridership over a decade ago compared to stations in the adjacent cities of Redwood City and Menlo Park. The Redwood City Station is the fifth-busiest Caltrain station, serving 8,200 average weekday passengers, while the Menlo Park Station serves over 3,500 average weekday passengers. Fair Oaks Lane provides access to the Atherton Caltrain Station, but no sidewalks or bicycle lanes are provided which may limit its ridership potential. Weekday shuttle bus service to Redwood City was previously provided to the Atherton Station but discontinued in 2007 due to low ridership. The Town of Atherton has requested improved service to the station including a formal request in 2015. The station provides bicycle parking including 26 bicycle lockers. The northbound route to San Francisco operates from 7:37 a.m. to 11:09 p.m. and the southbound route to San Jose operates from 9:09 a.m. to 1:03 a.m.



DATA COLLECTION

Average Daily Traffic (ADT) Data

TJKM collected 24-hour bi-directional traffic volume tube counts on Tuesday, March 27, 2018 at the following 15 locations:

1. Alameda De Las Pulgas, south of Atherton Avenue
2. Atherton Avenue, between Monte Vista and Stern Lane
3. Valparaiso Avenue, between Park Lane and Santiago Avenue
4. Emilie Avenue, between Park Lane and Valparaiso Avenue
5. Alejandra Avenue, between Emilie Avenue and El Camino Real
6. El Camino Real, south of Odell Place
7. Fair Oaks Lane, between Mc Cormick Lane and Virginia Lane
8. Marsh Road, between Middlefield Road and Fair Oaks Avenue
9. Watkins Avenue, between Mc Cormick Lane and Burns Avenue
10. Middlefield Road, north of Encinal Avenue
11. Encinal Avenue, west of Middlefield Road
12. Glenwood Avenue, west of Middlefield Road
13. Oak Grove Avenue, west of Middlefield Road
14. Ravenswood Avenue, west of Middlefield Road
15. Ringwood Avenue, between Colby Avenue and Parkwood Drive

Table 4 summarizes the 24-hour traffic volumes (vehicles per day (vpd)) collected and **Appendix A** contains the raw data. **Figure 2** illustrates the ADT collected at each of the 15 locations.

**Table 4: Average Daily Traffic Summary for Historical (2015) & Existing (2018)**

<i>Location</i>	<i>2015 EB Volumes (vpd)</i>	<i>Existing 2018 EB Volumes (vpd)</i>	<i>2015 WB Volumes (vpd)</i>	<i>Existing 2018 WB Volumes (vpd)</i>	<i>2015 Total (vpd)</i>	<i>Existing 2018 Total (vpd)</i>
Atherton Avenue, between Monte Vista & Stern Lane ²	3,857	3,070	4,962	4,264	8,819	7,334
Valparaiso Avenue, between Park Lane & Santiago Avenue ³	6,500	5,962	6,399	6,006	12,899	11,968
Alejandra Avenue, between Emilie Avenue & El Camino Real	1,218	1,091	1,263	1,096	2,481	2,187
Fair Oaks Lane, between Mc Cormick Lane & Virginia Lane ⁴	2,292	2,394	2,827	2,911	5,119	5,305
Marsh Road, between Middlefield Road & Fair Oaks Avenue	N/A	11,126	N/A	11,040	22,185	22,166
Watkins Avenue, between Mc Cormick Lane & Burns Avenue ⁵	1,875	1,927	1,525	1,869	3,400	3,796
Encinal Avenue, west of Middlefield Road	N/A	2,523	N/A	2,933	4,854	5,456
Glenwood Avenue, west of Middlefield Road	1,699	1,772	2,587	2,765	4,286	4,537
Oak Grove Avenue, west of Middlefield Road	N/A	4,147	N/A	4,424	N/A	8,571
Ravenswood Avenue, west of Middlefield Road	N/A	8,372	N/A	6,869	N/A	15,241
Ringwood Avenue, between Colby Avenue & Parkwood Drive	N/A	3,896	N/A	3,522	N/A	7,418
<i>Location</i>	<i>2015 NB Volumes (vpd)</i>	<i>Existing 2018 NB Volumes (vpd)</i>	<i>2015 SB Volumes (vpd)</i>	<i>Existing 2018 SB Volumes (vpd)</i>	<i>2015 Total (vpd)</i>	<i>Existing 2018 Total (vpd)</i>
Alameda De Las Pulgas, south of Atherton Avenue ⁶	N/A	7,277	N/A	7,152	14,185	14,429
Emilie Avenue, between Park Lane & Valparaiso Avenue	N/A	831	N/A	1,621	N/A	2,452
El Camino Real, south of Odell Place ⁷	N/A	17,578	N/A	15,166	36,774	32,744
Middlefield Road, north of Encinal Avenue	N/A	9,923	N/A	9,618	18,335	19,541

Notes

¹Historical counts were provided by the Town of Atherton. Historical ADT count locations differing from existing locations are listed below.

²ADT collected between Selby Lane and Barry Lane.

³ADT collected west of Elena Avenue.

⁴ADT collected east of El Camino Real.

⁵ADT collected north of the train tracks.

⁶ADT collected north of Camino Al Lago.

⁷ADT collected south of Almendral Avenue.

Average Daily Traffic Volumes Map





Intersection Turning Movement Counts (TMC)

On Tuesday, March 27, 2018, TJKM collected intersection TMC for vehicles, pedestrians, and bicycles at the 12 study intersections for the weekday a.m. (7:00 a.m. – 9:00 a.m.), school p.m. (2:00 p.m. – 4:00 p.m.), and p.m. (4:00 p.m. – 6:00 p.m.) peak periods. TMC data was collected on a typical weekday when all schools within the study area were in session. **Table 5** lists the schools that were in session during the time that TMC were collected. **Figure 3** illustrates the existing lane geometry and traffic control and **Figure 4** illustrates existing traffic volumes for all study intersections respectively. **Figure 5** illustrates existing pedestrian and bicycle volumes at all study intersections. **Appendix A** contains the TMC data collected for all of the study intersections.

Table 5: List of Schools within the Project Study Area

School	Vacation Schedule	
	Easter Break	Spring Break
Selby Lane Elementary School	03/30	04/09-04/13
Las Lomitas Elementary School District	-	04/09-04/13
Sacred Heart Schools	03/29-04/08	
Menlo School	03/30	04/09-04/13
Playschool at Holbrook-Palmer Park	03/30	04/09-04/13
Encinal Elementary School	03/30	04/09-04/13
Garfield Elementary School	03/30	04/09-04/13
Nativity Catholic School	03/30-04/08	
Synapse School	-	04/09-04/13
Peninsula School	-	04/09-04/13
Laurel School	03/30	04/09-04/13
Menlo-Atherton High School	03/30	04/09-04/13
Woodside High School	03/30	04/09-04/13

Existing Signal Timing

TJKM obtained the existing traffic signal timing sheets and phase diagrams, at the intersection of Valparaiso Avenue and University Drive, from the City of Menlo Park for the purpose of the existing conditions analysis.

Origin-Destination (OD) Data

TJKM used the StreetLight Insight® Data platform, which utilizes Big Data for evaluating trip patterns within the study area. TJKM processed data for April 2017 and October 2017 for the OD analysis. The Willow Road/US 101 Interchange Improvement project entered its construction phase in May 2017, and is expected to continue for approximately two years. Hence, the OD study was conducted “Before Construction” in April 2017 and “Ongoing Construction” in October 2017 to ascertain the impacts to the Town’s roadway system. StreetLight Insight® provides trip attributes for all months of the year, including historical data up to 2014, depending on the analysis conducted. However, the parameters adopted for

Existing Lane Geometry and Traffic Controls

Intersection #1 Valparaiso Ave. / University Dr.	Intersection #2 Valparaiso Ave. / Emilie Ave.	Intersection #3 Valparaiso Ave. / Elena Ave.	Intersection #4 Alameda De Las Pulgas / Atherton Ave.
Intersection #5 Middlefield Rd. / Placitas Ave.	Intersection #6 Middlefield Rd. / San Benito Ave.	Intersection #7 Middlefield Rd. / Fair Oaks Ln. & Palmer Ln.	Intersection #8 Middlefield Rd. / Holbrook Ln.
Intersection #9 Middlefield Rd. / Heritage Ct.	Intersection #10 Middlefield Rd. / Watkins Ave.	Intersection #11 Middlefield Rd. / James Ave. & Lane Pl.	Intersection #12 Middlefield Rd. / Glenwood Ave. & Linden Ave.

LEGEND

- Study Intersection
- Town Limit
- Schools
- Stop Sign
- Traffic Signal
- Caltrain



Existing Peak Hour Traffic Volumes

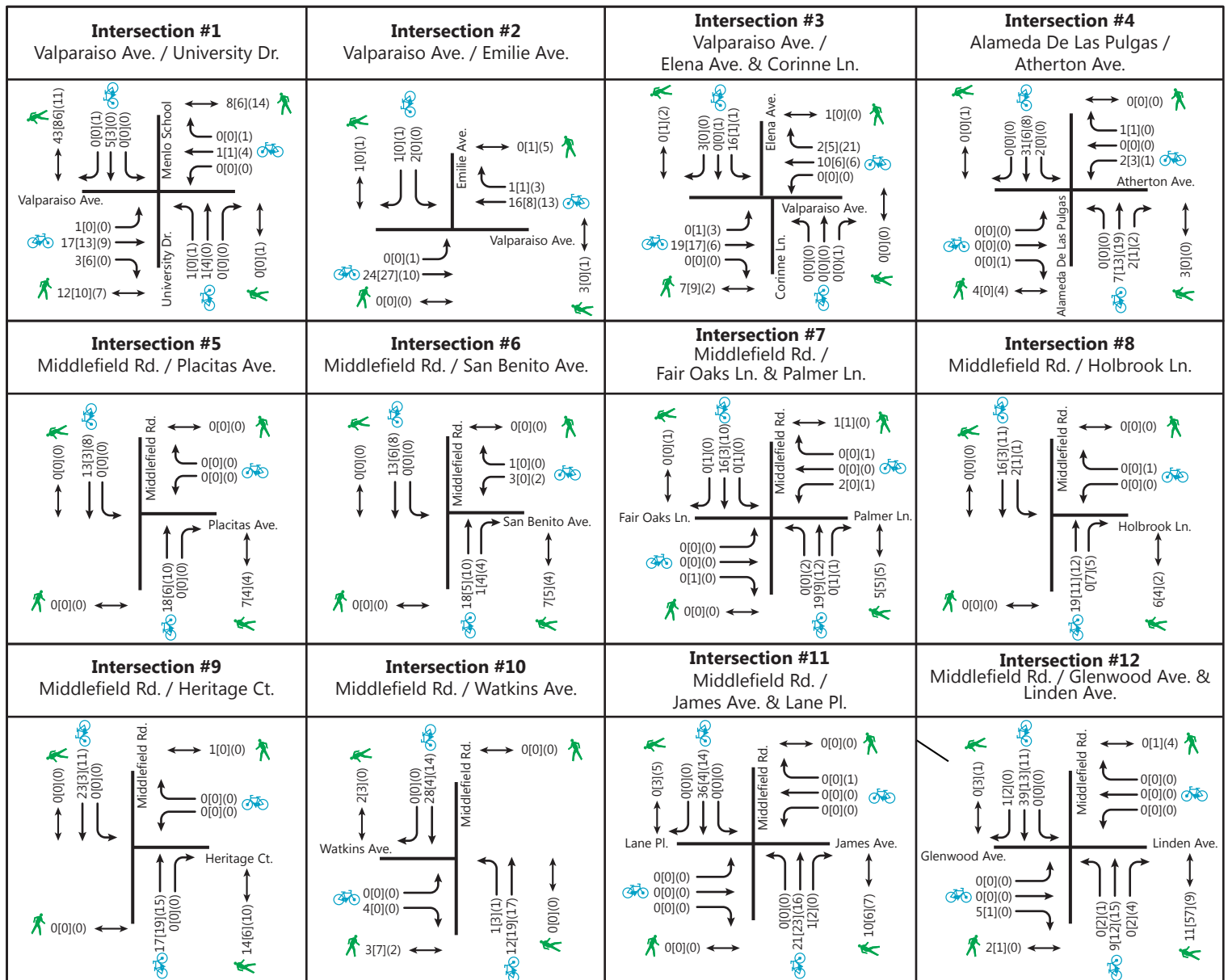
Intersection #1 Valparaiso Ave. / University Dr.	Intersection #2 Valparaiso Ave. / Emilie Ave.	Intersection #3 Valparaiso Ave. / Elena Ave.	Intersection #4 Alameda De Las Pulgas / Atherton Ave.
Intersection #5 Middlefield Rd. / Placitas Ave.	Intersection #6 Middlefield Rd. / San Benito Ave.	Intersection #7 Middlefield Rd. / Fair Oaks Ln. & Palmer Ln.	Intersection #8 Middlefield Rd. / Holbrook Ln.
Intersection #9 Middlefield Rd. / Heritage Ct.	Intersection #10 Middlefield Rd. / Watkins Ave.	Intersection #11 Middlefield Rd. / James Ave. & Lane Pl.	Intersection #12 Middlefield Rd. / Glenwood Ave. & Linden Ave.

LEGEND

-  Study Intersection
-  Town Limit
-  Schools
- XX AM Peak Hour Volume
- [XX] PM Peak School Hour Volume
- (XX) PM Peak Hour Volume
-  Caltrain



Existing Pedestrian and Bike Volumes



LEGEND



Study Intersection



Town Limit



Schools

XX AM Peak Hour Volume

[XX] PM Peak School Hour Volume

(XX) PM Peak Hour Volume



Caltrain





this study only provided data until October 2017. In order to obtain a dataset unbiased by irregular traffic patterns as a result of holidays and weather conditions, data from April 2017 and October 2017 on a typical Tuesday, Wednesday, and Thursday was used for the analysis.

Appendix B contains the OD processed data obtained from StreetLight Insight® Data platform for the project.

EXISTING CONDITIONS (2018) LOS & 95TH PERCENTILE QUEUE LENGTH ANALYSIS

The Existing Conditions (2018) scenario evaluates all study intersections with existing lane geometry, traffic controls, and traffic volumes. The results of the LOS and motor vehicle delay analysis and 95th percentile motor vehicle queue length in feet (ft.) analysis, using Synchro and SimTraffic software, are summarized in **Tables 6** and **7** respectively. SimTraffic was used to analyze 95th percentile queue lengths at all intersections. **Appendix C** contains the HCM 6th Edition Synchro LOS and queues reports for all study intersections.

Atherton's proposed minimum acceptable intersection LOS standards for minor arterial and collector streets, in the proposed General Plan update, is LOS D, while the proposed standard for collector and local streets is LOS C and for Highway is LOS E. Under the Existing Conditions (2018) scenario, the intersections of Valparaiso Avenue/University Drive and Middlefield Road/Placitas Avenue operate at LOS C during the weekday, a.m., school p.m., and p.m. peak periods, thus meeting the proposed LOS standard for minor arterials. The following collector street intersections operate with unacceptable LOS of E or F:

- Valparaiso Avenue/Emilie Avenue (all peak hours)
- Valparaiso Avenue/Elena Avenue (all peak hours)
- Alameda De Las Pulgas/Atherton Avenue (all peak hours)
- Middlefield Road/Fair Oaks Lane-Palmer Lane (all peak hours)
- Middlefield Road/Holbrook Lane (a.m. peak hour)
- Middlefield Road/Watkins Avenue (all peak hours)
- Middlefield Road/James Avenue-Lane Place (all peak hours)
- Middlefield Road/Glenwood Avenue-Linden Avenue (all peak hours)



Table 6: Existing Conditions LOS & Delay

#	Study Intersections	Control	Peak Hour	Existing Conditions	
				Average Delay ¹ (sec)	LOS
1	Valparaíso Avenue/University Drive	Signalized	A.M.	23.2	C
			School P.M.	22.4	C
			P.M.	22.9	C
2	Valparaíso Avenue/Emilie Avenue	One-Way Stop	A.M.	>50.0	F
			School P.M.	>50.0	F
			P.M.	>50.0	F
3	Valparaíso Avenue/Elena Avenue-Corrine Lane	Two-Way Stop	A.M.	>50.0	F
			School P.M.	>50.0	F
			P.M.	>50.0	F
4	Alameda De Las Pulgas/Atherton Avenue	All-Way Stop	A.M.	>50.0	F
			School P.M.	>50.0	F
			P.M.	>50.0	F
5	Middlefield Road/Placitas Avenue	One-Way Stop	A.M.	17.3	C
			School P.M.	20.5	C
			P.M.	21.5	C
6	Middlefield Road/San Benito Avenue	One-Way Stop	A.M.	21.8	C
			School P.M.	22.2	C
			P.M.	27.7	D
7	Middlefield Road/Fair Oaks Lane-Palmer Lane	Two-Way Stop	A.M.	>50.0	F
			School P.M.	47.8	E
			P.M.	>50.0	F
8	Middlefield Road/Holbrook Lane	One-Way Stop	A.M.	>50.0	F
			School P.M.	22.5	C
			P.M.	22.6	C
9	Middlefield Road/Heritage Court	One-Way Stop	A.M.	29.6	D
			School P.M.	23.0	C
			P.M.	32.7	D
10	Middlefield Road/Watkins Avenue	One-Way Stop	A.M.	>50.0	F
			School P.M.	>50.0	F
			P.M.	>50.0	F
11	Middlefield Road/James Avenue-Lane Place	Two-Way Stop	A.M.	>50.0	F
			School P.M.	38.9	E
			P.M.	>50.0	F
12	Middlefield Road/Glenwood Avenue-Linden Avenue	Two-Way Stop	A.M.	>50.0	F
			School P.M.	>50.0	F
			P.M.	>50.0	F

Notes:

¹Delay: Overall intersection delay in seconds per vehicle for signalized and unsignalized all-way stop controlled intersections. Delay for minor approach worst movement or major approach critical movements at unsignalized one-way and two-way stop controlled intersections.

Delay is reported as >50.0 for unsignalized intersections with LOS F and >80.0 for signalized intersections consistent with HCM 2000 methodology.

Bold indicates unacceptable LOS.



Table 7 summarizes the 95th percentile queue lengths for all approach movements at the study intersections for the weekday a.m., school p.m., and p.m. peak hour. Existing conditions queue length analysis resulted in several intersections with 95th percentile queue lengths exceeding storage capacity.

Based on SimTraffic analysis results, intersections where queue lengths exceed the existing storage lengths are listed below:

- Valparaiso Avenue/University Drive for EBL (a.m. peak hour), WBL and SBL (all peak hours)
- Alameda de Las Pulgas/Atherton Avenue for SBL (a.m. peak hour)
- Middlefield Road/Fair Oaks Lane-Palmer Lane for EBR (all peak hours)
- Middlefield Road/Watkins Avenue for EBR (all peak hours) and NBL (p.m. peak hour)
- Middlefield Road/Lane Place-James Avenue for WBR (all peak hours)
- Middlefield Road/Glenwood Avenue-Linden Avenue for EBR (a.m. and school p.m. peak hours) and NBL (a.m. peak hour)

Short-range and long-range strategies will be developed using the Synchro files developed and the results obtained from the existing conditions analysis in order to alleviate the existing traffic conditions at the selected study intersections.



Table 7: Existing Conditions 95th Percentile Queue Lengths (ft.)

#	Study Intersection	Lane Group	Storage Length per lane (ft.)	Existing Conditions		
				A.M.	School P.M.	P.M.
1	Valparaiso Avenue/University Drive	EBL	110	157	96	77
		EBT	-	260	268	265
		WBL	80	112	93	90
		WBTR	-	414	292	250
		NBLTR	-	153	178	210
		SBL	40	74	72	66
		SBTR	-	130	132	103
2	Valparaiso Avenue/Emilie Avenue	EBTL	-	185	202	205
		WBTLR	-	<25	<25	<25
		SBLR	-	218	148	161
3	Valparaiso Avenue/Elena Avenue-Corinne Lane	EBLTR	-	102	197	251
		WBLTR	-	32	<25	29
		NBLR	-	30	<25	30
		SBLR	-	192	299	342
4	Alameda De Las Pulgas/Atherton Avenue	EBLTR	-	69	52	49
		WBTL	-	273	1570	1307
		WBR	-	138	102	102
		NBL	65	62	53	62
		NBTR	-	206	267	220
		SBL	110	225	62	66
		SBTR	-	706	114	114
5	Middlefield Road/Placitas Avenue	WBLR	-	<25	<25	<25
		NBTR	-	-	-	-
		SBTL	-	<25	<25	<25
6	Middlefield Road/San Benito Avenue	WBLR	-	64	45	52
		NBTR	-	-	-	-
		SBTL	-	<25	32	64
7	Middlefield Road/Fair Oaks Lane-Palmer Lane	EBTL	-	59	97	105
		EBR	20	82	93	86
		WBLTR	-	100	43	42
		NBL	75	70	53	71
		NBTR	-	<25	<25	<25
		SBLTR	-	35	48	57
8	Middlefield Road/Holbrook Lane	WBLR	-	71	45	43
		NBTR	-	-	-	-
		SBTL	-	60	69	78



#	Study Intersection	Lane Group	Storage Length per lane (ft.)	Existing Conditions		
				A.M.	School P.M.	P.M.
9	Middlefield Road/Heritage Court	WBLR	-	<25	<25	25
		NBTR	-	<25	-	-
		SBTL	-	<25	-	<25
10	Middlefield Road/Watkins Avenue	EBL	-	299	559	173
		EBR	20	101	106	84
		NBL	70	66	61	71
		NBTR	-	33	42	38
		SBTR	-	40	39	27
11	Middlefield Road/Lane Place-James Avenue	EBLTR	-	<25	<25	25
		WBTL		30	35	43
		WBR	35	58	71	59
		NBL	75	<25	<25	<25
		NBTR	-	<25	<25	<25
		SBL	75	54	44	42
		SBTR	-	<25	<25	<25
12	Middlefield Road/Glenwood Avenue-Linden Avenue	EBTL	-	87	91	66
		EBR	60	71	63	52
		WBLTR	-	64	88	56
		NBL	55	57	50	43
		NBTR	-	<25	<25	<25
		SBL	80	25	26	28
		SBTR	-	<25	30	27

Notes:

EB, WB, NB, SB – Eastbound, Westbound, Northbound, Southbound respectively.

L, T, R – Left, Through, Right respectively.

Queue lengths taken from SimTraffic reports.

Bold indicates queue lengths exceeding existing storage capacity.



ORIGIN-DESTINATION (OD) ANALYSIS

StreetLight Insight® Data platform, which utilizes Big Data for evaluating trip patterns within a study area was used for OD analysis for this project. The objective of this task was to ascertain the percentage of traffic that is currently using arterials such as Alameda De Las Pulgas, El Camino Real and Middlefield Road as cut-through routes to bypass parallel interstates such as US 101 and I 280. The general perception is that majority of the traffic that uses these arterials within the Town originates outside of the Town limits. This results in higher delays for the Atherton community to access these routes. Additionally, with the ongoing construction at the Willow Pass Road/US 101 interchange, it is perceived that there is a certain amount of cut-through traffic that uses internal Town streets to bypass the congestion on US 101.

The Willow Road/US 101 Interchange Improvement project entered its construction phase in May 2017, which is expected to continue for approximately two years. Hence, the OD study was conducted "Before Construction" in April 2017 which would depict typical traffic conditions within the Town. StreetLight Insight® provides trip attributes for all months of the year including historical data up to 2014 depending on the analysis conducted. In order to obtain a dataset unbiased by irregular traffic patterns as a result of holidays and weather conditions, data from April 2017 on a typical Tuesday, Wednesday and Thursday was used for the analysis.

The origins and destinations used for the study are listed below:

1. Alameda De Las Pulgas, north of Stockbridge Avenue (Zone 1)
2. Alameda De Las Pulgas, south of Valparaiso Avenue (Zone 7)
3. El Camino Real, north of Selby Lane (Zone 8)
4. El Camino Real, south of Valparaiso Avenue (Zone 9)
5. Middlefield Road, north of Placitas Avenue (Zone 11)
6. Middlefield Road, south of Ringwood Avenue (Zone 12)
7. US 101, north of Marsh Road Interchange (Zone 14)
8. US 101, south of Willow Pass Road Interchange (Zone 15)

The study evaluated the percentage of trips using parallel routes to US 101 and I 280 interstates such as Alameda De Las Pulgas, El Camino Real and Middlefield Road to get to and from each of the origins and destinations using internal streets. **Figure 6** illustrates the origins, destinations, and middle filters selected for the study. A middle filter is a parameter, within the StreetLight Insight® Data platform, which is used to ensure that the trips captured at the origin and destination have traveled on the specific route being evaluated.

The middle filters used for the study include:

1. Stockbridge Avenue, west of El Camino Real (Zone 2)
2. Selby Lane, west of El Camino Real (Zone 3)
3. Alameda de Las Pulgas, north of Valparaiso Avenue (Zone 4)
4. Atherton Avenue, west of El Camino Real (Zone 5)
5. Valparaiso Avenue, west of El Camino Real (Zone 6)



6. Fair Oaks Lane, west of Middlefield Road (Zone 10)
7. Marsh Road, east of Middlefield Road (Zone 13)
8. Bay Road, north of Ringwood Avenue (Zone 16)
9. El Camino Real, south of Atherton Avenue (Zone 18)

Based on the number of origins and destinations and parallel routes available, 640 route choices were evaluated as a part of the study to determine traffic behavior within the study area. **Figures 7 to 14** summarize the findings of the OD study.

It should be noted that, given the number of route choices and overlapping middle filters for trips originating from a specific origin zone to destination zones, the analysis includes a certain amount of double counting of trips. For example, a trip originating at Zone 8 going to Zone 7 via Zone 5 would also be counted in the analysis of trips originating from Zone 8 to Zone 7 via Zone 4. This analysis represents preferred route choices of captured trips at the origin zones within the Town.

Table 8 summarizes the number of vehicle trips that originate outside of Atherton.

Table 8: Vehicle Trips Originating Outside of Atherton

Middle Filter Zones	Number of Trips Through Middle Filters Per Peak Period		
	A.M.	School P.M.	P.M.
Zone 10 EB (Fair Oaks Lane)	135	179	198
Zone 10 WB (Fair Oaks Lane)	355	97	133
Zone 13 EB (Marsh Road)	882	691	632
Zone 13 WB (Marsh Road)	941	619	551
Zone 17 NB (Middlefield Road)	451	562	535
Zone 17 SB (Middlefield Road)	685	506	507
Zone 2 EB (Stockbridge Avenue)	146	64	42
Zone 2 WB (Stockbridge Avenue)	269	83	133
Zone 3 EB (Selby Lane)	365	206	191
Zone 3 WB (Selby Lane)	567	270	287
Zone 4 NB (Alameda de Las Pulgas)	415	368	431
Zone 4 SB (Alameda de Las Pulgas)	787	352	354
Zone 5 EB (Atherton Avenue)	257	213	299
Zone 5 WB (Atherton Avenue)	596	137	318
Zone 6 EB (Valparaiso Avenue)	489	455	275
Zone 6 WB (Valparaiso Avenue)	865	410	501
Zone 8 NB (El Camino Real)	2713	1481	2225
Zone 8 SB (El Camino Real)	3375	1156	1639
Total At Middle Filters	14,293	7,849	9,251
Total Trips at Origins	5905	2867	3758
Difference of Trips Remaining in Atherton	8388	4982	5493
Total Trips Originating Outside of Atherton	41%	37%	41%

Origin, Destination and Middle Filter Zones for Origin-Destination Analysis

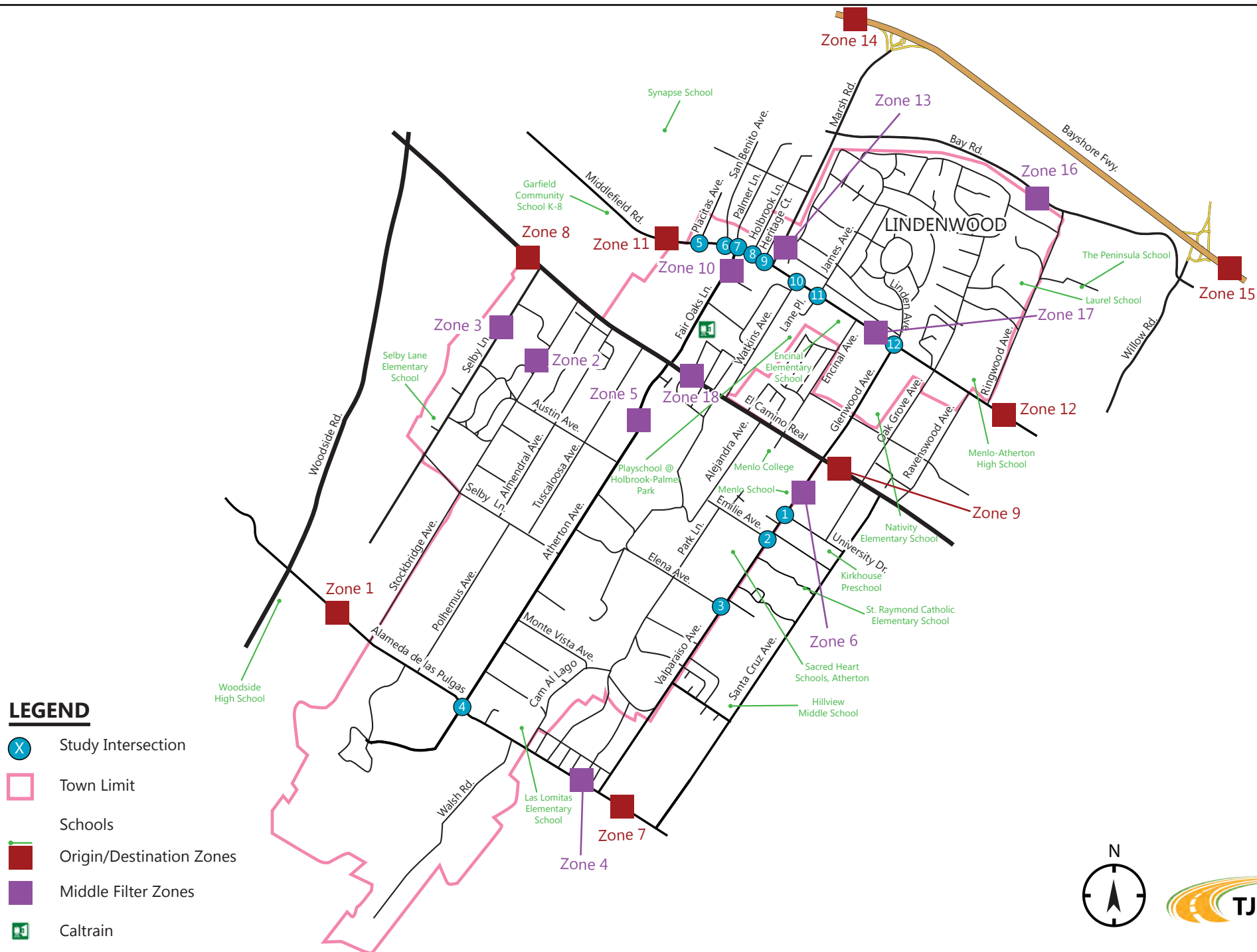




Figure 7: Preferred Route Choices from Origin Zone 1

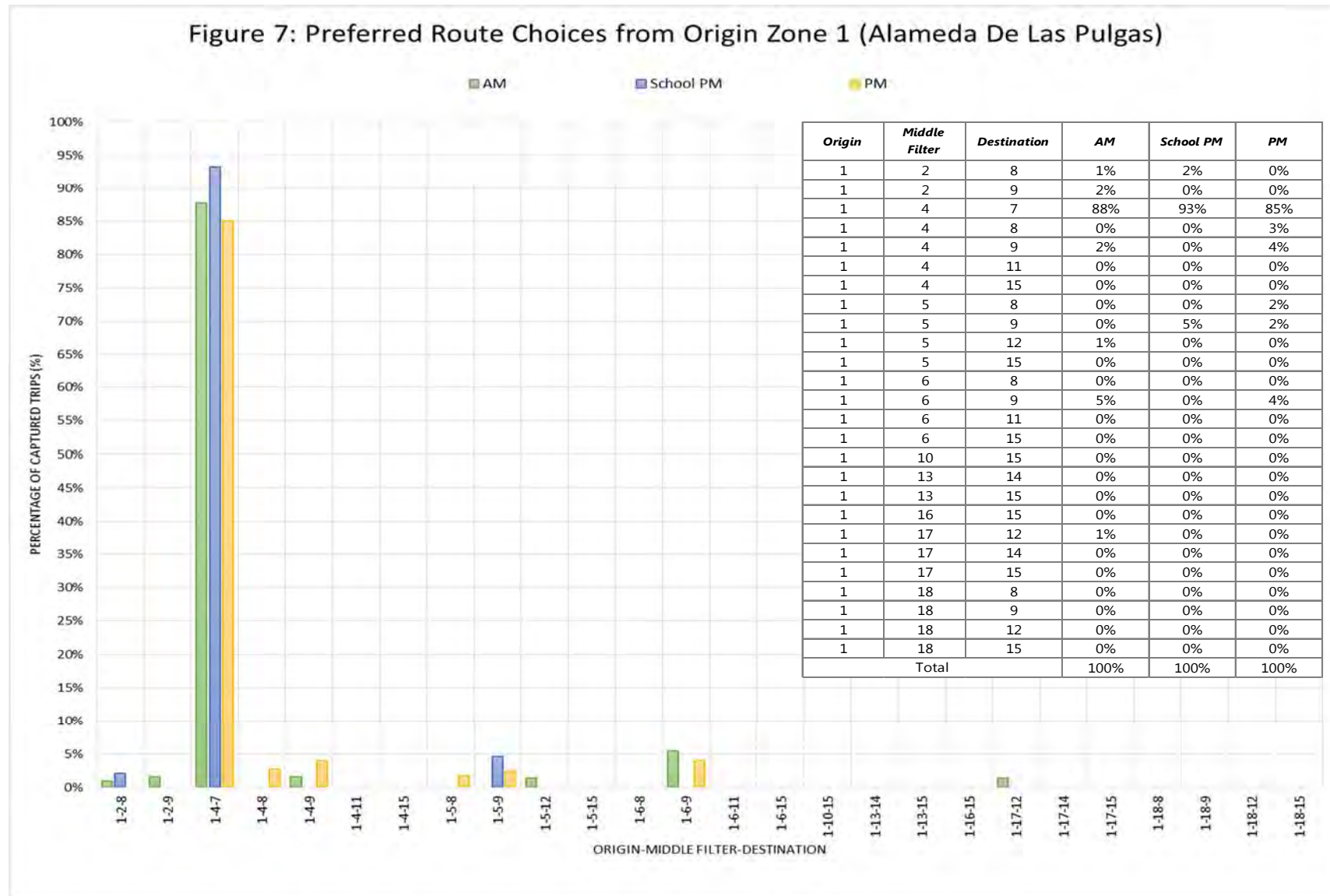




Figure 8: Preferred Route Choices from Origin Zone 7

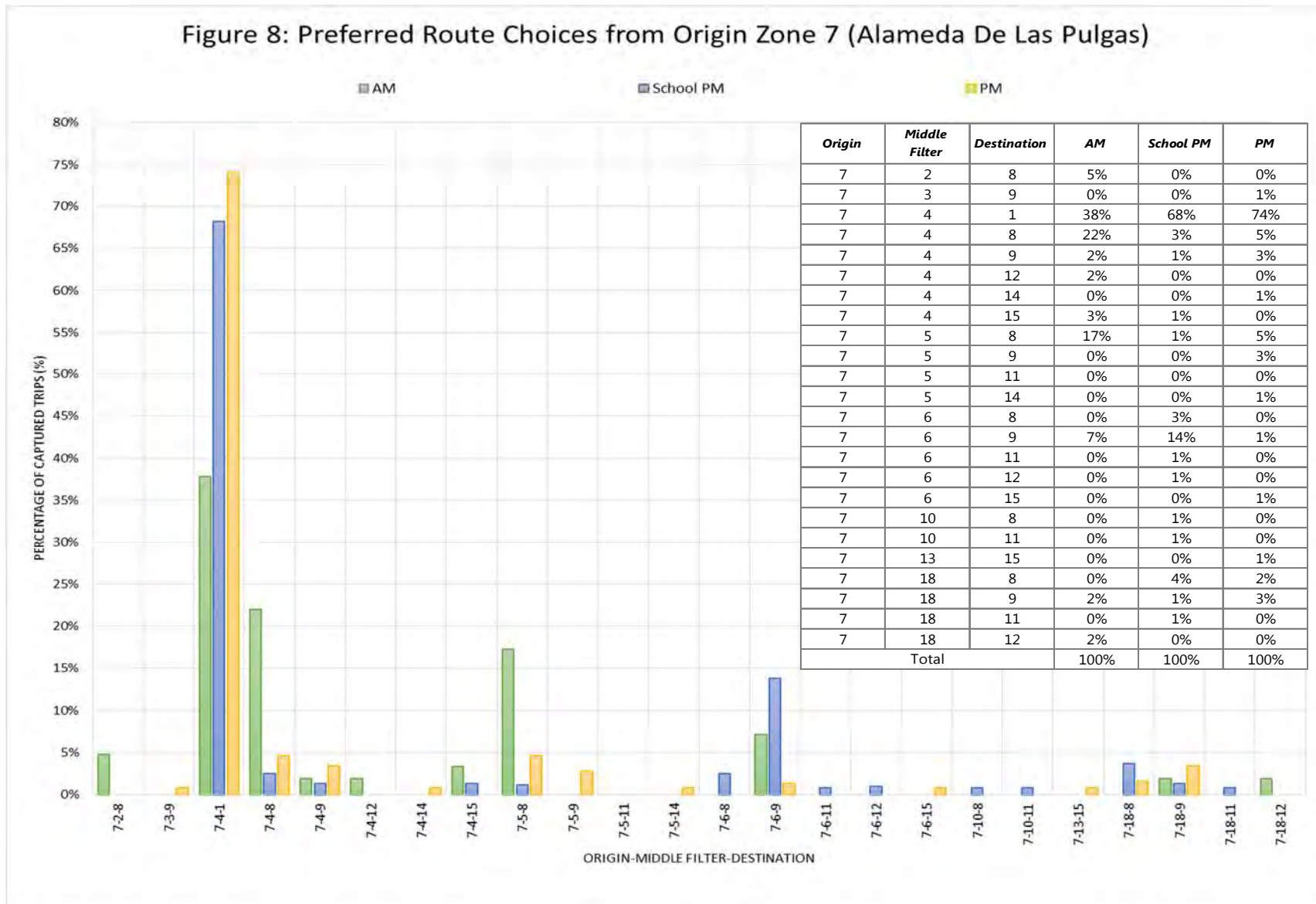




Figure 9: Preferred Route Choices from Origin Zone 8

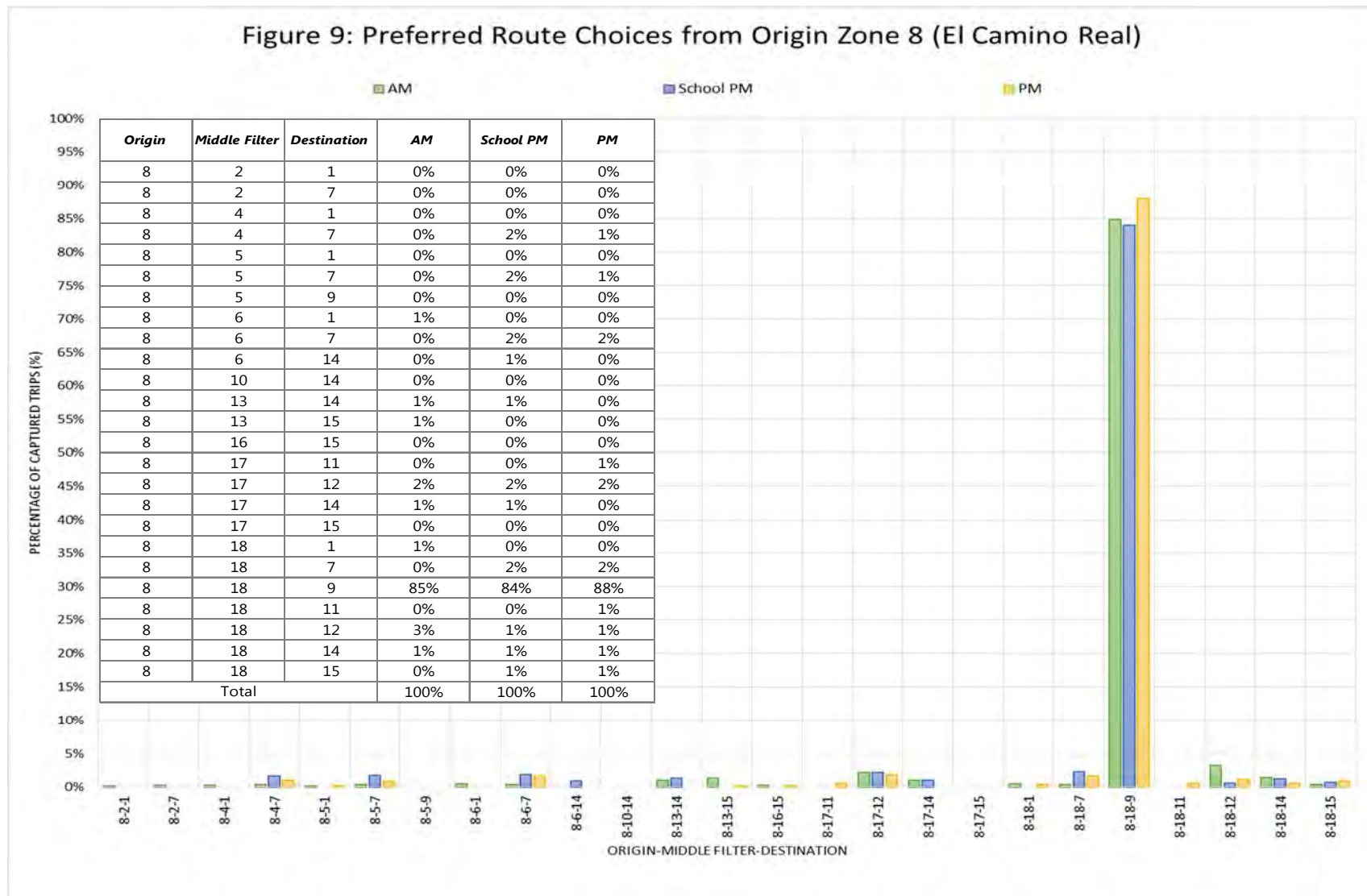




Figure 10: Preferred Route Choices from Origin Zone 9

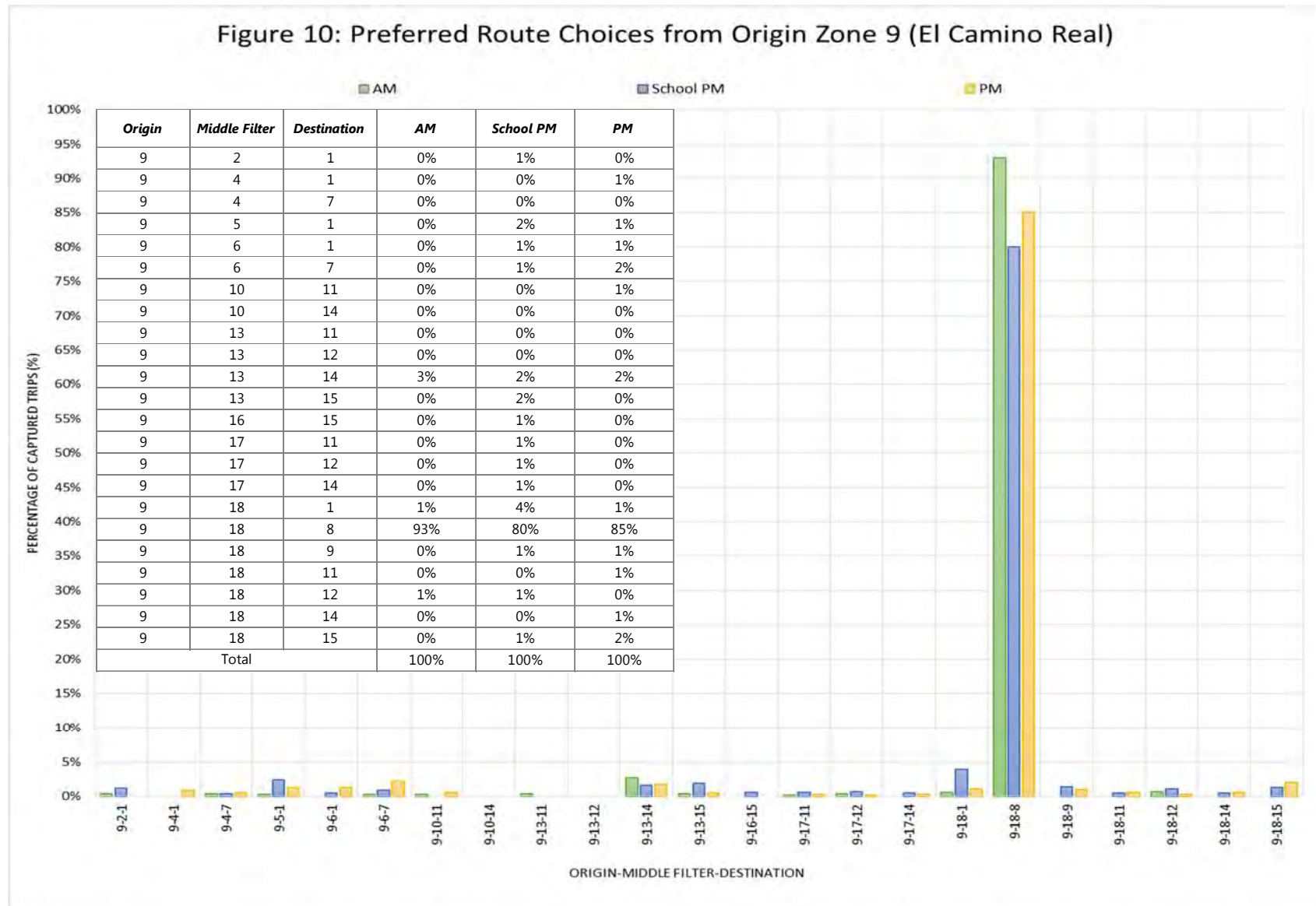




Figure 11: Preferred Route Choices from Origin Zone 11

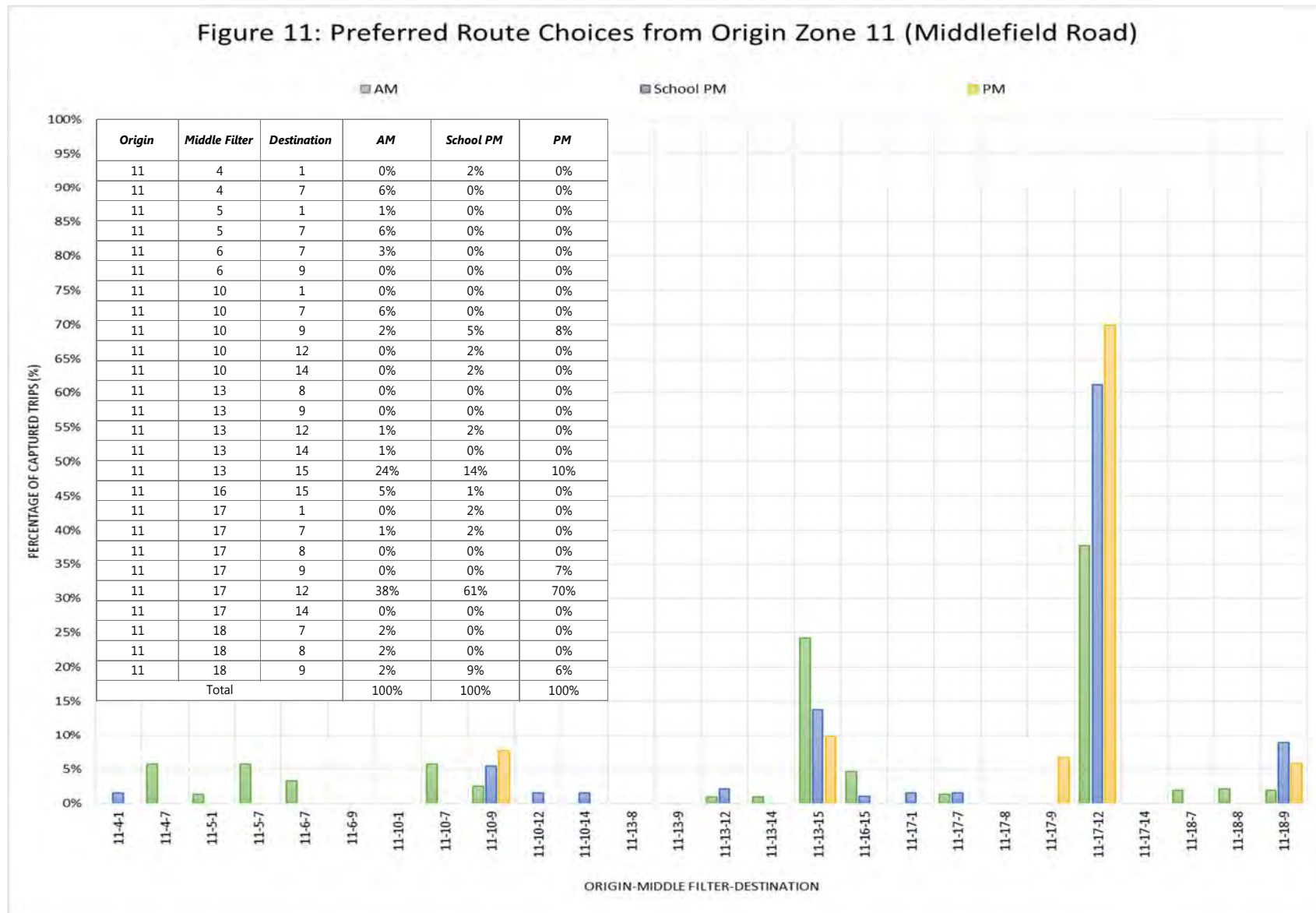




Figure 12: Preferred Route Choices from Origin Zone 12

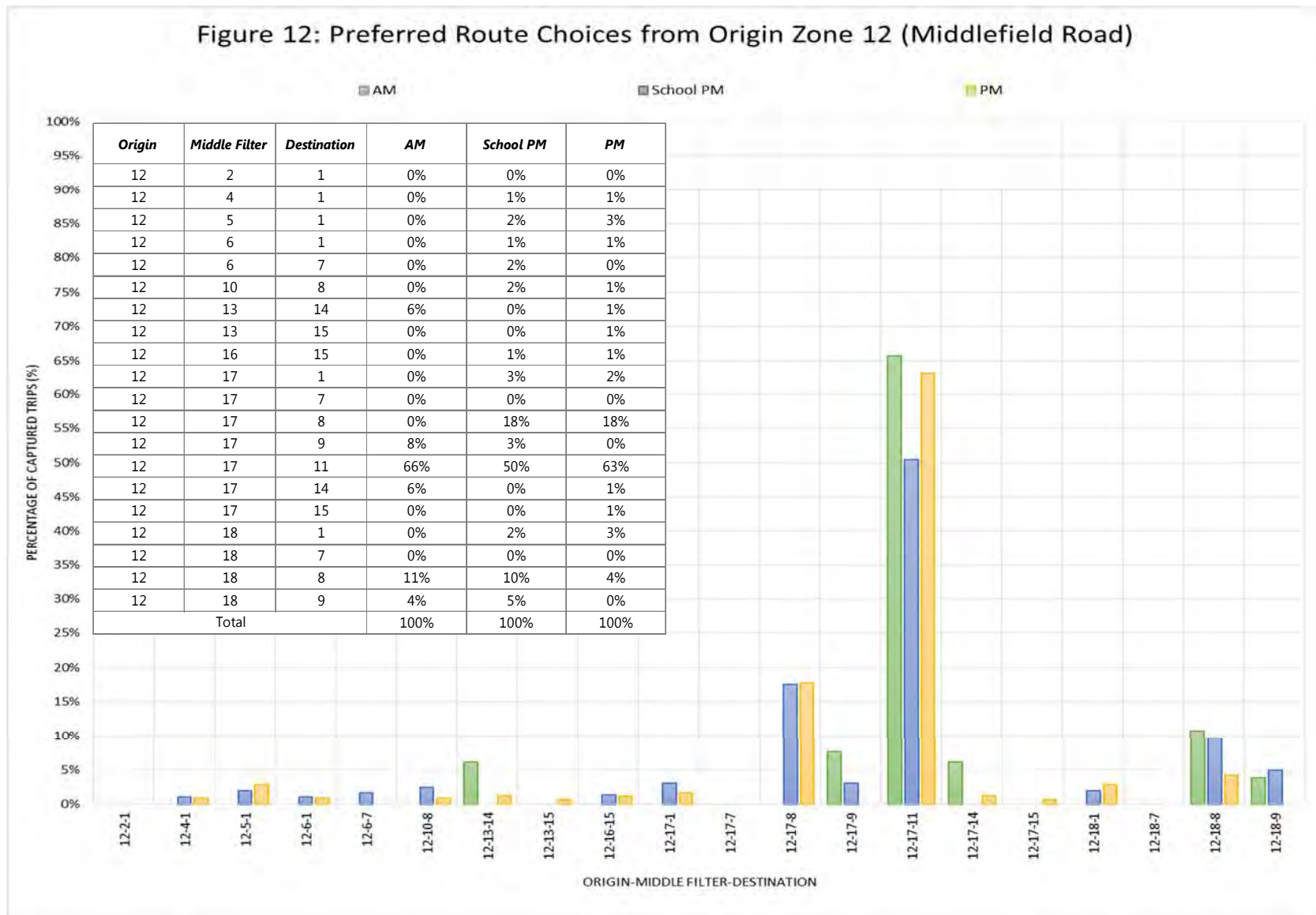




Figure 13: Preferred Route Choices from Origin Zone 14

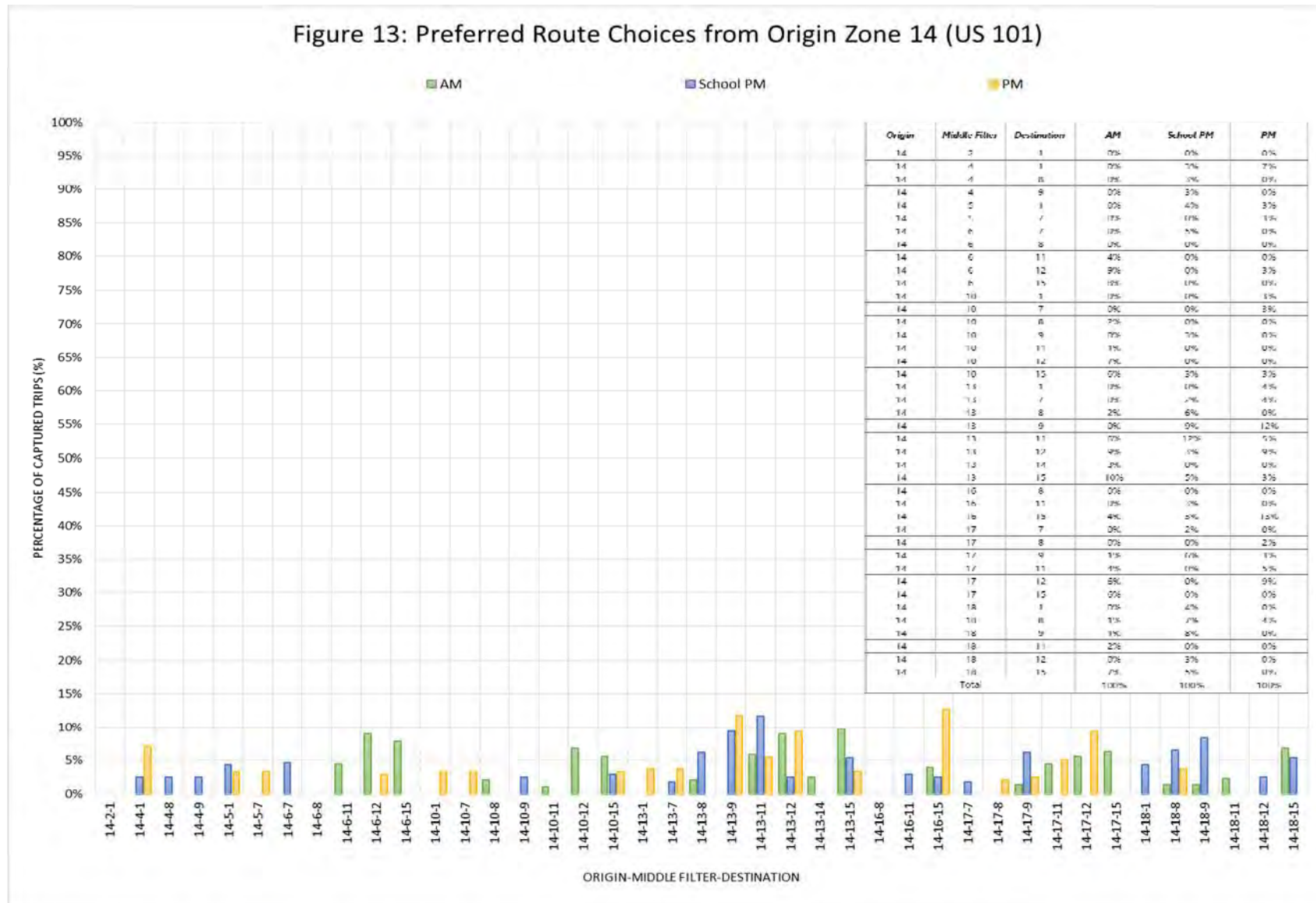
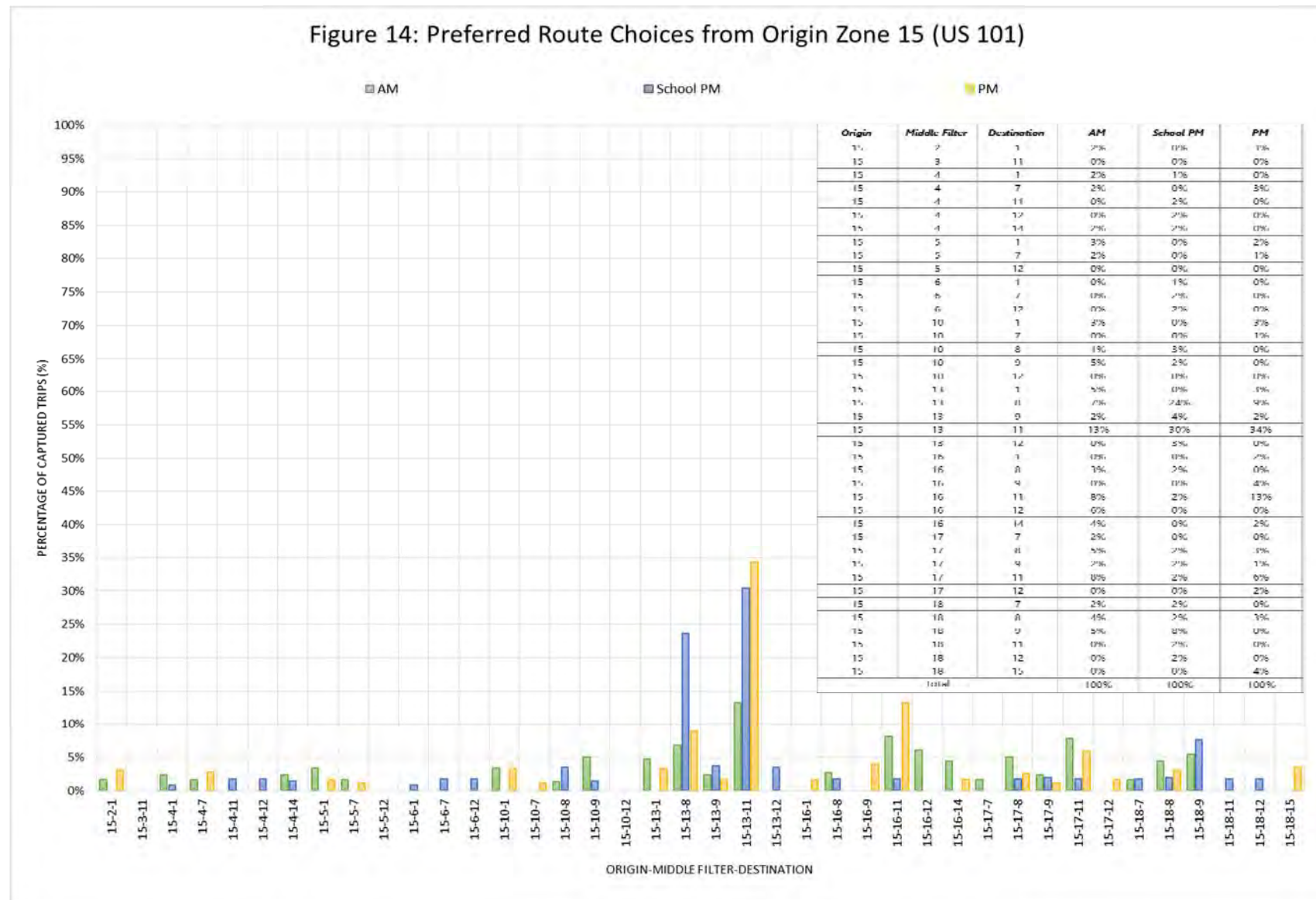




Figure 14: Preferred Route Choices from Origin Zone 15





The OD survey analysis resulted in the following findings:

Routes originating from Origin Zone 1 (Figure 7):

- a) Majority of trips captured at Origin Zone 1 pass through the Town via destination Zone 7. This constitutes for approximately 89% of the captured trips at Zone 1 averaged over all peak periods.
- b) The remaining 11% of captured trips primarily use Atherton Avenue and Valparaiso Avenue to El Camino Real (Zone 9), including a small percentage of trips using Stockbridge Avenue and Selby Lane. This also includes a small percentage of trips going to the remaining destination zones as shown in **Figure 7**.

Routes originating from Origin Zone 7 (Figure 8):

- a) Majority of trips captured at Origin Zone 7 pass through the Town via destination Zone 1. This constitutes for approximately 60% of the captured trips at Zone 7 averaged over all peak periods.
- b) The remaining captured trips primarily use Atherton Avenue and Valparaiso Avenue to El Camino Real (Zones 8 and 9).), including a small percentage of trips using Stockbridge Avenue and Selby Lane. This also includes a small percentage of trips going to the remaining destination zones as shown in **Figure 8**.

Routes originating from Origin Zone 8 (Figure 9):

- a) Majority of trips captured at Origin Zone 8 pass through the Town via destination Zone 9. This constitutes for approximately 86% of the captured trips at Zone 8 averaged over all peak periods.
- b) The remaining captured trips use local streets to Alameda De Las Pulgas, Middlefield Road, and US 101 as shown in **Figure 9**.

Routes originating from Origin Zone 9 (Figure 10):

- a) Majority of trips captured at Origin Zone 9 pass through the Town via destination Zone 8. This constitutes for approximately 86% of the captured trips at Zone 9 averaged over all peak periods.
- b) The remaining captured trips use local streets to Alameda De Las Pulgas, Middlefield Road, and US 101 as shown in **Figure 10**.

Routes originating from Origin Zone 11 (Figure 11):

- a) Majority of trips captured at Origin Zone 11 pass through the Town via destination Zone 12. This constitutes approximately 56% of the captured trips at Zone 11 averaged over all peak periods. The percentage of pass through trips during the school p.m. and p.m. peak periods are substantially higher than the a.m. peak period.
- b) Approximately 16% of the trips averaged over all peak periods use Marsh Road to US 101 (Zone 15). This percentage of trips is higher during the a.m. peak period compared to the school p.m. and p.m. peak periods.
- c) Approximately 6% of the trips averaged over all peak periods use Fair Oaks Lane to El Camino Real (Zone 9). This percentage of trips is higher during the school p.m. and p.m. peak periods compared to the a.m. peak period.



- d) The remaining captured trips use local streets to the remaining destination zones as shown in **Figure 11**.

Routes originating from Origin Zone 12 (Figure 12):

- a) Majority of trips captured at Origin Zone 12 pass through the Town via destination Zone 11. This constitutes for approximately 60% of the captured trips at Zone 12 averaged over all peak periods. The percentage of pass through trips during the a.m. and p.m. peak periods are higher than the school p.m. peak period.
- b) Approximately 11 % during the a.m. peak period and 18% of the trips during the school p.m. and p.m. peak periods divert on to El Camino Real (Zone 8) via local streets.
- c) The remaining captured trips use local streets to the remaining destination zones as shown in **Figure 12**.

Zones 14 and 15 were evaluated as origin zones to ascertain whether trips from US 101 were diverting in to the Town of Atherton and using local streets as cut-through.

Routes originating from Origin Zone 14 (Figure 13):

- a) Trips originating from Zone 14 are captured in small percentages at all the destination zones. The majority of captured trips indicate a potential stop within the Town before leaving the Town and were not considered as cut-through trips.
- b) Captured trips that indicate potential cut-through routes include the following:
- Approximately 7% of captured trips averaged over all peak periods at Zone 14 use Marsh Road to El Camino Real (Zone 9).
 - Approximately 7% of captured trips averaged over all peak periods at Zone 14 use Marsh Road to Middlefield Road (Zone 12).
 - Approximately 6% of captured trips averaged over all peak periods at Zone 14 use Bay Road to US 101 (Zone 15).

Routes originating from Origin Zone 15 (Figure 14):

- a) Trips originating from Zone 15 are captured in small percentages at all the destination zones. Majority of the captured trips indicate a potential stop within the Town before leaving the Town and were not considered as cut-through trips.
- b) Captured trips that indicate potential cut-through routes include the following:
- Approximately 13% of captured trips averaged over all peak periods at Zone 15 use Marsh Road to El Camino Real (Zone 8).
 - Approximately 26% of captured trips averaged over all peak periods at Zone 14 use Marsh Road to Middlefield Road (Zone 11). Out of the 26% using Marsh Road, 8% join Marsh Road via Bay Road.



3. SHORT-TERM AND LONG-TERM RECOMMENDATIONS

TJKM obtained the VTA/C-CAG Model for the Town of Atherton for base Year 2010 and Year 2040 to project short-term Year 2025 and long-term Year 2040 traffic demands. The traffic demands were compared to existing and historical average daily traffic and intersection turning movement counts to ascertain if the projected demands could be incorporated under existing capacity. It was observed that the Alameda De Las Pulgas, Valparaiso Avenue and Middlefield Road corridors are currently at capacity. Hence, recommendations were based on existing constrained traffic volumes.

As discussed in previous sections, most unsignalized study intersections operate at unacceptable LOS F. TJKM conducted peak hour signal warrant analysis at all study intersections to ascertain where installation of traffic signal is warranted. The following intersections met the peak hour traffic signal warrant analysis.

- Alameda De Las Pulgas/Atherton Avenue
- Valparaiso Avenue/Emilie Avenue
- Valparaiso Avenue/Elena Avenue
- Middlefield Road/Fair Oaks Lane-Palmer Lane
- Middlefield Road/Watkins Avenue

Additionally, TJKM conducted collision analysis at the study intersections and observed that majority of broadside and rear-end accidents during 2017 and 2018 occurred at Middlefield Road/Watkins Avenue.

Based on the analysis conducted, the following short-term and long term recommendations have been proposed.

Alameda De Las Pulgas/Atherton Avenue

Alameda De Las Pulgas experiences 89% & 60% southbound (SB) & northbound (NB) pass-through traffic respectively averaged over all peak periods. The a.m. and p.m. peak direction of travel is SB and NB respectively with stop-and-go traffic conditions during the a.m. peak hour with limited gaps for conflicting left-turns on major street and side-street left-turn movements. Alameda De Las Pulgas/Atherton Avenue acts as the controlling intersection along Atherton Avenue. This intersection operates at LOS F during all peak periods and meet peak hour signal warrants. Atherton Avenue experiences cut-through traffic between Alameda De Las Pulgas and El Camino Real as provided on **Table 9** below:

Table 9: Cut-through Traffic along Atherton Avenue

<i>Direction</i>	<i>AM</i>	<i>School PM</i>	<i>PM</i>
EB	19% (92)	6% (20)	12% (37)
WB	13% (97)	10% (67)	15% (153)

Note: Percentage % (No. of Vehicles)

TJKM proposes the following recommendations at this intersection to improve operations and reduce cut-through and pass-through traffic along the corridor.

1. Provide Left-Turn restrictions from Alameda De Las Pulgas onto Stockbridge Avenue and Polhemus Avenue during the a.m. peak period.



2. Signalization of Alameda De Las Pulgas/Atherton Avenue.
3. Square-out intersection by removing existing pork-chop and adding an exclusive right-turn lane making it safer for all modes of transportation.
4. Provide protected left-turn phasing along Alameda De Las Pulgas with westbound right-turn overlap for Atherton Avenue.
5. Metering traffic upon signalization to deter pass-through traffic.



With signalization of Alameda De Las Pulgas/Atherton Avenue, the intersection would operate at LOS C during all peak periods. Installing a roundabout was also analyzed at the intersection but due to right-of way (ROW) constraints and need of property acquisition this would not be a viable option at this time.

TJKM also evaluated additional traffic calming improvements along Atherton Avenue corridor as follows:

1. Installation of Class II Bike Lanes in one direction along Atherton Avenue.
2. Rumble Strips on center median.
3. Speed Tables.
4. Bulb-outs.

However, upon discussion with town staff, rumble strips, bulb-outs and speed tables would hinder the mobility of the Menlo Fire Department during emergencies and hence were not considered as viable options.



Valparaiso Avenue

Valparaiso Avenue connects Alameda De Las Pulgas to El Camino Real. The peak direction of travel during the a.m. and p.m. peak period is eastbound and westbound direction respectively with stop-and-go traffic conditions during the a.m. peak period with limited gaps for conflicting left-turns on major street and side-street left-turn movements.

This corridor experiences cut-through traffic from El Camino Real and Alameda De Las Pulgas. The cut-through traffic percentage along this corridor is provided on **Table 10** below.

Table 10: Cut-through Traffic on Valparaiso Avenue

<i>Direction</i>	<i>AM</i>	<i>School PM</i>	<i>PM</i>
EB	13% (138)	18% (170)	6% (50)
WB	26% (188)	15% (161)	8% (73)

Note: Percentage % (No. of Vehicles)

The intersections of Valparaiso Avenue/Emilie Avenue and Valparaiso Avenue/Elena Avenue operate with LOS F during all study peak periods. These intersections meet peak hour signal warrants, but achieving acceptable level of service would require exclusive left-turn lanes along with the signalization which would require additional ROW. Due to ROW constraints this would not be a viable option at this time.

TJKM proposes the following recommendations to improve operations and reduce cut-through and pass-through traffic along the corridor of Valparaiso Avenue:

1. One-way circulation loop between Elena Avenue and Emilie Avenue.
2. Town may need to work with City of Menlo Park analyze the intersection of Alameda De Las Pulgas/Valparaiso Avenue and provide turn restrictions.
3. Rumble Strips on center median.
4. Speed Tables.
5. Bulb-outs.

However, upon discussion with the City Staff, rumble strips, bulb-outs and speed tables would hinder the mobility of the Menlo Fire Department during emergencies and hence were not considered as viable options.



Middlefield Road

Middlefield Road experiences 56% & 60% southbound (SB) & northbound (NB) pass-through traffic respectively averaged over all peak periods. The a.m. and p.m. peak direction of travel is SB and NB respectively with stop-and-go traffic conditions during the a.m. peak hour with limited gaps for conflicting left-turns on major street and side-street left-turn movements. Intersections of Middlefield Road/Fair Oaks Lane, Middlefield Road/Marsh Road and Middlefield Road/Oak Grove Avenue act as the controlling intersection along this corridor. These intersections operate at LOS F during all peak periods. Intersection of Middlefield Road/Fair Oaks Lane and Lane Middlefield Road/Watkins Avenue are unsignalized intersections along the corridor and meet peak hour signal warrant analysis.

TJKM proposes the following recommendations along Middlefield Road to improve operations and reduce cut-through and pass-through traffic along the corridor.

1. Signalization of Middlefield Road/Fair Oaks Lane and Middlefield Road/Watkins Avenue.
2. Improve signal timings along Middlefield Road by updating the coordination plans through the corridor.
3. Provide Northbound Left-Turn restrictions from Middlefield Road onto Glenwood Avenue during the a.m. peak period
4. Meter the traffic along the corridor at controlling intersections like Middlefield Road/Fair Oaks Lane, Middlefield Road/Marsh Road and Middlefield Road/Oak Grove Avenue to deter pass-through as well as cut-through traffic.

4. STREET CLASSIFICATION RECOMMENDATIONS

This section provides recommendations concerning potential updates to the town's street classification designations (and related standards) to incorporate complete streets and context-sensitive design principals as part of the upcoming update to the Atherton *General Plan*. California planning law mandates that the Circulation Element must contain the "general location and extent of existing and proposed major thoroughfares, transportation routes, and other local public utilities and facilities, all correlated with the land use element of the General Plan per Government Code Section 65302 (b). In addition, the General Plan must incorporate "Complete Streets" policies, as described below.

PURPOSE OF PROPOSED STREET CLASSIFICATION CHANGES

As described in this report: the existing *Atherton General Plan* street classification system (most recently adopted in 2002 but most likely much older) focuses entirely on the function of each street for purposes of accommodating motor vehicle travel. Atherton's street classifications do not yet describe the role of each street for purposes of bicycle, pedestrian or transit travel, nor do the town's street and right-of-way standards include provision of bicycle lanes or pedestrian paths. Thus it is not entirely surprising that school-related traffic concerns have arisen, given the lack of facilities for walking or bicycling to school.

In addition: Atherton's current classifications do not match that of adjacent jurisdictions for several key street. El Camino Real is classified as a highway by the Town of Atherton, but classified as a boulevard (major arterial) by the City of Menlo Park. Similarly, Valparaiso and Ravenswood Avenue are classified as collector streets by Atherton, while Menlo Park classifies both as minor arterials.

The Atherton *General Plan* update thus provides an opportunity for Atherton to refine its functional street classifications and general street design standards to account for bicycle, pedestrian and transit travel. In recent years many cities and towns have modernized their street classifications to include specific multi-modal components, often by adding additional sub-classifications to each of the arterial-collector-local classifications, and specifying desired levels of pedestrian, bicycle, motor vehicle, and transit access for each classification and/or sub-classification.

Complete Streets Act

The term "Complete Streets" refers to a balanced, multimodal transportation network that meets the needs of all users of streets -- including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, public transportation, and seniors. A "Complete Street" is one that provides safe and convenient travel in a manner that is suitable to the local context.

The California Complete Streets Act (AB 1358) adopted in 2008 requires that cities and other public agencies incorporate "complete street" policies when updating their General Plan Circulation Element, to ensure that Complete Streets principles are





incorporated. The current *Atherton General Plan* Circulation Element was adopted in 2002, prior to the Complete Streets Act.

PROPOSED STREET CLASSIFICATION CHANGES

Revise the definitions of each street classification as follows, including the creation of context-specific sub-classifications of collector streets and local streets that provide school access. As proposed below:

- The definitions of each functional classification would be updated to describe the role of each classification for serving all key modes of travel: bicycle, motor vehicle, pedestrian and transit. This would include defining the relative travel mode priorities for each classification.
- The general street design standards accompanying each classification would be updated to incorporate complete street components where relevant.
- The "freeway and highway" classification that is currently applied to El Camino Real would be eliminated and replaced with a new classification titled "boulevard", consistent with the City of Menlo Park designation for El Camino Real and also supportive of the regional Grand Boulevard initiative. The "boulevard" classification would be defined as being a type of "primary arterial" street.
- The designation of both Valparaiso and Ringwood Avenues would be changed from collector to avenue (minor arterial), consistent with the classification of both streets by the City of Menlo Park.

PROPOSED FUNCTIONAL CLASS DEFINITIONS

As proposed, the definitions of each functional classification would be revised to state the following (including the proposed new classifications):

- **Boulevards.** Boulevards are Major Arterial streets that serve as key regional mobility routes connecting Atherton and adjacent cities both north and south. Boulevards are designed to accommodate higher traffic volumes and frequent transit service in order to discourage the use of parallel streets by cut-through traffic. Intersections with arterial and collector streets should be signalized, and signalized pedestrian crossings (such as pedestrian hybrid signals) should be provided at intersections with local streets that provide school access. Measures to improve access to transit stops via bicycle and/or walking should be provided. Provision of a Class I bicycle and pedestrian path, or buffered bicycle lanes (or Class IV separated bikeway treatments) should be provided if feasible as a desirable long-term improvement to enhance multi-modal connectivity and provide additional alternatives to vehicle cut-through traffic.
- **Minor Arterial Streets.** Arterials provide the principal network for citywide travel by all modes of travel, including walking, bicycling, motor vehicle and transit, and provide regional connections. Minor arterial streets in Atherton generally have one motor vehicle travel lane per direction and should include bicycle lanes in both directions, and pedestrian paths on both sides. Traffic signals or roundabouts should be with provided where warranted at intersections with boulevards and collector streets.
- **Collector Streets.** Collectors provide connections for all modes of travel between neighborhoods and activity centers, as well as providing direct access to land uses. Collectors also provide connections

between arterial and local streets. Collector streets in Atherton have one motor vehicle travel lane per direction. Collector streets should include Class II bicycle lanes or Class III (signed bicycle route with sharrow markings indicating shared travel lanes with motor vehicles) in both directions, and pedestrian paths on at least one side.

- **School Collectors** are collector streets residential frontages that provide direct access to schools and prioritize school access and encourage walking and bicycling. Pedestrian paths should be provided along at least one side of each school collector street.
- **Transit Collectors** are collector streets that serve a similar role as other collector streets while also providing access to transit stations and/or transit stops. This designation emphasizes the needs of transit access via all modes. Increased provisions for pedestrian, bicycle and bus access to transit stations and/or transit stops should be provided where feasible.
- **Local Streets.** Local streets provide direct access to abutting properties by all modes of travel. All streets that are not designated as arterials or collectors are local streets. Bicycle facilities on local streets generally consist of shared travel lanes between motorists and bicyclists. Most local streets in Atherton are “shared streets” in which motor vehicles, bicycles and pedestrians share the travel way, without provision of separate lanes or sidewalks.
- **School Access Lanes.** School access lanes are local streets that provide direct access to schools. Measures to enhance walking and bicycling to school should be prioritized, including the provision of pedestrian paths.

Tables 11 and 12 further describe each street classification. **Figure 15** provides a map of the proposed street classifications for each segment incorporating the recommended changes.



As proposed in this section: Middlefield Road would remain classified as a Minor Arterial but the updated classifications would be revised to recommend provision of pedestrian paths adjacent on Minor Arterials.



Table 11: Arterial Street Guidelines (Proposed)

Proposed Classification	Proposed Travel Mode Priorities	Proposed Guidelines	Applicable Streets	FHWA Category
Boulevard	Bicycle: ② Motorist: ① Pedestrian Crossings: ① Transit: ① Walking to Transit: ①	<i>Major arterial that serves high volumes of regional motor vehicle traffic and frequent transit service, and provides access to collector and local streets. Direct access to adjacent land uses is discouraged on boulevards within Atherton. Accommodates regional vehicle trips in order to discourage such trips on other roadways in Atherton. Supports high levels of transit service and ridership to reduce regional traffic volumes. Provides bicycle and pedestrian access to transit stops, and enhanced pedestrian crossings. Provision of measures to reduce bus delay should be prioritized. Installation of Class 4 Separated Bikeway treatment should be considered as a long-term improvement.</i>	El Camino Real*	Primary Arterial
Minor Arterial	Bicycle: ① Motorist: ① Transit: ① Walking: ①	<i>Streets with residential frontages in Atherton that serve multiple travel modes, connect with destinations outside of Atherton, and provide access to boulevards, collectors, and local streets as well as adjacent land uses.. Bicycle lanes, pedestrian paths and pedestrian crossing improvements to enhance access to schools and transit stops should be provided where feasible.</i>	Middlefield Road Alameda de las Pulgas Marsh Road Valparaiso Avenue** Ravenswood Avenue**	Minor Arterial
① = High Priority ② = Medium Priority ③ = Low Priority				

*El Camino Real is currently classified as a highway by the Town of Atherton, and as a boulevard (major arterial) within Menlo Park. As proposed above: adoption of a boulevard (major arterial) classification by the Town of Atherton would support regional efforts related to the Grand Boulevard initiative.

** Valparaiso Avenue and Ravenswood Avenue are currently classified as collector streets by the Town of Atherton, but classified as avenues (minor arterials) by the City of Menlo Park. Reclassifying both streets as minor arterials within Atherton would provide a consistent classification while also addressing a lack of east/west arterial connections within Atherton.



Table 12: Collector & Local Street Guidelines (Proposed)

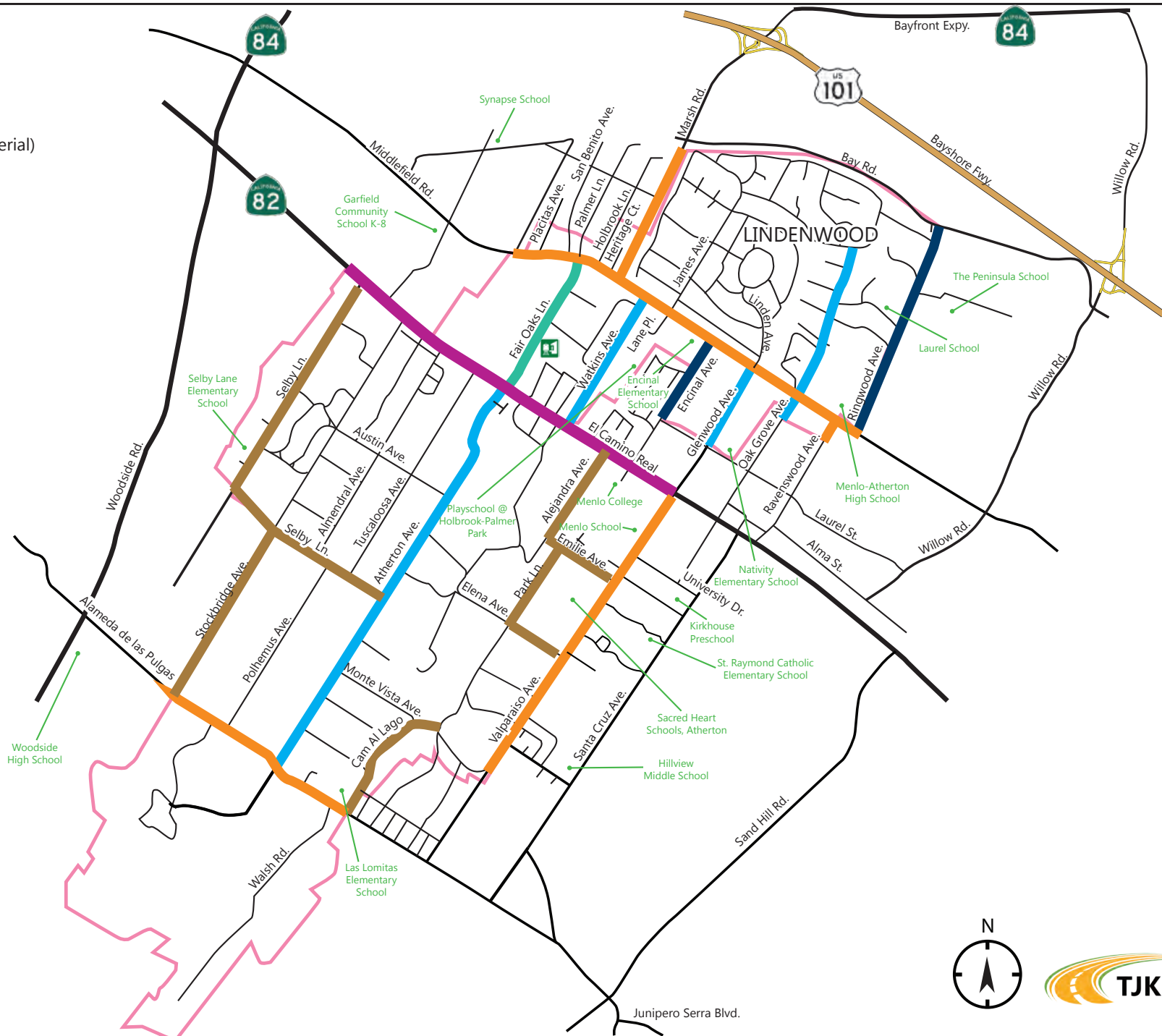
Proposed Classification	Proposed Travel Mode Priorities	Proposed Guidelines	Applicable Streets	FHWA Category
Collector Street	Bicycle: ❶ Motorist: ❶ Transit: ❸ Walking: ❶	<i>Collector streets connect arterial and local streets while also providing direct access to adjacent land uses. Collector streets should balance the needs of bicyclists, motorists and pedestrians.</i>	Atherton Avenue	Collector
Transit Collector	Bicycle: ❶ Motorist: ❷ Transit: ❶ Walking: ❶	<i>Transit Collectors serve a similar role as other collector streets while also increasing provisions for pedestrian, bicycle and bus access to major transit stops. Would also aim to support efforts to restore weekday service to the Atherton Caltrain Station.</i>	Fair Oaks Lane	Collector
School Collector	Bicycle: ❶ Motorist: ❷ Transit: ❶ Walking: ❶	<i>Collector streets with primarily residential frontages that provide direct access to schools and prioritize school access and encourage walking and bicycling.</i>	Ringwood Avenue Encinal Avenue	Collector
School Access (Local)	Bicycle: ❶ Motorist: ❷ Transit: ❸ Walking: ❶	<i>Local streets that provide direct local access to schools. Measures to enhance walking and bicycling to school should be prioritized.</i>	Selby Lane Emile Avenue	Local
Local Street	Bicycle: ❷ Motorist: ❷ Transit: ❸ Walking: ❷	<i>Local streets that provide direct access to properties.</i>		Local
❶ = High Priority ❷ = Medium Priority ❸ = Low Priority				

Proposed Street Classifications (Atherton)

LEGEND

Town of Atherton

- Boulevard (Major Arterial)
- Minor Arterial
- Collector
- School Collector
- Transit Collector
- School Access (Local)
- Town Limit
- Schools
- Caltrain





Recommended Changes to General Street Design Standards

The recommended general standards for street right-of-way and improvements, incorporating the functional classifications described above, are shown on **Table 13** below.

Table 13: Proposed General Street Design Standards

<i>Functional Classification</i>	<i>Right-of-Way Width</i>	<i>Minimum Roadway Width¹</i>	<i>Number of Motor Vehicle Lanes</i>	<i>Pedestrian Path Width²</i>	<i>Bicycle Lane</i>	<i>Desired Traffic Capacity (ADT)</i>
Boulevard	120 feet	Varies	4 to 6	6 to 10 feet	6 feet	<40,000
Minor Arterial	60 feet	32 feet including bicycle lanes	2	6 feet	5 feet	10,000 to 25,000
Collector	50 feet	24 feet, or 32 feet with bicycle lanes	2	4 to 6 feet	5 feet	2,500 to 12,000
School Collector	50 feet	32 feet including bicycle lanes	2	6 feet	5 feet	2,500 to 12,000
Transit Collector	50 feet	32 feet including bicycle lanes	2	4 to 6 feet	5 feet	2,500 to 12,000
School Access Lane (Local Street)	40 feet	20 feet	2	6 feet	Not applicable	<1,000
Local	40 feet	20 feet	2	4 to 6 feet	Not applicable	<1,000

Notes: 1. Roadway width includes bicycle lanes, median width and on-street parking where applicable.
 2. Recommend long-term provision of pedestrian paths on both sides of arterial streets, and on at least one side of school collector streets, transit collector streets, and school access lanes.



5. TRANSPORTATION IMPACT CRITERIA RECOMMENDATIONS

This section provides recommendations concerning changes to Atherton's criteria for evaluating transportation impacts.

Proposed projects when subject to the California Environmental Quality Act (CEQA), to be evaluated to determine if they result in significant environmental impacts. Such projects may be located either in Town or in another jurisdiction where the project could have an impact on transportation conditions in Atherton.

CURRENT TOWN OF ATHERTON CRITERIA FOR TRANSPORTATION IMPACTS

Impact criteria refers to the thresholds identified for purposes of evaluating significant transportation impacts when evaluating development projects (when subject to CEQA requirements) and other public agency decisions (if deemed a "project" under CEQA).

Traffic Impacts: Motor vehicle traffic impacts in Atherton are currently based on intersection level of service (LOS). The Town of Atherton has recently identified the following proposed minimum acceptable intersection LOS standards:

- Highways will operate at a minimum LOS E (C/CAG adopted standard)
- Minor arterials and collector streets will operate at a minimum LOS D
- Local Streets will operate at a minimum LOS C

When SB 743 takes effect (anticipated by mid-2020, as described on the following pages), the use of LOS will no longer be allowed under CEQA for purposes of evaluating traffic impacts. Nonetheless, cities and towns may continue to utilize LOS for other planning purposes, and many cities and towns will continue to have an adopted LOS standard identified in their *General Plan* Circulation Elements.

Similar to most California cities: Atherton does not yet have an adopted threshold for evaluating impacts to vehicle miles traveled (VMT).

Bicycle & Pedestrian Impacts: the town has not adopted criteria for evaluating bicycle and pedestrian impacts. Nonetheless, impacts to bicycling and walking would be considered significant based on standard CEQA checklist criteria if a project were to conflict with an adopted bicycle or pedestrian plan, including the *Atherton Bicycle & Pedestrian Plan* and the *Countywide Bicycle & Pedestrian Plan*.

Transit Impacts: the town has not adopted criteria for impacts to public transit. In jurisdictions where transit impact criteria has been adopted, criteria typically focuses on identifying transit impacts as significant in cases where a project would generate substantial ridership demand for transit service in an area not adequately served by public transit; and/or transit impacts would be significant if a project were to result in increased delay to public transit vehicles that would result in increased transit operating costs.



SB 743 & VEHICLES MILES TRAVELED (VMT)

The California legislature passed Senate Bill (SB) 743 in 2013 that requires changes to the California Environmental Quality Act (CEQA) regarding the analysis of transportation impacts. Transportation impact criteria and Circulation Element performance standards in most cities have typically focused on motor vehicle level of service (LOS) as the primary criterion. LOS is an analysis methodology that assesses the performance of roadways based on average motor vehicle delay at intersections.

SB 743 required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide a revised method to LOS for evaluating transportation impacts. OPR recommended that vehicle miles travelled (VMT) replace LOS as the primary transportation performance metric for evaluating environmental impacts statewide.

The preferred methodology, which is still subject to ongoing discussions statewide, would quantify VMT on a "per capita" basis, based on the local population of residents and jobholders. Local VMT thresholds are anticipated to be based on regional averages for per-capita VMT. Key recommendations described in the OPR guidelines include:

- Vehicle miles traveled is to be the primary performance metric for evaluating transportation impacts across California.
- Land use development near transit or in VMT-efficient areas should be presumed to cause a less than significant transportation impact.
- Transit, active transportation, and rehabilitation projects that do not add motor vehicle capacity should also be presumed to cause a less than significant impact.
- Implementation should be phased in over time.

RECOMMENDED CRITERIA

This section provides recommendations concerning updated transportation impact criteria. The recommend impact criteria language by transportation topic is shown below.

Vehicle Miles Traveled (VMT) Impacts

A project would result in potentially significant impacts to vehicle miles traveled (VMT) if project VMT per capita (i.e., per resident and/or per employee) would exceed 85 percent of existing VMT per capita for the region.

*Note: each jurisdiction has discretion in selecting an appropriate "region" to define for purposes of defining a VMT impact threshold 15 percent below the selected regional average. The majority of cities, towns and counties in California have not yet adopted VMT criteria, and it may be advisable for the Town of Atherton to consult with other jurisdictions in San Mateo County prior to settling on a specific threshold. As one example, **Table 14** shows the adopted VMT thresholds identified by the City of San Francisco for specific land use types (residential, office and retail). Land uses in San Francisco tends to generate less than half the rate of VMT compared to regional averages - for example: San Francisco households generate just 8.4 daily vehicle miles per resident, compared to the regional average of 17.2 miles per resident). However, new development in the Atherton area tends to generate VMT at a rate similar to regional averages.*



Table 14: VMT Regional Criteria Example: City of San Francisco

Land Use	Bay Area Region	
	Regional Average	85% of Regional Average
Residential (per resident) ¹	17.2	14.6
Office (per employee) ²	19.4	16.2
Retail (per employee) ²	14.9	12.6

Notes:

1. Average daily VMT per resident includes vehicle miles generated by non-residents (i.e. visitors, deliveries, etc.)
2. Average daily VMT per employee includes vehicle miles by non-employees (i.e., visitor trips including customers and deliveries, etc.)

Source: San Francisco Planning Department, *Resolution Modifying Transportation Impact Analysis*, March 3, 2016.

Bicycle and Pedestrian Impacts

Impacts to bicycle and pedestrian travel would be potentially significant if:

- A project would not provide adequate pedestrian or bicycle facilities to connect to the area circulation system; or
- Vehicles would cross pedestrian facilities on a regular basis without adequate design and/or warning systems, causing safety hazards; or
- Project design would cause increased potential for bicycle/vehicle conflicts; or
- A project would include elements that conflict with applicable bicycle and pedestrian policies.

Transit Impacts

Impacts to public transit would be potentially significant if:

- A project would generate a substantial increase in transit riders that cannot be adequately serviced by the existing transit services; or
- A project would generate demand for transit services in an area that is more than one-quarter mile from existing transit routes; or
- A project would include elements that conflict with applicable transit policies; or
- A project would cause a substantial increase in transit delays or transit operating costs such that significant adverse impacts in transit service levels could result

Emergency Access Impacts

Impacts would be potentially significant if a project were to result in inadequate emergency access.

RECOMMENDED INTERSECTION LEVEL OF SERVICE (LOS) GOALS

As noted above: intersection LOS will no longer be an acceptable CEQA criterion for purposes of identifying environmental impacts following statewide implementation of SB 743. Nonetheless, jurisdictions may still adopt LOS goals for non-CEQA planning purposes. The recommended LOS goals below take into account the Town of Atherton's goals for most streets (with the exception of El Camino



Real) to consist of just one through lane per direction. Therefore, as proposed below, LOS D would be acceptable on minor arterial or collector streets:

- **El Camino Real intersections.** LOS E or better
- **Minor Arterial Intersections.** LOS D or better
- **Collector intersections:** LOS D or better
- **Local street intersections:** LOS C or better
- **Side-street Stop-controlled Intersections.** LOS standards at side-street stop-controlled intersections shall not apply to approaches that do not warrant signal installation.



Appendix A – Traffic Counts

- ADT and Speed Counts
- Turning Movement Vehicles, Bicyclists and Pedestrian Counts

Vehicle Classification Report Summary



Location: ALAMEDA DE LAS PULGAS btwn CALLADO WAY/ATHERTON AVE

Count Direction: Eastbound / Westbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 01

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Eastbound	147	5,900	962	3	241	16	0	2	3	2	0	0	1	7,277
Percent	2.0%	81.1%	13.2%	0.0%	3.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Westbound	148	5,759	934	1	281	18	0	3	7	0	0	0	1	7,152
Percent	2.1%	80.5%	13.1%	0.0%	3.9%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	100%
Total	295	11,659	1,896	4	522	34	0	5	10	2	0	0	2	14,429
Percent	2.0%	80.8%	13.1%	0.0%	3.6%	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: ALAMEDA DE LAS PULGAS btwn CALLADO WAY/ATHERTON AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 01



Tuesday, March 27, 2018
 Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	9	0	0	0	0	0	0	0	0	0	0	0	9
2:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
3:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1
4:00 AM	0	13	2	0	1	0	0	0	1	0	0	0	0	17
5:00 AM	1	55	12	0	1	0	0	0	0	0	0	0	0	69
6:00 AM	7	160	34	0	6	3	0	0	0	0	0	0	0	210
7:00 AM	21	573	120	0	28	2	0	1	0	0	0	0	0	745
8:00 AM	25	682	124	0	21	4	0	0	0	1	0	0	0	857
9:00 AM	12	545	95	0	27	4	0	0	0	0	0	0	0	683
10:00 AM	14	369	67	1	35	1	0	0	0	0	0	0	0	487
11:00 AM	12	453	78	0	21	0	0	0	1	1	0	0	0	566
12:00 PM	7	377	74	1	22	0	0	1	1	0	0	0	0	483
1:00 PM	6	364	85	0	13	0	0	0	0	0	0	0	0	468
2:00 PM	7	405	78	0	23	2	0	0	0	0	0	0	0	515
3:00 PM	7	359	43	1	13	0	0	0	0	0	0	0	0	423
4:00 PM	7	291	42	0	9	0	0	0	0	0	0	0	0	349
5:00 PM	3	289	13	0	4	0	0	0	0	0	0	0	0	309
6:00 PM	7	342	32	0	6	0	0	0	0	0	0	0	1	388
7:00 PM	7	273	16	0	2	0	0	0	0	0	0	0	0	298
8:00 PM	4	145	20	0	3	0	0	0	0	0	0	0	0	172
9:00 PM	0	106	13	0	2	0	0	0	0	0	0	0	0	121
10:00 PM	0	63	11	0	0	0	0	0	0	0	0	0	0	74
11:00 PM	0	20	3	0	3	0	0	0	0	0	0	0	0	26
Total	147	5,900	962	3	241	16	0	2	3	2	0	0	1	7,277
Percent	2.0%	81.1%	13.2%	0.0%	3.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: ALAMEDA DE LAS PULGAS btwn CALLADO WAY/ATHERTON AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 01

Tuesday, March 27, 2018
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	17	1	0	0	0	0	0	0	0	0	0	0	18
1:00 AM	0	6	1	0	0	0	0	0	0	0	0	0	0	7
2:00 AM	0	5	2	0	1	0	0	0	0	0	0	0	0	8
3:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
5:00 AM	0	26	6	0	1	0	0	0	0	0	0	0	0	33
6:00 AM	4	67	17	0	3	1	0	1	0	0	0	0	0	93
7:00 AM	3	245	33	0	13	0	0	0	0	0	0	0	1	295
8:00 AM	3	332	68	0	18	2	0	0	0	0	0	0	0	423
9:00 AM	7	256	57	0	22	2	0	0	1	0	0	0	0	345
10:00 AM	2	315	65	0	26	1	0	0	0	0	0	0	0	409
11:00 AM	9	324	80	0	16	1	0	0	0	0	0	0	0	430
12:00 PM	10	402	88	1	28	3	0	1	0	0	0	0	0	533
1:00 PM	9	384	79	0	24	1	0	0	0	0	0	0	0	497
2:00 PM	9	354	89	0	26	1	0	0	0	0	0	0	0	479
3:00 PM	10	567	67	0	25	3	0	0	3	0	0	0	0	675
4:00 PM	12	568	69	0	26	1	0	1	3	0	0	0	0	680
5:00 PM	17	598	54	0	19	2	0	0	0	0	0	0	0	690
6:00 PM	29	491	57	0	13	0	0	0	0	0	0	0	0	590
7:00 PM	18	348	43	0	8	0	0	0	0	0	0	0	0	417
8:00 PM	3	231	30	0	6	0	0	0	0	0	0	0	0	270
9:00 PM	2	113	15	0	2	0	0	0	0	0	0	0	0	132
10:00 PM	0	70	11	0	1	0	0	0	0	0	0	0	0	82
11:00 PM	1	30	2	0	3	0	0	0	0	0	0	0	0	36
Total	148	5,759	934	1	281	18	0	3	7	0	0	0	1	7,152
Percent	2.1%	80.5%	13.1%	0.0%	3.9%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Location: ALAMEDA DE LAS PULGAS btwn CALLADO WAY/ATHERTON AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 01

Total Study Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	9	0	0	0	0	0	0	0	0	0	0	0	9
2:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
3:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1
4:00 AM	0	13	2	0	1	0	0	0	1	0	0	0	0	17
5:00 AM	1	55	12	0	1	0	0	0	0	0	0	0	0	69
6:00 AM	7	160	34	0	6	3	0	0	0	0	0	0	0	210
7:00 AM	21	573	120	0	28	2	0	1	0	0	0	0	0	745
8:00 AM	25	682	124	0	21	4	0	0	0	1	0	0	0	857
9:00 AM	12	545	95	0	27	4	0	0	0	0	0	0	0	683
10:00 AM	14	369	67	1	35	1	0	0	0	0	0	0	0	487
11:00 AM	12	453	78	0	21	0	0	0	1	1	0	0	0	566
12:00 PM	7	377	74	1	22	0	0	1	1	0	0	0	0	483
1:00 PM	6	364	85	0	13	0	0	0	0	0	0	0	0	468
2:00 PM	7	405	78	0	23	2	0	0	0	0	0	0	0	515
3:00 PM	7	359	43	1	13	0	0	0	0	0	0	0	0	423
4:00 PM	7	291	42	0	9	0	0	0	0	0	0	0	0	349
5:00 PM	3	289	13	0	4	0	0	0	0	0	0	0	0	309
6:00 PM	7	342	32	0	6	0	0	0	0	0	0	0	1	388
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	4	145	20	0	3	0	0	0	0	0	0	0	0	172
9:00 PM	0	106	13	0	2	0	0	0	0	0	0	0	0	121
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	20	3	0	3	0	0	0	0	0	0	0	0	26
Total	140	5,564	935	3	239	16	0	2	3	2	0	0	1	6,905
Percent	2.0%	80.6%	13.5%	0.0%	3.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: ALAMEDA DE LAS PULGAS btwn CALLADO WAY/ATHERTON AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 01

Total Study Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	17	1	0	0	0	0	0	0	0	0	0	0	18
1:00 AM	0	6	1	0	0	0	0	0	0	0	0	0	0	7
2:00 AM	0	5	2	0	1	0	0	0	0	0	0	0	0	8
3:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
5:00 AM	0	26	6	0	1	0	0	0	0	0	0	0	0	33
6:00 AM	4	67	17	0	3	1	0	1	0	0	0	0	0	93
7:00 AM	3	245	33	0	13	0	0	0	0	0	0	0	1	295
8:00 AM	3	332	68	0	18	2	0	0	0	0	0	0	0	423
9:00 AM	7	256	57	0	22	2	0	0	1	0	0	0	0	345
10:00 AM	2	315	65	0	26	1	0	0	0	0	0	0	0	409
11:00 AM	9	324	80	0	16	1	0	0	0	0	0	0	0	430
12:00 PM	10	402	88	1	28	3	0	1	0	0	0	0	0	533
1:00 PM	9	384	79	0	24	1	0	0	0	0	0	0	0	497
2:00 PM	9	354	89	0	26	1	0	0	0	0	0	0	0	479
3:00 PM	10	567	67	0	25	3	0	0	3	0	0	0	0	675
4:00 PM	12	568	69	0	26	1	0	1	3	0	0	0	0	680
5:00 PM	17	598	54	0	19	2	0	0	0	0	0	0	0	690
6:00 PM	29	491	57	0	13	0	0	0	0	0	0	0	0	590
7:00 PM	18	348	43	0	8	0	0	0	0	0	0	0	0	417
8:00 PM	3	231	30	0	6	0	0	0	0	0	0	0	0	270
9:00 PM	2	113	15	0	2	0	0	0	0	0	0	0	0	132
10:00 PM	0	70	11	0	1	0	0	0	0	0	0	0	0	82
11:00 PM	1	30	2	0	3	0	0	0	0	0	0	0	0	36
Total	148	5,759	934	1	281	18	0	3	7	0	0	0	1	7,152
Percent	2.1%	80.5%	13.1%	0.0%	3.9%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: ALAMEDA DE LAS PULGAS btwn CALLADO WAY/ATHERTON AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 01

**3-Day (Tuesday - Thursday) Average
 Eastbound**

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	9	0	0	0	0	0	0	0	0	0	0	0	9
2:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
3:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1
4:00 AM	0	13	2	0	1	0	0	0	1	0	0	0	0	17
5:00 AM	1	55	12	0	1	0	0	0	0	0	0	0	0	69
6:00 AM	7	160	34	0	6	3	0	0	0	0	0	0	0	210
7:00 AM	21	573	120	0	28	2	0	1	0	0	0	0	0	745
8:00 AM	25	682	124	0	21	4	0	0	0	1	0	0	0	857
9:00 AM	12	545	95	0	27	4	0	0	0	0	0	0	0	683
10:00 AM	14	369	67	1	35	1	0	0	0	0	0	0	0	487
11:00 AM	12	453	78	0	21	0	0	0	1	1	0	0	0	566
12:00 PM	7	377	74	1	22	0	0	1	1	0	0	0	0	483
1:00 PM	6	364	85	0	13	0	0	0	0	0	0	0	0	468
2:00 PM	7	405	78	0	23	2	0	0	0	0	0	0	0	515
3:00 PM	7	359	43	1	13	0	0	0	0	0	0	0	0	423
4:00 PM	7	291	42	0	9	0	0	0	0	0	0	0	0	349
5:00 PM	3	289	13	0	4	0	0	0	0	0	0	0	0	309
6:00 PM	7	342	32	0	6	0	0	0	0	0	0	0	1	388
7:00 PM	7	273	16	0	2	0	0	0	0	0	0	0	0	298
8:00 PM	4	145	20	0	3	0	0	0	0	0	0	0	0	172
9:00 PM	0	106	13	0	2	0	0	0	0	0	0	0	0	121
10:00 PM	0	63	11	0	0	0	0	0	0	0	0	0	0	74
11:00 PM	0	20	3	0	3	0	0	0	0	0	0	0	0	26
Total	147	5,900	962	3	241	16	0	2	3	2	0	0	1	7,277
Percent	2.0%	81.1%	13.2%	0.0%	3.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: ALAMEDA DE LAS PULGAS btwn CALLADO WAY/ATHERTON AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 01

3-Day (Tuesday - Thursday) Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	17	1	0	0	0	0	0	0	0	0	0	0	18
1:00 AM	0	6	1	0	0	0	0	0	0	0	0	0	0	7
2:00 AM	0	5	2	0	1	0	0	0	0	0	0	0	0	8
3:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
5:00 AM	0	26	6	0	1	0	0	0	0	0	0	0	0	33
6:00 AM	4	67	17	0	3	1	0	1	0	0	0	0	0	93
7:00 AM	3	245	33	0	13	0	0	0	0	0	0	0	1	295
8:00 AM	3	332	68	0	18	2	0	0	0	0	0	0	0	423
9:00 AM	7	256	57	0	22	2	0	0	1	0	0	0	0	345
10:00 AM	2	315	65	0	26	1	0	0	0	0	0	0	0	409
11:00 AM	9	324	80	0	16	1	0	0	0	0	0	0	0	430
12:00 PM	10	402	88	1	28	3	0	1	0	0	0	0	0	533
1:00 PM	9	384	79	0	24	1	0	0	0	0	0	0	0	497
2:00 PM	9	354	89	0	26	1	0	0	0	0	0	0	0	479
3:00 PM	10	567	67	0	25	3	0	0	3	0	0	0	0	675
4:00 PM	12	568	69	0	26	1	0	1	3	0	0	0	0	680
5:00 PM	17	598	54	0	19	2	0	0	0	0	0	0	0	690
6:00 PM	29	491	57	0	13	0	0	0	0	0	0	0	0	590
7:00 PM	18	348	43	0	8	0	0	0	0	0	0	0	0	417
8:00 PM	3	231	30	0	6	0	0	0	0	0	0	0	0	270
9:00 PM	2	113	15	0	2	0	0	0	0	0	0	0	0	132
10:00 PM	0	70	11	0	1	0	0	0	0	0	0	0	0	82
11:00 PM	1	30	2	0	3	0	0	0	0	0	0	0	0	36
Total	148	5,759	934	1	281	18	0	3	7	0	0	0	1	7,152
Percent	2.1%	80.5%	13.1%	0.0%	3.9%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Vehicle Speed Report Summary

Location: ALAMEDA DE LAS PULGAS btwn CALLADO WAY/ATHERTON AVE

Count Direction: Eastbound / Westbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 01

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	3	48	106	272	2,450	3,608	735	51	3	1	0	0	0	0	0	0	0	7,277
Percent	0.0%	0.7%	1.5%	3.7%	33.7%	49.6%	10.1%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Westbound	1,573	178	183	303	1,682	2,409	723	98	3	0	0	0	0	0	0	0	0	7,152
Percent	22.0%	2.5%	2.6%	4.2%	23.5%	33.7%	10.1%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	1,576	226	289	575	4,132	6,017	1,458	149	6	1	0	0	0	0	0	0	0	14,429
Percent	10.9%	1.6%	2.0%	4.0%	28.6%	41.7%	10.1%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Eastbound				Eastbound			
50th Percentile (Median)		30.6	mph	Mean (Average) Speed		30.7	mph
85th Percentile		34.1	mph	10 mph Pace		25.9 - 35.9	mph
95th Percentile		36.4	mph	Percent in Pace		85.0	%
Westbound				Westbound			
50th Percentile (Median)		29.2	mph	Mean (Average) Speed		24.8	mph
85th Percentile		34.0	mph	10 mph Pace		25.6 - 35.6	mph
95th Percentile		37.3	mph	Percent in Pace		57.8	%

Location: ALAMEDA DE LAS PULGAS btwn CALLADO WAY/ATHERTON AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 01



Tuesday, March 27, 2018
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	0	0	0	3	3	2	1	0	0	0	0	0	0	0	0	0	9
2:00 AM	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4
3:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	0	0	0	4	6	6	1	0	0	0	0	0	0	0	0	0	17
5:00 AM	0	1	0	0	12	35	16	5	0	0	0	0	0	0	0	0	0	69
6:00 AM	0	4	2	1	47	108	45	2	1	0	0	0	0	0	0	0	0	210
7:00 AM	0	4	16	53	281	338	52	1	0	0	0	0	0	0	0	0	0	745
8:00 AM	0	5	26	74	370	338	42	2	0	0	0	0	0	0	0	0	0	857
9:00 AM	2	11	11	22	273	310	47	6	0	1	0	0	0	0	0	0	0	683
10:00 AM	0	3	7	11	162	249	52	3	0	0	0	0	0	0	0	0	0	487
11:00 AM	0	3	13	20	157	313	58	2	0	0	0	0	0	0	0	0	0	566
12:00 PM	0	2	4	6	131	284	54	2	0	0	0	0	0	0	0	0	0	483
1:00 PM	0	2	4	14	156	242	48	2	0	0	0	0	0	0	0	0	0	468
2:00 PM	0	2	4	15	168	282	43	1	0	0	0	0	0	0	0	0	0	515
3:00 PM	0	0	5	18	178	183	37	2	0	0	0	0	0	0	0	0	0	423
4:00 PM	1	3	3	15	107	188	30	2	0	0	0	0	0	0	0	0	0	349
5:00 PM	0	2	0	12	139	137	15	4	0	0	0	0	0	0	0	0	0	309
6:00 PM	0	2	4	2	93	232	53	1	1	0	0	0	0	0	0	0	0	388
7:00 PM	0	1	5	2	84	151	52	3	0	0	0	0	0	0	0	0	0	298
8:00 PM	0	3	2	5	37	94	29	2	0	0	0	0	0	0	0	0	0	172
9:00 PM	0	0	0	2	22	63	28	5	1	0	0	0	0	0	0	0	0	121
10:00 PM	0	0	0	0	19	35	18	2	0	0	0	0	0	0	0	0	0	74
11:00 PM	0	0	0	0	6	13	7	0	0	0	0	0	0	0	0	0	0	26
Total	3	48	106	272	2,450	3,608	735	51	3	1	0	0	0	0	0	0	0	7,277
Percent	0.0%	0.7%	1.5%	3.7%	33.7%	49.6%	10.1%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	30.6	mph	Mean (Average) Speed	30.7	mph
85th Percentile	34.1	mph	10 mph Pace	25.9 - 35.9	mph
95th Percentile	36.4	mph	Percent in Pace	85.0	%

Location: ALAMEDA DE LAS PULGAS btwn CALLADO WAY/ATHERTON AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 01

Tuesday, March 27, 2018
 Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	1	6	9	1	0	0	0	0	0	0	0	0	0	18
1:00 AM	0	0	0	0	2	1	3	1	0	0	0	0	0	0	0	0	0	7
2:00 AM	0	0	0	0	1	2	3	2	0	0	0	0	0	0	0	0	0	8
3:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	2	2	1	3	0	0	0	0	0	0	0	0	0	8
5:00 AM	0	0	0	0	3	18	9	2	1	0	0	0	0	0	0	0	0	33
6:00 AM	0	1	1	2	13	42	31	3	0	0	0	0	0	0	0	0	0	93
7:00 AM	0	0	5	4	73	146	59	8	0	0	0	0	0	0	0	0	0	295
8:00 AM	0	8	8	22	138	199	47	1	0	0	0	0	0	0	0	0	0	423
9:00 AM	2	0	4	16	142	146	30	5	0	0	0	0	0	0	0	0	0	345
10:00 AM	0	2	1	9	141	210	42	4	0	0	0	0	0	0	0	0	0	409
11:00 AM	0	7	3	42	182	158	36	2	0	0	0	0	0	0	0	0	0	430
12:00 PM	2	1	20	19	196	244	46	5	0	0	0	0	0	0	0	0	0	533
1:00 PM	0	5	21	16	191	217	42	5	0	0	0	0	0	0	0	0	0	497
2:00 PM	1	11	10	40	160	217	37	3	0	0	0	0	0	0	0	0	0	479
3:00 PM	426	61	37	61	45	34	11	0	0	0	0	0	0	0	0	0	0	675
4:00 PM	469	33	13	27	87	45	5	1	0	0	0	0	0	0	0	0	0	680
5:00 PM	630	36	21	1	1	1	0	0	0	0	0	0	0	0	0	0	0	690
6:00 PM	43	10	24	25	148	260	75	5	0	0	0	0	0	0	0	0	0	590
7:00 PM	0	3	15	6	82	231	71	9	0	0	0	0	0	0	0	0	0	417
8:00 PM	0	0	0	9	49	134	67	10	1	0	0	0	0	0	0	0	0	270
9:00 PM	0	0	0	2	18	49	49	13	1	0	0	0	0	0	0	0	0	132
10:00 PM	0	0	0	0	5	35	34	8	0	0	0	0	0	0	0	0	0	82
11:00 PM	0	0	0	1	1	11	16	7	0	0	0	0	0	0	0	0	0	36
Total	1,573	178	183	303	1,682	2,409	723	98	3	0	0	0	0	0	0	0	0	7,152
Percent	22.0%	2.5%	2.6%	4.2%	23.5%	33.7%	10.1%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	29.2	mph	Mean (Average) Speed	24.8	mph
85th Percentile	34.0	mph	10 mph Pace	25.6 - 35.6	mph
95th Percentile	37.3	mph	Percent in Pace	57.8	%

Location: ALAMEDA DE LAS PULGAS btwn CALLADO WAY/ATHERTON AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 01

Total Study Average
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	0	0	0	3	3	2	1	0	0	0	0	0	0	0	0	0	9
2:00 AM	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4
3:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	0	0	0	4	6	6	1	0	0	0	0	0	0	0	0	0	17
5:00 AM	0	1	0	0	12	35	16	5	0	0	0	0	0	0	0	0	0	69
6:00 AM	0	4	2	1	47	108	45	2	1	0	0	0	0	0	0	0	0	210
7:00 AM	0	4	16	53	281	338	52	1	0	0	0	0	0	0	0	0	0	745
8:00 AM	0	5	26	74	370	338	42	2	0	0	0	0	0	0	0	0	0	857
9:00 AM	2	11	11	22	273	310	47	6	0	1	0	0	0	0	0	0	0	683
10:00 AM	0	3	7	11	162	249	52	3	0	0	0	0	0	0	0	0	0	487
11:00 AM	0	3	13	20	157	313	58	2	0	0	0	0	0	0	0	0	0	566
12:00 PM	0	2	4	6	131	284	54	2	0	0	0	0	0	0	0	0	0	483
1:00 PM	0	2	4	14	156	242	48	2	0	0	0	0	0	0	0	0	0	468
2:00 PM	0	2	4	15	168	282	43	1	0	0	0	0	0	0	0	0	0	515
3:00 PM	0	0	5	18	178	183	37	2	0	0	0	0	0	0	0	0	0	423
4:00 PM	1	3	3	15	107	188	30	2	0	0	0	0	0	0	0	0	0	349
5:00 PM	0	2	0	12	139	137	15	4	0	0	0	0	0	0	0	0	0	309
6:00 PM	0	2	4	2	93	232	53	1	1	0	0	0	0	0	0	0	0	388
7:00 PM	0	1	5	2	84	151	52	3	0	0	0	0	0	0	0	0	0	298
8:00 PM	0	3	2	5	37	94	29	2	0	0	0	0	0	0	0	0	0	172
9:00 PM	0	0	0	2	22	63	28	5	1	0	0	0	0	0	0	0	0	121
10:00 PM	0	0	0	0	19	35	18	2	0	0	0	0	0	0	0	0	0	74
11:00 PM	0	0	0	0	6	13	7	0	0	0	0	0	0	0	0	0	0	26
Total	3	48	106	272	2,450	3,608	735	51	3	1	0	0	0	0	0	0	0	7,277
Percent	0.0%	0.7%	1.5%	3.7%	33.7%	49.6%	10.1%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	30.6	mph	Mean (Average) Speed	30.7	mph
85th Percentile	34.1	mph	10 mph Pace	25.9 - 35.9	mph
95th Percentile	36.4	mph	Percent in Pace	85.0	%

Location: ALAMEDA DE LAS PULGAS btwn CALLADO WAY/ATHERTON AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 01

Total Study Average
 Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	1	6	9	1	0	0	0	0	0	0	0	0	0	18
1:00 AM	0	0	0	0	2	1	3	1	0	0	0	0	0	0	0	0	0	7
2:00 AM	0	0	0	0	1	2	3	2	0	0	0	0	0	0	0	0	0	8
3:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	2	2	1	3	0	0	0	0	0	0	0	0	0	8
5:00 AM	0	0	0	0	3	18	9	2	1	0	0	0	0	0	0	0	0	33
6:00 AM	0	1	1	2	13	42	31	3	0	0	0	0	0	0	0	0	0	93
7:00 AM	0	0	5	4	73	146	59	8	0	0	0	0	0	0	0	0	0	295
8:00 AM	0	8	8	22	138	199	47	1	0	0	0	0	0	0	0	0	0	423
9:00 AM	2	0	4	16	142	146	30	5	0	0	0	0	0	0	0	0	0	345
10:00 AM	0	2	1	9	141	210	42	4	0	0	0	0	0	0	0	0	0	409
11:00 AM	0	7	3	42	182	158	36	2	0	0	0	0	0	0	0	0	0	430
12:00 PM	2	1	20	19	196	244	46	5	0	0	0	0	0	0	0	0	0	533
1:00 PM	0	5	21	16	191	217	42	5	0	0	0	0	0	0	0	0	0	497
2:00 PM	1	11	10	40	160	217	37	3	0	0	0	0	0	0	0	0	0	479
3:00 PM	426	61	37	61	45	34	11	0	0	0	0	0	0	0	0	0	0	675
4:00 PM	469	33	13	27	87	45	5	1	0	0	0	0	0	0	0	0	0	680
5:00 PM	630	36	21	1	1	1	0	0	0	0	0	0	0	0	0	0	0	690
6:00 PM	43	10	24	25	148	260	75	5	0	0	0	0	0	0	0	0	0	590
7:00 PM	0	3	15	6	82	231	71	9	0	0	0	0	0	0	0	0	0	417
8:00 PM	0	0	0	9	49	134	67	10	1	0	0	0	0	0	0	0	0	270
9:00 PM	0	0	0	2	18	49	49	13	1	0	0	0	0	0	0	0	0	132
10:00 PM	0	0	0	0	5	35	34	8	0	0	0	0	0	0	0	0	0	82
11:00 PM	0	0	0	1	1	11	16	7	0	0	0	0	0	0	0	0	0	36
Total	1,573	178	183	303	1,682	2,409	723	98	3	0	0	0	0	0	0	0	0	7,152
Percent	22.0%	2.5%	2.6%	4.2%	23.5%	33.7%	10.1%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	29.2	mph	Mean (Average) Speed	24.8	mph
85th Percentile	34.0	mph	10 mph Pace	25.6 - 35.6	mph
95th Percentile	37.3	mph	Percent in Pace	57.8	%

Location: ALAMEDA DE LAS PULGAS btwn CALLADO WAY/ATHERTON AVE
 Date Range: 3/27/2018 - 4/2/2018
 Site Code: 01

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	3/27/2018			3/28/2018			3/29/2018			3/30/2018			3/31/2018			4/1/2018			4/2/2018					
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	3	18	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	18	21
1:00 AM	9	7	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	7	16	
2:00 AM	4	8	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	8	12	
3:00 AM	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3	
4:00 AM	17	8	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	8	25	
5:00 AM	69	33	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69	33	102	
6:00 AM	210	93	303	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	93	303	
7:00 AM	745	295	1,040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	745	295	1,040	
8:00 AM	857	423	1,280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	857	423	1,280	
9:00 AM	683	345	1,028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	683	345	1,028	
10:00 AM	487	409	896	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	487	409	896	
11:00 AM	566	430	996	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	566	430	996	
12:00 PM	483	533	1,016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	483	533	1,016	
1:00 PM	468	497	965	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	468	497	965	
2:00 PM	515	479	994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	515	479	994	
3:00 PM	423	675	1,098	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	423	675	1,098	
4:00 PM	349	680	1,029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	349	680	1,029	
5:00 PM	309	690	999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	309	690	999	
6:00 PM	388	590	978	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	388	590	978	
7:00 PM	298	417	715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	298	417	715	
8:00 PM	172	270	442	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	172	270	442	
9:00 PM	121	132	253	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	121	132	253	
10:00 PM	74	82	156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74	82	156	
11:00 PM	26	36	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	36	62	
Total	7,277	7,152	14,429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,277	7,152	14,429	
Percent	50%	50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50%	50%	-	

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary

Location: ATHERTON AVE btwn CLAY DR/STERN LN

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 02

	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Study Total														
Northbound	27	2,241	584	4	196	14	0	0	3	1	0	0	0	3,070
Percent	0.9%	73.0%	19.0%	0.1%	6.4%	0.5%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	28	3,351	685	3	179	9	0	1	6	1	0	0	1	4,264
Percent	0.7%	78.6%	16.1%	0.1%	4.2%	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	100%
Total	55	5,592	1,269	7	375	23	0	1	9	2	0	0	1	7,334
Percent	0.7%	76.2%	17.3%	0.1%	5.1%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: ATHERTON AVE btwn CLAY DR/STERN LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 02



Tuesday, March 27, 2018
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	9	2	0	1	0	0	0	0	0	0	0	0	12
6:00 AM	2	42	11	0	6	3	0	0	0	0	0	0	0	64
7:00 AM	2	171	34	0	10	2	0	0	0	0	0	0	0	219
8:00 AM	1	211	53	0	15	0	0	0	0	0	0	0	0	280
9:00 AM	1	177	45	1	19	1	0	0	1	0	0	0	0	245
10:00 AM	1	160	37	1	23	2	0	0	0	1	0	0	0	225
11:00 AM	1	123	51	0	15	2	0	0	1	0	0	0	0	193
12:00 PM	3	139	46	0	13	2	0	0	1	0	0	0	0	204
1:00 PM	1	108	40	1	18	0	0	0	0	0	0	0	0	168
2:00 PM	1	114	44	1	12	0	0	0	0	0	0	0	0	172
3:00 PM	1	203	74	0	23	2	0	0	0	0	0	0	0	303
4:00 PM	7	194	50	0	21	0	0	0	0	0	0	0	0	272
5:00 PM	0	260	43	0	10	0	0	0	0	0	0	0	0	313
6:00 PM	2	148	26	0	6	0	0	0	0	0	0	0	0	182
7:00 PM	1	91	9	0	2	0	0	0	0	0	0	0	0	103
8:00 PM	2	38	6	0	2	0	0	0	0	0	0	0	0	48
9:00 PM	0	22	6	0	0	0	0	0	0	0	0	0	0	28
10:00 PM	0	19	2	0	0	0	0	0	0	0	0	0	0	21
11:00 PM	1	1	3	0	0	0	0	0	0	0	0	0	0	5
Total	27	2,241	584	4	196	14	0	0	3	1	0	0	0	3,070
Percent	0.9%	73.0%	19.0%	0.1%	6.4%	0.5%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Location: ATHERTON AVE btwn CLAY DR/STERN LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 02



Tuesday, March 27, 2018
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	2	1	0	1	0	0	0	0	0	0	0	0	4
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	2
4:00 AM	0	2	1	0	0	0	0	0	1	0	0	0	0	4
5:00 AM	0	14	3	0	1	0	0	0	0	0	0	0	0	18
6:00 AM	2	52	18	0	5	3	0	0	0	0	0	0	0	80
7:00 AM	2	290	86	0	22	1	0	0	0	1	0	0	0	402
8:00 AM	1	349	96	1	16	0	0	0	0	0	0	0	0	463
9:00 AM	2	167	44	0	17	2	0	0	1	0	0	0	0	233
10:00 AM	1	140	40	1	17	0	0	0	1	0	0	0	0	200
11:00 AM	4	146	48	0	11	1	0	0	2	0	0	0	1	213
12:00 PM	1	151	54	0	20	1	0	1	0	0	0	0	0	228
1:00 PM	0	167	44	0	13	0	0	0	0	0	0	0	0	224
2:00 PM	0	194	59	0	16	0	0	0	1	0	0	0	0	270
3:00 PM	4	279	51	1	12	1	0	0	0	0	0	0	0	348
4:00 PM	4	396	56	0	8	0	0	0	0	0	0	0	0	464
5:00 PM	2	428	29	0	9	0	0	0	0	0	0	0	0	468
6:00 PM	3	254	26	0	6	0	0	0	0	0	0	0	0	289
7:00 PM	1	153	10	0	2	0	0	0	0	0	0	0	0	166
8:00 PM	1	82	6	0	1	0	0	0	0	0	0	0	0	90
9:00 PM	0	47	9	0	1	0	0	0	0	0	0	0	0	57
10:00 PM	0	26	2	0	0	0	0	0	0	0	0	0	0	28
11:00 PM	0	10	1	0	0	0	0	0	0	0	0	0	0	11
Total	28	3,351	685	3	179	9	0	1	6	1	0	0	1	4,264
Percent	0.7%	78.6%	16.1%	0.1%	4.2%	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Location: ATHERTON AVE btwn CLAY DR/STERN LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 02

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	9	2	0	1	0	0	0	0	0	0	0	0	12
6:00 AM	2	42	11	0	6	3	0	0	0	0	0	0	0	64
7:00 AM	2	171	34	0	10	2	0	0	0	0	0	0	0	219
8:00 AM	1	211	53	0	15	0	0	0	0	0	0	0	0	280
9:00 AM	1	177	45	1	19	1	0	0	1	0	0	0	0	245
10:00 AM	1	160	37	1	23	2	0	0	0	1	0	0	0	225
11:00 AM	1	123	51	0	15	2	0	0	1	0	0	0	0	193
12:00 PM	3	139	46	0	13	2	0	0	1	0	0	0	0	204
1:00 PM	1	108	40	1	18	0	0	0	0	0	0	0	0	168
2:00 PM	1	114	44	1	12	0	0	0	0	0	0	0	0	172
3:00 PM	1	203	74	0	23	2	0	0	0	0	0	0	0	303
4:00 PM	7	194	50	0	21	0	0	0	0	0	0	0	0	272
5:00 PM	0	260	43	0	10	0	0	0	0	0	0	0	0	313
6:00 PM	2	148	26	0	6	0	0	0	0	0	0	0	0	182
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	2	38	6	0	2	0	0	0	0	0	0	0	0	48
9:00 PM	0	22	6	0	0	0	0	0	0	0	0	0	0	28
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	1	1	3	0	0	0	0	0	0	0	0	0	0	5
Total	26	2,131	573	4	194	14	0	0	3	1	0	0	0	2,946
Percent	0.9%	72.3%	19.5%	0.1%	6.6%	0.5%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: ATHERTON AVE btwn CLAY DR/STERN LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 02

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	2	1	0	1	0	0	0	0	0	0	0	0	4
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	2
4:00 AM	0	2	1	0	0	0	0	0	1	0	0	0	0	4
5:00 AM	0	14	3	0	1	0	0	0	0	0	0	0	0	18
6:00 AM	2	52	18	0	5	3	0	0	0	0	0	0	0	80
7:00 AM	2	290	86	0	22	1	0	0	0	1	0	0	0	402
8:00 AM	1	349	96	1	16	0	0	0	0	0	0	0	0	463
9:00 AM	2	167	44	0	17	2	0	0	1	0	0	0	0	233
10:00 AM	1	140	40	1	17	0	0	0	1	0	0	0	0	200
11:00 AM	4	146	48	0	11	1	0	0	2	0	0	0	1	213
12:00 PM	1	151	54	0	20	1	0	1	0	0	0	0	0	228
1:00 PM	0	167	44	0	13	0	0	0	0	0	0	0	0	224
2:00 PM	0	194	59	0	16	0	0	0	1	0	0	0	0	270
3:00 PM	4	279	51	1	12	1	0	0	0	0	0	0	0	348
4:00 PM	4	396	56	0	8	0	0	0	0	0	0	0	0	464
5:00 PM	2	428	29	0	9	0	0	0	0	0	0	0	0	468
6:00 PM	3	254	26	0	6	0	0	0	0	0	0	0	0	289
7:00 PM	1	153	10	0	2	0	0	0	0	0	0	0	0	166
8:00 PM	1	82	6	0	1	0	0	0	0	0	0	0	0	90
9:00 PM	0	47	9	0	1	0	0	0	0	0	0	0	0	57
10:00 PM	0	26	2	0	0	0	0	0	0	0	0	0	0	28
11:00 PM	0	10	1	0	0	0	0	0	0	0	0	0	0	11
Total	28	3,351	685	3	179	9	0	1	6	1	0	0	1	4,264
Percent	0.7%	78.6%	16.1%	0.1%	4.2%	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: ATHERTON AVE btwn CLAY DR/STERN LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 02



3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	9	2	0	1	0	0	0	0	0	0	0	0	12
6:00 AM	2	42	11	0	6	3	0	0	0	0	0	0	0	64
7:00 AM	2	171	34	0	10	2	0	0	0	0	0	0	0	219
8:00 AM	1	211	53	0	15	0	0	0	0	0	0	0	0	280
9:00 AM	1	177	45	1	19	1	0	0	1	0	0	0	0	245
10:00 AM	1	160	37	1	23	2	0	0	0	1	0	0	0	225
11:00 AM	1	123	51	0	15	2	0	0	1	0	0	0	0	193
12:00 PM	3	139	46	0	13	2	0	0	1	0	0	0	0	204
1:00 PM	1	108	40	1	18	0	0	0	0	0	0	0	0	168
2:00 PM	1	114	44	1	12	0	0	0	0	0	0	0	0	172
3:00 PM	1	203	74	0	23	2	0	0	0	0	0	0	0	303
4:00 PM	7	194	50	0	21	0	0	0	0	0	0	0	0	272
5:00 PM	0	260	43	0	10	0	0	0	0	0	0	0	0	313
6:00 PM	2	148	26	0	6	0	0	0	0	0	0	0	0	182
7:00 PM	1	91	9	0	2	0	0	0	0	0	0	0	0	103
8:00 PM	2	38	6	0	2	0	0	0	0	0	0	0	0	48
9:00 PM	0	22	6	0	0	0	0	0	0	0	0	0	0	28
10:00 PM	0	19	2	0	0	0	0	0	0	0	0	0	0	21
11:00 PM	1	1	3	0	0	0	0	0	0	0	0	0	0	5
Total	27	2,241	584	4	196	14	0	0	3	1	0	0	0	3,070
Percent	0.9%	73.0%	19.0%	0.1%	6.4%	0.5%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Location: ATHERTON AVE btwn CLAY DR/STERN LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 02



3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	2	1	0	1	0	0	0	0	0	0	0	0	4
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	2
4:00 AM	0	2	1	0	0	0	0	0	1	0	0	0	0	4
5:00 AM	0	14	3	0	1	0	0	0	0	0	0	0	0	18
6:00 AM	2	52	18	0	5	3	0	0	0	0	0	0	0	80
7:00 AM	2	290	86	0	22	1	0	0	0	1	0	0	0	402
8:00 AM	1	349	96	1	16	0	0	0	0	0	0	0	0	463
9:00 AM	2	167	44	0	17	2	0	0	1	0	0	0	0	233
10:00 AM	1	140	40	1	17	0	0	0	1	0	0	0	0	200
11:00 AM	4	146	48	0	11	1	0	0	2	0	0	0	1	213
12:00 PM	1	151	54	0	20	1	0	1	0	0	0	0	0	228
1:00 PM	0	167	44	0	13	0	0	0	0	0	0	0	0	224
2:00 PM	0	194	59	0	16	0	0	0	1	0	0	0	0	270
3:00 PM	4	279	51	1	12	1	0	0	0	0	0	0	0	348
4:00 PM	4	396	56	0	8	0	0	0	0	0	0	0	0	464
5:00 PM	2	428	29	0	9	0	0	0	0	0	0	0	0	468
6:00 PM	3	254	26	0	6	0	0	0	0	0	0	0	0	289
7:00 PM	1	153	10	0	2	0	0	0	0	0	0	0	0	166
8:00 PM	1	82	6	0	1	0	0	0	0	0	0	0	0	90
9:00 PM	0	47	9	0	1	0	0	0	0	0	0	0	0	57
10:00 PM	0	26	2	0	0	0	0	0	0	0	0	0	0	28
11:00 PM	0	10	1	0	0	0	0	0	0	0	0	0	0	11
Total	28	3,351	685	3	179	9	0	1	6	1	0	0	1	4,264
Percent	0.7%	78.6%	16.1%	0.1%	4.2%	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Vehicle Speed Report Summary

Location: ATHERTON AVE btwn CLAY DR/STERN LN

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 02

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Northbound	1	7	33	107	732	1,553	549	83	5	0	0	0	0	0	0	0	0	3,070
Percent	0.0%	0.2%	1.1%	3.5%	23.8%	50.6%	17.9%	2.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	1	20	31	150	1,255	2,103	625	72	7	0	0	0	0	0	0	0	0	4,264
Percent	0.0%	0.5%	0.7%	3.5%	29.4%	49.3%	14.7%	1.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	2	27	64	257	1,987	3,656	1,174	155	12	0	0	0	0	0	0	0	0	7,334
Percent	0.0%	0.4%	0.9%	3.5%	27.1%	49.9%	16.0%	2.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Northbound				Northbound			
50th Percentile (Median)	31.8	mph		Mean (Average) Speed	31.9	mph	
85th Percentile	35.7	mph		10 mph Pace	27.1 - 37.1	mph	
95th Percentile	38.5	mph		Percent in Pace	80.7	%	
Southbound				Southbound			
50th Percentile (Median)	31.3	mph		Mean (Average) Speed	31.4	mph	
85th Percentile	35.0	mph		10 mph Pace	26.5 - 36.5	mph	
95th Percentile	37.9	mph		Percent in Pace	81.9	%	

Location: ATHERTON AVE btwn CLAY DR/STERN LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 02



Tuesday, March 27, 2018
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	5
1:00 AM	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	0	0	0	1	4	6	1	0	0	0	0	0	0	0	0	0	12
6:00 AM	0	1	2	3	13	28	15	2	0	0	0	0	0	0	0	0	0	64
7:00 AM	0	0	1	4	29	109	63	13	0	0	0	0	0	0	0	0	0	219
8:00 AM	0	0	1	5	60	169	40	5	0	0	0	0	0	0	0	0	0	280
9:00 AM	0	1	4	14	51	125	39	11	0	0	0	0	0	0	0	0	0	245
10:00 AM	1	0	5	15	74	101	24	4	1	0	0	0	0	0	0	0	0	225
11:00 AM	0	0	2	7	69	92	21	2	0	0	0	0	0	0	0	0	0	193
12:00 PM	0	0	2	10	51	115	21	5	0	0	0	0	0	0	0	0	0	204
1:00 PM	0	2	3	7	44	77	32	3	0	0	0	0	0	0	0	0	0	168
2:00 PM	0	0	1	5	36	82	42	6	0	0	0	0	0	0	0	0	0	172
3:00 PM	0	1	2	14	86	147	49	4	0	0	0	0	0	0	0	0	0	303
4:00 PM	0	2	7	9	70	144	33	5	2	0	0	0	0	0	0	0	0	272
5:00 PM	0	0	1	3	61	181	60	6	1	0	0	0	0	0	0	0	0	313
6:00 PM	0	0	1	2	32	82	60	5	0	0	0	0	0	0	0	0	0	182
7:00 PM	0	0	1	3	30	46	17	6	0	0	0	0	0	0	0	0	0	103
8:00 PM	0	0	0	2	12	21	12	1	0	0	0	0	0	0	0	0	0	48
9:00 PM	0	0	0	1	5	16	3	2	1	0	0	0	0	0	0	0	0	28
10:00 PM	0	0	0	1	5	8	6	1	0	0	0	0	0	0	0	0	0	21
11:00 PM	0	0	0	1	1	1	2	0	0	0	0	0	0	0	0	0	0	5
Total	1	7	33	107	732	1,553	549	83	5	0	0	0	0	0	0	0	0	3,070
Percent	0.0%	0.2%	1.1%	3.5%	23.8%	50.6%	17.9%	2.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	31.8	mph	Mean (Average) Speed	31.9	mph
85th Percentile	35.7	mph	10 mph Pace	27.1 - 37.1	mph
95th Percentile	38.5	mph	Percent in Pace	80.7	%

Location: ATHERTON AVE btwn CLAY DR/STERN LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 02

Tuesday, March 27, 2018
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	4
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	0	0	0	0	4	8	4	2	0	0	0	0	0	0	0	0	0	18
6:00 AM	0	2	3	2	17	42	12	1	1	0	0	0	0	0	0	0	0	80
7:00 AM	0	1	2	12	164	196	27	0	0	0	0	0	0	0	0	0	0	402
8:00 AM	0	1	0	15	200	221	26	0	0	0	0	0	0	0	0	0	0	463
9:00 AM	0	1	5	18	83	101	19	5	1	0	0	0	0	0	0	0	0	233
10:00 AM	0	1	7	9	56	90	29	8	0	0	0	0	0	0	0	0	0	200
11:00 AM	0	4	3	19	53	103	29	2	0	0	0	0	0	0	0	0	0	213
12:00 PM	0	0	1	12	61	115	30	9	0	0	0	0	0	0	0	0	0	228
1:00 PM	0	3	1	16	60	102	39	1	2	0	0	0	0	0	0	0	0	224
2:00 PM	0	2	2	6	68	140	45	7	0	0	0	0	0	0	0	0	0	270
3:00 PM	0	3	2	11	84	171	70	7	0	0	0	0	0	0	0	0	0	348
4:00 PM	0	1	1	5	133	239	76	8	1	0	0	0	0	0	0	0	0	464
5:00 PM	0	0	2	9	114	251	85	7	0	0	0	0	0	0	0	0	0	468
6:00 PM	1	0	2	7	58	158	55	8	0	0	0	0	0	0	0	0	0	289
7:00 PM	0	0	0	4	35	90	34	2	1	0	0	0	0	0	0	0	0	166
8:00 PM	0	1	0	3	28	40	16	2	0	0	0	0	0	0	0	0	0	90
9:00 PM	0	0	0	1	22	20	12	1	1	0	0	0	0	0	0	0	0	57
10:00 PM	0	0	0	0	9	8	9	2	0	0	0	0	0	0	0	0	0	28
11:00 PM	0	0	0	1	3	4	3	0	0	0	0	0	0	0	0	0	0	11
Total	1	20	31	150	1,255	2,103	625	72	7	0	0	0	0	0	0	0	0	4,264
Percent	0.0%	0.5%	0.7%	3.5%	29.4%	49.3%	14.7%	1.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	31.3	mph	Mean (Average) Speed	31.4	mph
85th Percentile	35.0	mph	10 mph Pace	26.5 - 36.5	mph
95th Percentile	37.9	mph	Percent in Pace	81.9	%

Location: ATHERTON AVE btwn CLAY DR/STERN LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 02

**Total Study Average
Northbound**

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	5
1:00 AM	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	0	0	0	1	4	6	1	0	0	0	0	0	0	0	0	0	12
6:00 AM	0	1	2	3	13	28	15	2	0	0	0	0	0	0	0	0	0	64
7:00 AM	0	0	1	4	29	109	63	13	0	0	0	0	0	0	0	0	0	219
8:00 AM	0	0	1	5	60	169	40	5	0	0	0	0	0	0	0	0	0	280
9:00 AM	0	1	4	14	51	125	39	11	0	0	0	0	0	0	0	0	0	245
10:00 AM	1	0	5	15	74	101	24	4	1	0	0	0	0	0	0	0	0	225
11:00 AM	0	0	2	7	69	92	21	2	0	0	0	0	0	0	0	0	0	193
12:00 PM	0	0	2	10	51	115	21	5	0	0	0	0	0	0	0	0	0	204
1:00 PM	0	2	3	7	44	77	32	3	0	0	0	0	0	0	0	0	0	168
2:00 PM	0	0	1	5	36	82	42	6	0	0	0	0	0	0	0	0	0	172
3:00 PM	0	1	2	14	86	147	49	4	0	0	0	0	0	0	0	0	0	303
4:00 PM	0	2	7	9	70	144	33	5	2	0	0	0	0	0	0	0	0	272
5:00 PM	0	0	1	3	61	181	60	6	1	0	0	0	0	0	0	0	0	313
6:00 PM	0	0	1	2	32	82	60	5	0	0	0	0	0	0	0	0	0	182
7:00 PM	0	0	1	3	30	46	17	6	0	0	0	0	0	0	0	0	0	103
8:00 PM	0	0	0	2	12	21	12	1	0	0	0	0	0	0	0	0	0	48
9:00 PM	0	0	0	1	5	16	3	2	1	0	0	0	0	0	0	0	0	28
10:00 PM	0	0	0	1	5	8	6	1	0	0	0	0	0	0	0	0	0	21
11:00 PM	0	0	0	1	1	1	2	0	0	0	0	0	0	0	0	0	0	5
Total	1	7	33	107	732	1,553	549	83	5	0	0	0	0	0	0	0	0	3,070
Percent	0.0%	0.2%	1.1%	3.5%	23.8%	50.6%	17.9%	2.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	31.8	mph	Mean (Average) Speed	31.9	mph
85th Percentile	35.7	mph	10 mph Pace	27.1 - 37.1	mph
95th Percentile	38.5	mph	Percent in Pace	80.7	%

Location: **ATHERTON AVE btwn CLAY DR/STERN LN**
 Date Range: **3/27/2018 to 3/27/2018**
 Site Code: **02**

Total Study Average
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	4
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	0	0	0	0	4	8	4	2	0	0	0	0	0	0	0	0	0	18
6:00 AM	0	2	3	2	17	42	12	1	1	0	0	0	0	0	0	0	0	80
7:00 AM	0	1	2	12	164	196	27	0	0	0	0	0	0	0	0	0	0	402
8:00 AM	0	1	0	15	200	221	26	0	0	0	0	0	0	0	0	0	0	463
9:00 AM	0	1	5	18	83	101	19	5	1	0	0	0	0	0	0	0	0	233
10:00 AM	0	1	7	9	56	90	29	8	0	0	0	0	0	0	0	0	0	200
11:00 AM	0	4	3	19	53	103	29	2	0	0	0	0	0	0	0	0	0	213
12:00 PM	0	0	1	12	61	115	30	9	0	0	0	0	0	0	0	0	0	228
1:00 PM	0	3	1	16	60	102	39	1	2	0	0	0	0	0	0	0	0	224
2:00 PM	0	2	2	6	68	140	45	7	0	0	0	0	0	0	0	0	0	270
3:00 PM	0	3	2	11	84	171	70	7	0	0	0	0	0	0	0	0	0	348
4:00 PM	0	1	1	5	133	239	76	8	1	0	0	0	0	0	0	0	0	464
5:00 PM	0	0	2	9	114	251	85	7	0	0	0	0	0	0	0	0	0	468
6:00 PM	1	0	2	7	58	158	55	8	0	0	0	0	0	0	0	0	0	289
7:00 PM	0	0	0	4	35	90	34	2	1	0	0	0	0	0	0	0	0	166
8:00 PM	0	1	0	3	28	40	16	2	0	0	0	0	0	0	0	0	0	90
9:00 PM	0	0	0	1	22	20	12	1	1	0	0	0	0	0	0	0	0	57
10:00 PM	0	0	0	0	9	8	9	2	0	0	0	0	0	0	0	0	0	28
11:00 PM	0	0	0	1	3	4	3	0	0	0	0	0	0	0	0	0	0	11
Total	1	20	31	150	1,255	2,103	625	72	7	0	0	0	0	0	0	0	0	4,264
Percent	0.0%	0.5%	0.7%	3.5%	29.4%	49.3%	14.7%	1.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	31.3	mph	Mean (Average) Speed	31.4	mph
85th Percentile	35.0	mph	10 mph Pace	26.5 - 36.5	mph
95th Percentile	37.9	mph	Percent in Pace	81.9	%

Location: ATHERTON AVE btwn CLAY DR/STERN LN
Date Range: 3/27/2018 - 4/2/2018
Site Code: 02

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	3/27/2018			3/28/2018			3/29/2018			3/30/2018			3/31/2018			4/1/2018			4/2/2018					
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	5	2	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	2	7
1:00 AM	3	4	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4	7
2:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
3:00 AM	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	4
4:00 AM	3	4	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4	7
5:00 AM	12	18	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	18	30
6:00 AM	64	80	144	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	80	144
7:00 AM	219	402	621	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	219	402	621
8:00 AM	280	463	743	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	280	463	743
9:00 AM	245	233	478	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	245	233	478
10:00 AM	225	200	425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	225	200	425
11:00 AM	193	213	406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	193	213	406
12:00 PM	204	228	432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	204	228	432
1:00 PM	168	224	392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	168	224	392
2:00 PM	172	270	442	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	172	270	442
3:00 PM	303	348	651	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	303	348	651
4:00 PM	272	464	736	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	272	464	736
5:00 PM	313	468	781	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	313	468	781
6:00 PM	182	289	471	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	182	289	471
7:00 PM	103	166	269	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	103	166	269
8:00 PM	48	90	138	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	90	138
9:00 PM	28	57	85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	57	85
10:00 PM	21	28	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	28	49
11:00 PM	5	11	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	11	16
Total	3,070	4,264	7,334	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,070	4,264	7,334
Percent	42%	58%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42%	58%	-

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary



Location: VALPARAISO AVE btwn PARK LN/SANTIAGO AVE

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 03

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Northbound	48	5,004	750	2	141	13	0	0	2	2	0	0	0	5,962
Percent	0.8%	83.9%	12.6%	0.0%	2.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	57	4,879	846	5	176	37	0	1	3	2	0	0	0	6,006
Percent	0.9%	81.2%	14.1%	0.1%	2.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	105	9,883	1,596	7	317	50	0	1	5	4	0	0	0	11,968
Percent	0.9%	82.6%	13.3%	0.1%	2.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: VALPARAISO AVE btwn PARK LN/SANTIAGO AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 03



Tuesday, March 27, 2018
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	9	1	0	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	9	0	0	0	0	0	0	0	0	0	0	0	9
5:00 AM	0	38	5	0	0	0	0	0	0	0	0	0	0	43
6:00 AM	1	98	14	0	2	1	0	0	0	0	0	0	0	116
7:00 AM	6	445	58	0	8	3	0	0	0	0	0	0	0	520
8:00 AM	8	588	72	0	24	4	0	0	0	1	0	0	0	697
9:00 AM	2	395	57	0	12	1	0	0	0	1	0	0	0	468
10:00 AM	1	264	48	0	7	0	0	0	0	0	0	0	0	320
11:00 AM	2	282	57	0	15	0	0	0	1	0	0	0	0	357
12:00 PM	2	256	46	0	12	0	0	0	0	0	0	0	0	316
1:00 PM	5	232	57	1	8	0	0	0	0	0	0	0	0	303
2:00 PM	1	305	45	0	9	1	0	0	1	0	0	0	0	362
3:00 PM	5	443	88	1	21	0	0	0	0	0	0	0	0	558
4:00 PM	2	401	64	0	9	1	0	0	0	0	0	0	0	477
5:00 PM	2	465	52	0	4	1	0	0	0	0	0	0	0	524
6:00 PM	4	320	41	0	5	1	0	0	0	0	0	0	0	371
7:00 PM	2	227	26	0	2	0	0	0	0	0	0	0	0	257
8:00 PM	2	100	8	0	2	0	0	0	0	0	0	0	0	112
9:00 PM	2	57	7	0	0	0	0	0	0	0	0	0	0	66
10:00 PM	0	45	2	0	0	0	0	0	0	0	0	0	0	47
11:00 PM	1	19	1	0	1	0	0	0	0	0	0	0	0	22
Total	48	5,004	750	2	141	13	0	0	2	2	0	0	0	5,962
Percent	0.8%	83.9%	12.6%	0.0%	2.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: VALPARAISO AVE btwn PARK LN/SANTIAGO AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 03



Tuesday, March 27, 2018
 Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	13	0	0	0	0	0	0	0	0	0	0	0	13
1:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
2:00 AM	0	3	0	0	0	1	0	0	0	0	0	0	0	4
3:00 AM	0	7	0	0	0	0	0	0	0	0	0	0	0	7
4:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
5:00 AM	0	31	1	0	0	0	0	0	0	0	0	0	0	32
6:00 AM	0	75	14	0	0	4	0	0	0	0	0	0	0	93
7:00 AM	1	307	52	0	7	8	0	0	0	0	0	0	0	375
8:00 AM	3	406	74	1	16	3	0	1	0	1	0	0	0	505
9:00 AM	3	264	48	0	17	2	0	0	1	0	0	0	0	335
10:00 AM	2	233	51	0	13	1	0	0	0	0	0	0	0	300
11:00 AM	5	262	58	2	9	2	0	0	0	0	0	0	0	338
12:00 PM	4	252	51	1	16	0	0	0	0	0	0	0	0	324
1:00 PM	1	256	62	0	18	3	0	0	0	0	0	0	0	340
2:00 PM	2	299	85	1	18	2	0	0	1	0	0	0	0	408
3:00 PM	3	466	100	0	18	4	0	0	0	1	0	0	0	592
4:00 PM	8	431	87	0	15	1	0	0	0	0	0	0	0	542
5:00 PM	8	481	64	0	12	2	0	0	1	0	0	0	0	568
6:00 PM	6	408	45	0	5	1	0	0	0	0	0	0	0	465
7:00 PM	8	297	24	0	7	1	0	0	0	0	0	0	0	337
8:00 PM	2	172	17	0	2	0	0	0	0	0	0	0	0	193
9:00 PM	1	112	10	0	2	1	0	0	0	0	0	0	0	126
10:00 PM	0	60	3	0	1	0	0	0	0	0	0	0	0	64
11:00 PM	0	32	0	0	0	1	0	0	0	0	0	0	0	33
Total	57	4,879	846	5	176	37	0	1	3	2	0	0	0	6,006
Percent	0.9%	81.2%	14.1%	0.1%	2.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: VALPARAISO AVE btwn PARK LN/SANTIAGO AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 03



Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	9	1	0	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	9	0	0	0	0	0	0	0	0	0	0	0	9
5:00 AM	0	38	5	0	0	0	0	0	0	0	0	0	0	43
6:00 AM	1	98	14	0	2	1	0	0	0	0	0	0	0	116
7:00 AM	6	445	58	0	8	3	0	0	0	0	0	0	0	520
8:00 AM	8	588	72	0	24	4	0	0	0	1	0	0	0	697
9:00 AM	2	395	57	0	12	1	0	0	0	1	0	0	0	468
10:00 AM	1	264	48	0	7	0	0	0	0	0	0	0	0	320
11:00 AM	2	282	57	0	15	0	0	0	1	0	0	0	0	357
12:00 PM	2	256	46	0	12	0	0	0	0	0	0	0	0	316
1:00 PM	5	232	57	1	8	0	0	0	0	0	0	0	0	303
2:00 PM	1	305	45	0	9	1	0	0	1	0	0	0	0	362
3:00 PM	5	443	88	1	21	0	0	0	0	0	0	0	0	558
4:00 PM	2	401	64	0	9	1	0	0	0	0	0	0	0	477
5:00 PM	2	465	52	0	4	1	0	0	0	0	0	0	0	524
6:00 PM	4	320	41	0	5	1	0	0	0	0	0	0	0	371
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	2	100	8	0	2	0	0	0	0	0	0	0	0	112
9:00 PM	2	57	7	0	0	0	0	0	0	0	0	0	0	66
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	1	19	1	0	1	0	0	0	0	0	0	0	0	22
Total	46	4,732	722	2	139	13	0	0	2	2	0	0	0	5,658
Percent	0.8%	83.6%	12.8%	0.0%	2.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: VALPARAISO AVE btwn PARK LN/SANTIAGO AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 03



Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	13	0	0	0	0	0	0	0	0	0	0	0	13
1:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
2:00 AM	0	3	0	0	0	1	0	0	0	0	0	0	0	4
3:00 AM	0	7	0	0	0	0	0	0	0	0	0	0	0	7
4:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
5:00 AM	0	31	1	0	0	0	0	0	0	0	0	0	0	32
6:00 AM	0	75	14	0	0	4	0	0	0	0	0	0	0	93
7:00 AM	1	307	52	0	7	8	0	0	0	0	0	0	0	375
8:00 AM	3	406	74	1	16	3	0	1	0	1	0	0	0	505
9:00 AM	3	264	48	0	17	2	0	0	1	0	0	0	0	335
10:00 AM	2	233	51	0	13	1	0	0	0	0	0	0	0	300
11:00 AM	5	262	58	2	9	2	0	0	0	0	0	0	0	338
12:00 PM	4	252	51	1	16	0	0	0	0	0	0	0	0	324
1:00 PM	1	256	62	0	18	3	0	0	0	0	0	0	0	340
2:00 PM	2	299	85	1	18	2	0	0	1	0	0	0	0	408
3:00 PM	3	466	100	0	18	4	0	0	0	1	0	0	0	592
4:00 PM	8	431	87	0	15	1	0	0	0	0	0	0	0	542
5:00 PM	8	481	64	0	12	2	0	0	1	0	0	0	0	568
6:00 PM	6	408	45	0	5	1	0	0	0	0	0	0	0	465
7:00 PM	8	297	24	0	7	1	0	0	0	0	0	0	0	337
8:00 PM	2	172	17	0	2	0	0	0	0	0	0	0	0	193
9:00 PM	1	112	10	0	2	1	0	0	0	0	0	0	0	126
10:00 PM	0	60	3	0	1	0	0	0	0	0	0	0	0	64
11:00 PM	0	32	0	0	0	1	0	0	0	0	0	0	0	33
Total	57	4,879	846	5	176	37	0	1	3	2	0	0	0	6,006
Percent	0.9%	81.2%	14.1%	0.1%	2.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: VALPARAISO AVE btwn PARK LN/SANTIAGO AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 03

3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	9	1	0	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	9	0	0	0	0	0	0	0	0	0	0	0	9
5:00 AM	0	38	5	0	0	0	0	0	0	0	0	0	0	43
6:00 AM	1	98	14	0	2	1	0	0	0	0	0	0	0	116
7:00 AM	6	445	58	0	8	3	0	0	0	0	0	0	0	520
8:00 AM	8	588	72	0	24	4	0	0	0	1	0	0	0	697
9:00 AM	2	395	57	0	12	1	0	0	0	1	0	0	0	468
10:00 AM	1	264	48	0	7	0	0	0	0	0	0	0	0	320
11:00 AM	2	282	57	0	15	0	0	0	1	0	0	0	0	357
12:00 PM	2	256	46	0	12	0	0	0	0	0	0	0	0	316
1:00 PM	5	232	57	1	8	0	0	0	0	0	0	0	0	303
2:00 PM	1	305	45	0	9	1	0	0	1	0	0	0	0	362
3:00 PM	5	443	88	1	21	0	0	0	0	0	0	0	0	558
4:00 PM	2	401	64	0	9	1	0	0	0	0	0	0	0	477
5:00 PM	2	465	52	0	4	1	0	0	0	0	0	0	0	524
6:00 PM	4	320	41	0	5	1	0	0	0	0	0	0	0	371
7:00 PM	2	227	26	0	2	0	0	0	0	0	0	0	0	257
8:00 PM	2	100	8	0	2	0	0	0	0	0	0	0	0	112
9:00 PM	2	57	7	0	0	0	0	0	0	0	0	0	0	66
10:00 PM	0	45	2	0	0	0	0	0	0	0	0	0	0	47
11:00 PM	1	19	1	0	1	0	0	0	0	0	0	0	0	22
Total	48	5,004	750	2	141	13	0	0	2	2	0	0	0	5,962
Percent	0.8%	83.9%	12.6%	0.0%	2.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: VALPARAISO AVE btwn PARK LN/SANTIAGO AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 03



**3-Day (Tuesday - Thursday) Average
 Southbound**

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	13	0	0	0	0	0	0	0	0	0	0	0	13
1:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
2:00 AM	0	3	0	0	0	1	0	0	0	0	0	0	0	4
3:00 AM	0	7	0	0	0	0	0	0	0	0	0	0	0	7
4:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
5:00 AM	0	31	1	0	0	0	0	0	0	0	0	0	0	32
6:00 AM	0	75	14	0	0	4	0	0	0	0	0	0	0	93
7:00 AM	1	307	52	0	7	8	0	0	0	0	0	0	0	375
8:00 AM	3	406	74	1	16	3	0	1	0	1	0	0	0	505
9:00 AM	3	264	48	0	17	2	0	0	1	0	0	0	0	335
10:00 AM	2	233	51	0	13	1	0	0	0	0	0	0	0	300
11:00 AM	5	262	58	2	9	2	0	0	0	0	0	0	0	338
12:00 PM	4	252	51	1	16	0	0	0	0	0	0	0	0	324
1:00 PM	1	256	62	0	18	3	0	0	0	0	0	0	0	340
2:00 PM	2	299	85	1	18	2	0	0	1	0	0	0	0	408
3:00 PM	3	466	100	0	18	4	0	0	0	1	0	0	0	592
4:00 PM	8	431	87	0	15	1	0	0	0	0	0	0	0	542
5:00 PM	8	481	64	0	12	2	0	0	1	0	0	0	0	568
6:00 PM	6	408	45	0	5	1	0	0	0	0	0	0	0	465
7:00 PM	8	297	24	0	7	1	0	0	0	0	0	0	0	337
8:00 PM	2	172	17	0	2	0	0	0	0	0	0	0	0	193
9:00 PM	1	112	10	0	2	1	0	0	0	0	0	0	0	126
10:00 PM	0	60	3	0	1	0	0	0	0	0	0	0	0	64
11:00 PM	0	32	0	0	0	1	0	0	0	0	0	0	0	33
Total	57	4,879	846	5	176	37	0	1	3	2	0	0	0	6,006
Percent	0.9%	81.2%	14.1%	0.1%	2.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Vehicle Speed Report Summary

Location: VALPARAISO AVE btwn PARK LN/SANTIAGO AVE

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 03

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Northbound	30	41	24	170	1,181	2,980	1,325	184	24	3	0	0	0	0	0	0	0	5,962
Percent	0.5%	0.7%	0.4%	2.9%	19.8%	50.0%	22.2%	3.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	1	25	49	78	614	2,687	2,074	410	62	6	0	0	0	0	0	0	0	6,006
Percent	0.0%	0.4%	0.8%	1.3%	10.2%	44.7%	34.5%	6.8%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	31	66	73	248	1,795	5,667	3,399	594	86	9	0	0	0	0	0	0	0	11,968
Percent	0.3%	0.6%	0.6%	2.1%	15.0%	47.4%	28.4%	5.0%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Northbound				Northbound			
50th Percentile (Median)		32.6	mph	Mean (Average) Speed		32.4	mph
85th Percentile		36.5	mph	10 mph Pace		27.7 - 37.7	mph
95th Percentile		39.1	mph	Percent in Pace		79.3	%
Southbound				Southbound			
50th Percentile (Median)		34.3	mph	Mean (Average) Speed		34.3	mph
85th Percentile		38.5	mph	10 mph Pace		30.1 - 40.1	mph
95th Percentile		41.0	mph	Percent in Pace		79.2	%

Location: VALPARAISO AVE btwn PARK LN/SANTIAGO AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 03

Tuesday, March 27, 2018
 Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	2	7	1	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	3
3:00 AM	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	0	0	0	1	5	0	3	0	0	0	0	0	0	0	0	0	9
5:00 AM	0	0	0	2	2	17	17	5	0	0	0	0	0	0	0	0	0	43
6:00 AM	0	0	2	3	7	61	29	12	1	1	0	0	0	0	0	0	0	116
7:00 AM	0	1	4	5	80	302	106	20	2	0	0	0	0	0	0	0	0	520
8:00 AM	28	24	7	39	193	331	65	10	0	0	0	0	0	0	0	0	0	697
9:00 AM	0	0	1	14	88	235	112	15	3	0	0	0	0	0	0	0	0	468
10:00 AM	0	1	1	0	46	167	92	12	1	0	0	0	0	0	0	0	0	320
11:00 AM	0	1	0	6	76	194	72	7	1	0	0	0	0	0	0	0	0	357
12:00 PM	0	0	2	11	66	153	73	10	1	0	0	0	0	0	0	0	0	316
1:00 PM	1	1	3	4	49	162	74	7	2	0	0	0	0	0	0	0	0	303
2:00 PM	1	1	1	5	86	179	75	13	1	0	0	0	0	0	0	0	0	362
3:00 PM	0	6	1	46	149	245	103	7	1	0	0	0	0	0	0	0	0	558
4:00 PM	0	2	1	5	105	244	109	11	0	0	0	0	0	0	0	0	0	477
5:00 PM	0	2	0	15	113	277	101	15	1	0	0	0	0	0	0	0	0	524
6:00 PM	0	0	0	3	41	184	130	12	1	0	0	0	0	0	0	0	0	371
7:00 PM	0	0	1	9	45	111	79	9	2	1	0	0	0	0	0	0	0	257
8:00 PM	0	1	0	1	12	55	38	3	2	0	0	0	0	0	0	0	0	112
9:00 PM	0	1	0	0	8	26	24	6	1	0	0	0	0	0	0	0	0	66
10:00 PM	0	0	0	2	8	20	14	2	1	0	0	0	0	0	0	0	0	47
11:00 PM	0	0	0	0	5	9	2	3	2	1	0	0	0	0	0	0	0	22
Total	30	41	24	170	1,181	2,980	1,325	184	24	3	0	0	0	0	0	0	0	5,962
Percent	0.5%	0.7%	0.4%	2.9%	19.8%	50.0%	22.2%	3.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	32.6	mph	Mean (Average) Speed	32.4	mph
85th Percentile	36.5	mph	10 mph Pace	27.7 - 37.7	mph
95th Percentile	39.1	mph	Percent in Pace	79.3	%

Location: VALPARAISO AVE btwn PARK LN/SANTIAGO AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 03

Tuesday, March 27, 2018
 Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	3	9	0	0	0	0	0	0	0	0	0	0	13
1:00 AM	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0	0	4
2:00 AM	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4
3:00 AM	0	0	0	0	0	5	2	0	0	0	0	0	0	0	0	0	0	7
4:00 AM	0	0	0	1	0	4	2	1	0	0	0	0	0	0	0	0	0	8
5:00 AM	0	0	0	0	2	11	14	3	1	1	0	0	0	0	0	0	0	32
6:00 AM	0	0	1	0	1	39	38	13	1	0	0	0	0	0	0	0	0	93
7:00 AM	0	0	0	7	41	174	123	23	7	0	0	0	0	0	0	0	0	375
8:00 AM	0	0	11	17	92	265	105	13	2	0	0	0	0	0	0	0	0	505
9:00 AM	0	1	2	2	34	144	123	21	7	1	0	0	0	0	0	0	0	335
10:00 AM	0	0	1	0	30	129	117	22	0	1	0	0	0	0	0	0	0	300
11:00 AM	0	4	4	9	36	138	117	25	5	0	0	0	0	0	0	0	0	338
12:00 PM	0	1	3	0	28	116	144	26	6	0	0	0	0	0	0	0	0	324
1:00 PM	0	1	0	0	23	152	123	37	3	1	0	0	0	0	0	0	0	340
2:00 PM	0	1	0	3	40	170	157	35	2	0	0	0	0	0	0	0	0	408
3:00 PM	0	4	12	12	80	274	168	39	3	0	0	0	0	0	0	0	0	592
4:00 PM	1	2	3	6	47	263	186	30	4	0	0	0	0	0	0	0	0	542
5:00 PM	0	2	4	11	71	249	196	32	3	0	0	0	0	0	0	0	0	568
6:00 PM	0	2	5	3	29	218	171	31	6	0	0	0	0	0	0	0	0	465
7:00 PM	0	5	3	1	19	168	118	20	3	0	0	0	0	0	0	0	0	337
8:00 PM	0	2	0	2	25	75	64	21	4	0	0	0	0	0	0	0	0	193
9:00 PM	0	0	0	2	10	58	45	9	2	0	0	0	0	0	0	0	0	126
10:00 PM	0	0	0	0	3	20	35	4	2	0	0	0	0	0	0	0	0	64
11:00 PM	0	0	0	2	2	9	15	3	0	2	0	0	0	0	0	0	0	33
Total	1	25	49	78	614	2,687	2,074	410	62	6	0	0	0	0	0	0	0	6,006
Percent	0.0%	0.4%	0.8%	1.3%	10.2%	44.7%	34.5%	6.8%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.3	mph	Mean (Average) Speed	34.3	mph
85th Percentile	38.5	mph	10 mph Pace	30.1 - 40.1	mph
95th Percentile	41.0	mph	Percent in Pace	79.2	%

Location: VALPARAISO AVE btwn PARK LN/SANTIAGO AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 03

Total Study Average
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	2	7	1	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	3
3:00 AM	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	0	0	0	1	5	0	3	0	0	0	0	0	0	0	0	0	9
5:00 AM	0	0	0	2	2	17	17	5	0	0	0	0	0	0	0	0	0	43
6:00 AM	0	0	2	3	7	61	29	12	1	1	0	0	0	0	0	0	0	116
7:00 AM	0	1	4	5	80	302	106	20	2	0	0	0	0	0	0	0	0	520
8:00 AM	28	24	7	39	193	331	65	10	0	0	0	0	0	0	0	0	0	697
9:00 AM	0	0	1	14	88	235	112	15	3	0	0	0	0	0	0	0	0	468
10:00 AM	0	1	1	0	46	167	92	12	1	0	0	0	0	0	0	0	0	320
11:00 AM	0	1	0	6	76	194	72	7	1	0	0	0	0	0	0	0	0	357
12:00 PM	0	0	2	11	66	153	73	10	1	0	0	0	0	0	0	0	0	316
1:00 PM	1	1	3	4	49	162	74	7	2	0	0	0	0	0	0	0	0	303
2:00 PM	1	1	1	5	86	179	75	13	1	0	0	0	0	0	0	0	0	362
3:00 PM	0	6	1	46	149	245	103	7	1	0	0	0	0	0	0	0	0	558
4:00 PM	0	2	1	5	105	244	109	11	0	0	0	0	0	0	0	0	0	477
5:00 PM	0	2	0	15	113	277	101	15	1	0	0	0	0	0	0	0	0	524
6:00 PM	0	0	0	3	41	184	130	12	1	0	0	0	0	0	0	0	0	371
7:00 PM	0	0	1	9	45	111	79	9	2	1	0	0	0	0	0	0	0	257
8:00 PM	0	1	0	1	12	55	38	3	2	0	0	0	0	0	0	0	0	112
9:00 PM	0	1	0	0	8	26	24	6	1	0	0	0	0	0	0	0	0	66
10:00 PM	0	0	0	2	8	20	14	2	1	0	0	0	0	0	0	0	0	47
11:00 PM	0	0	0	0	5	9	2	3	2	1	0	0	0	0	0	0	0	22
Total	30	41	24	170	1,181	2,980	1,325	184	24	3	0	0	0	0	0	0	0	5,962
Percent	0.5%	0.7%	0.4%	2.9%	19.8%	50.0%	22.2%	3.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	32.6	mph	Mean (Average) Speed	32.4	mph
85th Percentile	36.5	mph	10 mph Pace	27.7 - 37.7	mph
95th Percentile	39.1	mph	Percent in Pace	79.3	%

Location: VALPARAISO AVE btwn PARK LN/SANTIAGO AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 03

Total Study Average
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	3	9	0	0	0	0	0	0	0	0	0	0	13
1:00 AM	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0	0	4
2:00 AM	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4
3:00 AM	0	0	0	0	0	5	2	0	0	0	0	0	0	0	0	0	0	7
4:00 AM	0	0	0	1	0	4	2	1	0	0	0	0	0	0	0	0	0	8
5:00 AM	0	0	0	0	2	11	14	3	1	1	0	0	0	0	0	0	0	32
6:00 AM	0	0	1	0	1	39	38	13	1	0	0	0	0	0	0	0	0	93
7:00 AM	0	0	0	7	41	174	123	23	7	0	0	0	0	0	0	0	0	375
8:00 AM	0	0	11	17	92	265	105	13	2	0	0	0	0	0	0	0	0	505
9:00 AM	0	1	2	2	34	144	123	21	7	1	0	0	0	0	0	0	0	335
10:00 AM	0	0	1	0	30	129	117	22	0	1	0	0	0	0	0	0	0	300
11:00 AM	0	4	4	9	36	138	117	25	5	0	0	0	0	0	0	0	0	338
12:00 PM	0	1	3	0	28	116	144	26	6	0	0	0	0	0	0	0	0	324
1:00 PM	0	1	0	0	23	152	123	37	3	1	0	0	0	0	0	0	0	340
2:00 PM	0	1	0	3	40	170	157	35	2	0	0	0	0	0	0	0	0	408
3:00 PM	0	4	12	12	80	274	168	39	3	0	0	0	0	0	0	0	0	592
4:00 PM	1	2	3	6	47	263	186	30	4	0	0	0	0	0	0	0	0	542
5:00 PM	0	2	4	11	71	249	196	32	3	0	0	0	0	0	0	0	0	568
6:00 PM	0	2	5	3	29	218	171	31	6	0	0	0	0	0	0	0	0	465
7:00 PM	0	5	3	1	19	168	118	20	3	0	0	0	0	0	0	0	0	337
8:00 PM	0	2	0	2	25	75	64	21	4	0	0	0	0	0	0	0	0	193
9:00 PM	0	0	0	2	10	58	45	9	2	0	0	0	0	0	0	0	0	126
10:00 PM	0	0	0	0	3	20	35	4	2	0	0	0	0	0	0	0	0	64
11:00 PM	0	0	0	2	2	9	15	3	0	2	0	0	0	0	0	0	0	33
Total	1	25	49	78	614	2,687	2,074	410	62	6	0	0	0	0	0	0	0	6,006
Percent	0.0%	0.4%	0.8%	1.3%	10.2%	44.7%	34.5%	6.8%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	34.3	mph	Mean (Average) Speed	34.3	mph
85th Percentile	38.5	mph	10 mph Pace	30.1 - 40.1	mph
95th Percentile	41.0	mph	Percent in Pace	79.2	%

Location: VALPARAISO AVE btwn PARK LN/SANTIAGO AVE
 Date Range: 3/27/2018 - 4/2/2018
 Site Code: 03

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	3/27/2018			3/28/2018			3/29/2018			3/30/2018			3/31/2018			4/1/2018			4/2/2018					
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	10	13	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	13	23
1:00 AM	1	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4	5
2:00 AM	3	4	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4	7
3:00 AM	3	7	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	7	10
4:00 AM	9	8	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	8	17
5:00 AM	43	32	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	32	75
6:00 AM	116	93	209	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	116	93	209
7:00 AM	520	375	895	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	520	375	895
8:00 AM	697	505	1,202	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	697	505	1,202
9:00 AM	468	335	803	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	468	335	803
10:00 AM	320	300	620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	320	300	620
11:00 AM	357	338	695	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	357	338	695
12:00 PM	316	324	640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	316	324	640
1:00 PM	303	340	643	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	303	340	643
2:00 PM	362	408	770	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	362	408	770
3:00 PM	558	592	1,150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	558	592	1,150
4:00 PM	477	542	1,019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	477	542	1,019
5:00 PM	524	568	1,092	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	524	568	1,092
6:00 PM	371	465	836	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	371	465	836
7:00 PM	257	337	594	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	257	337	594
8:00 PM	112	193	305	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	112	193	305
9:00 PM	66	126	192	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66	126	192
10:00 PM	47	64	111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47	64	111
11:00 PM	22	33	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	33	55
Total	5,962	6,006	11,968	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,962	6,006	11,968
Percent	50%	50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50%	50%	-

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary

Location: EMILIE AVE btwn VALPARAISO AVE/MACBAIN AVE

Count Direction: Eastbound / Westbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 04

	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Study Total														
Eastbound	26	666	99	1	23	15	0	0	0	1	0	0	0	831
Percent	3.1%	80.1%	11.9%	0.1%	2.8%	1.8%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	100%
Westbound	29	1,310	183	0	31	68	0	0	0	0	0	0	0	1,621
Percent	1.8%	80.8%	11.3%	0.0%	1.9%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	55	1,976	282	1	54	83	0	0	0	1	0	0	0	2,452
Percent	2.2%	80.6%	11.5%	0.0%	2.2%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: EMILIE AVE btwn VALPARAISO AVE/MACBAIN AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 04



Tuesday, March 27, 2018
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
6:00 AM	1	12	1	0	0	1	0	0	0	0	0	0	0	15
7:00 AM	2	74	7	0	0	5	0	0	0	0	0	0	0	88
8:00 AM	2	73	10	0	4	2	0	0	0	0	0	0	0	91
9:00 AM	4	35	9	0	0	2	0	0	0	0	0	0	0	50
10:00 AM	1	28	4	0	3	1	0	0	0	0	0	0	0	37
11:00 AM	4	33	8	1	1	0	0	0	0	0	0	0	0	47
12:00 PM	3	36	6	0	2	2	0	0	0	0	0	0	0	49
1:00 PM	1	40	4	0	3	0	0	0	0	0	0	0	0	48
2:00 PM	1	34	10	0	2	0	0	0	0	1	0	0	0	48
3:00 PM	1	56	16	0	2	1	0	0	0	0	0	0	0	76
4:00 PM	0	38	5	0	2	1	0	0	0	0	0	0	0	46
5:00 PM	4	68	8	0	3	0	0	0	0	0	0	0	0	83
6:00 PM	1	59	3	0	0	0	0	0	0	0	0	0	0	63
7:00 PM	1	38	5	0	1	0	0	0	0	0	0	0	0	45
8:00 PM	0	8	2	0	0	0	0	0	0	0	0	0	0	10
9:00 PM	0	22	0	0	0	0	0	0	0	0	0	0	0	22
10:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11:00 PM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
Total	26	666	99	1	23	15	0	0	0	1	0	0	0	831
Percent	3.1%	80.1%	11.9%	0.1%	2.8%	1.8%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	

Location: EMILIE AVE btwn VALPARAISO AVE/MACBAIN AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 04

Tuesday, March 27, 2018
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	5	2	0	0	0	0	0	0	0	0	0	0	7
6:00 AM	1	20	0	0	1	1	0	0	0	0	0	0	0	23
7:00 AM	1	200	4	0	2	20	0	0	0	0	0	0	0	227
8:00 AM	1	99	4	0	3	9	0	0	0	0	0	0	0	116
9:00 AM	0	58	5	0	0	3	0	0	0	0	0	0	0	66
10:00 AM	1	22	9	0	1	2	0	0	0	0	0	0	0	35
11:00 AM	1	49	8	0	3	5	0	0	0	0	0	0	0	66
12:00 PM	1	32	4	0	6	8	0	0	0	0	0	0	0	51
1:00 PM	2	47	5	0	1	3	0	0	0	0	0	0	0	58
2:00 PM	3	56	10	0	2	1	0	0	0	0	0	0	0	72
3:00 PM	0	222	57	0	6	2	0	0	0	0	0	0	0	287
4:00 PM	2	145	30	0	2	0	0	0	0	0	0	0	0	179
5:00 PM	4	183	32	0	3	3	0	0	0	0	0	0	0	225
6:00 PM	10	77	8	0	0	3	0	0	0	0	0	0	0	98
7:00 PM	1	59	5	0	1	5	0	0	0	0	0	0	0	71
8:00 PM	0	15	0	0	0	3	0	0	0	0	0	0	0	18
9:00 PM	1	10	0	0	0	0	0	0	0	0	0	0	0	11
10:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Total	29	1,310	183	0	31	68	0	0	0	0	0	0	0	1,621
Percent	1.8%	80.8%	11.3%	0.0%	1.9%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: EMILIE AVE btwn VALPARAISO AVE/MACBAIN AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 04

Total Study Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
6:00 AM	1	12	1	0	0	1	0	0	0	0	0	0	0	15
7:00 AM	2	74	7	0	0	5	0	0	0	0	0	0	0	88
8:00 AM	2	73	10	0	4	2	0	0	0	0	0	0	0	91
9:00 AM	4	35	9	0	0	2	0	0	0	0	0	0	0	50
10:00 AM	1	28	4	0	3	1	0	0	0	0	0	0	0	37
11:00 AM	4	33	8	1	1	0	0	0	0	0	0	0	0	47
12:00 PM	3	36	6	0	2	2	0	0	0	0	0	0	0	49
1:00 PM	1	40	4	0	3	0	0	0	0	0	0	0	0	48
2:00 PM	1	34	10	0	2	0	0	0	0	1	0	0	0	48
3:00 PM	1	56	16	0	2	1	0	0	0	0	0	0	0	76
4:00 PM	0	38	5	0	2	1	0	0	0	0	0	0	0	46
5:00 PM	4	68	8	0	3	0	0	0	0	0	0	0	0	83
6:00 PM	1	59	3	0	0	0	0	0	0	0	0	0	0	63
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	8	2	0	0	0	0	0	0	0	0	0	0	10
9:00 PM	0	22	0	0	0	0	0	0	0	0	0	0	0	22
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
Total	25	627	94	1	22	15	0	0	0	1	0	0	0	785
Percent	3.2%	79.9%	12.0%	0.1%	2.8%	1.9%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: EMILIE AVE btwn VALPARAISO AVE/MACBAIN AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 04

Total Study Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	5	2	0	0	0	0	0	0	0	0	0	0	7
6:00 AM	1	20	0	0	1	1	0	0	0	0	0	0	0	23
7:00 AM	1	200	4	0	2	20	0	0	0	0	0	0	0	227
8:00 AM	1	99	4	0	3	9	0	0	0	0	0	0	0	116
9:00 AM	0	58	5	0	0	3	0	0	0	0	0	0	0	66
10:00 AM	1	22	9	0	1	2	0	0	0	0	0	0	0	35
11:00 AM	1	49	8	0	3	5	0	0	0	0	0	0	0	66
12:00 PM	1	32	4	0	6	8	0	0	0	0	0	0	0	51
1:00 PM	2	47	5	0	1	3	0	0	0	0	0	0	0	58
2:00 PM	3	56	10	0	2	1	0	0	0	0	0	0	0	72
3:00 PM	0	222	57	0	6	2	0	0	0	0	0	0	0	287
4:00 PM	2	145	30	0	2	0	0	0	0	0	0	0	0	179
5:00 PM	4	183	32	0	3	3	0	0	0	0	0	0	0	225
6:00 PM	10	77	8	0	0	3	0	0	0	0	0	0	0	98
7:00 PM	1	59	5	0	1	5	0	0	0	0	0	0	0	71
8:00 PM	0	15	0	0	0	3	0	0	0	0	0	0	0	18
9:00 PM	1	10	0	0	0	0	0	0	0	0	0	0	0	11
10:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Total	29	1,310	183	0	31	68	0	0	0	0	0	0	0	1,621
Percent	1.8%	80.8%	11.3%	0.0%	1.9%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: EMILIE AVE btwn VALPARAISO AVE/MACBAIN AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 04



**3-Day (Tuesday - Thursday) Average
 Eastbound**

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
6:00 AM	1	12	1	0	0	1	0	0	0	0	0	0	0	15
7:00 AM	2	74	7	0	0	5	0	0	0	0	0	0	0	88
8:00 AM	2	73	10	0	4	2	0	0	0	0	0	0	0	91
9:00 AM	4	35	9	0	0	2	0	0	0	0	0	0	0	50
10:00 AM	1	28	4	0	3	1	0	0	0	0	0	0	0	37
11:00 AM	4	33	8	1	1	0	0	0	0	0	0	0	0	47
12:00 PM	3	36	6	0	2	2	0	0	0	0	0	0	0	49
1:00 PM	1	40	4	0	3	0	0	0	0	0	0	0	0	48
2:00 PM	1	34	10	0	2	0	0	0	0	1	0	0	0	48
3:00 PM	1	56	16	0	2	1	0	0	0	0	0	0	0	76
4:00 PM	0	38	5	0	2	1	0	0	0	0	0	0	0	46
5:00 PM	4	68	8	0	3	0	0	0	0	0	0	0	0	83
6:00 PM	1	59	3	0	0	0	0	0	0	0	0	0	0	63
7:00 PM	1	38	5	0	1	0	0	0	0	0	0	0	0	45
8:00 PM	0	8	2	0	0	0	0	0	0	0	0	0	0	10
9:00 PM	0	22	0	0	0	0	0	0	0	0	0	0	0	22
10:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11:00 PM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
Total	26	666	99	1	23	15	0	0	0	1	0	0	0	831
Percent	3.1%	80.1%	11.9%	0.1%	2.8%	1.8%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	

Location: EMILIE AVE btwn VALPARAISO AVE/MACBAIN AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 04



3-Day (Tuesday - Thursday) Average
 Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	5	2	0	0	0	0	0	0	0	0	0	0	7
6:00 AM	1	20	0	0	1	1	0	0	0	0	0	0	0	23
7:00 AM	1	200	4	0	2	20	0	0	0	0	0	0	0	227
8:00 AM	1	99	4	0	3	9	0	0	0	0	0	0	0	116
9:00 AM	0	58	5	0	0	3	0	0	0	0	0	0	0	66
10:00 AM	1	22	9	0	1	2	0	0	0	0	0	0	0	35
11:00 AM	1	49	8	0	3	5	0	0	0	0	0	0	0	66
12:00 PM	1	32	4	0	6	8	0	0	0	0	0	0	0	51
1:00 PM	2	47	5	0	1	3	0	0	0	0	0	0	0	58
2:00 PM	3	56	10	0	2	1	0	0	0	0	0	0	0	72
3:00 PM	0	222	57	0	6	2	0	0	0	0	0	0	0	287
4:00 PM	2	145	30	0	2	0	0	0	0	0	0	0	0	179
5:00 PM	4	183	32	0	3	3	0	0	0	0	0	0	0	225
6:00 PM	10	77	8	0	0	3	0	0	0	0	0	0	0	98
7:00 PM	1	59	5	0	1	5	0	0	0	0	0	0	0	71
8:00 PM	0	15	0	0	0	3	0	0	0	0	0	0	0	18
9:00 PM	1	10	0	0	0	0	0	0	0	0	0	0	0	11
10:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Total	29	1,310	183	0	31	68	0	0	0	0	0	0	0	1,621
Percent	1.8%	80.8%	11.3%	0.0%	1.9%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Vehicle Speed Report Summary

Location: EMILIE AVE btwn VALPARAISO AVE/MACBAIN AVE

Count Direction: Eastbound / Westbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 04

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	9	26	51	196	325	179	38	7	0	0	0	0	0	0	0	0	0	831
Percent	1.1%	3.1%	6.1%	23.6%	39.1%	21.5%	4.6%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Westbound	0	27	159	488	615	280	47	5	0	0	0	0	0	0	0	0	0	1,621
Percent	0.0%	1.7%	9.8%	30.1%	37.9%	17.3%	2.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	9	53	210	684	940	459	85	12	0	0	0	0	0	0	0	0	0	2,452
Percent	0.4%	2.2%	8.6%	27.9%	38.3%	18.7%	3.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Eastbound				Eastbound			
50th Percentile (Median)	27.1	mph		Mean (Average) Speed	26.7	mph	
85th Percentile	32.1	mph		10 mph Pace	22.6 - 32.6	mph	
95th Percentile	35.5	mph		Percent in Pace	67.6	%	
Westbound				Westbound			
50th Percentile (Median)	26.1	mph		Mean (Average) Speed	26.0	mph	
85th Percentile	30.9	mph		10 mph Pace	20.9 - 30.9	mph	
95th Percentile	34.0	mph		Percent in Pace	69.0	%	

Location: EMILIE AVE btwn VALPARAISO AVE/MACBAIN AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 04



Tuesday, March 27, 2018
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00 AM	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
6:00 AM	0	1	0	4	4	4	2	0	0	0	0	0	0	0	0	0	0	15
7:00 AM	1	4	15	32	24	8	4	0	0	0	0	0	0	0	0	0	0	88
8:00 AM	1	4	7	17	41	17	4	0	0	0	0	0	0	0	0	0	0	91
9:00 AM	0	1	1	6	28	9	4	1	0	0	0	0	0	0	0	0	0	50
10:00 AM	0	1	0	6	12	15	3	0	0	0	0	0	0	0	0	0	0	37
11:00 AM	1	2	2	10	16	14	2	0	0	0	0	0	0	0	0	0	0	47
12:00 PM	0	3	1	8	22	11	3	1	0	0	0	0	0	0	0	0	0	49
1:00 PM	0	2	0	11	16	15	4	0	0	0	0	0	0	0	0	0	0	48
2:00 PM	0	1	1	11	17	13	5	0	0	0	0	0	0	0	0	0	0	48
3:00 PM	4	4	17	20	22	6	1	2	0	0	0	0	0	0	0	0	0	76
4:00 PM	0	0	0	9	22	14	1	0	0	0	0	0	0	0	0	0	0	46
5:00 PM	1	2	3	20	38	16	2	1	0	0	0	0	0	0	0	0	0	83
6:00 PM	0	1	2	11	29	17	2	1	0	0	0	0	0	0	0	0	0	63
7:00 PM	1	0	1	15	18	9	0	1	0	0	0	0	0	0	0	0	0	45
8:00 PM	0	0	1	0	6	3	0	0	0	0	0	0	0	0	0	0	0	10
9:00 PM	0	0	0	11	7	3	1	0	0	0	0	0	0	0	0	0	0	22
10:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:00 PM	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	8
Total	9	26	51	196	325	179	38	7	0	0	0	0	0	0	0	0	0	831
Percent	1.1%	3.1%	6.1%	23.6%	39.1%	21.5%	4.6%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	27.1	mph	Mean (Average) Speed	26.7	mph
85th Percentile	32.1	mph	10 mph Pace	22.6 - 32.6	mph
95th Percentile	35.5	mph	Percent in Pace	67.6	%

Location: EMILIE AVE btwn VALPARAISO AVE/MACBAIN AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 04

Tuesday, March 27, 2018
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7
6:00 AM	0	1	1	5	14	2	0	0	0	0	0	0	0	0	0	0	0	23
7:00 AM	0	1	19	59	122	20	6	0	0	0	0	0	0	0	0	0	0	227
8:00 AM	0	3	14	45	34	16	4	0	0	0	0	0	0	0	0	0	0	116
9:00 AM	0	0	0	7	36	21	2	0	0	0	0	0	0	0	0	0	0	66
10:00 AM	0	0	3	4	15	11	1	1	0	0	0	0	0	0	0	0	0	35
11:00 AM	0	1	4	17	31	9	4	0	0	0	0	0	0	0	0	0	0	66
12:00 PM	0	1	2	15	16	16	1	0	0	0	0	0	0	0	0	0	0	51
1:00 PM	0	1	5	12	24	12	3	1	0	0	0	0	0	0	0	0	0	58
2:00 PM	0	1	5	19	31	15	1	0	0	0	0	0	0	0	0	0	0	72
3:00 PM	0	5	40	112	91	36	3	0	0	0	0	0	0	0	0	0	0	287
4:00 PM	0	1	19	61	55	37	6	0	0	0	0	0	0	0	0	0	0	179
5:00 PM	0	3	19	65	83	43	11	1	0	0	0	0	0	0	0	0	0	225
6:00 PM	0	7	12	22	25	27	5	0	0	0	0	0	0	0	0	0	0	98
7:00 PM	0	2	13	30	20	6	0	0	0	0	0	0	0	0	0	0	0	71
8:00 PM	0	0	2	5	8	3	0	0	0	0	0	0	0	0	0	0	0	18
9:00 PM	0	0	1	8	0	1	0	1	0	0	0	0	0	0	0	0	0	11
10:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
11:00 PM	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	27	159	488	615	280	47	5	0	0	0	0	0	0	0	0	0	1,621
Percent	0.0%	1.7%	9.8%	30.1%	37.9%	17.3%	2.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	26.1	mph	Mean (Average) Speed	26	mph
85th Percentile	30.9	mph	10 mph Pace	20.9 - 30.9	mph
95th Percentile	34.0	mph	Percent in Pace	69	%

Location: EMILIE AVE btwn VALPARAISO AVE/MACBAIN AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 04

Total Study Average
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00 AM	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
6:00 AM	0	1	0	4	4	4	2	0	0	0	0	0	0	0	0	0	0	15
7:00 AM	1	4	15	32	24	8	4	0	0	0	0	0	0	0	0	0	0	88
8:00 AM	1	4	7	17	41	17	4	0	0	0	0	0	0	0	0	0	0	91
9:00 AM	0	1	1	6	28	9	4	1	0	0	0	0	0	0	0	0	0	50
10:00 AM	0	1	0	6	12	15	3	0	0	0	0	0	0	0	0	0	0	37
11:00 AM	1	2	2	10	16	14	2	0	0	0	0	0	0	0	0	0	0	47
12:00 PM	0	3	1	8	22	11	3	1	0	0	0	0	0	0	0	0	0	49
1:00 PM	0	2	0	11	16	15	4	0	0	0	0	0	0	0	0	0	0	48
2:00 PM	0	1	1	11	17	13	5	0	0	0	0	0	0	0	0	0	0	48
3:00 PM	4	4	17	20	22	6	1	2	0	0	0	0	0	0	0	0	0	76
4:00 PM	0	0	0	9	22	14	1	0	0	0	0	0	0	0	0	0	0	46
5:00 PM	1	2	3	20	38	16	2	1	0	0	0	0	0	0	0	0	0	83
6:00 PM	0	1	2	11	29	17	2	1	0	0	0	0	0	0	0	0	0	63
7:00 PM	1	0	1	15	18	9	0	1	0	0	0	0	0	0	0	0	0	45
8:00 PM	0	0	1	0	6	3	0	0	0	0	0	0	0	0	0	0	0	10
9:00 PM	0	0	0	11	7	3	1	0	0	0	0	0	0	0	0	0	0	22
10:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:00 PM	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	8
Total	9	26	51	196	325	179	38	7	0	0	0	0	0	0	0	0	0	831
Percent	1.1%	3.1%	6.1%	23.6%	39.1%	21.5%	4.6%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	27.1	mph	Mean (Average) Speed	26.7	mph
85th Percentile	32.1	mph	10 mph Pace	22.6 - 32.6	mph
95th Percentile	35.5	mph	Percent in Pace	67.6	%

Location: EMILIE AVE btwn VALPARAISO AVE/MACBAIN AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 04

Total Study Average
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7
6:00 AM	0	1	1	5	14	2	0	0	0	0	0	0	0	0	0	0	0	23
7:00 AM	0	1	19	59	122	20	6	0	0	0	0	0	0	0	0	0	0	227
8:00 AM	0	3	14	45	34	16	4	0	0	0	0	0	0	0	0	0	0	116
9:00 AM	0	0	0	7	36	21	2	0	0	0	0	0	0	0	0	0	0	66
10:00 AM	0	0	3	4	15	11	1	1	0	0	0	0	0	0	0	0	0	35
11:00 AM	0	1	4	17	31	9	4	0	0	0	0	0	0	0	0	0	0	66
12:00 PM	0	1	2	15	16	16	1	0	0	0	0	0	0	0	0	0	0	51
1:00 PM	0	1	5	12	24	12	3	1	0	0	0	0	0	0	0	0	0	58
2:00 PM	0	1	5	19	31	15	1	0	0	0	0	0	0	0	0	0	0	72
3:00 PM	0	5	40	112	91	36	3	0	0	0	0	0	0	0	0	0	0	287
4:00 PM	0	1	19	61	55	37	6	0	0	0	0	0	0	0	0	0	0	179
5:00 PM	0	3	19	65	83	43	11	1	0	0	0	0	0	0	0	0	0	225
6:00 PM	0	7	12	22	25	27	5	0	0	0	0	0	0	0	0	0	0	98
7:00 PM	0	2	13	30	20	6	0	0	0	0	0	0	0	0	0	0	0	71
8:00 PM	0	0	2	5	8	3	0	0	0	0	0	0	0	0	0	0	0	18
9:00 PM	0	0	1	8	0	1	0	1	0	0	0	0	0	0	0	0	0	11
10:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
11:00 PM	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	27	159	488	615	280	47	5	0	0	0	0	0	0	0	0	0	1,621
Percent	0.0%	1.7%	9.8%	30.1%	37.9%	17.3%	2.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	26.1	mph	Mean (Average) Speed	26.0	mph
85th Percentile	30.9	mph	10 mph Pace	20.9 - 30.9	mph
95th Percentile	34.0	mph	Percent in Pace	69.0	%

Location: EMILIE AVE btwn VALPARAISO AVE/MACBAIN AVE
 Date Range: 3/27/2018 - 4/2/2018
 Site Code: 04

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	3/27/2018			3/28/2018			3/29/2018			3/30/2018			3/31/2018			4/1/2018			4/2/2018					
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	0	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	2	2
1:00 AM	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
2:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
3:00 AM	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
4:00 AM	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	4
5:00 AM	3	7	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	7	10
6:00 AM	15	23	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	23	38
7:00 AM	88	227	315	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	227	315
8:00 AM	91	116	207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	91	116	207
9:00 AM	50	66	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	66	116
10:00 AM	37	35	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	35	72
11:00 AM	47	66	113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47	66	113
12:00 PM	49	51	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49	51	100
1:00 PM	48	58	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	58	106
2:00 PM	48	72	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	72	120
3:00 PM	76	287	363	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76	287	363
4:00 PM	46	179	225	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46	179	225
5:00 PM	83	225	308	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83	225	308
6:00 PM	63	98	161	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	98	161
7:00 PM	45	71	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45	71	116
8:00 PM	10	18	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	18	28
9:00 PM	22	11	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	11	33
10:00 PM	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2
11:00 PM	8	3	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	3	11
Total	831	1,621	2,452	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	831	1,621	2,452
Percent	34%	66%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34%	66%	-

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary

Location: ALEJANDRA AVE btwn EMILIE AVE/BRITTANY MEADOWS

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 05

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Northbound	17	915	124	1	31	3	0	0	0	0	0	0	0	1,091
Percent	1.6%	83.9%	11.4%	0.1%	2.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	13	915	134	0	29	4	0	0	0	1	0	0	0	1,096
Percent	1.2%	83.5%	12.2%	0.0%	2.6%	0.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	100%
Total	30	1,830	258	1	60	7	0	0	0	1	0	0	0	2,187
Percent	1.4%	83.7%	11.8%	0.0%	2.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: ALEJANDRA AVE btwn EMILIE AVE/BRITTANY MEADOWS
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 05



Tuesday, March 27, 2018
 Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	2
3:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	4
6:00 AM	0	8	0	0	1	1	0	0	0	0	0	0	0	10
7:00 AM	0	79	10	0	3	0	0	0	0	0	0	0	0	92
8:00 AM	1	59	14	0	3	1	0	0	0	0	0	0	0	78
9:00 AM	1	35	11	0	1	0	0	0	0	0	0	0	0	48
10:00 AM	1	21	4	0	1	0	0	0	0	0	0	0	0	27
11:00 AM	0	30	12	0	4	0	0	0	0	0	0	0	0	46
12:00 PM	0	31	8	0	3	0	0	0	0	0	0	0	0	42
1:00 PM	1	30	6	0	0	1	0	0	0	0	0	0	0	38
2:00 PM	2	40	8	0	4	0	0	0	0	0	0	0	0	54
3:00 PM	1	203	14	1	4	0	0	0	0	0	0	0	0	223
4:00 PM	2	118	20	0	1	0	0	0	0	0	0	0	0	141
5:00 PM	2	131	10	0	2	0	0	0	0	0	0	0	0	145
6:00 PM	3	56	4	0	0	0	0	0	0	0	0	0	0	63
7:00 PM	3	38	2	0	0	0	0	0	0	0	0	0	0	43
8:00 PM	0	10	0	0	2	0	0	0	0	0	0	0	0	12
9:00 PM	0	11	0	0	0	0	0	0	0	0	0	0	0	11
10:00 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
11:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Total	17	915	124	1	31	3	0	0	0	0	0	0	0	1,091
Percent	1.6%	83.9%	11.4%	0.1%	2.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: ALEJANDRA AVE btwn EMILIE AVE/BRITTANY MEADOWS
Date Range: 3/27/2018 to 3/27/2018
Site Code: 05



Tuesday, March 27, 2018
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	0	0	1	0	0	0	0	0	0	0	0	3
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	1	1	0	0	1	0	0	0	0	0	0	0	3
5:00 AM	0	11	1	0	0	0	0	0	0	0	0	0	0	12
6:00 AM	0	29	8	0	1	0	0	0	0	0	0	0	0	38
7:00 AM	1	189	26	0	1	1	0	0	0	0	0	0	0	218
8:00 AM	0	87	18	0	4	0	0	0	0	0	0	0	0	109
9:00 AM	1	36	2	0	2	0	0	0	0	1	0	0	0	42
10:00 AM	0	33	5	0	2	1	0	0	0	0	0	0	0	41
11:00 AM	1	38	8	0	2	0	0	0	0	0	0	0	0	49
12:00 PM	0	42	11	0	4	0	0	0	0	0	0	0	0	57
1:00 PM	2	15	7	0	1	0	0	0	0	0	0	0	0	25
2:00 PM	0	43	8	0	2	0	0	0	0	0	0	0	0	53
3:00 PM	1	96	15	0	2	0	0	0	0	0	0	0	0	114
4:00 PM	1	61	7	0	1	1	0	0	0	0	0	0	0	71
5:00 PM	3	88	10	0	2	0	0	0	0	0	0	0	0	103
6:00 PM	1	75	3	0	2	0	0	0	0	0	0	0	0	81
7:00 PM	2	39	2	0	0	0	0	0	0	0	0	0	0	43
8:00 PM	0	9	1	0	0	0	0	0	0	0	0	0	0	10
9:00 PM	0	11	1	0	0	0	0	0	0	0	0	0	0	12
10:00 PM	0	6	0	0	0	0	0	0	0	0	0	0	0	6
11:00 PM	0	4	0	0	1	0	0	0	0	0	0	0	0	5
Total	13	915	134	0	29	4	0	0	0	1	0	0	0	1,096
Percent	1.2%	83.5%	12.2%	0.0%	2.6%	0.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	

Location: ALEJANDRA AVE btwn EMILIE AVE/BRITTANY MEADOWS
Date Range: 3/27/2018 to 3/27/2018
Site Code: 05

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	2
3:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	4
6:00 AM	0	8	0	0	1	1	0	0	0	0	0	0	0	10
7:00 AM	0	79	10	0	3	0	0	0	0	0	0	0	0	92
8:00 AM	1	59	14	0	3	1	0	0	0	0	0	0	0	78
9:00 AM	1	35	11	0	1	0	0	0	0	0	0	0	0	48
10:00 AM	1	21	4	0	1	0	0	0	0	0	0	0	0	27
11:00 AM	0	30	12	0	4	0	0	0	0	0	0	0	0	46
12:00 PM	0	31	8	0	3	0	0	0	0	0	0	0	0	42
1:00 PM	1	30	6	0	0	1	0	0	0	0	0	0	0	38
2:00 PM	2	40	8	0	4	0	0	0	0	0	0	0	0	54
3:00 PM	1	203	14	1	4	0	0	0	0	0	0	0	0	223
4:00 PM	2	118	20	0	1	0	0	0	0	0	0	0	0	141
5:00 PM	2	131	10	0	2	0	0	0	0	0	0	0	0	145
6:00 PM	3	56	4	0	0	0	0	0	0	0	0	0	0	63
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	10	0	0	2	0	0	0	0	0	0	0	0	12
9:00 PM	0	11	0	0	0	0	0	0	0	0	0	0	0	11
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Total	14	873	122	1	31	3	0	0	0	0	0	0	0	1,044
Percent	1.3%	83.6%	11.7%	0.1%	3.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: ALEJANDRA AVE btwn EMILIE AVE/BRITTANY MEADOWS
Date Range: 3/27/2018 to 3/27/2018
Site Code: 05

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	0	0	1	0	0	0	0	0	0	0	0	3
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	1	1	0	0	1	0	0	0	0	0	0	0	3
5:00 AM	0	11	1	0	0	0	0	0	0	0	0	0	0	12
6:00 AM	0	29	8	0	1	0	0	0	0	0	0	0	0	38
7:00 AM	1	189	26	0	1	1	0	0	0	0	0	0	0	218
8:00 AM	0	87	18	0	4	0	0	0	0	0	0	0	0	109
9:00 AM	1	36	2	0	2	0	0	0	0	1	0	0	0	42
10:00 AM	0	33	5	0	2	1	0	0	0	0	0	0	0	41
11:00 AM	1	38	8	0	2	0	0	0	0	0	0	0	0	49
12:00 PM	0	42	11	0	4	0	0	0	0	0	0	0	0	57
1:00 PM	2	15	7	0	1	0	0	0	0	0	0	0	0	25
2:00 PM	0	43	8	0	2	0	0	0	0	0	0	0	0	53
3:00 PM	1	96	15	0	2	0	0	0	0	0	0	0	0	114
4:00 PM	1	61	7	0	1	1	0	0	0	0	0	0	0	71
5:00 PM	3	88	10	0	2	0	0	0	0	0	0	0	0	103
6:00 PM	1	75	3	0	2	0	0	0	0	0	0	0	0	81
7:00 PM	2	39	2	0	0	0	0	0	0	0	0	0	0	43
8:00 PM	0	9	1	0	0	0	0	0	0	0	0	0	0	10
9:00 PM	0	11	1	0	0	0	0	0	0	0	0	0	0	12
10:00 PM	0	6	0	0	0	0	0	0	0	0	0	0	0	6
11:00 PM	0	4	0	0	1	0	0	0	0	0	0	0	0	5
Total	13	915	134	0	29	4	0	0	0	1	0	0	0	1,096
Percent	1.2%	83.5%	12.2%	0.0%	2.6%	0.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: ALEJANDRA AVE btwn EMILIE AVE/BRITTANY MEADOWS
Date Range: 3/27/2018 to 3/27/2018
Site Code: 05



3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	2
3:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	4
6:00 AM	0	8	0	0	1	1	0	0	0	0	0	0	0	10
7:00 AM	0	79	10	0	3	0	0	0	0	0	0	0	0	92
8:00 AM	1	59	14	0	3	1	0	0	0	0	0	0	0	78
9:00 AM	1	35	11	0	1	0	0	0	0	0	0	0	0	48
10:00 AM	1	21	4	0	1	0	0	0	0	0	0	0	0	27
11:00 AM	0	30	12	0	4	0	0	0	0	0	0	0	0	46
12:00 PM	0	31	8	0	3	0	0	0	0	0	0	0	0	42
1:00 PM	1	30	6	0	0	1	0	0	0	0	0	0	0	38
2:00 PM	2	40	8	0	4	0	0	0	0	0	0	0	0	54
3:00 PM	1	203	14	1	4	0	0	0	0	0	0	0	0	223
4:00 PM	2	118	20	0	1	0	0	0	0	0	0	0	0	141
5:00 PM	2	131	10	0	2	0	0	0	0	0	0	0	0	145
6:00 PM	3	56	4	0	0	0	0	0	0	0	0	0	0	63
7:00 PM	3	38	2	0	0	0	0	0	0	0	0	0	0	43
8:00 PM	0	10	0	0	2	0	0	0	0	0	0	0	0	12
9:00 PM	0	11	0	0	0	0	0	0	0	0	0	0	0	11
10:00 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
11:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Total	17	915	124	1	31	3	0	0	0	0	0	0	0	1,091
Percent	1.6%	83.9%	11.4%	0.1%	2.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: ALEJANDRA AVE btwn EMILIE AVE/BRITTANY MEADOWS
Date Range: 3/27/2018 to 3/27/2018
Site Code: 05



3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	0	0	1	0	0	0	0	0	0	0	0	3
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	1	1	0	0	1	0	0	0	0	0	0	0	3
5:00 AM	0	11	1	0	0	0	0	0	0	0	0	0	0	12
6:00 AM	0	29	8	0	1	0	0	0	0	0	0	0	0	38
7:00 AM	1	189	26	0	1	1	0	0	0	0	0	0	0	218
8:00 AM	0	87	18	0	4	0	0	0	0	0	0	0	0	109
9:00 AM	1	36	2	0	2	0	0	0	0	1	0	0	0	42
10:00 AM	0	33	5	0	2	1	0	0	0	0	0	0	0	41
11:00 AM	1	38	8	0	2	0	0	0	0	0	0	0	0	49
12:00 PM	0	42	11	0	4	0	0	0	0	0	0	0	0	57
1:00 PM	2	15	7	0	1	0	0	0	0	0	0	0	0	25
2:00 PM	0	43	8	0	2	0	0	0	0	0	0	0	0	53
3:00 PM	1	96	15	0	2	0	0	0	0	0	0	0	0	114
4:00 PM	1	61	7	0	1	1	0	0	0	0	0	0	0	71
5:00 PM	3	88	10	0	2	0	0	0	0	0	0	0	0	103
6:00 PM	1	75	3	0	2	0	0	0	0	0	0	0	0	81
7:00 PM	2	39	2	0	0	0	0	0	0	0	0	0	0	43
8:00 PM	0	9	1	0	0	0	0	0	0	0	0	0	0	10
9:00 PM	0	11	1	0	0	0	0	0	0	0	0	0	0	12
10:00 PM	0	6	0	0	0	0	0	0	0	0	0	0	0	6
11:00 PM	0	4	0	0	1	0	0	0	0	0	0	0	0	5
Total	13	915	134	0	29	4	0	0	0	1	0	0	0	1,096
Percent	1.2%	83.5%	12.2%	0.0%	2.6%	0.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	

Vehicle Speed Report Summary

Location: ALEJANDRA AVE btwn EMILIE AVE/BRITTANY MEADOWS

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 05

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Northbound	11	25	100	347	403	167	33	3	2	0	0	0	0	0	0	0	0	1,091
Percent	1.0%	2.3%	9.2%	31.8%	36.9%	15.3%	3.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	2	15	67	263	512	192	36	6	2	1	0	0	0	0	0	0	0	1,096
Percent	0.2%	1.4%	6.1%	24.0%	46.7%	17.5%	3.3%	0.5%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	13	40	167	610	915	359	69	9	4	1	0	0	0	0	0	0	0	2,187
Percent	0.6%	1.8%	7.6%	27.9%	41.8%	16.4%	3.2%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Northbound				Northbound			
50th Percentile (Median)		25.5	mph	Mean (Average) Speed		25.6	mph
85th Percentile		30.7	mph	10 mph Pace		20.5 - 30.5	mph
95th Percentile		34.0	mph	Percent in Pace		69.7	%
Southbound				Southbound			
50th Percentile (Median)		27.0	mph	Mean (Average) Speed		26.8	mph
85th Percentile		31.1	mph	10 mph Pace		21.7 - 31.7	mph
95th Percentile		34.3	mph	Percent in Pace		74.7	%

Location: ALEJANDRA AVE btwn EMILIE AVE/BRITTANY MEADOWS
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 05

Tuesday, March 27, 2018
 Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	4
6:00 AM	0	0	1	3	1	3	2	0	0	0	0	0	0	0	0	0	0	10
7:00 AM	0	0	1	11	34	37	9	0	0	0	0	0	0	0	0	0	0	92
8:00 AM	0	1	8	11	29	23	6	0	0	0	0	0	0	0	0	0	0	78
9:00 AM	0	0	3	12	18	11	3	0	1	0	0	0	0	0	0	0	0	48
10:00 AM	0	1	2	7	9	6	1	0	1	0	0	0	0	0	0	0	0	27
11:00 AM	0	2	5	23	10	5	1	0	0	0	0	0	0	0	0	0	0	46
12:00 PM	0	1	9	14	14	3	1	0	0	0	0	0	0	0	0	0	0	42
1:00 PM	1	2	3	16	12	3	1	0	0	0	0	0	0	0	0	0	0	38
2:00 PM	0	2	4	22	23	3	0	0	0	0	0	0	0	0	0	0	0	54
3:00 PM	0	2	18	81	92	22	7	1	0	0	0	0	0	0	0	0	0	223
4:00 PM	0	6	21	44	55	14	1	0	0	0	0	0	0	0	0	0	0	141
5:00 PM	7	5	18	61	47	6	1	0	0	0	0	0	0	0	0	0	0	145
6:00 PM	1	2	1	23	23	13	0	0	0	0	0	0	0	0	0	0	0	63
7:00 PM	1	1	3	12	20	6	0	0	0	0	0	0	0	0	0	0	0	43
8:00 PM	0	0	2	4	5	1	0	0	0	0	0	0	0	0	0	0	0	12
9:00 PM	0	0	0	2	6	3	0	0	0	0	0	0	0	0	0	0	0	11
10:00 PM	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	4
11:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Total	11	25	100	347	403	167	33	3	2	0	0	0	0	0	0	0	0	1,091
Percent	1.0%	2.3%	9.2%	31.8%	36.9%	15.3%	3.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	25.5	mph	Mean (Average) Speed	25.6	mph
85th Percentile	30.7	mph	10 mph Pace	20.5 - 30.5	mph
95th Percentile	34.0	mph	Percent in Pace	69.7	%

Location: ALEJANDRA AVE btwn EMILIE AVE/BRITTANY MEADOWS
Date Range: 3/27/2018 to 3/27/2018
Site Code: 05

Tuesday, March 27, 2018
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	0	0	1	2	6	2	1	0	0	0	0	0	0	0	0	0	12
6:00 AM	0	0	0	7	19	8	3	1	0	0	0	0	0	0	0	0	0	38
7:00 AM	0	0	2	14	132	57	11	1	1	0	0	0	0	0	0	0	0	218
8:00 AM	0	0	2	8	65	26	6	2	0	0	0	0	0	0	0	0	0	109
9:00 AM	0	0	1	8	18	12	1	1	0	1	0	0	0	0	0	0	0	42
10:00 AM	0	0	1	7	23	7	3	0	0	0	0	0	0	0	0	0	0	41
11:00 AM	0	1	2	14	24	6	2	0	0	0	0	0	0	0	0	0	0	49
12:00 PM	0	1	12	13	18	12	1	0	0	0	0	0	0	0	0	0	0	57
1:00 PM	1	3	2	9	8	2	0	0	0	0	0	0	0	0	0	0	0	25
2:00 PM	0	0	6	23	22	2	0	0	0	0	0	0	0	0	0	0	0	53
3:00 PM	0	0	15	41	43	12	3	0	0	0	0	0	0	0	0	0	0	114
4:00 PM	0	2	7	24	28	9	1	0	0	0	0	0	0	0	0	0	0	71
5:00 PM	0	6	7	49	32	9	0	0	0	0	0	0	0	0	0	0	0	103
6:00 PM	0	1	6	21	39	13	0	0	1	0	0	0	0	0	0	0	0	81
7:00 PM	0	1	3	12	21	5	1	0	0	0	0	0	0	0	0	0	0	43
8:00 PM	0	0	1	3	5	1	0	0	0	0	0	0	0	0	0	0	0	10
9:00 PM	0	0	0	3	6	3	0	0	0	0	0	0	0	0	0	0	0	12
10:00 PM	0	0	0	1	3	1	1	0	0	0	0	0	0	0	0	0	0	6
11:00 PM	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	2	15	67	263	512	192	36	6	2	1	0	0	0	0	0	0	0	1,096
Percent	0.2%	1.4%	6.1%	24.0%	46.7%	17.5%	3.3%	0.5%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	27.0	mph	Mean (Average) Speed	26.8	mph
85th Percentile	31.1	mph	10 mph Pace	21.7 - 31.7	mph
95th Percentile	34.3	mph	Percent in Pace	74.7	%

Location: ALEJANDRA AVE btwn EMILIE AVE/BRITTANY MEADOWS
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 05

Total Study Average
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	4
6:00 AM	0	0	1	3	1	3	2	0	0	0	0	0	0	0	0	0	0	10
7:00 AM	0	0	1	11	34	37	9	0	0	0	0	0	0	0	0	0	0	92
8:00 AM	0	1	8	11	29	23	6	0	0	0	0	0	0	0	0	0	0	78
9:00 AM	0	0	3	12	18	11	3	0	1	0	0	0	0	0	0	0	0	48
10:00 AM	0	1	2	7	9	6	1	0	1	0	0	0	0	0	0	0	0	27
11:00 AM	0	2	5	23	10	5	1	0	0	0	0	0	0	0	0	0	0	46
12:00 PM	0	1	9	14	14	3	1	0	0	0	0	0	0	0	0	0	0	42
1:00 PM	1	2	3	16	12	3	1	0	0	0	0	0	0	0	0	0	0	38
2:00 PM	0	2	4	22	23	3	0	0	0	0	0	0	0	0	0	0	0	54
3:00 PM	0	2	18	81	92	22	7	1	0	0	0	0	0	0	0	0	0	223
4:00 PM	0	6	21	44	55	14	1	0	0	0	0	0	0	0	0	0	0	141
5:00 PM	7	5	18	61	47	6	1	0	0	0	0	0	0	0	0	0	0	145
6:00 PM	1	2	1	23	23	13	0	0	0	0	0	0	0	0	0	0	0	63
7:00 PM	1	1	3	12	20	6	0	0	0	0	0	0	0	0	0	0	0	43
8:00 PM	0	0	2	4	5	1	0	0	0	0	0	0	0	0	0	0	0	12
9:00 PM	0	0	0	2	6	3	0	0	0	0	0	0	0	0	0	0	0	11
10:00 PM	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	4
11:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Total	11	25	100	347	403	167	33	3	2	0	0	0	0	0	0	0	0	1,091
Percent	1.0%	2.3%	9.2%	31.8%	36.9%	15.3%	3.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	25.5	mph	Mean (Average) Speed	25.6	mph
85th Percentile	30.7	mph	10 mph Pace	20.5 - 30.5	mph
95th Percentile	34.0	mph	Percent in Pace	69.7	%

Location: ALEJANDRA AVE btwn EMILIE AVE/BRITTANY MEADOWS
Date Range: 3/27/2018 to 3/27/2018
Site Code: 05

**Total Study Average
Southbound**

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	0	0	1	2	6	2	1	0	0	0	0	0	0	0	0	0	12
6:00 AM	0	0	0	7	19	8	3	1	0	0	0	0	0	0	0	0	0	38
7:00 AM	0	0	2	14	132	57	11	1	1	0	0	0	0	0	0	0	0	218
8:00 AM	0	0	2	8	65	26	6	2	0	0	0	0	0	0	0	0	0	109
9:00 AM	0	0	1	8	18	12	1	1	0	1	0	0	0	0	0	0	0	42
10:00 AM	0	0	1	7	23	7	3	0	0	0	0	0	0	0	0	0	0	41
11:00 AM	0	1	2	14	24	6	2	0	0	0	0	0	0	0	0	0	0	49
12:00 PM	0	1	12	13	18	12	1	0	0	0	0	0	0	0	0	0	0	57
1:00 PM	1	3	2	9	8	2	0	0	0	0	0	0	0	0	0	0	0	25
2:00 PM	0	0	6	23	22	2	0	0	0	0	0	0	0	0	0	0	0	53
3:00 PM	0	0	15	41	43	12	3	0	0	0	0	0	0	0	0	0	0	114
4:00 PM	0	2	7	24	28	9	1	0	0	0	0	0	0	0	0	0	0	71
5:00 PM	0	6	7	49	32	9	0	0	0	0	0	0	0	0	0	0	0	103
6:00 PM	0	1	6	21	39	13	0	0	1	0	0	0	0	0	0	0	0	81
7:00 PM	0	1	3	12	21	5	1	0	0	0	0	0	0	0	0	0	0	43
8:00 PM	0	0	1	3	5	1	0	0	0	0	0	0	0	0	0	0	0	10
9:00 PM	0	0	0	3	6	3	0	0	0	0	0	0	0	0	0	0	0	12
10:00 PM	0	0	0	1	3	1	1	0	0	0	0	0	0	0	0	0	0	6
11:00 PM	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	2	15	67	263	512	192	36	6	2	1	0	0	0	0	0	0	0	1,096
Percent	0.2%	1.4%	6.1%	24.0%	46.7%	17.5%	3.3%	0.5%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	27.0	mph	Mean (Average) Speed	26.8	mph
85th Percentile	31.1	mph	10 mph Pace	21.7 - 31.7	mph
95th Percentile	34.3	mph	Percent in Pace	74.7	%

Location: ALEJANDRA AVE btwn EMILIE AVE/BRITTANY MEADOWS
 Date Range: 3/27/2018 - 4/2/2018
 Site Code: 05

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	3/27/2018			3/28/2018			3/29/2018			3/30/2018			3/31/2018			4/1/2018			4/2/2018					
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	3	3	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	6
1:00 AM	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0	1
2:00 AM	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	3
3:00 AM	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	2
4:00 AM	0	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	3	3
5:00 AM	4	12	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	12	16
6:00 AM	10	38	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	38	48
7:00 AM	92	218	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	92	218	310
8:00 AM	78	109	187	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78	109	187
9:00 AM	48	42	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	42	90
10:00 AM	27	41	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	41	68
11:00 AM	46	49	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46	49	95
12:00 PM	42	57	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	57	99
1:00 PM	38	25	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	25	63
2:00 PM	54	53	107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	53	107
3:00 PM	223	114	337	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	223	114	337
4:00 PM	141	71	212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	141	71	212
5:00 PM	145	103	248	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	145	103	248
6:00 PM	63	81	144	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	81	144
7:00 PM	43	43	86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	43	86
8:00 PM	12	10	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	10	22
9:00 PM	11	12	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	12	23
10:00 PM	4	6	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	6	10
11:00 PM	2	5	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	5	7
Total	1,091	1,096	2,187	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,091	1,096	2,187
Percent	50%	50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50%	50%	-

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary



Location: El Camino Real / Fair Oaks Ln and Winchester Dr
Count Direction: Southbound / Northbound
Date Range: 3/27/2018 to 3/27/2018
Site Code: 06

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Southbound	70	11,345	2,412	3	430	74	0	28	202	317	7	9	269	15,166
Percent	0.5%	74.8%	15.9%	0.0%	2.8%	0.5%	0.0%	0.2%	1.3%	2.1%	0.0%	0.1%	1.8%	100%
Northbound	105	13,883	2,691	17	569	56	0	25	77	85	9	2	59	17,578
Percent	0.6%	79.0%	15.3%	0.1%	3.2%	0.3%	0.0%	0.1%	0.4%	0.5%	0.1%	0.0%	0.3%	100%
Total	175	25,228	5,103	20	999	130	0	53	279	402	16	11	328	32,744
Percent	0.5%	77.0%	15.6%	0.1%	3.1%	0.4%	0.0%	0.2%	0.9%	1.2%	0.0%	0.0%	1.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: El Camino Real / Fair Oaks Ln and Winchester Dr
Date Range: 3/27/2018 to 3/27/2018
Site Code: 06

Tuesday, March 27, 2018
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	60	14	0	6	0	0	0	0	0	0	0	0	80
1:00 AM	1	44	6	0	2	0	0	0	1	0	0	0	0	54
2:00 AM	0	37	7	0	1	0	0	0	2	0	0	0	0	47
3:00 AM	0	14	7	0	2	0	0	0	0	0	0	0	0	23
4:00 AM	0	19	4	0	5	0	0	0	1	0	0	0	0	29
5:00 AM	1	62	15	2	8	4	0	1	0	0	0	0	0	93
6:00 AM	1	143	24	3	9	1	0	0	1	0	0	0	0	182
7:00 AM	1	423	74	2	21	3	0	1	5	2	0	0	1	533
8:00 AM	4	615	132	2	36	3	0	3	9	3	0	1	0	808
9:00 AM	6	595	137	2	49	5	0	1	4	2	0	0	5	806
10:00 AM	6	625	189	0	54	3	0	2	3	7	1	0	5	895
11:00 AM	6	725	197	3	41	5	0	3	4	5	0	0	6	995
12:00 PM	4	801	185	1	41	6	0	1	1	8	1	0	4	1,053
1:00 PM	5	837	210	1	50	1	0	0	3	7	1	0	4	1,119
2:00 PM	2	999	189	0	46	3	0	1	0	2	0	0	3	1,245
3:00 PM	7	1,232	246	1	49	2	0	6	7	6	1	0	5	1,562
4:00 PM	11	1,412	241	0	39	6	0	0	12	12	2	1	9	1,745
5:00 PM	16	1,456	219	0	26	8	0	1	10	13	0	0	9	1,758
6:00 PM	7	1,248	208	0	38	2	0	0	4	5	2	0	1	1,515
7:00 PM	11	877	125	0	16	2	0	1	5	8	0	0	2	1,047
8:00 PM	5	739	101	0	8	2	0	2	3	4	1	0	1	866
9:00 PM	5	504	79	0	7	0	0	1	1	0	0	0	3	600
10:00 PM	1	276	52	0	9	0	0	0	1	1	0	0	1	341
11:00 PM	5	140	30	0	6	0	0	1	0	0	0	0	0	182
Total	105	13,883	2,691	17	569	56	0	25	77	85	9	2	59	17,578
Percent	0.6%	79.0%	15.3%	0.1%	3.2%	0.3%	0.0%	0.1%	0.4%	0.5%	0.1%	0.0%	0.3%	

Location: El Camino Real / Fair Oaks Ln and Winchester Dr
Date Range: 3/27/2018 to 3/27/2018
Site Code: 06

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	58	3	0	4	0	0	0	1	0	0	0	0	66
1:00 AM	0	36	1	0	3	0	0	0	3	0	0	0	0	43
2:00 AM	0	19	1	0	0	0	0	0	0	0	0	0	0	20
3:00 AM	0	19	5	0	6	1	0	2	2	0	0	0	0	35
4:00 AM	0	62	9	1	4	0	0	0	5	0	0	0	0	81
5:00 AM	2	184	39	0	12	1	0	3	2	0	0	0	0	243
6:00 AM	5	422	78	0	16	1	0	2	4	7	1	0	3	539
7:00 AM	10	939	207	1	41	14	0	1	19	54	0	0	51	1,337
8:00 AM	4	1,044	237	0	57	6	0	4	22	40	1	2	41	1,458
9:00 AM	6	816	215	0	39	3	0	3	24	28	1	1	27	1,163
10:00 AM	9	805	210	1	39	10	0	4	19	18	1	1	19	1,136
11:00 AM	7	708	173	0	31	7	0	1	13	17	1	1	15	974
12:00 PM	3	715	164	0	35	5	0	1	10	23	0	0	11	967
1:00 PM	1	691	186	0	30	3	0	4	11	25	0	3	11	965
2:00 PM	5	645	133	0	28	1	0	0	12	21	0	1	17	863
3:00 PM	1	654	175	0	15	1	0	1	16	18	1	0	20	902
4:00 PM	0	711	127	0	21	7	0	1	13	20	0	0	16	916
5:00 PM	4	738	138	0	10	7	0	1	6	22	0	0	21	947
6:00 PM	5	630	120	0	11	3	0	0	8	12	0	0	10	799
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	1	368	47	0	3	0	0	0	2	1	0	0	0	422
9:00 PM	1	293	39	0	4	0	0	0	1	1	0	0	1	340
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	93	9	0	5	1	0	0	0	0	0	0	0	108
Total	64	10,650	2,316	3	414	71	0	28	193	307	6	9	263	14,324
Percent	0.4%	74.4%	16.2%	0.0%	2.9%	0.5%	0.0%	0.2%	1.3%	2.1%	0.0%	0.1%	1.8%	

Note: Average only considered on days with 24-hours of data.

Location: El Camino Real / Fair Oaks Ln and Winchester Dr
Date Range: 3/27/2018 to 3/27/2018
Site Code: 06

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	60	14	0	6	0	0	0	0	0	0	0	0	80
1:00 AM	1	44	6	0	2	0	0	0	1	0	0	0	0	54
2:00 AM	0	37	7	0	1	0	0	0	2	0	0	0	0	47
3:00 AM	0	14	7	0	2	0	0	0	0	0	0	0	0	23
4:00 AM	0	19	4	0	5	0	0	0	1	0	0	0	0	29
5:00 AM	1	62	15	2	8	4	0	1	0	0	0	0	0	93
6:00 AM	1	143	24	3	9	1	0	0	1	0	0	0	0	182
7:00 AM	1	423	74	2	21	3	0	1	5	2	0	0	1	533
8:00 AM	4	615	132	2	36	3	0	3	9	3	0	1	0	808
9:00 AM	6	595	137	2	49	5	0	1	4	2	0	0	5	806
10:00 AM	6	625	189	0	54	3	0	2	3	7	1	0	5	895
11:00 AM	6	725	197	3	41	5	0	3	4	5	0	0	6	995
12:00 PM	4	801	185	1	41	6	0	1	1	8	1	0	4	1,053
1:00 PM	5	837	210	1	50	1	0	0	3	7	1	0	4	1,119
2:00 PM	2	999	189	0	46	3	0	1	0	2	0	0	3	1,245
3:00 PM	7	1,232	246	1	49	2	0	6	7	6	1	0	5	1,562
4:00 PM	11	1,412	241	0	39	6	0	0	12	12	2	1	9	1,745
5:00 PM	16	1,456	219	0	26	8	0	1	10	13	0	0	9	1,758
6:00 PM	7	1,248	208	0	38	2	0	0	4	5	2	0	1	1,515
7:00 PM	11	877	125	0	16	2	0	1	5	8	0	0	2	1,047
8:00 PM	5	739	101	0	8	2	0	2	3	4	1	0	1	866
9:00 PM	5	504	79	0	7	0	0	1	1	0	0	0	3	600
10:00 PM	1	276	52	0	9	0	0	0	1	1	0	0	1	341
11:00 PM	5	140	30	0	6	0	0	1	0	0	0	0	0	182
Total	105	13,883	2,691	17	569	56	0	25	77	85	9	2	59	17,578
Percent	0.6%	79.0%	15.3%	0.1%	3.2%	0.3%	0.0%	0.1%	0.4%	0.5%	0.1%	0.0%	0.3%	

Note: Average only considered on days with 24-hours of data.

Location: El Camino Real / Fair Oaks Ln and Winchester Dr
Date Range: 3/27/2018 to 3/27/2018
Site Code: 06

3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	58	3	0	4	0	0	0	1	0	0	0	0	66
1:00 AM	0	36	1	0	3	0	0	0	3	0	0	0	0	43
2:00 AM	0	19	1	0	0	0	0	0	0	0	0	0	0	20
3:00 AM	0	19	5	0	6	1	0	2	2	0	0	0	0	35
4:00 AM	0	62	9	1	4	0	0	0	5	0	0	0	0	81
5:00 AM	2	184	39	0	12	1	0	3	2	0	0	0	0	243
6:00 AM	5	422	78	0	16	1	0	2	4	7	1	0	3	539
7:00 AM	10	939	207	1	41	14	0	1	19	54	0	0	51	1,337
8:00 AM	4	1,044	237	0	57	6	0	4	22	40	1	2	41	1,458
9:00 AM	6	816	215	0	39	3	0	3	24	28	1	1	27	1,163
10:00 AM	9	805	210	1	39	10	0	4	19	18	1	1	19	1,136
11:00 AM	7	708	173	0	31	7	0	1	13	17	1	1	15	974
12:00 PM	3	715	164	0	35	5	0	1	10	23	0	0	11	967
1:00 PM	1	691	186	0	30	3	0	4	11	25	0	3	11	965
2:00 PM	5	645	133	0	28	1	0	0	12	21	0	1	17	863
3:00 PM	1	654	175	0	15	1	0	1	16	18	1	0	20	902
4:00 PM	0	711	127	0	21	7	0	1	13	20	0	0	16	916
5:00 PM	4	738	138	0	10	7	0	1	6	22	0	0	21	947
6:00 PM	5	630	120	0	11	3	0	0	8	12	0	0	10	799
7:00 PM	6	514	80	0	7	2	0	0	8	9	1	0	6	633
8:00 PM	1	368	47	0	3	0	0	0	2	1	0	0	0	422
9:00 PM	1	293	39	0	4	0	0	0	1	1	0	0	1	340
10:00 PM	0	181	16	0	9	1	0	0	1	1	0	0	0	209
11:00 PM	0	93	9	0	5	1	0	0	0	0	0	0	0	108
Total	70	11,345	2,412	3	430	74	0	28	202	317	7	9	269	15,166
Percent	0.5%	74.8%	15.9%	0.0%	2.8%	0.5%	0.0%	0.2%	1.3%	2.1%	0.0%	0.1%	1.8%	

Location: El Camino Real / Fair Oaks Ln and Winchester Dr
Date Range: 3/27/2018 to 3/27/2018
Site Code: 06

3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	60	14	0	6	0	0	0	0	0	0	0	0	80
1:00 AM	1	44	6	0	2	0	0	0	1	0	0	0	0	54
2:00 AM	0	37	7	0	1	0	0	0	2	0	0	0	0	47
3:00 AM	0	14	7	0	2	0	0	0	0	0	0	0	0	23
4:00 AM	0	19	4	0	5	0	0	0	1	0	0	0	0	29
5:00 AM	1	62	15	2	8	4	0	1	0	0	0	0	0	93
6:00 AM	1	143	24	3	9	1	0	0	1	0	0	0	0	182
7:00 AM	1	423	74	2	21	3	0	1	5	2	0	0	1	533
8:00 AM	4	615	132	2	36	3	0	3	9	3	0	1	0	808
9:00 AM	6	595	137	2	49	5	0	1	4	2	0	0	5	806
10:00 AM	6	625	189	0	54	3	0	2	3	7	1	0	5	895
11:00 AM	6	725	197	3	41	5	0	3	4	5	0	0	6	995
12:00 PM	4	801	185	1	41	6	0	1	1	8	1	0	4	1,053
1:00 PM	5	837	210	1	50	1	0	0	3	7	1	0	4	1,119
2:00 PM	2	999	189	0	46	3	0	1	0	2	0	0	3	1,245
3:00 PM	7	1,232	246	1	49	2	0	6	7	6	1	0	5	1,562
4:00 PM	11	1,412	241	0	39	6	0	0	12	12	2	1	9	1,745
5:00 PM	16	1,456	219	0	26	8	0	1	10	13	0	0	9	1,758
6:00 PM	7	1,248	208	0	38	2	0	0	4	5	2	0	1	1,515
7:00 PM	11	877	125	0	16	2	0	1	5	8	0	0	2	1,047
8:00 PM	5	739	101	0	8	2	0	2	3	4	1	0	1	866
9:00 PM	5	504	79	0	7	0	0	1	1	0	0	0	3	600
10:00 PM	1	276	52	0	9	0	0	0	1	1	0	0	1	341
11:00 PM	5	140	30	0	6	0	0	1	0	0	0	0	0	182
Total	105	13,883	2,691	17	569	56	0	25	77	85	9	2	59	17,578
Percent	0.6%	79.0%	15.3%	0.1%	3.2%	0.3%	0.0%	0.1%	0.4%	0.5%	0.1%	0.0%	0.3%	

Vehicle Speed Report Summary

Location: El Camino Real / Fair Oaks Ln and Winchester Dr

Count Direction: Southbound / Northbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 06

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Southbound	39	15	21	176	2,396	6,090	4,230	1,674	424	84	10	2	1	1	2	0	1	15,166
Percent	0.3%	0.1%	0.1%	1.2%	15.8%	40.2%	27.9%	11.0%	2.8%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Northbound	96	432	816	1,470	2,273	4,162	5,052	2,556	602	96	18	3	2	0	0	0	0	17,578
Percent	0.5%	2.5%	4.6%	8.4%	12.9%	23.7%	28.7%	14.5%	3.4%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	135	447	837	1,646	4,669	10,252	9,282	4,230	1,026	180	28	5	3	1	2	0	1	32,744
Percent	0.4%	1.4%	2.6%	5.0%	14.3%	31.3%	28.3%	12.9%	3.1%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Southbound				Southbound			
50th Percentile (Median)	33.9	mph		Mean (Average) Speed	34.6	mph	
85th Percentile	39.8	mph		10 mph Pace	28.9 - 38.9	mph	
95th Percentile	43.8	mph		Percent in Pace	69.7	%	
Northbound				Northbound			
50th Percentile (Median)	34.4	mph		Mean (Average) Speed	33.2	mph	
85th Percentile	40.7	mph		10 mph Pace	31.0 - 41.0	mph	
95th Percentile	44.3	mph		Percent in Pace	52.9	%	

Location: El Camino Real / Fair Oaks Ln and Winchester Dr
Date Range: 3/27/2018 to 3/27/2018
Site Code: 06

Tuesday, March 27, 2018
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	1	12	24	16	11	1	0	0	0	0	0	0	0	66
1:00 AM	0	0	0	0	4	7	15	10	5	1	0	0	1	0	0	0	0	43
2:00 AM	0	0	0	0	0	6	7	3	3	1	0	0	0	0	0	0	0	20
3:00 AM	0	0	0	1	1	8	17	6	2	0	0	0	0	0	0	0	0	35
4:00 AM	0	0	0	1	2	18	33	18	2	6	1	0	0	0	0	0	0	81
5:00 AM	0	1	0	3	9	50	87	70	18	5	0	0	0	0	0	0	0	243
6:00 AM	0	0	2	6	30	150	204	99	38	9	1	0	0	0	0	0	0	539
7:00 AM	0	1	9	20	319	555	323	81	24	3	0	0	0	0	2	0	0	1,337
8:00 AM	0	0	4	24	352	663	339	70	5	0	1	0	0	0	0	0	0	1,458
9:00 AM	0	3	0	15	161	540	347	77	16	4	0	0	0	0	0	0	0	1,163
10:00 AM	0	2	1	19	193	520	285	88	20	5	1	0	0	1	0	0	1	1,136
11:00 AM	2	1	1	9	132	447	255	106	19	2	0	0	0	0	0	0	0	974
12:00 PM	1	0	0	10	130	387	306	115	14	3	1	0	0	0	0	0	0	967
1:00 PM	4	1	0	9	135	416	283	91	23	2	0	1	0	0	0	0	0	965
2:00 PM	1	1	1	7	118	324	263	111	26	10	1	0	0	0	0	0	0	863
3:00 PM	7	0	0	4	202	388	189	87	22	3	0	0	0	0	0	0	0	902
4:00 PM	8	0	1	14	205	379	211	82	9	5	1	1	0	0	0	0	0	916
5:00 PM	11	3	2	19	168	378	231	108	24	3	0	0	0	0	0	0	0	947
6:00 PM	4	0	0	6	105	302	218	118	44	2	0	0	0	0	0	0	0	799
7:00 PM	1	1	0	4	62	255	198	84	21	6	1	0	0	0	0	0	0	633
8:00 PM	0	0	0	3	30	142	144	80	20	3	0	0	0	0	0	0	0	422
9:00 PM	0	1	0	1	22	84	139	69	21	2	1	0	0	0	0	0	0	340
10:00 PM	0	0	0	0	14	41	70	53	25	5	1	0	0	0	0	0	0	209
11:00 PM	0	0	0	0	1	18	42	32	12	3	0	0	0	0	0	0	0	108
Total	39	15	21	176	2,396	6,090	4,230	1,674	424	84	10	2	1	1	2	0	1	15,166
Percent	0.3%	0.1%	0.1%	1.2%	15.8%	40.2%	27.9%	11.0%	2.8%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	33.9	mph	Mean (Average) Speed	34.6	mph
85th Percentile	39.8	mph	10 mph Pace	28.9 - 38.9	mph
95th Percentile	43.8	mph	Percent in Pace	69.7	%

Location: El Camino Real / Fair Oaks Ln and Winchester Dr
Date Range: 3/27/2018 to 3/27/2018
Site Code: 06

Tuesday, March 27, 2018
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	1	0	0	1	16	35	24	3	0	0	0	0	0	0	0	0	80
1:00 AM	0	0	1	0	2	9	13	20	9	0	0	0	0	0	0	0	0	54
2:00 AM	0	0	0	0	1	6	16	16	6	1	1	0	0	0	0	0	0	47
3:00 AM	0	0	0	0	0	6	9	7	1	0	0	0	0	0	0	0	0	23
4:00 AM	0	1	0	0	1	4	11	4	7	0	1	0	0	0	0	0	0	29
5:00 AM	0	0	0	1	2	23	28	29	7	3	0	0	0	0	0	0	0	93
6:00 AM	0	4	1	1	9	50	72	38	5	0	1	0	1	0	0	0	0	182
7:00 AM	0	7	10	17	52	148	189	80	21	8	1	0	0	0	0	0	0	533
8:00 AM	0	8	18	45	97	212	242	122	51	13	0	0	0	0	0	0	0	808
9:00 AM	4	10	21	29	91	179	268	167	30	6	1	0	0	0	0	0	0	806
10:00 AM	1	14	16	51	80	195	296	188	44	8	2	0	0	0	0	0	0	895
11:00 AM	3	14	28	58	127	270	308	155	27	4	1	0	0	0	0	0	0	995
12:00 PM	2	10	25	88	128	293	333	139	34	1	0	0	0	0	0	0	0	1,053
1:00 PM	3	25	44	57	96	258	376	215	42	2	1	0	0	0	0	0	0	1,119
2:00 PM	3	22	41	70	156	324	423	172	33	1	0	0	0	0	0	0	0	1,245
3:00 PM	24	53	138	211	226	382	357	138	31	1	1	0	0	0	0	0	0	1,562
4:00 PM	19	105	167	310	336	377	274	120	33	4	0	0	0	0	0	0	0	1,745
5:00 PM	25	88	176	300	374	369	292	117	14	3	0	0	0	0	0	0	0	1,758
6:00 PM	10	56	104	172	251	357	371	163	27	3	1	0	0	0	0	0	0	1,515
7:00 PM	0	5	18	33	130	239	362	190	53	12	2	3	0	0	0	0	0	1,047
8:00 PM	1	6	6	16	70	246	338	151	28	3	1	0	0	0	0	0	0	866
9:00 PM	1	1	1	6	38	145	254	120	31	3	0	0	0	0	0	0	0	600
10:00 PM	0	0	0	3	3	32	138	111	36	15	2	0	1	0	0	0	0	341
11:00 PM	0	2	1	2	2	22	47	70	29	5	2	0	0	0	0	0	0	182
Total	96	432	816	1,470	2,273	4,162	5,052	2,556	602	96	18	3	2	0	0	0	0	17,578
Percent	0.5%	2.5%	4.6%	8.4%	12.9%	23.7%	28.7%	14.5%	3.4%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.4	mph	Mean (Average) Speed	33.2	mph
85th Percentile	40.7	mph	10 mph Pace	31.0 - 41.0	mph
95th Percentile	44.3	mph	Percent in Pace	52.9	%

Location: El Camino Real / Fair Oaks Ln and Winchester Dr
Date Range: 3/27/2018 to 3/27/2018
Site Code: 06

Total Study Average
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	1	12	24	16	11	1	0	0	0	0	0	0	0	66
1:00 AM	0	0	0	0	4	7	15	10	5	1	0	0	1	0	0	0	0	43
2:00 AM	0	0	0	0	0	6	7	3	3	1	0	0	0	0	0	0	0	20
3:00 AM	0	0	0	1	1	8	17	6	2	0	0	0	0	0	0	0	0	35
4:00 AM	0	0	0	1	2	18	33	18	2	6	1	0	0	0	0	0	0	81
5:00 AM	0	1	0	3	9	50	87	70	18	5	0	0	0	0	0	0	0	243
6:00 AM	0	0	2	6	30	150	204	99	38	9	1	0	0	0	0	0	0	539
7:00 AM	0	1	9	20	319	555	323	81	24	3	0	0	0	0	2	0	0	1,337
8:00 AM	0	0	4	24	352	663	339	70	5	0	1	0	0	0	0	0	0	1,458
9:00 AM	0	3	0	15	161	540	347	77	16	4	0	0	0	0	0	0	0	1,163
10:00 AM	0	2	1	19	193	520	285	88	20	5	1	0	0	1	0	0	1	1,136
11:00 AM	2	1	1	9	132	447	255	106	19	2	0	0	0	0	0	0	0	974
12:00 PM	1	0	0	10	130	387	306	115	14	3	1	0	0	0	0	0	0	967
1:00 PM	4	1	0	9	135	416	283	91	23	2	0	1	0	0	0	0	0	965
2:00 PM	1	1	1	7	118	324	263	111	26	10	1	0	0	0	0	0	0	863
3:00 PM	7	0	0	4	202	388	189	87	22	3	0	0	0	0	0	0	0	902
4:00 PM	8	0	1	14	205	379	211	82	9	5	1	1	0	0	0	0	0	916
5:00 PM	11	3	2	19	168	378	231	108	24	3	0	0	0	0	0	0	0	947
6:00 PM	4	0	0	6	105	302	218	118	44	2	0	0	0	0	0	0	0	799
7:00 PM	1	1	0	4	62	255	198	84	21	6	1	0	0	0	0	0	0	633
8:00 PM	0	0	0	3	30	142	144	80	20	3	0	0	0	0	0	0	0	422
9:00 PM	0	1	0	1	22	84	139	69	21	2	1	0	0	0	0	0	0	340
10:00 PM	0	0	0	0	14	41	70	53	25	5	1	0	0	0	0	0	0	209
11:00 PM	0	0	0	0	1	18	42	32	12	3	0	0	0	0	0	0	0	108
Total	39	15	21	176	2,396	6,090	4,230	1,674	424	84	10	2	1	1	2	0	1	15,166
Percent	0.3%	0.1%	0.1%	1.2%	15.8%	40.2%	27.9%	11.0%	2.8%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	33.9	mph	Mean (Average) Speed	34.6	mph
85th Percentile	39.8	mph	10 mph Pace	28.9 - 38.9	mph
95th Percentile	43.8	mph	Percent in Pace	69.7	%

Location: El Camino Real / Fair Oaks Ln and Winchester Dr
Date Range: 3/27/2018 to 3/27/2018
Site Code: 06

Total Study Average
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	1	0	0	1	16	35	24	3	0	0	0	0	0	0	0	0	80
1:00 AM	0	0	1	0	2	9	13	20	9	0	0	0	0	0	0	0	0	54
2:00 AM	0	0	0	0	1	6	16	16	6	1	1	0	0	0	0	0	0	47
3:00 AM	0	0	0	0	0	6	9	7	1	0	0	0	0	0	0	0	0	23
4:00 AM	0	1	0	0	1	4	11	4	7	0	1	0	0	0	0	0	0	29
5:00 AM	0	0	0	1	2	23	28	29	7	3	0	0	0	0	0	0	0	93
6:00 AM	0	4	1	1	9	50	72	38	5	0	1	0	1	0	0	0	0	182
7:00 AM	0	7	10	17	52	148	189	80	21	8	1	0	0	0	0	0	0	533
8:00 AM	0	8	18	45	97	212	242	122	51	13	0	0	0	0	0	0	0	808
9:00 AM	4	10	21	29	91	179	268	167	30	6	1	0	0	0	0	0	0	806
10:00 AM	1	14	16	51	80	195	296	188	44	8	2	0	0	0	0	0	0	895
11:00 AM	3	14	28	58	127	270	308	155	27	4	1	0	0	0	0	0	0	995
12:00 PM	2	10	25	88	128	293	333	139	34	1	0	0	0	0	0	0	0	1,053
1:00 PM	3	25	44	57	96	258	376	215	42	2	1	0	0	0	0	0	0	1,119
2:00 PM	3	22	41	70	156	324	423	172	33	1	0	0	0	0	0	0	0	1,245
3:00 PM	24	53	138	211	226	382	357	138	31	1	1	0	0	0	0	0	0	1,562
4:00 PM	19	105	167	310	336	377	274	120	33	4	0	0	0	0	0	0	0	1,745
5:00 PM	25	88	176	300	374	369	292	117	14	3	0	0	0	0	0	0	0	1,758
6:00 PM	10	56	104	172	251	357	371	163	27	3	1	0	0	0	0	0	0	1,515
7:00 PM	0	5	18	33	130	239	362	190	53	12	2	3	0	0	0	0	0	1,047
8:00 PM	1	6	6	16	70	246	338	151	28	3	1	0	0	0	0	0	0	866
9:00 PM	1	1	1	6	38	145	254	120	31	3	0	0	0	0	0	0	0	600
10:00 PM	0	0	0	3	3	32	138	111	36	15	2	0	1	0	0	0	0	341
11:00 PM	0	2	1	2	2	22	47	70	29	5	2	0	0	0	0	0	0	182
Total	96	432	816	1,470	2,273	4,162	5,052	2,556	602	96	18	3	2	0	0	0	0	17,578
Percent	0.5%	2.5%	4.6%	8.4%	12.9%	23.7%	28.7%	14.5%	3.4%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	34.4	mph	Mean (Average) Speed	33.2	mph
85th Percentile	40.7	mph	10 mph Pace	31.0 - 41.0	mph
95th Percentile	44.3	mph	Percent in Pace	52.9	%

Location: El Camino Real / Fair Oaks Ln and Winchester Dr
 Date Range: 3/27/2018 - 4/2/2018
 Site Code: 06

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	3/27/2018			3/28/2018			3/29/2018			3/30/2018			3/31/2018			4/1/2018			4/2/2018					
	SB	NB	Total	SB	NB	Total	SB	NB	Total	SB	NB	Total	SB	NB	Total	SB	NB	Total	SB	NB	Total	SB	NB	Total
12:00 AM	66	80	146	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66	80	146
1:00 AM	43	54	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	54	97
2:00 AM	20	47	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	47	67
3:00 AM	35	23	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	23	58
4:00 AM	81	29	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81	29	110
5:00 AM	243	93	336	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	243	93	336
6:00 AM	539	182	721	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	539	182	721
7:00 AM	1,337	533	1,870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,337	533	1,870
8:00 AM	1,458	808	2,266	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,458	808	2,266
9:00 AM	1,163	806	1,969	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,163	806	1,969
10:00 AM	1,136	895	2,031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,136	895	2,031
11:00 AM	974	995	1,969	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	974	995	1,969
12:00 PM	967	1,053	2,020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	967	1,053	2,020
1:00 PM	965	1,119	2,084	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	965	1,119	2,084
2:00 PM	863	1,245	2,108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	863	1,245	2,108
3:00 PM	902	1,562	2,464	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	902	1,562	2,464
4:00 PM	916	1,745	2,661	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	916	1,745	2,661
5:00 PM	947	1,758	2,705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	947	1,758	2,705
6:00 PM	799	1,515	2,314	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	799	1,515	2,314
7:00 PM	633	1,047	1,680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	633	1,047	1,680
8:00 PM	422	866	1,288	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	422	866	1,288
9:00 PM	340	600	940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	340	600	940
10:00 PM	209	341	550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	209	341	550
11:00 PM	108	182	290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	108	182	290
Total	15,166	17,578	32,744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,166	17,578	32,744
Percent	46%	54%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46%	54%	-

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary



Location: FAIR OAKS LN btwn MC CORMICK LN/VIRGINIA LN

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 07

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Northbound	20	1,817	412	0	121	22	0	2	0	0	0	0	0	2,394
Percent	0.8%	75.9%	17.2%	0.0%	5.1%	0.9%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	27	2,331	420	1	109	21	0	0	2	0	0	0	0	2,911
Percent	0.9%	80.1%	14.4%	0.0%	3.7%	0.7%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	100%
Total	47	4,148	832	1	230	43	0	2	2	0	0	0	0	5,305
Percent	0.9%	78.2%	15.7%	0.0%	4.3%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification

Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: FAIR OAKS LN btwn MC CORMICK LN/VIRGINIA LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 07



Tuesday, March 27, 2018
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	10	0	0	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	16	1	0	1	0	0	0	0	0	0	0	0	18
6:00 AM	0	45	6	0	1	1	0	0	0	0	0	0	0	53
7:00 AM	1	101	9	0	4	1	0	0	0	0	0	0	0	116
8:00 AM	2	162	20	0	3	3	0	1	0	0	0	0	0	191
9:00 AM	2	153	29	0	9	0	0	0	0	0	0	0	0	193
10:00 AM	1	102	31	0	8	3	0	0	0	0	0	0	0	145
11:00 AM	0	108	28	0	15	4	0	0	0	0	0	0	0	155
12:00 PM	3	135	29	0	12	4	0	0	0	0	0	0	0	183
1:00 PM	2	96	31	0	10	4	0	0	0	0	0	0	0	143
2:00 PM	1	118	43	0	21	2	0	0	0	0	0	0	0	185
3:00 PM	0	193	60	0	16	0	0	0	0	0	0	0	0	269
4:00 PM	2	115	50	0	11	0	0	0	0	0	0	0	0	178
5:00 PM	1	131	31	0	6	0	0	0	0	0	0	0	0	169
6:00 PM	2	108	17	0	0	0	0	1	0	0	0	0	0	128
7:00 PM	2	91	11	0	1	0	0	0	0	0	0	0	0	105
8:00 PM	0	64	6	0	3	0	0	0	0	0	0	0	0	73
9:00 PM	0	47	4	0	0	0	0	0	0	0	0	0	0	51
10:00 PM	0	12	2	0	0	0	0	0	0	0	0	0	0	14
11:00 PM	1	7	0	0	0	0	0	0	0	0	0	0	0	8
Total	20	1,817	412	0	121	22	0	2	0	0	0	0	0	2,394
Percent	0.8%	75.9%	17.2%	0.0%	5.1%	0.9%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: FAIR OAKS LN btwn MC CORMICK LN/VIRGINIA LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 07



Tuesday, March 27, 2018
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	6	0	0	0	0	0	0	0	0	0	0	0	6
1:00 AM	0	4	1	0	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	2	1	0	0	0	0	0	1	0	0	0	0	4
5:00 AM	0	22	2	0	1	0	0	0	0	0	0	0	0	25
6:00 AM	1	84	23	0	3	2	0	0	0	0	0	0	0	113
7:00 AM	1	210	71	0	15	0	0	0	0	0	0	0	0	297
8:00 AM	0	225	61	0	11	2	0	0	0	0	0	0	0	299
9:00 AM	1	124	29	0	13	0	0	0	0	0	0	0	0	167
10:00 AM	1	120	31	1	17	4	0	0	0	0	0	0	0	174
11:00 AM	2	114	29	0	9	5	0	0	1	0	0	0	0	160
12:00 PM	1	116	23	0	7	2	0	0	0	0	0	0	0	149
1:00 PM	1	119	31	0	5	3	0	0	0	0	0	0	0	159
2:00 PM	2	136	31	0	6	3	0	0	0	0	0	0	0	178
3:00 PM	2	146	25	0	6	0	0	0	0	0	0	0	0	179
4:00 PM	1	224	14	0	9	0	0	0	0	0	0	0	0	248
5:00 PM	4	218	20	0	2	0	0	0	0	0	0	0	0	244
6:00 PM	5	180	8	0	1	0	0	0	0	0	0	0	0	194
7:00 PM	2	125	5	0	1	0	0	0	0	0	0	0	0	133
8:00 PM	1	65	7	0	0	0	0	0	0	0	0	0	0	73
9:00 PM	1	37	4	0	1	0	0	0	0	0	0	0	0	43
10:00 PM	0	35	2	0	2	0	0	0	0	0	0	0	0	39
11:00 PM	1	15	1	0	0	0	0	0	0	0	0	0	0	17
Total	27	2,331	420	1	109	21	0	0	2	0	0	0	0	2,911
Percent	0.9%	80.1%	14.4%	0.0%	3.7%	0.7%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Location: FAIR OAKS LN btwn MC CORMICK LN/VIRGINIA LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 07

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	10	0	0	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	16	1	0	1	0	0	0	0	0	0	0	0	18
6:00 AM	0	45	6	0	1	1	0	0	0	0	0	0	0	53
7:00 AM	1	101	9	0	4	1	0	0	0	0	0	0	0	116
8:00 AM	2	162	20	0	3	3	0	1	0	0	0	0	0	191
9:00 AM	2	153	29	0	9	0	0	0	0	0	0	0	0	193
10:00 AM	1	102	31	0	8	3	0	0	0	0	0	0	0	145
11:00 AM	0	108	28	0	15	4	0	0	0	0	0	0	0	155
12:00 PM	3	135	29	0	12	4	0	0	0	0	0	0	0	183
1:00 PM	2	96	31	0	10	4	0	0	0	0	0	0	0	143
2:00 PM	1	118	43	0	21	2	0	0	0	0	0	0	0	185
3:00 PM	0	193	60	0	16	0	0	0	0	0	0	0	0	269
4:00 PM	2	115	50	0	11	0	0	0	0	0	0	0	0	178
5:00 PM	1	131	31	0	6	0	0	0	0	0	0	0	0	169
6:00 PM	2	108	17	0	0	0	0	1	0	0	0	0	0	128
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	64	6	0	3	0	0	0	0	0	0	0	0	73
9:00 PM	0	47	4	0	0	0	0	0	0	0	0	0	0	51
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	1	7	0	0	0	0	0	0	0	0	0	0	0	8
Total	18	1,714	399	0	120	22	0	2	0	0	0	0	0	2,275
Percent	0.8%	75.3%	17.5%	0.0%	5.3%	1.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: FAIR OAKS LN btwn MC CORMICK LN/VIRGINIA LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 07



Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	6	0	0	0	0	0	0	0	0	0	0	0	6
1:00 AM	0	4	1	0	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	2	1	0	0	0	0	0	1	0	0	0	0	4
5:00 AM	0	22	2	0	1	0	0	0	0	0	0	0	0	25
6:00 AM	1	84	23	0	3	2	0	0	0	0	0	0	0	113
7:00 AM	1	210	71	0	15	0	0	0	0	0	0	0	0	297
8:00 AM	0	225	61	0	11	2	0	0	0	0	0	0	0	299
9:00 AM	1	124	29	0	13	0	0	0	0	0	0	0	0	167
10:00 AM	1	120	31	1	17	4	0	0	0	0	0	0	0	174
11:00 AM	2	114	29	0	9	5	0	0	1	0	0	0	0	160
12:00 PM	1	116	23	0	7	2	0	0	0	0	0	0	0	149
1:00 PM	1	119	31	0	5	3	0	0	0	0	0	0	0	159
2:00 PM	2	136	31	0	6	3	0	0	0	0	0	0	0	178
3:00 PM	2	146	25	0	6	0	0	0	0	0	0	0	0	179
4:00 PM	1	224	14	0	9	0	0	0	0	0	0	0	0	248
5:00 PM	4	218	20	0	2	0	0	0	0	0	0	0	0	244
6:00 PM	5	180	8	0	1	0	0	0	0	0	0	0	0	194
7:00 PM	2	125	5	0	1	0	0	0	0	0	0	0	0	133
8:00 PM	1	65	7	0	0	0	0	0	0	0	0	0	0	73
9:00 PM	1	37	4	0	1	0	0	0	0	0	0	0	0	43
10:00 PM	0	35	2	0	2	0	0	0	0	0	0	0	0	39
11:00 PM	1	15	1	0	0	0	0	0	0	0	0	0	0	17
Total	27	2,331	420	1	109	21	0	0	2	0	0	0	0	2,911
Percent	0.9%	80.1%	14.4%	0.0%	3.7%	0.7%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: FAIR OAKS LN btwn MC CORMICK LN/VIRGINIA LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 07

3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	10	0	0	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	16	1	0	1	0	0	0	0	0	0	0	0	18
6:00 AM	0	45	6	0	1	1	0	0	0	0	0	0	0	53
7:00 AM	1	101	9	0	4	1	0	0	0	0	0	0	0	116
8:00 AM	2	162	20	0	3	3	0	1	0	0	0	0	0	191
9:00 AM	2	153	29	0	9	0	0	0	0	0	0	0	0	193
10:00 AM	1	102	31	0	8	3	0	0	0	0	0	0	0	145
11:00 AM	0	108	28	0	15	4	0	0	0	0	0	0	0	155
12:00 PM	3	135	29	0	12	4	0	0	0	0	0	0	0	183
1:00 PM	2	96	31	0	10	4	0	0	0	0	0	0	0	143
2:00 PM	1	118	43	0	21	2	0	0	0	0	0	0	0	185
3:00 PM	0	193	60	0	16	0	0	0	0	0	0	0	0	269
4:00 PM	2	115	50	0	11	0	0	0	0	0	0	0	0	178
5:00 PM	1	131	31	0	6	0	0	0	0	0	0	0	0	169
6:00 PM	2	108	17	0	0	0	0	1	0	0	0	0	0	128
7:00 PM	2	91	11	0	1	0	0	0	0	0	0	0	0	105
8:00 PM	0	64	6	0	3	0	0	0	0	0	0	0	0	73
9:00 PM	0	47	4	0	0	0	0	0	0	0	0	0	0	51
10:00 PM	0	12	2	0	0	0	0	0	0	0	0	0	0	14
11:00 PM	1	7	0	0	0	0	0	0	0	0	0	0	0	8
Total	20	1,817	412	0	121	22	0	2	0	0	0	0	0	2,394
Percent	0.8%	75.9%	17.2%	0.0%	5.1%	0.9%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: FAIR OAKS LN btwn MC CORMICK LN/VIRGINIA LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 07

3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	6	0	0	0	0	0	0	0	0	0	0	0	6
1:00 AM	0	4	1	0	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	2	1	0	0	0	0	0	1	0	0	0	0	4
5:00 AM	0	22	2	0	1	0	0	0	0	0	0	0	0	25
6:00 AM	1	84	23	0	3	2	0	0	0	0	0	0	0	113
7:00 AM	1	210	71	0	15	0	0	0	0	0	0	0	0	297
8:00 AM	0	225	61	0	11	2	0	0	0	0	0	0	0	299
9:00 AM	1	124	29	0	13	0	0	0	0	0	0	0	0	167
10:00 AM	1	120	31	1	17	4	0	0	0	0	0	0	0	174
11:00 AM	2	114	29	0	9	5	0	0	1	0	0	0	0	160
12:00 PM	1	116	23	0	7	2	0	0	0	0	0	0	0	149
1:00 PM	1	119	31	0	5	3	0	0	0	0	0	0	0	159
2:00 PM	2	136	31	0	6	3	0	0	0	0	0	0	0	178
3:00 PM	2	146	25	0	6	0	0	0	0	0	0	0	0	179
4:00 PM	1	224	14	0	9	0	0	0	0	0	0	0	0	248
5:00 PM	4	218	20	0	2	0	0	0	0	0	0	0	0	244
6:00 PM	5	180	8	0	1	0	0	0	0	0	0	0	0	194
7:00 PM	2	125	5	0	1	0	0	0	0	0	0	0	0	133
8:00 PM	1	65	7	0	0	0	0	0	0	0	0	0	0	73
9:00 PM	1	37	4	0	1	0	0	0	0	0	0	0	0	43
10:00 PM	0	35	2	0	2	0	0	0	0	0	0	0	0	39
11:00 PM	1	15	1	0	0	0	0	0	0	0	0	0	0	17
Total	27	2,331	420	1	109	21	0	0	2	0	0	0	0	2,911
Percent	0.9%	80.1%	14.4%	0.0%	3.7%	0.7%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Vehicle Speed Report Summary

Location: FAIR OAKS LN btwn MC CORMICK LN/VIRGINIA LN

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 07

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Northbound	1	6	41	248	1,262	739	88	4	2	0	0	3	0	0	0	0	0	2,394
Percent	0.0%	0.3%	1.7%	10.4%	52.7%	30.9%	3.7%	0.2%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	4	15	41	473	1,636	682	54	4	2	0	0	0	0	0	0	0	0	2,911
Percent	0.1%	0.5%	1.4%	16.2%	56.2%	23.4%	1.9%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	5	21	82	721	2,898	1,421	142	8	4	0	0	3	0	0	0	0	0	5,305
Percent	0.1%	0.4%	1.5%	13.6%	54.6%	26.8%	2.7%	0.2%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Northbound				Northbound			
50th Percentile (Median)	28.7	mph		Mean (Average) Speed	28.8	mph	
85th Percentile	32.1	mph		10 mph Pace	24.0 - 34.0	mph	
95th Percentile	34.6	mph		Percent in Pace	85.5	%	
Southbound				Southbound			
50th Percentile (Median)	27.7	mph		Mean (Average) Speed	27.9	mph	
85th Percentile	31.2	mph		10 mph Pace	22.9 - 32.9	mph	
95th Percentile	33.5	mph		Percent in Pace	85.3	%	

Location: FAIR OAKS LN btwn MC CORMICK LN/VIRGINIA LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 07

Tuesday, March 27, 2018
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	5	4	0	0	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	0	0	0	2	11	5	0	0	0	0	0	0	0	0	0	0	18
6:00 AM	0	0	0	4	19	24	6	0	0	0	0	0	0	0	0	0	0	53
7:00 AM	0	1	2	5	51	49	8	0	0	0	0	0	0	0	0	0	0	116
8:00 AM	0	1	6	20	111	48	5	0	0	0	0	0	0	0	0	0	0	191
9:00 AM	0	1	3	21	79	82	6	1	0	0	0	0	0	0	0	0	0	193
10:00 AM	0	0	4	20	84	36	1	0	0	0	0	0	0	0	0	0	0	145
11:00 AM	1	2	2	22	87	39	2	0	0	0	0	0	0	0	0	0	0	155
12:00 PM	0	1	2	20	93	54	13	0	0	0	0	0	0	0	0	0	0	183
1:00 PM	0	0	2	16	77	45	3	0	0	0	0	0	0	0	0	0	0	143
2:00 PM	0	0	4	27	109	40	5	0	0	0	0	0	0	0	0	0	0	185
3:00 PM	0	0	0	15	140	104	7	2	1	0	0	0	0	0	0	0	0	269
4:00 PM	0	0	6	17	97	51	7	0	0	0	0	0	0	0	0	0	0	178
5:00 PM	0	0	1	10	105	49	3	0	1	0	0	0	0	0	0	0	0	169
6:00 PM	0	0	5	16	54	46	7	0	0	0	0	0	0	0	0	0	0	128
7:00 PM	0	0	1	9	69	22	3	1	0	0	0	0	0	0	0	0	0	105
8:00 PM	0	0	2	13	38	14	3	0	0	0	0	3	0	0	0	0	0	73
9:00 PM	0	0	1	5	33	11	1	0	0	0	0	0	0	0	0	0	0	51
10:00 PM	0	0	0	4	6	2	2	0	0	0	0	0	0	0	0	0	0	14
11:00 PM	0	0	0	0	1	6	1	0	0	0	0	0	0	0	0	0	0	8
Total	1	6	41	248	1,262	739	88	4	2	0	0	3	0	0	0	0	0	2,394
Percent	0.0%	0.3%	1.7%	10.4%	52.7%	30.9%	3.7%	0.2%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	28.7	mph	Mean (Average) Speed	28.8	mph
85th Percentile	32.1	mph	10 mph Pace	24.0 - 34.0	mph
95th Percentile	34.6	mph	Percent in Pace	85.5	%

Location: FAIR OAKS LN btwn MC CORMICK LN/VIRGINIA LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 07

Tuesday, March 27, 2018
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	1	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	6
1:00 AM	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	0	0	0	5	13	6	0	1	0	0	0	0	0	0	0	0	0	25
6:00 AM	0	0	1	22	57	30	2	1	0	0	0	0	0	0	0	0	0	113
7:00 AM	0	0	3	66	178	46	3	0	1	0	0	0	0	0	0	0	0	297
8:00 AM	0	0	0	62	165	69	3	0	0	0	0	0	0	0	0	0	0	299
9:00 AM	0	0	3	29	104	29	1	1	0	0	0	0	0	0	0	0	0	167
10:00 AM	0	1	2	21	105	41	4	0	0	0	0	0	0	0	0	0	0	174
11:00 AM	2	3	8	28	79	35	5	0	0	0	0	0	0	0	0	0	0	160
12:00 PM	0	1	1	16	98	32	1	0	0	0	0	0	0	0	0	0	0	149
1:00 PM	0	0	2	27	90	38	2	0	0	0	0	0	0	0	0	0	0	159
2:00 PM	0	0	6	20	102	45	5	0	0	0	0	0	0	0	0	0	0	178
3:00 PM	0	2	3	40	102	29	3	0	0	0	0	0	0	0	0	0	0	179
4:00 PM	0	1	1	26	134	82	4	0	0	0	0	0	0	0	0	0	0	248
5:00 PM	1	1	4	20	143	73	2	0	0	0	0	0	0	0	0	0	0	244
6:00 PM	0	3	0	31	92	57	11	0	0	0	0	0	0	0	0	0	0	194
7:00 PM	1	0	3	20	73	32	2	1	1	0	0	0	0	0	0	0	0	133
8:00 PM	0	2	1	23	37	8	2	0	0	0	0	0	0	0	0	0	0	73
9:00 PM	0	0	1	6	25	10	1	0	0	0	0	0	0	0	0	0	0	43
10:00 PM	0	0	1	6	21	9	2	0	0	0	0	0	0	0	0	0	0	39
11:00 PM	0	0	1	1	7	7	1	0	0	0	0	0	0	0	0	0	0	17
Total	4	15	41	473	1,636	682	54	4	2	0	0	0	0	0	0	0	0	2,911
Percent	0.1%	0.5%	1.4%	16.2%	56.2%	23.4%	1.9%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	27.7	mph	Mean (Average) Speed	27.9	mph
85th Percentile	31.2	mph	10 mph Pace	22.9 - 32.9	mph
95th Percentile	33.5	mph	Percent in Pace	85.3	%

Location: FAIR OAKS LN btwn MC CORMICK LN/VIRGINIA LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 07

Total Study Average
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	5	4	0	0	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	0	0	0	2	11	5	0	0	0	0	0	0	0	0	0	0	18
6:00 AM	0	0	0	4	19	24	6	0	0	0	0	0	0	0	0	0	0	53
7:00 AM	0	1	2	5	51	49	8	0	0	0	0	0	0	0	0	0	0	116
8:00 AM	0	1	6	20	111	48	5	0	0	0	0	0	0	0	0	0	0	191
9:00 AM	0	1	3	21	79	82	6	1	0	0	0	0	0	0	0	0	0	193
10:00 AM	0	0	4	20	84	36	1	0	0	0	0	0	0	0	0	0	0	145
11:00 AM	1	2	2	22	87	39	2	0	0	0	0	0	0	0	0	0	0	155
12:00 PM	0	1	2	20	93	54	13	0	0	0	0	0	0	0	0	0	0	183
1:00 PM	0	0	2	16	77	45	3	0	0	0	0	0	0	0	0	0	0	143
2:00 PM	0	0	4	27	109	40	5	0	0	0	0	0	0	0	0	0	0	185
3:00 PM	0	0	0	15	140	104	7	2	1	0	0	0	0	0	0	0	0	269
4:00 PM	0	0	6	17	97	51	7	0	0	0	0	0	0	0	0	0	0	178
5:00 PM	0	0	1	10	105	49	3	0	1	0	0	0	0	0	0	0	0	169
6:00 PM	0	0	5	16	54	46	7	0	0	0	0	0	0	0	0	0	0	128
7:00 PM	0	0	1	9	69	22	3	1	0	0	0	0	0	0	0	0	0	105
8:00 PM	0	0	2	13	38	14	3	0	0	0	0	3	0	0	0	0	0	73
9:00 PM	0	0	1	5	33	11	1	0	0	0	0	0	0	0	0	0	0	51
10:00 PM	0	0	0	4	6	2	2	0	0	0	0	0	0	0	0	0	0	14
11:00 PM	0	0	0	0	1	6	1	0	0	0	0	0	0	0	0	0	0	8
Total	1	6	41	248	1,262	739	88	4	2	0	0	3	0	0	0	0	0	2,394
Percent	0.0%	0.3%	1.7%	10.4%	52.7%	30.9%	3.7%	0.2%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	28.7	mph	Mean (Average) Speed	28.8	mph
85th Percentile	32.1	mph	10 mph Pace	24.0 - 34.0	mph
95th Percentile	34.6	mph	Percent in Pace	85.5	%

Location: FAIR OAKS LN btwn MC CORMICK LN/VIRGINIA LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 07

Total Study Average
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	1	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	6
1:00 AM	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	0	0	0	5	13	6	0	1	0	0	0	0	0	0	0	0	0	25
6:00 AM	0	0	1	22	57	30	2	1	0	0	0	0	0	0	0	0	0	113
7:00 AM	0	0	3	66	178	46	3	0	1	0	0	0	0	0	0	0	0	297
8:00 AM	0	0	0	62	165	69	3	0	0	0	0	0	0	0	0	0	0	299
9:00 AM	0	0	3	29	104	29	1	1	0	0	0	0	0	0	0	0	0	167
10:00 AM	0	1	2	21	105	41	4	0	0	0	0	0	0	0	0	0	0	174
11:00 AM	2	3	8	28	79	35	5	0	0	0	0	0	0	0	0	0	0	160
12:00 PM	0	1	1	16	98	32	1	0	0	0	0	0	0	0	0	0	0	149
1:00 PM	0	0	2	27	90	38	2	0	0	0	0	0	0	0	0	0	0	159
2:00 PM	0	0	6	20	102	45	5	0	0	0	0	0	0	0	0	0	0	178
3:00 PM	0	2	3	40	102	29	3	0	0	0	0	0	0	0	0	0	0	179
4:00 PM	0	1	1	26	134	82	4	0	0	0	0	0	0	0	0	0	0	248
5:00 PM	1	1	4	20	143	73	2	0	0	0	0	0	0	0	0	0	0	244
6:00 PM	0	3	0	31	92	57	11	0	0	0	0	0	0	0	0	0	0	194
7:00 PM	1	0	3	20	73	32	2	1	1	0	0	0	0	0	0	0	0	133
8:00 PM	0	2	1	23	37	8	2	0	0	0	0	0	0	0	0	0	0	73
9:00 PM	0	0	1	6	25	10	1	0	0	0	0	0	0	0	0	0	0	43
10:00 PM	0	0	1	6	21	9	2	0	0	0	0	0	0	0	0	0	0	39
11:00 PM	0	0	1	1	7	7	1	0	0	0	0	0	0	0	0	0	0	17
Total	4	15	41	473	1,636	682	54	4	2	0	0	0	0	0	0	0	0	2,911
Percent	0.1%	0.5%	1.4%	16.2%	56.2%	23.4%	1.9%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	27.7	mph	Mean (Average) Speed	27.9	mph
85th Percentile	31.2	mph	10 mph Pace	22.9 - 32.9	mph
95th Percentile	33.5	mph	Percent in Pace	85.3	%

Location: FAIR OAKS LN btwn MC CORMICK LN/VIRGINIA LN
 Date Range: 3/27/2018 - 4/2/2018
 Site Code: 07

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	3/27/2018			3/28/2018			3/29/2018			3/30/2018			3/31/2018			4/1/2018			4/2/2018					
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	10	6	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	6	16
1:00 AM	2	5	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	5	7
2:00 AM	0	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	2	2
3:00 AM	2	3	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	5
4:00 AM	3	4	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4	7
5:00 AM	18	25	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	25	43
6:00 AM	53	113	166	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53	113	166
7:00 AM	116	297	413	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	116	297	413
8:00 AM	191	299	490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	191	299	490
9:00 AM	193	167	360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	193	167	360
10:00 AM	145	174	319	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	145	174	319
11:00 AM	155	160	315	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	155	160	315
12:00 PM	183	149	332	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	183	149	332
1:00 PM	143	159	302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	143	159	302
2:00 PM	185	178	363	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	185	178	363
3:00 PM	269	179	448	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	269	179	448
4:00 PM	178	248	426	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	178	248	426
5:00 PM	169	244	413	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	169	244	413
6:00 PM	128	194	322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	128	194	322
7:00 PM	105	133	238	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	105	133	238
8:00 PM	73	73	146	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73	73	146
9:00 PM	51	43	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51	43	94
10:00 PM	14	39	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	39	53
11:00 PM	8	17	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	17	25
Total	2,394	2,911	5,305	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,394	2,911	5,305
Percent	45%	55%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45%	55%	-

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary

Location: MARSH RD btwn MIDDLEFIELD RD/FAIR OAKS LN

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 08

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Northbound	28	9,393	1,274	5	381	40	0	1	2	1	0	0	1	11,126
Percent	0.3%	84.4%	11.5%	0.0%	3.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	64	8,940	1,314	3	381	265	0	4	16	23	0	0	30	11,040
Percent	0.6%	81.0%	11.9%	0.0%	3.5%	2.4%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.3%	100%
Total	92	18,333	2,588	8	762	305	0	5	18	24	0	0	31	22,166
Percent	0.4%	82.7%	11.7%	0.0%	3.4%	1.4%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: MARSH RD btwn MIDDLEFIELD RD/FAIR OAKS LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 08



Tuesday, March 27, 2018
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	48	2	0	1	0	0	0	0	0	0	0	0	51
1:00 AM	0	30	4	0	0	0	0	0	0	0	0	0	0	34
2:00 AM	0	15	2	0	0	0	0	0	0	0	0	0	0	17
3:00 AM	0	17	2	0	0	0	0	0	0	0	0	0	0	19
4:00 AM	0	32	12	0	4	0	0	0	0	0	0	0	0	48
5:00 AM	0	117	20	0	4	0	0	1	0	0	0	0	0	142
6:00 AM	1	237	39	0	11	1	0	0	0	0	0	0	0	289
7:00 AM	0	430	34	0	12	1	0	0	0	0	0	0	0	477
8:00 AM	2	704	55	1	17	4	0	0	0	1	0	0	0	784
9:00 AM	3	636	68	1	18	0	0	0	0	0	0	0	0	726
10:00 AM	1	512	77	2	23	5	0	0	0	0	0	0	0	620
11:00 AM	1	568	90	0	49	6	0	0	1	0	0	0	1	716
12:00 PM	2	557	91	1	27	7	0	0	0	0	0	0	0	685
1:00 PM	3	457	77	0	35	5	0	0	0	0	0	0	0	577
2:00 PM	2	632	120	0	61	5	0	0	0	0	0	0	0	820
3:00 PM	2	778	151	0	39	0	0	0	0	0	0	0	0	970
4:00 PM	2	603	116	0	22	3	0	0	0	0	0	0	0	746
5:00 PM	1	578	65	0	22	1	0	0	1	0	0	0	0	668
6:00 PM	1	741	72	0	12	0	0	0	0	0	0	0	0	826
7:00 PM	5	575	68	0	12	0	0	0	0	0	0	0	0	660
8:00 PM	1	441	43	0	5	2	0	0	0	0	0	0	0	492
9:00 PM	0	383	40	0	3	0	0	0	0	0	0	0	0	426
10:00 PM	1	221	16	0	1	0	0	0	0	0	0	0	0	239
11:00 PM	0	81	10	0	3	0	0	0	0	0	0	0	0	94
Total	28	9,393	1,274	5	381	40	0	1	2	1	0	0	1	11,126
Percent	0.3%	84.4%	11.5%	0.0%	3.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: MARSH RD btwn MIDDLEFIELD RD/FAIR OAKS LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 08



Tuesday, March 27, 2018
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	44	4	0	1	1	0	0	0	0	0	0	0	50
1:00 AM	0	6	8	0	0	0	0	0	0	0	0	0	0	14
2:00 AM	0	10	2	0	0	0	0	0	0	0	0	0	0	12
3:00 AM	0	18	5	0	2	0	0	0	0	0	0	0	1	26
4:00 AM	0	36	9	0	4	1	0	0	0	0	0	0	1	51
5:00 AM	0	127	21	0	12	1	0	0	0	0	0	0	0	161
6:00 AM	0	330	101	0	30	8	0	0	1	0	0	0	0	470
7:00 AM	8	580	136	0	45	12	0	0	2	0	0	0	6	789
8:00 AM	5	523	105	0	30	11	0	0	1	5	0	0	7	687
9:00 AM	5	524	94	0	32	6	0	1	0	0	0	0	1	663
10:00 AM	5	580	116	0	15	32	0	2	4	4	0	0	8	766
11:00 AM	2	543	98	0	35	37	0	0	0	2	0	0	1	718
12:00 PM	4	441	55	2	24	46	0	0	0	2	0	0	1	575
1:00 PM	4	405	39	0	14	51	0	0	1	2	0	0	2	518
2:00 PM	3	524	64	0	31	30	0	0	3	4	0	0	0	659
3:00 PM	3	619	81	1	33	1	0	0	0	2	0	0	0	740
4:00 PM	3	716	82	0	28	9	0	0	1	0	0	0	0	839
5:00 PM	13	758	87	0	11	12	0	1	2	1	0	0	2	887
6:00 PM	3	666	62	0	11	4	0	0	1	1	0	0	0	748
7:00 PM	2	553	60	0	10	1	0	0	0	0	0	0	0	626
8:00 PM	1	333	32	0	6	2	0	0	0	0	0	0	0	374
9:00 PM	3	273	20	0	3	0	0	0	0	0	0	0	0	299
10:00 PM	0	229	18	0	3	0	0	0	0	0	0	0	0	250
11:00 PM	0	102	15	0	1	0	0	0	0	0	0	0	0	118
Total	64	8,940	1,314	3	381	265	0	4	16	23	0	0	30	11,040
Percent	0.6%	81.0%	11.9%	0.0%	3.5%	2.4%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.3%	

Location: MARSH RD btwn MIDDLEFIELD RD/FAIR OAKS LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 08



Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	48	2	0	1	0	0	0	0	0	0	0	0	51
1:00 AM	0	30	4	0	0	0	0	0	0	0	0	0	0	34
2:00 AM	0	15	2	0	0	0	0	0	0	0	0	0	0	17
3:00 AM	0	17	2	0	0	0	0	0	0	0	0	0	0	19
4:00 AM	0	32	12	0	4	0	0	0	0	0	0	0	0	48
5:00 AM	0	117	20	0	4	0	0	1	0	0	0	0	0	142
6:00 AM	1	237	39	0	11	1	0	0	0	0	0	0	0	289
7:00 AM	0	430	34	0	12	1	0	0	0	0	0	0	0	477
8:00 AM	2	704	55	1	17	4	0	0	0	1	0	0	0	784
9:00 AM	3	636	68	1	18	0	0	0	0	0	0	0	0	726
10:00 AM	1	512	77	2	23	5	0	0	0	0	0	0	0	620
11:00 AM	1	568	90	0	49	6	0	0	1	0	0	0	1	716
12:00 PM	2	557	91	1	27	7	0	0	0	0	0	0	0	685
1:00 PM	3	457	77	0	35	5	0	0	0	0	0	0	0	577
2:00 PM	2	632	120	0	61	5	0	0	0	0	0	0	0	820
3:00 PM	2	778	151	0	39	0	0	0	0	0	0	0	0	970
4:00 PM	2	603	116	0	22	3	0	0	0	0	0	0	0	746
5:00 PM	1	578	65	0	22	1	0	0	1	0	0	0	0	668
6:00 PM	1	741	72	0	12	0	0	0	0	0	0	0	0	826
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	1	441	43	0	5	2	0	0	0	0	0	0	0	492
9:00 PM	0	383	40	0	3	0	0	0	0	0	0	0	0	426
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	81	10	0	3	0	0	0	0	0	0	0	0	94
Total	22	8,597	1,190	5	368	40	0	1	2	1	0	0	1	10,227
Percent	0.2%	84.1%	11.6%	0.0%	3.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: MARSH RD btwn MIDDLEFIELD RD/FAIR OAKS LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 08



Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	44	4	0	1	1	0	0	0	0	0	0	0	50
1:00 AM	0	6	8	0	0	0	0	0	0	0	0	0	0	14
2:00 AM	0	10	2	0	0	0	0	0	0	0	0	0	0	12
3:00 AM	0	18	5	0	2	0	0	0	0	0	0	0	1	26
4:00 AM	0	36	9	0	4	1	0	0	0	0	0	0	1	51
5:00 AM	0	127	21	0	12	1	0	0	0	0	0	0	0	161
6:00 AM	0	330	101	0	30	8	0	0	1	0	0	0	0	470
7:00 AM	8	580	136	0	45	12	0	0	2	0	0	0	6	789
8:00 AM	5	523	105	0	30	11	0	0	1	5	0	0	7	687
9:00 AM	5	524	94	0	32	6	0	1	0	0	0	0	1	663
10:00 AM	5	580	116	0	15	32	0	2	4	4	0	0	8	766
11:00 AM	2	543	98	0	35	37	0	0	0	2	0	0	1	718
12:00 PM	4	441	55	2	24	46	0	0	0	2	0	0	1	575
1:00 PM	4	405	39	0	14	51	0	0	1	2	0	0	2	518
2:00 PM	3	524	64	0	31	30	0	0	3	4	0	0	0	659
3:00 PM	3	619	81	1	33	1	0	0	0	2	0	0	0	740
4:00 PM	3	716	82	0	28	9	0	0	1	0	0	0	0	839
5:00 PM	13	758	87	0	11	12	0	1	2	1	0	0	2	887
6:00 PM	3	666	62	0	11	4	0	0	1	1	0	0	0	748
7:00 PM	2	553	60	0	10	1	0	0	0	0	0	0	0	626
8:00 PM	1	333	32	0	6	2	0	0	0	0	0	0	0	374
9:00 PM	3	273	20	0	3	0	0	0	0	0	0	0	0	299
10:00 PM	0	229	18	0	3	0	0	0	0	0	0	0	0	250
11:00 PM	0	102	15	0	1	0	0	0	0	0	0	0	0	118
Total	64	8,940	1,314	3	381	265	0	4	16	23	0	0	30	11,040
Percent	0.6%	81.0%	11.9%	0.0%	3.5%	2.4%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.3%	

Note: Average only considered on days with 24-hours of data.

Location: MARSH RD btwn MIDDLEFIELD RD/FAIR OAKS LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 08



**3-Day (Tuesday - Thursday) Average
Northbound**

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	48	2	0	1	0	0	0	0	0	0	0	0	51
1:00 AM	0	30	4	0	0	0	0	0	0	0	0	0	0	34
2:00 AM	0	15	2	0	0	0	0	0	0	0	0	0	0	17
3:00 AM	0	17	2	0	0	0	0	0	0	0	0	0	0	19
4:00 AM	0	32	12	0	4	0	0	0	0	0	0	0	0	48
5:00 AM	0	117	20	0	4	0	0	1	0	0	0	0	0	142
6:00 AM	1	237	39	0	11	1	0	0	0	0	0	0	0	289
7:00 AM	0	430	34	0	12	1	0	0	0	0	0	0	0	477
8:00 AM	2	704	55	1	17	4	0	0	0	1	0	0	0	784
9:00 AM	3	636	68	1	18	0	0	0	0	0	0	0	0	726
10:00 AM	1	512	77	2	23	5	0	0	0	0	0	0	0	620
11:00 AM	1	568	90	0	49	6	0	0	1	0	0	0	1	716
12:00 PM	2	557	91	1	27	7	0	0	0	0	0	0	0	685
1:00 PM	3	457	77	0	35	5	0	0	0	0	0	0	0	577
2:00 PM	2	632	120	0	61	5	0	0	0	0	0	0	0	820
3:00 PM	2	778	151	0	39	0	0	0	0	0	0	0	0	970
4:00 PM	2	603	116	0	22	3	0	0	0	0	0	0	0	746
5:00 PM	1	578	65	0	22	1	0	0	1	0	0	0	0	668
6:00 PM	1	741	72	0	12	0	0	0	0	0	0	0	0	826
7:00 PM	5	575	68	0	12	0	0	0	0	0	0	0	0	660
8:00 PM	1	441	43	0	5	2	0	0	0	0	0	0	0	492
9:00 PM	0	383	40	0	3	0	0	0	0	0	0	0	0	426
10:00 PM	1	221	16	0	1	0	0	0	0	0	0	0	0	239
11:00 PM	0	81	10	0	3	0	0	0	0	0	0	0	0	94
Total	28	9,393	1,274	5	381	40	0	1	2	1	0	0	1	11,126
Percent	0.3%	84.4%	11.5%	0.0%	3.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: MARSH RD btwn MIDDLEFIELD RD/FAIR OAKS LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 08



3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	44	4	0	1	1	0	0	0	0	0	0	0	50
1:00 AM	0	6	8	0	0	0	0	0	0	0	0	0	0	14
2:00 AM	0	10	2	0	0	0	0	0	0	0	0	0	0	12
3:00 AM	0	18	5	0	2	0	0	0	0	0	0	0	1	26
4:00 AM	0	36	9	0	4	1	0	0	0	0	0	0	1	51
5:00 AM	0	127	21	0	12	1	0	0	0	0	0	0	0	161
6:00 AM	0	330	101	0	30	8	0	0	1	0	0	0	0	470
7:00 AM	8	580	136	0	45	12	0	0	2	0	0	0	6	789
8:00 AM	5	523	105	0	30	11	0	0	1	5	0	0	7	687
9:00 AM	5	524	94	0	32	6	0	1	0	0	0	0	1	663
10:00 AM	5	580	116	0	15	32	0	2	4	4	0	0	8	766
11:00 AM	2	543	98	0	35	37	0	0	0	2	0	0	1	718
12:00 PM	4	441	55	2	24	46	0	0	0	2	0	0	1	575
1:00 PM	4	405	39	0	14	51	0	0	1	2	0	0	2	518
2:00 PM	3	524	64	0	31	30	0	0	3	4	0	0	0	659
3:00 PM	3	619	81	1	33	1	0	0	0	2	0	0	0	740
4:00 PM	3	716	82	0	28	9	0	0	1	0	0	0	0	839
5:00 PM	13	758	87	0	11	12	0	1	2	1	0	0	2	887
6:00 PM	3	666	62	0	11	4	0	0	1	1	0	0	0	748
7:00 PM	2	553	60	0	10	1	0	0	0	0	0	0	0	626
8:00 PM	1	333	32	0	6	2	0	0	0	0	0	0	0	374
9:00 PM	3	273	20	0	3	0	0	0	0	0	0	0	0	299
10:00 PM	0	229	18	0	3	0	0	0	0	0	0	0	0	250
11:00 PM	0	102	15	0	1	0	0	0	0	0	0	0	0	118
Total	64	8,940	1,314	3	381	265	0	4	16	23	0	0	30	11,040
Percent	0.6%	81.0%	11.9%	0.0%	3.5%	2.4%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.3%	

Vehicle Speed Report Summary

Location: MARSH RD btwn MIDDLEFIELD RD/FAIR OAKS LN

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 08

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Northbound	15	129	770	634	1,366	4,177	2,974	852	169	28	8	1	2	1	0	0	0	11,126
Percent	0.1%	1.2%	6.9%	5.7%	12.3%	37.5%	26.7%	7.7%	1.5%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	295	871	1,687	1,386	1,995	2,838	1,453	429	63	16	5	0	1	1	0	0	0	11,040
Percent	2.7%	7.9%	15.3%	12.6%	18.1%	25.7%	13.2%	3.9%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	310	1,000	2,457	2,020	3,361	7,015	4,427	1,281	232	44	13	1	3	2	0	0	0	22,166
Percent	1.4%	4.5%	11.1%	9.1%	15.2%	31.6%	20.0%	5.8%	1.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Northbound				Northbound			
50th Percentile (Median)		33.2	mph	Mean (Average) Speed		32.4	mph
85th Percentile		38.4	mph	10 mph Pace		28.9 - 38.9	mph
95th Percentile		42.1	mph	Percent in Pace		65.5	%
Southbound				Southbound			
50th Percentile (Median)		28.5	mph	Mean (Average) Speed		27.0	mph
85th Percentile		35.7	mph	10 mph Pace		26.5 - 36.5	mph
95th Percentile		39.8	mph	Percent in Pace		44.8	%

Location: MARSH RD btwn MIDDLEFIELD RD/FAIR OAKS LN
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 08



Tuesday, March 27, 2018
 Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	2	0	11	13	18	6	0	0	1	0	0	0	0	0	51
1:00 AM	0	0	0	0	3	7	7	8	8	1	0	0	0	0	0	0	0	34
2:00 AM	0	0	0	0	1	2	2	6	3	1	1	0	0	1	0	0	0	17
3:00 AM	0	0	0	1	0	2	5	6	2	2	1	0	0	0	0	0	0	19
4:00 AM	0	0	0	0	4	6	12	16	7	2	1	0	0	0	0	0	0	48
5:00 AM	0	0	0	0	1	10	55	58	14	3	1	0	0	0	0	0	0	142
6:00 AM	0	0	1	0	7	45	147	64	24	1	0	0	0	0	0	0	0	289
7:00 AM	1	0	0	2	21	210	192	45	6	0	0	0	0	0	0	0	0	477
8:00 AM	0	0	1	17	158	399	181	27	1	0	0	0	0	0	0	0	0	784
9:00 AM	0	0	22	18	72	360	218	33	1	2	0	0	0	0	0	0	0	726
10:00 AM	2	6	54	68	158	256	67	9	0	0	0	0	0	0	0	0	0	620
11:00 AM	0	19	127	58	161	257	79	12	2	1	0	0	0	0	0	0	0	716
12:00 PM	0	16	155	112	124	185	76	16	1	0	0	0	0	0	0	0	0	685
1:00 PM	7	57	300	185	28	0	0	0	0	0	0	0	0	0	0	0	0	577
2:00 PM	0	19	90	95	111	293	169	41	2	0	0	0	0	0	0	0	0	820
3:00 PM	1	8	13	31	103	500	250	59	5	0	0	0	0	0	0	0	0	970
4:00 PM	1	0	0	18	136	346	202	32	9	2	0	0	0	0	0	0	0	746
5:00 PM	1	0	0	4	103	299	206	49	6	0	0	0	0	0	0	0	0	668
6:00 PM	2	3	5	16	67	367	292	63	9	2	0	0	0	0	0	0	0	826
7:00 PM	0	0	0	3	44	264	256	82	9	1	1	0	0	0	0	0	0	660
8:00 PM	0	1	2	4	40	157	226	49	11	1	0	0	1	0	0	0	0	492
9:00 PM	0	0	0	0	14	137	187	69	19	0	0	0	0	0	0	0	0	426
10:00 PM	0	0	0	0	9	51	98	55	17	6	2	0	1	0	0	0	0	239
11:00 PM	0	0	0	0	1	13	34	35	7	3	1	0	0	0	0	0	0	94
Total	15	129	770	634	1,366	4,177	2,974	852	169	28	8	1	2	1	0	0	0	11,126
Percent	0.1%	1.2%	6.9%	5.7%	12.3%	37.5%	26.7%	7.7%	1.5%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	33.2	mph	Mean (Average) Speed	32.4	mph
85th Percentile	38.4	mph	10 mph Pace	28.9 - 38.9	mph
95th Percentile	42.1	mph	Percent in Pace	65.5	%

Location: MARSH RD btwn MIDDLEFIELD RD/FAIR OAKS LN
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 08

Tuesday, March 27, 2018
 Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	1	0	2	0	13	21	9	3	1	0	0	0	0	0	0	0	50
1:00 AM	0	0	0	0	2	1	4	6	1	0	0	0	0	0	0	0	0	14
2:00 AM	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	12
3:00 AM	0	0	0	0	0	6	11	5	2	2	0	0	0	0	0	0	0	26
4:00 AM	0	0	0	0	1	11	12	18	7	2	0	0	0	0	0	0	0	51
5:00 AM	0	0	0	0	5	35	72	41	6	2	0	0	0	0	0	0	0	161
6:00 AM	0	0	0	13	64	192	132	57	8	4	0	0	0	0	0	0	0	470
7:00 AM	88	117	100	72	164	161	77	7	3	0	0	0	0	0	0	0	0	789
8:00 AM	59	203	108	36	138	108	28	5	2	0	0	0	0	0	0	0	0	687
9:00 AM	7	24	39	74	147	237	97	33	4	0	1	0	0	0	0	0	0	663
10:00 AM	50	210	245	187	48	18	4	3	0	0	1	0	0	0	0	0	0	766
11:00 AM	5	31	181	151	196	118	30	5	1	0	0	0	0	0	0	0	0	718
12:00 PM	1	23	174	155	124	80	14	3	1	0	0	0	0	0	0	0	0	575
1:00 PM	6	18	350	140	4	0	0	0	0	0	0	0	0	0	0	0	0	518
2:00 PM	13	21	150	130	120	142	72	10	1	0	0	0	0	0	0	0	0	659
3:00 PM	10	15	44	93	236	243	79	19	1	0	0	0	0	0	0	0	0	740
4:00 PM	13	46	96	112	201	268	88	15	0	0	0	0	0	0	0	0	0	839
5:00 PM	36	117	125	86	164	249	90	18	1	1	0	0	0	0	0	0	0	887
6:00 PM	7	39	51	76	146	274	118	31	6	0	0	0	0	0	0	0	0	748
7:00 PM	0	6	24	41	124	251	138	39	3	0	0	0	0	0	0	0	0	626
8:00 PM	0	0	0	9	60	164	110	24	5	2	0	0	0	0	0	0	0	374
9:00 PM	0	0	0	4	27	147	96	23	2	0	0	0	0	0	0	0	0	299
10:00 PM	0	0	0	5	16	82	103	32	6	2	2	0	1	1	0	0	0	250
11:00 PM	0	0	0	0	8	32	51	26	0	0	1	0	0	0	0	0	0	118
Total	295	871	1,687	1,386	1,995	2,838	1,453	429	63	16	5	0	1	1	0	0	0	11,040
Percent	2.7%	7.9%	15.3%	12.6%	18.1%	25.7%	13.2%	3.9%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	28.5	mph	Mean (Average) Speed	27	mph
85th Percentile	35.7	mph	10 mph Pace	26.5 - 36.5	mph
95th Percentile	39.8	mph	Percent in Pace	44.8	%

Location: MARSH RD btwn MIDDLEFIELD RD/FAIR OAKS LN
Date Range: 3/27/2018 to 3/27/2018
Site Code: 08

**Total Study Average
Northbound**

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	2	0	11	13	18	6	0	0	1	0	0	0	0	0	51
1:00 AM	0	0	0	0	3	7	7	8	8	1	0	0	0	0	0	0	0	34
2:00 AM	0	0	0	0	1	2	2	6	3	1	1	0	0	1	0	0	0	17
3:00 AM	0	0	0	1	0	2	5	6	2	2	1	0	0	0	0	0	0	19
4:00 AM	0	0	0	0	4	6	12	16	7	2	1	0	0	0	0	0	0	48
5:00 AM	0	0	0	0	1	10	55	58	14	3	1	0	0	0	0	0	0	142
6:00 AM	0	0	1	0	7	45	147	64	24	1	0	0	0	0	0	0	0	289
7:00 AM	1	0	0	2	21	210	192	45	6	0	0	0	0	0	0	0	0	477
8:00 AM	0	0	1	17	158	399	181	27	1	0	0	0	0	0	0	0	0	784
9:00 AM	0	0	22	18	72	360	218	33	1	2	0	0	0	0	0	0	0	726
10:00 AM	2	6	54	68	158	256	67	9	0	0	0	0	0	0	0	0	0	620
11:00 AM	0	19	127	58	161	257	79	12	2	1	0	0	0	0	0	0	0	716
12:00 PM	0	16	155	112	124	185	76	16	1	0	0	0	0	0	0	0	0	685
1:00 PM	7	57	300	185	28	0	0	0	0	0	0	0	0	0	0	0	0	577
2:00 PM	0	19	90	95	111	293	169	41	2	0	0	0	0	0	0	0	0	820
3:00 PM	1	8	13	31	103	500	250	59	5	0	0	0	0	0	0	0	0	970
4:00 PM	1	0	0	18	136	346	202	32	9	2	0	0	0	0	0	0	0	746
5:00 PM	1	0	0	4	103	299	206	49	6	0	0	0	0	0	0	0	0	668
6:00 PM	2	3	5	16	67	367	292	63	9	2	0	0	0	0	0	0	0	826
7:00 PM	0	0	0	3	44	264	256	82	9	1	1	0	0	0	0	0	0	660
8:00 PM	0	1	2	4	40	157	226	49	11	1	0	0	1	0	0	0	0	492
9:00 PM	0	0	0	0	14	137	187	69	19	0	0	0	0	0	0	0	0	426
10:00 PM	0	0	0	0	9	51	98	55	17	6	2	0	1	0	0	0	0	239
11:00 PM	0	0	0	0	1	13	34	35	7	3	1	0	0	0	0	0	0	94
Total	15	129	770	634	1,366	4,177	2,974	852	169	28	8	1	2	1	0	0	0	11,126
Percent	0.1%	1.2%	6.9%	5.7%	12.3%	37.5%	26.7%	7.7%	1.5%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	33.2	mph	Mean (Average) Speed	32.4	mph
85th Percentile	38.4	mph	10 mph Pace	28.9 - 38.9	mph
95th Percentile	42.1	mph	Percent in Pace	65.5	%

Location: MARSH RD btwn MIDDLEFIELD RD/FAIR OAKS LN
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 08

**Total Study Average
Southbound**

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	1	0	2	0	13	21	9	3	1	0	0	0	0	0	0	0	50
1:00 AM	0	0	0	0	2	1	4	6	1	0	0	0	0	0	0	0	0	14
2:00 AM	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	12
3:00 AM	0	0	0	0	0	6	11	5	2	2	0	0	0	0	0	0	0	26
4:00 AM	0	0	0	0	1	11	12	18	7	2	0	0	0	0	0	0	0	51
5:00 AM	0	0	0	0	5	35	72	41	6	2	0	0	0	0	0	0	0	161
6:00 AM	0	0	0	13	64	192	132	57	8	4	0	0	0	0	0	0	0	470
7:00 AM	88	117	100	72	164	161	77	7	3	0	0	0	0	0	0	0	0	789
8:00 AM	59	203	108	36	138	108	28	5	2	0	0	0	0	0	0	0	0	687
9:00 AM	7	24	39	74	147	237	97	33	4	0	1	0	0	0	0	0	0	663
10:00 AM	50	210	245	187	48	18	4	3	0	0	1	0	0	0	0	0	0	766
11:00 AM	5	31	181	151	196	118	30	5	1	0	0	0	0	0	0	0	0	718
12:00 PM	1	23	174	155	124	80	14	3	1	0	0	0	0	0	0	0	0	575
1:00 PM	6	18	350	140	4	0	0	0	0	0	0	0	0	0	0	0	0	518
2:00 PM	13	21	150	130	120	142	72	10	1	0	0	0	0	0	0	0	0	659
3:00 PM	10	15	44	93	236	243	79	19	1	0	0	0	0	0	0	0	0	740
4:00 PM	13	46	96	112	201	268	88	15	0	0	0	0	0	0	0	0	0	839
5:00 PM	36	117	125	86	164	249	90	18	1	1	0	0	0	0	0	0	0	887
6:00 PM	7	39	51	76	146	274	118	31	6	0	0	0	0	0	0	0	0	748
7:00 PM	0	6	24	41	124	251	138	39	3	0	0	0	0	0	0	0	0	626
8:00 PM	0	0	0	9	60	164	110	24	5	2	0	0	0	0	0	0	0	374
9:00 PM	0	0	0	4	27	147	96	23	2	0	0	0	0	0	0	0	0	299
10:00 PM	0	0	0	5	16	82	103	32	6	2	2	0	1	1	0	0	0	250
11:00 PM	0	0	0	0	8	32	51	26	0	0	1	0	0	0	0	0	0	118
Total	295	871	1,687	1,386	1,995	2,838	1,453	429	63	16	5	0	1	1	0	0	0	11,040
Percent	2.7%	7.9%	15.3%	12.6%	18.1%	25.7%	13.2%	3.9%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	28.5	mph	Mean (Average) Speed	27.0	mph
85th Percentile	35.7	mph	10 mph Pace	26.5 - 36.5	mph
95th Percentile	39.8	mph	Percent in Pace	44.8	%

Location: MARSH RD btwn MIDDLEFIELD RD/FAIR OAKS LN
 Date Range: 3/27/2018 - 4/2/2018
 Site Code: 08

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	3/27/2018			3/28/2018			3/29/2018			3/30/2018			3/31/2018			4/1/2018			4/2/2018					
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	51	50	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51	50	101
1:00 AM	34	14	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	14	48
2:00 AM	17	12	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	12	29
3:00 AM	19	26	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	26	45
4:00 AM	48	51	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	51	99
5:00 AM	142	161	303	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	142	161	303
6:00 AM	289	470	759	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	289	470	759
7:00 AM	477	789	1,266	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	477	789	1,266
8:00 AM	784	687	1,471	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	784	687	1,471
9:00 AM	726	663	1,389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	726	663	1,389
10:00 AM	620	766	1,386	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	620	766	1,386
11:00 AM	716	718	1,434	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	716	718	1,434
12:00 PM	685	575	1,260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	685	575	1,260
1:00 PM	577	518	1,095	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	577	518	1,095
2:00 PM	820	659	1,479	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	820	659	1,479
3:00 PM	970	740	1,710	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	970	740	1,710
4:00 PM	746	839	1,585	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	746	839	1,585
5:00 PM	668	887	1,555	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	668	887	1,555
6:00 PM	826	748	1,574	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	826	748	1,574
7:00 PM	660	626	1,286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	660	626	1,286
8:00 PM	492	374	866	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	492	374	866
9:00 PM	426	299	725	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	426	299	725
10:00 PM	239	250	489	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	239	250	489
11:00 PM	94	118	212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94	118	212
Total	11,126	11,040	22,166	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,126	11,040	22,166
Percent	50%	50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50%	50%	-

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary



Location: WATKINS AVE btwn HOLBROOK-PALMER PARK DRIVEWAYS

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 09

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Northbound	10	1,656	207	1	48	5	0	0	0	0	0	0	0	1,927
Percent	0.5%	85.9%	10.7%	0.1%	2.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	10	1,536	273	1	48	1	0	0	0	0	0	0	0	1,869
Percent	0.5%	82.2%	14.6%	0.1%	2.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	20	3,192	480	2	96	6	0	0	0	0	0	0	0	3,796
Percent	0.5%	84.1%	12.6%	0.1%	2.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: WATKINS AVE btwn HOLBROOK-PALMER PARK DRIVEWAYS
Date Range: 3/27/2018 to 3/27/2018
Site Code: 09



Tuesday, March 27, 2018
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	11	2	0	0	0	0	0	0	0	0	0	0	13
1:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	0	18	0	0	0	0	0	0	0	0	0	0	0	18
6:00 AM	0	29	3	0	1	0	0	0	0	0	0	0	0	33
7:00 AM	0	121	9	0	5	1	0	0	0	0	0	0	0	136
8:00 AM	2	155	17	0	6	0	0	0	0	0	0	0	0	180
9:00 AM	2	104	14	0	5	0	0	0	0	0	0	0	0	125
10:00 AM	0	90	19	0	5	3	0	0	0	0	0	0	0	117
11:00 AM	1	101	19	0	3	0	0	0	0	0	0	0	0	124
12:00 PM	2	110	19	1	3	1	0	0	0	0	0	0	0	136
1:00 PM	0	66	10	0	5	0	0	0	0	0	0	0	0	81
2:00 PM	1	114	23	0	5	0	0	0	0	0	0	0	0	143
3:00 PM	0	119	17	0	6	0	0	0	0	0	0	0	0	142
4:00 PM	0	78	13	0	0	0	0	0	0	0	0	0	0	91
5:00 PM	0	98	10	0	1	0	0	0	0	0	0	0	0	109
6:00 PM	0	105	13	0	0	0	0	0	0	0	0	0	0	118
7:00 PM	1	98	8	0	0	0	0	0	0	0	0	0	0	107
8:00 PM	1	71	3	0	2	0	0	0	0	0	0	0	0	77
9:00 PM	0	94	4	0	0	0	0	0	0	0	0	0	0	98
10:00 PM	0	43	3	0	0	0	0	0	0	0	0	0	0	46
11:00 PM	0	15	1	0	1	0	0	0	0	0	0	0	0	17
Total	10	1,656	207	1	48	5	0	0	0	0	0	0	0	1,927
Percent	0.5%	85.9%	10.7%	0.1%	2.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: WATKINS AVE btwn HOLBROOK-PALMER PARK DRIVEWAYS
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 09



Tuesday, March 27, 2018
 Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	7	1	0	0	0	0	0	0	0	0	0	0	8
1:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	2
5:00 AM	0	12	1	0	0	0	0	0	0	0	0	0	0	13
6:00 AM	0	39	14	0	1	0	0	0	0	0	0	0	0	54
7:00 AM	0	93	25	0	3	0	0	0	0	0	0	0	0	121
8:00 AM	0	136	28	0	8	1	0	0	0	0	0	0	0	173
9:00 AM	2	91	13	0	3	0	0	0	0	0	0	0	0	109
10:00 AM	0	74	22	0	5	0	0	0	0	0	0	0	0	101
11:00 AM	0	106	18	1	5	0	0	0	0	0	0	0	0	130
12:00 PM	1	87	22	0	1	0	0	0	0	0	0	0	0	111
1:00 PM	0	90	20	0	3	0	0	0	0	0	0	0	0	113
2:00 PM	1	88	18	0	3	0	0	0	0	0	0	0	0	110
3:00 PM	3	110	31	0	5	0	0	0	0	0	0	0	0	149
4:00 PM	1	161	27	0	4	0	0	0	0	0	0	0	0	193
5:00 PM	0	151	11	0	4	0	0	0	0	0	0	0	0	166
6:00 PM	2	108	10	0	0	0	0	0	0	0	0	0	0	120
7:00 PM	0	83	4	0	1	0	0	0	0	0	0	0	0	88
8:00 PM	0	53	1	0	0	0	0	0	0	0	0	0	0	54
9:00 PM	0	25	0	0	1	0	0	0	0	0	0	0	0	26
10:00 PM	0	11	3	0	1	0	0	0	0	0	0	0	0	15
11:00 PM	0	6	1	0	0	0	0	0	0	0	0	0	0	7
Total	10	1,536	273	1	48	1	0	0	0	0	0	0	0	1,869
Percent	0.5%	82.2%	14.6%	0.1%	2.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: WATKINS AVE btwn HOLBROOK-PALMER PARK DRIVEWAYS
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 09



Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	11	2	0	0	0	0	0	0	0	0	0	0	13
1:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	0	18	0	0	0	0	0	0	0	0	0	0	0	18
6:00 AM	0	29	3	0	1	0	0	0	0	0	0	0	0	33
7:00 AM	0	121	9	0	5	1	0	0	0	0	0	0	0	136
8:00 AM	2	155	17	0	6	0	0	0	0	0	0	0	0	180
9:00 AM	2	104	14	0	5	0	0	0	0	0	0	0	0	125
10:00 AM	0	90	19	0	5	3	0	0	0	0	0	0	0	117
11:00 AM	1	101	19	0	3	0	0	0	0	0	0	0	0	124
12:00 PM	2	110	19	1	3	1	0	0	0	0	0	0	0	136
1:00 PM	0	66	10	0	5	0	0	0	0	0	0	0	0	81
2:00 PM	1	114	23	0	5	0	0	0	0	0	0	0	0	143
3:00 PM	0	119	17	0	6	0	0	0	0	0	0	0	0	142
4:00 PM	0	78	13	0	0	0	0	0	0	0	0	0	0	91
5:00 PM	0	98	10	0	1	0	0	0	0	0	0	0	0	109
6:00 PM	0	105	13	0	0	0	0	0	0	0	0	0	0	118
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	1	71	3	0	2	0	0	0	0	0	0	0	0	77
9:00 PM	0	94	4	0	0	0	0	0	0	0	0	0	0	98
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	15	1	0	1	0	0	0	0	0	0	0	0	17
Total	9	1,515	196	1	48	5	0	0	0	0	0	0	0	1,774
Percent	0.5%	85.4%	11.0%	0.1%	2.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: WATKINS AVE btwn HOLBROOK-PALMER PARK DRIVEWAYS
Date Range: 3/27/2018 to 3/27/2018
Site Code: 09



Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	7	1	0	0	0	0	0	0	0	0	0	0	8
1:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	2
5:00 AM	0	12	1	0	0	0	0	0	0	0	0	0	0	13
6:00 AM	0	39	14	0	1	0	0	0	0	0	0	0	0	54
7:00 AM	0	93	25	0	3	0	0	0	0	0	0	0	0	121
8:00 AM	0	136	28	0	8	1	0	0	0	0	0	0	0	173
9:00 AM	2	91	13	0	3	0	0	0	0	0	0	0	0	109
10:00 AM	0	74	22	0	5	0	0	0	0	0	0	0	0	101
11:00 AM	0	106	18	1	5	0	0	0	0	0	0	0	0	130
12:00 PM	1	87	22	0	1	0	0	0	0	0	0	0	0	111
1:00 PM	0	90	20	0	3	0	0	0	0	0	0	0	0	113
2:00 PM	1	88	18	0	3	0	0	0	0	0	0	0	0	110
3:00 PM	3	110	31	0	5	0	0	0	0	0	0	0	0	149
4:00 PM	1	161	27	0	4	0	0	0	0	0	0	0	0	193
5:00 PM	0	151	11	0	4	0	0	0	0	0	0	0	0	166
6:00 PM	2	108	10	0	0	0	0	0	0	0	0	0	0	120
7:00 PM	0	83	4	0	1	0	0	0	0	0	0	0	0	88
8:00 PM	0	53	1	0	0	0	0	0	0	0	0	0	0	54
9:00 PM	0	25	0	0	1	0	0	0	0	0	0	0	0	26
10:00 PM	0	11	3	0	1	0	0	0	0	0	0	0	0	15
11:00 PM	0	6	1	0	0	0	0	0	0	0	0	0	0	7
Total	10	1,536	273	1	48	1	0	0	0	0	0	0	0	1,869
Percent	0.5%	82.2%	14.6%	0.1%	2.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: WATKINS AVE btwn HOLBROOK-PALMER PARK DRIVEWAYS
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 09



3-Day (Tuesday - Thursday) Average
 Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	11	2	0	0	0	0	0	0	0	0	0	0	13
1:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	0	18	0	0	0	0	0	0	0	0	0	0	0	18
6:00 AM	0	29	3	0	1	0	0	0	0	0	0	0	0	33
7:00 AM	0	121	9	0	5	1	0	0	0	0	0	0	0	136
8:00 AM	2	155	17	0	6	0	0	0	0	0	0	0	0	180
9:00 AM	2	104	14	0	5	0	0	0	0	0	0	0	0	125
10:00 AM	0	90	19	0	5	3	0	0	0	0	0	0	0	117
11:00 AM	1	101	19	0	3	0	0	0	0	0	0	0	0	124
12:00 PM	2	110	19	1	3	1	0	0	0	0	0	0	0	136
1:00 PM	0	66	10	0	5	0	0	0	0	0	0	0	0	81
2:00 PM	1	114	23	0	5	0	0	0	0	0	0	0	0	143
3:00 PM	0	119	17	0	6	0	0	0	0	0	0	0	0	142
4:00 PM	0	78	13	0	0	0	0	0	0	0	0	0	0	91
5:00 PM	0	98	10	0	1	0	0	0	0	0	0	0	0	109
6:00 PM	0	105	13	0	0	0	0	0	0	0	0	0	0	118
7:00 PM	1	98	8	0	0	0	0	0	0	0	0	0	0	107
8:00 PM	1	71	3	0	2	0	0	0	0	0	0	0	0	77
9:00 PM	0	94	4	0	0	0	0	0	0	0	0	0	0	98
10:00 PM	0	43	3	0	0	0	0	0	0	0	0	0	0	46
11:00 PM	0	15	1	0	1	0	0	0	0	0	0	0	0	17
Total	10	1,656	207	1	48	5	0	0	0	0	0	0	0	1,927
Percent	0.5%	85.9%	10.7%	0.1%	2.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: WATKINS AVE btwn HOLBROOK-PALMER PARK DRIVEWAYS
Date Range: 3/27/2018 to 3/27/2018
Site Code: 09



**3-Day (Tuesday - Thursday) Average
Southbound**

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	7	1	0	0	0	0	0	0	0	0	0	0	8
1:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	2
5:00 AM	0	12	1	0	0	0	0	0	0	0	0	0	0	13
6:00 AM	0	39	14	0	1	0	0	0	0	0	0	0	0	54
7:00 AM	0	93	25	0	3	0	0	0	0	0	0	0	0	121
8:00 AM	0	136	28	0	8	1	0	0	0	0	0	0	0	173
9:00 AM	2	91	13	0	3	0	0	0	0	0	0	0	0	109
10:00 AM	0	74	22	0	5	0	0	0	0	0	0	0	0	101
11:00 AM	0	106	18	1	5	0	0	0	0	0	0	0	0	130
12:00 PM	1	87	22	0	1	0	0	0	0	0	0	0	0	111
1:00 PM	0	90	20	0	3	0	0	0	0	0	0	0	0	113
2:00 PM	1	88	18	0	3	0	0	0	0	0	0	0	0	110
3:00 PM	3	110	31	0	5	0	0	0	0	0	0	0	0	149
4:00 PM	1	161	27	0	4	0	0	0	0	0	0	0	0	193
5:00 PM	0	151	11	0	4	0	0	0	0	0	0	0	0	166
6:00 PM	2	108	10	0	0	0	0	0	0	0	0	0	0	120
7:00 PM	0	83	4	0	1	0	0	0	0	0	0	0	0	88
8:00 PM	0	53	1	0	0	0	0	0	0	0	0	0	0	54
9:00 PM	0	25	0	0	1	0	0	0	0	0	0	0	0	26
10:00 PM	0	11	3	0	1	0	0	0	0	0	0	0	0	15
11:00 PM	0	6	1	0	0	0	0	0	0	0	0	0	0	7
Total	10	1,536	273	1	48	1	0	0	0	0	0	0	0	1,869
Percent	0.5%	82.2%	14.6%	0.1%	2.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Vehicle Speed Report Summary

Location: WATKINS AVE btwn HOLBROOK-PALMER PARK DRIVEWAYS

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 09

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Northbound	0	4	13	90	658	781	310	64	5	0	1	0	1	0	0	0	0	1,927
Percent	0.0%	0.2%	0.7%	4.7%	34.1%	40.5%	16.1%	3.3%	0.3%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	0	3	14	163	727	694	222	35	10	1	0	0	0	0	0	0	0	1,869
Percent	0.0%	0.2%	0.7%	8.7%	38.9%	37.1%	11.9%	1.9%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	0	7	27	253	1,385	1,475	532	99	15	1	1	0	1	0	0	0	0	3,796
Percent	0.0%	0.2%	0.7%	6.7%	36.5%	38.9%	14.0%	2.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Northbound				Northbound			
50th Percentile (Median)	30.9	mph		Mean (Average) Speed	31.3	mph	
85th Percentile	35.8	mph		10 mph Pace	25.6 - 35.6	mph	
95th Percentile	39.0	mph		Percent in Pace	76.3	%	
Southbound				Southbound			
50th Percentile (Median)	30.0	mph		Mean (Average) Speed	30.5	mph	
85th Percentile	34.7	mph		10 mph Pace	25.4 - 35.4	mph	
95th Percentile	37.7	mph		Percent in Pace	76.4	%	

Location: WATKINS AVE btwn HOLBROOK-PALMER PARK DRIVEWAYS
Date Range: 3/27/2018 to 3/27/2018
Site Code: 09

Tuesday, March 27, 2018
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	2	2	5	1	1	0	0	1	0	1	0	0	0	0	13
1:00 AM	0	0	0	1	1	5	0	1	0	0	0	0	0	0	0	0	0	8
2:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	0	0	0	2	4	6	6	0	0	0	0	0	0	0	0	0	0	18
6:00 AM	0	0	1	1	13	8	8	2	0	0	0	0	0	0	0	0	0	33
7:00 AM	0	0	1	8	58	49	14	6	0	0	0	0	0	0	0	0	0	136
8:00 AM	0	1	1	8	74	71	23	2	0	0	0	0	0	0	0	0	0	180
9:00 AM	0	1	2	8	46	51	15	2	0	0	0	0	0	0	0	0	0	125
10:00 AM	0	0	0	4	42	53	14	3	1	0	0	0	0	0	0	0	0	117
11:00 AM	0	0	2	8	40	45	23	5	1	0	0	0	0	0	0	0	0	124
12:00 PM	0	1	0	8	46	51	24	6	0	0	0	0	0	0	0	0	0	136
1:00 PM	0	0	0	2	21	29	24	4	1	0	0	0	0	0	0	0	0	81
2:00 PM	0	0	0	4	28	66	38	5	2	0	0	0	0	0	0	0	0	143
3:00 PM	0	0	4	3	41	61	27	6	0	0	0	0	0	0	0	0	0	142
4:00 PM	0	0	0	3	43	33	10	2	0	0	0	0	0	0	0	0	0	91
5:00 PM	0	0	0	6	41	46	15	1	0	0	0	0	0	0	0	0	0	109
6:00 PM	0	0	1	4	39	54	17	3	0	0	0	0	0	0	0	0	0	118
7:00 PM	0	0	0	4	46	40	12	5	0	0	0	0	0	0	0	0	0	107
8:00 PM	0	1	1	3	21	40	9	2	0	0	0	0	0	0	0	0	0	77
9:00 PM	0	0	0	9	32	38	16	3	0	0	0	0	0	0	0	0	0	98
10:00 PM	0	0	0	2	14	17	8	5	0	0	0	0	0	0	0	0	0	46
11:00 PM	0	0	0	0	3	9	5	0	0	0	0	0	0	0	0	0	0	17
Total	0	4	13	90	658	781	310	64	5	0	1	0	1	0	0	0	0	1,927
Percent	0.0%	0.2%	0.7%	4.7%	34.1%	40.5%	16.1%	3.3%	0.3%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	30.9	mph	Mean (Average) Speed	31.3	mph
85th Percentile	35.8	mph	10 mph Pace	25.6 - 35.6	mph
95th Percentile	39.0	mph	Percent in Pace	76.3	%

Location: WATKINS AVE btwn HOLBROOK-PALMER PARK DRIVEWAYS
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 09



Tuesday, March 27, 2018
 Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	3	2	2	1	0	0	0	0	0	0	0	0	0	8
1:00 AM	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
5:00 AM	0	0	0	1	2	7	1	2	0	0	0	0	0	0	0	0	0	13
6:00 AM	0	0	0	2	12	25	13	0	1	1	0	0	0	0	0	0	0	54
7:00 AM	0	0	0	9	39	40	28	4	1	0	0	0	0	0	0	0	0	121
8:00 AM	0	0	1	22	73	55	18	3	1	0	0	0	0	0	0	0	0	173
9:00 AM	0	0	1	8	49	40	10	1	0	0	0	0	0	0	0	0	0	109
10:00 AM	0	0	1	9	28	33	24	4	2	0	0	0	0	0	0	0	0	101
11:00 AM	0	0	0	19	58	41	9	2	1	0	0	0	0	0	0	0	0	130
12:00 PM	0	1	1	15	44	42	7	1	0	0	0	0	0	0	0	0	0	111
1:00 PM	0	0	0	13	44	41	13	1	1	0	0	0	0	0	0	0	0	113
2:00 PM	0	0	3	14	39	39	12	3	0	0	0	0	0	0	0	0	0	110
3:00 PM	0	2	0	15	53	55	21	3	0	0	0	0	0	0	0	0	0	149
4:00 PM	0	0	1	4	86	88	13	1	0	0	0	0	0	0	0	0	0	193
5:00 PM	0	0	1	11	67	64	18	3	2	0	0	0	0	0	0	0	0	166
6:00 PM	0	0	2	8	49	47	12	2	0	0	0	0	0	0	0	0	0	120
7:00 PM	0	0	2	5	35	34	11	0	1	0	0	0	0	0	0	0	0	88
8:00 PM	0	0	0	3	24	18	9	0	0	0	0	0	0	0	0	0	0	54
9:00 PM	0	0	0	1	16	7	0	2	0	0	0	0	0	0	0	0	0	26
10:00 PM	0	0	1	3	2	8	0	1	0	0	0	0	0	0	0	0	0	15
11:00 PM	0	0	0	0	2	4	0	1	0	0	0	0	0	0	0	0	0	7
Total	0	3	14	163	727	694	222	35	10	1	0	0	0	0	0	0	0	1,869
Percent	0.0%	0.2%	0.7%	8.7%	38.9%	37.1%	11.9%	1.9%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	30.0	mph	Mean (Average) Speed	30.5	mph
85th Percentile	34.7	mph	10 mph Pace	25.4 - 35.4	mph
95th Percentile	37.7	mph	Percent in Pace	76.4	%

Location: WATKINS AVE btwn HOLBROOK-PALMER PARK DRIVEWAYS
Date Range: 3/27/2018 to 3/27/2018
Site Code: 09

Total Study Average
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	2	2	5	1	1	0	0	1	0	1	0	0	0	0	13
1:00 AM	0	0	0	1	1	5	0	1	0	0	0	0	0	0	0	0	0	8
2:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	0	0	0	2	4	6	6	0	0	0	0	0	0	0	0	0	0	18
6:00 AM	0	0	1	1	13	8	8	2	0	0	0	0	0	0	0	0	0	33
7:00 AM	0	0	1	8	58	49	14	6	0	0	0	0	0	0	0	0	0	136
8:00 AM	0	1	1	8	74	71	23	2	0	0	0	0	0	0	0	0	0	180
9:00 AM	0	1	2	8	46	51	15	2	0	0	0	0	0	0	0	0	0	125
10:00 AM	0	0	0	4	42	53	14	3	1	0	0	0	0	0	0	0	0	117
11:00 AM	0	0	2	8	40	45	23	5	1	0	0	0	0	0	0	0	0	124
12:00 PM	0	1	0	8	46	51	24	6	0	0	0	0	0	0	0	0	0	136
1:00 PM	0	0	0	2	21	29	24	4	1	0	0	0	0	0	0	0	0	81
2:00 PM	0	0	0	4	28	66	38	5	2	0	0	0	0	0	0	0	0	143
3:00 PM	0	0	4	3	41	61	27	6	0	0	0	0	0	0	0	0	0	142
4:00 PM	0	0	0	3	43	33	10	2	0	0	0	0	0	0	0	0	0	91
5:00 PM	0	0	0	6	41	46	15	1	0	0	0	0	0	0	0	0	0	109
6:00 PM	0	0	1	4	39	54	17	3	0	0	0	0	0	0	0	0	0	118
7:00 PM	0	0	0	4	46	40	12	5	0	0	0	0	0	0	0	0	0	107
8:00 PM	0	1	1	3	21	40	9	2	0	0	0	0	0	0	0	0	0	77
9:00 PM	0	0	0	9	32	38	16	3	0	0	0	0	0	0	0	0	0	98
10:00 PM	0	0	0	2	14	17	8	5	0	0	0	0	0	0	0	0	0	46
11:00 PM	0	0	0	0	3	9	5	0	0	0	0	0	0	0	0	0	0	17
Total	0	4	13	90	658	781	310	64	5	0	1	0	1	0	0	0	0	1,927
Percent	0.0%	0.2%	0.7%	4.7%	34.1%	40.5%	16.1%	3.3%	0.3%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	30.9	mph	Mean (Average) Speed	31.3	mph
85th Percentile	35.8	mph	10 mph Pace	25.6 - 35.6	mph
95th Percentile	39.0	mph	Percent in Pace	76.3	%

Location: WATKINS AVE btwn HOLBROOK-PALMER PARK DRIVEWAYS
Date Range: 3/27/2018 to 3/27/2018
Site Code: 09

Total Study Average
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	3	2	2	1	0	0	0	0	0	0	0	0	0	8
1:00 AM	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
5:00 AM	0	0	0	1	2	7	1	2	0	0	0	0	0	0	0	0	0	13
6:00 AM	0	0	0	2	12	25	13	0	1	1	0	0	0	0	0	0	0	54
7:00 AM	0	0	0	9	39	40	28	4	1	0	0	0	0	0	0	0	0	121
8:00 AM	0	0	1	22	73	55	18	3	1	0	0	0	0	0	0	0	0	173
9:00 AM	0	0	1	8	49	40	10	1	0	0	0	0	0	0	0	0	0	109
10:00 AM	0	0	1	9	28	33	24	4	2	0	0	0	0	0	0	0	0	101
11:00 AM	0	0	0	19	58	41	9	2	1	0	0	0	0	0	0	0	0	130
12:00 PM	0	1	1	15	44	42	7	1	0	0	0	0	0	0	0	0	0	111
1:00 PM	0	0	0	13	44	41	13	1	1	0	0	0	0	0	0	0	0	113
2:00 PM	0	0	3	14	39	39	12	3	0	0	0	0	0	0	0	0	0	110
3:00 PM	0	2	0	15	53	55	21	3	0	0	0	0	0	0	0	0	0	149
4:00 PM	0	0	1	4	86	88	13	1	0	0	0	0	0	0	0	0	0	193
5:00 PM	0	0	1	11	67	64	18	3	2	0	0	0	0	0	0	0	0	166
6:00 PM	0	0	2	8	49	47	12	2	0	0	0	0	0	0	0	0	0	120
7:00 PM	0	0	2	5	35	34	11	0	1	0	0	0	0	0	0	0	0	88
8:00 PM	0	0	0	3	24	18	9	0	0	0	0	0	0	0	0	0	0	54
9:00 PM	0	0	0	1	16	7	0	2	0	0	0	0	0	0	0	0	0	26
10:00 PM	0	0	1	3	2	8	0	1	0	0	0	0	0	0	0	0	0	15
11:00 PM	0	0	0	0	2	4	0	1	0	0	0	0	0	0	0	0	0	7
Total	0	3	14	163	727	694	222	35	10	1	0	0	0	0	0	0	0	1,869
Percent	0.0%	0.2%	0.7%	8.7%	38.9%	37.1%	11.9%	1.9%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	30.0	mph	Mean (Average) Speed	30.5	mph
85th Percentile	34.7	mph	10 mph Pace	25.4 - 35.4	mph
95th Percentile	37.7	mph	Percent in Pace	76.4	%

Location: WATKINS AVE btwn HOLBROOK-PALMER PARK DRIVEWAYS
 Date Range: 3/27/2018 - 4/2/2018
 Site Code: 09

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	3/27/2018			3/28/2018			3/29/2018			3/30/2018			3/31/2018			4/1/2018			4/2/2018					
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	13	8	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	8	21
1:00 AM	8	3	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	3	11
2:00 AM	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2
3:00 AM	3	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	5
4:00 AM	4	2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	2	6
5:00 AM	18	13	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	13	31
6:00 AM	33	54	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	54	87
7:00 AM	136	121	257	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	136	121	257
8:00 AM	180	173	353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	180	173	353
9:00 AM	125	109	234	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	125	109	234
10:00 AM	117	101	218	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	101	218
11:00 AM	124	130	254	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	124	130	254
12:00 PM	136	111	247	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	136	111	247
1:00 PM	81	113	194	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81	113	194
2:00 PM	143	110	253	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	143	110	253
3:00 PM	142	149	291	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	142	149	291
4:00 PM	91	193	284	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	91	193	284
5:00 PM	109	166	275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	109	166	275
6:00 PM	118	120	238	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	118	120	238
7:00 PM	107	88	195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	107	88	195
8:00 PM	77	54	131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	77	54	131
9:00 PM	98	26	124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	98	26	124
10:00 PM	46	15	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46	15	61
11:00 PM	17	7	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	7	24
Total	1,927	1,869	3,796	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,927	1,869	3,796
Percent	51%	49%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51%	49%	-

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary



Location: MIDDLEFIELD RD btwn PRIOR LN/ENCINAL AVE

Count Direction: Eastbound / Westbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 10

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Eastbound	97	8,183	1,139	1	459	32	0	6	1	4	0	0	1	9,923
Percent	1.0%	82.5%	11.5%	0.0%	4.6%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Westbound	44	8,480	814	0	263	16	0	1	0	0	0	0	0	9,618
Percent	0.5%	88.2%	8.5%	0.0%	2.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	141	16,663	1,953	1	722	48	0	7	1	4	0	0	1	19,541
Percent	0.7%	85.3%	10.0%	0.0%	3.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification

Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: MIDDLEFIELD RD btwn PRIOR LN/ENCINAL AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 10



Tuesday, March 27, 2018
 Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	25	4	0	1	0	0	0	0	0	0	0	0	30
1:00 AM	0	8	4	0	0	0	0	0	0	0	0	0	0	12
2:00 AM	0	7	2	0	1	0	0	0	0	0	0	0	0	10
3:00 AM	0	8	4	0	2	0	0	0	0	0	0	0	0	14
4:00 AM	0	28	7	0	7	1	0	0	0	0	0	0	0	43
5:00 AM	1	91	21	0	13	0	0	0	0	0	0	0	0	126
6:00 AM	3	214	78	0	30	5	0	0	0	0	0	0	0	330
7:00 AM	8	515	121	0	47	3	0	0	0	1	0	0	1	696
8:00 AM	16	601	91	1	41	5	0	4	0	0	0	0	0	759
9:00 AM	18	478	89	0	48	1	0	0	0	0	0	0	0	634
10:00 AM	5	610	123	0	42	3	0	0	0	1	0	0	0	784
11:00 AM	7	504	104	0	46	2	0	0	0	1	0	0	0	664
12:00 PM	6	553	85	0	33	1	0	0	0	0	0	0	0	678
1:00 PM	3	487	87	0	32	1	0	0	0	0	0	0	0	610
2:00 PM	1	521	69	0	34	1	0	0	0	0	0	0	0	626
3:00 PM	2	557	51	0	19	2	0	0	0	0	0	0	0	631
4:00 PM	6	615	44	0	15	2	0	0	1	1	0	0	0	684
5:00 PM	9	658	51	0	16	3	0	1	0	0	0	0	0	738
6:00 PM	7	559	35	0	13	0	0	0	0	0	0	0	0	614
7:00 PM	3	483	36	0	7	1	0	0	0	0	0	0	0	530
8:00 PM	0	238	19	0	6	1	0	1	0	0	0	0	0	265
9:00 PM	2	197	4	0	2	0	0	0	0	0	0	0	0	205
10:00 PM	0	155	4	0	3	0	0	0	0	0	0	0	0	162
11:00 PM	0	71	6	0	1	0	0	0	0	0	0	0	0	78
Total	97	8,183	1,139	1	459	32	0	6	1	4	0	0	1	9,923
Percent	1.0%	82.5%	11.5%	0.0%	4.6%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: MIDDLEFIELD RD btwn PRIOR LN/ENCINAL AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 10

Tuesday, March 27, 2018
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	35	5	0	2	0	0	0	0	0	0	0	0	42
1:00 AM	0	18	1	0	1	0	0	0	0	0	0	0	0	20
2:00 AM	0	14	1	0	1	0	0	0	0	0	0	0	0	16
3:00 AM	0	13	0	0	1	0	0	0	0	0	0	0	0	14
4:00 AM	0	14	4	0	4	0	0	0	0	0	0	0	0	22
5:00 AM	1	50	5	0	3	0	0	0	0	0	0	0	0	59
6:00 AM	0	115	15	0	8	1	0	0	0	0	0	0	0	139
7:00 AM	3	315	33	0	9	1	0	0	0	0	0	0	0	361
8:00 AM	3	561	28	0	13	0	0	0	0	0	0	0	0	605
9:00 AM	3	399	32	0	17	1	0	0	0	0	0	0	0	452
10:00 AM	6	423	53	0	14	1	0	0	0	0	0	0	0	497
11:00 AM	2	477	53	0	26	1	0	0	0	0	0	0	0	559
12:00 PM	2	514	56	0	13	0	0	0	0	0	0	0	0	585
1:00 PM	5	476	54	0	20	0	0	0	0	0	0	0	0	555
2:00 PM	5	494	61	0	26	2	0	0	0	0	0	0	0	588
3:00 PM	3	761	95	0	24	3	0	0	0	0	0	0	0	886
4:00 PM	3	764	98	0	25	0	0	0	0	0	0	0	0	890
5:00 PM	3	783	76	0	17	3	0	0	0	0	0	0	0	882
6:00 PM	1	828	56	0	15	2	0	1	0	0	0	0	0	903
7:00 PM	2	518	34	0	10	0	0	0	0	0	0	0	0	564
8:00 PM	1	370	27	0	5	1	0	0	0	0	0	0	0	404
9:00 PM	1	294	14	0	4	0	0	0	0	0	0	0	0	313
10:00 PM	0	173	9	0	3	0	0	0	0	0	0	0	0	185
11:00 PM	0	71	4	0	2	0	0	0	0	0	0	0	0	77
Total	44	8,480	814	0	263	16	0	1	0	0	0	0	0	9,618
Percent	0.5%	88.2%	8.5%	0.0%	2.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: MIDDLEFIELD RD btwn PRIOR LN/ENCINAL AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 10

Total Study Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	25	4	0	1	0	0	0	0	0	0	0	0	30
1:00 AM	0	8	4	0	0	0	0	0	0	0	0	0	0	12
2:00 AM	0	7	2	0	1	0	0	0	0	0	0	0	0	10
3:00 AM	0	8	4	0	2	0	0	0	0	0	0	0	0	14
4:00 AM	0	28	7	0	7	1	0	0	0	0	0	0	0	43
5:00 AM	1	91	21	0	13	0	0	0	0	0	0	0	0	126
6:00 AM	3	214	78	0	30	5	0	0	0	0	0	0	0	330
7:00 AM	8	515	121	0	47	3	0	0	0	1	0	0	1	696
8:00 AM	16	601	91	1	41	5	0	4	0	0	0	0	0	759
9:00 AM	18	478	89	0	48	1	0	0	0	0	0	0	0	634
10:00 AM	5	610	123	0	42	3	0	0	0	1	0	0	0	784
11:00 AM	7	504	104	0	46	2	0	0	0	1	0	0	0	664
12:00 PM	6	553	85	0	33	1	0	0	0	0	0	0	0	678
1:00 PM	3	487	87	0	32	1	0	0	0	0	0	0	0	610
2:00 PM	1	521	69	0	34	1	0	0	0	0	0	0	0	626
3:00 PM	2	557	51	0	19	2	0	0	0	0	0	0	0	631
4:00 PM	6	615	44	0	15	2	0	0	1	1	0	0	0	684
5:00 PM	9	658	51	0	16	3	0	1	0	0	0	0	0	738
6:00 PM	7	559	35	0	13	0	0	0	0	0	0	0	0	614
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	238	19	0	6	1	0	1	0	0	0	0	0	265
9:00 PM	2	197	4	0	2	0	0	0	0	0	0	0	0	205
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	71	6	0	1	0	0	0	0	0	0	0	0	78
Total	94	7,545	1,099	1	449	31	0	6	1	4	0	0	1	9,231
Percent	1.0%	81.7%	11.9%	0.0%	4.9%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: MIDDLEFIELD RD btwn PRIOR LN/ENCINAL AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 10

Total Study Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	35	5	0	2	0	0	0	0	0	0	0	0	42
1:00 AM	0	18	1	0	1	0	0	0	0	0	0	0	0	20
2:00 AM	0	14	1	0	1	0	0	0	0	0	0	0	0	16
3:00 AM	0	13	0	0	1	0	0	0	0	0	0	0	0	14
4:00 AM	0	14	4	0	4	0	0	0	0	0	0	0	0	22
5:00 AM	1	50	5	0	3	0	0	0	0	0	0	0	0	59
6:00 AM	0	115	15	0	8	1	0	0	0	0	0	0	0	139
7:00 AM	3	315	33	0	9	1	0	0	0	0	0	0	0	361
8:00 AM	3	561	28	0	13	0	0	0	0	0	0	0	0	605
9:00 AM	3	399	32	0	17	1	0	0	0	0	0	0	0	452
10:00 AM	6	423	53	0	14	1	0	0	0	0	0	0	0	497
11:00 AM	2	477	53	0	26	1	0	0	0	0	0	0	0	559
12:00 PM	2	514	56	0	13	0	0	0	0	0	0	0	0	585
1:00 PM	5	476	54	0	20	0	0	0	0	0	0	0	0	555
2:00 PM	5	494	61	0	26	2	0	0	0	0	0	0	0	588
3:00 PM	3	761	95	0	24	3	0	0	0	0	0	0	0	886
4:00 PM	3	764	98	0	25	0	0	0	0	0	0	0	0	890
5:00 PM	3	783	76	0	17	3	0	0	0	0	0	0	0	882
6:00 PM	1	828	56	0	15	2	0	1	0	0	0	0	0	903
7:00 PM	2	518	34	0	10	0	0	0	0	0	0	0	0	564
8:00 PM	1	370	27	0	5	1	0	0	0	0	0	0	0	404
9:00 PM	1	294	14	0	4	0	0	0	0	0	0	0	0	313
10:00 PM	0	173	9	0	3	0	0	0	0	0	0	0	0	185
11:00 PM	0	71	4	0	2	0	0	0	0	0	0	0	0	77
Total	44	8,480	814	0	263	16	0	1	0	0	0	0	0	9,618
Percent	0.5%	88.2%	8.5%	0.0%	2.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: MIDDLEFIELD RD btwn PRIOR LN/ENCINAL AVE
Date Range: 3/27/2018 to 3/27/2018
Site Code: 10

**3-Day (Tuesday - Thursday) Average
 Eastbound**

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	25	4	0	1	0	0	0	0	0	0	0	0	30
1:00 AM	0	8	4	0	0	0	0	0	0	0	0	0	0	12
2:00 AM	0	7	2	0	1	0	0	0	0	0	0	0	0	10
3:00 AM	0	8	4	0	2	0	0	0	0	0	0	0	0	14
4:00 AM	0	28	7	0	7	1	0	0	0	0	0	0	0	43
5:00 AM	1	91	21	0	13	0	0	0	0	0	0	0	0	126
6:00 AM	3	214	78	0	30	5	0	0	0	0	0	0	0	330
7:00 AM	8	515	121	0	47	3	0	0	0	1	0	0	1	696
8:00 AM	16	601	91	1	41	5	0	4	0	0	0	0	0	759
9:00 AM	18	478	89	0	48	1	0	0	0	0	0	0	0	634
10:00 AM	5	610	123	0	42	3	0	0	0	1	0	0	0	784
11:00 AM	7	504	104	0	46	2	0	0	0	1	0	0	0	664
12:00 PM	6	553	85	0	33	1	0	0	0	0	0	0	0	678
1:00 PM	3	487	87	0	32	1	0	0	0	0	0	0	0	610
2:00 PM	1	521	69	0	34	1	0	0	0	0	0	0	0	626
3:00 PM	2	557	51	0	19	2	0	0	0	0	0	0	0	631
4:00 PM	6	615	44	0	15	2	0	0	1	1	0	0	0	684
5:00 PM	9	658	51	0	16	3	0	1	0	0	0	0	0	738
6:00 PM	7	559	35	0	13	0	0	0	0	0	0	0	0	614
7:00 PM	3	483	36	0	7	1	0	0	0	0	0	0	0	530
8:00 PM	0	238	19	0	6	1	0	1	0	0	0	0	0	265
9:00 PM	2	197	4	0	2	0	0	0	0	0	0	0	0	205
10:00 PM	0	155	4	0	3	0	0	0	0	0	0	0	0	162
11:00 PM	0	71	6	0	1	0	0	0	0	0	0	0	0	78
Total	97	8,183	1,139	1	459	32	0	6	1	4	0	0	1	9,923
Percent	1.0%	82.5%	11.5%	0.0%	4.6%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: MIDDLEFIELD RD btwn PRIOR LN/ENCINAL AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 10



**3-Day (Tuesday - Thursday) Average
 Westbound**

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	35	5	0	2	0	0	0	0	0	0	0	0	42
1:00 AM	0	18	1	0	1	0	0	0	0	0	0	0	0	20
2:00 AM	0	14	1	0	1	0	0	0	0	0	0	0	0	16
3:00 AM	0	13	0	0	1	0	0	0	0	0	0	0	0	14
4:00 AM	0	14	4	0	4	0	0	0	0	0	0	0	0	22
5:00 AM	1	50	5	0	3	0	0	0	0	0	0	0	0	59
6:00 AM	0	115	15	0	8	1	0	0	0	0	0	0	0	139
7:00 AM	3	315	33	0	9	1	0	0	0	0	0	0	0	361
8:00 AM	3	561	28	0	13	0	0	0	0	0	0	0	0	605
9:00 AM	3	399	32	0	17	1	0	0	0	0	0	0	0	452
10:00 AM	6	423	53	0	14	1	0	0	0	0	0	0	0	497
11:00 AM	2	477	53	0	26	1	0	0	0	0	0	0	0	559
12:00 PM	2	514	56	0	13	0	0	0	0	0	0	0	0	585
1:00 PM	5	476	54	0	20	0	0	0	0	0	0	0	0	555
2:00 PM	5	494	61	0	26	2	0	0	0	0	0	0	0	588
3:00 PM	3	761	95	0	24	3	0	0	0	0	0	0	0	886
4:00 PM	3	764	98	0	25	0	0	0	0	0	0	0	0	890
5:00 PM	3	783	76	0	17	3	0	0	0	0	0	0	0	882
6:00 PM	1	828	56	0	15	2	0	1	0	0	0	0	0	903
7:00 PM	2	518	34	0	10	0	0	0	0	0	0	0	0	564
8:00 PM	1	370	27	0	5	1	0	0	0	0	0	0	0	404
9:00 PM	1	294	14	0	4	0	0	0	0	0	0	0	0	313
10:00 PM	0	173	9	0	3	0	0	0	0	0	0	0	0	185
11:00 PM	0	71	4	0	2	0	0	0	0	0	0	0	0	77
Total	44	8,480	814	0	263	16	0	1	0	0	0	0	0	9,618
Percent	0.5%	88.2%	8.5%	0.0%	2.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Vehicle Speed Report Summary

Location: MIDDLEFIELD RD btwn PRIOR LN/ENCINAL AVE

Count Direction: Eastbound / Westbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 10

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	98	541	1,038	1,644	2,543	2,759	1,083	182	31	4	0	0	0	0	0	0	0	9,923
Percent	1.0%	5.5%	10.5%	16.6%	25.6%	27.8%	10.9%	1.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Westbound	56	124	319	829	3,442	3,609	1,084	136	15	4	0	0	0	0	0	0	0	9,618
Percent	0.6%	1.3%	3.3%	8.6%	35.8%	37.5%	11.3%	1.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	154	665	1,357	2,473	5,985	6,368	2,167	318	46	8	0	0	0	0	0	0	0	19,541
Percent	0.8%	3.4%	6.9%	12.7%	30.6%	32.6%	11.1%	1.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Eastbound				Eastbound			
50th Percentile (Median)		28.3	mph	Mean (Average) Speed		27.4	mph
85th Percentile		34.4	mph	10 mph Pace		24.7 - 34.7	mph
95th Percentile		37.7	mph	Percent in Pace		53.5	%
Westbound				Westbound			
50th Percentile (Median)		29.9	mph	Mean (Average) Speed		29.7	mph
85th Percentile		34.4	mph	10 mph Pace		25.6 - 35.6	mph
95th Percentile		37.3	mph	Percent in Pace		73.5	%

Location: MIDDLEFIELD RD btwn PRIOR LN/ENCINAL AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 10



Tuesday, March 27, 2018
 Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	4	9	11	5	1	0	0	0	0	0	0	0	0	30
1:00 AM	0	0	0	0	1	3	7	1	0	0	0	0	0	0	0	0	0	12
2:00 AM	0	0	0	0	1	4	5	0	0	0	0	0	0	0	0	0	0	10
3:00 AM	0	0	0	0	2	4	3	4	1	0	0	0	0	0	0	0	0	14
4:00 AM	0	0	0	0	8	7	9	14	2	3	0	0	0	0	0	0	0	43
5:00 AM	0	0	0	0	13	49	36	21	7	0	0	0	0	0	0	0	0	126
6:00 AM	0	2	3	13	42	123	109	34	4	0	0	0	0	0	0	0	0	330
7:00 AM	10	90	106	142	111	142	86	8	1	0	0	0	0	0	0	0	0	696
8:00 AM	49	182	218	187	80	32	9	2	0	0	0	0	0	0	0	0	0	759
9:00 AM	1	13	30	83	197	229	65	14	2	0	0	0	0	0	0	0	0	634
10:00 AM	4	31	82	127	261	189	78	10	2	0	0	0	0	0	0	0	0	784
11:00 AM	4	24	67	81	162	244	67	14	1	0	0	0	0	0	0	0	0	664
12:00 PM	2	16	31	86	220	233	81	7	2	0	0	0	0	0	0	0	0	678
1:00 PM	0	2	18	72	142	246	121	8	1	0	0	0	0	0	0	0	0	610
2:00 PM	8	37	95	140	151	152	40	3	0	0	0	0	0	0	0	0	0	626
3:00 PM	5	48	98	174	154	127	23	1	1	0	0	0	0	0	0	0	0	631
4:00 PM	2	28	63	143	263	155	23	7	0	0	0	0	0	0	0	0	0	684
5:00 PM	7	35	129	196	232	105	31	1	1	1	0	0	0	0	0	0	0	738
6:00 PM	3	20	52	104	178	206	45	4	2	0	0	0	0	0	0	0	0	614
7:00 PM	1	13	40	66	149	196	63	2	0	0	0	0	0	0	0	0	0	530
8:00 PM	2	0	3	16	88	102	48	6	0	0	0	0	0	0	0	0	0	265
9:00 PM	0	0	1	13	49	100	37	4	1	0	0	0	0	0	0	0	0	205
10:00 PM	0	0	2	1	27	76	48	8	0	0	0	0	0	0	0	0	0	162
11:00 PM	0	0	0	0	8	26	38	4	2	0	0	0	0	0	0	0	0	78
Total	98	541	1,038	1,644	2,543	2,759	1,083	182	31	4	0	0	0	0	0	0	0	9,923
Percent	1.0%	5.5%	10.5%	16.6%	25.6%	27.8%	10.9%	1.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	28.3	mph	Mean (Average) Speed	27.4	mph
85th Percentile	34.4	mph	10 mph Pace	24.7 - 34.7	mph
95th Percentile	37.7	mph	Percent in Pace	53.5	%

Location: MIDDLEFIELD RD btwn PRIOR LN/ENCINAL AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 10



Tuesday, March 27, 2018
 Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	8	22	8	2	2	0	0	0	0	0	0	0	0	42
1:00 AM	0	0	0	0	5	6	3	6	0	0	0	0	0	0	0	0	0	20
2:00 AM	0	0	0	1	4	6	2	0	2	1	0	0	0	0	0	0	0	16
3:00 AM	0	0	0	2	2	2	3	3	1	1	0	0	0	0	0	0	0	14
4:00 AM	0	0	0	1	4	10	5	2	0	0	0	0	0	0	0	0	0	22
5:00 AM	0	0	0	4	9	24	16	4	1	1	0	0	0	0	0	0	0	59
6:00 AM	0	0	2	1	19	59	42	13	3	0	0	0	0	0	0	0	0	139
7:00 AM	3	5	22	40	133	112	35	11	0	0	0	0	0	0	0	0	0	361
8:00 AM	3	4	13	94	308	151	29	3	0	0	0	0	0	0	0	0	0	605
9:00 AM	1	1	0	22	179	202	43	4	0	0	0	0	0	0	0	0	0	452
10:00 AM	5	1	1	21	202	207	53	6	1	0	0	0	0	0	0	0	0	497
11:00 AM	6	0	13	38	192	244	59	7	0	0	0	0	0	0	0	0	0	559
12:00 PM	2	2	21	42	189	235	84	9	0	1	0	0	0	0	0	0	0	585
1:00 PM	0	0	7	34	174	245	88	5	2	0	0	0	0	0	0	0	0	555
2:00 PM	7	0	13	44	246	214	62	2	0	0	0	0	0	0	0	0	0	588
3:00 PM	10	66	114	142	333	185	34	2	0	0	0	0	0	0	0	0	0	886
4:00 PM	10	14	46	106	327	327	57	3	0	0	0	0	0	0	0	0	0	890
5:00 PM	7	18	47	109	350	289	60	1	1	0	0	0	0	0	0	0	0	882
6:00 PM	2	13	16	77	338	370	85	2	0	0	0	0	0	0	0	0	0	903
7:00 PM	0	0	4	43	190	230	85	11	1	0	0	0	0	0	0	0	0	564
8:00 PM	0	0	0	8	121	181	82	12	0	0	0	0	0	0	0	0	0	404
9:00 PM	0	0	0	0	65	164	74	10	0	0	0	0	0	0	0	0	0	313
10:00 PM	0	0	0	0	30	90	59	6	0	0	0	0	0	0	0	0	0	185
11:00 PM	0	0	0	0	14	34	16	12	1	0	0	0	0	0	0	0	0	77
Total	56	124	319	829	3,442	3,609	1,084	136	15	4	0	0	0	0	0	0	0	9,618
Percent	0.6%	1.3%	3.3%	8.6%	35.8%	37.5%	11.3%	1.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	29.9	mph	Mean (Average) Speed	29.7	mph
85th Percentile	34.4	mph	10 mph Pace	25.6 - 35.6	mph
95th Percentile	37.3	mph	Percent in Pace	73.5	%

Location: MIDDLEFIELD RD btwn PRIOR LN/ENCINAL AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 10

Total Study Average
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	4	9	11	5	1	0	0	0	0	0	0	0	0	30
1:00 AM	0	0	0	0	1	3	7	1	0	0	0	0	0	0	0	0	0	12
2:00 AM	0	0	0	0	1	4	5	0	0	0	0	0	0	0	0	0	0	10
3:00 AM	0	0	0	0	2	4	3	4	1	0	0	0	0	0	0	0	0	14
4:00 AM	0	0	0	0	8	7	9	14	2	3	0	0	0	0	0	0	0	43
5:00 AM	0	0	0	0	13	49	36	21	7	0	0	0	0	0	0	0	0	126
6:00 AM	0	2	3	13	42	123	109	34	4	0	0	0	0	0	0	0	0	330
7:00 AM	10	90	106	142	111	142	86	8	1	0	0	0	0	0	0	0	0	696
8:00 AM	49	182	218	187	80	32	9	2	0	0	0	0	0	0	0	0	0	759
9:00 AM	1	13	30	83	197	229	65	14	2	0	0	0	0	0	0	0	0	634
10:00 AM	4	31	82	127	261	189	78	10	2	0	0	0	0	0	0	0	0	784
11:00 AM	4	24	67	81	162	244	67	14	1	0	0	0	0	0	0	0	0	664
12:00 PM	2	16	31	86	220	233	81	7	2	0	0	0	0	0	0	0	0	678
1:00 PM	0	2	18	72	142	246	121	8	1	0	0	0	0	0	0	0	0	610
2:00 PM	8	37	95	140	151	152	40	3	0	0	0	0	0	0	0	0	0	626
3:00 PM	5	48	98	174	154	127	23	1	1	0	0	0	0	0	0	0	0	631
4:00 PM	2	28	63	143	263	155	23	7	0	0	0	0	0	0	0	0	0	684
5:00 PM	7	35	129	196	232	105	31	1	1	1	0	0	0	0	0	0	0	738
6:00 PM	3	20	52	104	178	206	45	4	2	0	0	0	0	0	0	0	0	614
7:00 PM	1	13	40	66	149	196	63	2	0	0	0	0	0	0	0	0	0	530
8:00 PM	2	0	3	16	88	102	48	6	0	0	0	0	0	0	0	0	0	265
9:00 PM	0	0	1	13	49	100	37	4	1	0	0	0	0	0	0	0	0	205
10:00 PM	0	0	2	1	27	76	48	8	0	0	0	0	0	0	0	0	0	162
11:00 PM	0	0	0	0	8	26	38	4	2	0	0	0	0	0	0	0	0	78
Total	98	541	1,038	1,644	2,543	2,759	1,083	182	31	4	0	0	0	0	0	0	0	9,923
Percent	1.0%	5.5%	10.5%	16.6%	25.6%	27.8%	10.9%	1.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	28.3	mph	Mean (Average) Speed	27.4	mph
85th Percentile	34.4	mph	10 mph Pace	24.7 - 34.7	mph
95th Percentile	37.7	mph	Percent in Pace	53.5	%

Location: MIDDLEFIELD RD btwn PRIOR LN/ENCINAL AVE
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 10

Total Study Average
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	8	22	8	2	2	0	0	0	0	0	0	0	0	42
1:00 AM	0	0	0	0	5	6	3	6	0	0	0	0	0	0	0	0	0	20
2:00 AM	0	0	0	1	4	6	2	0	2	1	0	0	0	0	0	0	0	16
3:00 AM	0	0	0	2	2	2	3	3	1	1	0	0	0	0	0	0	0	14
4:00 AM	0	0	0	1	4	10	5	2	0	0	0	0	0	0	0	0	0	22
5:00 AM	0	0	0	4	9	24	16	4	1	1	0	0	0	0	0	0	0	59
6:00 AM	0	0	2	1	19	59	42	13	3	0	0	0	0	0	0	0	0	139
7:00 AM	3	5	22	40	133	112	35	11	0	0	0	0	0	0	0	0	0	361
8:00 AM	3	4	13	94	308	151	29	3	0	0	0	0	0	0	0	0	0	605
9:00 AM	1	1	0	22	179	202	43	4	0	0	0	0	0	0	0	0	0	452
10:00 AM	5	1	1	21	202	207	53	6	1	0	0	0	0	0	0	0	0	497
11:00 AM	6	0	13	38	192	244	59	7	0	0	0	0	0	0	0	0	0	559
12:00 PM	2	2	21	42	189	235	84	9	0	1	0	0	0	0	0	0	0	585
1:00 PM	0	0	7	34	174	245	88	5	2	0	0	0	0	0	0	0	0	555
2:00 PM	7	0	13	44	246	214	62	2	0	0	0	0	0	0	0	0	0	588
3:00 PM	10	66	114	142	333	185	34	2	0	0	0	0	0	0	0	0	0	886
4:00 PM	10	14	46	106	327	327	57	3	0	0	0	0	0	0	0	0	0	890
5:00 PM	7	18	47	109	350	289	60	1	1	0	0	0	0	0	0	0	0	882
6:00 PM	2	13	16	77	338	370	85	2	0	0	0	0	0	0	0	0	0	903
7:00 PM	0	0	4	43	190	230	85	11	1	0	0	0	0	0	0	0	0	564
8:00 PM	0	0	0	8	121	181	82	12	0	0	0	0	0	0	0	0	0	404
9:00 PM	0	0	0	0	65	164	74	10	0	0	0	0	0	0	0	0	0	313
10:00 PM	0	0	0	0	30	90	59	6	0	0	0	0	0	0	0	0	0	185
11:00 PM	0	0	0	0	14	34	16	12	1	0	0	0	0	0	0	0	0	77
Total	56	124	319	829	3,442	3,609	1,084	136	15	4	0	0	0	0	0	0	0	9,618
Percent	0.6%	1.3%	3.3%	8.6%	35.8%	37.5%	11.3%	1.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	29.9	mph	Mean (Average) Speed	29.7	mph
85th Percentile	34.4	mph	10 mph Pace	25.6 - 35.6	mph
95th Percentile	37.3	mph	Percent in Pace	73.5	%

Location: MIDDLEFIELD RD btwn PRIOR LN/ENCINAL AVE
 Date Range: 3/27/2018 - 4/2/2018
 Site Code: 10

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	3/27/2018			3/28/2018			3/29/2018			3/30/2018			3/31/2018			4/1/2018			4/2/2018					
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	30	42	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	42	72
1:00 AM	12	20	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	20	32
2:00 AM	10	16	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	16	26
3:00 AM	14	14	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	14	28
4:00 AM	43	22	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	22	65
5:00 AM	126	59	185	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	126	59	185
6:00 AM	330	139	469	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	330	139	469
7:00 AM	696	361	1,057	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	696	361	1,057
8:00 AM	759	605	1,364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	759	605	1,364
9:00 AM	634	452	1,086	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	634	452	1,086
10:00 AM	784	497	1,281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	784	497	1,281
11:00 AM	664	559	1,223	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	664	559	1,223
12:00 PM	678	585	1,263	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	678	585	1,263
1:00 PM	610	555	1,165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	610	555	1,165
2:00 PM	626	588	1,214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	626	588	1,214
3:00 PM	631	886	1,517	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	631	886	1,517
4:00 PM	684	890	1,574	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	684	890	1,574
5:00 PM	738	882	1,620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	738	882	1,620
6:00 PM	614	903	1,517	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	614	903	1,517
7:00 PM	530	564	1,094	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	530	564	1,094
8:00 PM	265	404	669	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	404	669
9:00 PM	205	313	518	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	205	313	518
10:00 PM	162	185	347	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	162	185	347
11:00 PM	78	77	155	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78	77	155
Total	9,923	9,618	19,541	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,923	9,618	19,541
Percent	51%	49%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51%	49%	-

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary



Location: ENCINAL AVE btwn FELTON DR/MIDDLEFIELD RD

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 11

	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Study Total														
Northbound	41	2,008	375	0	96	3	0	0	0	0	0	0	0	2,523
Percent	1.6%	79.6%	14.9%	0.0%	3.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	33	2,279	466	1	148	5	0	1	0	0	0	0	0	2,933
Percent	1.1%	77.7%	15.9%	0.0%	5.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	74	4,287	841	1	244	8	0	1	0	0	0	0	0	5,456
Percent	1.4%	78.6%	15.4%	0.0%	4.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: ENCINAL AVE btwn FELTON DR/MIDDLEFIELD RD
Date Range: 3/27/2018 to 3/27/2018
Site Code: 11



Tuesday, March 27, 2018
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	6	1	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
4:00 AM	0	4	1	0	1	0	0	0	0	0	0	0	0	6
5:00 AM	0	16	1	0	0	0	0	0	0	0	0	0	0	17
6:00 AM	0	34	7	0	7	0	0	0	0	0	0	0	0	48
7:00 AM	1	112	18	0	5	0	0	0	0	0	0	0	0	136
8:00 AM	4	230	20	0	5	0	0	0	0	0	0	0	0	259
9:00 AM	2	104	23	0	6	0	0	0	0	0	0	0	0	135
10:00 AM	2	86	26	0	6	0	0	0	0	0	0	0	0	120
11:00 AM	0	118	31	0	10	0	0	0	0	0	0	0	0	159
12:00 PM	2	102	20	0	11	0	0	0	0	0	0	0	0	135
1:00 PM	4	92	25	0	5	0	0	0	0	0	0	0	0	126
2:00 PM	0	119	37	0	11	1	0	0	0	0	0	0	0	168
3:00 PM	3	194	38	0	3	1	0	0	0	0	0	0	0	239
4:00 PM	8	174	31	0	12	0	0	0	0	0	0	0	0	225
5:00 PM	3	178	32	0	4	0	0	0	0	0	0	0	0	217
6:00 PM	6	169	31	0	5	0	0	0	0	0	0	0	0	211
7:00 PM	3	103	12	0	1	0	0	0	0	0	0	0	0	119
8:00 PM	2	63	13	0	3	1	0	0	0	0	0	0	0	82
9:00 PM	1	47	5	0	1	0	0	0	0	0	0	0	0	54
10:00 PM	0	33	2	0	0	0	0	0	0	0	0	0	0	35
11:00 PM	0	13	1	0	0	0	0	0	0	0	0	0	0	14
Total	41	2,008	375	0	96	3	0	0	0	0	0	0	0	2,523
Percent	1.6%	79.6%	14.9%	0.0%	3.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: ENCINAL AVE btwn FELTON DR/MIDDLEFIELD RD
Date Range: 3/27/2018 to 3/27/2018
Site Code: 11



Tuesday, March 27, 2018
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	8	1	0	0	0	0	0	0	0	0	0	0	9
1:00 AM	0	3	2	0	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
4:00 AM	0	4	3	0	1	1	0	0	0	0	0	0	0	9
5:00 AM	0	19	5	0	3	0	0	0	0	0	0	0	0	27
6:00 AM	1	58	16	0	10	2	0	0	0	0	0	0	0	87
7:00 AM	2	184	44	0	12	0	0	0	0	0	0	0	0	242
8:00 AM	5	188	31	0	16	1	0	0	0	0	0	0	0	241
9:00 AM	3	118	20	0	15	0	0	0	0	0	0	0	0	156
10:00 AM	0	124	41	0	17	0	0	0	0	0	0	0	0	182
11:00 AM	2	103	41	0	14	0	0	0	0	0	0	0	0	160
12:00 PM	1	120	20	0	8	0	0	0	0	0	0	0	0	149
1:00 PM	2	108	32	0	5	0	0	0	0	0	0	0	0	147
2:00 PM	2	156	26	1	9	0	0	0	0	0	0	0	0	194
3:00 PM	5	173	30	0	10	0	0	1	0	0	0	0	0	219
4:00 PM	1	200	29	0	9	0	0	0	0	0	0	0	0	239
5:00 PM	4	232	48	0	6	0	0	0	0	0	0	0	0	290
6:00 PM	3	159	25	0	6	0	0	0	0	0	0	0	0	193
7:00 PM	1	128	24	0	4	0	0	0	0	0	0	0	0	157
8:00 PM	1	59	15	0	0	1	0	0	0	0	0	0	0	76
9:00 PM	0	48	5	0	0	0	0	0	0	0	0	0	0	53
10:00 PM	0	57	6	0	2	0	0	0	0	0	0	0	0	65
11:00 PM	0	23	2	0	1	0	0	0	0	0	0	0	0	26
Total	33	2,279	466	1	148	5	0	1	0	0	0	0	0	2,933
Percent	1.1%	77.7%	15.9%	0.0%	5.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: ENCINAL AVE btwn FELTON DR/MIDDLEFIELD RD
Date Range: 3/27/2018 to 3/27/2018
Site Code: 11



Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	6	1	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
4:00 AM	0	4	1	0	1	0	0	0	0	0	0	0	0	6
5:00 AM	0	16	1	0	0	0	0	0	0	0	0	0	0	17
6:00 AM	0	34	7	0	7	0	0	0	0	0	0	0	0	48
7:00 AM	1	112	18	0	5	0	0	0	0	0	0	0	0	136
8:00 AM	4	230	20	0	5	0	0	0	0	0	0	0	0	259
9:00 AM	2	104	23	0	6	0	0	0	0	0	0	0	0	135
10:00 AM	2	86	26	0	6	0	0	0	0	0	0	0	0	120
11:00 AM	0	118	31	0	10	0	0	0	0	0	0	0	0	159
12:00 PM	2	102	20	0	11	0	0	0	0	0	0	0	0	135
1:00 PM	4	92	25	0	5	0	0	0	0	0	0	0	0	126
2:00 PM	0	119	37	0	11	1	0	0	0	0	0	0	0	168
3:00 PM	3	194	38	0	3	1	0	0	0	0	0	0	0	239
4:00 PM	8	174	31	0	12	0	0	0	0	0	0	0	0	225
5:00 PM	3	178	32	0	4	0	0	0	0	0	0	0	0	217
6:00 PM	6	169	31	0	5	0	0	0	0	0	0	0	0	211
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	2	63	13	0	3	1	0	0	0	0	0	0	0	82
9:00 PM	1	47	5	0	1	0	0	0	0	0	0	0	0	54
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	13	1	0	0	0	0	0	0	0	0	0	0	14
Total	38	1,872	361	0	95	3	0	0	0	0	0	0	0	2,369
Percent	1.6%	79.0%	15.2%	0.0%	4.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: ENCINAL AVE btwn FELTON DR/MIDDLEFIELD RD
Date Range: 3/27/2018 to 3/27/2018
Site Code: 11

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	8	1	0	0	0	0	0	0	0	0	0	0	9
1:00 AM	0	3	2	0	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
4:00 AM	0	4	3	0	1	1	0	0	0	0	0	0	0	9
5:00 AM	0	19	5	0	3	0	0	0	0	0	0	0	0	27
6:00 AM	1	58	16	0	10	2	0	0	0	0	0	0	0	87
7:00 AM	2	184	44	0	12	0	0	0	0	0	0	0	0	242
8:00 AM	5	188	31	0	16	1	0	0	0	0	0	0	0	241
9:00 AM	3	118	20	0	15	0	0	0	0	0	0	0	0	156
10:00 AM	0	124	41	0	17	0	0	0	0	0	0	0	0	182
11:00 AM	2	103	41	0	14	0	0	0	0	0	0	0	0	160
12:00 PM	1	120	20	0	8	0	0	0	0	0	0	0	0	149
1:00 PM	2	108	32	0	5	0	0	0	0	0	0	0	0	147
2:00 PM	2	156	26	1	9	0	0	0	0	0	0	0	0	194
3:00 PM	5	173	30	0	10	0	0	1	0	0	0	0	0	219
4:00 PM	1	200	29	0	9	0	0	0	0	0	0	0	0	239
5:00 PM	4	232	48	0	6	0	0	0	0	0	0	0	0	290
6:00 PM	3	159	25	0	6	0	0	0	0	0	0	0	0	193
7:00 PM	1	128	24	0	4	0	0	0	0	0	0	0	0	157
8:00 PM	1	59	15	0	0	1	0	0	0	0	0	0	0	76
9:00 PM	0	48	5	0	0	0	0	0	0	0	0	0	0	53
10:00 PM	0	57	6	0	2	0	0	0	0	0	0	0	0	65
11:00 PM	0	23	2	0	1	0	0	0	0	0	0	0	0	26
Total	33	2,279	466	1	148	5	0	1	0	0	0	0	0	2,933
Percent	1.1%	77.7%	15.9%	0.0%	5.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: ENCINAL AVE btwn FELTON DR/MIDDLEFIELD RD
Date Range: 3/27/2018 to 3/27/2018
Site Code: 11



3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	6	1	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
4:00 AM	0	4	1	0	1	0	0	0	0	0	0	0	0	6
5:00 AM	0	16	1	0	0	0	0	0	0	0	0	0	0	17
6:00 AM	0	34	7	0	7	0	0	0	0	0	0	0	0	48
7:00 AM	1	112	18	0	5	0	0	0	0	0	0	0	0	136
8:00 AM	4	230	20	0	5	0	0	0	0	0	0	0	0	259
9:00 AM	2	104	23	0	6	0	0	0	0	0	0	0	0	135
10:00 AM	2	86	26	0	6	0	0	0	0	0	0	0	0	120
11:00 AM	0	118	31	0	10	0	0	0	0	0	0	0	0	159
12:00 PM	2	102	20	0	11	0	0	0	0	0	0	0	0	135
1:00 PM	4	92	25	0	5	0	0	0	0	0	0	0	0	126
2:00 PM	0	119	37	0	11	1	0	0	0	0	0	0	0	168
3:00 PM	3	194	38	0	3	1	0	0	0	0	0	0	0	239
4:00 PM	8	174	31	0	12	0	0	0	0	0	0	0	0	225
5:00 PM	3	178	32	0	4	0	0	0	0	0	0	0	0	217
6:00 PM	6	169	31	0	5	0	0	0	0	0	0	0	0	211
7:00 PM	3	103	12	0	1	0	0	0	0	0	0	0	0	119
8:00 PM	2	63	13	0	3	1	0	0	0	0	0	0	0	82
9:00 PM	1	47	5	0	1	0	0	0	0	0	0	0	0	54
10:00 PM	0	33	2	0	0	0	0	0	0	0	0	0	0	35
11:00 PM	0	13	1	0	0	0	0	0	0	0	0	0	0	14
Total	41	2,008	375	0	96	3	0	0	0	0	0	0	0	2,523
Percent	1.6%	79.6%	14.9%	0.0%	3.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: ENCINAL AVE btwn FELTON DR/MIDDLEFIELD RD
Date Range: 3/27/2018 to 3/27/2018
Site Code: 11



3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	8	1	0	0	0	0	0	0	0	0	0	0	9
1:00 AM	0	3	2	0	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
4:00 AM	0	4	3	0	1	1	0	0	0	0	0	0	0	9
5:00 AM	0	19	5	0	3	0	0	0	0	0	0	0	0	27
6:00 AM	1	58	16	0	10	2	0	0	0	0	0	0	0	87
7:00 AM	2	184	44	0	12	0	0	0	0	0	0	0	0	242
8:00 AM	5	188	31	0	16	1	0	0	0	0	0	0	0	241
9:00 AM	3	118	20	0	15	0	0	0	0	0	0	0	0	156
10:00 AM	0	124	41	0	17	0	0	0	0	0	0	0	0	182
11:00 AM	2	103	41	0	14	0	0	0	0	0	0	0	0	160
12:00 PM	1	120	20	0	8	0	0	0	0	0	0	0	0	149
1:00 PM	2	108	32	0	5	0	0	0	0	0	0	0	0	147
2:00 PM	2	156	26	1	9	0	0	0	0	0	0	0	0	194
3:00 PM	5	173	30	0	10	0	0	1	0	0	0	0	0	219
4:00 PM	1	200	29	0	9	0	0	0	0	0	0	0	0	239
5:00 PM	4	232	48	0	6	0	0	0	0	0	0	0	0	290
6:00 PM	3	159	25	0	6	0	0	0	0	0	0	0	0	193
7:00 PM	1	128	24	0	4	0	0	0	0	0	0	0	0	157
8:00 PM	1	59	15	0	0	1	0	0	0	0	0	0	0	76
9:00 PM	0	48	5	0	0	0	0	0	0	0	0	0	0	53
10:00 PM	0	57	6	0	2	0	0	0	0	0	0	0	0	65
11:00 PM	0	23	2	0	1	0	0	0	0	0	0	0	0	26
Total	33	2,279	466	1	148	5	0	1	0	0	0	0	0	2,933
Percent	1.1%	77.7%	15.9%	0.0%	5.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Vehicle Speed Report Summary

Location: ENCINAL AVE btwn FELTON DR/MIDDLEFIELD RD

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 11

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Northbound	5	32	85	377	930	853	205	32	4	0	0	0	0	0	0	0	0	2,523
Percent	0.2%	1.3%	3.4%	14.9%	36.9%	33.8%	8.1%	1.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	68	49	115	423	958	997	284	36	3	0	0	0	0	0	0	0	0	2,933
Percent	2.3%	1.7%	3.9%	14.4%	32.7%	34.0%	9.7%	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	73	81	200	800	1,888	1,850	489	68	7	0	0	0	0	0	0	0	0	5,456
Percent	1.3%	1.5%	3.7%	14.7%	34.6%	33.9%	9.0%	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Northbound				Northbound			
50th Percentile (Median)	29.1	mph		Mean (Average) Speed	28.9	mph	
85th Percentile	33.5	mph		10 mph Pace	24.6 - 34.6	mph	
95th Percentile	36.9	mph		Percent in Pace	71.3	%	
Southbound				Southbound			
50th Percentile (Median)	29.2	mph		Mean (Average) Speed	28.6	mph	
85th Percentile	34.1	mph		10 mph Pace	24.8 - 34.8	mph	
95th Percentile	37.1	mph		Percent in Pace	66.8	%	

Location: ENCINAL AVE btwn FELTON DR/MIDDLEFIELD RD
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 11



Tuesday, March 27, 2018
 Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	4	2	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	0	1	0	0	3	1	0	0	0	0	0	0	0	0	0	0	5
4:00 AM	0	0	0	1	0	2	3	0	0	0	0	0	0	0	0	0	0	6
5:00 AM	0	0	0	2	6	8	1	0	0	0	0	0	0	0	0	0	0	17
6:00 AM	0	0	3	5	9	23	7	1	0	0	0	0	0	0	0	0	0	48
7:00 AM	0	0	8	43	39	39	5	2	0	0	0	0	0	0	0	0	0	136
8:00 AM	2	6	20	81	88	54	5	2	1	0	0	0	0	0	0	0	0	259
9:00 AM	0	2	1	11	49	59	12	0	1	0	0	0	0	0	0	0	0	135
10:00 AM	1	3	2	13	39	47	12	2	1	0	0	0	0	0	0	0	0	120
11:00 AM	0	0	0	19	76	53	7	4	0	0	0	0	0	0	0	0	0	159
12:00 PM	0	2	0	15	47	58	13	0	0	0	0	0	0	0	0	0	0	135
1:00 PM	0	3	3	17	47	38	12	6	0	0	0	0	0	0	0	0	0	126
2:00 PM	0	0	11	47	69	30	10	1	0	0	0	0	0	0	0	0	0	168
3:00 PM	0	4	17	40	84	76	16	1	1	0	0	0	0	0	0	0	0	239
4:00 PM	1	5	5	22	96	78	14	4	0	0	0	0	0	0	0	0	0	225
5:00 PM	1	2	5	24	87	81	13	4	0	0	0	0	0	0	0	0	0	217
6:00 PM	0	3	3	15	81	80	28	1	0	0	0	0	0	0	0	0	0	211
7:00 PM	0	2	3	12	37	48	14	3	0	0	0	0	0	0	0	0	0	119
8:00 PM	0	0	2	6	34	29	11	0	0	0	0	0	0	0	0	0	0	82
9:00 PM	0	0	1	3	26	17	7	0	0	0	0	0	0	0	0	0	0	54
10:00 PM	0	0	0	0	9	16	10	0	0	0	0	0	0	0	0	0	0	35
11:00 PM	0	0	0	1	4	7	1	1	0	0	0	0	0	0	0	0	0	14
Total	5	32	85	377	930	853	205	32	4	0	0	0	0	0	0	0	0	2,523
Percent	0.2%	1.3%	3.4%	14.9%	36.9%	33.8%	8.1%	1.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	29.1	mph	Mean (Average) Speed	28.9	mph
85th Percentile	33.5	mph	10 mph Pace	24.6 - 34.6	mph
95th Percentile	36.9	mph	Percent in Pace	71.3	%

Location: ENCINAL AVE btwn FELTON DR/MIDDLEFIELD RD
Date Range: 3/27/2018 to 3/27/2018
Site Code: 11

Tuesday, March 27, 2018
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	4	2	2	1	0	0	0	0	0	0	0	0	0	9
1:00 AM	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	4
4:00 AM	0	0	0	0	2	3	4	0	0	0	0	0	0	0	0	0	0	9
5:00 AM	0	0	0	1	7	12	5	2	0	0	0	0	0	0	0	0	0	27
6:00 AM	0	0	3	7	29	35	12	0	1	0	0	0	0	0	0	0	0	87
7:00 AM	35	23	26	57	44	43	13	1	0	0	0	0	0	0	0	0	0	242
8:00 AM	14	1	19	58	93	45	11	0	0	0	0	0	0	0	0	0	0	241
9:00 AM	1	1	4	16	50	60	23	1	0	0	0	0	0	0	0	0	0	156
10:00 AM	0	0	3	17	67	69	22	4	0	0	0	0	0	0	0	0	0	182
11:00 AM	0	2	1	25	59	55	13	4	1	0	0	0	0	0	0	0	0	160
12:00 PM	0	1	1	17	43	60	23	3	1	0	0	0	0	0	0	0	0	149
1:00 PM	0	2	1	18	44	57	22	3	0	0	0	0	0	0	0	0	0	147
2:00 PM	14	4	21	56	58	30	11	0	0	0	0	0	0	0	0	0	0	194
3:00 PM	4	10	16	50	64	63	10	2	0	0	0	0	0	0	0	0	0	219
4:00 PM	0	1	7	27	90	92	21	1	0	0	0	0	0	0	0	0	0	239
5:00 PM	0	2	8	31	122	103	22	2	0	0	0	0	0	0	0	0	0	290
6:00 PM	0	1	5	18	63	86	17	3	0	0	0	0	0	0	0	0	0	193
7:00 PM	0	0	0	11	54	75	16	1	0	0	0	0	0	0	0	0	0	157
8:00 PM	0	1	0	9	24	35	4	3	0	0	0	0	0	0	0	0	0	76
9:00 PM	0	0	0	2	18	21	10	2	0	0	0	0	0	0	0	0	0	53
10:00 PM	0	0	0	3	15	34	12	1	0	0	0	0	0	0	0	0	0	65
11:00 PM	0	0	0	0	5	14	5	2	0	0	0	0	0	0	0	0	0	26
Total	68	49	115	423	958	997	284	36	3	0	0	0	0	0	0	0	0	2,933
Percent	2.3%	1.7%	3.9%	14.4%	32.7%	34.0%	9.7%	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	29.2	mph	Mean (Average) Speed	28.6	mph
85th Percentile	34.1	mph	10 mph Pace	24.8 - 34.8	mph
95th Percentile	37.1	mph	Percent in Pace	66.8	%

Location: ENCINAL AVE btwn FELTON DR/MIDDLEFIELD RD
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 11

Total Study Average
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	4	2	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	0	1	0	0	3	1	0	0	0	0	0	0	0	0	0	0	5
4:00 AM	0	0	0	1	0	2	3	0	0	0	0	0	0	0	0	0	0	6
5:00 AM	0	0	0	2	6	8	1	0	0	0	0	0	0	0	0	0	0	17
6:00 AM	0	0	3	5	9	23	7	1	0	0	0	0	0	0	0	0	0	48
7:00 AM	0	0	8	43	39	39	5	2	0	0	0	0	0	0	0	0	0	136
8:00 AM	2	6	20	81	88	54	5	2	1	0	0	0	0	0	0	0	0	259
9:00 AM	0	2	1	11	49	59	12	0	1	0	0	0	0	0	0	0	0	135
10:00 AM	1	3	2	13	39	47	12	2	1	0	0	0	0	0	0	0	0	120
11:00 AM	0	0	0	19	76	53	7	4	0	0	0	0	0	0	0	0	0	159
12:00 PM	0	2	0	15	47	58	13	0	0	0	0	0	0	0	0	0	0	135
1:00 PM	0	3	3	17	47	38	12	6	0	0	0	0	0	0	0	0	0	126
2:00 PM	0	0	11	47	69	30	10	1	0	0	0	0	0	0	0	0	0	168
3:00 PM	0	4	17	40	84	76	16	1	1	0	0	0	0	0	0	0	0	239
4:00 PM	1	5	5	22	96	78	14	4	0	0	0	0	0	0	0	0	0	225
5:00 PM	1	2	5	24	87	81	13	4	0	0	0	0	0	0	0	0	0	217
6:00 PM	0	3	3	15	81	80	28	1	0	0	0	0	0	0	0	0	0	211
7:00 PM	0	2	3	12	37	48	14	3	0	0	0	0	0	0	0	0	0	119
8:00 PM	0	0	2	6	34	29	11	0	0	0	0	0	0	0	0	0	0	82
9:00 PM	0	0	1	3	26	17	7	0	0	0	0	0	0	0	0	0	0	54
10:00 PM	0	0	0	0	9	16	10	0	0	0	0	0	0	0	0	0	0	35
11:00 PM	0	0	0	1	4	7	1	1	0	0	0	0	0	0	0	0	0	14
Total	5	32	85	377	930	853	205	32	4	0	0	0	0	0	0	0	0	2,523
Percent	0.2%	1.3%	3.4%	14.9%	36.9%	33.8%	8.1%	1.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	29.1	mph	Mean (Average) Speed	28.9	mph
85th Percentile	33.5	mph	10 mph Pace	24.6 - 34.6	mph
95th Percentile	36.9	mph	Percent in Pace	71.3	%

Location: ENCINAL AVE btwn FELTON DR/MIDDLEFIELD RD
Date Range: 3/27/2018 to 3/27/2018
Site Code: 11

Total Study Average
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	4	2	2	1	0	0	0	0	0	0	0	0	0	9
1:00 AM	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	4
4:00 AM	0	0	0	0	2	3	4	0	0	0	0	0	0	0	0	0	0	9
5:00 AM	0	0	0	1	7	12	5	2	0	0	0	0	0	0	0	0	0	27
6:00 AM	0	0	3	7	29	35	12	0	1	0	0	0	0	0	0	0	0	87
7:00 AM	35	23	26	57	44	43	13	1	0	0	0	0	0	0	0	0	0	242
8:00 AM	14	1	19	58	93	45	11	0	0	0	0	0	0	0	0	0	0	241
9:00 AM	1	1	4	16	50	60	23	1	0	0	0	0	0	0	0	0	0	156
10:00 AM	0	0	3	17	67	69	22	4	0	0	0	0	0	0	0	0	0	182
11:00 AM	0	2	1	25	59	55	13	4	1	0	0	0	0	0	0	0	0	160
12:00 PM	0	1	1	17	43	60	23	3	1	0	0	0	0	0	0	0	0	149
1:00 PM	0	2	1	18	44	57	22	3	0	0	0	0	0	0	0	0	0	147
2:00 PM	14	4	21	56	58	30	11	0	0	0	0	0	0	0	0	0	0	194
3:00 PM	4	10	16	50	64	63	10	2	0	0	0	0	0	0	0	0	0	219
4:00 PM	0	1	7	27	90	92	21	1	0	0	0	0	0	0	0	0	0	239
5:00 PM	0	2	8	31	122	103	22	2	0	0	0	0	0	0	0	0	0	290
6:00 PM	0	1	5	18	63	86	17	3	0	0	0	0	0	0	0	0	0	193
7:00 PM	0	0	0	11	54	75	16	1	0	0	0	0	0	0	0	0	0	157
8:00 PM	0	1	0	9	24	35	4	3	0	0	0	0	0	0	0	0	0	76
9:00 PM	0	0	0	2	18	21	10	2	0	0	0	0	0	0	0	0	0	53
10:00 PM	0	0	0	3	15	34	12	1	0	0	0	0	0	0	0	0	0	65
11:00 PM	0	0	0	0	5	14	5	2	0	0	0	0	0	0	0	0	0	26
Total	68	49	115	423	958	997	284	36	3	0	0	0	0	0	0	0	0	2,933
Percent	2.3%	1.7%	3.9%	14.4%	32.7%	34.0%	9.7%	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	29.2	mph	Mean (Average) Speed	28.6	mph
85th Percentile	34.1	mph	10 mph Pace	24.8 - 34.8	mph
95th Percentile	37.1	mph	Percent in Pace	66.8	%

Location: ENCINAL AVE btwn FELTON DR/MIDDLEFIELD RD
 Date Range: 3/27/2018 - 4/2/2018
 Site Code: 11

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	3/27/2018			3/28/2018			3/29/2018			3/30/2018			3/31/2018			4/1/2018			4/2/2018					
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	7	9	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	9	16
1:00 AM	3	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	5	8
2:00 AM	3	3	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	6
3:00 AM	5	4	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	4	9
4:00 AM	6	9	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	9	15
5:00 AM	17	27	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	27	44
6:00 AM	48	87	135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	87	135
7:00 AM	136	242	378	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	136	242	378
8:00 AM	259	241	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	259	241	500
9:00 AM	135	156	291	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	135	156	291
10:00 AM	120	182	302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120	182	302
11:00 AM	159	160	319	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	159	160	319
12:00 PM	135	149	284	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	135	149	284
1:00 PM	126	147	273	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	126	147	273
2:00 PM	168	194	362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	168	194	362
3:00 PM	239	219	458	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	239	219	458
4:00 PM	225	239	464	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	225	239	464
5:00 PM	217	290	507	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	217	290	507
6:00 PM	211	193	404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	211	193	404
7:00 PM	119	157	276	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	119	157	276
8:00 PM	82	76	158	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82	76	158
9:00 PM	54	53	107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	53	107
10:00 PM	35	65	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	65	100
11:00 PM	14	26	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	26	40
Total	2,523	2,933	5,456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,523	2,933	5,456
Percent	46%	54%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46%	54%	-

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary



Location: GLENWOOD AVE btwn MIDDLEFIELD RDFENWOOD DR

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 12

	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Study Total														
Northbound	21	1,306	319	4	121	0	0	1	0	0	0	0	0	1,772
Percent	1.2%	73.7%	18.0%	0.2%	6.8%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	21	2,182	411	3	144	2	0	1	1	0	0	0	0	2,765
Percent	0.8%	78.9%	14.9%	0.1%	5.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	42	3,488	730	7	265	2	0	2	1	0	0	0	0	4,537
Percent	0.9%	76.9%	16.1%	0.2%	5.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: GLENWOOD AVE btwn MIDDLEFIELD RDFENWOOD DR
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 12



Tuesday, March 27, 2018
 Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	4	1	0	1	0	0	0	0	0	0	0	0	6
5:00 AM	0	6	2	0	0	0	0	0	0	0	0	0	0	8
6:00 AM	2	35	5	0	1	0	0	0	0	0	0	0	0	43
7:00 AM	1	78	18	0	4	0	0	0	0	0	0	0	0	101
8:00 AM	3	132	23	0	9	0	0	0	0	0	0	0	0	167
9:00 AM	0	77	22	0	10	0	0	0	0	0	0	0	0	109
10:00 AM	1	77	19	0	8	0	0	0	0	0	0	0	0	105
11:00 AM	1	88	25	1	10	0	0	0	0	0	0	0	0	125
12:00 PM	1	65	25	0	14	0	0	0	0	0	0	0	0	105
1:00 PM	2	69	23	2	13	0	0	0	0	0	0	0	0	109
2:00 PM	2	90	28	0	11	0	0	0	0	0	0	0	0	131
3:00 PM	2	93	38	0	17	0	0	1	0	0	0	0	0	151
4:00 PM	1	96	19	1	4	0	0	0	0	0	0	0	0	121
5:00 PM	1	81	19	0	5	0	0	0	0	0	0	0	0	106
6:00 PM	2	93	17	0	6	0	0	0	0	0	0	0	0	118
7:00 PM	1	77	13	0	4	0	0	0	0	0	0	0	0	95
8:00 PM	0	52	9	0	2	0	0	0	0	0	0	0	0	63
9:00 PM	1	43	7	0	2	0	0	0	0	0	0	0	0	53
10:00 PM	0	30	4	0	0	0	0	0	0	0	0	0	0	34
11:00 PM	0	14	1	0	0	0	0	0	0	0	0	0	0	15
Total	21	1,306	319	4	121	0	0	1	0	0	0	0	0	1,772
Percent	1.2%	73.7%	18.0%	0.2%	6.8%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: GLENWOOD AVE btwn MIDDLEFIELD RDFENWOOD DR
Date Range: 3/27/2018 to 3/27/2018
Site Code: 12



Tuesday, March 27, 2018
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	11	3	0	0	0	0	0	0	0	0	0	0	14
5:00 AM	0	23	2	0	2	0	0	0	0	0	0	0	0	27
6:00 AM	0	65	28	0	3	0	0	0	1	0	0	0	0	97
7:00 AM	3	170	38	0	10	0	0	0	0	0	0	0	0	221
8:00 AM	0	170	39	0	30	2	0	0	0	0	0	0	0	241
9:00 AM	4	108	27	0	12	0	0	0	0	0	0	0	0	151
10:00 AM	2	136	31	1	15	0	0	0	0	0	0	0	0	185
11:00 AM	1	143	27	1	10	0	0	0	0	0	0	0	0	182
12:00 PM	3	126	20	1	13	0	0	0	0	0	0	0	0	163
1:00 PM	0	112	36	0	9	0	0	1	0	0	0	0	0	158
2:00 PM	0	173	33	0	16	0	0	0	0	0	0	0	0	222
3:00 PM	1	180	36	0	9	0	0	0	0	0	0	0	0	226
4:00 PM	3	167	29	0	7	0	0	0	0	0	0	0	0	206
5:00 PM	3	141	25	0	2	0	0	0	0	0	0	0	0	171
6:00 PM	0	154	13	0	3	0	0	0	0	0	0	0	0	170
7:00 PM	0	113	12	0	2	0	0	0	0	0	0	0	0	127
8:00 PM	0	63	4	0	0	0	0	0	0	0	0	0	0	67
9:00 PM	1	47	3	0	1	0	0	0	0	0	0	0	0	52
10:00 PM	0	45	2	0	0	0	0	0	0	0	0	0	0	47
11:00 PM	0	25	3	0	0	0	0	0	0	0	0	0	0	28
Total	21	2,182	411	3	144	2	0	1	1	0	0	0	0	2,765
Percent	0.8%	78.9%	14.9%	0.1%	5.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: GLENWOOD AVE btwn MIDDLEFIELD RDFENWOOD DR
Date Range: 3/27/2018 to 3/27/2018
Site Code: 12

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	4	1	0	1	0	0	0	0	0	0	0	0	6
5:00 AM	0	6	2	0	0	0	0	0	0	0	0	0	0	8
6:00 AM	2	35	5	0	1	0	0	0	0	0	0	0	0	43
7:00 AM	1	78	18	0	4	0	0	0	0	0	0	0	0	101
8:00 AM	3	132	23	0	9	0	0	0	0	0	0	0	0	167
9:00 AM	0	77	22	0	10	0	0	0	0	0	0	0	0	109
10:00 AM	1	77	19	0	8	0	0	0	0	0	0	0	0	105
11:00 AM	1	88	25	1	10	0	0	0	0	0	0	0	0	125
12:00 PM	1	65	25	0	14	0	0	0	0	0	0	0	0	105
1:00 PM	2	69	23	2	13	0	0	0	0	0	0	0	0	109
2:00 PM	2	90	28	0	11	0	0	0	0	0	0	0	0	131
3:00 PM	2	93	38	0	17	0	0	1	0	0	0	0	0	151
4:00 PM	1	96	19	1	4	0	0	0	0	0	0	0	0	121
5:00 PM	1	81	19	0	5	0	0	0	0	0	0	0	0	106
6:00 PM	2	93	17	0	6	0	0	0	0	0	0	0	0	118
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	52	9	0	2	0	0	0	0	0	0	0	0	63
9:00 PM	1	43	7	0	2	0	0	0	0	0	0	0	0	53
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	14	1	0	0	0	0	0	0	0	0	0	0	15
Total	20	1,199	302	4	117	0	0	1	0	0	0	0	0	1,643
Percent	1.2%	73.0%	18.4%	0.2%	7.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: GLENWOOD AVE btwn MIDDLEFIELD RDFENWOOD DR
Date Range: 3/27/2018 to 3/27/2018
Site Code: 12

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	11	3	0	0	0	0	0	0	0	0	0	0	14
5:00 AM	0	23	2	0	2	0	0	0	0	0	0	0	0	27
6:00 AM	0	65	28	0	3	0	0	0	1	0	0	0	0	97
7:00 AM	3	170	38	0	10	0	0	0	0	0	0	0	0	221
8:00 AM	0	170	39	0	30	2	0	0	0	0	0	0	0	241
9:00 AM	4	108	27	0	12	0	0	0	0	0	0	0	0	151
10:00 AM	2	136	31	1	15	0	0	0	0	0	0	0	0	185
11:00 AM	1	143	27	1	10	0	0	0	0	0	0	0	0	182
12:00 PM	3	126	20	1	13	0	0	0	0	0	0	0	0	163
1:00 PM	0	112	36	0	9	0	0	1	0	0	0	0	0	158
2:00 PM	0	173	33	0	16	0	0	0	0	0	0	0	0	222
3:00 PM	1	180	36	0	9	0	0	0	0	0	0	0	0	226
4:00 PM	3	167	29	0	7	0	0	0	0	0	0	0	0	206
5:00 PM	3	141	25	0	2	0	0	0	0	0	0	0	0	171
6:00 PM	0	154	13	0	3	0	0	0	0	0	0	0	0	170
7:00 PM	0	113	12	0	2	0	0	0	0	0	0	0	0	127
8:00 PM	0	63	4	0	0	0	0	0	0	0	0	0	0	67
9:00 PM	1	47	3	0	1	0	0	0	0	0	0	0	0	52
10:00 PM	0	45	2	0	0	0	0	0	0	0	0	0	0	47
11:00 PM	0	25	3	0	0	0	0	0	0	0	0	0	0	28
Total	21	2,182	411	3	144	2	0	1	1	0	0	0	0	2,765
Percent	0.8%	78.9%	14.9%	0.1%	5.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: GLENWOOD AVE btwn MIDDLEFIELD RDFENWOOD DR
Date Range: 3/27/2018 to 3/27/2018
Site Code: 12

3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	4	1	0	1	0	0	0	0	0	0	0	0	6
5:00 AM	0	6	2	0	0	0	0	0	0	0	0	0	0	8
6:00 AM	2	35	5	0	1	0	0	0	0	0	0	0	0	43
7:00 AM	1	78	18	0	4	0	0	0	0	0	0	0	0	101
8:00 AM	3	132	23	0	9	0	0	0	0	0	0	0	0	167
9:00 AM	0	77	22	0	10	0	0	0	0	0	0	0	0	109
10:00 AM	1	77	19	0	8	0	0	0	0	0	0	0	0	105
11:00 AM	1	88	25	1	10	0	0	0	0	0	0	0	0	125
12:00 PM	1	65	25	0	14	0	0	0	0	0	0	0	0	105
1:00 PM	2	69	23	2	13	0	0	0	0	0	0	0	0	109
2:00 PM	2	90	28	0	11	0	0	0	0	0	0	0	0	131
3:00 PM	2	93	38	0	17	0	0	1	0	0	0	0	0	151
4:00 PM	1	96	19	1	4	0	0	0	0	0	0	0	0	121
5:00 PM	1	81	19	0	5	0	0	0	0	0	0	0	0	106
6:00 PM	2	93	17	0	6	0	0	0	0	0	0	0	0	118
7:00 PM	1	77	13	0	4	0	0	0	0	0	0	0	0	95
8:00 PM	0	52	9	0	2	0	0	0	0	0	0	0	0	63
9:00 PM	1	43	7	0	2	0	0	0	0	0	0	0	0	53
10:00 PM	0	30	4	0	0	0	0	0	0	0	0	0	0	34
11:00 PM	0	14	1	0	0	0	0	0	0	0	0	0	0	15
Total	21	1,306	319	4	121	0	0	1	0	0	0	0	0	1,772
Percent	1.2%	73.7%	18.0%	0.2%	6.8%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: GLENWOOD AVE btwn MIDDLEFIELD RDFENWOOD DR
Date Range: 3/27/2018 to 3/27/2018
Site Code: 12

3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	11	3	0	0	0	0	0	0	0	0	0	0	14
5:00 AM	0	23	2	0	2	0	0	0	0	0	0	0	0	27
6:00 AM	0	65	28	0	3	0	0	0	1	0	0	0	0	97
7:00 AM	3	170	38	0	10	0	0	0	0	0	0	0	0	221
8:00 AM	0	170	39	0	30	2	0	0	0	0	0	0	0	241
9:00 AM	4	108	27	0	12	0	0	0	0	0	0	0	0	151
10:00 AM	2	136	31	1	15	0	0	0	0	0	0	0	0	185
11:00 AM	1	143	27	1	10	0	0	0	0	0	0	0	0	182
12:00 PM	3	126	20	1	13	0	0	0	0	0	0	0	0	163
1:00 PM	0	112	36	0	9	0	0	1	0	0	0	0	0	158
2:00 PM	0	173	33	0	16	0	0	0	0	0	0	0	0	222
3:00 PM	1	180	36	0	9	0	0	0	0	0	0	0	0	226
4:00 PM	3	167	29	0	7	0	0	0	0	0	0	0	0	206
5:00 PM	3	141	25	0	2	0	0	0	0	0	0	0	0	171
6:00 PM	0	154	13	0	3	0	0	0	0	0	0	0	0	170
7:00 PM	0	113	12	0	2	0	0	0	0	0	0	0	0	127
8:00 PM	0	63	4	0	0	0	0	0	0	0	0	0	0	67
9:00 PM	1	47	3	0	1	0	0	0	0	0	0	0	0	52
10:00 PM	0	45	2	0	0	0	0	0	0	0	0	0	0	47
11:00 PM	0	25	3	0	0	0	0	0	0	0	0	0	0	28
Total	21	2,182	411	3	144	2	0	1	1	0	0	0	0	2,765
Percent	0.8%	78.9%	14.9%	0.1%	5.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Vehicle Speed Report Summary

Location: GLENWOOD AVE btwn MIDDLEFIELD RD/FENWOOD DR

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 12

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Northbound	3	11	27	54	489	768	351	59	7	1	0	1	1	0	0	0	0	1,772
Percent	0.2%	0.6%	1.5%	3.0%	27.6%	43.3%	19.8%	3.3%	0.4%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	0	12	18	216	949	1,160	348	53	8	1	0	0	0	0	0	0	0	2,765
Percent	0.0%	0.4%	0.7%	7.8%	34.3%	42.0%	12.6%	1.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	3	23	45	270	1,438	1,928	699	112	15	2	0	1	1	0	0	0	0	4,537
Percent	0.1%	0.5%	1.0%	6.0%	31.7%	42.5%	15.4%	2.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Northbound				Northbound			
50th Percentile (Median)		31.7	mph	Mean (Average) Speed		31.8	mph
85th Percentile		36.5	mph	10 mph Pace		27.0 - 37.0	mph
95th Percentile		39.3	mph	Percent in Pace		74.9	%
Southbound				Southbound			
50th Percentile (Median)		30.5	mph	Mean (Average) Speed		30.7	mph
85th Percentile		34.8	mph	10 mph Pace		25.4 - 35.4	mph
95th Percentile		37.8	mph	Percent in Pace		76.7	%

Location: GLENWOOD AVE btwn MIDDLEFIELD RD/FENWOOD DR
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 12

Tuesday, March 27, 2018
 Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	2	4	0	0	0	0	0	0	0	0	0	0	0	6
5:00 AM	0	0	0	1	2	3	2	0	0	0	0	0	0	0	0	0	0	8
6:00 AM	0	0	2	0	9	23	6	3	0	0	0	0	0	0	0	0	0	43
7:00 AM	0	0	2	3	24	49	19	4	0	0	0	0	0	0	0	0	0	101
8:00 AM	0	2	2	5	57	68	28	4	1	0	0	0	0	0	0	0	0	167
9:00 AM	0	0	0	2	31	43	28	4	1	0	0	0	0	0	0	0	0	109
10:00 AM	0	2	7	2	20	46	23	5	0	0	0	0	0	0	0	0	0	105
11:00 AM	0	1	3	2	37	54	26	2	0	0	0	0	0	0	0	0	0	125
12:00 PM	0	0	2	4	23	55	16	5	0	0	0	0	0	0	0	0	0	105
1:00 PM	0	0	2	4	38	41	21	3	0	0	0	0	0	0	0	0	0	109
2:00 PM	1	1	0	2	38	66	18	4	1	0	0	0	0	0	0	0	0	131
3:00 PM	0	1	2	2	40	75	28	2	0	1	0	0	0	0	0	0	0	151
4:00 PM	0	1	3	9	37	48	21	0	2	0	0	0	0	0	0	0	0	121
5:00 PM	2	1	1	4	22	39	30	6	1	0	0	0	0	0	0	0	0	106
6:00 PM	0	1	0	5	30	49	28	5	0	0	0	0	0	0	0	0	0	118
7:00 PM	0	0	0	3	25	47	14	5	0	0	0	0	1	0	0	0	0	95
8:00 PM	0	0	0	1	23	24	11	3	1	0	0	0	0	0	0	0	0	63
9:00 PM	0	1	1	5	14	17	14	0	0	0	0	1	0	0	0	0	0	53
10:00 PM	0	0	0	0	12	11	11	0	0	0	0	0	0	0	0	0	0	34
11:00 PM	0	0	0	0	3	4	7	1	0	0	0	0	0	0	0	0	0	15
Total	3	11	27	54	489	768	351	59	7	1	0	1	1	0	0	0	0	1,772
Percent	0.2%	0.6%	1.5%	3.0%	27.6%	43.3%	19.8%	3.3%	0.4%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	31.7	mph	Mean (Average) Speed	31.8	mph
85th Percentile	36.5	mph	10 mph Pace	27.0 - 37.0	mph
95th Percentile	39.3	mph	Percent in Pace	74.9	%

Location: GLENWOOD AVE btwn MIDDLEFIELD RD/FENWOOD DR
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 12

Tuesday, March 27, 2018
 Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	5
1:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	1	3	8	2	0	0	0	0	0	0	0	0	0	0	14
5:00 AM	0	0	0	2	8	12	5	0	0	0	0	0	0	0	0	0	0	27
6:00 AM	0	0	1	1	29	49	14	2	1	0	0	0	0	0	0	0	0	97
7:00 AM	0	3	0	19	77	93	23	5	1	0	0	0	0	0	0	0	0	221
8:00 AM	0	0	2	27	95	95	17	5	0	0	0	0	0	0	0	0	0	241
9:00 AM	0	1	2	7	56	67	15	3	0	0	0	0	0	0	0	0	0	151
10:00 AM	0	2	1	8	53	88	27	5	1	0	0	0	0	0	0	0	0	185
11:00 AM	0	0	3	11	67	77	22	1	1	0	0	0	0	0	0	0	0	182
12:00 PM	0	0	1	13	44	69	34	1	1	0	0	0	0	0	0	0	0	163
1:00 PM	0	0	1	13	47	62	33	2	0	0	0	0	0	0	0	0	0	158
2:00 PM	0	0	1	19	97	80	19	6	0	0	0	0	0	0	0	0	0	222
3:00 PM	0	0	0	16	82	96	28	4	0	0	0	0	0	0	0	0	0	226
4:00 PM	0	4	2	19	59	85	27	8	1	1	0	0	0	0	0	0	0	206
5:00 PM	0	2	1	17	57	72	18	3	1	0	0	0	0	0	0	0	0	171
6:00 PM	0	0	1	9	60	75	22	3	0	0	0	0	0	0	0	0	0	170
7:00 PM	0	0	0	11	45	54	15	1	1	0	0	0	0	0	0	0	0	127
8:00 PM	0	0	1	10	27	23	6	0	0	0	0	0	0	0	0	0	0	67
9:00 PM	0	0	0	7	18	23	4	0	0	0	0	0	0	0	0	0	0	52
10:00 PM	0	0	0	4	10	19	12	2	0	0	0	0	0	0	0	0	0	47
11:00 PM	0	0	1	1	11	10	3	2	0	0	0	0	0	0	0	0	0	28
Total	0	12	18	216	949	1,160	348	53	8	1	0	0	0	0	0	0	0	2,765
Percent	0.0%	0.4%	0.7%	7.8%	34.3%	42.0%	12.6%	1.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	30.5	mph	Mean (Average) Speed	30.7	mph
85th Percentile	34.8	mph	10 mph Pace	25.4 - 35.4	mph
95th Percentile	37.8	mph	Percent in Pace	76.7	%

Location: GLENWOOD AVE btwn MIDDLEFIELD RDFENWOOD DR
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 12

Total Study Average
 Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	2	4	0	0	0	0	0	0	0	0	0	0	0	6
5:00 AM	0	0	0	1	2	3	2	0	0	0	0	0	0	0	0	0	0	8
6:00 AM	0	0	2	0	9	23	6	3	0	0	0	0	0	0	0	0	0	43
7:00 AM	0	0	2	3	24	49	19	4	0	0	0	0	0	0	0	0	0	101
8:00 AM	0	2	2	5	57	68	28	4	1	0	0	0	0	0	0	0	0	167
9:00 AM	0	0	0	2	31	43	28	4	1	0	0	0	0	0	0	0	0	109
10:00 AM	0	2	7	2	20	46	23	5	0	0	0	0	0	0	0	0	0	105
11:00 AM	0	1	3	2	37	54	26	2	0	0	0	0	0	0	0	0	0	125
12:00 PM	0	0	2	4	23	55	16	5	0	0	0	0	0	0	0	0	0	105
1:00 PM	0	0	2	4	38	41	21	3	0	0	0	0	0	0	0	0	0	109
2:00 PM	1	1	0	2	38	66	18	4	1	0	0	0	0	0	0	0	0	131
3:00 PM	0	1	2	2	40	75	28	2	0	1	0	0	0	0	0	0	0	151
4:00 PM	0	1	3	9	37	48	21	0	2	0	0	0	0	0	0	0	0	121
5:00 PM	2	1	1	4	22	39	30	6	1	0	0	0	0	0	0	0	0	106
6:00 PM	0	1	0	5	30	49	28	5	0	0	0	0	0	0	0	0	0	118
7:00 PM	0	0	0	3	25	47	14	5	0	0	0	0	1	0	0	0	0	95
8:00 PM	0	0	0	1	23	24	11	3	1	0	0	0	0	0	0	0	0	63
9:00 PM	0	1	1	5	14	17	14	0	0	0	0	1	0	0	0	0	0	53
10:00 PM	0	0	0	0	12	11	11	0	0	0	0	0	0	0	0	0	0	34
11:00 PM	0	0	0	0	3	4	7	1	0	0	0	0	0	0	0	0	0	15
Total	3	11	27	54	489	768	351	59	7	1	0	1	1	0	0	0	0	1,772
Percent	0.2%	0.6%	1.5%	3.0%	27.6%	43.3%	19.8%	3.3%	0.4%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	31.7	mph	Mean (Average) Speed	31.8	mph
85th Percentile	36.5	mph	10 mph Pace	27.0 - 37.0	mph
95th Percentile	39.3	mph	Percent in Pace	74.9	%

Location: GLENWOOD AVE btwn MIDDLEFIELD RDFENWOOD DR
Date Range: 3/27/2018 to 3/27/2018
Site Code: 12

Total Study Average
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	5
1:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	1	3	8	2	0	0	0	0	0	0	0	0	0	0	14
5:00 AM	0	0	0	2	8	12	5	0	0	0	0	0	0	0	0	0	0	27
6:00 AM	0	0	1	1	29	49	14	2	1	0	0	0	0	0	0	0	0	97
7:00 AM	0	3	0	19	77	93	23	5	1	0	0	0	0	0	0	0	0	221
8:00 AM	0	0	2	27	95	95	17	5	0	0	0	0	0	0	0	0	0	241
9:00 AM	0	1	2	7	56	67	15	3	0	0	0	0	0	0	0	0	0	151
10:00 AM	0	2	1	8	53	88	27	5	1	0	0	0	0	0	0	0	0	185
11:00 AM	0	0	3	11	67	77	22	1	1	0	0	0	0	0	0	0	0	182
12:00 PM	0	0	1	13	44	69	34	1	1	0	0	0	0	0	0	0	0	163
1:00 PM	0	0	1	13	47	62	33	2	0	0	0	0	0	0	0	0	0	158
2:00 PM	0	0	1	19	97	80	19	6	0	0	0	0	0	0	0	0	0	222
3:00 PM	0	0	0	16	82	96	28	4	0	0	0	0	0	0	0	0	0	226
4:00 PM	0	4	2	19	59	85	27	8	1	1	0	0	0	0	0	0	0	206
5:00 PM	0	2	1	17	57	72	18	3	1	0	0	0	0	0	0	0	0	171
6:00 PM	0	0	1	9	60	75	22	3	0	0	0	0	0	0	0	0	0	170
7:00 PM	0	0	0	11	45	54	15	1	1	0	0	0	0	0	0	0	0	127
8:00 PM	0	0	1	10	27	23	6	0	0	0	0	0	0	0	0	0	0	67
9:00 PM	0	0	0	7	18	23	4	0	0	0	0	0	0	0	0	0	0	52
10:00 PM	0	0	0	4	10	19	12	2	0	0	0	0	0	0	0	0	0	47
11:00 PM	0	0	1	1	11	10	3	2	0	0	0	0	0	0	0	0	0	28
Total	0	12	18	216	949	1,160	348	53	8	1	0	0	0	0	0	0	0	2,765
Percent	0.0%	0.4%	0.7%	7.8%	34.3%	42.0%	12.6%	1.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	30.5	mph	Mean (Average) Speed	30.7	mph
85th Percentile	34.8	mph	10 mph Pace	25.4 - 35.4	mph
95th Percentile	37.8	mph	Percent in Pace	76.7	%

Location: GLENWOOD AVE btwn MIDDLEFIELD RDFENWOOD DR
 Date Range: 3/27/2018 - 4/2/2018
 Site Code: 12

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	3/27/2018			3/28/2018			3/29/2018			3/30/2018			3/31/2018			4/1/2018			4/2/2018					
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	3	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	5	8
1:00 AM	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	4
2:00 AM	2	3	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	5
3:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
4:00 AM	6	14	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	14	20
5:00 AM	8	27	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	27	35
6:00 AM	43	97	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	97	140
7:00 AM	101	221	322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	101	221	322
8:00 AM	167	241	408	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	167	241	408
9:00 AM	109	151	260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	109	151	260
10:00 AM	105	185	290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	105	185	290
11:00 AM	125	182	307	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	125	182	307
12:00 PM	105	163	268	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	105	163	268
1:00 PM	109	158	267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	109	158	267
2:00 PM	131	222	353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	131	222	353
3:00 PM	151	226	377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	226	377
4:00 PM	121	206	327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	121	206	327
5:00 PM	106	171	277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	106	171	277
6:00 PM	118	170	288	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	118	170	288
7:00 PM	95	127	222	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	95	127	222
8:00 PM	63	67	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	67	130
9:00 PM	53	52	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53	52	105
10:00 PM	34	47	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	47	81
11:00 PM	15	28	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	28	43
Total	1,772	2,765	4,537	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,772	2,765	4,537
Percent	39%	61%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39%	61%	-

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary

Location: OAK GROVE AVE btwn MIDDLEFIELD RD and REBECCA LN
Count Direction: Northbound / Southbound
Date Range: 5/10/2018 to 5/10/2018
Site Code: 13

	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Study Total														
Northbound	94	3,300	412	0	175	9	0	4	0	1	0	0	2	3,997
Percent	2.4%	82.6%	10.3%	0.0%	4.4%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	100%
Southbound	105	3,721	542	1	113	21	0	0	5	3	1	0	4	4,516
Percent	2.3%	82.4%	12.0%	0.0%	2.5%	0.5%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	100%
Total	199	7,021	954	1	288	30	0	4	5	4	1	0	6	8,513
Percent	2.3%	82.5%	11.2%	0.0%	3.4%	0.4%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: OAK GROVE AVE btwn MIDDLEFIELD RD and REBECCA LN
 Date Range: 5/10/2018 to 5/10/2018
 Site Code: 13



Thursday, May 10, 2018
 Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	2	6	2	0	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
2:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	4
3:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
4:00 AM	0	11	2	0	0	0	0	0	0	0	0	0	0	13
5:00 AM	1	15	4	0	4	0	0	0	0	0	0	0	0	24
6:00 AM	2	38	11	0	4	0	0	0	0	0	0	0	0	55
7:00 AM	10	166	14	0	6	3	0	2	0	1	0	0	1	203
8:00 AM	14	227	30	0	13	0	0	2	0	0	0	0	1	287
9:00 AM	9	231	24	0	13	2	0	0	0	0	0	0	0	279
10:00 AM	4	170	27	0	9	1	0	0	0	0	0	0	0	211
11:00 AM	3	204	27	0	18	0	0	0	0	0	0	0	0	252
12:00 PM	2	225	33	0	16	1	0	0	0	0	0	0	0	277
1:00 PM	2	238	35	0	17	0	0	0	0	0	0	0	0	292
2:00 PM	6	215	35	0	11	1	0	0	0	0	0	0	0	268
3:00 PM	8	259	44	0	11	0	0	0	0	0	0	0	0	322
4:00 PM	7	228	35	0	14	0	0	0	0	0	0	0	0	284
5:00 PM	9	257	25	0	12	0	0	0	0	0	0	0	0	303
6:00 PM	5	238	21	0	12	0	0	0	0	0	0	0	0	276
7:00 PM	5	181	18	0	9	1	0	0	0	0	0	0	0	214
8:00 PM	2	166	13	0	2	0	0	0	0	0	0	0	0	183
9:00 PM	0	124	5	0	3	0	0	0	0	0	0	0	0	132
10:00 PM	1	58	3	0	1	0	0	0	0	0	0	0	0	63
11:00 PM	2	27	3	0	0	0	0	0	0	0	0	0	0	32
Total	94	3,300	412	0	175	9	0	4	0	1	0	0	2	3,997
Percent	2.4%	82.6%	10.3%	0.0%	4.4%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	

Location: OAK GROVE AVE btwn MIDDLEFIELD RD and REBECCA LN
Date Range: 5/10/2018 to 5/10/2018
Site Code: 13



Thursday, May 10, 2018
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	5	1	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	1	3	1	0	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	6	0	0	1	0	0	0	0	0	0	0	0	7
3:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	11	2	0	2	0	0	0	0	0	0	0	0	15
5:00 AM	0	57	11	0	0	0	0	0	0	0	0	0	0	68
6:00 AM	3	142	34	0	4	2	0	0	0	0	0	0	0	185
7:00 AM	9	319	55	0	13	1	0	0	2	0	0	0	0	399
8:00 AM	3	299	42	0	12	1	0	0	0	0	1	0	0	358
9:00 AM	4	328	40	0	6	0	0	0	2	1	0	0	2	383
10:00 AM	8	205	45	0	8	3	0	0	0	0	0	0	0	269
11:00 AM	1	261	44	0	14	0	0	0	0	1	0	0	0	321
12:00 PM	4	257	41	1	9	0	0	0	0	0	0	0	0	312
1:00 PM	6	229	32	0	7	0	0	0	0	0	0	0	0	274
2:00 PM	2	229	31	0	13	0	0	0	0	0	0	0	0	275
3:00 PM	30	251	67	0	7	6	0	0	1	0	0	0	2	364
4:00 PM	6	244	32	0	4	1	0	0	0	1	0	0	0	288
5:00 PM	13	269	20	0	8	3	0	0	0	0	0	0	0	313
6:00 PM	10	201	11	0	2	3	0	0	0	0	0	0	0	227
7:00 PM	4	172	13	0	1	0	0	0	0	0	0	0	0	190
8:00 PM	0	89	7	0	1	0	0	0	0	0	0	0	0	97
9:00 PM	0	77	8	0	0	0	0	0	0	0	0	0	0	85
10:00 PM	0	40	4	0	1	1	0	0	0	0	0	0	0	46
11:00 PM	0	25	1	0	0	0	0	0	0	0	0	0	0	26
Total	105	3,721	542	1	113	21	0	0	5	3	1	0	4	4,516
Percent	2.3%	82.4%	12.0%	0.0%	2.5%	0.5%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	

Location: OAK GROVE AVE btwn MIDDLEFIELD RD and REBECCA LN
Date Range: 5/10/2018 to 5/10/2018
Site Code: 13

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	2	6	2	0	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
2:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	4
3:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
4:00 AM	0	11	2	0	0	0	0	0	0	0	0	0	0	13
5:00 AM	1	15	4	0	4	0	0	0	0	0	0	0	0	24
6:00 AM	2	38	11	0	4	0	0	0	0	0	0	0	0	55
7:00 AM	10	166	14	0	6	3	0	2	0	1	0	0	1	203
8:00 AM	14	227	30	0	13	0	0	2	0	0	0	0	1	287
9:00 AM	9	231	24	0	13	2	0	0	0	0	0	0	0	279
10:00 AM	4	170	27	0	9	1	0	0	0	0	0	0	0	211
11:00 AM	3	204	27	0	18	0	0	0	0	0	0	0	0	252
12:00 PM	2	225	33	0	16	1	0	0	0	0	0	0	0	277
1:00 PM	2	238	35	0	17	0	0	0	0	0	0	0	0	292
2:00 PM	6	215	35	0	11	1	0	0	0	0	0	0	0	268
3:00 PM	8	259	44	0	11	0	0	0	0	0	0	0	0	322
4:00 PM	7	228	35	0	14	0	0	0	0	0	0	0	0	284
5:00 PM	9	257	25	0	12	0	0	0	0	0	0	0	0	303
6:00 PM	5	238	21	0	12	0	0	0	0	0	0	0	0	276
7:00 PM	5	181	18	0	9	1	0	0	0	0	0	0	0	214
8:00 PM	2	166	13	0	2	0	0	0	0	0	0	0	0	183
9:00 PM	0	124	5	0	3	0	0	0	0	0	0	0	0	132
10:00 PM	1	58	3	0	1	0	0	0	0	0	0	0	0	63
11:00 PM	2	27	3	0	0	0	0	0	0	0	0	0	0	32
Total	94	3,300	412	0	175	9	0	4	0	1	0	0	2	3,997
Percent	2.4%	82.6%	10.3%	0.0%	4.4%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	

Note: Average only considered on days with 24-hours of data.

Location: OAK GROVE AVE btwn MIDDLEFIELD RD and REBECCA LN
Date Range: 5/10/2018 to 5/10/2018
Site Code: 13

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	5	1	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	1	3	1	0	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	6	0	0	1	0	0	0	0	0	0	0	0	7
3:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	11	2	0	2	0	0	0	0	0	0	0	0	15
5:00 AM	0	57	11	0	0	0	0	0	0	0	0	0	0	68
6:00 AM	3	142	34	0	4	2	0	0	0	0	0	0	0	185
7:00 AM	9	319	55	0	13	1	0	0	2	0	0	0	0	399
8:00 AM	3	299	42	0	12	1	0	0	0	0	1	0	0	358
9:00 AM	4	328	40	0	6	0	0	0	2	1	0	0	2	383
10:00 AM	8	205	45	0	8	3	0	0	0	0	0	0	0	269
11:00 AM	1	261	44	0	14	0	0	0	0	1	0	0	0	321
12:00 PM	4	257	41	1	9	0	0	0	0	0	0	0	0	312
1:00 PM	6	229	32	0	7	0	0	0	0	0	0	0	0	274
2:00 PM	2	229	31	0	13	0	0	0	0	0	0	0	0	275
3:00 PM	30	251	67	0	7	6	0	0	1	0	0	0	2	364
4:00 PM	6	244	32	0	4	1	0	0	0	1	0	0	0	288
5:00 PM	13	269	20	0	8	3	0	0	0	0	0	0	0	313
6:00 PM	10	201	11	0	2	3	0	0	0	0	0	0	0	227
7:00 PM	4	172	13	0	1	0	0	0	0	0	0	0	0	190
8:00 PM	0	89	7	0	1	0	0	0	0	0	0	0	0	97
9:00 PM	0	77	8	0	0	0	0	0	0	0	0	0	0	85
10:00 PM	0	40	4	0	1	1	0	0	0	0	0	0	0	46
11:00 PM	0	25	1	0	0	0	0	0	0	0	0	0	0	26
Total	105	3,721	542	1	113	21	0	0	5	3	1	0	4	4,516
Percent	2.3%	82.4%	12.0%	0.0%	2.5%	0.5%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	

Note: Average only considered on days with 24-hours of data.

Location: OAK GROVE AVE btwn MIDDLEFIELD RD and REBECCA LN
Date Range: 5/10/2018 to 5/10/2018
Site Code: 13



**3-Day (Tuesday - Thursday) Average
Northbound**

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	2	6	2	0	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	8
2:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	4
3:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
4:00 AM	0	11	2	0	0	0	0	0	0	0	0	0	0	13
5:00 AM	1	15	4	0	4	0	0	0	0	0	0	0	0	24
6:00 AM	2	38	11	0	4	0	0	0	0	0	0	0	0	55
7:00 AM	10	166	14	0	6	3	0	2	0	1	0	0	1	203
8:00 AM	14	227	30	0	13	0	0	2	0	0	0	0	1	287
9:00 AM	9	231	24	0	13	2	0	0	0	0	0	0	0	279
10:00 AM	4	170	27	0	9	1	0	0	0	0	0	0	0	211
11:00 AM	3	204	27	0	18	0	0	0	0	0	0	0	0	252
12:00 PM	2	225	33	0	16	1	0	0	0	0	0	0	0	277
1:00 PM	2	238	35	0	17	0	0	0	0	0	0	0	0	292
2:00 PM	6	215	35	0	11	1	0	0	0	0	0	0	0	268
3:00 PM	8	259	44	0	11	0	0	0	0	0	0	0	0	322
4:00 PM	7	228	35	0	14	0	0	0	0	0	0	0	0	284
5:00 PM	9	257	25	0	12	0	0	0	0	0	0	0	0	303
6:00 PM	5	238	21	0	12	0	0	0	0	0	0	0	0	276
7:00 PM	5	181	18	0	9	1	0	0	0	0	0	0	0	214
8:00 PM	2	166	13	0	2	0	0	0	0	0	0	0	0	183
9:00 PM	0	124	5	0	3	0	0	0	0	0	0	0	0	132
10:00 PM	1	58	3	0	1	0	0	0	0	0	0	0	0	63
11:00 PM	2	27	3	0	0	0	0	0	0	0	0	0	0	32
Total	94	3,300	412	0	175	9	0	4	0	1	0	0	2	3,997
Percent	2.4%	82.6%	10.3%	0.0%	4.4%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	

Location: OAK GROVE AVE btwn MIDDLEFIELD RD and REBECCA LN
Date Range: 5/10/2018 to 5/10/2018
Site Code: 13

3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	5	1	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	1	3	1	0	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	6	0	0	1	0	0	0	0	0	0	0	0	7
3:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	11	2	0	2	0	0	0	0	0	0	0	0	15
5:00 AM	0	57	11	0	0	0	0	0	0	0	0	0	0	68
6:00 AM	3	142	34	0	4	2	0	0	0	0	0	0	0	185
7:00 AM	9	319	55	0	13	1	0	0	2	0	0	0	0	399
8:00 AM	3	299	42	0	12	1	0	0	0	0	1	0	0	358
9:00 AM	4	328	40	0	6	0	0	0	2	1	0	0	2	383
10:00 AM	8	205	45	0	8	3	0	0	0	0	0	0	0	269
11:00 AM	1	261	44	0	14	0	0	0	0	1	0	0	0	321
12:00 PM	4	257	41	1	9	0	0	0	0	0	0	0	0	312
1:00 PM	6	229	32	0	7	0	0	0	0	0	0	0	0	274
2:00 PM	2	229	31	0	13	0	0	0	0	0	0	0	0	275
3:00 PM	30	251	67	0	7	6	0	0	1	0	0	0	2	364
4:00 PM	6	244	32	0	4	1	0	0	0	1	0	0	0	288
5:00 PM	13	269	20	0	8	3	0	0	0	0	0	0	0	313
6:00 PM	10	201	11	0	2	3	0	0	0	0	0	0	0	227
7:00 PM	4	172	13	0	1	0	0	0	0	0	0	0	0	190
8:00 PM	0	89	7	0	1	0	0	0	0	0	0	0	0	97
9:00 PM	0	77	8	0	0	0	0	0	0	0	0	0	0	85
10:00 PM	0	40	4	0	1	1	0	0	0	0	0	0	0	46
11:00 PM	0	25	1	0	0	0	0	0	0	0	0	0	0	26
Total	105	3,721	542	1	113	21	0	0	5	3	1	0	4	4,516
Percent	2.3%	82.4%	12.0%	0.0%	2.5%	0.5%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	

Vehicle Speed Report Summary

Location: OAK GROVE AVE btwn MIDDLEFIELD RD and REBECCA LN

Count Direction: Northbound / Southbound

Date Range: 5/10/2018 to 5/10/2018

Site Code: 13

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Northbound	33	139	337	1,311	1,618	506	45	6	2	0	0	0	0	0	0	0	0	3,997
Percent	0.8%	3.5%	8.4%	32.8%	40.5%	12.7%	1.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	6	64	92	632	2,288	1,232	181	19	2	0	0	0	0	0	0	0	0	4,516
Percent	0.1%	1.4%	2.0%	14.0%	50.7%	27.3%	4.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	39	203	429	1,943	3,906	1,738	226	25	4	0	0	0	0	0	0	0	0	8,513
Percent	0.5%	2.4%	5.0%	22.8%	45.9%	20.4%	2.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Northbound				Northbound			
50th Percentile (Median)	25.4	mph		Mean (Average) Speed	25.1	mph	
85th Percentile	29.7	mph		10 mph Pace	21.0 - 31.0	mph	
95th Percentile	32.2	mph		Percent in Pace	73.5	%	
Southbound				Southbound			
50th Percentile (Median)	28.2	mph		Mean (Average) Speed	28.2	mph	
85th Percentile	32.0	mph		10 mph Pace	23.4 - 33.4	mph	
95th Percentile	34.6	mph		Percent in Pace	81.3	%	

Location: OAK GROVE AVE btwn MIDDLEFIELD RD and REBECCA LN
 Date Range: 5/10/2018 to 5/10/2018
 Site Code: 13

Thursday, May 10, 2018
 Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	1	0	2	4	1	1	1	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	0	0	3	3	2	0	0	0	0	0	0	0	0	0	0	0	8
2:00 AM	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	4
3:00 AM	0	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	5
4:00 AM	0	0	0	4	4	5	0	0	0	0	0	0	0	0	0	0	0	13
5:00 AM	0	0	2	6	11	5	0	0	0	0	0	0	0	0	0	0	0	24
6:00 AM	0	3	3	15	19	10	4	1	0	0	0	0	0	0	0	0	0	55
7:00 AM	11	17	18	59	72	24	2	0	0	0	0	0	0	0	0	0	0	203
8:00 AM	0	9	32	112	102	28	3	1	0	0	0	0	0	0	0	0	0	287
9:00 AM	12	21	26	80	102	33	5	0	0	0	0	0	0	0	0	0	0	279
10:00 AM	1	5	11	62	91	39	2	0	0	0	0	0	0	0	0	0	0	211
11:00 AM	0	2	25	101	98	24	2	0	0	0	0	0	0	0	0	0	0	252
12:00 PM	0	10	14	108	125	18	2	0	0	0	0	0	0	0	0	0	0	277
1:00 PM	0	3	13	138	106	29	2	0	1	0	0	0	0	0	0	0	0	292
2:00 PM	0	10	19	88	114	34	3	0	0	0	0	0	0	0	0	0	0	268
3:00 PM	2	16	44	122	108	27	2	1	0	0	0	0	0	0	0	0	0	322
4:00 PM	1	5	33	63	129	51	1	0	1	0	0	0	0	0	0	0	0	284
5:00 PM	3	5	27	104	126	35	2	1	0	0	0	0	0	0	0	0	0	303
6:00 PM	2	28	36	79	97	33	1	0	0	0	0	0	0	0	0	0	0	276
7:00 PM	0	3	14	63	96	33	5	0	0	0	0	0	0	0	0	0	0	214
8:00 PM	0	0	11	58	80	32	2	0	0	0	0	0	0	0	0	0	0	183
9:00 PM	0	0	3	24	79	24	1	1	0	0	0	0	0	0	0	0	0	132
10:00 PM	0	1	4	13	33	9	3	0	0	0	0	0	0	0	0	0	0	63
11:00 PM	1	0	1	5	15	8	2	0	0	0	0	0	0	0	0	0	0	32
Total	33	139	337	1,311	1,618	506	45	6	2	0	0	0	0	0	0	0	0	3,997
Percent	0.8%	3.5%	8.4%	32.8%	40.5%	12.7%	1.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	25.4	mph	Mean (Average) Speed	25.1	mph
85th Percentile	29.7	mph	10 mph Pace	21.0 - 31.0	mph
95th Percentile	32.2	mph	Percent in Pace	73.5	%

Location: OAK GROVE AVE btwn MIDDLEFIELD RD and REBECCA LN
 Date Range: 5/10/2018 to 5/10/2018
 Site Code: 13

Thursday, May 10, 2018
 Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	1	0	3	1	2	0	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	0	0	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	0	0	0	4	2	1	0	0	0	0	0	0	0	0	0	0	7
3:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	1	6	4	4	0	0	0	0	0	0	0	0	0	0	15
5:00 AM	0	0	0	6	38	17	5	1	1	0	0	0	0	0	0	0	0	68
6:00 AM	0	1	3	30	76	59	15	1	0	0	0	0	0	0	0	0	0	185
7:00 AM	0	8	8	78	216	76	11	2	0	0	0	0	0	0	0	0	0	399
8:00 AM	1	2	2	63	189	89	11	1	0	0	0	0	0	0	0	0	0	358
9:00 AM	0	3	3	57	226	86	6	2	0	0	0	0	0	0	0	0	0	383
10:00 AM	0	4	4	22	123	105	10	1	0	0	0	0	0	0	0	0	0	269
11:00 AM	0	2	5	33	168	100	13	0	0	0	0	0	0	0	0	0	0	321
12:00 PM	0	3	2	43	158	91	12	3	0	0	0	0	0	0	0	0	0	312
1:00 PM	0	3	4	47	134	74	11	1	0	0	0	0	0	0	0	0	0	274
2:00 PM	1	0	4	42	141	72	14	1	0	0	0	0	0	0	0	0	0	275
3:00 PM	4	18	41	73	164	57	7	0	0	0	0	0	0	0	0	0	0	364
4:00 PM	0	3	5	17	146	98	19	0	0	0	0	0	0	0	0	0	0	288
5:00 PM	0	6	6	26	150	113	9	3	0	0	0	0	0	0	0	0	0	313
6:00 PM	0	5	4	33	100	70	14	1	0	0	0	0	0	0	0	0	0	227
7:00 PM	0	3	0	32	113	36	6	0	0	0	0	0	0	0	0	0	0	190
8:00 PM	0	2	0	13	49	29	4	0	0	0	0	0	0	0	0	0	0	97
9:00 PM	0	0	0	8	42	29	5	0	1	0	0	0	0	0	0	0	0	85
10:00 PM	0	0	0	4	23	14	4	1	0	0	0	0	0	0	0	0	0	46
11:00 PM	0	0	0	0	19	7	0	0	0	0	0	0	0	0	0	0	0	26
Total	6	64	92	632	2,288	1,232	181	19	2	0	0	0	0	0	0	0	0	4,516
Percent	0.1%	1.4%	2.0%	14.0%	50.7%	27.3%	4.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	28.2	mph	Mean (Average) Speed	28.2	mph
85th Percentile	32.0	mph	10 mph Pace	23.4 - 33.4	mph
95th Percentile	34.6	mph	Percent in Pace	81.3	%

Location: OAK GROVE AVE btwn MIDDLEFIELD RD and REBECCA LN
Date Range: 5/10/2018 to 5/10/2018
Site Code: 13

Total Study Average
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	1	0	2	4	1	1	1	0	0	0	0	0	0	0	0	0	10
1:00 AM	0	0	0	3	3	2	0	0	0	0	0	0	0	0	0	0	0	8
2:00 AM	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	4
3:00 AM	0	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	5
4:00 AM	0	0	0	4	4	5	0	0	0	0	0	0	0	0	0	0	0	13
5:00 AM	0	0	2	6	11	5	0	0	0	0	0	0	0	0	0	0	0	24
6:00 AM	0	3	3	15	19	10	4	1	0	0	0	0	0	0	0	0	0	55
7:00 AM	11	17	18	59	72	24	2	0	0	0	0	0	0	0	0	0	0	203
8:00 AM	0	9	32	112	102	28	3	1	0	0	0	0	0	0	0	0	0	287
9:00 AM	12	21	26	80	102	33	5	0	0	0	0	0	0	0	0	0	0	279
10:00 AM	1	5	11	62	91	39	2	0	0	0	0	0	0	0	0	0	0	211
11:00 AM	0	2	25	101	98	24	2	0	0	0	0	0	0	0	0	0	0	252
12:00 PM	0	10	14	108	125	18	2	0	0	0	0	0	0	0	0	0	0	277
1:00 PM	0	3	13	138	106	29	2	0	1	0	0	0	0	0	0	0	0	292
2:00 PM	0	10	19	88	114	34	3	0	0	0	0	0	0	0	0	0	0	268
3:00 PM	2	16	44	122	108	27	2	1	0	0	0	0	0	0	0	0	0	322
4:00 PM	1	5	33	63	129	51	1	0	1	0	0	0	0	0	0	0	0	284
5:00 PM	3	5	27	104	126	35	2	1	0	0	0	0	0	0	0	0	0	303
6:00 PM	2	28	36	79	97	33	1	0	0	0	0	0	0	0	0	0	0	276
7:00 PM	0	3	14	63	96	33	5	0	0	0	0	0	0	0	0	0	0	214
8:00 PM	0	0	11	58	80	32	2	0	0	0	0	0	0	0	0	0	0	183
9:00 PM	0	0	3	24	79	24	1	1	0	0	0	0	0	0	0	0	0	132
10:00 PM	0	1	4	13	33	9	3	0	0	0	0	0	0	0	0	0	0	63
11:00 PM	1	0	1	5	15	8	2	0	0	0	0	0	0	0	0	0	0	32
Total	33	139	337	1,311	1,618	506	45	6	2	0	0	0	0	0	0	0	0	3,997
Percent	0.8%	3.5%	8.4%	32.8%	40.5%	12.7%	1.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	25.4	mph	Mean (Average) Speed	25.1	mph
85th Percentile	29.7	mph	10 mph Pace	21.0 - 31.0	mph
95th Percentile	32.2	mph	Percent in Pace	73.5	%

Location: OAK GROVE AVE btwn MIDDLEFIELD RD and REBECCA LN
 Date Range: 5/10/2018 to 5/10/2018
 Site Code: 13

Total Study Average
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	1	0	3	1	2	0	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	0	0	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	0	0	0	4	2	1	0	0	0	0	0	0	0	0	0	0	7
3:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	1	6	4	4	0	0	0	0	0	0	0	0	0	0	15
5:00 AM	0	0	0	6	38	17	5	1	1	0	0	0	0	0	0	0	0	68
6:00 AM	0	1	3	30	76	59	15	1	0	0	0	0	0	0	0	0	0	185
7:00 AM	0	8	8	78	216	76	11	2	0	0	0	0	0	0	0	0	0	399
8:00 AM	1	2	2	63	189	89	11	1	0	0	0	0	0	0	0	0	0	358
9:00 AM	0	3	3	57	226	86	6	2	0	0	0	0	0	0	0	0	0	383
10:00 AM	0	4	4	22	123	105	10	1	0	0	0	0	0	0	0	0	0	269
11:00 AM	0	2	5	33	168	100	13	0	0	0	0	0	0	0	0	0	0	321
12:00 PM	0	3	2	43	158	91	12	3	0	0	0	0	0	0	0	0	0	312
1:00 PM	0	3	4	47	134	74	11	1	0	0	0	0	0	0	0	0	0	274
2:00 PM	1	0	4	42	141	72	14	1	0	0	0	0	0	0	0	0	0	275
3:00 PM	4	18	41	73	164	57	7	0	0	0	0	0	0	0	0	0	0	364
4:00 PM	0	3	5	17	146	98	19	0	0	0	0	0	0	0	0	0	0	288
5:00 PM	0	6	6	26	150	113	9	3	0	0	0	0	0	0	0	0	0	313
6:00 PM	0	5	4	33	100	70	14	1	0	0	0	0	0	0	0	0	0	227
7:00 PM	0	3	0	32	113	36	6	0	0	0	0	0	0	0	0	0	0	190
8:00 PM	0	2	0	13	49	29	4	0	0	0	0	0	0	0	0	0	0	97
9:00 PM	0	0	0	8	42	29	5	0	1	0	0	0	0	0	0	0	0	85
10:00 PM	0	0	0	4	23	14	4	1	0	0	0	0	0	0	0	0	0	46
11:00 PM	0	0	0	0	19	7	0	0	0	0	0	0	0	0	0	0	0	26
Total	6	64	92	632	2,288	1,232	181	19	2	0	0	0	0	0	0	0	0	4,516
Percent	0.1%	1.4%	2.0%	14.0%	50.7%	27.3%	4.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	28.2	mph	Mean (Average) Speed	28.2	mph
85th Percentile	32.0	mph	10 mph Pace	23.4 - 33.4	mph
95th Percentile	34.6	mph	Percent in Pace	81.3	%

Location: OAK GROVE AVE btwn MIDDLEFIELD RD and REBECCA LN
 Date Range: 5/10/2018 - 5/16/2018
 Site Code: 13

Time	Thursday			Friday			Saturday			Sunday			Monday			Tuesday			Wednesday			Mid-Week Average		
	5/10/2018			5/11/2018			5/12/2018			5/13/2018			5/14/2018			5/15/2018			5/16/2018					
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	10	7	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	7	17
1:00 AM	8	5	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	5	13
2:00 AM	4	7	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	7	11
3:00 AM	5	2	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	2	7
4:00 AM	13	15	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	15	28
5:00 AM	24	68	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	68	92
6:00 AM	55	185	240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	185	240
7:00 AM	203	399	602	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	203	399	602
8:00 AM	287	358	645	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	287	358	645
9:00 AM	279	383	662	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	279	383	662
10:00 AM	211	269	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	211	269	480
11:00 AM	252	321	573	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	252	321	573
12:00 PM	277	312	589	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	277	312	589
1:00 PM	292	274	566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	292	274	566
2:00 PM	268	275	543	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	268	275	543
3:00 PM	322	364	686	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	322	364	686
4:00 PM	284	288	572	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	284	288	572
5:00 PM	303	313	616	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	303	313	616
6:00 PM	276	227	503	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	227	503
7:00 PM	214	190	404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	214	190	404
8:00 PM	183	97	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	183	97	280
9:00 PM	132	85	217	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	132	85	217
10:00 PM	63	46	109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	46	109
11:00 PM	32	26	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	26	58
Total	3,997	4,516	8,513	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,997	4,516	8,513
Percent	47%	53%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47%	53%	-

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary

Location: RAVENSWOOD AVE btwn MIDDLEFIELD RD/W 1ST ST
Count Direction: Northbound / Southbound
Date Range: 3/27/2018 to 3/27/2018
Site Code: 14

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Northbound	150	6,946	955	3	288	19	0	3	2	3	0	0	3	8,372
Percent	1.8%	83.0%	11.4%	0.0%	3.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	121	5,130	1,181	1	421	8	0	1	3	2	0	0	1	6,869
Percent	1.8%	74.7%	17.2%	0.0%	6.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	271	12,076	2,136	4	709	27	0	4	5	5	0	0	4	15,241
Percent	1.8%	79.2%	14.0%	0.0%	4.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: RAVENSWOOD AVE btwn MIDDLEFIELD RD/W 1ST ST
Date Range: 3/27/2018 to 3/27/2018
Site Code: 14

Tuesday, March 27, 2018
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	29	4	0	1	0	0	0	0	0	0	0	0	35
1:00 AM	0	29	3	0	1	0	0	0	0	0	0	0	0	33
2:00 AM	0	10	0	0	0	0	0	0	0	0	0	0	0	10
3:00 AM	0	9	0	0	0	0	0	0	0	0	0	0	0	9
4:00 AM	0	11	3	0	2	0	0	0	0	0	0	0	0	16
5:00 AM	0	26	7	0	2	0	0	0	1	0	0	0	0	36
6:00 AM	4	103	11	0	9	1	0	0	0	0	0	0	0	128
7:00 AM	7	268	31	1	12	1	0	1	0	1	0	0	1	323
8:00 AM	27	554	72	0	18	8	0	2	0	2	0	0	2	685
9:00 AM	11	362	45	0	26	2	0	0	1	0	0	0	0	447
10:00 AM	8	338	60	1	21	1	0	0	0	0	0	0	0	429
11:00 AM	2	380	67	0	20	1	0	0	0	0	0	0	0	470
12:00 PM	5	425	68	0	21	1	0	0	0	0	0	0	0	520
1:00 PM	9	450	75	0	27	1	0	0	0	0	0	0	0	562
2:00 PM	4	518	68	1	22	1	0	0	0	0	0	0	0	614
3:00 PM	13	514	97	0	31	0	0	0	0	0	0	0	0	655
4:00 PM	7	481	91	0	27	1	0	0	0	0	0	0	0	607
5:00 PM	8	528	69	0	14	0	0	0	0	0	0	0	0	619
6:00 PM	10	556	55	0	6	1	0	0	0	0	0	0	0	628
7:00 PM	19	466	46	0	14	0	0	0	0	0	0	0	0	545
8:00 PM	8	400	38	0	7	0	0	0	0	0	0	0	0	453
9:00 PM	4	280	21	0	4	0	0	0	0	0	0	0	0	309
10:00 PM	3	129	15	0	3	0	0	0	0	0	0	0	0	150
11:00 PM	0	80	9	0	0	0	0	0	0	0	0	0	0	89
Total	150	6,946	955	3	288	19	0	3	2	3	0	0	3	8,372
Percent	1.8%	83.0%	11.4%	0.0%	3.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: RAVENSWOOD AVE btwn MIDDLEFIELD RD/W 1ST ST
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 14



Tuesday, March 27, 2018
 Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	12	6	0	0	0	0	0	0	0	0	0	0	18
1:00 AM	0	8	3	0	0	0	0	0	0	0	0	0	0	11
2:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
3:00 AM	0	20	4	0	1	0	0	0	0	0	0	0	0	25
4:00 AM	0	27	10	0	7	0	0	0	1	0	0	0	0	45
5:00 AM	2	84	41	0	17	0	0	0	0	0	0	0	0	144
6:00 AM	4	183	58	0	29	1	0	0	1	0	0	0	0	276
7:00 AM	10	346	93	0	48	1	0	1	0	0	0	0	1	500
8:00 AM	10	343	126	0	40	1	0	0	0	0	0	0	0	520
9:00 AM	6	355	82	1	40	0	0	0	1	0	0	0	0	485
10:00 AM	2	346	78	0	20	0	0	0	0	0	0	0	0	446
11:00 AM	4	380	83	0	34	2	0	0	0	0	0	0	0	503
12:00 PM	3	358	70	0	32	1	0	0	0	1	0	0	0	465
1:00 PM	4	321	63	0	28	1	0	0	0	0	0	0	0	417
2:00 PM	5	326	55	0	22	0	0	0	0	0	0	0	0	408
3:00 PM	18	337	77	0	22	0	0	0	0	0	0	0	0	454
4:00 PM	11	308	48	0	23	0	0	0	0	0	0	0	0	390
5:00 PM	20	350	109	0	18	1	0	0	0	0	0	0	0	498
6:00 PM	11	361	72	0	13	0	0	0	0	1	0	0	0	458
7:00 PM	8	270	46	0	9	0	0	0	0	0	0	0	0	333
8:00 PM	3	188	28	0	8	0	0	0	0	0	0	0	0	227
9:00 PM	0	92	18	0	5	0	0	0	0	0	0	0	0	115
10:00 PM	0	86	10	0	4	0	0	0	0	0	0	0	0	100
11:00 PM	0	24	1	0	1	0	0	0	0	0	0	0	0	26
Total	121	5,130	1,181	1	421	8	0	1	3	2	0	0	1	6,869
Percent	1.8%	74.7%	17.2%	0.0%	6.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: RAVENSWOOD AVE btwn MIDDLEFIELD RD/W 1ST ST
Date Range: 3/27/2018 to 3/27/2018
Site Code: 14

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	29	4	0	1	0	0	0	0	0	0	0	0	35
1:00 AM	0	29	3	0	1	0	0	0	0	0	0	0	0	33
2:00 AM	0	10	0	0	0	0	0	0	0	0	0	0	0	10
3:00 AM	0	9	0	0	0	0	0	0	0	0	0	0	0	9
4:00 AM	0	11	3	0	2	0	0	0	0	0	0	0	0	16
5:00 AM	0	26	7	0	2	0	0	0	1	0	0	0	0	36
6:00 AM	4	103	11	0	9	1	0	0	0	0	0	0	0	128
7:00 AM	7	268	31	1	12	1	0	1	0	1	0	0	1	323
8:00 AM	27	554	72	0	18	8	0	2	0	2	0	0	2	685
9:00 AM	11	362	45	0	26	2	0	0	1	0	0	0	0	447
10:00 AM	8	338	60	1	21	1	0	0	0	0	0	0	0	429
11:00 AM	2	380	67	0	20	1	0	0	0	0	0	0	0	470
12:00 PM	5	425	68	0	21	1	0	0	0	0	0	0	0	520
1:00 PM	9	450	75	0	27	1	0	0	0	0	0	0	0	562
2:00 PM	4	518	68	1	22	1	0	0	0	0	0	0	0	614
3:00 PM	13	514	97	0	31	0	0	0	0	0	0	0	0	655
4:00 PM	7	481	91	0	27	1	0	0	0	0	0	0	0	607
5:00 PM	8	528	69	0	14	0	0	0	0	0	0	0	0	619
6:00 PM	10	556	55	0	6	1	0	0	0	0	0	0	0	628
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	8	400	38	0	7	0	0	0	0	0	0	0	0	453
9:00 PM	4	280	21	0	4	0	0	0	0	0	0	0	0	309
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	80	9	0	0	0	0	0	0	0	0	0	0	89
Total	128	6,351	894	3	271	19	0	3	2	3	0	0	3	7,677
Percent	1.7%	82.7%	11.6%	0.0%	3.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: RAVENSWOOD AVE btwn MIDDLEFIELD RD/W 1ST ST
Date Range: 3/27/2018 to 3/27/2018
Site Code: 14

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	12	6	0	0	0	0	0	0	0	0	0	0	18
1:00 AM	0	8	3	0	0	0	0	0	0	0	0	0	0	11
2:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
3:00 AM	0	20	4	0	1	0	0	0	0	0	0	0	0	25
4:00 AM	0	27	10	0	7	0	0	0	1	0	0	0	0	45
5:00 AM	2	84	41	0	17	0	0	0	0	0	0	0	0	144
6:00 AM	4	183	58	0	29	1	0	0	1	0	0	0	0	276
7:00 AM	10	346	93	0	48	1	0	1	0	0	0	0	1	500
8:00 AM	10	343	126	0	40	1	0	0	0	0	0	0	0	520
9:00 AM	6	355	82	1	40	0	0	0	1	0	0	0	0	485
10:00 AM	2	346	78	0	20	0	0	0	0	0	0	0	0	446
11:00 AM	4	380	83	0	34	2	0	0	0	0	0	0	0	503
12:00 PM	3	358	70	0	32	1	0	0	0	1	0	0	0	465
1:00 PM	4	321	63	0	28	1	0	0	0	0	0	0	0	417
2:00 PM	5	326	55	0	22	0	0	0	0	0	0	0	0	408
3:00 PM	18	337	77	0	22	0	0	0	0	0	0	0	0	454
4:00 PM	11	308	48	0	23	0	0	0	0	0	0	0	0	390
5:00 PM	20	350	109	0	18	1	0	0	0	0	0	0	0	498
6:00 PM	11	361	72	0	13	0	0	0	0	1	0	0	0	458
7:00 PM	8	270	46	0	9	0	0	0	0	0	0	0	0	333
8:00 PM	3	188	28	0	8	0	0	0	0	0	0	0	0	227
9:00 PM	0	92	18	0	5	0	0	0	0	0	0	0	0	115
10:00 PM	0	86	10	0	4	0	0	0	0	0	0	0	0	100
11:00 PM	0	24	1	0	1	0	0	0	0	0	0	0	0	26
Total	121	5,130	1,181	1	421	8	0	1	3	2	0	0	1	6,869
Percent	1.8%	74.7%	17.2%	0.0%	6.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: RAVENSWOOD AVE btwn MIDDLEFIELD RD/W 1ST ST
Date Range: 3/27/2018 to 3/27/2018
Site Code: 14

3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	29	4	0	1	0	0	0	0	0	0	0	0	35
1:00 AM	0	29	3	0	1	0	0	0	0	0	0	0	0	33
2:00 AM	0	10	0	0	0	0	0	0	0	0	0	0	0	10
3:00 AM	0	9	0	0	0	0	0	0	0	0	0	0	0	9
4:00 AM	0	11	3	0	2	0	0	0	0	0	0	0	0	16
5:00 AM	0	26	7	0	2	0	0	0	1	0	0	0	0	36
6:00 AM	4	103	11	0	9	1	0	0	0	0	0	0	0	128
7:00 AM	7	268	31	1	12	1	0	1	0	1	0	0	1	323
8:00 AM	27	554	72	0	18	8	0	2	0	2	0	0	2	685
9:00 AM	11	362	45	0	26	2	0	0	1	0	0	0	0	447
10:00 AM	8	338	60	1	21	1	0	0	0	0	0	0	0	429
11:00 AM	2	380	67	0	20	1	0	0	0	0	0	0	0	470
12:00 PM	5	425	68	0	21	1	0	0	0	0	0	0	0	520
1:00 PM	9	450	75	0	27	1	0	0	0	0	0	0	0	562
2:00 PM	4	518	68	1	22	1	0	0	0	0	0	0	0	614
3:00 PM	13	514	97	0	31	0	0	0	0	0	0	0	0	655
4:00 PM	7	481	91	0	27	1	0	0	0	0	0	0	0	607
5:00 PM	8	528	69	0	14	0	0	0	0	0	0	0	0	619
6:00 PM	10	556	55	0	6	1	0	0	0	0	0	0	0	628
7:00 PM	19	466	46	0	14	0	0	0	0	0	0	0	0	545
8:00 PM	8	400	38	0	7	0	0	0	0	0	0	0	0	453
9:00 PM	4	280	21	0	4	0	0	0	0	0	0	0	0	309
10:00 PM	3	129	15	0	3	0	0	0	0	0	0	0	0	150
11:00 PM	0	80	9	0	0	0	0	0	0	0	0	0	0	89
Total	150	6,946	955	3	288	19	0	3	2	3	0	0	3	8,372
Percent	1.8%	83.0%	11.4%	0.0%	3.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: RAVENSWOOD AVE btwn MIDDLEFIELD RD/W 1ST ST
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 14



3-Day (Tuesday - Thursday) Average
 Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	12	6	0	0	0	0	0	0	0	0	0	0	18
1:00 AM	0	8	3	0	0	0	0	0	0	0	0	0	0	11
2:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
3:00 AM	0	20	4	0	1	0	0	0	0	0	0	0	0	25
4:00 AM	0	27	10	0	7	0	0	0	1	0	0	0	0	45
5:00 AM	2	84	41	0	17	0	0	0	0	0	0	0	0	144
6:00 AM	4	183	58	0	29	1	0	0	1	0	0	0	0	276
7:00 AM	10	346	93	0	48	1	0	1	0	0	0	0	1	500
8:00 AM	10	343	126	0	40	1	0	0	0	0	0	0	0	520
9:00 AM	6	355	82	1	40	0	0	0	1	0	0	0	0	485
10:00 AM	2	346	78	0	20	0	0	0	0	0	0	0	0	446
11:00 AM	4	380	83	0	34	2	0	0	0	0	0	0	0	503
12:00 PM	3	358	70	0	32	1	0	0	0	1	0	0	0	465
1:00 PM	4	321	63	0	28	1	0	0	0	0	0	0	0	417
2:00 PM	5	326	55	0	22	0	0	0	0	0	0	0	0	408
3:00 PM	18	337	77	0	22	0	0	0	0	0	0	0	0	454
4:00 PM	11	308	48	0	23	0	0	0	0	0	0	0	0	390
5:00 PM	20	350	109	0	18	1	0	0	0	0	0	0	0	498
6:00 PM	11	361	72	0	13	0	0	0	0	1	0	0	0	458
7:00 PM	8	270	46	0	9	0	0	0	0	0	0	0	0	333
8:00 PM	3	188	28	0	8	0	0	0	0	0	0	0	0	227
9:00 PM	0	92	18	0	5	0	0	0	0	0	0	0	0	115
10:00 PM	0	86	10	0	4	0	0	0	0	0	0	0	0	100
11:00 PM	0	24	1	0	1	0	0	0	0	0	0	0	0	26
Total	121	5,130	1,181	1	421	8	0	1	3	2	0	0	1	6,869
Percent	1.8%	74.7%	17.2%	0.0%	6.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Vehicle Speed Report Summary

Location: RAVENSWOOD AVE btwn MIDDLEFIELD RD/W 1ST ST

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 14

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Northbound	21	124	334	1,046	3,278	2,884	613	68	4	0	0	0	0	0	0	0	0	8,372
Percent	0.3%	1.5%	4.0%	12.5%	39.2%	34.4%	7.3%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	14	98	222	1,007	2,715	2,133	592	76	10	2	0	0	0	0	0	0	0	6,869
Percent	0.2%	1.4%	3.2%	14.7%	39.5%	31.1%	8.6%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	35	222	556	2,053	5,993	5,017	1,205	144	14	2	0	0	0	0	0	0	0	15,241
Percent	0.2%	1.5%	3.6%	13.5%	39.3%	32.9%	7.9%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Northbound				Northbound			
50th Percentile (Median)	29.1	mph		Mean (Average) Speed	28.8	mph	
85th Percentile	33.3	mph		10 mph Pace	24.7 - 34.7	mph	
95th Percentile	36.1	mph		Percent in Pace	73.7	%	
Southbound				Southbound			
50th Percentile (Median)	28.9	mph		Mean (Average) Speed	28.8	mph	
85th Percentile	33.6	mph		10 mph Pace	24.2 - 34.2	mph	
95th Percentile	36.5	mph		Percent in Pace	71.4	%	

Location: RAVENSWOOD AVE btwn MIDDLEFIELD RD/W 1ST ST
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 14



Tuesday, March 27, 2018
 Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	2	3	11	14	5	0	0	0	0	0	0	0	0	0	0	35
1:00 AM	0	0	0	2	5	18	7	1	0	0	0	0	0	0	0	0	0	33
2:00 AM	0	0	0	0	4	4	1	1	0	0	0	0	0	0	0	0	0	10
3:00 AM	0	0	0	0	4	0	3	2	0	0	0	0	0	0	0	0	0	9
4:00 AM	0	0	0	2	4	3	6	1	0	0	0	0	0	0	0	0	0	16
5:00 AM	0	0	0	0	10	16	7	3	0	0	0	0	0	0	0	0	0	36
6:00 AM	0	0	4	2	27	61	28	6	0	0	0	0	0	0	0	0	0	128
7:00 AM	1	5	18	28	117	129	25	0	0	0	0	0	0	0	0	0	0	323
8:00 AM	3	31	109	131	243	140	25	3	0	0	0	0	0	0	0	0	0	685
9:00 AM	0	1	11	27	199	157	47	5	0	0	0	0	0	0	0	0	0	447
10:00 AM	0	5	3	35	174	162	45	5	0	0	0	0	0	0	0	0	0	429
11:00 AM	0	1	12	64	169	167	50	6	1	0	0	0	0	0	0	0	0	470
12:00 PM	0	2	3	68	224	197	25	1	0	0	0	0	0	0	0	0	0	520
1:00 PM	3	4	10	88	228	208	20	1	0	0	0	0	0	0	0	0	0	562
2:00 PM	1	3	11	59	259	226	51	3	1	0	0	0	0	0	0	0	0	614
3:00 PM	0	8	19	115	251	231	28	3	0	0	0	0	0	0	0	0	0	655
4:00 PM	0	13	22	54	221	247	45	5	0	0	0	0	0	0	0	0	0	607
5:00 PM	4	17	34	100	269	164	25	6	0	0	0	0	0	0	0	0	0	619
6:00 PM	7	15	47	117	246	166	27	2	1	0	0	0	0	0	0	0	0	628
7:00 PM	0	8	16	63	234	188	36	0	0	0	0	0	0	0	0	0	0	545
8:00 PM	0	5	9	66	205	134	30	4	0	0	0	0	0	0	0	0	0	453
9:00 PM	2	3	3	15	106	152	26	2	0	0	0	0	0	0	0	0	0	309
10:00 PM	0	3	1	6	41	61	30	7	1	0	0	0	0	0	0	0	0	150
11:00 PM	0	0	0	1	27	39	21	1	0	0	0	0	0	0	0	0	0	89
Total	21	124	334	1,046	3,278	2,884	613	68	4	0	0	0	0	0	0	0	0	8,372
Percent	0.3%	1.5%	4.0%	12.5%	39.2%	34.4%	7.3%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	29.1	mph	Mean (Average) Speed	28.8	mph
85th Percentile	33.3	mph	10 mph Pace	24.7 - 34.7	mph
95th Percentile	36.1	mph	Percent in Pace	73.7	%

Location: RAVENSWOOD AVE btwn MIDDLEFIELD RD/W 1ST ST
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 14



Tuesday, March 27, 2018
 Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	11	5	0	0	0	0	0	0	0	0	0	0	18
1:00 AM	0	0	0	1	3	6	1	0	0	0	0	0	0	0	0	0	0	11
2:00 AM	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	5
3:00 AM	0	0	0	1	4	13	7	0	0	0	0	0	0	0	0	0	0	25
4:00 AM	0	0	1	1	8	13	18	2	2	0	0	0	0	0	0	0	0	45
5:00 AM	0	0	2	5	25	60	42	9	1	0	0	0	0	0	0	0	0	144
6:00 AM	0	2	6	18	78	115	40	15	1	1	0	0	0	0	0	0	0	276
7:00 AM	0	12	48	117	139	130	46	7	1	0	0	0	0	0	0	0	0	500
8:00 AM	0	7	19	82	245	115	46	5	1	0	0	0	0	0	0	0	0	520
9:00 AM	2	6	29	55	193	156	40	4	0	0	0	0	0	0	0	0	0	485
10:00 AM	1	0	7	86	154	154	39	4	1	0	0	0	0	0	0	0	0	446
11:00 AM	0	11	22	90	183	150	39	7	1	0	0	0	0	0	0	0	0	503
12:00 PM	2	0	13	62	189	158	36	5	0	0	0	0	0	0	0	0	0	465
1:00 PM	0	4	9	67	191	110	32	4	0	0	0	0	0	0	0	0	0	417
2:00 PM	0	3	2	56	201	115	31	0	0	0	0	0	0	0	0	0	0	408
3:00 PM	3	16	18	67	201	124	25	0	0	0	0	0	0	0	0	0	0	454
4:00 PM	1	5	4	56	177	121	21	5	0	0	0	0	0	0	0	0	0	390
5:00 PM	2	10	22	77	192	168	25	2	0	0	0	0	0	0	0	0	0	498
6:00 PM	3	14	14	89	182	124	30	1	1	0	0	0	0	0	0	0	0	458
7:00 PM	0	6	5	53	158	100	10	1	0	0	0	0	0	0	0	0	0	333
8:00 PM	0	2	1	20	98	87	18	1	0	0	0	0	0	0	0	0	0	227
9:00 PM	0	0	0	3	46	44	20	1	1	0	0	0	0	0	0	0	0	115
10:00 PM	0	0	0	1	38	44	13	3	0	1	0	0	0	0	0	0	0	100
11:00 PM	0	0	0	0	8	12	6	0	0	0	0	0	0	0	0	0	0	26
Total	14	98	222	1,007	2,715	2,133	592	76	10	2	0	0	0	0	0	0	0	6,869
Percent	0.2%	1.4%	3.2%	14.7%	39.5%	31.1%	8.6%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	28.9	mph	Mean (Average) Speed	28.8	mph
85th Percentile	33.6	mph	10 mph Pace	24.2 - 34.2	mph
95th Percentile	36.5	mph	Percent in Pace	71.4	%

Location: RAVENSWOOD AVE btwn MIDDLEFIELD RD/W 1ST ST
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 14

Total Study Average
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	2	3	11	14	5	0	0	0	0	0	0	0	0	0	0	35
1:00 AM	0	0	0	2	5	18	7	1	0	0	0	0	0	0	0	0	0	33
2:00 AM	0	0	0	0	4	4	1	1	0	0	0	0	0	0	0	0	0	10
3:00 AM	0	0	0	0	4	0	3	2	0	0	0	0	0	0	0	0	0	9
4:00 AM	0	0	0	2	4	3	6	1	0	0	0	0	0	0	0	0	0	16
5:00 AM	0	0	0	0	10	16	7	3	0	0	0	0	0	0	0	0	0	36
6:00 AM	0	0	4	2	27	61	28	6	0	0	0	0	0	0	0	0	0	128
7:00 AM	1	5	18	28	117	129	25	0	0	0	0	0	0	0	0	0	0	323
8:00 AM	3	31	109	131	243	140	25	3	0	0	0	0	0	0	0	0	0	685
9:00 AM	0	1	11	27	199	157	47	5	0	0	0	0	0	0	0	0	0	447
10:00 AM	0	5	3	35	174	162	45	5	0	0	0	0	0	0	0	0	0	429
11:00 AM	0	1	12	64	169	167	50	6	1	0	0	0	0	0	0	0	0	470
12:00 PM	0	2	3	68	224	197	25	1	0	0	0	0	0	0	0	0	0	520
1:00 PM	3	4	10	88	228	208	20	1	0	0	0	0	0	0	0	0	0	562
2:00 PM	1	3	11	59	259	226	51	3	1	0	0	0	0	0	0	0	0	614
3:00 PM	0	8	19	115	251	231	28	3	0	0	0	0	0	0	0	0	0	655
4:00 PM	0	13	22	54	221	247	45	5	0	0	0	0	0	0	0	0	0	607
5:00 PM	4	17	34	100	269	164	25	6	0	0	0	0	0	0	0	0	0	619
6:00 PM	7	15	47	117	246	166	27	2	1	0	0	0	0	0	0	0	0	628
7:00 PM	0	8	16	63	234	188	36	0	0	0	0	0	0	0	0	0	0	545
8:00 PM	0	5	9	66	205	134	30	4	0	0	0	0	0	0	0	0	0	453
9:00 PM	2	3	3	15	106	152	26	2	0	0	0	0	0	0	0	0	0	309
10:00 PM	0	3	1	6	41	61	30	7	1	0	0	0	0	0	0	0	0	150
11:00 PM	0	0	0	1	27	39	21	1	0	0	0	0	0	0	0	0	0	89
Total	21	124	334	1,046	3,278	2,884	613	68	4	0	0	0	0	0	0	0	0	8,372
Percent	0.3%	1.5%	4.0%	12.5%	39.2%	34.4%	7.3%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	29.1	mph	Mean (Average) Speed	28.8	mph
85th Percentile	33.3	mph	10 mph Pace	24.7 - 34.7	mph
95th Percentile	36.1	mph	Percent in Pace	73.7	%

Location: RAVENSWOOD AVE btwn MIDDLEFIELD RD/W 1ST ST
Date Range: 3/27/2018 to 3/27/2018
Site Code: 14

**Total Study Average
Southbound**

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	11	5	0	0	0	0	0	0	0	0	0	0	18
1:00 AM	0	0	0	1	3	6	1	0	0	0	0	0	0	0	0	0	0	11
2:00 AM	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	5
3:00 AM	0	0	0	1	4	13	7	0	0	0	0	0	0	0	0	0	0	25
4:00 AM	0	0	1	1	8	13	18	2	2	0	0	0	0	0	0	0	0	45
5:00 AM	0	0	2	5	25	60	42	9	1	0	0	0	0	0	0	0	0	144
6:00 AM	0	2	6	18	78	115	40	15	1	1	0	0	0	0	0	0	0	276
7:00 AM	0	12	48	117	139	130	46	7	1	0	0	0	0	0	0	0	0	500
8:00 AM	0	7	19	82	245	115	46	5	1	0	0	0	0	0	0	0	0	520
9:00 AM	2	6	29	55	193	156	40	4	0	0	0	0	0	0	0	0	0	485
10:00 AM	1	0	7	86	154	154	39	4	1	0	0	0	0	0	0	0	0	446
11:00 AM	0	11	22	90	183	150	39	7	1	0	0	0	0	0	0	0	0	503
12:00 PM	2	0	13	62	189	158	36	5	0	0	0	0	0	0	0	0	0	465
1:00 PM	0	4	9	67	191	110	32	4	0	0	0	0	0	0	0	0	0	417
2:00 PM	0	3	2	56	201	115	31	0	0	0	0	0	0	0	0	0	0	408
3:00 PM	3	16	18	67	201	124	25	0	0	0	0	0	0	0	0	0	0	454
4:00 PM	1	5	4	56	177	121	21	5	0	0	0	0	0	0	0	0	0	390
5:00 PM	2	10	22	77	192	168	25	2	0	0	0	0	0	0	0	0	0	498
6:00 PM	3	14	14	89	182	124	30	1	1	0	0	0	0	0	0	0	0	458
7:00 PM	0	6	5	53	158	100	10	1	0	0	0	0	0	0	0	0	0	333
8:00 PM	0	2	1	20	98	87	18	1	0	0	0	0	0	0	0	0	0	227
9:00 PM	0	0	0	3	46	44	20	1	1	0	0	0	0	0	0	0	0	115
10:00 PM	0	0	0	1	38	44	13	3	0	1	0	0	0	0	0	0	0	100
11:00 PM	0	0	0	0	8	12	6	0	0	0	0	0	0	0	0	0	0	26
Total	14	98	222	1,007	2,715	2,133	592	76	10	2	0	0	0	0	0	0	0	6,869
Percent	0.2%	1.4%	3.2%	14.7%	39.5%	31.1%	8.6%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	28.9	mph	Mean (Average) Speed	28.8	mph
85th Percentile	33.6	mph	10 mph Pace	24.2 - 34.2	mph
95th Percentile	36.5	mph	Percent in Pace	71.4	%

Location: RAVENSWOOD AVE btwn MIDDLEFIELD RD/W 1ST ST
 Date Range: 3/27/2018 - 4/2/2018
 Site Code: 14

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	3/27/2018			3/28/2018			3/29/2018			3/30/2018			3/31/2018			4/1/2018			4/2/2018					
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	35	18	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	18	53
1:00 AM	33	11	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	11	44
2:00 AM	10	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	5	15
3:00 AM	9	25	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	25	34
4:00 AM	16	45	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	45	61
5:00 AM	36	144	180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	144	180
6:00 AM	128	276	404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	128	276	404
7:00 AM	323	500	823	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	323	500	823
8:00 AM	685	520	1,205	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	685	520	1,205
9:00 AM	447	485	932	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	447	485	932
10:00 AM	429	446	875	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	429	446	875
11:00 AM	470	503	973	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	470	503	973
12:00 PM	520	465	985	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	520	465	985
1:00 PM	562	417	979	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	562	417	979
2:00 PM	614	408	1,022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	614	408	1,022
3:00 PM	655	454	1,109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	655	454	1,109
4:00 PM	607	390	997	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	390	997
5:00 PM	619	498	1,117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	619	498	1,117
6:00 PM	628	458	1,086	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	628	458	1,086
7:00 PM	545	333	878	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	545	333	878
8:00 PM	453	227	680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	453	227	680
9:00 PM	309	115	424	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	309	115	424
10:00 PM	150	100	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150	100	250
11:00 PM	89	26	115	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89	26	115
Total	8,372	6,869	15,241	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,372	6,869	15,241
Percent	55%	45%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55%	45%	-

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary

Location: RINGWOOD AVE btwn COLBY AVE/PARKWOOD DR

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 15

	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Study Total														
Northbound	188	2,662	671	4	361	5	0	5	0	0	0	0	0	3,896
Percent	4.8%	68.3%	17.2%	0.1%	9.3%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	36	1,986	921	1	573	1	0	2	2	0	0	0	0	3,522
Percent	1.0%	56.4%	26.1%	0.0%	16.3%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	100%
Total	224	4,648	1,592	5	934	6	0	7	2	0	0	0	0	7,418
Percent	3.0%	62.7%	21.5%	0.1%	12.6%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: RINGWOOD AVE btwn COLBY AVE/PARKWOOD DR
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 15



Tuesday, March 27, 2018
 Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	3	4	0	1	0	0	0	0	0	0	0	0	9
1:00 AM	0	5	1	0	0	0	0	0	0	0	0	0	0	6
2:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	0	6	2	0	2	0	0	0	0	0	0	0	0	10
6:00 AM	6	23	6	0	3	0	0	0	0	0	0	0	0	38
7:00 AM	13	91	35	0	5	0	0	0	0	0	0	0	0	144
8:00 AM	33	150	51	0	13	0	0	1	0	0	0	0	0	248
9:00 AM	19	79	39	1	13	1	0	0	0	0	0	0	0	152
10:00 AM	6	67	32	0	10	0	0	0	0	0	0	0	0	115
11:00 AM	0	35	3	3	102	0	0	1	0	0	0	0	0	144
12:00 PM	0	72	54	0	57	1	0	0	0	0	0	0	0	184
1:00 PM	1	41	80	0	55	0	0	0	0	0	0	0	0	177
2:00 PM	1	94	122	0	29	0	0	0	0	0	0	0	0	246
3:00 PM	27	334	89	0	19	0	0	0	0	0	0	0	0	469
4:00 PM	16	392	55	0	24	0	0	0	0	0	0	0	0	487
5:00 PM	25	432	40	0	11	1	0	0	0	0	0	0	0	509
6:00 PM	16	409	30	0	10	0	0	3	0	0	0	0	0	468
7:00 PM	11	210	11	0	5	1	0	0	0	0	0	0	0	238
8:00 PM	6	104	7	0	1	0	0	0	0	0	0	0	0	118
9:00 PM	2	63	4	0	1	0	0	0	0	0	0	0	0	70
10:00 PM	4	33	4	0	0	0	0	0	0	0	0	0	0	41
11:00 PM	1	14	1	0	0	1	0	0	0	0	0	0	0	17
Total	188	2,662	671	4	361	5	0	5	0	0	0	0	0	3,896
Percent	4.8%	68.3%	17.2%	0.1%	9.3%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: RINGWOOD AVE btwn COLBY AVE/PARKWOOD DR
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 15



Tuesday, March 27, 2018
 Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	7	0	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	5	1	0	0	0	0	0	0	0	0	0	0	6
5:00 AM	0	30	2	0	0	1	0	0	0	0	0	0	0	33
6:00 AM	1	109	11	0	2	0	0	0	0	0	0	0	0	123
7:00 AM	5	392	40	0	11	0	0	0	0	0	0	0	0	448
8:00 AM	4	388	41	1	8	0	0	0	1	0	0	0	0	443
9:00 AM	2	205	23	0	9	0	0	0	0	0	0	0	0	239
10:00 AM	3	212	30	0	10	0	0	0	1	0	0	0	0	256
11:00 AM	1	25	12	0	168	0	0	0	0	0	0	0	0	206
12:00 PM	0	59	1	0	123	0	0	1	0	0	0	0	0	184
1:00 PM	0	29	42	0	110	0	0	0	0	0	0	0	0	181
2:00 PM	1	39	133	0	52	0	0	0	0	0	0	0	0	225
3:00 PM	1	80	115	0	32	0	0	0	0	0	0	0	0	228
4:00 PM	6	93	85	0	14	0	0	0	0	0	0	0	0	198
5:00 PM	6	124	134	0	11	0	0	0	0	0	0	0	0	275
6:00 PM	5	98	103	0	1	0	0	0	0	0	0	0	0	207
7:00 PM	1	37	84	0	9	0	0	1	0	0	0	0	0	132
8:00 PM	0	13	29	0	10	0	0	0	0	0	0	0	0	52
9:00 PM	0	13	21	0	2	0	0	0	0	0	0	0	0	36
10:00 PM	0	15	9	0	0	0	0	0	0	0	0	0	0	24
11:00 PM	0	7	5	0	1	0	0	0	0	0	0	0	0	13
Total	36	1,986	921	1	573	1	0	2	2	0	0	0	0	3,522
Percent	1.0%	56.4%	26.1%	0.0%	16.3%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	

Location: RINGWOOD AVE btwn COLBY AVE/PARKWOOD DR
Date Range: 3/27/2018 to 3/27/2018
Site Code: 15

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	3	4	0	1	0	0	0	0	0	0	0	0	9
1:00 AM	0	5	1	0	0	0	0	0	0	0	0	0	0	6
2:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	0	6	2	0	2	0	0	0	0	0	0	0	0	10
6:00 AM	6	23	6	0	3	0	0	0	0	0	0	0	0	38
7:00 AM	13	91	35	0	5	0	0	0	0	0	0	0	0	144
8:00 AM	33	150	51	0	13	0	0	1	0	0	0	0	0	248
9:00 AM	19	79	39	1	13	1	0	0	0	0	0	0	0	152
10:00 AM	6	67	32	0	10	0	0	0	0	0	0	0	0	115
11:00 AM	0	35	3	3	102	0	0	1	0	0	0	0	0	144
12:00 PM	0	72	54	0	57	1	0	0	0	0	0	0	0	184
1:00 PM	1	41	80	0	55	0	0	0	0	0	0	0	0	177
2:00 PM	1	94	122	0	29	0	0	0	0	0	0	0	0	246
3:00 PM	27	334	89	0	19	0	0	0	0	0	0	0	0	469
4:00 PM	16	392	55	0	24	0	0	0	0	0	0	0	0	487
5:00 PM	25	432	40	0	11	1	0	0	0	0	0	0	0	509
6:00 PM	16	409	30	0	10	0	0	3	0	0	0	0	0	468
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	6	104	7	0	1	0	0	0	0	0	0	0	0	118
9:00 PM	2	63	4	0	1	0	0	0	0	0	0	0	0	70
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	1	14	1	0	0	1	0	0	0	0	0	0	0	17
Total	173	2,419	656	4	356	4	0	5	0	0	0	0	0	3,617
Percent	4.8%	66.9%	18.1%	0.1%	9.8%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: RINGWOOD AVE btwn COLBY AVE/PARKWOOD DR
Date Range: 3/27/2018 to 3/27/2018
Site Code: 15

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	7	0	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	5	1	0	0	0	0	0	0	0	0	0	0	6
5:00 AM	0	30	2	0	0	1	0	0	0	0	0	0	0	33
6:00 AM	1	109	11	0	2	0	0	0	0	0	0	0	0	123
7:00 AM	5	392	40	0	11	0	0	0	0	0	0	0	0	448
8:00 AM	4	388	41	1	8	0	0	0	1	0	0	0	0	443
9:00 AM	2	205	23	0	9	0	0	0	0	0	0	0	0	239
10:00 AM	3	212	30	0	10	0	0	0	1	0	0	0	0	256
11:00 AM	1	25	12	0	168	0	0	0	0	0	0	0	0	206
12:00 PM	0	59	1	0	123	0	0	1	0	0	0	0	0	184
1:00 PM	0	29	42	0	110	0	0	0	0	0	0	0	0	181
2:00 PM	1	39	133	0	52	0	0	0	0	0	0	0	0	225
3:00 PM	1	80	115	0	32	0	0	0	0	0	0	0	0	228
4:00 PM	6	93	85	0	14	0	0	0	0	0	0	0	0	198
5:00 PM	6	124	134	0	11	0	0	0	0	0	0	0	0	275
6:00 PM	5	98	103	0	1	0	0	0	0	0	0	0	0	207
7:00 PM	1	37	84	0	9	0	0	1	0	0	0	0	0	132
8:00 PM	0	13	29	0	10	0	0	0	0	0	0	0	0	52
9:00 PM	0	13	21	0	2	0	0	0	0	0	0	0	0	36
10:00 PM	0	15	9	0	0	0	0	0	0	0	0	0	0	24
11:00 PM	0	7	5	0	1	0	0	0	0	0	0	0	0	13
Total	36	1,986	921	1	573	1	0	2	2	0	0	0	0	3,522
Percent	1.0%	56.4%	26.1%	0.0%	16.3%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Location: RINGWOOD AVE btwn COLBY AVE/PARKWOOD DR
Date Range: 3/27/2018 to 3/27/2018
Site Code: 15

3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	3	4	0	1	0	0	0	0	0	0	0	0	9
1:00 AM	0	5	1	0	0	0	0	0	0	0	0	0	0	6
2:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	0	6	2	0	2	0	0	0	0	0	0	0	0	10
6:00 AM	6	23	6	0	3	0	0	0	0	0	0	0	0	38
7:00 AM	13	91	35	0	5	0	0	0	0	0	0	0	0	144
8:00 AM	33	150	51	0	13	0	0	1	0	0	0	0	0	248
9:00 AM	19	79	39	1	13	1	0	0	0	0	0	0	0	152
10:00 AM	6	67	32	0	10	0	0	0	0	0	0	0	0	115
11:00 AM	0	35	3	3	102	0	0	1	0	0	0	0	0	144
12:00 PM	0	72	54	0	57	1	0	0	0	0	0	0	0	184
1:00 PM	1	41	80	0	55	0	0	0	0	0	0	0	0	177
2:00 PM	1	94	122	0	29	0	0	0	0	0	0	0	0	246
3:00 PM	27	334	89	0	19	0	0	0	0	0	0	0	0	469
4:00 PM	16	392	55	0	24	0	0	0	0	0	0	0	0	487
5:00 PM	25	432	40	0	11	1	0	0	0	0	0	0	0	509
6:00 PM	16	409	30	0	10	0	0	3	0	0	0	0	0	468
7:00 PM	11	210	11	0	5	1	0	0	0	0	0	0	0	238
8:00 PM	6	104	7	0	1	0	0	0	0	0	0	0	0	118
9:00 PM	2	63	4	0	1	0	0	0	0	0	0	0	0	70
10:00 PM	4	33	4	0	0	0	0	0	0	0	0	0	0	41
11:00 PM	1	14	1	0	0	1	0	0	0	0	0	0	0	17
Total	188	2,662	671	4	361	5	0	5	0	0	0	0	0	3,896
Percent	4.8%	68.3%	17.2%	0.1%	9.3%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Location: RINGWOOD AVE btwn COLBY AVE/PARKWOOD DR
Date Range: 3/27/2018 to 3/27/2018
Site Code: 15

3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	7	0	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	5	1	0	0	0	0	0	0	0	0	0	0	6
5:00 AM	0	30	2	0	0	1	0	0	0	0	0	0	0	33
6:00 AM	1	109	11	0	2	0	0	0	0	0	0	0	0	123
7:00 AM	5	392	40	0	11	0	0	0	0	0	0	0	0	448
8:00 AM	4	388	41	1	8	0	0	0	1	0	0	0	0	443
9:00 AM	2	205	23	0	9	0	0	0	0	0	0	0	0	239
10:00 AM	3	212	30	0	10	0	0	0	1	0	0	0	0	256
11:00 AM	1	25	12	0	168	0	0	0	0	0	0	0	0	206
12:00 PM	0	59	1	0	123	0	0	1	0	0	0	0	0	184
1:00 PM	0	29	42	0	110	0	0	0	0	0	0	0	0	181
2:00 PM	1	39	133	0	52	0	0	0	0	0	0	0	0	225
3:00 PM	1	80	115	0	32	0	0	0	0	0	0	0	0	228
4:00 PM	6	93	85	0	14	0	0	0	0	0	0	0	0	198
5:00 PM	6	124	134	0	11	0	0	0	0	0	0	0	0	275
6:00 PM	5	98	103	0	1	0	0	0	0	0	0	0	0	207
7:00 PM	1	37	84	0	9	0	0	1	0	0	0	0	0	132
8:00 PM	0	13	29	0	10	0	0	0	0	0	0	0	0	52
9:00 PM	0	13	21	0	2	0	0	0	0	0	0	0	0	36
10:00 PM	0	15	9	0	0	0	0	0	0	0	0	0	0	24
11:00 PM	0	7	5	0	1	0	0	0	0	0	0	0	0	13
Total	36	1,986	921	1	573	1	0	2	2	0	0	0	0	3,522
Percent	1.0%	56.4%	26.1%	0.0%	16.3%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	

Vehicle Speed Report Summary

Location: RINGWOOD AVE btwn COLBY AVE/PARKWOOD DR

Count Direction: Northbound / Southbound

Date Range: 3/27/2018 to 3/27/2018

Site Code: 15

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Northbound	2	31	118	214	929	1,390	724	250	89	47	37	16	12	14	11	5	7	3,896
Percent	0.1%	0.8%	3.0%	5.5%	23.8%	35.7%	18.6%	6.4%	2.3%	1.2%	0.9%	0.4%	0.3%	0.4%	0.3%	0.1%	0.2%	100%
Southbound	29	28	73	270	808	964	587	298	142	113	79	80	38	10	1	1	1	3,522
Percent	0.8%	0.8%	2.1%	7.7%	22.9%	27.4%	16.7%	8.5%	4.0%	3.2%	2.2%	2.3%	1.1%	0.3%	0.0%	0.0%	0.0%	100%
Total	31	59	191	484	1,737	2,354	1,311	548	231	160	116	96	50	24	12	6	8	7,418
Percent	0.4%	0.8%	2.6%	6.5%	23.4%	31.7%	17.7%	7.4%	3.1%	2.2%	1.6%	1.3%	0.7%	0.3%	0.2%	0.1%	0.1%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Northbound				Northbound			
50th Percentile (Median)	32.0	mph		Mean (Average) Speed	33.2	mph	
85th Percentile	38.9	mph		10 mph Pace	27.0 - 37.0	mph	
95th Percentile	47.1	mph		Percent in Pace	63.1	%	
Southbound				Southbound			
50th Percentile (Median)	32.6	mph		Mean (Average) Speed	34.6	mph	
85th Percentile	43.6	mph		10 mph Pace	26.6 - 36.6	mph	
95th Percentile	56.8	mph		Percent in Pace	51.2	%	

Location: RINGWOOD AVE btwn COLBY AVE/PARKWOOD DR
Date Range: 3/27/2018 to 3/27/2018
Site Code: 15



Tuesday, March 27, 2018
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	1	0	2	1	2	2	1	0	0	0	0	0	0	0	0	9
1:00 AM	0	0	0	0	0	3	2	1	0	0	0	0	0	0	0	0	0	6
2:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	0	0	0	0	0	2	5	2	1	0	0	0	0	0	0	0	0	10
6:00 AM	0	0	6	3	5	15	5	2	2	0	0	0	0	0	0	0	0	38
7:00 AM	0	2	10	4	18	57	43	8	2	0	0	0	0	0	0	0	0	144
8:00 AM	0	8	25	16	58	95	40	6	0	0	0	0	0	0	0	0	0	248
9:00 AM	0	7	12	7	27	52	38	8	0	1	0	0	0	0	0	0	0	152
10:00 AM	0	1	4	7	13	44	41	4	1	0	0	0	0	0	0	0	0	115
11:00 AM	0	0	0	0	0	2	12	9	19	23	19	14	10	14	11	4	7	144
12:00 PM	0	0	0	0	1	26	42	60	33	8	11	1	2	0	0	0	0	184
1:00 PM	0	0	2	1	1	20	60	57	20	12	4	0	0	0	0	0	0	177
2:00 PM	0	0	0	2	36	68	93	41	3	1	2	0	0	0	0	0	0	246
3:00 PM	1	2	24	64	151	145	68	11	1	1	0	1	0	0	0	0	0	469
4:00 PM	1	2	6	31	149	214	76	8	0	0	0	0	0	0	0	0	0	487
5:00 PM	0	5	13	24	168	226	61	10	2	0	0	0	0	0	0	0	0	509
6:00 PM	0	0	4	29	147	217	63	6	1	0	1	0	0	0	0	0	0	468
7:00 PM	0	1	6	9	77	108	32	4	0	1	0	0	0	0	0	0	0	238
8:00 PM	0	0	3	6	39	46	20	2	2	0	0	0	0	0	0	0	0	118
9:00 PM	0	0	0	2	15	33	13	6	1	0	0	0	0	0	0	0	0	70
10:00 PM	0	2	2	5	13	14	3	1	0	0	0	0	0	0	0	1	0	41
11:00 PM	0	1	0	4	6	2	2	2	0	0	0	0	0	0	0	0	0	17
Total	2	31	118	214	929	1,390	724	250	89	47	37	16	12	14	11	5	7	3,896
Percent	0.1%	0.8%	3.0%	5.5%	23.8%	35.7%	18.6%	6.4%	2.3%	1.2%	0.9%	0.4%	0.3%	0.4%	0.3%	0.1%	0.2%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	32.0	mph	Mean (Average) Speed	33.2	mph
85th Percentile	38.9	mph	10 mph Pace	27.0 - 37.0	mph
95th Percentile	47.1	mph	Percent in Pace	63.1	%

Location: RINGWOOD AVE btwn COLBY AVE/PARKWOOD DR
Date Range: 3/27/2018 to 3/27/2018
Site Code: 15

Tuesday, March 27, 2018
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	5	2	0	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	0	0	0	0	3	2	1	0	0	0	0	0	0	0	0	0	6
5:00 AM	0	0	0	3	11	10	8	1	0	0	0	0	0	0	0	0	0	33
6:00 AM	0	0	2	8	43	50	13	5	1	0	1	0	0	0	0	0	0	123
7:00 AM	3	4	5	49	220	149	18	0	0	0	0	0	0	0	0	0	0	448
8:00 AM	18	19	42	148	145	62	8	1	0	0	0	0	0	0	0	0	0	443
9:00 AM	0	0	4	12	107	95	19	1	1	0	0	0	0	0	0	0	0	239
10:00 AM	1	0	5	19	100	105	24	2	0	0	0	0	0	0	0	0	0	256
11:00 AM	2	0	0	0	0	9	19	33	39	45	30	19	6	3	0	1	0	206
12:00 PM	0	0	0	0	0	0	0	0	9	38	41	56	31	7	1	0	1	184
1:00 PM	0	0	0	0	0	4	40	58	44	23	6	5	1	0	0	0	0	181
2:00 PM	0	1	1	4	16	51	62	62	26	2	0	0	0	0	0	0	0	225
3:00 PM	0	3	2	17	72	89	39	5	0	0	1	0	0	0	0	0	0	228
4:00 PM	2	0	5	2	24	96	53	14	1	1	0	0	0	0	0	0	0	198
5:00 PM	3	1	2	2	35	111	92	28	1	0	0	0	0	0	0	0	0	275
6:00 PM	0	0	5	0	7	68	97	28	2	0	0	0	0	0	0	0	0	207
7:00 PM	0	0	0	2	7	21	58	31	10	3	0	0	0	0	0	0	0	132
8:00 PM	0	0	0	0	2	7	17	19	6	1	0	0	0	0	0	0	0	52
9:00 PM	0	0	0	3	7	15	6	5	0	0	0	0	0	0	0	0	0	36
10:00 PM	0	0	0	0	2	9	9	2	2	0	0	0	0	0	0	0	0	24
11:00 PM	0	0	0	0	1	8	2	2	0	0	0	0	0	0	0	0	0	13
Total	29	28	73	270	808	964	587	298	142	113	79	80	38	10	1	1	1	3,522
Percent	0.8%	0.8%	2.1%	7.7%	22.9%	27.4%	16.7%	8.5%	4.0%	3.2%	2.2%	2.3%	1.1%	0.3%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	32.6	mph	Mean (Average) Speed	34.6	mph
85th Percentile	43.6	mph	10 mph Pace	26.6 - 36.6	mph
95th Percentile	56.8	mph	Percent in Pace	51.2	%

Location: RINGWOOD AVE btwn COLBY AVE/PARKWOOD DR
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 15

Total Study Average
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	1	0	2	1	2	2	1	0	0	0	0	0	0	0	0	9
1:00 AM	0	0	0	0	0	3	2	1	0	0	0	0	0	0	0	0	0	6
2:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	0	0	0	0	0	2	5	2	1	0	0	0	0	0	0	0	0	10
6:00 AM	0	0	6	3	5	15	5	2	2	0	0	0	0	0	0	0	0	38
7:00 AM	0	2	10	4	18	57	43	8	2	0	0	0	0	0	0	0	0	144
8:00 AM	0	8	25	16	58	95	40	6	0	0	0	0	0	0	0	0	0	248
9:00 AM	0	7	12	7	27	52	38	8	0	1	0	0	0	0	0	0	0	152
10:00 AM	0	1	4	7	13	44	41	4	1	0	0	0	0	0	0	0	0	115
11:00 AM	0	0	0	0	0	2	12	9	19	23	19	14	10	14	11	4	7	144
12:00 PM	0	0	0	0	1	26	42	60	33	8	11	1	2	0	0	0	0	184
1:00 PM	0	0	2	1	1	20	60	57	20	12	4	0	0	0	0	0	0	177
2:00 PM	0	0	0	2	36	68	93	41	3	1	2	0	0	0	0	0	0	246
3:00 PM	1	2	24	64	151	145	68	11	1	1	0	1	0	0	0	0	0	469
4:00 PM	1	2	6	31	149	214	76	8	0	0	0	0	0	0	0	0	0	487
5:00 PM	0	5	13	24	168	226	61	10	2	0	0	0	0	0	0	0	0	509
6:00 PM	0	0	4	29	147	217	63	6	1	0	1	0	0	0	0	0	0	468
7:00 PM	0	1	6	9	77	108	32	4	0	1	0	0	0	0	0	0	0	238
8:00 PM	0	0	3	6	39	46	20	2	2	0	0	0	0	0	0	0	0	118
9:00 PM	0	0	0	2	15	33	13	6	1	0	0	0	0	0	0	0	0	70
10:00 PM	0	2	2	5	13	14	3	1	0	0	0	0	0	0	0	1	0	41
11:00 PM	0	1	0	4	6	2	2	2	0	0	0	0	0	0	0	0	0	17
Total	2	31	118	214	929	1,390	724	250	89	47	37	16	12	14	11	5	7	3,896
Percent	0.1%	0.8%	3.0%	5.5%	23.8%	35.7%	18.6%	6.4%	2.3%	1.2%	0.9%	0.4%	0.3%	0.4%	0.3%	0.1%	0.2%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	32.0	mph	Mean (Average) Speed	33.2	mph
85th Percentile	38.9	mph	10 mph Pace	27.0 - 37.0	mph
95th Percentile	47.1	mph	Percent in Pace	63.1	%

Location: RINGWOOD AVE btwn COLBY AVE/PARKWOOD DR
 Date Range: 3/27/2018 to 3/27/2018
 Site Code: 15

**Total Study Average
Southbound**

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	5	2	0	0	0	0	0	0	0	0	0	0	0	7
1:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	0	0	0	0	3	2	1	0	0	0	0	0	0	0	0	0	6
5:00 AM	0	0	0	3	11	10	8	1	0	0	0	0	0	0	0	0	0	33
6:00 AM	0	0	2	8	43	50	13	5	1	0	1	0	0	0	0	0	0	123
7:00 AM	3	4	5	49	220	149	18	0	0	0	0	0	0	0	0	0	0	448
8:00 AM	18	19	42	148	145	62	8	1	0	0	0	0	0	0	0	0	0	443
9:00 AM	0	0	4	12	107	95	19	1	1	0	0	0	0	0	0	0	0	239
10:00 AM	1	0	5	19	100	105	24	2	0	0	0	0	0	0	0	0	0	256
11:00 AM	2	0	0	0	0	9	19	33	39	45	30	19	6	3	0	1	0	206
12:00 PM	0	0	0	0	0	0	0	0	9	38	41	56	31	7	1	0	1	184
1:00 PM	0	0	0	0	0	4	40	58	44	23	6	5	1	0	0	0	0	181
2:00 PM	0	1	1	4	16	51	62	62	26	2	0	0	0	0	0	0	0	225
3:00 PM	0	3	2	17	72	89	39	5	0	0	1	0	0	0	0	0	0	228
4:00 PM	2	0	5	2	24	96	53	14	1	1	0	0	0	0	0	0	0	198
5:00 PM	3	1	2	2	35	111	92	28	1	0	0	0	0	0	0	0	0	275
6:00 PM	0	0	5	0	7	68	97	28	2	0	0	0	0	0	0	0	0	207
7:00 PM	0	0	0	2	7	21	58	31	10	3	0	0	0	0	0	0	0	132
8:00 PM	0	0	0	0	2	7	17	19	6	1	0	0	0	0	0	0	0	52
9:00 PM	0	0	0	3	7	15	6	5	0	0	0	0	0	0	0	0	0	36
10:00 PM	0	0	0	0	2	9	9	2	2	0	0	0	0	0	0	0	0	24
11:00 PM	0	0	0	0	1	8	2	2	0	0	0	0	0	0	0	0	0	13
Total	29	28	73	270	808	964	587	298	142	113	79	80	38	10	1	1	1	3,522
Percent	0.8%	0.8%	2.1%	7.7%	22.9%	27.4%	16.7%	8.5%	4.0%	3.2%	2.2%	2.3%	1.1%	0.3%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	32.6	mph	Mean (Average) Speed	34.6	mph
85th Percentile	43.6	mph	10 mph Pace	26.6 - 36.6	mph
95th Percentile	56.8	mph	Percent in Pace	51.2	%

Location: RINGWOOD AVE btwn COLBY AVE/PARKWOOD DR
 Date Range: 3/27/2018 - 4/2/2018
 Site Code: 15

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	3/27/2018			3/28/2018			3/29/2018			3/30/2018			3/31/2018			4/1/2018			4/2/2018					
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	9	7	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	7	16
1:00 AM	6	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	1	7
2:00 AM	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3
3:00 AM	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	4
4:00 AM	4	6	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	6	10
5:00 AM	10	33	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	33	43
6:00 AM	38	123	161	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	123	161
7:00 AM	144	448	592	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	144	448	592
8:00 AM	248	443	691	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	248	443	691
9:00 AM	152	239	391	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	152	239	391
10:00 AM	115	256	371	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	115	256	371
11:00 AM	144	206	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	144	206	350
12:00 PM	184	184	368	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	184	184	368
1:00 PM	177	181	358	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	177	181	358
2:00 PM	246	225	471	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	246	225	471
3:00 PM	469	228	697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	469	228	697
4:00 PM	487	198	685	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	487	198	685
5:00 PM	509	275	784	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	509	275	784
6:00 PM	468	207	675	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	468	207	675
7:00 PM	238	132	370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	238	132	370
8:00 PM	118	52	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	118	52	170
9:00 PM	70	36	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	36	106
10:00 PM	41	24	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	24	65
11:00 PM	17	13	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	13	30
Total	3,896	3,522	7,418	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,896	3,522	7,418
Percent	53%	47%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53%	47%	-

1. Mid-week average includes data between Tuesday and Thursday.

University Dr Valparaiso Ave

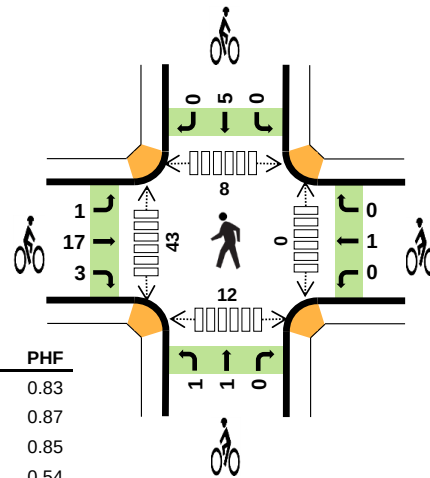
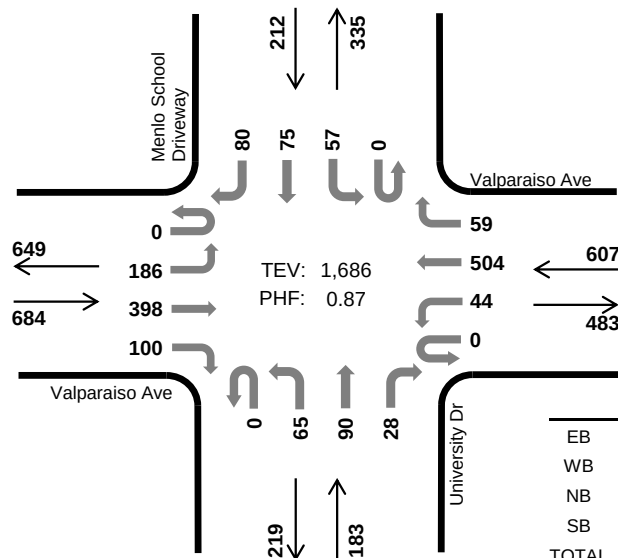


Peak Hour

Date: 03-27-2018

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	1.2%	0.83
WB	0.7%	0.87
NB	4.9%	0.85
SB	3.8%	0.54
TOTAL	1.7%	0.87

Two-Hour Count Summaries

Interval Start		Valparaiso Ave				Valparaiso Ave				University Dr				Menlo School Driveway				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	7	44	14	0	7	61	3	0	6	1	8	0	0	1	1	153	0
7:15 AM		0	5	71	16	0	8	70	9	0	12	0	2	0	2	0	2	197	0
7:30 AM		0	7	78	19	0	7	155	12	0	24	9	4	0	2	6	5	328	0
7:45 AM		0	35	97	38	0	7	139	11	0	15	14	11	0	7	7	9	390	1,068
8:00 AM		0	66	112	26	0	11	117	22	0	16	32	4	0	25	24	29	484	1,399
8:15 AM		0	78	111	17	0	19	93	14	0	10	35	9	0	23	38	37	484	1,686
8:30 AM		0	7	88	34	0	24	66	9	0	12	6	15	0	5	7	7	280	1,638
8:45 AM		0	1	93	37	0	27	115	4	0	18	2	11	0	2	0	2	312	1,560
Count Total		0	206	694	201	0	110	816	84	0	113	99	64	0	66	83	92	2,628	0
Peak Hour	All	0	186	398	100	0	44	504	59	0	65	90	28	0	57	75	80	1,686	0
	HV	0	0	8	0	0	1	3	0	0	1	8	0	0	2	5	1	29	0
	HV%	-	0%	2%	0%	-	2%	1%	0%	-	2%	9%	0%	-	4%	7%	1%	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	1	0	0	2	1	0	1	0	2	0	0	1	1	2
7:15 AM	2	0	0	1	3	1	1	1	0	3	0	1	1	1	3
7:30 AM	0	1	1	1	3	4	0	0	0	4	0	4	2	1	7
7:45 AM	1	0	2	2	5	4	0	2	1	7	0	5	3	3	11
8:00 AM	3	1	4	3	11	6	0	0	3	9	0	14	3	5	22
8:15 AM	4	2	2	2	10	7	1	0	1	9	0	20	0	3	23
8:30 AM	0	5	0	0	5	7	0	0	0	7	0	4	0	1	5
8:45 AM	1	3	0	0	4	2	1	0	0	3	0	4	0	3	7
Count Total	12	13	9	9	43	32	3	4	5	44	0	52	10	18	80
Peak Hour	8	4	9	8	29	21	1	2	5	29	0	43	8	12	63

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	Valparaiso Ave				Valparaiso Ave				University Dr				Menlo School Driveway				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	
7:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	
7:30 AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	3	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	1	0	5	13
8:00 AM	0	0	3	0	0	0	1	0	0	0	4	0	0	0	1	2	0	11	22
8:15 AM	0	0	4	0	0	1	1	0	0	1	1	0	0	0	0	1	1	10	29
8:30 AM	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	5	31
8:45 AM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4	30
Count Total	0	0	12	0	0	3	10	0	0	1	8	0	0	3	5	1		43	0
Peak Hour	0	0	8	0	0	1	3	0	0	1	8	0	0	2	5	1		29	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Valparaiso Ave			Valparaiso Ave			University Dr			Menlo School Driveway			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	2	0			
7:15 AM	0	1	0	0	1	0	1	0	0	0	0	0	3	0			
7:30 AM	0	3	1	0	0	0	0	0	0	0	0	0	4	0			
7:45 AM	1	3	0	0	0	0	1	1	0	0	1	0	7	16			
8:00 AM	0	4	2	0	0	0	0	0	0	0	3	0	9	23			
8:15 AM	0	7	0	0	1	0	0	0	0	0	1	0	9	29			
8:30 AM	0	5	2	0	0	0	0	0	0	0	0	0	7	32			
8:45 AM	0	2	0	1	0	0	0	0	0	0	0	0	3	28			
Count Total	1	26	5	1	2	0	2	2	0	0	5	0	44	0			
Peak Hour	1	17	3	0	1	0	1	1	0	0	5	0	29	0			

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

University Dr Valparaiso Ave

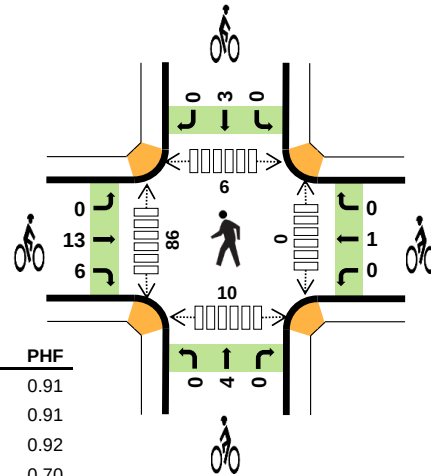
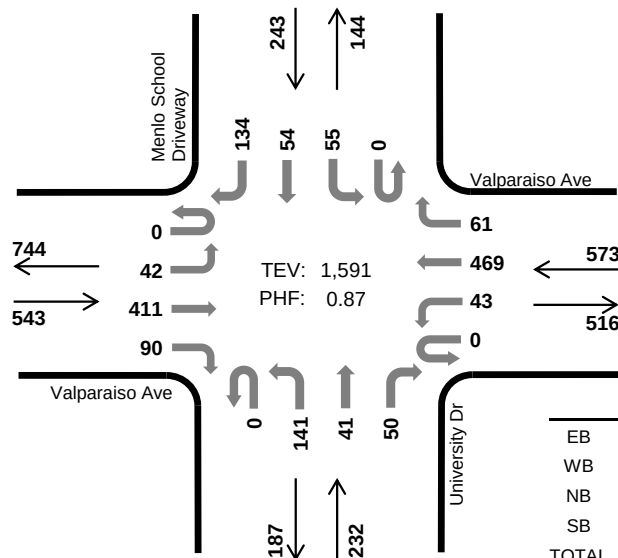


Peak Hour

Date: 03-27-2018

Count Period: 2:00 PM to 4:00 PM

Peak Hour: 2:45 PM to 3:45 PM



	HV %:	PHF
EB	1.7%	0.91
WB	0.9%	0.91
NB	2.2%	0.92
SB	2.1%	0.70
TOTAL	1.5%	0.87

Two-Hour Count Summaries

Interval Start		Valparaiso Ave				Valparaiso Ave				University Dr				Menlo School Driveway				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM		0	3	79	17	1	11	68	1	0	24	1	15	0	4	4	0	228	0
2:15 PM		0	3	76	16	0	10	87	1	0	24	2	10	0	3	7	1	240	0
2:30 PM		0	5	74	22	0	14	96	6	0	38	4	20	0	5	0	4	288	0
2:45 PM		0	9	88	26	0	13	123	14	0	38	13	10	0	11	9	25	379	1,135
3:00 PM		0	21	114	15	0	6	129	22	0	24	14	25	0	15	14	58	457	1,364
3:15 PM		0	6	113	24	0	10	126	19	0	38	9	9	0	17	13	28	412	1,536
3:30 PM		0	6	96	25	0	14	91	6	0	41	5	6	0	12	18	23	343	1,591
3:45 PM		0	7	95	36	0	5	100	14	0	44	8	11	0	11	10	18	359	1,571
Count Total		0	60	735	181	1	83	820	83	0	271	56	106	0	78	75	157	2,706	0
Peak Hour	All	0	42	411	90	0	43	469	61	0	141	41	50	0	55	54	134	1,591	0
	HV	0	0	9	0	0	0	4	1	0	0	5	0	0	1	4	0	24	0
	HV%	-	0%	2%	0%	-	0%	1%	2%	-	0%	12%	0%	-	2%	7%	0%	2%	0

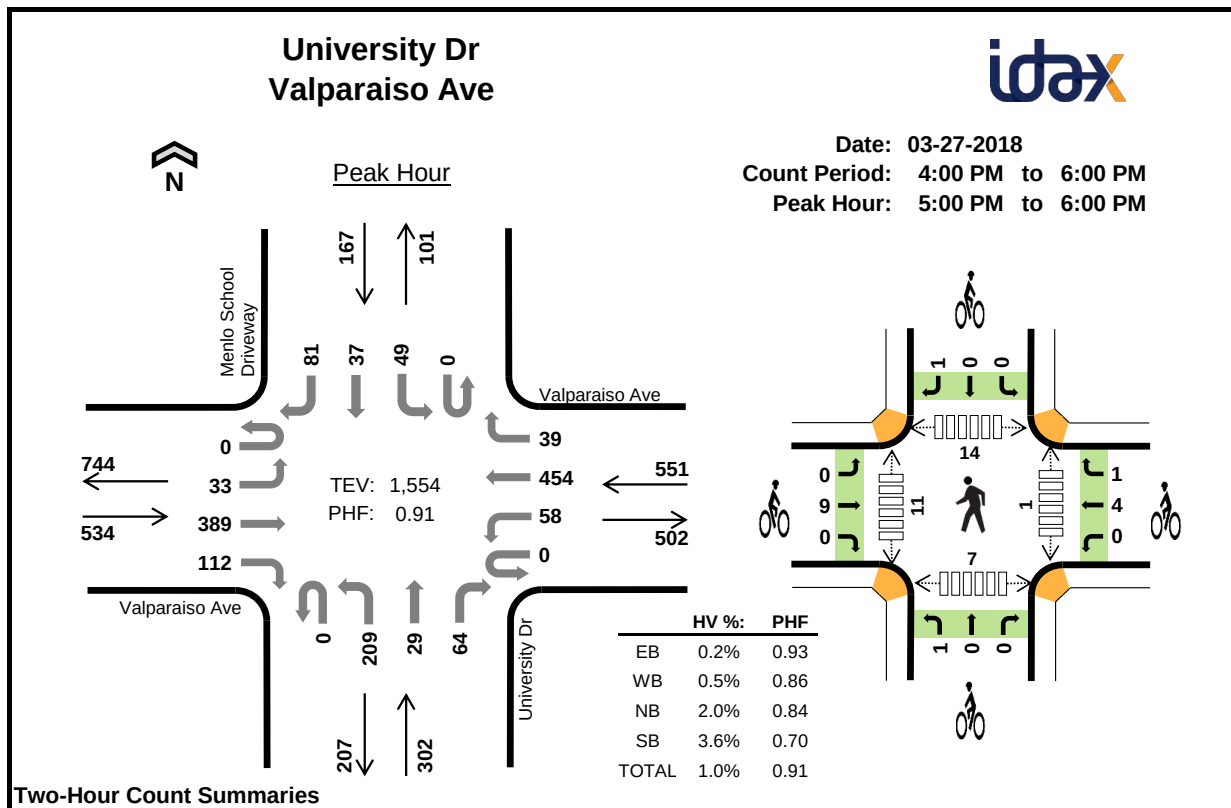
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	1	1	0	0	2	2	0	0	0	2	0	4	1	2	7
2:15 PM	4	6	0	0	10	1	0	0	0	1	0	4	0	4	8
2:30 PM	0	1	1	0	2	0	0	0	0	0	0	2	0	2	4
2:45 PM	2	0	0	0	2	2	0	0	1	3	0	24	2	4	30
3:00 PM	1	1	1	0	3	2	0	1	1	4	0	26	1	0	27
3:15 PM	5	3	3	1	12	10	0	3	0	13	0	20	2	5	27
3:30 PM	1	1	1	4	7	5	1	0	1	7	0	16	1	1	18
3:45 PM	2	1	0	0	3	2	0	0	0	2	0	3	3	1	7
Count Total	16	14	6	5	41	24	1	4	3	32	0	99	10	19	128
Peak Hour	9	5	5	5	24	19	1	4	3	27	0	86	6	10	102

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Valparaiso Ave				Valparaiso Ave				University Dr				Menlo School Driveway				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	0
2:15 PM	0	0	4	0	0	0	6	0	0	0	0	0	0	0	0	0	10	0
2:30 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	2	0
2:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	16
3:00 PM	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	3	17
3:15 PM	0	0	5	0	0	0	3	0	0	0	3	0	0	0	1	0	12	19
3:30 PM	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	3	7	24
3:45 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	25
Count Total	0	0	15	1	0	0	13	1	0	0	5	1	0	0	1	4	41	0
Peak Hour	0	0	9	0	0	0	4	1	0	0	5	0	0	1	4	0	24	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Valparaiso Ave			Valparaiso Ave			University Dr			Menlo School Driveway			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
2:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	0			
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0			
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:45 PM	0	1	1	0	0	0	0	0	0	0	1	0	3	6			
3:00 PM	0	1	1	0	0	0	0	1	0	0	1	0	4	8			
3:15 PM	0	8	2	0	0	0	0	3	0	0	0	0	13	20			
3:30 PM	0	3	2	0	1	0	0	0	0	0	1	0	7	27			
3:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	26			
Count Total	0	18	6	0	1	0	0	4	0	0	3	0	32	0			
Peak Hour	0	13	6	0	1	0	0	4	0	0	3	0	27	0			

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



Interval Start		Valparaiso Ave				Valparaiso Ave				University Dr				Menlo School Driveway				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	4:00 PM	0	10	104	27	0	11	103	12	0	45	5	14	0	21	6	25	383	0
	4:15 PM	0	10	83	22	0	10	100	10	0	35	11	15	0	9	6	16	327	0
	4:30 PM	0	12	105	32	0	17	90	10	0	41	4	12	0	15	16	23	377	0
	4:45 PM	0	7	87	32	0	17	107	7	0	35	9	23	0	6	7	11	348	1,435
	5:00 PM	0	13	87	19	0	14	132	14	0	62	9	19	0	24	12	24	429	1,481
	5:15 PM	0	10	103	28	0	10	91	12	0	48	9	17	0	4	8	17	357	1,511
	5:30 PM	0	5	93	32	0	21	123	8	0	48	6	16	0	12	9	24	397	1,531
	5:45 PM	0	5	106	33	0	13	108	5	0	51	5	12	0	9	8	16	371	1,554
Count Total		0	72	768	225	0	113	854	78	0	365	58	128	0	100	72	156	2,989	0
Peak Hour	All	0	33	389	112	0	58	454	39	0	209	29	64	0	49	37	81	1,554	0
	HV	0	0	1	0	0	0	2	1	0	1	3	2	0	0	4	2	16	0
	HV%	-	0%	0%	0%	-	0%	0%	3%	-	0%	10%	3%	-	0%	11%	2%	1%	0

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

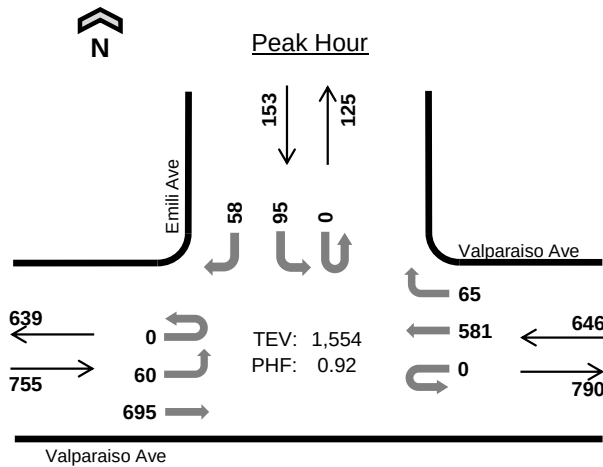
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	1	0	1	3	0	0	2	0	2	0	4	0	4	8
4:15 PM	1	0	2	0	3	1	3	2	1	7	0	9	2	6	17
4:30 PM	1	0	1	2	4	3	1	0	0	4	0	7	0	4	11
4:45 PM	2	1	1	0	4	5	3	0	0	8	0	4	1	1	6
5:00 PM	0	1	1	2	4	1	1	0	1	3	0	8	1	2	11
5:15 PM	1	1	3	1	6	3	1	1	0	5	0	1	5	2	8
5:30 PM	0	1	2	2	5	5	2	0	0	7	1	0	4	0	5
5:45 PM	0	0	0	1	1	0	1	0	0	1	0	2	4	3	9
Count Total	6	5	10	9	30	18	12	5	2	37	1	35	17	22	75
Peak Hour	1	3	6	6	16	9	5	1	1	16	1	11	14	7	33

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	Valparaiso Ave				Valparaiso Ave				University Dr				Menlo School Driveway				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	3	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	3	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2	0	4	0
4:45 PM	0	0	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0	4	14
5:00 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0	0	4	15
5:15 PM	0	0	1	0	0	0	1	0	0	0	1	2	0	0	0	0	1	6	18
5:30 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	1	0	5	19
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	16
Count Total	0	0	6	0	0	0	4	1	0	1	7	2	0	0	7	2	0	30	0
Peak Hour	0	0	1	0	0	0	2	1	0	1	3	2	0	0	4	2	0	16	0

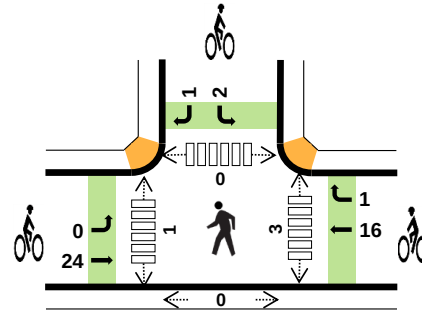
Two-Hour Count Summaries - Bikes																		
Interval Start	Valparaiso Ave			Valparaiso Ave			University Dr			Menlo School Driveway			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	1	0	1	0	0	0	2	0				
4:15 PM	0	1	0	1	2	0	0	2	0	0	0	1	7	0				
4:30 PM	0	3	0	0	1	0	0	0	0	0	0	0	4	0				
4:45 PM	0	3	2	0	3	0	0	0	0	0	0	0	8	21				
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	3	22				
5:15 PM	0	3	0	0	0	1	1	0	0	0	0	0	5	20				
5:30 PM	0	5	0	0	2	0	0	0	0	0	0	0	7	23				
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	16				
Count Total	0	16	2	1	10	1	2	2	1	0	0	2	37	0				
Peak Hour	0	9	0	0	4	1	1	0	0	0	0	1	16	0				

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

Emili Ave Valparaiso Ave



Date: 03-27-2018
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	1.1%	0.74
WB	0.8%	0.88
NB	-	-
SB	0.7%	0.75
TOTAL	0.9%	0.92

Two-Hour Count Summaries

Interval Start		Valparaiso Ave				Valparaiso Ave				0				Emili Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	4	58	0	0	0	63	4	0	0	0	0	0	6	0	5	140	0
7:15 AM		0	6	84	0	0	0	71	9	0	0	0	0	0	4	0	8	182	0
7:30 AM		0	22	96	0	0	0	147	36	0	0	0	0	0	21	0	10	332	0
7:45 AM		0	10	156	0	0	0	153	12	0	0	0	0	0	34	0	17	382	1,036
8:00 AM		0	17	199	0	0	0	152	6	0	0	0	0	0	24	0	18	416	1,312
8:15 AM		0	11	244	0	0	0	129	11	0	0	0	0	0	16	0	13	424	1,554
8:30 AM		0	2	115	0	0	0	77	5	0	0	0	0	0	12	0	11	222	1,444
8:45 AM		0	4	130	0	0	0	128	7	0	0	0	0	0	13	0	15	297	1,359
Count Total		0	76	1,082	0	0	0	920	90	0	0	0	0	0	130	0	97	2,395	0
Peak Hour	All	0	60	695	0	0	0	581	65	0	0	0	0	0	95	0	58	1,554	0
	HV	0	0	8	0	0	0	4	1	0	0	0	0	0	0	0	1	14	0
	HV%	-	0%	1%	-	-	-	1%	2%	-	-	-	-	-	0%	-	2%	1%	0

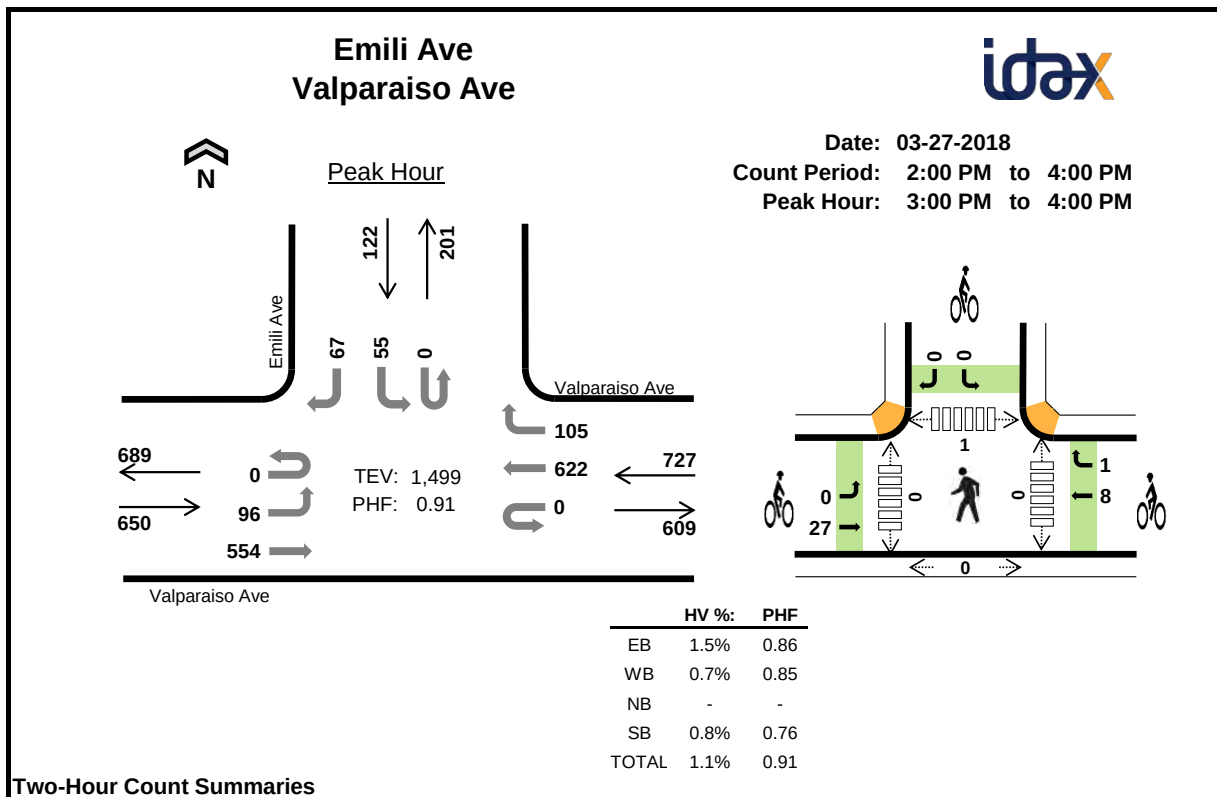
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	1	0	0	2	1	0	0	1	2	0	0	1	0	1
7:15 AM	2	0	0	0	2	2	4	0	0	6	0	0	0	0	0
7:30 AM	0	1	0	1	2	3	0	0	2	5	2	0	0	0	2
7:45 AM	1	0	0	0	1	4	8	0	0	12	1	0	0	0	1
8:00 AM	3	1	0	0	4	7	8	0	0	15	0	1	0	0	1
8:15 AM	4	3	0	0	7	10	1	0	1	12	0	0	0	0	0
8:30 AM	0	3	0	1	4	7	1	0	2	10	0	0	0	0	0
8:45 AM	1	2	0	1	4	2	0	0	2	4	0	0	1	0	1
Count Total	12	11	0	3	26	36	22	0	8	66	3	1	2	0	6
Peak Hr	8	5	0	1	14	24	17	0	3	44	3	1	0	0	4

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Valparaiso Ave				Valparaiso Ave				0				Emili Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
7:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7
8:00 AM	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	9
8:15 AM	0	0	4	0	0	0	2	1	0	0	0	0	0	0	0	0	7	14
8:30 AM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	4	16
8:45 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	4	19
Count Total	0	0	12	0	0	0	10	1	0	0	0	0	0	0	0	3	26	0
Peak Hour	0	0	8	0	0	0	4	1	0	0	0	0	0	0	0	1	14	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Valparaiso Ave			Valparaiso Ave			0			Emili Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	1	2	0				
7:15 AM	1	1	0	0	3	1	0	0	0	0	0	0	6	0				
7:30 AM	0	3	0	0	0	0	0	0	0	2	0	0	5	0				
7:45 AM	0	4	0	0	8	0	0	0	0	0	0	0	12	25				
8:00 AM	0	7	0	0	7	1	0	0	0	0	0	0	15	38				
8:15 AM	0	10	0	0	1	0	0	0	0	0	0	1	12	44				
8:30 AM	0	7	0	0	1	0	0	0	0	1	0	1	10	49				
8:45 AM	0	2	0	0	0	0	0	0	0	1	0	1	4	41				
Count Total	1	35	0	0	20	2	0	0	0	4	0	4	66	0				
Peak Hour	0	24	0	0	16	1	0	0	0	2	0	1	44	0				

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

**Two-Hour Count Summaries**

Interval Start		Valparaiso Ave				Valparaiso Ave				0				Emili Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM		0	1	90	0	0	0	90	6	0	0	0	0	0	12	0	6	205	0
2:15 PM		0	1	80	0	0	0	101	10	0	0	0	0	0	8	0	5	205	0
2:30 PM		0	4	96	0	0	0	128	10	0	0	0	0	0	4	0	5	247	0
2:45 PM		0	12	112	0	0	0	157	25	0	0	0	0	0	9	0	7	322	979
3:00 PM		0	25	140	0	0	0	175	40	0	0	0	0	0	9	0	16	405	1,179
3:15 PM		0	35	154	0	0	0	162	27	0	0	0	0	0	16	0	17	411	1,385
3:30 PM		0	14	128	0	0	0	132	22	0	0	0	0	0	16	0	24	336	1,474
3:45 PM		0	22	132	0	0	0	153	16	0	0	0	0	0	14	0	10	347	1,499
Count Total		0	114	932	0	0	0	1,098	156	0	0	0	0	0	88	0	90	2,478	0
Peak Hour	All	0	96	554	0	0	0	622	105	0	0	0	0	0	55	0	67	1,499	0
	HV	0	1	9	0	0	0	5	0	0	0	0	0	0	0	0	1	16	0
	HV%	-	1%	2%	-	-	-	1%	0%	-	-	-	-	-	0%	-	1%	1%	0

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

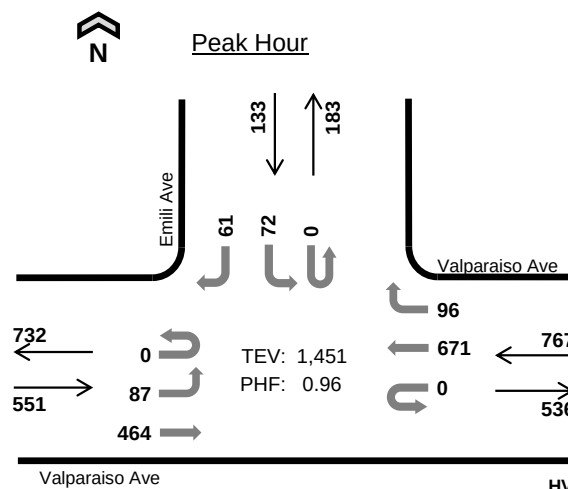
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	1	0	0	0	1	0	0	0	1	1	1	0	0	0	1
2:15 PM	3	5	0	1	9	1	1	0	0	2	2	0	0	0	2
2:30 PM	0	1	0	0	1	1	1	0	0	2	0	0	0	0	0
2:45 PM	4	0	0	0	4	2	3	0	0	5	0	0	0	0	0
3:00 PM	0	0	0	0	0	4	2	0	0	6	0	0	0	0	0
3:15 PM	5	2	0	0	7	14	2	0	0	16	0	0	1	0	1
3:30 PM	1	2	0	0	3	5	2	0	0	7	0	0	0	0	0
3:45 PM	4	1	0	1	6	4	3	0	0	7	0	0	0	0	0
Count Total	18	11	0	2	31	31	14	0	1	46	3	0	1	0	4
Peak Hr	10	5	0	1	16	27	9	0	0	36	0	0	1	0	1

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Valparaiso Ave				Valparaiso Ave				0				Emili Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:15 PM	0	0	3	0	0	0	5	0	0	0	0	0	0	0	1	0	9	0
2:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
2:45 PM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4	15
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
3:15 PM	0	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	7	12
3:30 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	14
3:45 PM	0	1	3	0	0	0	1	0	0	0	0	0	0	0	0	1	6	16
Count Total	0	2	16	0	0	0	11	0	0	0	0	0	0	1	0	1	31	0
Peak Hour	0	1	9	0	0	0	5	0	0	0	0	0	0	0	0	1	16	0

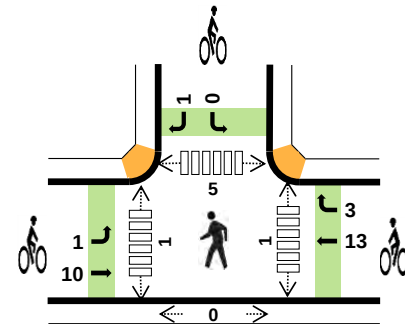
Two-Hour Count Summaries - Bikes																		
Interval Start	Valparaiso Ave			Valparaiso Ave			0			Emili Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
2:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0				
2:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	2	0				
2:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	0				
2:45 PM	0	2	0	0	3	0	0	0	0	0	0	0	5	10				
3:00 PM	0	4	0	0	2	0	0	0	0	0	0	0	6	15				
3:15 PM	0	14	0	0	2	0	0	0	0	0	0	0	16	29				
3:30 PM	0	5	0	0	2	0	0	0	0	0	0	0	7	34				
3:45 PM	0	4	0	0	2	1	0	0	0	0	0	0	7	36				
Count Total	0	31	0	0	12	2	0	0	0	1	0	0	46	0				
Peak Hour	0	27	0	0	8	1	0	0	0	0	0	0	36	0				

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

Emili Ave Valparaiso Ave



Date: 03-27-2018
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	0.4%	0.91
WB	0.7%	0.86
NB	-	-
SB	0.0%	0.83
TOTAL	0.5%	0.96

Two-Hour Count Summaries

Interval Start		Valparaiso Ave				Valparaiso Ave				0				Emili Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	16	127	0	0	0	161	18	0	0	0	0	0	9	0	7	338	0
4:15 PM		0	13	99	0	0	0	148	15	0	0	0	0	0	14	0	9	298	0
4:30 PM		0	11	143	0	0	0	135	17	0	0	0	0	0	19	0	14	339	0
4:45 PM		0	23	105	0	0	0	138	21	0	0	0	0	0	13	0	9	309	1,284
5:00 PM		0	14	101	0	0	0	196	28	0	0	0	0	0	24	0	16	379	1,325
5:15 PM		0	19	118	0	0	0	142	22	0	0	0	0	0	18	0	19	338	1,365
5:30 PM		0	27	121	0	0	0	176	19	0	0	0	0	0	16	0	8	367	1,393
5:45 PM		0	27	124	0	0	0	157	27	0	0	0	0	0	14	0	18	367	1,451
Count Total		0	150	938	0	0	0	1,253	167	0	0	0	0	0	127	0	100	2,735	0
Peak Hour	All	0	87	464	0	0	0	671	96	0	0	0	0	0	72	0	61	1,451	0
	HV	0	0	2	0	0	0	2	3	0	0	0	0	0	0	0	0	7	0
	HV%	-	0%	0%	-	-	-	0%	3%	-	-	-	-	-	0%	-	0%	0%	0

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

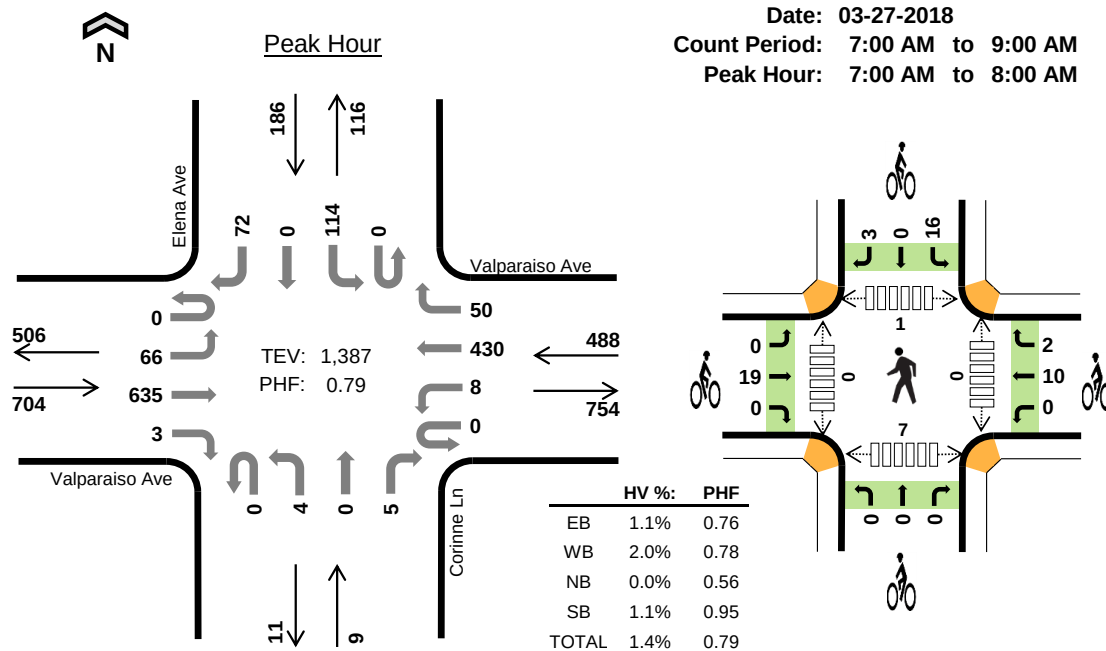
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	1	0	0	1	1	2	0	0	3	0	0	0	0	0
4:15 PM	1	0	0	0	1	3	5	0	0	8	0	0	2	0	2
4:30 PM	1	0	0	0	1	5	1	0	1	7	0	0	0	0	0
4:45 PM	2	1	0	0	3	4	5	0	0	9	0	0	2	0	2
5:00 PM	0	1	0	0	1	3	2	0	0	5	0	1	1	0	2
5:15 PM	1	2	0	0	3	2	4	0	1	7	1	0	1	0	2
5:30 PM	0	0	0	0	0	6	5	0	0	11	0	0	2	0	2
5:45 PM	1	2	0	0	3	0	5	0	0	5	0	0	1	0	1
Count Total	6	7	0	0	13	24	29	0	2	55	1	1	9	0	11
Peak Hr	2	5	0	0	7	11	16	0	1	28	1	1	5	0	7

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Valparaiso Ave				Valparaiso Ave				0				Emili Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	6
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	6
5:15 PM	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	3	8
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5:45 PM	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	3	7
Count Total	0	0	6	0	0	0	4	3	0	0	0	0	0	0	0	0	13	0
Peak Hour	0	0	2	0	0	0	2	3	0	0	0	0	0	0	0	0	7	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Valparaiso Ave			Valparaiso Ave			0			Emili Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	1	0	0	1	1	0	0	0	0	0	0	3	0				
4:15 PM	1	2	0	0	5	0	0	0	0	0	0	0	8	0				
4:30 PM	0	5	0	0	1	0	0	0	0	1	0	0	7	0				
4:45 PM	0	4	0	0	5	0	0	0	0	0	0	0	9	27				
5:00 PM	1	2	0	0	2	0	0	0	0	0	0	0	5	29				
5:15 PM	0	2	0	0	3	1	0	0	0	0	0	1	7	28				
5:30 PM	0	6	0	0	4	1	0	0	0	0	0	0	11	32				
5:45 PM	0	0	0	0	4	1	0	0	0	0	0	0	5	28				
Count Total	2	22	0	0	25	4	0	0	0	1	0	1	55	0				
Peak Hour	1	10	0	0	13	3	0	0	0	0	0	1	28	0				

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

Elena Ave/Corinne Ln Valparaiso Ave



Two-Hour Count Summaries

Interval Start		Valparaiso Ave				Valparaiso Ave				Corinne Ln				Elena Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	15	215	1	0	0	143	14	0	1	0	0	0	29	0	19	437	0
7:15 AM		0	19	210	1	0	3	111	9	0	2	0	1	0	26	0	23	405	0
7:30 AM		0	14	105	0	0	2	74	12	0	1	0	3	0	28	0	15	254	0
7:45 AM		0	18	105	1	0	3	102	15	0	0	0	1	0	31	0	15	291	1,387
8:00 AM		0	12	109	3	0	1	77	7	0	1	0	2	0	19	1	13	245	1,195
8:15 AM		0	9	128	0	0	0	73	17	0	0	0	1	0	22	1	7	258	1,048
8:30 AM		0	11	99	0	0	1	70	11	0	0	0	0	0	22	0	6	220	1,014
8:45 AM		0	11	124	1	0	1	77	9	0	1	0	2	0	32	0	6	264	987
Count Total		0	109	1,095	7	0	11	727	94	0	6	0	10	0	209	2	104	2,374	0
Peak Hour	All	0	66	635	3	0	8	430	50	0	4	0	5	0	114	0	72	1,387	0
	HV	0	1	7	0	0	0	8	2	0	0	0	0	0	0	0	2	20	0
	HV%	-	2%	1%	0%	-	0%	2%	4%	-	0%	-	0%	-	0%	-	3%	1%	0

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

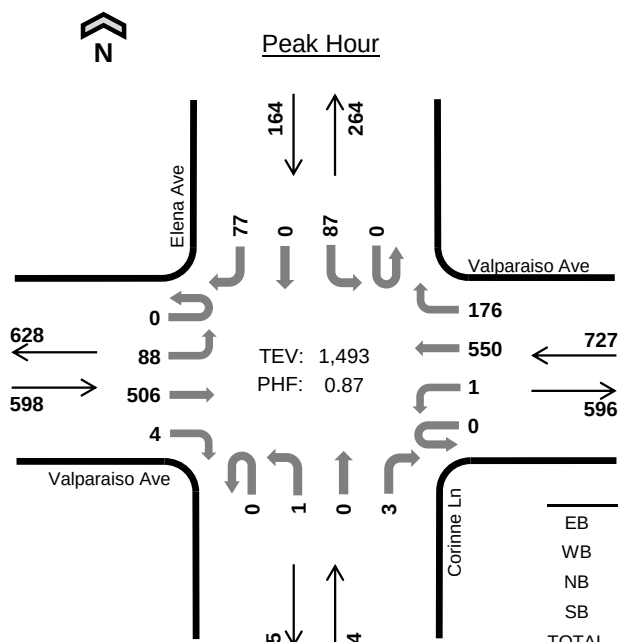
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	3	1	0	0	4	5	10	0	4	19	0	0	1	3	4
7:15 AM	3	2	0	1	6	9	1	0	4	14	0	0	0	3	3
7:30 AM	0	4	0	1	5	3	0	0	8	11	0	0	0	1	1
7:45 AM	2	3	0	0	5	2	1	0	3	6	0	0	0	0	0
8:00 AM	5	1	0	0	6	2	3	0	8	13	0	0	1	1	2
8:15 AM	0	4	0	0	4	1	0	0	3	4	0	2	1	3	6
8:30 AM	0	0	0	1	1	1	1	0	1	3	0	0	0	0	0
8:45 AM	3	1	2	3	9	2	1	1	6	10	0	0	0	1	1
Count Total	16	16	2	6	40	25	17	1	37	80	0	2	3	12	17
Peak Hour	8	10	0	2	20	19	12	0	19	50	0	0	1	7	8

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Valparaiso Ave				Valparaiso Ave				Corinne Ln				Elena Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	4	0
7:15 AM	0	0	3	0	0	0	1	1	0	0	0	0	0	0	0	0	6	0
7:30 AM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	5	0
7:45 AM	0	1	1	0	0	0	3	0	0	0	0	0	0	0	0	0	5	20
8:00 AM	0	0	4	1	0	0	1	0	0	0	0	0	0	0	0	0	6	22
8:15 AM	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	4	20
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	16
8:45 AM	0	0	2	1	0	0	0	1	0	1	0	0	1	0	2	0	1	20
Count Total	0	1	13	2	0	0	12	4	0	1	0	1	0	0	2	0	4	0
Peak Hour	0	1	7	0	0	0	8	2	0	0	0	0	0	0	0	2	20	0

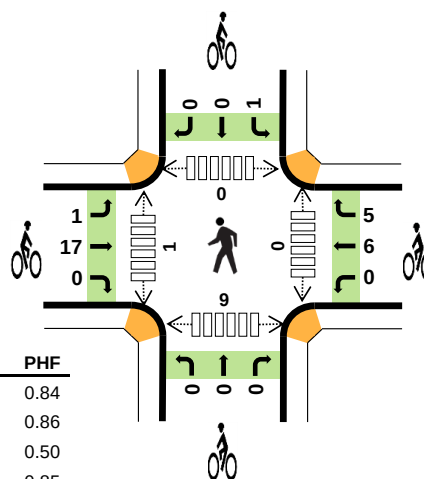
Two-Hour Count Summaries - Bikes																	
Interval Start	Valparaiso Ave			Valparaiso Ave			Corinne Ln			Elena Ave			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	5	0	0	10	0	0	0	0	4	0	0	19	0			
7:15 AM	0	9	0	0	0	1	0	0	0	4	0	0	14	0			
7:30 AM	0	3	0	0	0	0	0	0	0	7	0	1	11	0			
7:45 AM	0	2	0	0	0	1	0	0	0	1	0	2	6	50			
8:00 AM	0	2	0	0	3	0	0	0	0	8	0	0	13	44			
8:15 AM	0	1	0	0	0	0	0	0	0	3	0	0	4	34			
8:30 AM	0	1	0	0	1	0	0	0	0	1	0	0	3	26			
8:45 AM	0	1	1	0	1	0	0	0	1	6	0	0	10	30			
Count Total	0	24	1	0	15	2	0	0	1	34	0	3	80	0			
Peak Hour	0	19	0	0	10	2	0	0	0	16	0	3	50	0			

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

Elena Ave/Corinne Ln Valparaiso Ave



Date: 03-27-2018
Count Period: 2:00 PM to 4:00 PM
Peak Hour: 2:00 PM to 3:00 PM



Two-Hour Count Summaries

Interval Start		Valparaiso Ave				Valparaiso Ave				Corinne Ln				Elena Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM		0	17	153	1	0	1	148	62	0	1	0	0	0	21	0	27	431	0
2:15 PM		0	28	149	1	0	0	148	45	0	0	0	2	0	16	0	22	411	0
2:30 PM		0	21	83	1	0	0	135	30	0	0	0	0	0	30	0	18	318	0
2:45 PM		0	22	121	1	0	0	119	39	0	0	0	1	0	20	0	10	333	1,493
3:00 PM		0	22	113	1	0	0	143	29	0	2	0	2	0	18	0	10	340	1,402
3:15 PM		0	17	93	0	0	1	124	41	0	0	1	0	0	12	0	14	303	1,294
3:30 PM		0	28	119	0	0	0	118	38	0	0	0	1	0	21	0	17	342	1,318
3:45 PM		0	29	110	0	0	2	111	37	0	1	0	1	0	18	0	9	318	1,303
Count Total		0	184	941	5	0	4	1,046	321	0	4	1	7	0	156	0	127	2,796	0
Peak Hour	All	0	88	506	4	0	1	550	176	0	1	0	3	0	87	0	77	1,493	0
	HV	0	1	11	1	0	0	7	1	0	0	0	0	0	0	1	22	0	0
	HV%	-	1%	2%	25%	-	0%	1%	1%	-	0%	-	0%	-	0%	-	1%	1%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	1	2	0	0	3	8	2	0	0	10	0	1	0	5	6
2:15 PM	6	3	0	1	10	6	1	0	0	7	0	0	0	3	3
2:30 PM	2	2	0	0	4	2	3	0	1	6	0	0	0	1	1
2:45 PM	4	1	0	0	5	2	5	0	0	7	0	0	0	0	0
3:00 PM	0	1	1	0	2	0	3	0	0	3	0	1	0	2	3
3:15 PM	1	0	0	0	1	1	9	0	0	10	0	1	1	3	5
3:30 PM	1	0	0	0	1	1	3	0	0	4	0	0	1	0	1
3:45 PM	2	0	0	0	2	2	10	0	0	12	0	0	0	0	0
Count Total	17	9	1	1	28	22	36	0	1	59	0	3	2	14	19
Peak Hour	13	8	0	1	22	18	11	0	1	30	0	1	0	9	10

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Valparaiso Ave				Valparaiso Ave				Corinne Ln				Elena Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0
2:15 PM	0	1	5	0	0	0	2	1	0	0	0	0	0	0	0	1	10	0
2:30 PM	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	4	0
2:45 PM	0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	5	22
3:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	21
3:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12
3:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9
3:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6
Count Total	0	1	15	1	0	0	8	1	0	1	0	0	0	0	0	1	28	0
Peak Hour	0	1	11	1	0	0	7	1	0	0	0	0	0	0	0	1	22	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Valparaiso Ave			Valparaiso Ave			Corinne Ln			Elena Ave			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
2:00 PM	0	8	0	0	1	1	0	0	0	0	0	0	10	0			
2:15 PM	1	5	0	0	1	0	0	0	0	0	0	0	7	0			
2:30 PM	0	2	0	0	1	2	0	0	0	1	0	0	6	0			
2:45 PM	0	2	0	0	3	2	0	0	0	0	0	0	7	30			
3:00 PM	0	0	0	0	1	2	0	0	0	0	0	0	3	23			
3:15 PM	0	1	0	0	5	4	0	0	0	0	0	0	10	26			
3:30 PM	0	1	0	0	0	3	0	0	0	0	0	0	4	24			
3:45 PM	0	2	0	0	4	6	0	0	0	0	0	0	12	29			
Count Total	1	21	0	0	16	20	0	0	0	1	0	0	59	0			
Peak Hour	1	17	0	0	6	5	0	0	0	1	0	0	30	0			

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

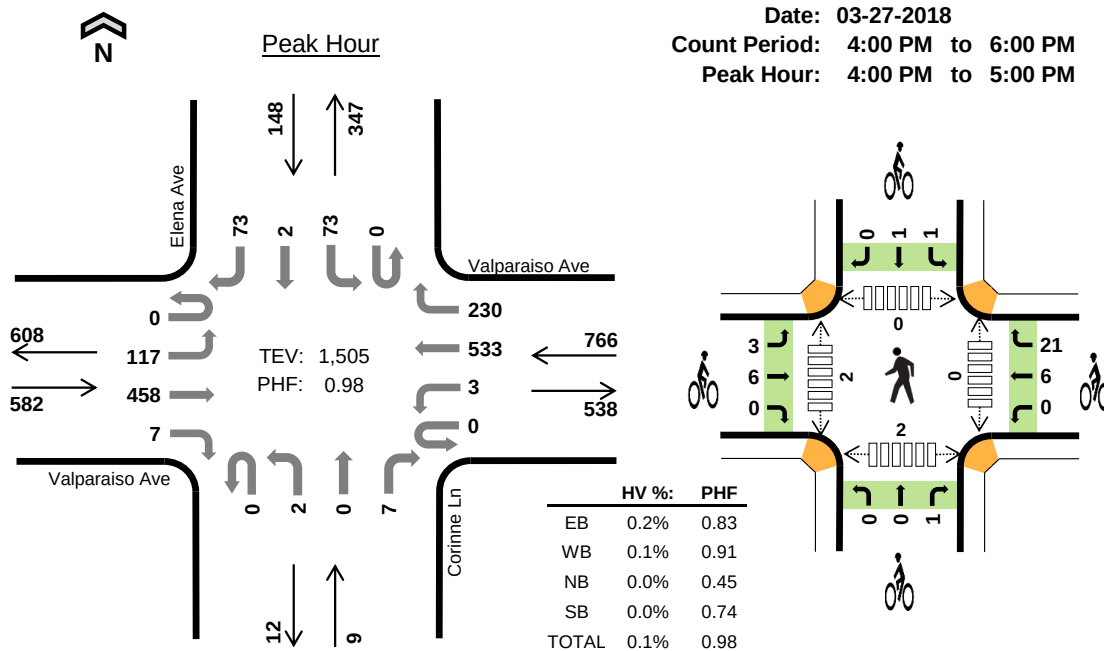
Elena Ave/Corinne Ln Valparaiso Ave



Date: 03-27-2018

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:00 PM to 5:00 PM



Two-Hour Count Summaries

Interval Start		Valparaiso Ave				Valparaiso Ave				Corinne Ln				Elena Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	37	102	0	0	0	144	66	0	0	0	0	0	11	0	14	374	0
4:15 PM		0	40	132	4	0	2	101	56	0	1	0	1	0	13	1	14	365	0
4:30 PM		0	20	110	2	0	1	148	57	0	1	0	1	0	28	0	17	385	0
4:45 PM		0	20	114	1	0	0	140	51	0	0	0	5	0	21	1	28	381	1,505
5:00 PM		0	22	107	0	0	1	126	43	0	0	0	1	0	11	0	8	319	1,450
5:15 PM		0	12	75	0	0	2	122	32	0	2	0	0	0	4	0	16	265	1,350
5:30 PM		0	13	91	1	0	0	104	18	0	0	0	0	0	6	0	6	239	1,204
5:45 PM		0	12	84	0	2	0	80	28	0	0	0	1	0	13	0	7	227	1,050
Count Total		0	176	815	8	2	6	965	351	0	4	0	9	0	107	2	110	2,555	0
Peak Hour	All	0	117	458	7	0	3	533	230	0	2	0	7	0	73	2	73	1,505	0
	HV	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
	HV%	-	0%	0%	0%	-	0%	0%	0%	-	0%	-	0%	-	0%	0%	0%	0%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	1	0	0	1	2	5	0	1	8	0	1	0	1	2
4:15 PM	1	0	0	0	1	1	6	0	0	7	0	1	0	1	2
4:30 PM	0	0	0	0	0	4	8	1	1	14	0	0	0	0	0
4:45 PM	0	0	0	0	0	2	8	0	0	10	0	0	0	0	0
5:00 PM	1	1	0	0	2	1	9	0	0	10	0	0	1	0	1
5:15 PM	0	1	0	0	1	1	12	0	4	17	0	1	1	1	3
5:30 PM	1	0	0	0	1	1	7	0	1	9	0	0	2	0	2
5:45 PM	0	0	0	0	0	1	7	0	0	8	0	0	2	1	3
Count Total	3	3	0	0	6	13	62	1	7	83	0	3	6	4	13
Peak Hour	1	1	0	0	2	9	27	1	2	39	0	2	0	2	4

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Valparaiso Ave				Valparaiso Ave				Corinne Ln				Elena Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	3
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	3
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Count Total	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0
Peak Hour	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Valparaiso Ave			Valparaiso Ave			Corinne Ln			Elena Ave			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	2	0	0	2	3	0	0	0	1	0	0	8	0			
4:15 PM	0	1	0	0	2	4	0	0	0	0	0	0	7	0			
4:30 PM	1	3	0	0	1	7	0	0	1	0	1	0	14	0			
4:45 PM	2	0	0	0	1	7	0	0	0	0	0	0	10	39			
5:00 PM	0	1	0	0	1	8	0	0	0	0	0	0	10	41			
5:15 PM	0	1	0	0	3	9	0	0	0	3	0	1	17	51			
5:30 PM	0	1	0	0	2	5	0	0	0	0	0	1	9	46			
5:45 PM	0	1	0	0	2	5	0	0	0	0	0	0	8	44			
Count Total	3	10	0	0	14	48	0	0	1	4	1	2	83	0			
Peak Hour	3	6	0	0	6	21	0	0	1	1	1	0	39	0			

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

Alameda de las Pulgas Atherton Ave

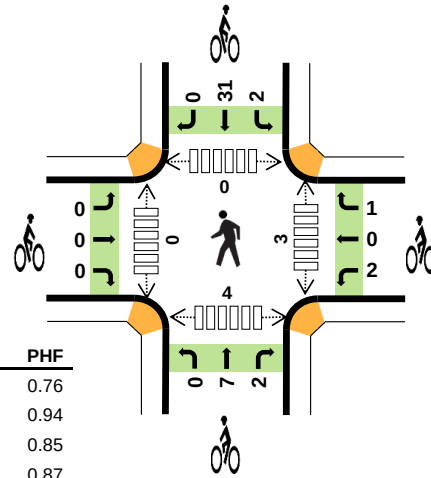
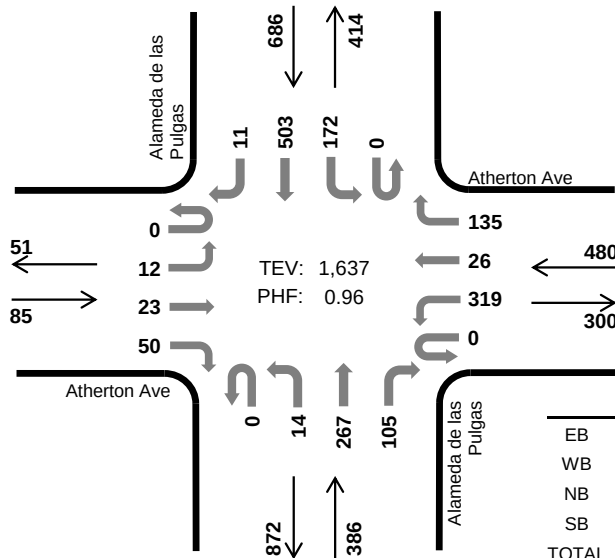


Peak Hour

Date: 03-27-2018

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	1.2%	0.76
WB	1.3%	0.94
NB	1.6%	0.85
SB	1.5%	0.87
TOTAL	1.4%	0.96

Two-Hour Count Summaries

Interval Start		Atherton Ave				Atherton Ave				Alameda de las Pulgas				Alameda de las Pulgas				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	3	0	1	0	26	1	9	0	1	29	8	0	27	91	4	200	0
7:15 AM		0	1	1	0	0	49	3	17	0	3	46	19	0	45	133	0	317	0
7:30 AM		0	1	10	7	0	73	7	31	0	3	68	19	0	70	124	3	416	0
7:45 AM		0	2	5	21	0	79	8	40	0	4	58	24	0	35	126	4	406	1,339
8:00 AM		0	5	3	17	0	89	5	33	0	6	78	29	0	39	118	3	425	1,564
8:15 AM		0	4	5	5	0	78	6	31	0	1	63	33	0	28	135	1	390	1,637
8:30 AM		0	1	0	7	0	59	5	23	0	0	68	27	0	34	128	0	352	1,573
8:45 AM		0	3	1	4	0	51	3	14	0	4	90	30	0	28	140	5	373	1,540
Count Total		0	20	25	62	0	504	38	198	0	22	500	189	0	306	995	20	2,879	0
Peak Hour	All	0	12	23	50	0	319	26	135	0	14	267	105	0	172	503	11	1,637	0
	HV	0	0	0	1	0	5	0	1	0	1	5	0	0	2	7	1	23	0
	HV%	-	0%	0%	2%	-	2%	0%	1%	-	7%	2%	0%	-	1%	1%	9%	1%	0

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

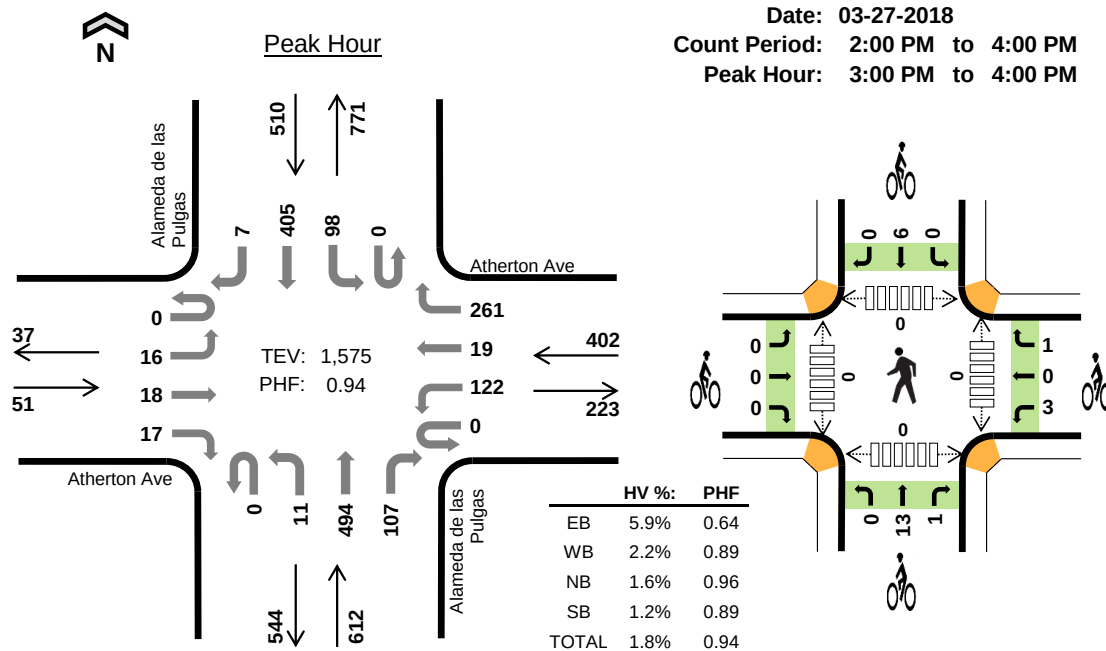
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	1	0	1	2	0	0	2	6	8	0	0	0	0	0
7:15 AM	0	1	3	3	7	0	0	0	8	8	1	0	0	0	1
7:30 AM	1	1	3	2	7	0	2	5	11	18	0	0	0	0	0
7:45 AM	0	2	1	0	3	0	1	1	4	6	0	0	0	2	2
8:00 AM	0	1	2	3	6	0	0	2	6	8	0	0	0	0	0
8:15 AM	0	2	0	5	7	0	0	1	12	13	3	0	0	2	5
8:30 AM	0	2	2	2	6	0	0	2	7	9	0	0	0	1	1
8:45 AM	0	1	4	4	9	0	1	0	8	9	0	0	0	0	0
Count Total	1	11	15	20	47	0	4	13	62	79	4	0	0	5	9
Peak Hour	1	6	6	10	23	0	3	9	33	45	3	0	0	4	7

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Atherton Ave				Atherton Ave				Alameda de las Pulgas				Alameda de las Pulgas				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2	0
7:15 AM	0	0	0	0	0	1	0	0	0	0	3	0	0	0	3	0	7	0
7:30 AM	0	0	0	1	0	1	0	0	0	0	3	0	0	0	1	1	7	0
7:45 AM	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	3	19
8:00 AM	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2	0	6	23
8:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	4	0	7	23
8:30 AM	0	0	0	0	0	0	1	1	0	0	2	0	0	0	2	0	6	22
8:45 AM	0	0	0	0	0	1	0	0	0	0	4	0	0	1	1	2	9	28
Count Total	0	0	0	1	0	7	1	3	0	1	14	0	0	3	14	3	47	0
Peak Hour	0	0	0	1	0	5	0	1	0	1	5	0	0	2	7	1	23	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Atherton Ave			Atherton Ave			Alameda de las Pulgas			Alameda de las Pulgas			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	2	0	0	6	0	8	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	8	0	8	0			
7:30 AM	0	0	0	1	0	1	0	3	2	1	10	0	18	0			
7:45 AM	0	0	0	1	0	0	0	1	0	0	4	0	6	40			
8:00 AM	0	0	0	0	0	0	0	2	0	1	5	0	8	40			
8:15 AM	0	0	0	0	0	0	0	1	0	0	12	0	13	45			
8:30 AM	0	0	0	0	0	0	0	2	0	0	7	0	9	36			
8:45 AM	0	0	0	1	0	0	0	0	0	1	7	0	9	39			
Count Total	0	0	0	3	0	1	0	11	2	3	59	0	79	0			
Peak Hour	0	0	0	2	0	1	0	7	2	2	31	0	45	0			

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

Alameda de las Pulgas Atherton Ave



Two-Hour Count Summaries

Interval Start		Atherton Ave				Atherton Ave				Alameda de las Pulgas				Alameda de las Pulgas				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM		0	3	0	7	0	23	4	22	0	2	107	24	0	9	92	1	294	0
2:15 PM		0	4	3	2	0	24	4	25	0	6	94	19	0	16	90	4	291	0
2:30 PM		0	3	4	5	0	26	7	24	0	2	82	16	0	16	107	1	293	0
2:45 PM		0	5	4	8	0	39	2	46	0	4	96	19	0	26	91	3	343	1,221
3:00 PM		0	6	6	0	0	28	3	47	0	1	126	25	0	28	74	0	344	1,271
3:15 PM		0	6	3	11	0	28	5	71	0	4	117	30	0	22	119	2	418	1,398
3:30 PM		0	1	4	0	0	34	9	70	0	4	120	35	0	19	106	4	406	1,511
3:45 PM		0	3	5	6	0	32	2	73	0	2	131	17	0	29	106	1	407	1,575
Count Total		0	31	29	39	0	234	36	378	0	25	873	185	0	165	785	16	2,796	0
Peak Hour	All	0	16	18	17	0	122	19	261	0	11	494	107	0	98	405	7	1,575	0
	HV	0	0	1	2	0	4	2	3	0	0	6	4	0	1	5	0	28	0
	HV%	-	0%	6%	12%	-	3%	11%	1%	-	0%	1%	4%	-	1%	1%	0%	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	0	2	3	0	5	0	0	1	3	4	0	0	0	0	0
2:15 PM	0	0	3	3	6	0	0	4	2	6	0	2	0	0	2
2:30 PM	0	1	3	2	6	0	0	3	2	5	0	0	0	0	0
2:45 PM	0	1	1	2	4	0	0	1	2	3	0	0	0	0	0
3:00 PM	0	2	5	2	9	0	2	1	1	4	0	0	0	0	0
3:15 PM	2	1	2	2	7	0	1	3	2	6	0	0	0	0	0
3:30 PM	0	4	2	2	8	0	0	2	1	3	0	0	0	0	0
3:45 PM	1	2	1	0	4	0	1	8	2	11	0	0	0	0	0
Count Total	3	13	20	13	49	0	4	23	15	42	0	2	0	0	2
Peak Hour	3	9	10	6	28	0	4	14	6	24	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Atherton Ave				Atherton Ave				Alameda de las Pulgas				Alameda de las Pulgas				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	0	0	0	0	1	1	0	0	3	0	0	0	0	0	5	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	2	1	0	6	0
2:30 PM	0	0	0	0	0	1	0	0	0	0	3	0	0	0	2	0	6	0
2:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	0	4	21
3:00 PM	0	0	0	0	0	0	0	2	0	0	4	1	0	1	1	0	9	25
3:15 PM	0	0	0	2	0	1	0	0	0	0	0	2	0	0	2	0	7	26
3:30 PM	0	0	0	0	0	3	1	0	0	0	1	1	0	0	2	0	8	28
3:45 PM	0	0	1	0	0	0	1	1	0	0	1	0	0	0	0	0	4	28
Count Total	0	0	1	2	0	5	3	5	0	0	16	4	0	4	9	0	49	0
Peak Hour	0	0	1	2	0	4	2	3	0	0	6	4	0	1	5	0	28	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Atherton Ave			Atherton Ave			Alameda de las Pulgas			Alameda de las Pulgas			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
2:00 PM	0	0	0	0	0	0	0	1	0	0	3	0	4	0			
2:15 PM	0	0	0	0	0	0	0	4	0	0	2	0	6	0			
2:30 PM	0	0	0	0	0	0	0	2	1	0	2	0	5	0			
2:45 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	18			
3:00 PM	0	0	0	1	0	1	0	1	0	0	1	0	4	18			
3:15 PM	0	0	0	1	0	0	0	3	0	0	2	0	6	18			
3:30 PM	0	0	0	0	0	0	0	2	0	0	1	0	3	16			
3:45 PM	0	0	0	1	0	0	0	7	1	0	2	0	11	24			
Count Total	0	0	0	3	0	1	0	21	2	0	15	0	42	0			
Peak Hour	0	0	0	3	0	1	0	13	1	0	6	0	24	0			

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

Alameda de las Pulgas Atherton Ave

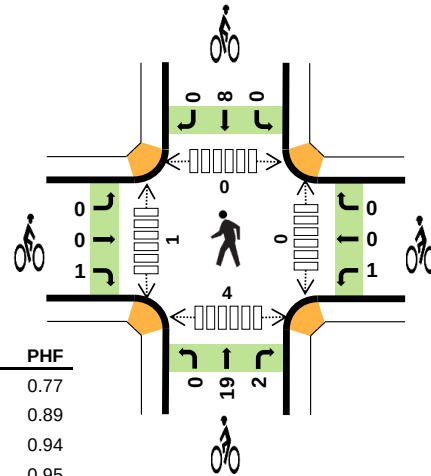
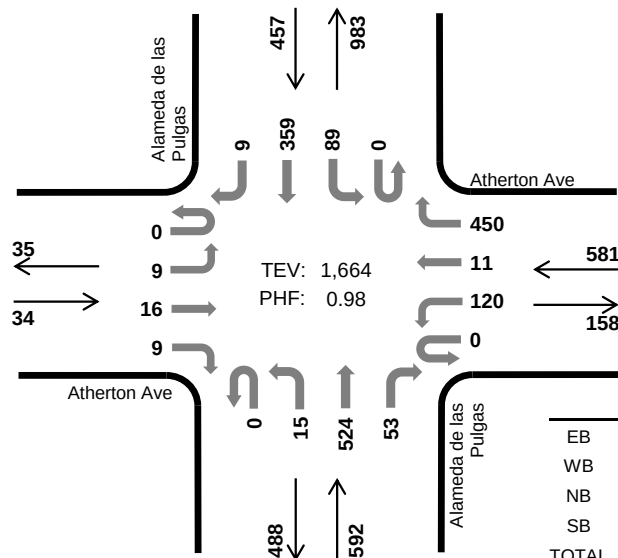


Peak Hour

Date: 03-27-2018

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	2.9%	0.77
WB	0.5%	0.89
NB	0.2%	0.94
SB	0.0%	0.95
TOTAL	0.3%	0.98

Two-Hour Count Summaries

Interval Start		Atherton Ave				Atherton Ave				Alameda de las Pulgas				Alameda de las Pulgas				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	2	6	6	0	32	4	74	0	3	121	16	0	28	84	1	377	0
4:15 PM		0	5	2	2	0	36	2	81	0	6	130	19	0	17	82	1	383	0
4:30 PM		0	7	8	2	0	22	6	89	0	4	139	11	0	19	87	1	395	0
4:45 PM		0	1	6	4	0	30	3	106	0	8	139	10	0	20	87	0	414	1,569
5:00 PM		0	2	3	1	0	21	4	130	0	3	131	17	0	29	83	2	426	1,618
5:15 PM		0	2	2	3	0	37	1	126	0	3	122	9	0	21	92	3	421	1,656
5:30 PM		0	4	5	1	0	32	3	88	0	1	132	17	0	19	97	4	403	1,664
5:45 PM		0	1	2	5	0	20	2	79	0	1	143	22	0	23	82	0	380	1,630
Count Total		0	24	34	24	0	230	25	773	0	29	1,057	121	0	176	694	12	3,199	0
Peak Hour	All	0	9	16	9	0	120	11	450	0	15	524	53	0	89	359	9	1,664	0
	HV	0	0	1	0	0	2	1	0	0	0	1	0	0	0	0	0	5	0
	HV%	-	0%	6%	0%	-	2%	9%	0%	-	0%	0%	0%	-	0%	0%	0%	0%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	1	4	1	7	0	0	5	3	8	0	1	0	0	1
4:15 PM	0	0	0	1	1	0	1	6	3	10	0	0	0	1	1
4:30 PM	0	0	1	1	2	0	1	7	3	11	0	1	0	1	2
4:45 PM	0	1	0	0	1	0	0	6	1	7	0	1	0	1	2
5:00 PM	0	0	1	0	1	0	0	5	3	8	0	0	0	1	1
5:15 PM	0	1	0	0	1	1	1	5	1	8	0	0	0	2	2
5:30 PM	1	1	0	0	2	0	0	5	3	8	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	1	6	5	12	0	0	1	0	1
Count Total	2	4	6	3	15	1	4	45	22	72	0	3	1	6	10
Peak Hour	1	3	1	0	5	1	1	21	8	31	0	1	0	4	5

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Atherton Ave				Atherton Ave				Alameda de las Pulgas				Alameda de las Pulgas				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	1	0	0	3	1	0	1	0	0	7	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	11
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	5
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	5
5:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Count Total	0	0	2	0	0	2	1	1	0	0	5	1	0	2	1	0	15	0
Peak Hour	0	0	1	0	0	2	1	0	0	0	1	0	0	0	0	0	5	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Atherton Ave			Atherton Ave			Alameda de las Pulgas			Alameda de las Pulgas			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	4	1	0	3	0	8	0			
4:15 PM	0	0	0	1	0	0	0	6	0	0	3	0	10	0			
4:30 PM	0	0	0	1	0	0	0	5	2	0	3	0	11	0			
4:45 PM	0	0	0	0	0	0	0	5	1	0	1	0	7	36			
5:00 PM	0	0	0	0	0	0	0	5	0	0	3	0	8	36			
5:15 PM	0	0	1	1	0	0	0	4	1	0	1	0	8	34			
5:30 PM	0	0	0	0	0	0	0	5	0	0	3	0	8	31			
5:45 PM	0	0	0	0	0	1	0	6	0	0	5	0	12	36			
Count Total	0	0	1	3	0	1	0	40	5	0	22	0	72	0			
Peak Hour	0	0	1	1	0	0	0	19	2	0	8	0	31	0			

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

Middlefield Rd Placitas Ave

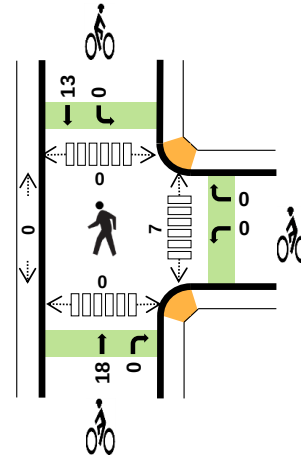
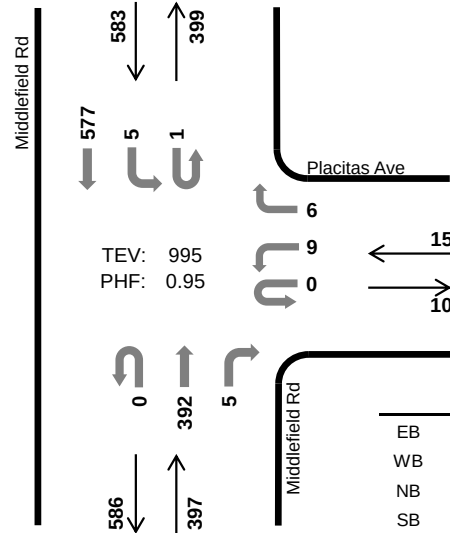


Peak Hour

Date: 03-27-2018

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	-	-
WB	0.0%	0.63
NB	2.0%	0.90
SB	1.7%	0.94
TOTAL	1.8%	0.95

Two-Hour Count Summaries

Interval Start		0				Placitas Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	1	0	3	0	0	101	2	1	3	129	0	240	0
7:15 AM		0	0	0	0	0	4	0	0	0	0	89	0	0	0	155	0	248	0
7:30 AM		0	0	0	0	0	1	0	0	0	0	95	0	0	2	148	0	246	0
7:45 AM		0	0	0	0	0	3	0	3	0	0	107	3	0	0	145	0	261	995
8:00 AM		0	0	0	0	0	0	0	1	0	0	75	0	0	1	109	0	186	941
8:15 AM		0	0	0	0	0	3	0	1	0	0	62	0	0	1	95	0	162	855
8:30 AM		0	0	0	0	0	1	0	1	0	0	71	0	0	1	108	0	182	791
8:45 AM		0	0	0	0	0	2	0	0	0	0	83	0	0	0	98	0	183	713
Count Total		0	0	0	0	0	15	0	9	0	0	683	5	1	8	987	0	1,708	0
Peak Hour	All	0	0	0	0	0	9	0	6	0	0	392	5	1	5	577	0	995	0
	HV	0	0	0	0	0	0	0	0	0	0	8	0	0	0	10	0	18	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	2%	0%	0%	0%	2%	-	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	3	3	6	0	0	4	1	5	4	0	0	0	4
7:15 AM	0	0	1	2	3	0	0	3	3	6	1	0	0	0	1
7:30 AM	0	0	2	3	5	0	0	5	6	11	0	0	0	0	0
7:45 AM	0	0	2	2	4	0	0	6	3	9	2	0	0	0	2
8:00 AM	0	0	1	1	2	0	0	4	5	9	0	0	0	0	0
8:15 AM	0	1	1	4	6	0	0	1	5	6	1	0	0	0	1
8:30 AM	0	0	1	2	3	0	0	1	1	2	1	0	0	0	1
8:45 AM	0	0	3	2	5	0	0	2	4	6	1	0	0	0	1
Count Total	0	1	14	19	34	0	0	26	28	54	10	0	0	0	10
Peak Hr	0	0	8	10	18	0	0	18	13	31	7	0	0	0	7

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				Placitas Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	18
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	14
8:15 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	4	0	6	17
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	15
8:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	16
Count Total	0	0	0	0	0	1	0	0	0	0	14	0	0	0	19	0	34	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	8	0	0	0	10	0	18	0

Two-Hour Count Summaries - Bikes																		
Interval Start	0			Placitas Ave			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	4	0	0	1	0	5	0				
7:15 AM	0	0	0	0	0	0	0	3	0	0	3	0	6	0				
7:30 AM	0	0	0	0	0	0	0	5	0	0	6	0	11	0				
7:45 AM	0	0	0	0	0	0	0	6	0	0	3	0	9	31				
8:00 AM	0	0	0	0	0	0	0	4	0	0	5	0	9	35				
8:15 AM	0	0	0	0	0	0	0	1	0	0	5	0	6	35				
8:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	26				
8:45 AM	0	0	0	0	0	0	0	2	0	0	4	0	6	23				
Count Total	0	0	0	0	0	0	0	26	0	0	28	0	54	0				
Peak Hour	0	0	0	0	0	0	0	18	0	0	13	0	31	0				

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

Middlefield Rd Placitas Ave

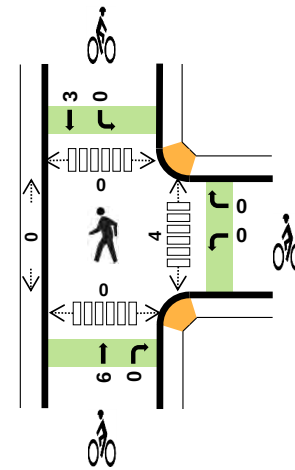
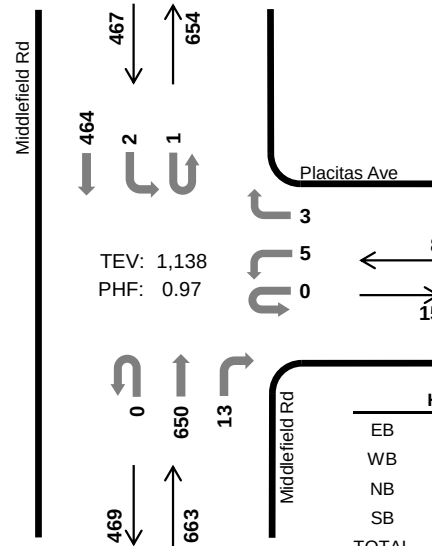


Peak Hour

Date: 03-27-2018

Count Period: 2:00 PM to 4:00 PM

Peak Hour: 2:45 PM to 3:45 PM



	HV %:	PHF
EB	-	-
WB	0.0%	0.67
NB	1.8%	0.95
SB	1.3%	0.87
TOTAL	1.6%	0.97

Two-Hour Count Summaries

Interval Start		0				Placitas Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	2:00 PM	0	0	0	0	0	2	0	0	0	0	131	1	0	0	121	0	255	0
	2:15 PM	0	0	0	0	0	2	0	0	0	0	152	3	0	0	113	0	270	0
	2:30 PM	0	0	0	0	0	0	0	0	0	0	155	1	0	0	116	0	272	0
	2:45 PM	0	0	0	0	0	2	0	0	0	0	151	5	0	0	134	0	292	1,089
	3:00 PM	0	0	0	0	0	1	0	1	0	0	168	3	0	1	113	0	287	1,121
	3:15 PM	0	0	0	0	0	1	0	2	0	0	169	5	1	1	106	0	285	1,136
	3:30 PM	0	0	0	0	0	1	0	0	0	0	162	0	0	0	111	0	274	1,138
	3:45 PM	0	0	0	0	0	1	0	0	0	0	168	0	0	0	104	0	273	1,119
Count Total		0	0	0	0	0	10	0	3	0	0	1,256	18	1	2	918	0	2,208	0
Peak Hour	All	0	0	0	0	0	5	0	3	0	0	650	13	1	2	464	0	1,138	0
	HV	0	0	0	0	0	0	0	0	0	0	12	0	0	0	6	0	18	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	2%	0%	0%	0%	1%	-	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	0	0	3	3	6	0	0	2	2	4	0	0	0	0	0
2:15 PM	0	0	3	2	5	0	0	2	2	4	1	0	0	0	1
2:30 PM	0	0	2	3	5	0	0	0	1	1	0	0	0	0	0
2:45 PM	0	0	5	2	7	0	0	0	1	1	2	0	0	0	2
3:00 PM	0	0	3	2	5	0	0	3	1	4	2	0	0	0	2
3:15 PM	0	0	3	1	4	0	0	1	0	1	0	0	0	0	0
3:30 PM	0	0	1	1	2	0	0	2	1	3	0	0	0	0	0
3:45 PM	0	0	4	1	5	0	0	1	5	6	0	0	0	0	0
Count Total	0	0	24	15	39	0	0	11	13	24	5	0	0	0	5
Peak Hr	0	0	12	6	18	0	0	6	3	9	4	0	0	0	4

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				Placitas Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	2	0	5	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	7	23
3:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	22
3:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	21
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	18
3:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	5	16
Count Total	0	0	0	0	0	0	0	0	0	0	23	1	0	0	15	0	39	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	12	0	0	0	6	0	18	0

Two-Hour Count Summaries - Bikes																		
Interval Start	0			Placitas Ave			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
2:00 PM	0	0	0	0	0	0	0	2	0	0	2	0	4	0				
2:15 PM	0	0	0	0	0	0	0	2	0	0	2	0	4	0				
2:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0				
2:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	10				
3:00 PM	0	0	0	0	0	0	0	3	0	0	1	0	4	10				
3:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	7				
3:30 PM	0	0	0	0	0	0	0	2	0	0	1	0	3	9				
3:45 PM	0	0	0	0	0	0	0	1	0	0	5	0	6	14				
Count Total	0	0	0	0	0	0	0	11	0	0	13	0	24	0				
Peak Hour	0	0	0	0	0	0	0	6	0	0	3	0	9	0				

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

Middlefield Rd Placitas Ave

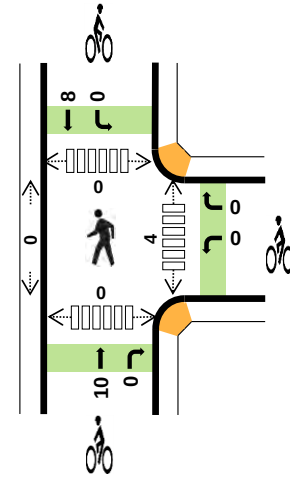
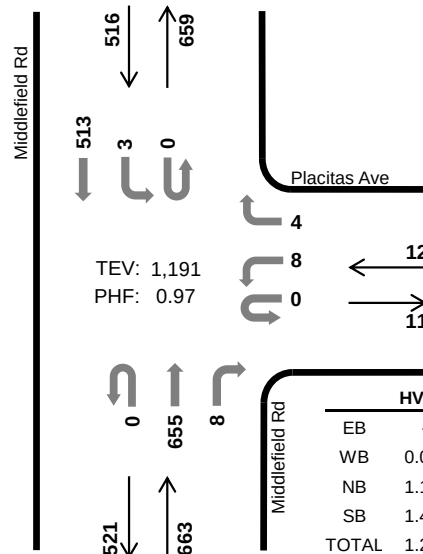


Peak Hour

Date: 03-27-2018

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	-	-
WB	0.0%	0.75
NB	1.1%	0.96
SB	1.4%	0.93
TOTAL	1.2%	0.97

Two-Hour Count Summaries

Interval Start		0				Placitas Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	0	0	2	0	0	178	2	0	1	123	0	306	0
4:15 PM		0	0	0	0	0	2	0	2	0	0	157	2	0	1	138	0	302	0
4:30 PM		0	0	0	0	0	0	0	1	0	0	172	1	0	1	121	0	296	0
4:45 PM		0	0	0	0	0	2	0	1	0	0	159	3	0	1	120	0	286	1,190
5:00 PM		0	0	0	0	0	4	0	0	0	0	167	2	0	0	134	0	307	1,191
5:15 PM		0	0	0	0	0	1	0	3	0	0	143	2	0	0	102	0	251	1,140
5:30 PM		0	0	0	0	0	0	0	0	0	0	145	3	0	0	87	0	235	1,079
5:45 PM		0	0	0	0	0	2	0	0	0	0	103	1	0	0	105	0	211	1,004
Count Total		0	0	0	0	0	11	0	9	0	0	1,224	16	0	4	930	0	2,194	0
Peak Hour	All	0	0	0	0	0	8	0	4	0	0	655	8	0	3	513	0	1,191	0
	HV	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	14	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	1%	0%	-	0%	1%	-	1%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	1	2	3	0	0	4	2	6	0	0	0	0	0
4:15 PM	0	0	2	3	5	0	0	1	3	4	1	0	0	0	1
4:30 PM	0	0	2	1	3	0	0	2	2	4	1	0	0	0	1
4:45 PM	0	0	2	1	3	0	0	3	1	4	1	0	0	0	1
5:00 PM	0	0	1	2	3	0	0	4	2	6	1	0	0	0	1
5:15 PM	0	0	0	2	2	0	0	5	1	6	0	0	0	0	0
5:30 PM	0	0	1	0	1	0	0	6	3	9	0	0	0	0	0
5:45 PM	0	0	3	2	5	0	0	3	2	5	0	0	0	0	0
Count Total	0	0	12	13	25	0	0	28	16	44	4	0	0	0	4
Peak Hr	0	0	7	7	14	0	0	10	8	18	4	0	0	0	4

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				Placitas Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	14
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	14
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	11
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	9
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	11
Count Total	0	0	0	0	0	0	0	0	0	0	12	0	0	0	13	0	25	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	14	0

Two-Hour Count Summaries - Bikes																	
Interval Start	0			Placitas Ave			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	3	1	0	2	0	6	0			
4:15 PM	0	0	0	0	0	0	0	1	0	0	3	0	4	0			
4:30 PM	0	0	0	0	0	0	0	2	0	0	2	0	4	0			
4:45 PM	0	0	0	0	0	0	0	3	0	0	1	0	4	18			
5:00 PM	0	0	0	0	0	0	0	4	0	0	2	0	6	18			
5:15 PM	0	0	0	0	0	0	0	5	0	0	1	0	6	20			
5:30 PM	0	0	0	0	0	0	0	6	0	0	3	0	9	25			
5:45 PM	0	0	0	0	0	0	0	3	0	0	2	0	5	26			
Count Total	0	0	0	0	0	0	0	27	1	0	16	0	44	0			
Peak Hour	0	0	0	0	0	0	0	10	0	0	8	0	18	0			

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

Middlefield Rd San Benito Ave

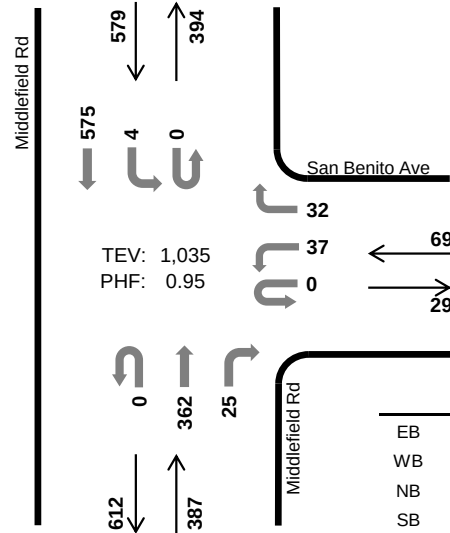


Peak Hour

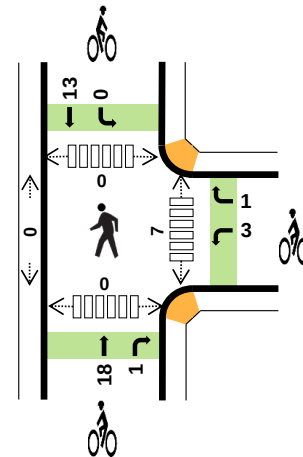
Date: 03-27-2018

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 8:00 AM to 9:00 AM



	HV %:	PHF
EB	-	-
WB	1.4%	0.58
NB	2.1%	0.84
SB	1.7%	0.93
TOTAL	1.8%	0.95



Two-Hour Count Summaries

Interval Start		0				San Benito Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	7	0	0	0	0	55	3	0	0	96	0	161	0
7:15 AM		0	0	0	0	0	9	0	2	0	0	69	0	0	0	112	0	192	0
7:30 AM		0	0	0	0	0	13	0	8	0	0	69	3	0	1	184	0	278	0
7:45 AM		0	0	0	0	0	15	0	9	0	0	71	2	0	2	151	0	250	881
8:00 AM		0	0	0	0	0	9	0	21	0	0	81	9	0	0	126	0	246	966
8:15 AM		0	0	0	0	0	11	0	8	0	0	79	4	0	1	154	0	257	1,031
8:30 AM		0	0	0	0	0	8	0	1	0	0	93	6	0	2	151	0	261	1,014
8:45 AM		0	0	0	0	0	9	0	2	0	0	109	6	0	1	144	0	271	1,035
Count Total		0	0	0	0	0	81	0	51	0	0	626	33	0	7	1,118	0	1,916	0
Peak Hour	All	0	0	0	0	0	37	0	32	0	0	362	25	0	4	575	0	1,035	0
	HV	0	0	0	0	0	1	0	0	0	0	8	0	0	0	10	0	19	0
	HV%	-	-	-	-	-	3%	-	0%	-	-	2%	0%	-	0%	2%	-	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	3	1	4	0	0	1	2	3	0	0	0	0	0
7:15 AM	0	0	3	2	5	0	1	0	3	4	0	0	0	0	0
7:30 AM	0	0	1	3	4	0	3	0	4	7	0	0	0	0	0
7:45 AM	0	0	2	5	7	0	2	2	7	11	0	0	0	0	0
8:00 AM	0	0	3	3	6	0	0	5	1	6	3	0	0	0	3
8:15 AM	0	0	1	2	3	0	2	3	3	8	2	0	0	0	2
8:30 AM	0	1	2	3	6	0	2	5	6	13	0	0	0	0	0
8:45 AM	0	0	2	2	4	0	0	6	3	9	2	0	0	0	2
Count Total	0	1	17	21	39	0	10	22	29	61	7	0	0	0	7
Peak Hr	0	1	8	10	19	0	4	19	13	36	7	0	0	0	7

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				San Benito Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	5	0	7	20
8:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	22
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	20
8:30 AM	0	0	0	0	0	1	0	0	0	0	2	0	0	0	3	0	6	22
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	19
Count Total	0	0	0	0	0	1	0	0	0	0	17	0	0	0	21	0	39	0
Peak Hour	0	0	0	0	0	1	0	0	0	0	8	0	0	0	10	0	19	0
Two-Hour Count Summaries - Bikes																		
Interval Start	0			San Benito Ave			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0				
7:15 AM	0	0	0	0	0	1	0	0	0	0	3	0	4	0				
7:30 AM	0	0	0	3	0	0	0	0	0	0	4	0	7	0				
7:45 AM	0	0	0	2	0	0	0	1	1	0	7	0	11	25				
8:00 AM	0	0	0	0	0	0	0	4	1	0	1	0	6	28				
8:15 AM	0	0	0	2	0	0	0	3	0	0	3	0	8	32				
8:30 AM	0	0	0	1	0	1	0	5	0	0	6	0	13	38				
8:45 AM	0	0	0	0	0	0	0	6	0	0	3	0	9	36				
Count Total	0	0	0	8	0	2	0	20	2	0	29	0	61	0				
Peak Hour	0	0	0	3	0	1	0	18	1	0	13	0	36	0				
Note: U-Turn volumes for bikes are included in Left-Turn, if any.																		

Middlefield Rd San Benito Ave

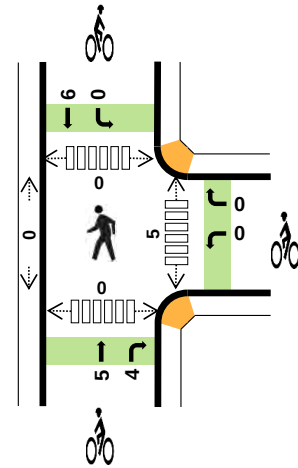
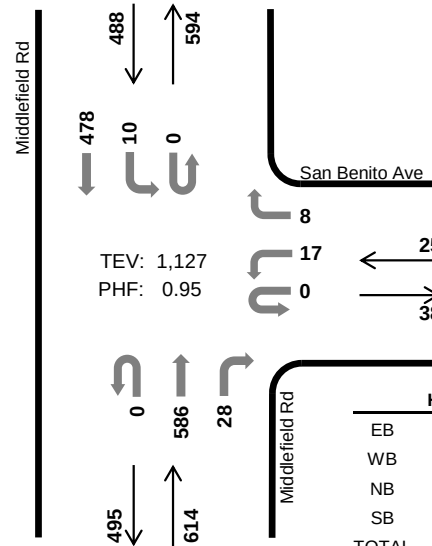


Peak Hour

Date: 03-27-2018

Count Period: 2:00 PM to 4:00 PM

Peak Hour: 3:00 PM to 4:00 PM



	HV %:	PHF
EB	-	-
WB	0.0%	0.63
NB	2.4%	0.94
SB	2.0%	0.92
TOTAL	2.2%	0.95

Two-Hour Count Summaries

Interval Start		0				San Benito Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM		0	0	0	0	0	2	0	2	0	0	107	3	0	4	101	0	219	0
2:15 PM		0	0	0	0	0	1	0	4	0	0	122	3	0	0	119	0	249	0
2:30 PM		0	0	0	0	0	5	0	3	0	0	108	1	0	2	140	0	259	0
2:45 PM		0	0	0	0	0	7	0	0	0	0	123	6	0	5	118	0	259	986
3:00 PM		0	0	0	0	0	3	0	2	0	0	130	3	0	2	122	0	262	1,029
3:15 PM		0	0	0	0	0	2	0	0	0	0	154	10	0	1	115	0	282	1,062
3:30 PM		0	0	0	0	0	8	0	2	0	0	152	9	0	3	113	0	287	1,090
3:45 PM		0	0	0	0	0	4	0	4	0	0	150	6	0	4	128	0	296	1,127
Count Total		0	0	0	0	0	32	0	17	0	0	1,046	41	0	21	956	0	2,113	0
Peak Hour	All	0	0	0	0	0	17	0	8	0	0	586	28	0	10	478	0	1,127	0
	HV	0	0	0	0	0	0	0	0	0	0	15	0	0	1	9	0	25	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	3%	0%	-	10%	2%	-	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	0	1	3	1	5	0	0	0	0	0	1	0	0	0	1
2:15 PM	0	0	3	3	6	0	0	1	0	1	2	0	0	0	2
2:30 PM	0	0	0	3	3	0	0	0	0	0	1	0	0	0	1
2:45 PM	0	0	3	1	4	0	0	1	0	1	0	0	0	0	0
3:00 PM	0	0	4	2	6	0	0	5	2	7	0	0	0	0	0
3:15 PM	0	0	3	3	6	0	0	3	2	5	2	0	0	0	2
3:30 PM	0	0	3	3	6	0	0	1	1	2	1	0	0	0	1
3:45 PM	0	0	5	2	7	0	0	0	1	1	2	0	0	0	2
Count Total	0	1	24	18	43	0	0	11	6	17	9	0	0	0	9
Peak Hr	0	0	15	10	25	0	0	9	6	15	5	0	0	0	5

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				San Benito Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	1	0	5	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	18
3:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	6	19
3:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	19
3:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	2	0	6	22
3:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	7	25
Count Total	0	0	0	0	0	0	0	1	0	0	24	0	0	1	17	0	43	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	15	0	0	1	9	0	25	0

Two-Hour Count Summaries - Bikes																		
Interval Start	0			San Benito Ave			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
2:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0				
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
2:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	2				
3:00 PM	0	0	0	0	0	0	0	2	3	0	2	0	7	9				
3:15 PM	0	0	0	0	0	0	0	2	1	0	2	0	5	13				
3:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	15				
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	15				
Count Total	0	0	0	0	0	0	0	7	4	0	6	0	17	0				
Peak Hour	0	0	0	0	0	0	0	5	4	0	6	0	15	0				

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

Middlefield Rd San Benito Ave

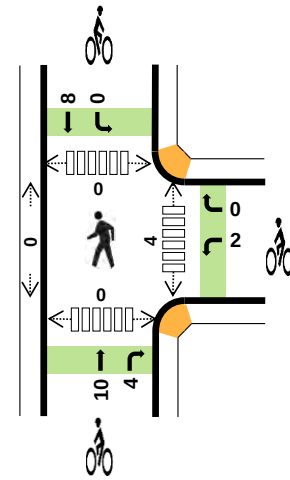
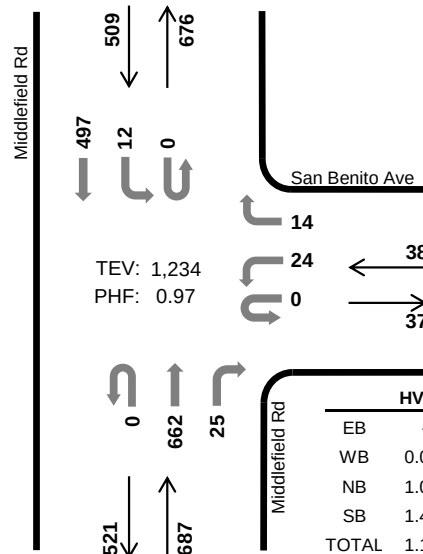


Peak Hour

Date: 03-27-2018

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	-	-
WB	0.0%	0.68
NB	1.0%	0.93
SB	1.4%	0.87
TOTAL	1.1%	0.97

Two-Hour Count Summaries

Interval Start		0				San Benito Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	1	0	1	0	0	168	8	0	1	113	0	292	0
4:15 PM		0	0	0	0	0	7	0	4	0	0	174	5	0	0	107	0	297	0
4:30 PM		0	0	0	0	0	3	0	4	0	0	161	8	0	1	113	0	290	0
4:45 PM		0	0	0	0	0	5	0	5	1	0	163	3	0	4	103	0	284	1,163
5:00 PM		0	0	0	0	0	9	0	5	0	0	178	7	0	2	117	0	318	1,189
5:15 PM		0	0	0	0	0	7	0	5	0	0	152	4	0	5	142	0	315	1,207
5:30 PM		0	0	0	0	0	6	0	3	0	0	171	3	0	4	120	0	307	1,224
5:45 PM		0	0	0	0	0	2	0	1	0	0	161	11	0	1	118	0	294	1,234
Count Total		0	0	0	0	0	40	0	28	1	0	1,328	49	0	18	933	0	2,397	0
Peak Hour	All	0	0	0	0	0	24	0	14	0	0	662	25	0	12	497	0	1,234	0
	HV	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	14	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	1%	0%	-	0%	1%	-	1%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	4	2	6	0	0	3	1	4	3	0	0	0	3
4:15 PM	0	2	1	1	4	0	0	1	0	1	0	0	0	0	0
4:30 PM	0	0	1	1	2	0	1	2	1	4	1	0	0	0	1
4:45 PM	0	0	4	2	6	0	2	2	4	8	0	0	0	1	1
5:00 PM	0	0	1	2	3	0	0	5	1	6	0	0	0	0	0
5:15 PM	0	0	2	3	5	0	0	1	3	4	1	0	0	0	1
5:30 PM	0	0	2	1	3	0	2	3	3	8	1	0	0	0	1
5:45 PM	0	0	2	1	3	0	0	5	1	6	2	0	0	0	2
Count Total	0	2	17	13	32	0	5	22	14	41	8	0	0	1	9
Peak Hr	0	0	7	7	14	0	2	14	8	24	4	0	0	0	4

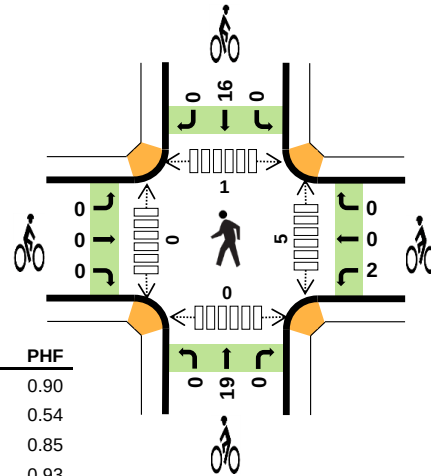
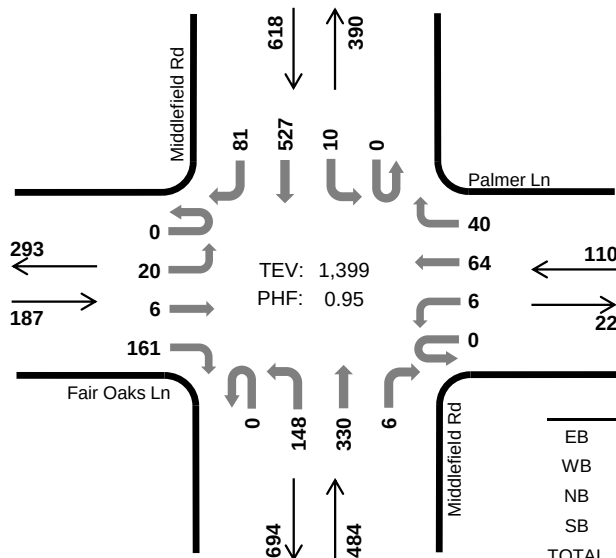
Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	0				San Benito Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	2	0	6	0
4:15 PM	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	1	0	4	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	1	0	6	18
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	3	15
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	3	0	5	16
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	3	17
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	3	14
Count Total	0	0	0	0	0	0	0	2	0	0	16	1	0	0	1	12	0	32	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	0	14	0
Two-Hour Count Summaries - Bikes																			
Interval Start	0			San Benito Ave			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour					
	Eastbound			Westbound			Northbound			Southbound									
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT							
4:00 PM	0	0	0	0	0	0	0	3	0	0	1	0	4	0					
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0					
4:30 PM	0	0	0	1	0	0	0	2	0	0	1	0	4	0					
4:45 PM	0	0	0	2	0	0	0	2	0	0	4	0	8	17					
5:00 PM	0	0	0	0	0	0	0	3	2	0	1	0	6	19					
5:15 PM	0	0	0	0	0	0	0	1	0	0	3	0	4	22					
5:30 PM	0	0	0	2	0	0	0	2	1	0	3	0	8	26					
5:45 PM	0	0	0	0	0	0	0	4	1	0	1	0	6	24					
Count Total	0	0	0	5	0	0	0	18	4	0	14	0	41	0					
Peak Hour	0	0	0	2	0	0	0	10	4	0	8	0	24	0					
Note: U-Turn volumes for bikes are included in Left-Turn, if any.																			

Middlefield Rd Fair Oaks Ln/Palmer Ln



Peak Hour

Date: 03-27-2018
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM



	HV %:	PHF
EB	2.7%	0.90
WB	0.0%	0.54
NB	2.3%	0.85
SB	1.8%	0.93
TOTAL	1.9%	0.95

Two-Hour Count Summaries

Interval Start		Fair Oaks Ln				Palmer Ln				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	3	0	11	0	1	1	3	0	36	53	0	0	1	94	8	211	0
7:15 AM		0	1	1	25	0	0	5	2	1	57	66	3	0	1	106	13	281	0
7:30 AM		0	0	0	27	0	2	10	8	0	47	65	0	0	0	161	35	355	0
7:45 AM		0	2	3	37	0	2	27	16	0	39	57	1	0	3	131	31	349	1,196
8:00 AM		0	1	5	32	0	3	34	14	0	37	75	2	0	0	108	30	341	1,326
8:15 AM		0	4	1	43	0	1	10	14	0	28	69	1	0	5	136	19	331	1,376
8:30 AM		0	8	0	44	0	0	13	6	0	43	84	2	0	4	146	17	367	1,388
8:45 AM		0	7	0	42	0	2	7	6	0	40	102	1	0	1	137	15	360	1,399
Count Total		0	26	10	261	0	11	107	69	1	327	571	10	0	15	1,019	168	2,595	0
Peak Hour	All	0	20	6	161	0	6	64	40	0	148	330	6	0	10	527	81	1,399	0
	HV	0	0	0	5	0	0	0	0	0	5	6	0	0	0	11	0	27	0
	HV%	-	0%	0%	3%	-	0%	0%	0%	-	3%	2%	0%	-	0%	2%	0%	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	3	1	4	0	0	1	2	3	0	0	0	0	0
7:15 AM	0	0	3	2	5	1	0	0	4	5	0	0	0	0	0
7:30 AM	0	0	2	3	5	0	0	0	8	8	0	0	0	0	0
7:45 AM	2	1	2	5	10	2	1	0	10	13	0	0	0	0	0
8:00 AM	0	0	3	3	6	0	1	5	1	7	0	0	1	0	1
8:15 AM	4	0	1	2	7	0	0	3	5	8	2	0	0	0	2
8:30 AM	0	0	4	4	8	0	0	6	7	13	1	0	0	0	1
8:45 AM	1	0	3	2	6	0	1	5	3	9	2	0	0	0	2
Count Total	7	1	21	22	51	3	3	20	40	66	5	0	1	0	6
Peak Hour	5	0	11	11	27	0	2	19	16	37	5	0	1	0	6

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Fair Oaks Ln				Palmer Ln				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	0
7:30 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	1	5	0
7:45 AM	0	1	0	1	0	0	0	1	0	0	2	0	0	0	4	1	10	24
8:00 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	0	6	26
8:15 AM	0	0	0	4	0	0	0	0	0	0	1	0	0	0	2	0	7	28
8:30 AM	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	0	8	31
8:45 AM	0	0	0	1	0	0	0	0	0	1	2	0	0	0	2	0	6	27
Count Total	0	1	0	6	0	0	0	1	0	6	15	0	0	0	20	2	51	0
Peak Hour	0	0	0	5	0	0	0	0	0	5	6	0	0	0	11	0	27	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Fair Oaks Ln			Palmer Ln			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0				
7:15 AM	0	0	1	0	0	0	0	0	0	0	4	0	5	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	8	0	8	0				
7:45 AM	2	0	0	1	0	0	0	0	0	0	10	0	13	29				
8:00 AM	0	0	0	1	0	0	0	5	0	0	1	0	7	33				
8:15 AM	0	0	0	0	0	0	0	3	0	0	5	0	8	36				
8:30 AM	0	0	0	0	0	0	0	6	0	0	7	0	13	41				
8:45 AM	0	0	0	1	0	0	0	5	0	0	3	0	9	37				
Count Total	2	0	1	3	0	0	0	20	0	0	40	0	66	0				
Peak Hour	0	0	0	2	0	0	0	19	0	0	16	0	37	0				

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

Middlefield Rd Fair Oaks Ln/Palmer Ln

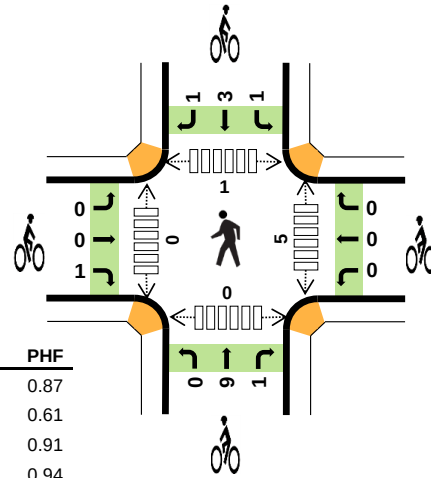
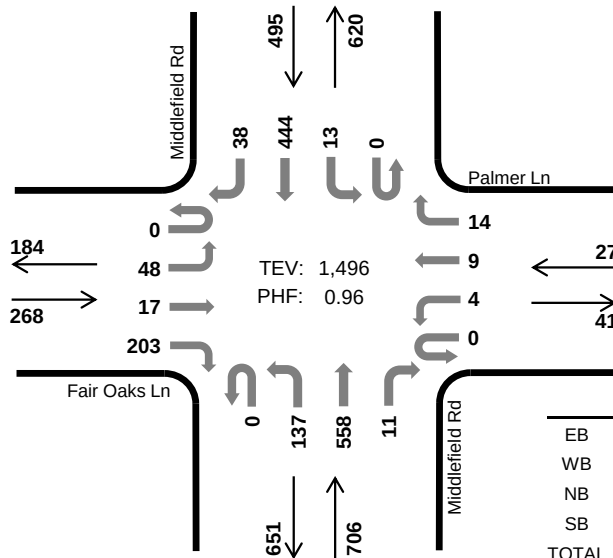


Peak Hour

Date: 03-27-2018

Count Period: 2:00 PM to 4:00 PM

Peak Hour: 3:00 PM to 4:00 PM



	HV %	PHF
EB	1.9%	0.87
WB	0.0%	0.61
NB	2.4%	0.91
SB	1.6%	0.94
TOTAL	2.0%	0.96

Two-Hour Count Summaries

Interval Start		Fair Oaks Ln				Palmer Ln				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM		0	3	3	37	0	1	2	4	0	30	106	4	0	1	95	7	293	0
2:15 PM		0	8	3	41	0	2	2	4	0	33	111	3	0	1	113	7	328	0
2:30 PM		0	6	5	37	0	0	0	1	0	31	106	3	0	4	129	11	333	0
2:45 PM		0	4	1	33	0	0	2	4	0	35	119	1	0	0	115	11	325	1,279
3:00 PM		0	11	5	47	0	0	2	2	0	38	123	2	0	6	108	9	353	1,339
3:15 PM		0	18	4	55	0	0	2	6	0	26	139	4	0	3	108	8	373	1,384
3:30 PM		0	7	3	53	0	3	3	5	0	41	151	3	0	3	108	10	390	1,441
3:45 PM		0	12	5	48	0	1	2	1	0	32	145	2	0	1	120	11	380	1,496
Count Total		0	69	29	351	0	7	15	27	0	266	1,000	22	0	19	896	74	2,775	0
Peak Hour	All	0	48	17	203	0	4	9	14	0	137	558	11	0	13	444	38	1,496	0
	HV	0	0	0	5	0	0	0	0	0	1	16	0	0	0	8	0	30	0
	HV%	-	0%	0%	2%	-	0%	0%	0%	-	1%	3%	0%	-	0%	2%	0%	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	2	0	4	1	7	0	0	0	0	0	1	0	0	0	1
2:15 PM	1	0	3	3	7	0	0	1	0	1	2	0	1	0	3
2:30 PM	2	0	0	3	5	0	0	0	0	0	1	1	0	0	2
2:45 PM	2	0	3	1	6	0	0	1	0	1	0	0	0	0	0
3:00 PM	0	0	5	2	7	1	0	6	2	9	0	0	0	0	0
3:15 PM	3	0	4	3	10	0	0	3	1	4	1	0	1	0	2
3:30 PM	0	0	3	2	5	0	0	1	1	2	2	0	0	0	2
3:45 PM	2	0	5	1	8	0	0	0	1	1	2	0	0	0	2
Count Total	12	0	27	16	55	1	0	12	5	18	9	1	2	0	12
Peak Hour	5	0	17	8	30	1	0	10	5	16	5	0	1	0	6

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Fair Oaks Ln				Palmer Ln				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	0	2	0	0	0	0	0	2	2	0	0	0	1	0	7	0
2:15 PM	0	0	0	1	0	0	0	0	0	0	3	0	0	0	3	0	7	0
2:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3	0	5	0
2:45 PM	0	0	0	2	0	0	0	0	0	0	3	0	0	0	1	0	6	25
3:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	7	25
3:15 PM	0	0	0	3	0	0	0	0	0	1	3	0	0	0	3	0	10	28
3:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	28
3:45 PM	0	0	0	2	0	0	0	0	0	0	5	0	0	0	1	0	8	30
Count Total	0	0	0	12	0	0	0	0	0	3	24	0	0	0	16	0	55	0
Peak Hour	0	0	0	5	0	0	0	0	0	1	16	0	0	0	8	0	30	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Fair Oaks Ln			Palmer Ln			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
2:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0				
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
2:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	2				
3:00 PM	0	0	1	0	0	0	0	5	1	0	2	0	9	11				
3:15 PM	0	0	0	0	0	0	0	3	0	0	1	0	4	14				
3:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	2	16				
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	16				
Count Total	0	0	1	0	0	0	0	11	1	1	3	1	18	0				
Peak Hour	0	0	1	0	0	0	0	9	1	1	3	1	16	0				

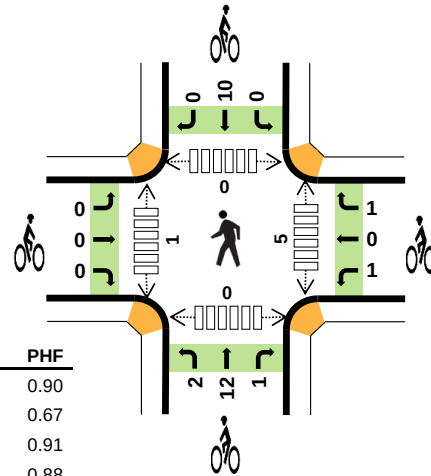
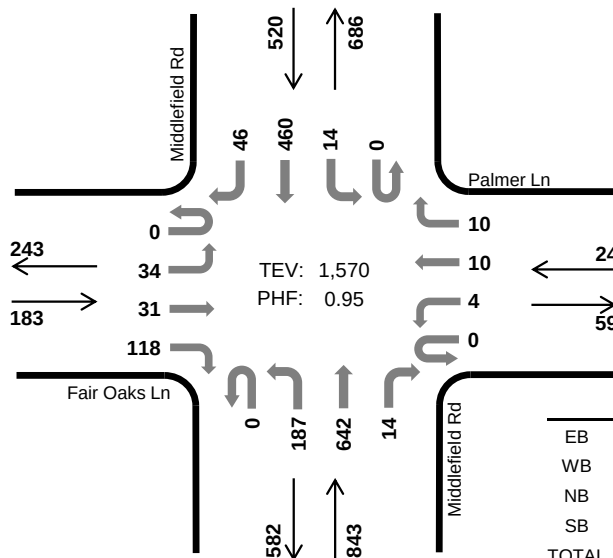
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Middlefield Rd Fair Oaks Ln/Palmer Ln



Peak Hour

Date: 03-27-2018
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %	PHF
EB	2.7%	0.90
WB	0.0%	0.67
NB	1.3%	0.91
SB	1.3%	0.88
TOTAL	1.5%	0.95

Two-Hour Count Summaries

Interval Start		Fair Oaks Ln				Palmer Ln				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	4:00 PM	0	10	0	52	0	1	2	4	0	43	169	3	0	5	99	9	397	0
	4:15 PM	0	8	1	31	0	2	1	3	0	56	168	4	0	3	100	11	388	0
	4:30 PM	0	7	4	32	0	3	2	2	0	50	154	2	0	3	106	8	373	0
	4:45 PM	0	10	2	25	0	0	4	1	0	48	163	4	0	1	98	7	363	1,521
	5:00 PM	0	15	5	31	0	0	3	2	0	62	167	3	0	4	108	13	413	1,537
	5:15 PM	0	4	6	26	0	2	4	3	0	44	152	3	0	3	129	16	392	1,541
	5:30 PM	0	5	7	34	0	2	0	4	0	45	163	2	0	2	113	11	388	1,556
	5:45 PM	0	10	13	27	0	0	3	1	0	36	160	6	0	5	110	6	377	1,570
Count Total		0	69	38	258	0	10	19	20	0	384	1,296	27	0	26	863	81	3,091	0
Peak Hour	All	0	34	31	118	0	4	10	10	0	187	642	14	0	14	460	46	1,570	0
	HV	0	0	0	5	0	0	0	0	0	1	10	0	0	0	6	1	23	0
	HV%	-	0%	0%	4%	-	0%	0%	0%	-	1%	2%	0%	-	0%	1%	2%	1%	0

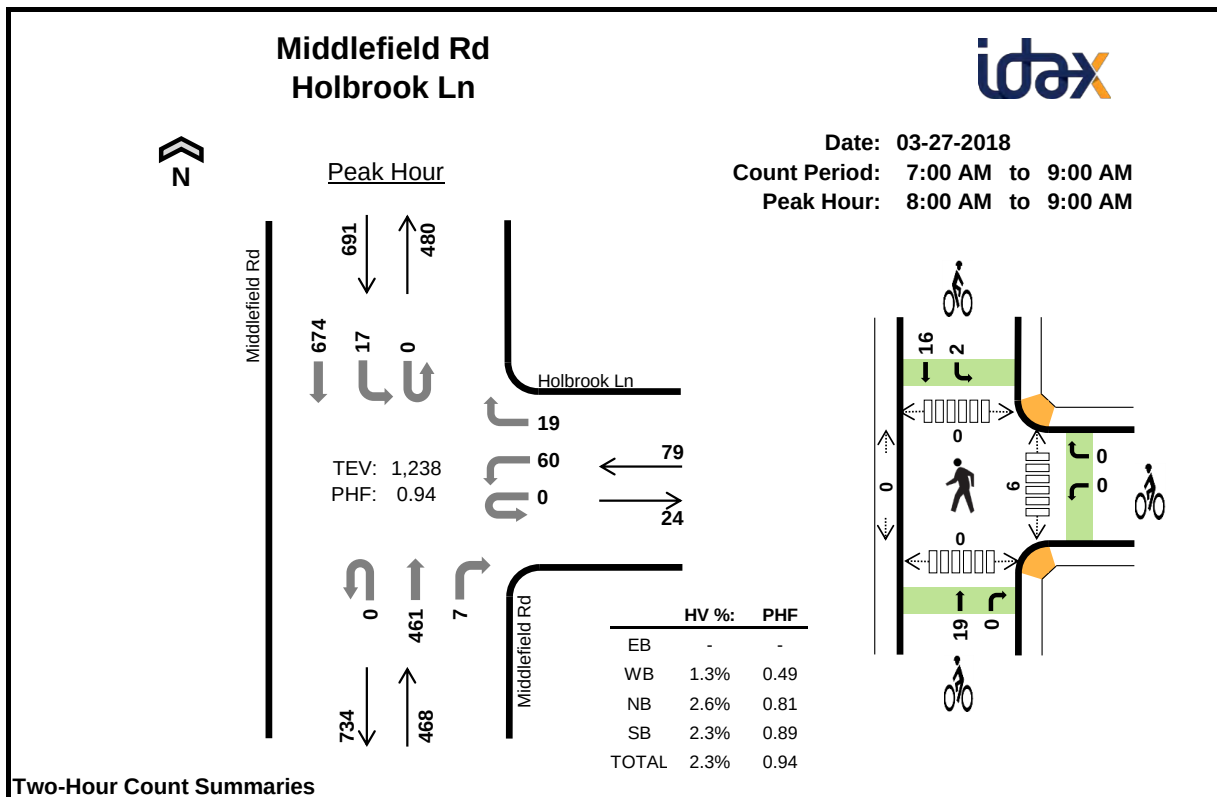
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	0	5	2	9	1	0	3	1	5	4	0	0	0	4
4:15 PM	1	0	1	1	3	0	0	1	0	1	0	0	0	0	0
4:30 PM	0	0	1	1	2	0	0	2	2	4	1	0	0	0	1
4:45 PM	0	1	3	1	5	2	0	5	7	14	2	1	0	0	3
5:00 PM	0	0	5	2	7	0	0	4	1	5	0	0	0	0	0
5:15 PM	1	0	3	3	7	0	0	1	3	4	2	1	0	0	3
5:30 PM	1	0	1	1	3	0	1	3	5	9	1	0	0	0	1
5:45 PM	3	0	2	1	6	0	1	7	1	9	2	0	0	0	2
Count Total	8	1	21	12	42	3	2	26	20	51	12	2	0	0	14
Peak Hour	5	0	11	7	23	0	2	15	10	27	5	1	0	0	6

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Fair Oaks Ln				Palmer Ln				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	0	1	0	0	0	0	0	0	5	0	0	1	1	0	9	0
4:15 PM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	3	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	1	0	5	19
5:00 PM	0	0	0	0	0	0	0	0	0	1	4	0	0	0	2	0	7	17
5:15 PM	0	0	0	1	0	0	0	0	0	0	3	0	0	0	2	1	7	21
5:30 PM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	3	22
5:45 PM	0	0	0	3	0	0	0	0	0	0	2	0	0	0	1	0	6	23
Count Total	0	1	0	7	0	0	0	1	0	1	20	0	0	1	10	1	42	0
Peak Hour	0	0	0	5	0	0	0	0	0	1	10	0	0	0	6	1	23	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Fair Oaks Ln			Palmer Ln			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	1	0	0	0	0	0	3	0	0	0	1	5	0				
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0				
4:30 PM	0	0	0	0	0	0	0	2	0	0	2	0	4	0				
4:45 PM	0	0	2	0	0	0	0	3	2	0	7	0	14	24				
5:00 PM	0	0	0	0	0	0	0	4	0	0	1	0	5	24				
5:15 PM	0	0	0	0	0	0	0	1	0	0	3	0	4	27				
5:30 PM	0	0	0	1	0	0	0	3	0	0	5	0	9	32				
5:45 PM	0	0	0	0	0	1	2	4	1	0	1	0	9	27				
Count Total	0	1	2	1	0	1	2	21	3	0	19	1	51	0				
Peak Hour	0	0	0	1	0	1	2	12	1	0	10	0	27	0				

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

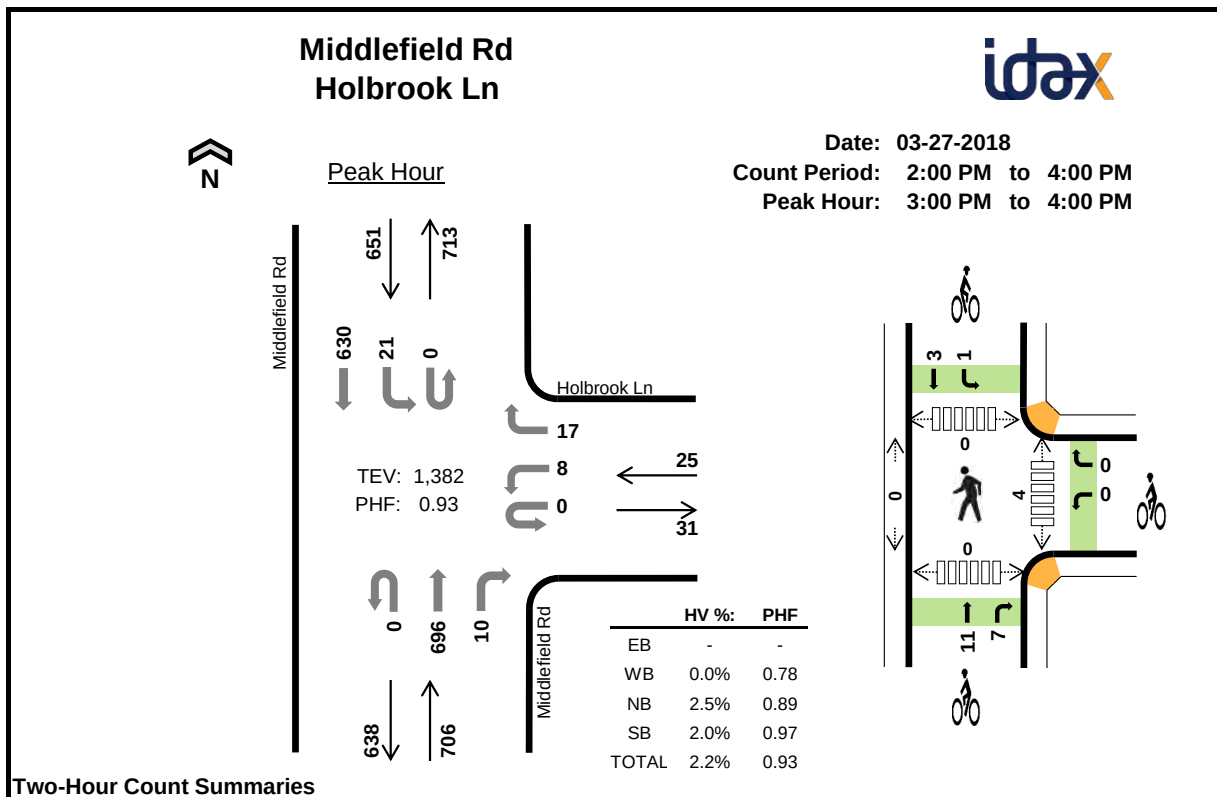
**Two-Hour Count Summaries**

Interval Start		0				Holbrook Ln				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	3	0	1	0	0	90	1	0	0	104	0	199	0
7:15 AM		0	0	0	0	0	6	0	2	0	0	120	2	0	0	134	0	264	0
7:30 AM		0	0	0	0	0	12	0	3	0	0	111	1	0	2	181	0	310	0
7:45 AM		0	0	0	0	0	26	0	12	0	0	79	4	0	2	172	0	295	1,068
8:00 AM		0	0	0	0	0	30	0	10	0	0	102	2	0	5	133	0	282	1,151
8:15 AM		0	0	0	0	0	23	0	6	0	0	90	1	0	6	172	0	298	1,185
8:30 AM		0	0	0	0	0	5	0	1	0	0	129	0	0	3	191	0	329	1,204
8:45 AM		0	0	0	0	0	2	0	2	0	0	140	4	0	3	178	0	329	1,238
Count Total		0	0	0	0	0	107	0	37	0	0	861	15	0	21	1,265	0	2,306	0
Peak Hour	All	0	0	0	0	0	60	0	19	0	0	461	7	0	17	674	0	1,238	0
	HV	0	0	0	0	0	0	0	1	0	0	12	0	0	0	16	0	29	0
	HV%	-	-	-	-	-	0%	-	5%	-	-	3%	0%	-	0%	2%	-	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	4	1	5	0	0	1	3	4	0	0	0	0	0
7:15 AM	0	0	2	2	4	0	0	0	5	5	0	0	0	0	0
7:30 AM	0	0	2	2	4	0	1	0	9	10	0	0	0	0	0
7:45 AM	0	0	3	5	8	0	1	1	11	13	0	0	0	0	0
8:00 AM	0	1	3	3	7	0	0	5	2	7	0	0	0	0	0
8:15 AM	0	0	1	6	7	0	0	3	3	6	1	0	0	0	1
8:30 AM	0	0	4	4	8	0	0	6	8	14	1	0	0	0	1
8:45 AM	0	0	4	3	7	0	0	5	5	10	4	0	0	0	4
Count Total	0	1	23	26	50	0	2	21	46	69	6	0	0	0	6
Peak Hr	0	1	12	16	29	0	0	19	18	37	6	0	0	0	6

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				Holbrook Ln				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	1	0	5	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0	8	21
8:00 AM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	3	0	7	23
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	0	7	26
8:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	8	30
8:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	7	29
Count Total	0	0	0	0	0	0	0	1	0	0	22	1	0	0	26	0	50	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	12	0	0	0	16	0	29	0
Two-Hour Count Summaries - Bikes																		
Interval Start	0			Holbrook Ln			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	1	0	0	3	0	4	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	5	0	5	0				
7:30 AM	0	0	0	0	0	1	0	0	0	0	9	0	10	0				
7:45 AM	0	0	0	1	0	0	0	0	1	1	10	0	13	32				
8:00 AM	0	0	0	0	0	0	0	5	0	0	2	0	7	35				
8:15 AM	0	0	0	0	0	0	0	3	0	0	3	0	6	36				
8:30 AM	0	0	0	0	0	0	0	6	0	1	7	0	14	40				
8:45 AM	0	0	0	0	0	0	0	5	0	1	4	0	10	37				
Count Total	0	0	0	1	0	1	0	20	1	3	43	0	69	0				
Peak Hour	0	0	0	0	0	0	0	19	0	2	16	0	37	0				
Note: U-Turn volumes for bikes are included in Left-Turn, if any.																		

**Two-Hour Count Summaries**

Interval Start		0				Holbrook Ln				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM		0	0	0	0	0	8	0	9	0	0	130	14	0	8	124	0	293	0
2:15 PM		0	0	0	0	0	5	0	7	1	0	139	5	0	4	150	0	311	0
2:30 PM		0	0	0	0	0	2	0	1	0	0	139	1	0	1	170	0	314	0
2:45 PM		0	0	0	0	0	2	0	1	0	0	151	0	0	3	139	0	296	1,214
3:00 PM		0	0	0	0	0	1	0	3	0	0	164	2	0	6	146	0	322	1,243
3:15 PM		0	0	0	0	0	2	0	5	0	0	164	1	0	7	160	0	339	1,271
3:30 PM		0	0	0	0	0	3	0	5	0	0	194	5	0	5	159	0	371	1,328
3:45 PM		0	0	0	0	0	2	0	4	0	0	174	2	0	3	165	0	350	1,382
Count Total		0	0	0	0	0	25	0	35	1	0	1,255	30	0	37	1,213	0	2,596	0
Peak Hour	All	0	0	0	0	0	8	0	17	0	0	696	10	0	21	630	0	1,382	0
	HV	0	0	0	0	0	0	0	0	0	0	18	0	0	0	13	0	31	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	3%	0%	-	0%	2%	-	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	0	0	6	3	9	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	2	4	7	0	0	1	0	1	2	0	0	0	2
2:30 PM	0	0	1	5	6	0	0	0	0	0	1	0	0	0	1
2:45 PM	0	0	1	3	4	0	0	1	0	1	0	0	0	0	0
3:00 PM	0	0	4	1	5	0	0	9	3	12	0	0	0	0	0
3:15 PM	0	0	3	7	10	0	0	7	1	8	1	0	0	0	1
3:30 PM	0	0	5	1	6	0	0	2	0	2	2	0	0	0	2
3:45 PM	0	0	6	4	10	0	0	0	0	0	1	0	0	0	1
Count Total	0	1	28	28	57	0	0	20	4	24	7	0	0	0	7
Peak Hr	0	0	18	13	31	0	0	18	4	22	4	0	0	0	4

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				Holbrook Ln				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	0	0	0	0	0	0	0	0	5	1	0	0	3	0	9	0
2:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	4	0	7	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	6	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	26
3:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	5	22
3:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	7	0	10	25
3:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0	6	25
3:45 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	4	0	10	31
Count Total	0	0	0	0	0	0	0	1	0	0	27	1	0	0	28	0	57	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	18	0	0	0	13	0	31	0

Two-Hour Count Summaries - Bikes																		
Interval Start	0			Holbrook Ln			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
2:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0				
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
2:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	2				
3:00 PM	0	0	0	0	0	0	0	6	3	1	2	0	12	14				
3:15 PM	0	0	0	0	0	0	0	4	3	0	1	0	8	21				
3:30 PM	0	0	0	0	0	0	0	1	1	0	0	0	2	23				
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	22				
Count Total	0	0	0	0	0	0	0	13	7	1	3	0	24	0				
Peak Hour	0	0	0	0	0	0	0	11	7	1	3	0	22	0				

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

Middlefield Rd Holbrook Ln

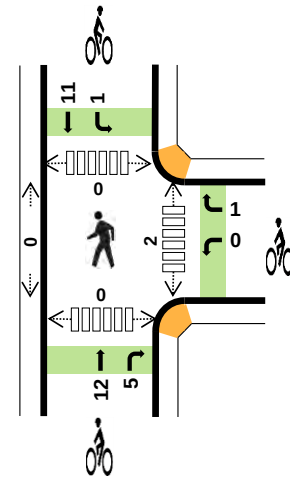
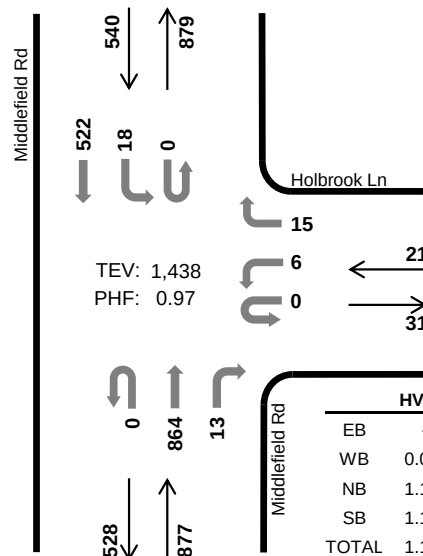


Peak Hour

Date: 03-27-2018

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	-	-
WB	0.0%	0.75
NB	1.1%	0.96
SB	1.1%	0.98
TOTAL	1.1%	0.97

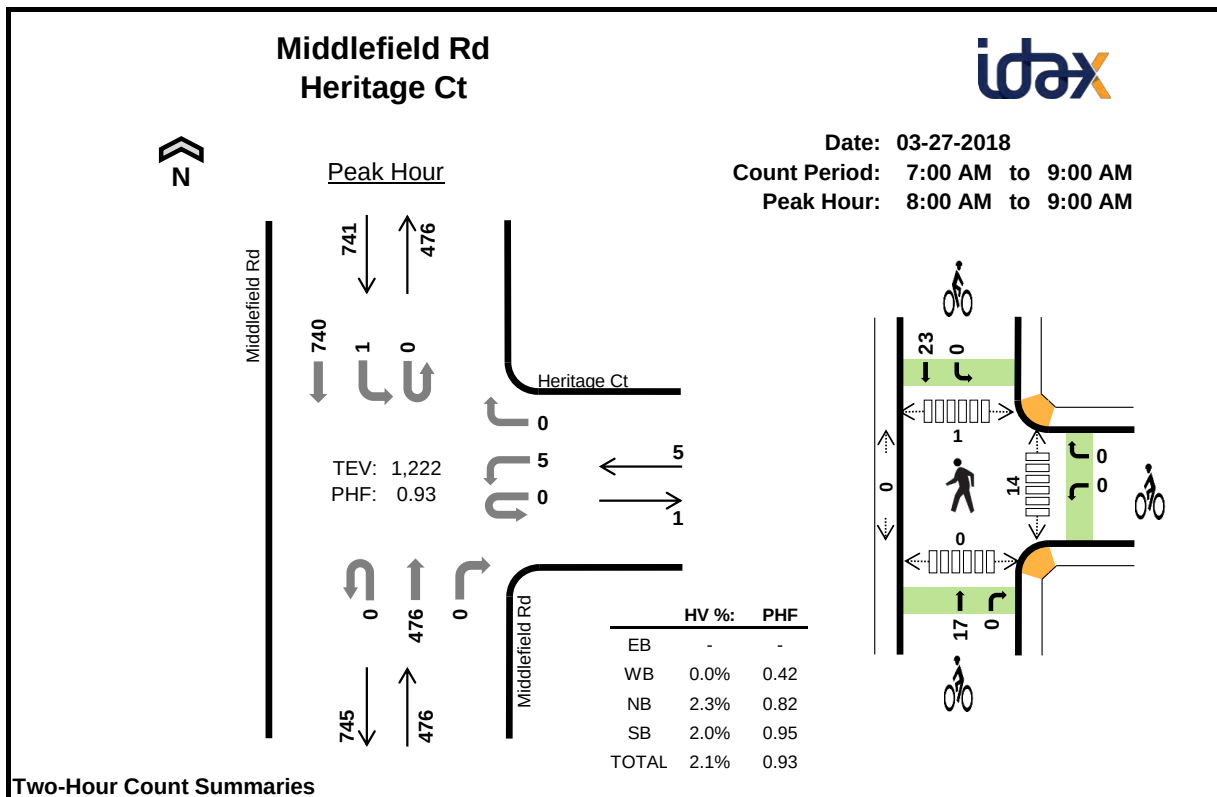
Two-Hour Count Summaries

Interval Start		0				Holbrook Ln				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	3	0	7	0	0	209	1	0	5	142	0	367	0
4:15 PM		0	0	0	0	0	2	0	2	0	0	224	4	0	4	133	0	369	0
4:30 PM		0	0	0	0	0	2	0	3	0	0	207	4	0	5	129	0	350	0
4:45 PM		0	0	0	0	0	2	0	5	0	0	209	1	0	3	128	0	348	1,434
5:00 PM		0	0	0	0	0	0	0	5	0	0	224	4	0	6	132	0	371	1,438
5:15 PM		0	0	0	0	0	0	0	2	0	0	194	2	0	4	150	0	352	1,421
5:30 PM		0	0	0	0	0	4	0	6	0	0	205	0	0	8	144	0	367	1,438
5:45 PM		0	0	0	0	0	2	0	2	0	0	198	5	0	10	122	0	339	1,429
Count Total		0	0	0	0	0	15	0	32	0	0	1,670	21	0	45	1,080	0	2,863	0
Peak Hour	All	0	0	0	0	0	6	0	15	0	0	864	13	0	18	522	0	1,438	0
	HV	0	0	0	0	0	0	0	0	0	0	10	0	0	0	6	0	16	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	1%	0%	-	0%	1%	-	1%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	5	2	7	0	0	3	0	3	3	0	0	0	3
4:15 PM	0	0	2	2	4	0	0	2	0	2	0	0	0	0	0
4:30 PM	0	0	1	1	2	0	0	5	2	7	1	0	0	0	1
4:45 PM	0	0	3	1	4	0	0	5	8	13	1	0	0	0	1
5:00 PM	0	0	4	2	6	0	1	5	2	8	0	0	0	0	0
5:15 PM	0	0	2	2	4	0	0	3	4	7	1	0	0	0	1
5:30 PM	0	1	1	3	5	0	0	4	6	10	1	0	0	0	1
5:45 PM	0	0	2	4	6	0	1	6	1	8	4	0	0	0	4
Count Total	0	1	20	17	38	0	2	33	23	58	11	0	0	0	11
Peak Hr	0	0	10	6	16	0	1	17	12	30	2	0	0	0	2

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				Holbrook Ln				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	7	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	17
5:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	6	16
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	16
5:30 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	2	0	5	19
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	6	21
Count Total	0	0	0	0	0	1	0	0	0	0	20	0	0	1	16	0	38	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	10	0	0	0	6	0	16	0
Two-Hour Count Summaries - Bikes																		
Interval Start	0			Holbrook Ln			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	3	0	0	0	0	3	0				
4:15 PM	0	0	0	0	0	0	0	1	1	0	0	0	2	0				
4:30 PM	0	0	0	0	0	0	0	3	2	0	2	0	7	0				
4:45 PM	0	0	0	0	0	0	0	5	0	1	7	0	13	25				
5:00 PM	0	0	0	0	0	1	0	3	2	0	2	0	8	30				
5:15 PM	0	0	0	0	0	0	0	2	1	1	3	0	7	35				
5:30 PM	0	0	0	0	0	0	0	3	1	0	6	0	10	38				
5:45 PM	0	0	0	0	0	1	0	6	0	0	1	0	8	33				
Count Total	0	0	0	0	0	2	0	26	7	2	21	0	58	0				
Peak Hour	0	0	0	0	0	1	0	12	5	1	11	0	30	0				
Note: U-Turn volumes for bikes are included in Left-Turn, if any.																		

**Two-Hour Count Summaries**

Interval Start		0				Heritage Ct				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	0	0	0	0	0	92	0	0	0	108	0	200	0
7:15 AM		0	0	0	0	0	0	0	1	0	0	127	1	1	0	139	0	269	0
7:30 AM		0	0	0	0	0	1	0	1	0	0	110	1	0	0	193	0	306	0
7:45 AM		0	0	0	0	0	1	0	0	0	0	82	1	0	0	190	0	274	1,049
8:00 AM		0	0	0	0	0	3	0	0	0	0	108	0	0	1	168	0	280	1,129
8:15 AM		0	0	0	0	0	0	0	0	0	0	93	0	0	0	196	0	289	1,149
8:30 AM		0	0	0	0	0	1	0	0	0	0	129	0	0	0	196	0	326	1,169
8:45 AM		0	0	0	0	0	1	0	0	0	0	146	0	0	0	180	0	327	1,222
Count Total		0	0	0	0	0	7	0	2	0	0	887	3	1	1	1,370	0	2,271	0
Peak Hour	All	0	0	0	0	0	5	0	0	0	0	476	0	0	1	740	0	1,222	0
	HV	0	0	0	0	0	0	0	0	0	0	11	0	0	0	15	0	26	0
	HV%	-	-	-	-	-	0%	-	-	-	-	2%	-	-	0%	2%	-	2%	0

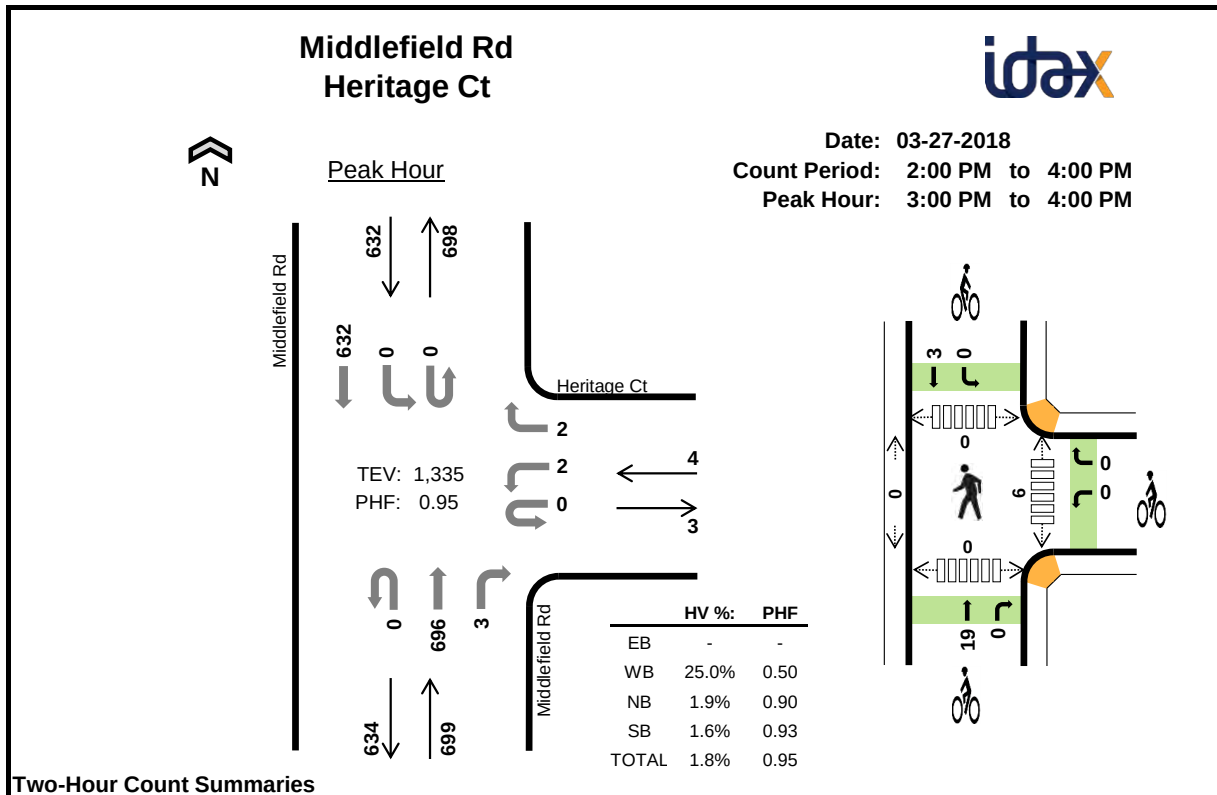
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	4	1	5	0	0	1	5	6	0	0	0	0	0
7:15 AM	0	0	5	1	6	0	0	0	8	8	0	0	0	0	0
7:30 AM	0	0	2	3	5	0	0	0	10	10	0	0	0	0	0
7:45 AM	0	0	3	5	8	0	0	1	12	13	2	0	0	0	2
8:00 AM	0	0	3	3	6	0	0	5	2	7	4	0	0	0	4
8:15 AM	0	0	1	6	7	0	0	3	10	13	5	0	0	0	5
8:30 AM	0	0	4	3	7	0	0	6	7	13	1	0	1	0	2
8:45 AM	0	0	3	3	6	0	0	3	4	7	4	0	0	0	4
Count Total	0	0	25	25	50	0	0	19	58	77	16	0	1	0	17
Peak Hr	0	0	11	15	26	0	0	17	23	40	14	0	1	0	15

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				Heritage Ct				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	5	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0	6	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0	8	24
8:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	25
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	0	7	26
8:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	7	28
8:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	26
Count Total	0	0	0	0	0	0	0	0	0	0	25	0	0	0	25	0	50	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	11	0	0	0	15	0	26	0

Two-Hour Count Summaries - Bikes																		
Interval Start	0			Heritage Ct			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	1	0	0	5	0	6	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	8	0	8	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	10	0	10	0				
7:45 AM	0	0	0	0	0	0	0	1	0	0	12	0	13	37				
8:00 AM	0	0	0	0	0	0	0	5	0	0	2	0	7	38				
8:15 AM	0	0	0	0	0	0	0	3	0	0	10	0	13	43				
8:30 AM	0	0	0	0	0	0	0	6	0	0	7	0	13	46				
8:45 AM	0	0	0	0	0	0	0	3	0	0	4	0	7	40				
Count Total	0	0	0	0	0	0	0	19	0	0	58	0	77	0				
Peak Hour	0	0	0	0	0	0	0	17	0	0	23	0	40	0				

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

**Two-Hour Count Summaries**

Interval Start		0				Heritage Ct				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM		0	0	0	0	0	0	0	0	0	0	135	0	3	0	128	0	266	0
2:15 PM		0	0	0	0	0	1	0	2	0	0	141	1	0	1	154	0	300	0
2:30 PM		0	0	0	0	0	1	0	0	0	0	147	1	0	0	172	0	321	0
2:45 PM		0	0	0	0	0	0	0	0	0	0	148	0	0	0	142	0	290	1,177
3:00 PM		0	0	0	0	0	0	0	0	0	0	164	1	0	0	136	0	301	1,212
3:15 PM		0	0	0	0	0	1	0	0	0	0	166	0	0	0	170	0	337	1,249
3:30 PM		0	0	0	0	0	0	0	1	0	0	192	2	0	0	156	0	351	1,279
3:45 PM		0	0	0	0	0	1	0	1	0	0	174	0	0	0	170	0	346	1,335
Count Total		0	0	0	0	0	4	0	4	0	0	1,267	5	3	1	1,228	0	2,512	0
Peak Hour	All	0	0	0	0	0	2	0	2	0	0	696	3	0	0	632	0	1,335	0
	HV	0	0	0	0	0	0	0	1	0	0	13	0	0	0	10	0	24	0
	HV%	-	-	-	-	-	0%	-	50%	-	-	2%	0%	-	-	2%	-	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	0	0	6	3	9	0	0	0	0	0	1	0	0	0	1
2:15 PM	0	0	1	4	5	0	0	1	0	1	2	0	0	0	2
2:30 PM	0	0	0	5	5	0	0	0	0	0	2	0	0	0	2
2:45 PM	0	0	1	3	4	0	0	1	0	1	0	0	0	0	0
3:00 PM	0	0	3	1	4	0	0	9	2	11	0	0	0	0	0
3:15 PM	0	0	3	5	8	0	0	8	1	9	1	0	0	0	1
3:30 PM	0	0	2	1	3	0	0	2	0	2	2	0	0	0	2
3:45 PM	0	1	5	3	9	0	0	0	0	0	3	0	0	0	3
Count Total	0	1	21	25	47	0	0	21	3	24	11	0	0	0	11
Peak Hr	0	1	13	10	24	0	0	19	3	22	6	0	0	0	6

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				Heritage Ct				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	3	0	9	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	5	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	23
3:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	18
3:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0	8	21
3:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	19
3:45 PM	0	0	0	0	0	0	0	1	0	0	5	0	0	0	3	0	9	24
Count Total	0	0	0	0	0	0	0	1	0	0	21	0	0	0	25	0	47	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	13	0	0	0	10	0	24	0
Two-Hour Count Summaries - Bikes																		
Interval Start	0			Heritage Ct			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
2:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0				
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
2:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	2				
3:00 PM	0	0	0	0	0	0	0	9	0	0	2	0	11	13				
3:15 PM	0	0	0	0	0	0	0	8	0	0	1	0	9	21				
3:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	23				
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	22				
Count Total	0	0	0	0	0	0	0	21	0	0	3	0	24	0				
Peak Hour	0	0	0	0	0	0	0	19	0	0	3	0	22	0				
Note: U-Turn volumes for bikes are included in Left-Turn, if any.																		

Middlefield Rd Heritage Ct

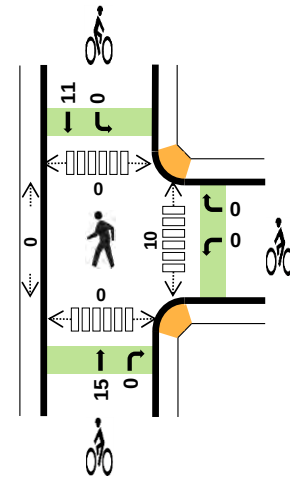
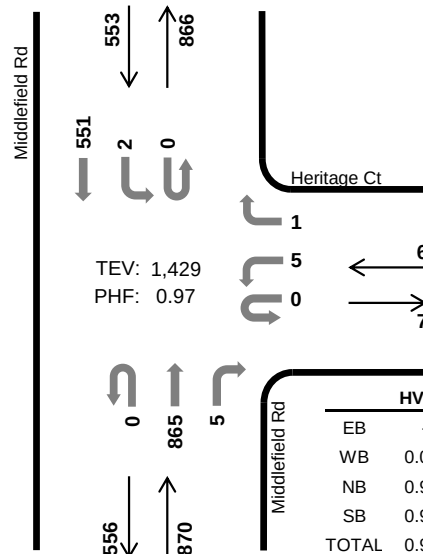


Peak Hour

Date: 03-27-2018

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	-	-
WB	0.0%	0.75
NB	0.9%	0.95
SB	0.9%	0.89
TOTAL	0.9%	0.97

Two-Hour Count Summaries

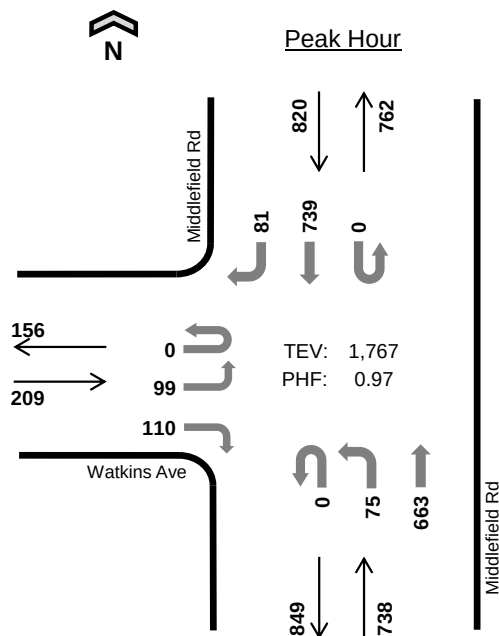
Interval Start		0				Heritage Ct				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	2	0	0	0	0	212	1	0	1	154	0	370	0
4:15 PM		0	0	0	0	0	1	0	1	0	0	228	1	0	0	135	0	366	0
4:30 PM		0	0	0	0	0	1	0	0	0	0	216	0	0	1	130	0	348	0
4:45 PM		0	0	0	0	0	1	0	0	0	0	209	3	0	0	132	0	345	1,429
5:00 PM		0	0	0	0	0	0	0	0	0	0	225	2	0	0	132	0	359	1,418
5:15 PM		0	0	0	0	0	0	0	0	0	0	199	0	0	0	150	0	349	1,401
5:30 PM		0	0	0	0	0	1	0	1	1	0	205	0	0	1	147	0	356	1,409
5:45 PM		0	0	0	0	0	0	0	0	0	0	205	1	0	0	125	0	331	1,395
Count Total		0	0	0	0	0	6	0	2	1	0	1,699	8	0	3	1,105	0	2,824	0
Peak Hour	All	0	0	0	0	0	5	0	1	0	0	865	5	0	2	551	0	1,429	0
	HV	0	0	0	0	0	0	0	0	0	0	8	0	0	0	5	0	13	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	1%	0%	-	0%	1%	-	1%	0

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

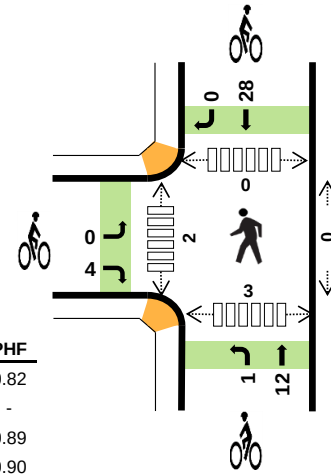
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	3	2	5	0	0	3	0	3	4	0	0	0	4
4:15 PM	0	0	1	1	2	0	0	2	0	2	2	0	0	0	2
4:30 PM	0	0	1	1	2	0	0	5	2	7	4	0	0	0	4
4:45 PM	0	0	3	1	4	0	0	5	9	14	0	0	0	0	0
5:00 PM	0	0	2	2	4	0	0	5	2	7	0	0	0	0	0
5:15 PM	0	0	3	2	5	0	0	2	3	5	2	0	0	0	2
5:30 PM	0	0	1	2	3	0	0	5	1	6	1	0	0	0	1
5:45 PM	0	0	2	4	6	0	0	6	1	7	5	0	0	0	5
Count Total	0	0	16	15	31	0	0	33	18	51	18	0	0	0	18
Peak Hr	0	0	8	5	13	0	0	15	11	26	10	0	0	0	10

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				Heritage Ct				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	13
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	12
5:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	15
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	16
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	6	18
Count Total	0	0	0	0	0	0	0	0	0	0	16	0	0	0	15	0	31	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	8	0	0	0	5	0	13	0
Two-Hour Count Summaries - Bikes																		
Interval Start	0			Heritage Ct			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	3	0	0	0	0	3	0				
4:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0				
4:30 PM	0	0	0	0	0	0	0	5	0	0	2	0	7	0				
4:45 PM	0	0	0	0	0	0	0	5	0	0	9	0	14	26				
5:00 PM	0	0	0	0	0	0	0	5	0	0	2	0	7	30				
5:15 PM	0	0	0	0	0	0	0	2	0	0	3	0	5	33				
5:30 PM	0	0	0	0	0	0	0	5	0	0	1	0	6	32				
5:45 PM	0	0	0	0	0	0	0	6	0	0	1	0	7	25				
Count Total	0	0	0	0	0	0	0	33	0	0	18	0	51	0				
Peak Hour	0	0	0	0	0	0	0	15	0	0	11	0	26	0				
Note: U-Turn volumes for bikes are included in Left-Turn, if any.																		

Middlefield Rd Watkins Ave



Date: 03-27-2018
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM



	HV %:	PHF
EB	1.0%	0.82
WB	-	-
NB	1.9%	0.89
SB	4.4%	0.90
TOTAL	2.9%	0.97

Two-Hour Count Summaries

Interval Start		Watkins Ave				0				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	11	0	9	0	0	0	0	0	2	77	0	0	0	127	16	242	0
7:15 AM		0	7	0	22	0	0	0	0	0	17	86	0	0	0	192	20	344	0
7:30 AM		0	12	0	22	0	0	0	0	0	15	105	0	0	0	240	18	412	0
7:45 AM		0	22	0	32	0	0	0	0	0	16	127	0	0	0	169	17	383	1,381
8:00 AM		0	17	0	25	0	0	0	0	0	27	168	0	0	0	169	24	430	1,569
8:15 AM		0	26	0	20	0	0	0	0	0	14	149	0	0	0	206	21	436	1,661
8:30 AM		0	30	0	27	0	0	0	0	0	21	151	0	0	0	195	23	447	1,696
8:45 AM		0	26	0	38	0	0	0	0	0	13	195	0	0	0	169	13	454	1,767
Count Total		0	151	0	195	0	0	0	0	0	125	1,058	0	0	0	1,467	152	3,148	0
Peak Hour	All	0	99	0	110	0	0	0	0	0	75	663	0	0	0	739	81	1,767	0
	HV	0	1	0	1	0	0	0	0	0	1	13	0	0	0	33	3	52	0
	HV%	-	1%	-	1%	-	-	-	-	-	1%	2%	-	-	-	4%	4%	3%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	5	2	7	0	0	1	5	6	0	1	0	0	1
7:15 AM	0	0	4	6	10	0	0	0	7	7	0	0	0	0	0
7:30 AM	0	0	3	4	7	0	0	0	11	11	0	0	0	0	0
7:45 AM	0	0	4	8	12	1	0	1	11	13	0	1	0	0	1
8:00 AM	0	0	2	6	8	1	0	5	2	8	0	2	0	2	4
8:15 AM	1	0	6	4	11	0	0	4	9	13	0	0	0	0	0
8:30 AM	1	0	2	19	22	1	0	1	8	10	0	0	0	1	1
8:45 AM	0	0	4	7	11	2	0	3	9	14	0	0	0	0	0
Count Total	2	0	30	56	88	5	0	15	62	82	0	4	0	3	7
Peak Hr	2	0	14	36	52	4	0	13	28	45	0	2	0	3	5

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Watkins Ave				0				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	7	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0	10	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	7	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	8	0	12	36
8:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	5	1	8	37
8:15 AM	0	0	0	1	0	0	0	0	0	0	6	0	0	0	3	1	11	38
8:30 AM	0	1	0	0	0	0	0	0	0	0	2	0	0	0	18	1	22	53
8:45 AM	0	0	0	0	0	0	0	0	0	1	3	0	0	0	7	0	11	52
Count Total	0	1	0	1	0	0	0	0	0	1	29	0	0	0	53	3	88	0
Peak Hour	0	1	0	1	0	0	0	0	0	1	13	0	0	0	33	3	52	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Watkins Ave			0			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	1	0	0	5	0	6	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	7	0	7	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	11	0	11	0				
7:45 AM	0	0	1	0	0	0	0	1	0	0	11	0	13	37				
8:00 AM	0	0	1	0	0	0	0	5	0	0	2	0	8	39				
8:15 AM	0	0	0	0	0	0	0	4	0	0	9	0	13	45				
8:30 AM	0	0	1	0	0	0	0	1	0	0	8	0	10	44				
8:45 AM	0	0	2	0	0	0	1	2	0	0	9	0	14	45				
Count Total	0	0	5	0	0	0	1	14	0	0	62	0	82	0				
Peak Hour	0	0	4	0	0	0	1	12	0	0	28	0	45	0				

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

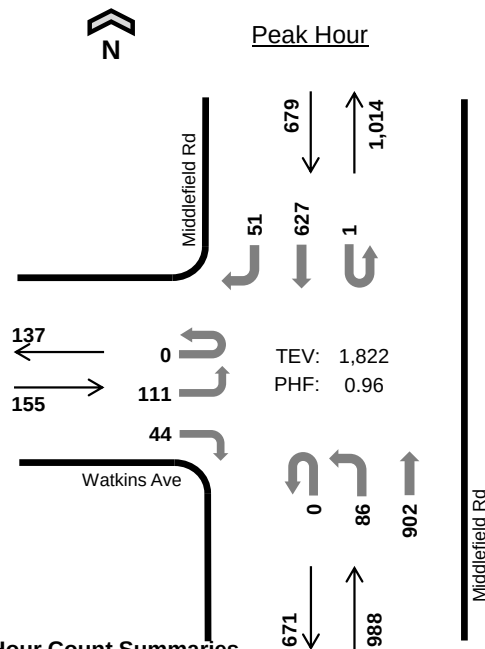
Middlefield Rd Watkins Ave



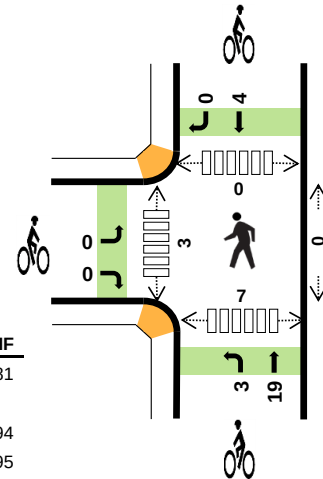
Date: 03-27-2018

Count Period: 2:00 PM to 4:00 PM

Peak Hour: 3:00 PM to 4:00 PM

TEV: 1,822
PHF: 0.96

	HV %:	PHF
EB	0.6%	0.81
WB	-	-
NB	1.6%	0.94
SB	1.9%	0.95
TOTAL	1.6%	0.96



Two-Hour Count Summaries

Interval Start		Watkins Ave				0				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM		0	25	0	11	0	0	0	0	0	8	155	0	0	0	162	10	371	0
2:15 PM		0	24	0	13	0	0	0	0	0	8	165	0	0	0	166	16	392	0
2:30 PM		0	26	0	8	0	0	0	0	0	13	177	0	0	0	152	13	389	0
2:45 PM		0	38	0	14	0	0	0	0	0	16	186	0	0	0	160	10	424	1,576
3:00 PM		0	34	0	14	0	0	0	0	0	20	199	0	0	0	157	19	443	1,648
3:15 PM		0	27	0	13	0	0	0	0	0	26	222	0	1	0	146	9	444	1,700
3:30 PM		0	36	0	12	0	0	0	0	0	19	240	0	0	0	157	12	476	1,787
3:45 PM		0	14	0	5	0	0	0	0	0	21	241	0	0	0	167	11	459	1,822
Count Total		0	224	0	90	0	0	0	0	0	131	1,585	0	1	0	1,267	100	3,398	0
Peak Hour	All	0	111	0	44	0	0	0	0	0	86	902	0	1	0	627	51	1,822	0
	HV	0	1	0	0	0	0	0	0	0	0	16	0	0	0	13	0	30	0
	HV%	-	1%	-	0%	-	-	-	-	-	0%	2%	-	0%	-	2%	0%	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	1	0	4	8	13	1	0	0	0	1	0	1	0	2	3
2:15 PM	0	0	6	4	10	0	0	3	0	3	0	0	0	0	0
2:30 PM	1	0	3	7	11	0	0	0	0	0	0	0	0	1	1
2:45 PM	0	0	9	8	17	0	0	1	0	1	0	1	0	0	1
3:00 PM	1	0	2	6	9	0	0	10	3	13	0	0	0	1	1
3:15 PM	0	0	3	2	5	0	0	9	1	10	0	1	0	1	2
3:30 PM	0	0	5	2	7	0	0	3	0	3	0	2	0	2	4
3:45 PM	0	0	6	3	9	0	0	0	0	0	0	0	0	3	3
Count Total	3	0	38	40	81	1	0	26	4	31	0	5	0	10	15
Peak Hr	1	0	16	13	30	0	0	22	4	26	0	3	0	7	10

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Watkins Ave				0				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	1	0	0	0	0	0	0	0	0	4	0	0	0	8	0	13	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	4	0	10	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	3	0	0	0	7	0	11	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	8	0	0	0	8	0	17	51
3:00 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	0	6	0	9	47
3:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	42
3:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	7	38
3:45 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	3	0	9	30
Count Total	0	3	0	0	0	0	0	0	0	1	37	0	0	0	40	0	81	0
Peak Hour	0	1	0	0	0	0	0	0	0	0	16	0	0	0	13	0	30	0
Two-Hour Count Summaries - Bikes																		
Interval Start	Watkins Ave			0			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
2:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0				
2:15 PM	0	0	0	0	0	0	2	1	0	0	0	0	3	0				
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
2:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	5				
3:00 PM	0	0	0	0	0	0	1	9	0	0	3	0	13	17				
3:15 PM	0	0	0	0	0	0	2	7	0	0	1	0	10	24				
3:30 PM	0	0	0	0	0	0	0	3	0	0	0	0	3	27				
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	26				
Count Total	0	0	1	0	0	0	5	21	0	0	4	0	31	0				
Peak Hour	0	0	0	0	0	0	3	19	0	0	4	0	26	0				
Note: U-Turn volumes for bikes are included in Left-Turn, if any.																		

Middlefield Rd Watkins Ave

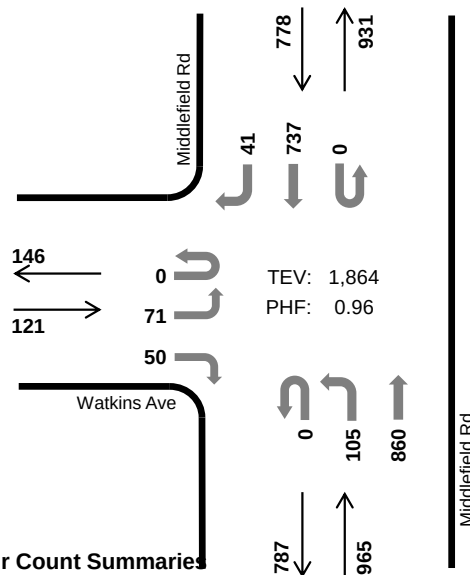


Peak Hour

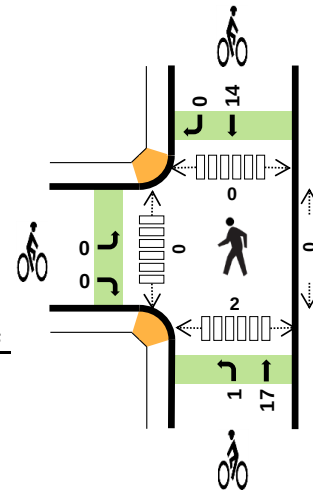
Date: 03-27-2018

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	1.7%	0.86
WB	-	-
NB	2.0%	0.95
SB	2.2%	0.95
TOTAL	2.0%	0.96



Two-Hour Count Summaries

Interval Start		Watkins Ave				0				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	26	0	10	0	0	0	0	0	18	224	0	0	0	151	11	440	0
4:15 PM		0	14	0	16	0	0	0	0	0	25	229	0	1	0	153	17	455	0
4:30 PM		0	14	0	29	0	0	0	0	0	25	210	0	0	0	162	10	450	0
4:45 PM		0	17	0	12	0	0	0	0	0	38	200	0	0	0	170	12	449	1,794
5:00 PM		0	12	0	15	0	0	0	0	0	42	212	0	0	0	193	11	485	1,839
5:15 PM		0	17	0	18	0	0	0	0	0	15	199	0	0	0	192	6	447	1,831
5:30 PM		0	15	0	11	0	0	0	0	0	21	225	0	0	0	191	11	474	1,855
5:45 PM		0	27	0	6	0	0	0	0	0	27	224	0	0	0	161	13	458	1,864
Count Total		0	142	0	117	0	0	0	0	0	211	1,723	0	1	0	1,373	91	3,658	0
Peak Hour	All	0	71	0	50	0	0	0	0	0	105	860	0	0	0	737	41	1,864	0
	HV	0	1	0	1	0	0	0	0	0	0	19	0	0	0	16	1	38	0
	HV%	-	1%	-	2%	-	-	-	-	-	0%	2%	-	-	-	2%	2%	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	5	7	0	0	2	0	2	0	1	0	3	4
4:15 PM	0	0	6	2	8	0	0	5	0	5	0	0	0	3	3
4:30 PM	0	0	2	3	5	0	0	3	3	6	0	0	0	0	0
4:45 PM	0	0	7	3	10	0	0	4	9	13	0	1	0	0	1
5:00 PM	0	0	5	2	7	0	0	6	3	9	0	0	0	0	0
5:15 PM	0	0	6	5	11	0	0	3	3	6	0	0	0	1	1
5:30 PM	1	0	3	4	8	0	0	6	7	13	0	0	0	0	0
5:45 PM	1	0	5	6	12	0	0	3	1	4	0	0	0	1	1
Count Total	2	0	36	30	68	0	0	32	26	58	0	2	0	8	10
Peak Hr	2	0	19	17	38	0	0	18	14	32	0	0	0	2	2

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Watkins Ave				0				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	5	0	7	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	2	0	8	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	3	0	10	30
5:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	7	30
5:15 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	5	0	11	33
5:30 PM	0	1	0	0	0	0	0	0	0	0	3	0	0	0	3	1	8	36
5:45 PM	0	0	0	1	0	0	0	0	0	0	5	0	0	0	6	0	12	38
Count Total	0	1	0	1	0	0	0	0	0	0	36	0	0	0	29	1	68	0
Peak Hour	0	1	0	1	0	0	0	0	0	0	19	0	0	0	16	1	38	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Watkins Ave			0			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0				
4:15 PM	0	0	0	0	0	0	1	4	0	0	0	0	5	0				
4:30 PM	0	0	0	0	0	0	0	3	0	0	3	0	6	0				
4:45 PM	0	0	0	0	0	0	0	4	0	0	9	0	13	26				
5:00 PM	0	0	0	0	0	0	1	5	0	0	3	0	9	33				
5:15 PM	0	0	0	0	0	0	0	3	0	0	3	0	6	34				
5:30 PM	0	0	0	0	0	0	0	6	0	0	7	0	13	41				
5:45 PM	0	0	0	0	0	0	0	3	0	0	1	0	4	32				
Count Total	0	0	0	0	0	0	2	30	0	0	26	0	58	0				
Peak Hour	0	0	0	0	0	0	1	17	0	0	14	0	32	0				

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

Middlefield Rd Lane Pl/James ave

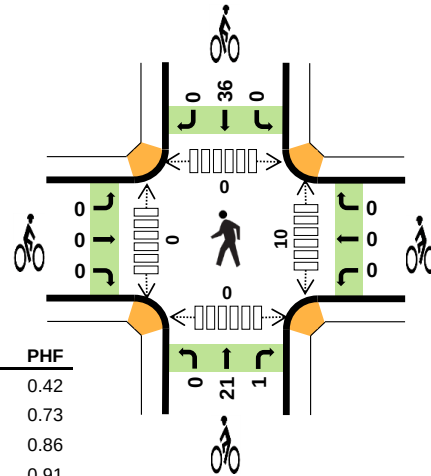
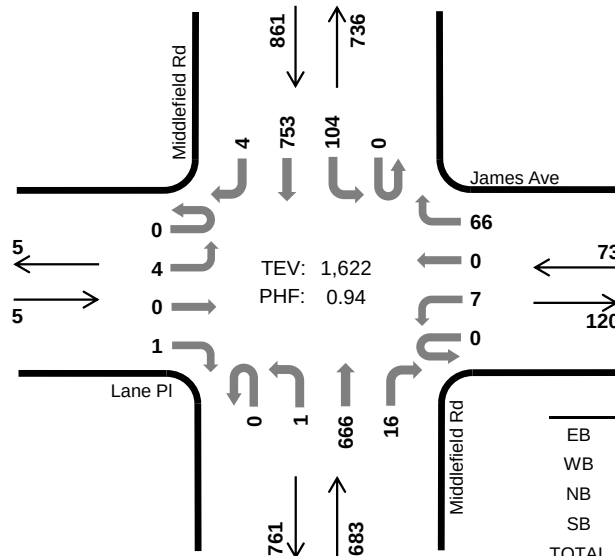


Peak Hour

Date: 03-27-2018

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 8:00 AM to 9:00 AM



	HV %:	PHF
EB	0.0%	0.42
WB	5.5%	0.73
NB	1.8%	0.86
SB	4.2%	0.91
TOTAL	3.2%	0.94

Two-Hour Count Summaries

Interval Start		Lane Pl				James Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	2	0	14	0	0	65	0	0	11	124	0	216	0
7:15 AM		0	0	0	0	0	6	0	18	0	0	86	3	0	18	190	0	321	0
7:30 AM		0	0	0	3	0	7	0	14	0	0	106	6	0	21	237	1	395	0
7:45 AM		0	0	0	1	0	6	0	14	0	0	127	4	0	33	163	1	349	1,281
8:00 AM		0	0	0	0	0	1	0	17	0	0	178	2	0	29	165	2	394	1,459
8:15 AM		0	2	0	1	0	2	0	14	0	0	146	6	0	24	212	0	407	1,545
8:30 AM		0	2	0	0	0	3	0	22	0	0	147	5	0	24	187	1	391	1,541
8:45 AM		0	0	0	0	0	1	0	13	0	1	195	3	0	27	189	1	430	1,622
Count Total		0	4	0	5	0	28	0	126	0	1	1,050	29	0	187	1,467	6	2,903	0
Peak Hour	All	0	4	0	1	0	7	0	66	0	1	666	16	0	104	753	4	1,622	0
	HV	0	0	0	0	0	2	0	2	0	0	12	0	0	3	33	0	52	0
	HV%	-	0%	-	0%	-	29%	-	3%	-	0%	2%	0%	-	3%	4%	0%	3%	0

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

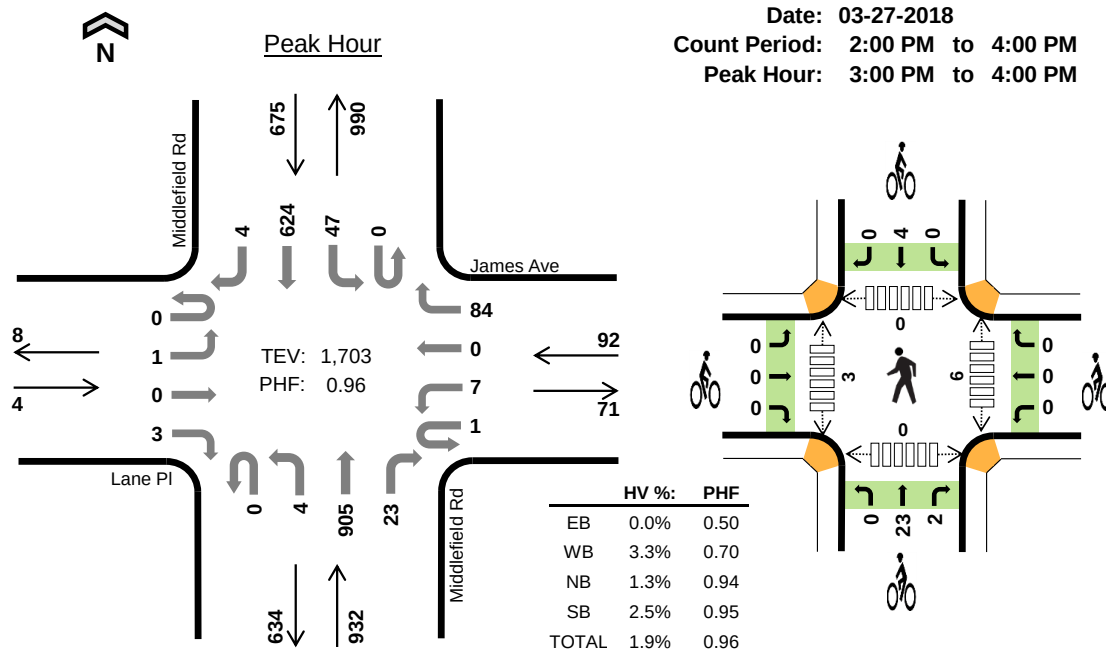
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	5	2	7	0	0	1	5	6	0	2	0	0	2
7:15 AM	0	0	4	6	10	0	0	0	6	6	1	0	0	0	1
7:30 AM	0	0	3	8	11	0	0	0	13	13	0	0	0	0	0
7:45 AM	0	0	4	8	12	0	1	2	12	15	3	0	0	1	4
8:00 AM	0	0	2	6	8	0	0	6	3	9	7	0	0	0	7
8:15 AM	0	2	5	6	13	0	0	5	10	15	1	0	0	0	1
8:30 AM	0	2	1	17	20	0	0	6	12	18	2	0	0	0	2
8:45 AM	0	0	4	7	11	0	0	5	11	16	0	0	0	0	0
Count Total	0	4	28	60	92	0	1	25	72	98	14	2	0	1	17
Peak Hour	0	4	12	36	52	0	0	22	36	58	10	0	0	0	10

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Lane Pl				James Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	7	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0	10	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	8	0	11	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	5	3	0	12	40
8:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4	0	8	41
8:15 AM	0	0	0	0	0	1	0	1	0	0	5	0	0	0	6	0	13	44
8:30 AM	0	0	0	0	0	1	0	1	0	0	1	0	0	1	16	0	20	53
8:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	7	0	11	52
Count Total	0	0	0	0	0	2	0	2	0	0	28	0	0	8	52	0	92	0
Peak Hour	0	0	0	0	0	2	0	2	0	0	12	0	0	3	33	0	52	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Lane Pl			James Ave			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	1	0	0	5	0	6	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	6	0	6	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	13	0	13	0				
7:45 AM	0	0	0	1	0	0	0	2	0	0	12	0	15	40				
8:00 AM	0	0	0	0	0	0	0	5	1	0	3	0	9	43				
8:15 AM	0	0	0	0	0	0	0	5	0	0	10	0	15	52				
8:30 AM	0	0	0	0	0	0	0	6	0	0	12	0	18	57				
8:45 AM	0	0	0	0	0	0	0	5	0	0	11	0	16	58				
Count Total	0	0	0	1	0	0	0	24	1	0	72	0	98	0				
Peak Hour	0	0	0	0	0	0	0	21	1	0	36	0	58	0				

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

Middlefield Rd Lane Pl/James ave



Two-Hour Count Summaries

Interval Start		Lane Pl				James Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM		0	0	0	2	0	7	1	23	0	2	136	3	0	12	149	1	336	0
2:15 PM		0	1	1	0	0	4	0	12	0	1	161	3	0	11	173	1	368	0
2:30 PM		0	0	0	3	0	8	1	20	0	1	170	4	0	10	151	1	369	0
2:45 PM		0	2	0	2	0	5	0	24	0	0	177	3	0	16	149	1	379	1,452
3:00 PM		0	0	0	1	0	1	0	23	0	2	199	7	0	7	166	1	407	1,523
3:15 PM		0	0	0	0	0	2	0	16	0	1	233	9	0	15	137	2	415	1,570
3:30 PM		0	0	0	1	1	3	0	29	0	1	230	2	0	10	166	1	444	1,645
3:45 PM		0	1	0	1	0	1	0	16	0	0	243	5	0	15	155	0	437	1,703
Count Total		0	4	1	10	1	31	2	163	0	8	1,549	36	0	96	1,246	8	3,155	0
Peak Hour	All	0	1	0	3	1	7	0	84	0	4	905	23	0	47	624	4	1,703	0
	HV	0	0	0	0	0	0	0	3	0	0	12	0	0	3	14	0	32	0
	HV%	-	0%	-	0%	0%	0%	-	4%	-	0%	1%	0%	-	6%	2%	0%	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	0	2	2	5	9	0	0	0	1	1	0	1	0	0	1
2:15 PM	0	0	8	4	12	0	0	3	0	3	3	0	0	0	3
2:30 PM	1	2	2	7	12	0	0	0	0	0	1	0	0	0	1
2:45 PM	0	1	6	5	12	0	0	2	0	2	0	1	0	0	1
3:00 PM	0	0	2	8	10	0	0	12	3	15	1	0	0	0	1
3:15 PM	0	2	1	2	5	0	0	10	1	11	0	0	0	0	0
3:30 PM	0	1	5	2	8	0	0	2	0	2	2	3	0	0	5
3:45 PM	0	0	4	5	9	0	0	1	0	1	3	0	0	0	3
Count Total	1	8	30	38	77	0	0	30	5	35	10	5	0	0	15
Peak Hour	0	3	12	17	32	0	0	25	4	29	6	3	0	0	9

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Lane Pl				James Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	0	0	0	0	0	2	0	0	2	0	0	1	4	0	9	0
2:15 PM	0	0	0	0	0	0	0	0	0	1	7	0	0	0	4	0	12	0
2:30 PM	0	0	0	1	0	1	0	1	0	0	2	0	0	1	6	0	12	0
2:45 PM	0	0	0	0	0	0	0	1	0	0	6	0	0	0	5	0	12	45
3:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	8	0	10	46
3:15 PM	0	0	0	0	0	0	0	2	0	0	1	0	0	0	2	0	5	39
3:30 PM	0	0	0	0	0	0	0	1	0	0	5	0	0	1	1	0	8	35
3:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	2	3	0	9	32
Count Total	0	0	0	1	0	1	0	7	0	1	29	0	0	5	33	0	77	0
Peak Hour	0	0	0	0	0	0	0	3	0	0	12	0	0	3	14	0	32	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Lane Pl			James Ave			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
2:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0			
2:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	3	0			
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	6			
3:00 PM	0	0	0	0	0	0	0	10	2	0	3	0	15	20			
3:15 PM	0	0	0	0	0	0	0	10	0	0	1	0	11	28			
3:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	30			
3:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	29			
Count Total	0	0	0	0	0	0	0	28	2	1	4	0	35	0			
Peak Hour	0	0	0	0	0	0	0	23	2	0	4	0	29	0			

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

Middlefield Rd Lane Pl/James ave

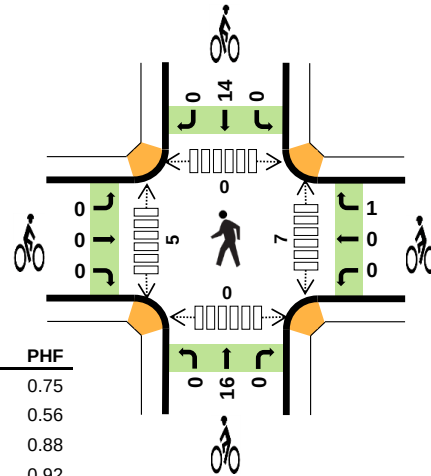
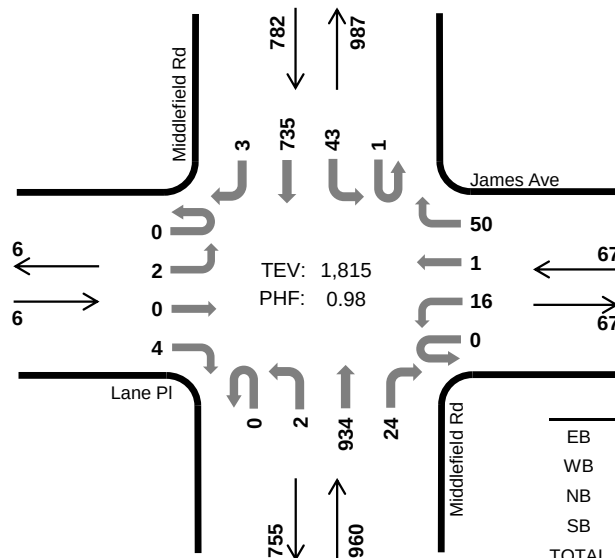


Peak Hour

Date: 03-27-2018

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	0.0%	0.75
WB	3.0%	0.56
NB	1.6%	0.88
SB	2.0%	0.92
TOTAL	1.8%	0.98

Two-Hour Count Summaries

Interval Start		Lane Pl				James Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	1	0	2	0	3	0	23	0	1	220	6	0	10	157	0	423	0
4:15 PM		0	0	0	1	0	3	0	25	0	0	228	4	0	13	153	0	427	0
4:30 PM		0	1	0	0	0	5	0	20	0	2	222	5	0	11	178	0	444	0
4:45 PM		0	1	0	1	0	4	0	16	0	0	217	7	0	16	168	0	430	1,724
5:00 PM		0	0	0	2	0	4	1	25	0	1	223	7	0	12	190	0	465	1,766
5:15 PM		0	0	0	1	0	7	0	7	0	0	205	1	1	9	202	1	434	1,773
5:30 PM		0	1	0	0	0	3	0	8	0	0	241	9	0	15	183	1	461	1,790
5:45 PM		0	1	0	1	0	2	0	10	0	1	265	7	0	7	160	1	455	1,815
Count Total		0	5	0	8	0	31	1	134	0	5	1,821	46	1	93	1,391	3	3,539	0
Peak Hour	All	0	2	0	4	0	16	1	50	0	2	934	24	1	43	735	3	1,815	0
	HV	0	0	0	0	0	0	0	2	0	0	15	0	0	0	15	1	33	0
	HV%	-	0%	-	0%	-	0%	0%	4%	-	0%	2%	0%	0%	0%	2%	33%	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	1	2	5	8	0	0	3	0	3	2	4	0	2	8
4:15 PM	0	0	6	3	9	0	0	5	0	5	5	0	0	0	5
4:30 PM	0	0	2	3	5	0	0	3	3	6	63	0	0	0	63
4:45 PM	0	1	6	3	10	0	0	5	9	14	0	1	0	2	3
5:00 PM	0	0	3	2	5	0	1	4	2	7	0	2	0	0	2
5:15 PM	0	2	4	5	11	0	0	4	4	8	2	0	0	0	2
5:30 PM	0	0	3	2	5	0	0	6	7	13	2	3	0	0	5
5:45 PM	0	0	5	7	12	0	0	2	1	3	3	0	0	0	3
Count Total	0	4	31	30	65	0	1	32	26	59	77	10	0	4	91
Peak Hour	0	2	15	16	33	0	1	16	14	31	7	5	0	0	12

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	Lane Pl				James Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	2	0	0	1	4	0	8	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	3	0	9	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	6	0	0	0	3	0	10	32
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	29
5:15 PM	0	0	0	0	0	0	0	2	0	0	0	4	0	0	0	5	0	11	31
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	31
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	6	1	12	33
Count Total	0	0	0	0	0	1	0	3	0	0	0	31	0	0	1	28	1	65	0
Peak Hour	0	0	0	0	0	0	0	2	0	0	0	15	0	0	0	15	1	33	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Lane Pl			James Ave			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	3	0	0	0	0	3	0			
4:15 PM	0	0	0	0	0	0	0	5	0	0	0	0	5	0			
4:30 PM	0	0	0	0	0	0	0	3	0	0	3	0	6	0			
4:45 PM	0	0	0	0	0	0	0	5	0	0	9	0	14	28			
5:00 PM	0	0	0	0	0	1	0	4	0	0	2	0	7	32			
5:15 PM	0	0	0	0	0	0	0	4	0	0	4	0	8	35			
5:30 PM	0	0	0	0	0	0	0	6	0	0	7	0	13	42			
5:45 PM	0	0	0	0	0	0	0	2	0	0	1	0	3	31			
Count Total	0	0	0	0	0	1	0	32	0	0	26	0	59	0			
Peak Hour	0	0	0	0	0	1	0	16	0	0	14	0	31	0			

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

Middlefield Rd Glenwood Ave/Linden Ave

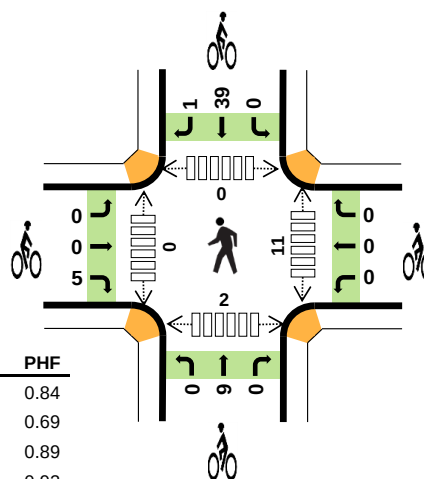
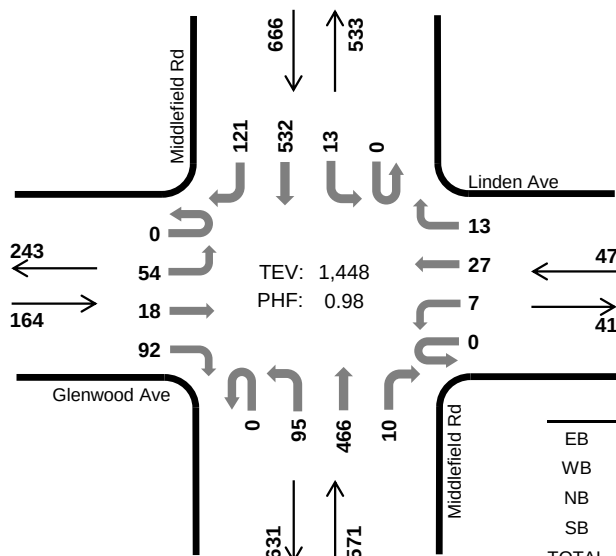


Peak Hour

Date: 03-27-2018

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	1.2%	0.84
WB	0.0%	0.69
NB	3.0%	0.89
SB	4.5%	0.92
TOTAL	3.4%	0.98

Two-Hour Count Summaries

Interval Start		Glenwood Ave				Linden Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	16	5	21	0	3	12	2	0	37	116	4	0	5	126	23	370	0
7:15 AM		0	13	6	28	0	4	3	2	0	18	107	0	0	2	134	35	352	0
7:30 AM		0	14	5	30	0	0	3	3	0	17	107	5	0	5	144	32	365	0
7:45 AM		0	11	2	13	0	0	9	6	0	23	136	1	0	1	128	31	361	1,448
8:00 AM		0	11	4	9	0	2	4	0	0	15	74	4	0	2	89	23	237	1,315
8:15 AM		0	19	2	8	0	0	7	0	0	8	90	5	0	1	92	18	250	1,213
8:30 AM		0	12	2	7	0	1	9	1	0	13	95	5	0	1	113	17	276	1,124
8:45 AM		0	12	0	26	0	3	5	1	0	11	76	7	0	1	140	22	304	1,067
Count Total		0	108	26	142	0	13	52	15	0	142	801	31	0	18	966	201	2,515	0
Peak Hour	All	0	54	18	92	0	7	27	13	0	95	466	10	0	13	532	121	1,448	0
	HV	0	1	0	1	0	0	0	0	0	2	15	0	0	0	14	16	49	0
	HV%	-	2%	0%	1%	-	0%	0%	0%	-	2%	3%	0%	-	0%	3%	13%	3%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	0	1	3	5	0	0	3	5	8	3	0	0	2	5
7:15 AM	1	0	5	8	14	1	0	3	7	11	5	0	0	0	5
7:30 AM	0	0	5	14	19	4	0	2	17	23	2	0	0	0	2
7:45 AM	0	0	6	5	11	0	0	1	11	12	1	0	0	0	1
8:00 AM	0	0	5	3	8	0	1	4	3	8	0	1	1	0	2
8:15 AM	0	0	2	2	4	0	0	2	7	9	0	0	0	0	0
8:30 AM	0	0	4	4	8	0	0	1	7	8	1	0	0	0	1
8:45 AM	1	0	3	7	11	0	0	4	3	7	0	1	2	1	4
Count Total	3	0	31	46	80	5	1	20	60	86	12	2	3	3	20
Peak Hour	2	0	17	30	49	5	0	9	40	54	11	0	0	2	13

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Glenwood Ave				Linden Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2	1	5	0
7:15 AM	0	0	0	1	0	0	0	0	0	0	5	0	0	0	8	0	14	0
7:30 AM	0	0	0	0	0	0	0	0	0	2	3	0	0	0	4	10	19	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	5	11	49
8:00 AM	0	0	0	0	0	0	0	0	0	1	4	0	0	0	3	0	8	52
8:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	1	4	42
8:30 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	8	31
8:45 AM	0	0	0	1	0	0	0	0	0	0	3	0	0	0	6	1	11	31
Count Total	0	1	0	2	0	0	0	0	0	3	27	1	0	0	28	18	80	0
Peak Hour	0	1	0	1	0	0	0	0	0	2	15	0	0	0	14	16	49	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Glenwood Ave			Linden Ave			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	3	0	0	4	1	8	0				
7:15 AM	0	0	1	0	0	0	0	3	0	0	7	0	11	0				
7:30 AM	0	0	4	0	0	0	0	2	0	0	17	0	23	0				
7:45 AM	0	0	0	0	0	0	0	1	0	0	11	0	12	54				
8:00 AM	0	0	0	1	0	0	1	3	0	0	2	1	8	54				
8:15 AM	0	0	0	0	0	0	0	2	0	0	7	0	9	52				
8:30 AM	0	0	0	0	0	0	0	1	0	0	6	1	8	37				
8:45 AM	0	0	0	0	0	0	0	4	0	0	3	0	7	32				
Count Total	0	0	5	1	0	0	1	19	0	0	57	3	86	0				
Peak Hour	0	0	5	0	0	0	0	9	0	0	39	1	54	0				

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

Middlefield Rd Glenwood Ave/Linden Ave

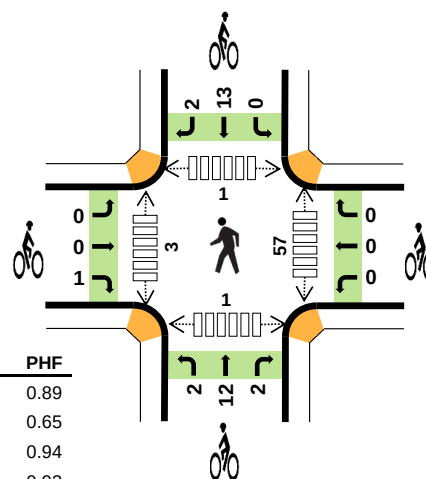
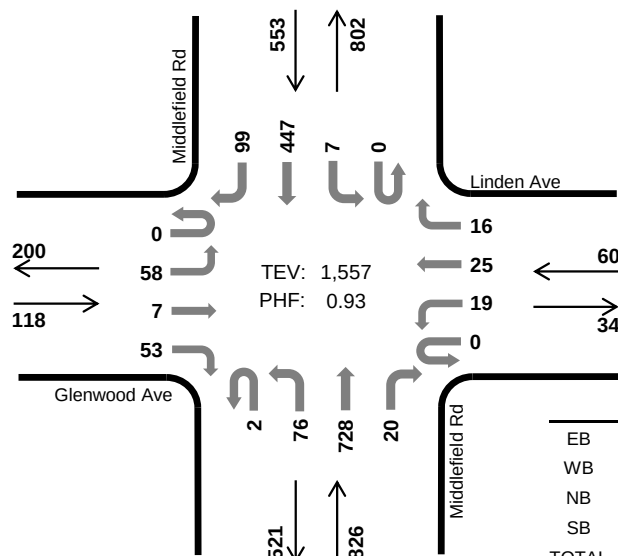


Peak Hour

Date: 03-27-2018

Count Period: 2:00 PM to 4:00 PM

Peak Hour: 3:00 PM to 4:00 PM



	HV %:	PHF
EB	0.8%	0.89
WB	1.7%	0.65
NB	2.1%	0.94
SB	2.5%	0.93
TOTAL	2.1%	0.93

Two-Hour Count Summaries

Interval Start		Glenwood Ave				Linden Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM		0	19	2	17	0	4	5	2	0	30	161	2	0	1	99	27	369	0
2:15 PM		0	21	4	14	0	2	3	0	0	31	185	4	0	3	103	21	391	0
2:30 PM		0	13	7	12	0	2	2	4	0	16	160	5	0	5	104	28	358	0
2:45 PM		0	22	6	14	0	1	7	4	0	31	169	5	0	0	109	26	394	1,512
3:00 PM		0	19	2	12	0	3	8	2	0	17	182	6	0	3	97	27	378	1,521
3:15 PM		0	10	4	17	0	5	8	10	0	18	173	3	0	1	112	16	377	1,507
3:30 PM		0	13	1	10	0	2	3	0	2	16	183	6	0	1	120	28	385	1,534
3:45 PM		0	16	0	14	0	9	6	4	0	25	190	5	0	2	118	28	417	1,557
Count Total		0	133	26	110	0	28	42	26	2	184	1,403	36	0	16	862	201	3,069	0
Peak Hour	All	0	58	7	53	0	19	25	16	2	76	728	20	0	7	447	99	1,557	0
	HV	0	0	1	0	0	0	0	1	1	0	16	0	0	0	13	1	33	0
	HV%	-	0%	14%	0%	-	0%	0%	6%	50%	0%	2%	0%	-	0%	3%	1%	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	1	0	4	8	13	1	0	3	9	13	12	1	0	0	13
2:15 PM	0	0	1	2	3	0	0	15	1	16	2	3	0	0	5
2:30 PM	0	0	4	1	5	3	0	8	5	16	0	0	0	0	0
2:45 PM	1	0	9	2	12	0	0	2	1	3	1	0	0	0	1
3:00 PM	1	0	3	6	10	0	0	2	1	3	2	0	0	0	2
3:15 PM	0	1	5	1	7	1	0	4	2	7	3	2	0	1	6
3:30 PM	0	0	3	4	7	0	0	2	1	3	48	0	1	0	49
3:45 PM	0	0	6	3	9	0	0	8	11	19	4	1	0	0	5
Count Total	3	1	35	27	66	5	0	44	31	80	72	7	1	1	81
Peak Hour	1	1	17	14	33	1	0	16	15	32	57	3	1	1	62

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Glenwood Ave				Linden Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	0	1	0	0	0	0	0	0	4	0	0	0	5	3	13	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	5	0
2:45 PM	0	0	0	1	0	0	0	0	0	1	8	0	0	0	2	0	12	33
3:00 PM	0	0	1	0	0	0	0	0	0	0	3	0	0	0	5	1	10	30
3:15 PM	0	0	0	0	0	0	0	1	0	0	5	0	0	0	1	0	7	34
3:30 PM	0	0	0	0	0	0	0	0	1	0	2	0	0	0	4	0	7	36
3:45 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	3	0	9	33
Count Total	0	0	1	2	0	0	0	1	1	1	33	0	0	0	23	4	66	0
Peak Hour	0	0	1	0	0	0	0	1	1	0	16	0	0	0	13	1	33	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Glenwood Ave			Linden Ave			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
2:00 PM	1	0	0	0	0	0	0	3	0	7	2	0	13	0			
2:15 PM	0	0	0	0	0	0	0	13	2	0	1	0	16	0			
2:30 PM	2	0	1	0	0	0	0	7	1	0	4	1	16	0			
2:45 PM	0	0	0	0	0	0	0	2	0	1	0	0	3	48			
3:00 PM	0	0	0	0	0	0	0	2	0	0	1	0	3	38			
3:15 PM	0	0	1	0	0	0	1	3	0	0	2	0	7	29			
3:30 PM	0	0	0	0	0	0	0	1	1	0	1	0	3	16			
3:45 PM	0	0	0	0	0	0	1	6	1	0	9	2	19	32			
Count Total	3	0	2	0	0	0	2	37	5	8	20	3	80	0			
Peak Hour	0	0	1	0	0	0	2	12	2	0	13	2	32	0			

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

Middlefield Rd Glenwood Ave/Linden Ave

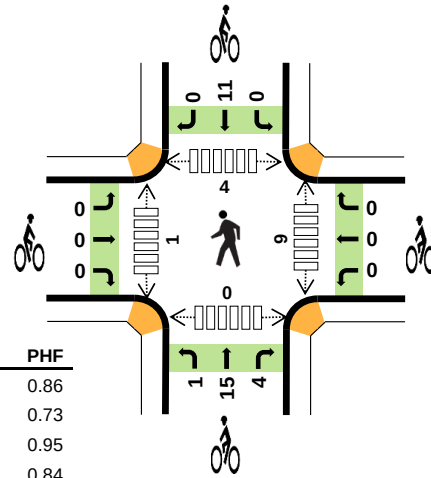
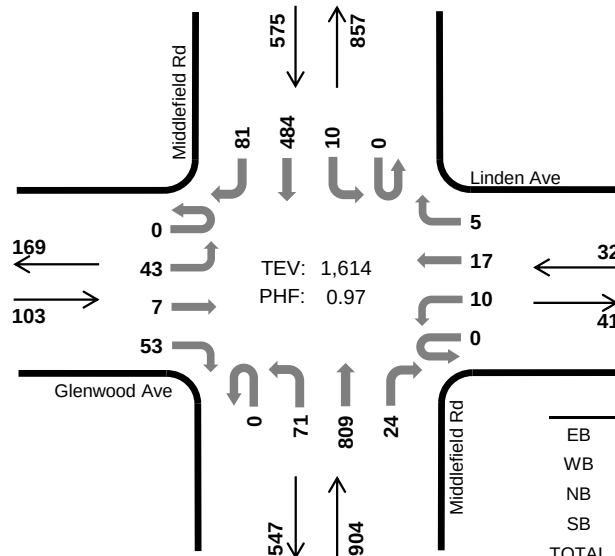


Peak Hour

Date: 03-27-2018

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	1.0%	0.86
WB	3.1%	0.73
NB	0.9%	0.95
SB	2.8%	0.84
TOTAL	1.6%	0.97

Two-Hour Count Summaries

Interval Start		Glenwood Ave				Linden Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	9	2	18	0	0	4	0	0	22	186	5	0	1	129	21	397	0
4:15 PM		0	8	1	16	0	1	3	0	0	17	181	6	0	2	147	23	405	0
4:30 PM		0	8	1	15	0	3	4	1	0	19	205	7	0	1	122	19	405	0
4:45 PM		0	14	1	9	0	4	3	4	0	19	207	6	0	4	104	15	390	1,597
5:00 PM		0	13	4	13	0	2	7	0	0	16	216	5	0	3	111	24	414	1,614
5:15 PM		0	9	5	19	0	2	7	1	0	20	179	6	0	1	108	21	378	1,587
5:30 PM		0	10	3	16	0	2	6	1	0	9	179	10	0	0	75	19	330	1,512
5:45 PM		0	16	1	9	0	3	7	3	0	14	141	4	0	0	111	18	327	1,449
Count Total		0	87	18	115	0	17	41	10	0	136	1,494	49	0	12	907	160	3,046	0
Peak Hour	All	0	43	7	53	0	10	17	5	0	71	809	24	0	10	484	81	1,614	0
	HV	0	1	0	0	0	0	0	1	0	0	8	0	0	1	14	1	26	0
	HV%	-	2%	0%	0%	-	0%	0%	20%	-	0%	1%	0%	-	10%	3%	1%	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	5	2	7	2	0	2	1	5	0	0	0	0	0
4:15 PM	0	0	5	5	10	0	0	5	3	8	1	1	4	0	6
4:30 PM	0	0	1	1	2	0	0	8	5	13	3	0	0	0	3
4:45 PM	0	1	2	6	9	0	0	3	2	5	3	0	0	0	3
5:00 PM	1	0	0	4	5	0	0	4	1	5	2	0	0	0	2
5:15 PM	0	0	3	1	4	0	0	5	2	7	0	0	0	0	0
5:30 PM	0	0	1	1	2	0	0	11	4	15	2	0	0	1	3
5:45 PM	0	0	3	1	4	1	0	4	2	7	1	0	0	0	1
Count Total	1	1	20	21	43	3	0	42	20	65	12	1	4	1	18
Peak Hour	1	1	8	16	26	0	0	20	11	31	9	1	4	0	14

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Glenwood Ave				Linden Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	1	4	0	0	0	2	0	7	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	10	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	1	4	1	9	28
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	26
5:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	20
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	20
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	15
Count Total	0	1	0	0	0	0	0	1	0	1	19	0	0	1	19	1	43	0
Peak Hour	0	1	0	0	0	0	0	1	0	0	8	0	0	1	14	1	26	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Glenwood Ave			Linden Ave			Middlefield Rd			Middlefield Rd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	2	0	0	0	0	2	0	0	1	0	5	0			
4:15 PM	0	0	0	0	0	0	0	3	2	0	3	0	8	0			
4:30 PM	0	0	0	0	0	0	1	5	2	0	5	0	13	0			
4:45 PM	0	0	0	0	0	0	0	3	0	0	2	0	5	31			
5:00 PM	0	0	0	0	0	0	0	4	0	0	1	0	5	31			
5:15 PM	0	0	0	0	0	0	0	5	0	0	2	0	7	30			
5:30 PM	0	0	0	0	0	0	0	11	0	0	4	0	15	32			
5:45 PM	0	0	1	0	0	0	0	3	1	0	2	0	7	34			
Count Total	0	0	3	0	0	0	1	36	5	0	20	0	65	0			
Peak Hour	0	0	0	0	0	0	1	15	4	0	11	0	31	0			

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



Appendix B – Origin-Destination Study Data

Origin-Destination Analysis
Route Choices from Origin Zone 1

Origin	Middle Filter	Destination	"Before Construction" - April 2017						"On-going Construction" - October 2017					
			AM	School PM	PM	AM	School PM	PM	AM	School PM	PM	AM	School PM	PM
1	2	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	2	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	2	8	5	5	0	1%	2%	0%	0	0	0	0%	0%	0%
1	2	9	8	0	0	2%	0%	0%	7	0	0	2%	0%	0%
1	2	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	2	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	2	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	2	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	3	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	3	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	3	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	3	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	3	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	3	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	3	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	3	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	4	7	454	223	279	88%	93%	85%	290	70	115	65%	43%	59%
1	4	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	4	8	0	0	9	0%	0%	3%	0	6	0	0%	4%	0%
1	4	9	8	0	13	2%	0%	4%	18	5	15	4%	3%	8%
1	4	11	0	0	0	0%	0%	0%	0	9	0	0%	6%	0%
1	4	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	4	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	4	15	0	0	0	0%	0%	0%	4	0	0	1%	0%	0%
1	5	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	5	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	5	8	0	0	6	0%	0%	2%	10	0	0	2%	0%	0%
1	5	9	0	11	8	0%	5%	2%	16	0	25	4%	0%	13%
1	5	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	5	12	7	0	0	1%	0%	0%	0	5	0	0%	3%	0%
1	5	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	5	15	0	0	0	0%	0%	0%	5	5	0	1%	3%	0%
1	6	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	6	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	6	8	0	0	0	0%	0%	0%	5	6	0	1%	4%	0%
1	6	9	28	0	13	5%	0%	4%	26	13	15	6%	8%	8%
1	6	11	0	0	0	0%	0%	0%	0	17	0	0%	10%	0%
1	6	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	6	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	6	15	0	0	0	0%	0%	0%	4	0	0	1%	0%	0%
1	10	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	10	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	10	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	10	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	10	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	10	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	10	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	10	15	0	0	0	0%	0%	0%	5	0	0	1%	0%	0%
1	13	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	13	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	13	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	13	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	13	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	13	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	13	14	0	0	0	0%	0%	0%	9	0	0	2%	0%	0%
1	13	15	0	0	0	0%	0%	0%	5	0	0	1%	0%	0%
1	16	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	16	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	16	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	16	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	16	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	16	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	16	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	16	15	0	0	0	0%	0%	0%	4	0	0	1%	0%	0%
1	17	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	17	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	17	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	17	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	17	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	17	12	7	0	0	1%	0%	0%	0	5	0	0%	3%	0%
1	17	14	0	0	0	0%	0%	0%	9	0	0	2%	0%	0%
1	17	15	0	0	0	0%	0%	0%	0	5	0	0%	3%	0%
1	18	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	18	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	18	8	0	0	0	0%	0%	0%	5	6	0	1%	4%	0%
1	18	9	0	0	0	0%	0%	0%	22	0	25	5%	0%	13%
1	18	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	18	12	0	0	0	0%	0%	0%	0	5	0	0%	3%	0%
1	18	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
1	18	15	0	0	0	0%	0%	0%	0	5	0	0%	3%	0%
Total			517	239	328	100%	100%	100%	444	162	195	100%	100%	100%

Origin-Destination Analysis

Preferred Route Choices from Origin Zone 1

Origin	Middle Filter	Destination	"Before Construction" - April 2017			"On-going Construction" - October 2017		
			AM	School PM	PM	AM	School PM	PM
1	2	8	1%	2%	0%	0%	0%	0%
1	2	9	2%	0%	0%	2%	0%	0%
1	4	7	88%	93%	85%	65%	43%	59%
1	4	8	0%	0%	3%	0%	4%	0%
1	4	9	2%	0%	4%	4%	3%	8%
1	4	11	0%	0%	0%	0%	6%	0%
1	4	15	0%	0%	0%	1%	0%	0%
1	5	8	0%	0%	2%	2%	0%	0%
1	5	9	0%	5%	2%	4%	0%	13%
1	5	12	1%	0%	0%	0%	3%	0%
1	5	15	0%	0%	0%	1%	3%	0%
1	6	8	0%	0%	0%	1%	4%	0%
1	6	9	5%	0%	4%	6%	8%	8%
1	6	11	0%	0%	0%	0%	10%	0%
1	6	15	0%	0%	0%	1%	0%	0%
1	10	15	0%	0%	0%	1%	0%	0%
1	13	14	0%	0%	0%	2%	0%	0%
1	13	15	0%	0%	0%	1%	0%	0%
1	16	15	0%	0%	0%	1%	0%	0%
1	17	12	1%	0%	0%	0%	3%	0%
1	17	14	0%	0%	0%	2%	0%	0%
1	17	15	0%	0%	0%	0%	3%	0%
1	18	8	0%	0%	0%	1%	4%	0%
1	18	9	0%	0%	0%	5%	0%	13%
1	18	12	0%	0%	0%	0%	3%	0%
1	18	15	0%	0%	0%	0%	3%	0%
Total			100%	100%	100%	100%	100%	100%

**Origin-Destination Analysis
Route Choices from Origin Zone 7**

Origin	Middle Filter	Destination	"Before Construction" - April 2017						"On-going Construction" - April 2017					
			AM	School PM	PM	AM	School PM	PM	AM	School PM	PM	AM	School PM	PM
7	2	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	2	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	2	8	10	0	0	5%	0%	0%	0	0	0	0%	0%	0%
7	2	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	2	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	2	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	2	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	2	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	3	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	3	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	3	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	3	9	0	0	5	0%	0%	1%	0	0	0	0%	0%	0%
7	3	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	3	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	3	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	3	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	4	1	79	351	435	38%	68%	74%	52	139	139	44%	80%	91%
7	4	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	4	8	46	13	27	22%	3%	5%	8	14	0	7%	8%	0%
7	4	9	4	7	20	2%	1%	3%	0	0	0	0%	0%	0%
7	4	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	4	12	4	0	0	2%	0%	0%	0	0	0	0%	0%	0%
7	4	14	0	0	5	0%	0%	1%	0	0	0	0%	0%	0%
7	4	15	7	7	0	3%	1%	0%	0	7	0	0%	4%	0%
7	5	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	5	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	5	8	36	6	27	17%	1%	5%	8	13	7	7%	8%	5%
7	5	9	0	0	16	0%	0%	3%	0	0	0	0%	0%	0%
7	5	11	0	0	0	0%	0%	0%	4	0	0	3%	0%	0%
7	5	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	5	14	0	0	5	0%	0%	1%	0	0	0	0%	0%	0%
7	5	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	6	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	6	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	6	8	0	13	0	0%	3%	0%	18	0	0	15%	0%	0%
7	6	9	15	71	8	7%	14%	1%	6	0	0	5%	0%	0%
7	6	11	0	4	0	0%	1%	0%	0	0	0	0%	0%	0%
7	6	12	0	5	0	0%	1%	0%	0	0	0	0%	0%	0%
7	6	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	6	15	0	0	5	0%	0%	1%	0	0	0	0%	0%	0%
7	10	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	10	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	10	8	0	4	0	0%	1%	0%	0	0	0	0%	0%	0%
7	10	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	10	11	0	4	0	0%	1%	0%	0	0	0	0%	0%	0%
7	10	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	10	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	10	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	13	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	13	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	13	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	13	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	13	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	13	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	13	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	13	15	0	0	5	0%	0%	1%	0	0	7	0%	0%	5%
7	16	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	16	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	16	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	16	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	16	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	16	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	16	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	16	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	17	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	17	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	17	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	17	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	17	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	17	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	17	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	17	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	18	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	18	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	18	8	0	19	9	0%	4%	2%	18	0	0	15%	0%	0%
7	18	9	4	7	20	2%	1%	3%	0	0	0	0%	0%	0%
7	18	11	0	4	0	0%	1%	0%	4	0	0	3%	0%	0%
7	18	12	4	0	0	2%	0%	0%	0	0	0	0%	0%	0%
7	18	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
7	18	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
Total			209	515	587	100%	100%	100%	118	173	153	100%	100%	100%

Origin-Destination Analysis

Preferred Route Choices from Origin Zone 7

Origin	Middle Filter	Destination	"Before Construction" - April 2017			"On-going Construction" - October 2017		
			AM	School PM	PM	AM	School PM	PM
7	2	8	5%	0%	0%	0%	0%	0%
7	3	9	0%	0%	1%	0%	0%	0%
7	4	1	38%	68%	74%	44%	80%	91%
7	4	8	22%	3%	5%	7%	8%	0%
7	4	9	2%	1%	3%	0%	0%	0%
7	4	12	2%	0%	0%	0%	0%	0%
7	4	14	0%	0%	1%	0%	0%	0%
7	4	15	3%	1%	0%	0%	4%	0%
7	5	8	17%	1%	5%	7%	8%	5%
7	5	9	0%	0%	3%	0%	0%	0%
7	5	11	0%	0%	0%	3%	0%	0%
7	5	14	0%	0%	1%	0%	0%	0%
7	6	8	0%	3%	0%	15%	0%	0%
7	6	9	7%	14%	1%	5%	0%	0%
7	6	11	0%	1%	0%	0%	0%	0%
7	6	12	0%	1%	0%	0%	0%	0%
7	6	15	0%	0%	1%	0%	0%	0%
7	10	8	0%	1%	0%	0%	0%	0%
7	10	11	0%	1%	0%	0%	0%	0%
7	13	15	0%	0%	1%	0%	0%	5%
7	18	8	0%	4%	2%	15%	0%	0%
7	18	9	2%	1%	3%	0%	0%	0%
7	18	11	0%	1%	0%	3%	0%	0%
7	18	12	2%	0%	0%	0%	0%	0%
Total			100%	100%	100%	100%	100%	100%

Origin-Destination Analysis
Route Choices from Origin Zone 8

Origin	Middle Filter	Destination	"Before Construction" - April 2017						"On-going Construction" - April 2017					
			AM	School PM	PM	AM	School PM	PM	AM	School PM	PM	AM	School PM	PM
8	2	1	8	0	0	0%	0%	0%	26	6	0	1%	1%	0%
8	2	7	9	0	0	0%	0%	0%	10	7	0	0%	1%	0%
8	2	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	2	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	2	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	2	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	2	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	2	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	3	1	0	6	0	0%	0%	0%	0	4	0	0%	0%	0%
8	3	7	10	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	3	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	3	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	3	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	3	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	3	14	0	0	6	0%	0%	0%	0	0	0	0%	0%	0%
8	3	15	0	0	10	0%	0%	0%	0	0	0	0%	0%	0%
8	4	1	11	0	0	0%	0%	0%	14	2	7	1%	0%	1%
8	4	7	14	23	31	0%	2%	1%	114	5	31	4%	1%	2%
8	4	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	4	9	0	0	0	0%	0%	0%	8	0	0	0%	0%	0%
8	4	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	4	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	4	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	4	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	5	1	7	0	7	0%	0%	0%	17	2	0	1%	0%	0%
8	5	7	14	24	26	0%	2%	1%	104	0	31	4%	0%	2%
8	5	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	5	9	0	0	0	0%	0%	0%	8	0	9	0%	0%	1%
8	5	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	5	12	0	0	0	0%	0%	0%	5	0	0	0%	0%	0%
8	5	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	5	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	6	1	18	0	0	1%	0%	0%	14	8	7	1%	1%	1%
8	6	7	13	25	47	0%	2%	2%	8	21	37	0%	3%	3%
8	6	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	6	9	0	0	7	0%	0%	0%	0	0	0	0%	0%	0%
8	6	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	6	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	6	14	0	13	0	0%	1%	0%	3	0	0	0%	0%	0%
8	6	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	10	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	10	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	10	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	10	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	10	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	10	12	0	0	0	0%	0%	0%	6	0	0	0%	0%	0%
8	10	14	0	0	0	0%	0%	0%	0	6	0	0%	1%	0%
8	10	15	0	0	5	0%	0%	0%	0	0	0	0%	0%	0%
8	13	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	13	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	13	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	13	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	13	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	13	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	13	14	36	18	0	1%	1%	0%	3	9	0	0%	1%	0%
8	13	15	44	0	5	1%	0%	0%	46	15	16	2%	2%	1%
8	16	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	16	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	16	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	16	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	16	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	16	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	16	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	16	15	10	0	4	0%	0%	0%	8	8	5	0%	1%	0%
8	17	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	17	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	17	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	17	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	17	11	0	0	18	0%	0%	1%	0	0	0	0%	0%	0%
8	17	12	74	30	54	2%	2%	2%	73	13	21	3%	2%	2%
8	17	14	36	14	0	1%	1%	0%	3	3	0	0%	0%	0%
8	17	15	0	0	0	0%	0%	0%	4	9	0	0%	1%	0%
8	18	1	18	0	13	1%	0%	0%	31	8	7	1%	1%	1%
8	18	7	13	32	47	0%	2%	2%	8	28	37	0%	3%	3%
8	18	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
8	18	9	2830	1151	2502	85%	84%	87%	1975	618	1033	76%	76%	79%
8	18	11	0	0	18	0%	0%	1%	0	0	0	0%	0%	0%
8	18	12	107	8	33	3%	1%	1%	99	11	12	4%	1%	1%
8	18	14	47	17	18	1%	1%	1%	10	16	21	0%	2%	2%
8	18	15	15	10	28	0%	1%	1%	18	12	26	1%	1%	2%
Total			3334	1371	2879	100%	100%	100%	2615	811	1300	100%	100%	100%

Origin-Destination Analysis
Preferred Route Choices from Origin Zone 8

Origin	Middle Filter	Destination	"Before Construction" - April 2017			"On-going Construction" - October 2017		
			AM	School PM	PM	AM	School PM	PM
8	2	1	0%	0%	0%	1%	1%	0%
8	2	7	0%	0%	0%	0%	1%	0%
8	4	1	0%	0%	0%	1%	0%	1%
8	4	7	0%	2%	1%	4%	1%	2%
8	5	1	0%	0%	0%	1%	0%	0%
8	5	7	0%	2%	1%	4%	0%	2%
8	5	9	0%	0%	0%	0%	0%	1%
8	6	1	1%	0%	0%	1%	1%	1%
8	6	7	0%	2%	2%	0%	3%	3%
8	6	14	0%	1%	0%	0%	0%	0%
8	10	14	0%	0%	0%	0%	1%	0%
8	13	14	1%	1%	0%	0%	1%	0%
8	13	15	1%	0%	0%	2%	2%	1%
8	16	15	0%	0%	0%	0%	1%	0%
8	17	11	0%	0%	1%	0%	0%	0%
8	17	12	2%	2%	2%	3%	2%	2%
8	17	14	1%	1%	0%	0%	0%	0%
8	17	15	0%	0%	0%	0%	1%	0%
8	18	1	1%	0%	0%	1%	1%	1%
8	18	7	0%	2%	2%	0%	3%	3%
8	18	9	85%	84%	88%	76%	76%	79%
8	18	11	0%	0%	1%	0%	0%	0%
8	18	12	3%	1%	1%	4%	1%	1%
8	18	14	1%	1%	1%	0%	2%	2%
8	18	15	0%	1%	1%	1%	1%	2%
Total			100%	100%	100%	100%	100%	100%

Origin-Destination Analysis
Route Choices from Origin Zone 9

Origin	Middle Filter	Destination	"Before Construction" - April 2017						"On-going Construction" - April 2017					
			AM	School PM	PM	AM	School PM	PM	AM	School PM	PM	AM	School PM	PM
9	2	1	8	21	0	0%	1%	0%	0	13	12	0%	1%	1%
9	2	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	2	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	2	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	2	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	2	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	2	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	2	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	3	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	3	7	0	0	0	0%	0%	0%	0	0	2	0%	0%	0%
9	3	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	3	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	3	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	3	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	3	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	3	15	0	0	8	0%	0%	0%	0	0	0	0%	0%	0%
9	4	1	0	0	29	0%	0%	1%	91	26	12	5%	3%	1%
9	4	7	8	6	14	0%	0%	0%	0	5	9	0%	0%	1%
9	4	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	4	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	4	11	0	8	0	0%	0%	0%	0	0	0	0%	0%	0%
9	4	12	0	8	0	0%	0%	0%	0	0	0	0%	0%	0%
9	4	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	4	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	5	1	6	42	43	0%	2%	1%	15	10	32	1%	1%	2%
9	5	7	8	6	0	0%	0%	0%	0	0	0	0%	0%	0%
9	5	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	5	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	5	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	5	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	5	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	5	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	6	1	0	9	43	0%	1%	1%	91	7	12	5%	1%	1%
9	6	7	7	15	70	0%	1%	2%	0	6	7	0%	1%	0%
9	6	8	0	7	0	0%	0%	0%	0	0	0	0%	0%	0%
9	6	9	0	0	8	0%	0%	0%	0	0	0	0%	0%	0%
9	6	11	0	0	8	0%	0%	0%	0	0	0	0%	0%	0%
9	6	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	6	14	0	0	0	0%	0%	0%	0	3	0	0%	0%	0%
9	6	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	10	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	10	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	10	8	0	0	0	0%	0%	0%	0	0	7	0%	0%	0%
9	10	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	10	11	5	0	17	0%	0%	1%	0	16	0	0%	2%	0%
9	10	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	10	14	0	0	0	0%	0%	0%	7	6	0	0%	1%	0%
9	10	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	13	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	13	7	8	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	13	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	13	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	13	11	8	0	0	0%	0%	0%	0	0	8	0%	0%	1%
9	13	12	0	0	0	0%	0%	0%	0	0	14	0%	0%	1%
9	13	14	62	28	57	3%	2%	2%	24	30	7	1%	3%	0%
9	13	15	8	33	16	0%	2%	0%	0	4	0	0%	0%	0%
9	16	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	16	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	16	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	16	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	16	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	16	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	16	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	16	15	0	11	0	0%	1%	0%	0	0	6	0%	0%	0%
9	17	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	17	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	17	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	17	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	17	11	4	11	8	0%	1%	0%	0	0	8	0%	0%	1%
9	17	12	8	12	7	0%	1%	0%	0	5	14	0%	0%	1%
9	17	14	0	9	8	0%	1%	0%	9	3	0	0%	0%	0%
9	17	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
9	18	1	14	70	36	1%	4%	1%	15	15	44	1%	1%	3%
9	18	7	0	6	10	0%	0%	0%	0	0	2	0%	0%	0%
9	18	8	2151	1404	2748	93%	78%	84%	1743	851	1206	87%	84%	86%
9	18	9	0	25	31	0%	1%	1%	0	0	0	0%	0%	0%
9	18	11	0	8	17	0%	0%	1%	0	7	0	0%	1%	0%
9	18	12	16	20	10	1%	1%	0%	0	0	0	0%	0%	0%
9	18	14	0	8	18	0%	0%	1%	6	0	0	0%	0%	0%
9	18	15	0	22	66	0%	1%	2%	6	8	0	0%	1%	0%
Total			2321	1789	3272	100%	100%	100%	2007	1015	1402	100%	100%	100%

Origin-Destination Analysis
Preferred Route Choices from Origin Zone 9

Origin	Middle Filter	Destination	"Before Construction" - April 2017			"On-going Construction" - October 2017		
			AM	School PM	PM	AM	School PM	PM
9	2	1	0%	1%	0%	0%	1%	1%
9	4	1	0%	0%	1%	5%	3%	1%
9	4	7	0%	0%	0%	0%	0%	1%
9	5	1	0%	2%	1%	1%	1%	2%
9	6	1	0%	1%	1%	5%	1%	1%
9	6	7	0%	1%	2%	0%	1%	0%
9	10	11	0%	0%	1%	0%	2%	0%
9	10	14	0%	0%	0%	0%	1%	0%
9	13	11	0%	0%	0%	0%	0%	1%
9	13	12	0%	0%	0%	0%	0%	1%
9	13	14	3%	2%	2%	1%	3%	0%
9	13	15	0%	2%	0%	0%	0%	0%
9	16	15	0%	1%	0%	0%	0%	0%
9	17	11	0%	1%	0%	0%	0%	1%
9	17	12	0%	1%	0%	0%	0%	1%
9	17	14	0%	1%	0%	0%	0%	0%
9	18	1	1%	4%	1%	1%	1%	3%
9	18	8	93%	80%	85%	87%	84%	87%
9	18	9	0%	1%	1%	0%	0%	0%
9	18	11	0%	0%	1%	0%	1%	0%
9	18	12	1%	1%	0%	0%	0%	0%
9	18	14	0%	0%	1%	0%	0%	0%
9	18	15	0%	1%	2%	0%	1%	0%
Total			100%	100%	100%	100%	100%	100%

Origin-Destination Analysis
Route Choices from Origin Zone 11

Origin	Middle Filter	Destination	"Before Construction" - April 2017						"On-going Construction" - April 2017					
			AM	School PM	PM	AM	School PM	PM	AM	School PM	PM	AM	School PM	PM
11	2	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	2	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	2	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	2	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	2	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	2	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	2	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	2	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	3	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	3	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	3	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	3	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	3	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	3	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	3	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	3	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	4	1	0	6	0	0%	2%	0%	0	0	0	0%	0%	0%
11	4	7	30	0	0	6%	0%	0%	22	0	0	7%	0%	0%
11	4	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	4	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	4	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	4	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	4	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	4	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	5	1	7	0	0	1%	0%	0%	0	0	8	0%	0%	3%
11	5	7	30	0	0	6%	0%	0%	22	0	0	7%	0%	0%
11	5	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	5	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	5	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	5	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	5	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	5	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	6	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	6	7	17	0	0	3%	0%	0%	0	0	0	0%	0%	0%
11	6	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	6	9	0	0	0	0%	0%	0%	0	0	9	0%	0%	3%
11	6	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	6	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	6	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	6	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	10	1	0	0	0	0%	0%	0%	0	0	8	0%	0%	3%
11	10	7	30	0	0	6%	0%	0%	22	0	0	7%	0%	0%
11	10	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	10	9	13	21	29	2%	5%	8%	8	0	11	2%	0%	4%
11	10	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	10	12	0	6	0	0%	2%	0%	0	0	0	0%	0%	0%
11	10	14	0	6	0	0%	2%	0%	0	0	0	0%	0%	0%
11	10	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	13	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	13	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	13	8	0	0	0	0%	0%	0%	2	0	0	1%	0%	0%
11	13	9	0	0	0	0%	0%	0%	2	0	0	1%	0%	0%
11	13	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	13	12	5	8	0	1%	2%	0%	0	0	0	0%	0%	0%
11	13	14	5	0	0	1%	0%	0%	10	0	0	3%	0%	0%
11	13	15	126	53	37	24%	14%	10%	85	42	59	26%	22%	21%
11	16	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	16	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	16	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	16	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	16	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	16	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	16	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	16	15	24	4	0	5%	1%	0%	8	8	10	2%	4%	4%
11	17	1	0	6	0	0%	2%	0%	0	0	0	0%	0%	0%
11	17	7	7	6	0	1%	2%	0%	0	0	0	0%	0%	0%
11	17	8	0	0	0	0%	0%	0%	2	0	0	1%	0%	0%
11	17	9	0	0	25	0%	0%	7%	2	0	9	1%	0%	3%
11	17	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	17	12	197	236	263	38%	61%	70%	126	139	159	39%	74%	57%
11	17	14	0	0	0	0%	0%	0%	4	0	0	1%	0%	0%
11	17	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	18	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	18	7	10	0	0	2%	0%	0%	0	0	0	0%	0%	0%
11	18	8	11	0	0	2%	0%	0%	0	0	0	0%	0%	0%
11	18	9	10	34	22	2%	9%	6%	7	0	5	2%	0%	2%
11	18	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	18	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	18	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
11	18	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
Total			522	386	376	100%	100%	100%	322	189	278	100%	100%	100%

Origin-Destination Analysis
Preferred Route Choices from Origin Zone 11

<i>Origin</i>	<i>Middle Filter</i>	<i>Destination</i>	<i>"Before Construction" - April 2017</i>			<i>"On-going Construction" - October 2017</i>		
			<i>AM</i>	<i>School PM</i>	<i>PM</i>	<i>AM</i>	<i>School PM</i>	<i>PM</i>
11	4	1	0%	2%	0%	0%	0%	0%
11	4	7	6%	0%	0%	7%	0%	0%
11	5	1	1%	0%	0%	0%	0%	3%
11	5	7	6%	0%	0%	7%	0%	0%
11	6	7	3%	0%	0%	0%	0%	0%
11	6	9	0%	0%	0%	0%	0%	3%
11	10	1	0%	0%	0%	0%	0%	3%
11	10	7	6%	0%	0%	7%	0%	0%
11	10	9	2%	5%	8%	2%	0%	4%
11	10	12	0%	2%	0%	0%	0%	0%
11	10	14	0%	2%	0%	0%	0%	0%
11	13	8	0%	0%	0%	1%	0%	0%
11	13	9	0%	0%	0%	1%	0%	0%
11	13	12	1%	2%	0%	0%	0%	0%
11	13	14	1%	0%	0%	3%	0%	0%
11	13	15	24%	14%	10%	26%	22%	21%
11	16	15	5%	1%	0%	2%	4%	4%
11	17	1	0%	2%	0%	0%	0%	0%
11	17	7	1%	2%	0%	0%	0%	0%
11	17	8	0%	0%	0%	1%	0%	0%
11	17	9	0%	0%	7%	1%	0%	3%
11	17	12	38%	61%	70%	39%	74%	57%
11	17	14	0%	0%	0%	1%	0%	0%
11	18	7	2%	0%	0%	0%	0%	0%
11	18	8	2%	0%	0%	0%	0%	0%
11	18	9	2%	9%	6%	2%	0%	2%
Total			100%	100%	100%	100%	100%	100%

Origin-Destination Analysis
Route Choices from Origin Zone 12

Origin	Middle Filter	Destination	"Before Construction" - April 2017						"On-going Construction" - April 2017					
			AM	School PM	PM	AM	School PM	PM	AM	School PM	PM	AM	School PM	PM
12	2	1	0	0	0	0%	0%	0%	0	0	6	0%	0%	2%
12	2	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	2	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	2	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	2	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	2	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	2	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	2	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	3	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	3	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	3	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	3	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	3	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	3	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	3	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	3	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	4	1	0	4	7	0%	1%	1%	7	3	0	6%	1%	0%
12	4	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	4	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	4	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	4	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	4	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	4	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	4	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	5	1	0	7	24	0%	2%	3%	0	0	32	0%	0%	10%
12	5	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	5	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	5	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	5	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	5	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	5	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	5	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	6	1	0	4	7	0%	1%	1%	0	0	0	0%	0%	0%
12	6	7	0	6	0	0%	2%	0%	0	7	6	0%	3%	2%
12	6	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	6	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	6	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	6	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	6	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	6	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	10	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	10	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	10	8	0	9	7	0%	2%	1%	0	0	0	0%	0%	0%
12	10	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	10	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	10	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	10	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	10	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	13	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	13	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	13	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	13	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	13	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	13	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	13	14	8	0	11	6%	0%	1%	0	0	0	0%	0%	0%
12	13	15	0	0	6	0%	0%	1%	0	0	0	0%	0%	0%
12	16	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	16	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	16	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	16	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	16	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	16	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	16	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	16	15	0	5	10	0%	1%	1%	0	0	0	0%	0%	0%
12	17	1	0	11	14	0%	3%	2%	0	0	27	0%	0%	8%
12	17	7	0	0	0	0%	0%	0%	0	0	6	0%	0%	2%
12	17	8	0	64	150	0%	18%	18%	30	55	43	24%	23%	13%
12	17	9	10	11	0	8%	3%	0%	0	0	0	0%	0%	0%
12	17	11	86	184	533	66%	50%	63%	78	162	135	63%	68%	42%
12	17	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
12	17	14	8	0	11	6%	0%	1%	0	0	0	0%	0%	0%
12	17	15	0	0	6	0%	0%	1%	0	5	0	0%	2%	0%
12	18	1	0	7	24	0%	2%	3%	0	0	38	0%	0%	12%
12	18	7	0	0	0	0%	0%	0%	0	0	6	0%	0%	2%
12	18	8	14	35	36	11%	10%	4%	9	7	25	7%	3%	8%
12	18	9	5	18	0	4%	5%	0%	0	0	0	0%	0%	0%
Total			131	365	846	100%	100%	100%	124	239	324	100%	100%	100%

Origin-Destination Analysis
Preferred Route Choices from Origin Zone 12

Origin	Middle Filter	Destination	"Before Construction" - April 2017			"On-going Construction" - October 2017		
			AM	School PM	PM	AM	School PM	PM
12	2	1	0%	0%	0%	0%	0%	2%
12	4	1	0%	1%	1%	6%	1%	0%
12	5	1	0%	2%	3%	0%	0%	10%
12	6	1	0%	1%	1%	0%	0%	0%
12	6	7	0%	2%	0%	0%	3%	2%
12	10	8	0%	2%	1%	0%	0%	0%
12	13	14	6%	0%	1%	0%	0%	0%
12	13	15	0%	0%	1%	0%	0%	0%
12	16	15	0%	1%	1%	0%	0%	0%
12	17	1	0%	3%	2%	0%	0%	8%
12	17	7	0%	0%	0%	0%	0%	2%
12	17	8	0%	18%	18%	24%	23%	13%
12	17	9	8%	3%	0%	0%	0%	0%
12	17	11	66%	50%	63%	63%	68%	42%
12	17	14	6%	0%	1%	0%	0%	0%
12	17	15	0%	0%	1%	0%	2%	0%
12	18	1	0%	2%	3%	0%	0%	12%
12	18	7	0%	0%	0%	0%	0%	2%
12	18	8	11%	10%	4%	7%	3%	8%
12	18	9	4%	5%	0%	0%	0%	0%
Total			100%	100%	100%	100%	100%	100%

Origin-Destination Analysis
Route Choices from Origin Zone 14

Origin	Middle Filter	Destination	"Before Construction" - April 2017						"On-going Construction" - April 2017					
			AM	School PM	PM	AM	School PM	PM	AM	School PM	PM	AM	School PM	PM
14	2	1	0	0	0	0%	0%	0%	0	6	0	0%	6%	0%
14	2	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	2	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	2	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	2	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	2	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	2	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	2	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	3	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	3	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	3	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	3	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	3	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	3	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	3	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	3	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	4	1	0	7	17	0%	3%	7%	0	3	0	0%	3%	0%
14	4	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	4	8	0	7	0	0%	3%	0%	0	0	0	0%	0%	0%
14	4	9	0	7	0	0%	3%	0%	0	0	0	0%	0%	0%
14	4	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	4	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	4	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	4	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	5	1	0	12	8	0%	4%	3%	0	5	0	0%	5%	0%
14	5	7	0	0	8	0%	0%	3%	0	0	0	0%	0%	0%
14	5	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	5	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	5	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	5	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	5	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	5	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	6	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	6	7	0	13	0	0%	5%	0%	0	0	0	0%	0%	0%
14	6	8	0	0	0	0%	0%	0%	0	0	7	0%	0%	13%
14	6	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	6	11	25	0	0	4%	0%	0%	0	0	0	0%	0%	0%
14	6	12	50	0	7	9%	0%	3%	0	0	0	0%	0%	0%
14	6	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	6	15	44	0	0	8%	0%	0%	0	0	0	0%	0%	0%
14	10	1	0	0	8	0%	0%	3%	0	0	0	0%	0%	0%
14	10	7	0	0	8	0%	0%	3%	0	0	0	0%	0%	0%
14	10	8	12	0	0	2%	0%	0%	0	0	7	0%	0%	13%
14	10	9	0	7	0	0%	3%	0%	0	0	0	0%	0%	0%
14	10	11	6	0	0	1%	0%	0%	0	0	0	0%	0%	0%
14	10	12	38	0	0	7%	0%	0%	0	0	0	0%	0%	0%
14	10	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	10	15	31	8	8	6%	3%	3%	0	0	0	0%	0%	0%
14	13	1	0	0	9	0%	0%	4%	0	5	0	0%	5%	0%
14	13	7	0	5	9	0%	2%	4%	0	0	0	0%	0%	0%
14	13	8	12	17	0	2%	6%	0%	0	5	0	0%	5%	0%
14	13	9	0	26	28	0%	9%	12%	12	8	7	14%	7%	13%
14	13	11	33	32	13	6%	12%	5%	6	34	6	7%	31%	11%
14	13	12	50	7	22	9%	3%	9%	7	0	11	8%	0%	20%
14	13	14	14	0	0	3%	0%	0%	0	0	0	0%	0%	0%
14	13	15	54	15	8	10%	5%	3%	0	0	0	0%	0%	0%
14	16	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	16	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	16	8	0	0	0	0%	0%	0%	0	5	0	0%	5%	0%
14	16	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	16	11	0	8	0	0%	3%	0%	0	0	0	0%	0%	0%
14	16	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	16	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	16	15	22	7	30	4%	3%	13%	44	11	10	51%	10%	18%
14	17	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	17	7	0	5	0	0%	2%	0%	0	0	0	0%	0%	0%
14	17	8	0	0	5	0%	0%	2%	2	0	0	0%	0%	0%
14	17	9	8	17	6	1%	6%	3%	6	0	0	7%	0%	0%
14	17	11	25	0	12	4%	0%	5%	0	0	3	0%	0%	5%
14	17	12	31	0	22	6%	0%	9%	7	0	5	8%	0%	9%
14	17	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	17	15	35	0	0	6%	0%	0%	0	0	0	0%	0%	0%
14	18	1	0	12	0	0%	4%	0%	0	11	0	0%	10%	0%
14	18	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	18	8	8	18	9	1%	7%	4%	0	16	0	0%	15%	0%
14	18	9	8	23	0	1%	8%	0%	2	0	0	2%	0%	0%
14	18	11	13	0	0	2%	0%	0%	0	0	0	0%	0%	0%
14	18	12	0	7	0	0%	3%	0%	0	0	0	0%	0%	0%
14	18	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
14	18	15	38	15	0	7%	5%	0%	0	0	0	0%	0%	0%
Total			557	275	237	100%	100%	100%	86	109	56	100%	100%	100%

Origin-Destination Analysis
Preferred Route Choices from Origin Zone 14

Origin	Middle Filter	Destination	"Before Construction" - April 2017			"On-going Construction" - October 2017		
			AM	School PM	PM	AM	School PM	PM
14	2	1	0%	0%	0%	0%	6%	0%
14	4	1	0%	3%	7%	0%	3%	0%
14	4	8	0%	3%	0%	0%	0%	0%
14	4	9	0%	3%	0%	0%	0%	0%
14	5	1	0%	4%	3%	0%	5%	0%
14	5	7	0%	0%	3%	0%	0%	0%
14	6	7	0%	5%	0%	0%	0%	0%
14	6	8	0%	0%	0%	0%	0%	13%
14	6	11	4%	0%	0%	0%	0%	0%
14	6	12	9%	0%	3%	0%	0%	0%
14	6	15	8%	0%	0%	0%	0%	0%
14	10	1	0%	0%	3%	0%	0%	0%
14	10	7	0%	0%	3%	0%	0%	0%
14	10	8	2%	0%	0%	0%	0%	13%
14	10	9	0%	3%	0%	0%	0%	0%
14	10	11	1%	0%	0%	0%	0%	0%
14	10	12	7%	0%	0%	0%	0%	0%
14	10	15	6%	3%	3%	0%	0%	0%
14	13	1	0%	0%	4%	0%	5%	0%
14	13	7	0%	2%	4%	0%	0%	0%
14	13	8	2%	6%	0%	0%	5%	0%
14	13	9	0%	9%	12%	14%	7%	13%
14	13	11	6%	12%	5%	7%	31%	11%
14	13	12	9%	3%	9%	8%	0%	20%
14	13	14	3%	0%	0%	0%	0%	0%
14	13	15	10%	5%	3%	0%	0%	0%
14	16	8	0%	0%	0%	0%	5%	0%
14	16	11	0%	3%	0%	0%	0%	0%
14	16	15	4%	3%	13%	51%	10%	18%
14	17	7	0%	2%	0%	0%	0%	0%
14	17	8	0%	0%	2%	2%	0%	0%
14	17	9	1%	6%	3%	7%	0%	0%
14	17	11	4%	0%	5%	0%	0%	5%
14	17	12	6%	0%	9%	8%	0%	9%
14	17	15	6%	0%	0%	0%	0%	0%
14	18	1	0%	4%	0%	0%	10%	0%
14	18	8	1%	7%	4%	0%	15%	0%
14	18	9	1%	8%	0%	2%	0%	0%
14	18	11	2%	0%	0%	0%	0%	0%
14	18	12	0%	3%	0%	0%	0%	0%
14	18	15	7%	5%	0%	0%	0%	0%
Total			100%	100%	100%	100%	100%	100%

Origin-Destination Analysis
Route Choices from Origin Zone 15

Origin	Middle Filter	Destination	"Before Construction" - April 2017						"On-going Construction" - April 2017					
			AM	School PM	PM	AM	School PM	PM	AM	School PM	PM	AM	School PM	PM
15	2	1	5	0	13	2%	0%	3%	0	9	0	0%	5%	0%
15	2	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	2	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	2	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	2	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	2	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	2	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	2	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	3	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	3	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	3	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	3	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	3	11	0	0	0	0%	0%	0%	10	0	0	5%	0%	0%
15	3	12	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	3	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	3	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	4	1	7	4	0	2%	1%	0%	0	3	0	0%	2%	0%
15	4	7	5	0	12	2%	0%	3%	5	0	0	3%	0%	0%
15	4	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	4	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	4	11	0	8	0	0%	2%	0%	0	0	0	0%	0%	0%
15	4	12	0	8	0	0%	2%	0%	0	0	0	0%	0%	0%
15	4	14	7	7	0	2%	2%	0%	0	0	0	0%	0%	0%
15	4	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	5	1	10	0	7	3%	0%	2%	0	0	0	0%	0%	0%
15	5	7	5	0	5	2%	0%	1%	5	0	0	3%	0%	0%
15	5	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	5	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	5	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	5	12	0	0	0	0%	0%	0%	6	0	0	3%	0%	0%
15	5	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	5	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	6	1	0	4	0	0%	1%	0%	0	0	0	0%	0%	0%
15	6	7	0	8	0	0%	2%	0%	0	0	0	0%	0%	0%
15	6	8	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	6	9	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	6	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	6	12	0	8	0	0%	2%	0%	0	0	0	0%	0%	0%
15	6	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	6	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	10	1	10	0	14	3%	0%	3%	0	0	0	0%	0%	0%
15	10	7	0	0	5	0%	0%	1%	0	0	0	0%	0%	0%
15	10	8	4	16	0	1%	3%	0%	8	0	0	4%	0%	0%
15	10	9	15	7	0	5%	2%	0%	10	0	0	5%	0%	0%
15	10	11	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	10	12	0	0	0	0%	0%	0%	6	0	0	3%	0%	0%
15	10	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	10	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	13	1	14	0	14	5%	0%	3%	0	0	0	0%	0%	0%
15	13	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	13	8	20	109	38	7%	24%	9%	16	38	0	8%	22%	0%
15	13	9	7	17	7	2%	4%	2%	0	0	0	0%	0%	0%
15	13	11	39	140	145	13%	30%	34%	44	81	9	23%	48%	18%
15	13	12	0	16	0	0%	3%	0%	0	0	0	0%	0%	0%
15	13	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	13	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	16	1	0	0	7	0%	0%	2%	0	0	0	0%	0%	0%
15	16	7	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	16	8	8	8	0	3%	2%	0%	0	0	0	0%	0%	0%
15	16	9	0	0	17	0%	0%	4%	0	6	0	0%	4%	0%
15	16	11	24	8	56	8%	2%	13%	0	0	9	0%	0%	18%
15	16	12	18	0	0	6%	0%	0%	18	0	12	10%	0%	24%
15	16	14	13	0	7	4%	0%	2%	18	4	6	10%	2%	12%
15	16	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	17	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	17	7	5	0	0	2%	0%	0%	0	0	0	0%	0%	0%
15	17	8	15	8	11	5%	2%	3%	0	7	0	0%	4%	0%
15	17	9	7	9	5	2%	2%	1%	4	0	0	2%	0%	0%
15	17	11	23	8	25	8%	2%	6%	0	0	0	0%	0%	0%
15	17	12	0	0	7	0%	0%	2%	14	7	0	7%	4%	0%
15	17	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	17	15	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	18	1	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	18	7	5	8	0	2%	2%	0%	0	0	0	0%	0%	0%
15	18	8	13	9	13	4%	2%	3%	0	14	0	0%	8%	0%
15	18	9	16	35	0	5%	8%	0%	25	0	14	13%	0%	28%
15	18	11	0	8	0	0%	2%	0%	0	0	0	0%	0%	0%
15	18	12	0	8	0	0%	2%	0%	0	0	0	0%	0%	0%
15	18	14	0	0	0	0%	0%	0%	0	0	0	0%	0%	0%
15	18	15	0	0	15	0%	0%	4%	0	0	0	0%	0%	0%
Total			295	461	423	100%	100%	100%	189	169	50	100%	100%	100%

Origin-Destination Analysis
Preferred Route Choices from Origin Zone 15

Origin	Middle Filter	Destination	"Before Construction" - April 2017			"On-going Construction" - October 2017		
			AM	School PM	PM	AM	School PM	PM
15	2	1	2%	0%	3%	0%	5%	0%
15	3	11	0%	0%	0%	5%	0%	0%
15	4	1	2%	1%	0%	0%	2%	0%
15	4	7	2%	0%	3%	3%	0%	0%
15	4	11	0%	2%	0%	0%	0%	0%
15	4	12	0%	2%	0%	0%	0%	0%
15	4	14	2%	2%	0%	0%	0%	0%
15	5	1	3%	0%	2%	0%	0%	0%
15	5	7	2%	0%	1%	3%	0%	0%
15	5	12	0%	0%	0%	3%	0%	0%
15	6	1	0%	1%	0%	0%	0%	0%
15	6	7	0%	2%	0%	0%	0%	0%
15	6	12	0%	2%	0%	0%	0%	0%
15	10	1	3%	0%	3%	0%	0%	0%
15	10	7	0%	0%	1%	0%	0%	0%
15	10	8	1%	3%	0%	4%	0%	0%
15	10	9	5%	2%	0%	5%	0%	0%
15	10	12	0%	0%	0%	3%	0%	0%
15	13	1	5%	0%	3%	0%	0%	0%
15	13	8	7%	24%	9%	8%	22%	0%
15	13	9	2%	4%	2%	0%	0%	0%
15	13	11	13%	30%	34%	23%	48%	18%
15	13	12	0%	3%	0%	0%	0%	0%
15	16	1	0%	0%	2%	0%	0%	0%
15	16	8	3%	2%	0%	0%	0%	0%
15	16	9	0%	0%	4%	0%	4%	0%
15	16	11	8%	2%	13%	0%	0%	18%
15	16	12	6%	0%	0%	10%	0%	24%
15	16	14	4%	0%	2%	10%	2%	12%
15	17	7	2%	0%	0%	0%	0%	0%
15	17	8	5%	2%	3%	0%	4%	0%
15	17	9	2%	2%	1%	2%	0%	0%
15	17	11	8%	2%	6%	0%	0%	0%
15	17	12	0%	0%	2%	7%	4%	0%
15	18	7	2%	2%	0%	0%	0%	0%
15	18	8	4%	2%	3%	0%	8%	0%
15	18	9	5%	8%	0%	13%	0%	28%
15	18	11	0%	2%	0%	0%	0%	0%
15	18	12	0%	2%	0%	0%	0%	0%
15	18	15	0%	0%	4%	0%	0%	0%
Total			100%	100%	100%	100%	100%	100%



Appendix C – Existing Conditions Synchro & SimTraffic Reports

- HCM Delay and LOS Reports
- 95th Percentile Queue Length Reports

HCM 6th Signalized Intersection Summary

1: University Dr/Menlo School Driveway & Valparaiso Ave

Existing Conditions
Timing Plan: A.M. Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	398	100	44	504	59	65	90	28	57	75	80
Future Volume (veh/h)	186	398	100	44	504	59	65	90	28	57	75	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	0.96		0.90	0.96		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	224	480	120	51	579	68	76	106	33	106	139	148
Peak Hour Factor	0.83	0.83	0.83	0.87	0.87	0.87	0.85	0.85	0.85	0.54	0.54	0.54
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	347	669	167	332	657	77	138	176	44	344	221	236
Arrive On Green	0.10	0.47	0.47	0.04	0.40	0.40	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1781	1429	357	1781	1636	192	236	620	155	1203	780	831
Grp Volume(v), veh/h	224	0	600	51	0	647	215	0	0	106	0	287
Grp Sat Flow(s),veh/h/ln	1781	0	1786	1781	0	1829	1011	0	0	1203	0	1611
Q Serve(g_s), s	4.6	0.0	18.4	1.1	0.0	22.5	4.9	0.0	0.0	0.0	0.0	10.6
Cycle Q Clear(g_c), s	4.6	0.0	18.4	1.1	0.0	22.5	15.5	0.0	0.0	8.1	0.0	10.6
Prop In Lane	1.00		0.20	1.00		0.11	0.35		0.15	1.00		0.52
Lane Grp Cap(c), veh/h	347	0	837	332	0	734	358	0	0	344	0	457
V/C Ratio(X)	0.65	0.00	0.72	0.15	0.00	0.88	0.60	0.00	0.00	0.31	0.00	0.63
Avail Cap(c_a), veh/h	812	0	837	917	0	800	584	0	0	529	0	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.3	0.0	14.6	12.7	0.0	19.0	23.0	0.0	0.0	20.5	0.0	21.4
Incr Delay (d2), s/veh	2.0	0.0	3.7	0.2	0.0	11.9	1.6	0.0	0.0	0.5	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	7.2	0.4	0.0	10.7	3.4	0.0	0.0	1.4	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.3	0.0	18.3	12.9	0.0	30.9	24.7	0.0	0.0	21.0	0.0	22.8
LnGrp LOS	B	A	B	B	A	C	C	A	A	C	A	C
Approach Vol, veh/h	824			698			215			393		
Approach Delay, s/veh	17.7			29.6			24.7			22.3		
Approach LOS	B			C			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	37.1		24.0	12.0	32.5		24.0				
Change Period (Y+Rc), s	4.9	5.0		4.6	4.9	5.0		4.6				
Max Green Setting (Gmax), s	25.0	30.0		30.0	25.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	3.1	20.4		12.6	6.6	24.5		17.5				
Green Ext Time (p_c), s	0.1	4.4		2.2	0.6	3.0		1.1				
Intersection Summary												
HCM 6th Ctrl Delay				23.2								
HCM 6th LOS				C								

HCM 6th TWSC
2: Valparaiso Ave & Emilie Ave

Existing Conditions
Timing Plan: A.M. Peak

Intersection						
Int Delay, s/veh	56.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	60	695	581	65	95	58
Future Vol, veh/h	60	695	581	65	95	58
Conflicting Peds, #/hr	0	0	0	0	3	1
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	74	74	88	88	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	81	939	660	74	127	77
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	734	0	-	0	1801	698
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	1104	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	871	-	-	-	~ 88	440
Stage 1	-	-	-	-	494	-
Stage 2	-	-	-	-	317	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	871	-	-	-	~ 71	440
Mov Cap-2 Maneuver	-	-	-	-	~ 71	-
Stage 1	-	-	-	-	398	-
Stage 2	-	-	-	-	317	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.8	0		\$ 534.1		
HCM LOS				F		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	871	-	-	-	104	
HCM Lane V/C Ratio	0.093	-	-	-	1.962	
HCM Control Delay (s)	9.6	0	-	-	\$ 534.1	
HCM Lane LOS	A	A	-	-	F	
HCM 95th %tile Q(veh)	0.3	-	-	-	17	
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

HCM 6th TWSC
3: Corinne Ln/Elena Ave & Valparaiso Ave

Existing Conditions
Timing Plan: A.M. Peak

Intersection												
Int Delay, s/veh	56.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	66	635	3	8	430	50	4	0	5	114	0	72
Future Vol, veh/h	66	635	3	8	430	50	4	0	5	114	0	72
Conflicting Peds, #/hr	1	0	7	7	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
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	78	78	78	56	56	56	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	87	836	4	10	551	64	7	0	9	120	0	76

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	616	0	0	847	0	0	1660	1655	845	1621	1625	584
Stage 1	-	-	-	-	-	-	1019	1019	-	604	604	-
Stage 2	-	-	-	-	-	-	641	636	-	1017	1021	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	964	-	-	790	-	-	78	98	363	~ 83	102	512
Stage 1	-	-	-	-	-	-	286	314	-	485	488	-
Stage 2	-	-	-	-	-	-	463	472	-	287	314	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	963	-	-	785	-	-	57	79	361	~ 69	82	512
Mov Cap-2 Maneuver	-	-	-	-	-	-	57	79	-	~ 69	82	-
Stage 1	-	-	-	-	-	-	236	259	-	403	478	-
Stage 2	-	-	-	-	-	-	387	462	-	233	259	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.2	44.5	\$ 500.4
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	107	963	-	-	785	-	-	104
HCM Lane V/C Ratio	0.15	0.09	-	-	0.013	-	-	1.883
HCM Control Delay (s)	44.5	9.1	0	-	9.6	0	-	\$ 500.4
HCM Lane LOS	E	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.5	0.3	-	-	0	-	-	16

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th AWSC
4: Alameda De Las Pulgas & Atherton Ave

Existing Conditions
Timing Plan: A.M. Peak

Intersection	
Intersection Delay, s/veh	93.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	23	50	319	26	135	14	267	105	172	503	11
Future Vol, veh/h	12	23	50	319	26	135	14	267	105	172	503	11
Peak Hour Factor	0.76	0.76	0.76	0.94	0.94	0.94	0.85	0.85	0.85	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	30	66	339	28	144	16	314	124	198	578	13
Number of Lanes	0	1	0	0	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	17.7	42.4	67.4	151.5
HCM LOS	C	E	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	14%	92%	0%	100%	0%
Vol Thru, %	0%	72%	27%	8%	0%	0%	98%
Vol Right, %	0%	28%	59%	0%	100%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	372	85	345	135	172	514
LT Vol	14	0	12	319	0	172	0
Through Vol	0	267	23	26	0	0	503
RT Vol	0	105	50	0	135	0	11
Lane Flow Rate	16	438	112	367	144	198	591
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.04	0.984	0.298	0.892	0.304	0.481	1.35
Departure Headway (Hd)	9.333	8.605	10.358	9.289	8.079	8.759	8.224
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	386	425	349	393	448	411	443
Service Time	7.033	6.305	8.358	6.989	5.779	6.508	5.972
HCM Lane V/C Ratio	0.041	1.031	0.321	0.934	0.321	0.482	1.334
HCM Control Delay	12.4	69.5	17.7	53.4	14.3	19.4	195.7
HCM Lane LOS	B	F	C	F	B	C	F
HCM 95th-tile Q	0.1	12	1.2	9.1	1.3	2.5	27.2

HCM 6th TWSC
5: Middlefield Rd & Placitas Ave

Existing Conditions
Timing Plan: A.M. Peak

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	6	392	5	6	577
Future Vol, veh/h	9	6	392	5	6	577
Conflicting Peds, #/hr	0	0	0	7	7	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	63	63	90	90	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	10	436	6	6	614
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1072	446	0	0	449	0
Stage 1	446	-	-	-	-	-
Stage 2	626	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	244	612	-	-	1111	-
Stage 1	645	-	-	-	-	-
Stage 2	533	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	240	608	-	-	1104	-
Mov Cap-2 Maneuver	240	-	-	-	-	-
Stage 1	635	-	-	-	-	-
Stage 2	533	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	17.3	0		0.1		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	317	1104	-	
HCM Lane V/C Ratio	-	-	0.075	0.006	-	
HCM Control Delay (s)	-	-	17.3	8.3	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

HCM 6th TWSC
6: Middlefield Rd & San Benito Ave

Existing Conditions
Timing Plan: A.M. Peak

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	37	32	362	25	4	575
Future Vol, veh/h	37	32	362	25	4	575
Conflicting Peds, #/hr	0	0	0	7	7	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	58	58	84	84	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	55	431	30	4	618
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1079	453	0	0	468	0
Stage 1	453	-	-	-	-	-
Stage 2	626	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	242	607	-	-	1094	-
Stage 1	640	-	-	-	-	-
Stage 2	533	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	239	603	-	-	1087	-
Mov Cap-2 Maneuver	239	-	-	-	-	-
Stage 1	632	-	-	-	-	-
Stage 2	533	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	21.8	0		0.1		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	332	1087	-	
HCM Lane V/C Ratio	-	-	0.358	0.004	-	
HCM Control Delay (s)	-	-	21.8	8.3	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	1.6	0	-	

HCM 6th TWSC
7: Middlefield Rd & Fair Oaks Ln/Palmer Ln

Existing Conditions
Timing Plan: A.M. Peak

Intersection												
Int Delay, s/veh	35.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	6	161	6	64	40	148	330	6	10	527	81
Future Vol, veh/h	20	6	161	6	64	40	148	330	6	10	527	81
Conflicting Peds, #/hr	0	0	0	0	0	1	0	0	5	5	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	20	-	-	-	75	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	54	54	54	85	85	85	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	7	179	11	119	74	174	388	7	11	567	87
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1470	1381	611	1471	1421	398	654	0	0	400	0	0
Stage 1	633	633	-	745	745	-	-	-	-	-	-	-
Stage 2	837	748	-	726	676	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	105	144	494	105	136	652	933	-	-	1159	-	-
Stage 1	468	473	-	406	421	-	-	-	-	-	-	-
Stage 2	361	420	-	416	453	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	115	494	54	~ 109	648	933	-	-	1153	-	-
Mov Cap-2 Maneuver	-	115	-	54	~ 109	-	-	-	-	-	-	-
Stage 1	381	466	-	329	341	-	-	-	-	-	-	-
Stage 2	170	340	-	258	446	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s			275.8		3		0.1					
HCM LOS	-		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	933	-	-	-	-	494	145	1153	-	-		
HCM Lane V/C Ratio	0.187	-	-	-	-	0.362	1.405	0.009	-	-		
HCM Control Delay (s)	9.7	-	-	-	-	16.4	275.8	8.2	0	-		
HCM Lane LOS	A	-	-	-	-	C	F	A	A	-		
HCM 95th %tile Q(veh)	0.7	-	-	-	-	1.6	13.1	0	-	-		
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

HCM 6th TWSC
8: Middlefield Rd & Holbrook Ln

Existing Conditions
Timing Plan: A.M. Peak

Intersection						
Int Delay, s/veh	9.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	19	461	7	17	674
Future Vol, veh/h	60	19	461	7	17	674
Conflicting Peds, #/hr	0	0	0	6	6	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	49	49	81	81	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	122	39	569	9	19	757
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1375	580	0	0	584	0
Stage 1	580	-	-	-	-	-
Stage 2	795	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	160	514	-	-	991	-
Stage 1	560	-	-	-	-	-
Stage 2	445	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	154	511	-	-	985	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	538	-	-	-	-	-
Stage 2	445	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	87.6	0	0.2			
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	185	985	-	
HCM Lane V/C Ratio	-	-	0.871	0.019	-	
HCM Control Delay (s)	-	-	87.6	8.7	0	
HCM Lane LOS	-	-	F	A	A	
HCM 95th %tile Q(veh)	-	-	6.4	0.1	-	

HCM 6th TWSC
9: Middlefield Rd & Heritage Ct

Existing Conditions
Timing Plan: A.M. Peak

Intersection

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	0	476	0	1	740
Future Vol, veh/h	5	0	476	0	1	740
Conflicting Peds, #/hr	0	1	0	14	14	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	42	42	82	82	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	0	580	0	1	779

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1375	595	0
Stage 1	594	-	-
Stage 2	781	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	160	504	-
Stage 1	552	-	-
Stage 2	451	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	158	497	-
Mov Cap-2 Maneuver	158	-	-
Stage 1	544	-	-
Stage 2	451	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29.6	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	158	969
HCM Lane V/C Ratio	-	-	0.075	0.001
HCM Control Delay (s)	-	-	29.6	8.7
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	0.2	0

HCM 6th TWSC
10: Middlefield Rd & Watkins Ave

Existing Conditions
Timing Plan: A.M. Peak

Intersection						
Int Delay, s/veh	25.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	99	110	75	663	739	81
Future Vol, veh/h	99	110	75	663	739	81
Conflicting Peds, #/hr	0	3	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	20	70	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	89	89	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	134	84	745	821	90
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1781	871	913	0	-	0
Stage 1	868	-	-	-	-	-
Stage 2	913	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 90	350	746	-	-	-
Stage 1	411	-	-	-	-	-
Stage 2	391	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 79	348	745	-	-	-
Mov Cap-2 Maneuver	~ 79	-	-	-	-	-
Stage 1	364	-	-	-	-	-
Stage 2	390	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	192.7		1.1		0	
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	745	-	79	348	-	-
HCM Lane V/C Ratio	0.113	-	1.528	0.385	-	-
HCM Control Delay (s)	10.4	-	\$ 382.7	21.7	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.4	-	9.8	1.8	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

HCM 6th TWSC
11: Middlefield Rd & Lane Pl/James Ave

Existing Conditions
Timing Plan: A.M. Peak

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	4	0	1	7	0	66	1	666	16	104	753	4
Future Vol, veh/h	4	0	1	7	0	66	1	666	16	104	753	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	10	10	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	35	75	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	42	42	42	73	73	73	86	86	86	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	0	2	10	0	90	1	774	19	114	827	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1888	1862	829	1854	1855	794	831	0	0	803	0	0
Stage 1	1057	1057	-	796	796	-	-	-	-	-	-	-
Stage 2	831	805	-	1058	1059	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	54	73	370	57	74	388	801	-	-	821	-	-
Stage 1	272	302	-	380	399	-	-	-	-	-	-	-
Stage 2	364	395	-	272	301	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	37	62	370	50	63	384	801	-	-	813	-	-
Mov Cap-2 Maneuver	37	62	-	50	63	-	-	-	-	-	-	-
Stage 1	272	260	-	376	395	-	-	-	-	-	-	-
Stage 2	278	391	-	232	259	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	111.6		24.5		0		1.2	
HCM LOS	F		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	801	-	-	45 50 384	813	-	-
HCM Lane V/C Ratio	0.001	-	-	0.265 0.192 0.235	0.141	-	-
HCM Control Delay (s)	9.5	-	-	111.6 93.4 17.2	10.2	-	-
HCM Lane LOS	A	-	-	F F C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.9 0.6 0.9	0.5	-	-

HCM 6th TWSC
12: Middlefield Rd & Glenwood Ave/Linden Ave

Existing Conditions
Timing Plan: A.M. Peak

Intersection												
Int Delay, s/veh	16.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱		↰	↱	
Traffic Vol, veh/h	54	18	92	7	27	13	95	466	10	13	532	121
Future Vol, veh/h	54	18	92	7	27	13	95	466	10	13	532	121
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	11	11	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	60	-	-	-	55	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	69	69	69	89	89	89	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	21	110	10	39	19	107	524	11	14	578	132

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1445	1432	646	1495	1493	541	710	0	0	546	0	0
Stage 1	672	672	-	755	755	-	-	-	-	-	-	-
Stage 2	773	760	-	740	738	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	110	134	472	101	123	541	889	-	-	1023	-	-
Stage 1	445	454	-	401	417	-	-	-	-	-	-	-
Stage 2	392	414	-	409	424	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	69	115	471	59	106	535	889	-	-	1012	-	-
Mov Cap-2 Maneuver	69	115	-	59	106	-	-	-	-	-	-	-
Stage 1	392	448	-	349	363	-	-	-	-	-	-	-
Stage 2	297	361	-	294	418	-	-	-	-	-	-	-

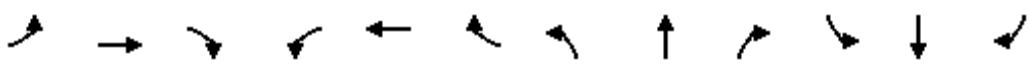
Approach	EB		WB		NB		SB	
HCM Control Delay, s	110.4		70.7		1.6		0.2	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	889	-	-	77	471	118	1012	-	-
HCM Lane V/C Ratio	0.12	-	-	1.113	0.233	0.577	0.014	-	-
HCM Control Delay (s)	9.6	-	-	232.4	14.9	70.7	8.6	-	-
HCM Lane LOS	A	-	-	F	B	F	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	6.2	0.9	2.8	0	-	-

HCM 6th Signalized Intersection Summary

1: University Dr/Menlo School Driveway & Valparaiso Ave

Existing Conditions
Timing Plan: School P.M. Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	411	90	43	469	61	141	41	50	55	54	134
Future Volume (veh/h)	42	411	90	43	469	61	141	41	50	55	54	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	0.93		0.86	0.94		0.86
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	452	99	47	515	67	153	45	54	79	77	191
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.92	0.92	0.92	0.70	0.70	0.70
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	565	124	270	621	81	250	75	64	500	151	374
Arrive On Green	0.03	0.38	0.38	0.04	0.38	0.38	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1781	1472	322	1781	1615	210	450	212	181	1218	424	1052
Grp Volume(v), veh/h	46	0	551	47	0	582	252	0	0	79	0	268
Grp Sat Flow(s),veh/h/ln	1781	0	1794	1781	0	1825	843	0	0	1218	0	1477
Q Serve(g_s), s	1.0	0.0	17.6	1.0	0.0	18.5	10.6	0.0	0.0	0.0	0.0	9.2
Cycle Q Clear(g_c), s	1.0	0.0	17.6	1.0	0.0	18.5	19.8	0.0	0.0	3.3	0.0	9.2
Prop In Lane	1.00		0.18	1.00		0.12	0.61		0.21	1.00		0.71
Lane Grp Cap(c), veh/h	254	0	689	270	0	702	390	0	0	500	0	525
V/C Ratio(X)	0.18	0.00	0.80	0.17	0.00	0.83	0.65	0.00	0.00	0.16	0.00	0.51
Avail Cap(c_a), veh/h	884	0	837	899	0	851	527	0	0	636	0	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.0	0.0	17.6	13.7	0.0	17.9	22.1	0.0	0.0	14.4	0.0	16.3
Incr Delay (d2), s/veh	0.3	0.0	6.2	0.3	0.0	7.5	1.8	0.0	0.0	0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	7.5	0.4	0.0	8.2	3.6	0.0	0.0	0.8	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.3	0.0	23.8	14.0	0.0	25.4	23.9	0.0	0.0	14.6	0.0	17.1
LnGrp LOS	B	A	C	B	A	C	C	A	A	B	A	B
Approach Vol, veh/h	597				629				252			
Approach Delay, s/veh	23.1				24.5				23.9			
Approach LOS	C				C				C			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	29.7		27.5	7.1	29.7		27.5				
Change Period (Y+Rc), s	4.9	5.0		4.6	4.9	5.0		4.6				
Max Green Setting (Gmax), s	25.0	30.0		30.0	25.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	3.0	19.6		11.2	3.0	20.5		21.8				
Green Ext Time (p_c), s	0.1	4.3		2.1	0.1	4.2		1.1				
Intersection Summary												
HCM 6th Ctrl Delay	22.4											
HCM 6th LOS	C											

HCM 6th TWSC
2: Valparaiso Ave & Emilie Ave

Existing Conditions
Timing Plan: School P.M. Peak

Intersection						
Int Delay, s/veh	15.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	96	554	622	105	55	67
Future Vol, veh/h	96	554	622	105	55	67
Conflicting Peds, #/hr	1	0	0	1	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	86	86	85	85	76	76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	112	644	732	124	72	88
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	857	0	-	0	1663	795
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	868	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	783	-	-	-	107	388
Stage 1	-	-	-	-	445	-
Stage 2	-	-	-	-	411	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	782	-	-	-	83	388
Mov Cap-2 Maneuver	-	-	-	-	83	-
Stage 1	-	-	-	-	345	-
Stage 2	-	-	-	-	411	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.5	0		164.7		
HCM LOS				F		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	782	-	-	-	146	
HCM Lane V/C Ratio	0.143	-	-	-	1.099	
HCM Control Delay (s)	10.4	0	-	-	164.7	
HCM Lane LOS	B	A	-	-	F	
HCM 95th %tile Q(veh)	0.5	-	-	-	8.7	

HCM 6th TWSC
3: Corinne Ln/Elena Ave & Valparaiso Ave

Existing Conditions
Timing Plan: School P.M. Peak

Intersection												
Int Delay, s/veh	39.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	88	506	4	1	550	176	1	0	3	87	0	77
Future Vol, veh/h	88	506	4	1	550	176	1	0	3	87	0	77
Conflicting Peds, #/hr	0	0	9	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	86	86	86	50	50	50	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	105	602	5	1	640	205	2	0	6	102	0	91

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	845	0	0	616	0	0	1615	1671	614	1563	1571	744
Stage 1	-	-	-	-	-	-	824	824	-	745	745	-
Stage 2	-	-	-	-	-	-	791	847	-	818	826	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	792	-	-	964	-	-	83	96	492	~ 91	110	415
Stage 1	-	-	-	-	-	-	367	387	-	406	421	-
Stage 2	-	-	-	-	-	-	383	378	-	370	387	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	792	-	-	956	-	-	54	76	488	~ 76	87	415
Mov Cap-2 Maneuver	-	-	-	-	-	-	54	76	-	~ 76	87	-
Stage 1	-	-	-	-	-	-	291	307	-	325	420	-
Stage 2	-	-	-	-	-	-	299	377	-	292	307	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0	28.4	\$ 354.6
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	162	792	-	-	956	-	-	123
HCM Lane V/C Ratio	0.049	0.132	-	-	0.001	-	-	1.569
HCM Control Delay (s)	28.4	10.2	0	-	8.8	0	-	\$ 354.6
HCM Lane LOS	D	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.2	0.5	-	-	0	-	-	13.9

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th AWSC
4: Alameda De Las Pulgas & Atherton Ave

Existing Conditions
Timing Plan: School P.M. Peak

Intersection	
Intersection Delay, s/veh	84.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	18	17	122	19	261	11	494	107	98	405	7
Future Vol, veh/h	16	18	17	122	19	261	11	494	107	98	405	7
Peak Hour Factor	0.64	0.64	0.64	0.89	0.89	0.89	0.96	0.96	0.96	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	28	27	137	21	293	11	515	111	110	455	8
Number of Lanes	0	1	0	0	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	15.8	19.9	169.6	50.8
HCM LOS	C	C	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	31%	87%	0%	100%	0%
Vol Thru, %	0%	82%	35%	13%	0%	0%	98%
Vol Right, %	0%	18%	33%	0%	100%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	601	51	141	261	98	412
LT Vol	11	0	16	122	0	98	0
Through Vol	0	494	18	19	0	0	405
RT Vol	0	107	17	0	261	0	7
Lane Flow Rate	11	626	80	158	293	110	463
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.026	1.3	0.204	0.371	0.594	0.243	0.954
Departure Headway (Hd)	8.12	7.476	10.239	9.073	7.895	8.483	7.951
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	439	488	353	399	460	426	458
Service Time	5.91	5.265	8.239	6.773	5.595	6.183	5.651
HCM Lane V/C Ratio	0.025	1.283	0.227	0.396	0.637	0.258	1.011
HCM Control Delay	11.1	172.5	15.8	17	21.5	13.9	59.6
HCM Lane LOS	B	F	C	C	C	B	F
HCM 95th-tile Q	0.1	26.6	0.8	1.7	3.8	0.9	11.5

HCM 6th TWSC
5: Middlefield Rd & Placitas Ave

Existing Conditions
Timing Plan: School P.M. Peak

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	3	650	13	3	464
Future Vol, veh/h	5	3	650	13	3	464
Conflicting Peds, #/hr	0	0	0	4	4	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	67	67	95	95	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	4	684	14	3	533
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1234	695	0	0	702	0
Stage 1	695	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	195	442	-	-	895	-
Stage 1	495	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	193	440	-	-	892	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	491	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	20.5	0	0.1			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	244	892	-	
HCM Lane V/C Ratio	-	-	0.049	0.004	-	
HCM Control Delay (s)	-	-	20.5	9.1	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

HCM 6th TWSC
6: Middlefield Rd & San Benito Ave

Existing Conditions
Timing Plan: School P.M. Peak

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	8	586	28	10	478
Future Vol, veh/h	17	8	586	28	10	478
Conflicting Peds, #/hr	0	0	0	5	5	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	63	63	94	94	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	13	623	30	11	520
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1185	643	0	0	658	0
Stage 1	643	-	-	-	-	-
Stage 2	542	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	209	473	-	-	930	-
Stage 1	523	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	204	471	-	-	926	-
Mov Cap-2 Maneuver	204	-	-	-	-	-
Stage 1	511	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	22.2	0		0.2		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	249	926	-	
HCM Lane V/C Ratio	-	-	0.159	0.012	-	
HCM Control Delay (s)	-	-	22.2	8.9	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile O(veh)	-	-	0.6	0	-	

HCM 6th TWSC
7: Middlefield Rd & Fair Oaks Ln/Palmer Ln

Existing Conditions
Timing Plan: School P.M. Peak

Intersection												
Int Delay, s/veh	11											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔		↔	↔			↔	
Traffic Vol, veh/h	48	17	203	4	9	14	137	558	11	13	444	38
Future Vol, veh/h	48	17	203	4	9	14	137	558	11	13	444	38
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	5	5	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	20	-	-	-	75	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	61	61	61	91	91	91	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	55	20	233	7	15	23	151	613	12	14	472	40

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1461	1452	492	1573	1466	625	512	0	0	630	0	0
Stage 1	520	520	-	926	926	-	-	-	-	-	-	-
Stage 2	941	932	-	647	540	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	107	130	577	89	128	485	1053	-	-	952	-	-
Stage 1	539	532	-	322	347	-	-	-	-	-	-	-
Stage 2	316	345	-	460	521	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	80	109	577	40	107	482	1053	-	-	947	-	-
Mov Cap-2 Maneuver	80	109	-	40	107	-	-	-	-	-	-	-
Stage 1	462	521	-	275	296	-	-	-	-	-	-	-
Stage 2	245	294	-	258	510	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	47.7		47.8		1.7		0.2	
HCM LOS	E		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1053	-	-	86	577	127	947	-	-
HCM Lane V/C Ratio	0.143	-	-	0.869	0.404	0.349	0.015	-	-
HCM Control Delay (s)	9	-	-	148.6	15.4	47.8	8.9	0	-
HCM Lane LOS	A	-	-	F	C	E	A	A	-
HCM 95th %tile Q(veh)	0.5	-	-	4.6	1.9	1.4	0	-	-

HCM 6th TWSC
8: Middlefield Rd & Holbrook Ln

Existing Conditions
Timing Plan: School P.M. Peak

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	17	696	10	21	630
Future Vol, veh/h	8	17	696	10	21	630
Conflicting Peds, #/hr	0	0	0	4	4	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	78	78	89	89	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	22	782	11	22	649
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1485	792	0	0	797	0
Stage 1	792	-	-	-	-	-
Stage 2	693	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	137	389	-	-	825	-
Stage 1	446	-	-	-	-	-
Stage 2	496	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	131	388	-	-	822	-
Mov Cap-2 Maneuver	131	-	-	-	-	-
Stage 1	425	-	-	-	-	-
Stage 2	496	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	22.5	0		0.3		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	238	822	-	
HCM Lane V/C Ratio	-	-	0.135	0.026	-	
HCM Control Delay (s)	-	-	22.5	9.5	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile O(veh)	-	-	0.5	0.1	-	

HCM 6th TWSC
9: Middlefield Rd & Heritage Ct

Existing Conditions
Timing Plan: School P.M. Peak

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	2	696	3	0	632
Future Vol, veh/h	2	2	696	3	0	632
Conflicting Peds, #/hr	0	0	0	6	6	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	50	50	90	90	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	4	773	3	0	680
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1461	781	0	0	782	0
Stage 1	781	-	-	-	-	-
Stage 2	680	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	142	395	-	-	836	-
Stage 1	451	-	-	-	-	-
Stage 2	503	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	141	393	-	-	831	-
Mov Cap-2 Maneuver	141	-	-	-	-	-
Stage 1	448	-	-	-	-	-
Stage 2	503	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	23	0	0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	208	831	-	
HCM Lane V/C Ratio	-	-	0.038	-	-	
HCM Control Delay (s)	-	-	23	0	-	
HCM Lane LOS	-	-	C	A	-	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

HCM 6th TWSC
10: Middlefield Rd & Watkins Ave

Existing Conditions
Timing Plan: School P.M. Peak

Intersection						
Int Delay, s/veh	36.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	111	44	86	902	627	51
Future Vol, veh/h	111	44	86	902	627	51
Conflicting Peds, #/hr	0	7	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	20	70	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	94	94	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	137	54	91	960	660	54
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1832	697	717	0	-	0
Stage 1	690	-	-	-	-	-
Stage 2	1142	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 84	441	884	-	-	-
Stage 1	498	-	-	-	-	-
Stage 2	304	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 75	437	881	-	-	-
Mov Cap-2 Maneuver	~ 75	-	-	-	-	-
Stage 1	445	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s\$	370.2	0.8		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	881	-	75	437	-	-
HCM Lane V/C Ratio	0.104	-	1.827	0.124	-	-
HCM Control Delay (s)	9.6	-	\$ 511.3	14.4	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	12	0.4	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

HCM 6th TWSC
11: Middlefield Rd & Lane Pl/James Ave

Existing Conditions
Timing Plan: School P.M. Peak

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	1	0	3	8	0	84	4	905	23	47	624	4
Future Vol, veh/h	1	0	3	8	0	84	4	905	23	47	624	4
Conflicting Peds, #/hr	0	0	0	0	0	0	3	0	6	6	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	35	75	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	70	70	70	94	94	94	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	6	11	0	120	4	963	24	49	657	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1803	1761	662	1749	1751	981	664	0	0	993	0	0
Stage 1	760	760	-	989	989	-	-	-	-	-	-	-
Stage 2	1043	1001	-	760	762	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	62	84	462	67	86	303	925	-	-	696	-	-
Stage 1	398	414	-	297	325	-	-	-	-	-	-	-
Stage 2	277	321	-	398	414	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	35	77	461	62	79	301	922	-	-	692	-	-
Mov Cap-2 Maneuver	35	77	-	62	79	-	-	-	-	-	-	-
Stage 1	395	383	-	294	322	-	-	-	-	-	-	-
Stage 2	166	318	-	365	383	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	38.9		29.1		0		0.7	
HCM LOS	E		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	922	-	-	114 62 301	692	-	-
HCM Lane V/C Ratio	0.005	-	-	0.07 0.184 0.399	0.071	-	-
HCM Control Delay (s)	8.9	-	-	38.9 75.7 24.7	10.6	-	-
HCM Lane LOS	A	-	-	E F C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2 0.6 1.8	0.2	-	-

HCM 6th TWSC
12: Middlefield Rd & Glenwood Ave/Linden Ave

Existing Conditions
Timing Plan: School P.M. Peak

Intersection												
Int Delay, s/veh	24.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱		↱	↱		↱	↱	
Traffic Vol, veh/h	58	7	53	19	25	16	78	728	20	7	447	99
Future Vol, veh/h	58	7	53	19	25	16	78	728	20	7	447	99
Conflicting Peds, #/hr	1	0	1	1	0	1	3	0	57	57	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	60	-	-	-	55	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	65	65	65	94	94	94	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	8	60	29	38	25	83	774	21	8	481	106

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1536	1571	538	1593	1614	843	590	0	0	852	0	0
Stage 1	553	553	-	1008	1008	-	-	-	-	-	-	-
Stage 2	983	1018	-	585	606	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	95	110	543	86	104	364	985	-	-	787	-	-
Stage 1	517	514	-	290	318	-	-	-	-	-	-	-
Stage 2	299	315	-	497	487	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 54	94	541	63	89	344	982	-	-	744	-	-
Mov Cap-2 Maneuver	~ 54	94	-	63	89	-	-	-	-	-	-	-
Stage 1	472	507	-	251	275	-	-	-	-	-	-	-
Stage 2	218	273	-	430	480	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	188.8	165.4	0.9	0.1
HCM LOS	F	F		

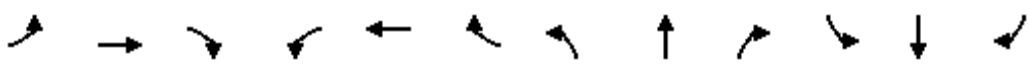
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	982	-	-	57	541	95	744	-	-
HCM Lane V/C Ratio	0.084	-	-	1.281	0.11	0.972	0.01	-	-
HCM Control Delay (s)	9	-	-	\$ 332.5	12.5	165.4	9.9	-	-
HCM Lane LOS	A	-	-	F	B	F	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	6.3	0.4	5.7	0	-	-

Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

HCM 6th Signalized Intersection Summary

1: University Dr/Menlo School Driveway & Valparaiso Ave

Existing Conditions
Timing Plan: P.M. Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	389	112	58	454	39	209	29	64	49	37	81
Future Volume (veh/h)	33	389	112	58	454	39	209	29	64	49	37	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	1.00		0.96	0.99		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	418	120	67	528	45	249	35	76	70	53	116
Peak Hour Factor	0.93	0.93	0.93	0.86	0.86	0.86	0.84	0.84	0.84	0.70	0.70	0.70
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	509	146	270	648	55	369	52	88	579	188	412
Arrive On Green	0.03	0.37	0.37	0.04	0.38	0.38	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1781	1383	397	1781	1693	144	755	143	241	1273	516	1130
Grp Volume(v), veh/h	35	0	538	67	0	573	360	0	0	70	0	169
Grp Sat Flow(s),veh/h/ln	1781	0	1780	1781	0	1837	1139	0	0	1273	0	1646
Q Serve(g_s), s	0.8	0.0	17.7	1.5	0.0	18.1	15.3	0.0	0.0	0.0	0.0	4.7
Cycle Q Clear(g_c), s	0.8	0.0	17.7	1.5	0.0	18.1	20.0	0.0	0.0	2.4	0.0	4.7
Prop In Lane	1.00		0.22	1.00		0.08	0.69		0.21	1.00		0.69
Lane Grp Cap(c), veh/h	249	0	656	270	0	703	509	0	0	579	0	600
V/C Ratio(X)	0.14	0.00	0.82	0.25	0.00	0.81	0.71	0.00	0.00	0.12	0.00	0.28
Avail Cap(c_a), veh/h	886	0	826	882	0	852	645	0	0	706	0	764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.4	0.0	18.5	14.3	0.0	17.9	21.1	0.0	0.0	13.8	0.0	14.6
Incr Delay (d2), s/veh	0.3	0.0	7.2	0.5	0.0	6.8	2.6	0.0	0.0	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	7.7	0.6	0.0	8.0	5.2	0.0	0.0	0.7	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.6	0.0	25.7	14.7	0.0	24.7	23.7	0.0	0.0	13.9	0.0	14.8
LnGrp LOS	B	A	C	B	A	C	C	A	A	B	A	B
Approach Vol, veh/h	573				640				360			
Approach Delay, s/veh	25.0				23.6				23.7			
Approach LOS	C				C				C			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	28.8		28.2	6.8	29.8		28.2				
Change Period (Y+Rc), s	4.9	5.0		4.6	4.9	5.0		4.6				
Max Green Setting (Gmax), s	25.0	30.0		30.0	25.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	3.5	19.7		6.7	2.8	20.1		22.0				
Green Ext Time (p_c), s	0.1	4.1		1.3	0.1	4.3		1.5				
Intersection Summary												
HCM 6th Ctrl Delay	22.9											
HCM 6th LOS	C											

HCM 6th TWSC
2: Valparaiso Ave & Emilie Ave

Existing Conditions
Timing Plan: P.M. Peak

Intersection						
Int Delay, s/veh	14.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	87	464	671	96	72	61
Future Vol, veh/h	87	464	671	96	72	61
Conflicting Peds, #/hr	5	0	0	5	1	1
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	86	86	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	96	510	780	112	87	73
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	897	0	-	0	1544	842
Stage 1	-	-	-	-	841	-
Stage 2	-	-	-	-	703	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	757	-	-	-	126	364
Stage 1	-	-	-	-	423	-
Stage 2	-	-	-	-	491	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	753	-	-	-	103	362
Mov Cap-2 Maneuver	-	-	-	-	103	-
Stage 1	-	-	-	-	346	-
Stage 2	-	-	-	-	489	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.7	0		145		
HCM LOS				F		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	753	-	-	-	153	
HCM Lane V/C Ratio	0.127	-	-	-	1.047	
HCM Control Delay (s)	10.5	0	-	-	145	
HCM Lane LOS	B	A	-	-	F	
HCM 95th %tile Q(veh)	0.4	-	-	-	8.2	

HCM 6th TWSC
3: Corinne Ln/Elena Ave & Valparaiso Ave

Existing Conditions
Timing Plan: P.M. Peak

Intersection												
Int Delay, s/veh	44.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	117	458	7	3	533	230	2	0	7	73	0	73
Future Vol, veh/h	117	458	7	3	533	230	2	0	7	73	0	73
Conflicting Peds, #/hr	0	0	2	2	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	91	91	91	45	45	45	74	74	74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	141	552	8	3	586	253	4	0	16	99	0	99

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	839	0	0	562	0	0	1610	1685	558	1565	1563	715
Stage 1	-	-	-	-	-	-	840	840	-	719	719	-
Stage 2	-	-	-	-	-	-	770	845	-	846	844	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	796	-	-	1009	-	-	84	94	529	~ 90	112	431
Stage 1	-	-	-	-	-	-	360	381	-	420	433	-
Stage 2	-	-	-	-	-	-	393	379	-	357	379	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	796	-	-	1007	-	-	51	69	528	~ 70	82	430
Mov Cap-2 Maneuver	-	-	-	-	-	-	51	69	-	~ 70	82	-
Stage 1	-	-	-	-	-	-	267	282	-	312	430	-
Stage 2	-	-	-	-	-	-	300	377	-	257	281	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	0	28.7	\$ 387.8
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	172	796	-	-	1007	-	-	120
HCM Lane V/C Ratio	0.116	0.177	-	-	0.003	-	-	1.644
HCM Control Delay (s)	28.7	10.5	0	-	8.6	0	-	\$ 387.8
HCM Lane LOS	D	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.4	0.6	-	-	0	-	-	14.7

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th AWSC
4: Alameda De Las Pulgas & Atherton Ave

Existing Conditions
Timing Plan: P.M. Peak

Intersection	
Intersection Delay, s/veh	96.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	16	9	120	11	450	15	524	53	89	359	9
Future Vol, veh/h	9	16	9	120	11	450	15	524	53	89	359	9
Peak Hour Factor	0.77	0.77	0.77	0.89	0.89	0.89	0.94	0.94	0.94	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	21	12	135	12	506	16	557	56	94	378	9
Number of Lanes	0	1	0	0	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	15.4	53.6	192.2	37.3
HCM LOS	C	F	F	E

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	26%	92%	0%	100%	0%
Vol Thru, %	0%	91%	47%	8%	0%	0%	98%
Vol Right, %	0%	9%	26%	0%	100%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	577	34	131	450	89	368
LT Vol	15	0	9	120	0	89	0
Through Vol	0	524	16	11	0	0	359
RT Vol	0	53	9	0	450	0	9
Lane Flow Rate	16	614	44	147	506	94	387
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.038	1.356	0.12	0.333	0.982	0.218	0.844
Departure Headway (Hd)	8.534	7.95	10.91	8.864	7.662	9.043	8.503
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	422	460	331	408	475	399	430
Service Time	6.238	5.654	8.91	6.564	5.362	6.743	6.203
HCM Lane V/C Ratio	0.038	1.335	0.133	0.36	1.065	0.236	0.9
HCM Control Delay	11.6	196.9	15.4	15.9	64.6	14.2	42.9
HCM Lane LOS	B	F	C	C	F	B	E
HCM 95th-tile Q	0.1	28.3	0.4	1.4	12.6	0.8	8.2

HCM 6th TWSC
5: Middlefield Rd & Placitas Ave

Existing Conditions
Timing Plan: P.M. Peak

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	4	655	8	3	513
Future Vol, veh/h	8	4	655	8	3	513
Conflicting Peds, #/hr	0	0	0	4	4	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	75	75	96	96	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	5	682	8	3	552
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1248	690	0	0	694	0
Stage 1	690	-	-	-	-	-
Stage 2	558	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	191	445	-	-	901	-
Stage 1	498	-	-	-	-	-
Stage 2	573	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	189	443	-	-	898	-
Mov Cap-2 Maneuver	189	-	-	-	-	-
Stage 1	494	-	-	-	-	-
Stage 2	573	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	21.5	0	0.1			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	234	898	-	
HCM Lane V/C Ratio	-	-	0.068	0.004	-	
HCM Control Delay (s)	-	-	21.5	9	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

HCM 6th TWSC
6: Middlefield Rd & San Benito Ave

Existing Conditions
Timing Plan: P.M. Peak

Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	14	662	25	12	497
Future Vol, veh/h	24	14	662	25	12	497
Conflicting Peds, #/hr	0	0	0	4	4	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	68	68	93	93	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	21	712	27	14	571
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1329	730	0	0	743	0
Stage 1	730	-	-	-	-	-
Stage 2	599	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	171	422	-	-	864	-
Stage 1	477	-	-	-	-	-
Stage 2	549	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	166	420	-	-	861	-
Mov Cap-2 Maneuver	166	-	-	-	-	-
Stage 1	464	-	-	-	-	-
Stage 2	549	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	27.7	0		0.2		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 214		861	-	
HCM Lane V/C Ratio	-	- 0.261		0.016	-	
HCM Control Delay (s)	-	- 27.7		9.2	0	
HCM Lane LOS	-	- D		A	A	
HCM 95th %tile Q(veh)	-	- 1		0	-	

HCM 6th TWSC
7: Middlefield Rd & Fair Oaks Ln/Palmer Ln

Existing Conditions
Timing Plan: P.M. Peak

Intersection												
Int Delay, s/veh	18.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔		↔	↔			↔	
Traffic Vol, veh/h	34	31	118	4	10	10	187	642	14	14	460	46
Future Vol, veh/h	34	31	118	4	10	10	187	642	14	14	460	46
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	5	5	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	20	-	-	-	75	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	67	67	67	91	91	91	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	34	131	6	15	15	205	705	15	16	523	52

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1720	1717	550	1792	1736	718	576	0	0	725	0	0
Stage 1	582	582	-	1128	1128	-	-	-	-	-	-	-
Stage 2	1138	1135	-	664	608	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	70	90	535	63	87	429	997	-	-	878	-	-
Stage 1	499	499	-	248	279	-	-	-	-	-	-	-
Stage 2	245	277	-	450	486	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	46	69	534	24	67	427	996	-	-	874	-	-
Mov Cap-2 Maneuver	46	69	-	24	67	-	-	-	-	-	-	-
Stage 1	396	485	-	196	220	-	-	-	-	-	-	-
Stage 2	175	219	-	307	472	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	133.2		98.9		2.1		0.2	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	996	-	-	55	534	71	874	-	-
HCM Lane V/C Ratio	0.206	-	-	1.313	0.246	0.505	0.018	-	-
HCM Control Delay (s)	9.6	-	-	\$ 349.8	13.9	98.9	9.2	0	-
HCM Lane LOS	A	-	-	F	B	F	A	A	-
HCM 95th %tile Q(veh)	0.8	-	-	6.4	1	2.1	0.1	-	-

HCM 6th TWSC
8: Middlefield Rd & Holbrook Ln

Existing Conditions
Timing Plan: P.M. Peak

Intersection

Int Delay, s/veh 0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	15	864	13	18	522
Future Vol, veh/h	6	15	864	13	18	522
Conflicting Peds, #/hr	0	0	0	2	2	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	75	75	96	96	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	20	900	14	18	533

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1478	909	0
Stage 1	909	-	-
Stage 2	569	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	139	333	-
Stage 1	393	-	-
Stage 2	566	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	134	332	-
Mov Cap-2 Maneuver	134	-	-
Stage 1	379	-	-
Stage 2	566	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.6	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	233	744
HCM Lane V/C Ratio	-	-	0.12	0.025
HCM Control Delay (s)	-	-	22.6	10
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1

HCM 6th TWSC
9: Middlefield Rd & Heritage Ct

Existing Conditions
Timing Plan: P.M. Peak

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	1	865	5	2	551
Future Vol, veh/h	5	1	865	5	2	551
Conflicting Peds, #/hr	0	0	0	10	10	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	75	75	95	95	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	1	911	5	2	619
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1547	924	0	0	926	0
Stage 1	924	-	-	-	-	-
Stage 2	623	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	126	327	-	-	738	-
Stage 1	387	-	-	-	-	-
Stage 2	535	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	124	324	-	-	731	-
Mov Cap-2 Maneuver	124	-	-	-	-	-
Stage 1	382	-	-	-	-	-
Stage 2	535	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	32.7	0	0			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	138	731	-	
HCM Lane V/C Ratio	-	-	0.058	0.003	-	
HCM Control Delay (s)	-	-	32.7	9.9	0	
HCM Lane LOS	-	-	D	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

HCM 6th TWSC
10: Middlefield Rd & Watkins Ave

Existing Conditions
Timing Plan: P.M. Peak

Intersection

Int Delay, s/veh 14.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	71	50	105	860	737	41
Future Vol, veh/h	71	50	105	860	737	41
Conflicting Peds, #/hr	0	2	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	20	70	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	58	111	905	776	43

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1925	800	819
Stage 1	798	-	-
Stage 2	1127	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	~ 73	385	810
Stage 1	443	-	-
Stage 2	309	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	~ 63	384	810
Mov Cap-2 Maneuver	~ 63	-	-
Stage 1	382	-	-
Stage 2	309	-	-

Approach	EB	NB	SB
HCM Control Delay, s	199.3	1.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	810	-	63	384	-	-
HCM Lane V/C Ratio	0.136	-	1.31	0.151	-	-
HCM Control Delay (s)	10.1	-	\$ 328.4	16	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.5	-	6.9	0.5	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
11: Middlefield Rd & Lane Pl/James Ave

Existing Conditions
Timing Plan: P.M. Peak

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	2	0	4	16	1	50	2	934	24	44	735	3
Future Vol, veh/h	2	0	4	16	1	50	2	934	24	44	735	3
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	7	7	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	35	75	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	56	56	56	88	88	88	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	5	29	2	89	2	1061	27	48	799	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2026	2001	806	1985	1989	1082	807	0	0	1095	0	0
Stage 1	902	902	-	1086	1086	-	-	-	-	-	-	-
Stage 2	1124	1099	-	899	903	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	43	60	382	46	61	264	818	-	-	637	-	-
Stage 1	332	356	-	262	292	-	-	-	-	-	-	-
Stage 2	249	288	-	334	356	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	26	55	380	42	56	262	814	-	-	633	-	-
Mov Cap-2 Maneuver	26	55	-	42	56	-	-	-	-	-	-	-
Stage 1	330	327	-	260	289	-	-	-	-	-	-	-
Stage 2	163	285	-	304	327	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	63.9		69.6		0		0.6	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	814	-	-	69	43	262	633	-	-
HCM Lane V/C Ratio	0.003	-	-	0.116	0.706	0.341	0.076	-	-
HCM Control Delay (s)	9.4	-	-	63.9	198.6	25.7	11.2	-	-
HCM Lane LOS	A	-	-	F	F	D	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	2.7	1.5	0.2	-	-

HCM 6th TWSC
12: Middlefield Rd & Glenwood Ave/Linden Ave

Existing Conditions
Timing Plan: P.M. Peak

Intersection												
Int Delay, s/veh	11.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	7	53	10	17	5	71	809	24	10	484	81
Future Vol, veh/h	43	7	53	10	17	5	71	809	24	10	484	81
Conflicting Peds, #/hr	4	0	0	0	0	4	1	0	9	9	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	60	-	-	-	55	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	73	73	73	95	95	95	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	8	62	14	23	7	75	852	25	12	576	96

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1683	1685	625	1707	1721	878	673	0	0	886	0	0
Stage 1	649	649	-	1024	1024	-	-	-	-	-	-	-
Stage 2	1034	1036	-	683	697	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	75	94	485	72	89	347	918	-	-	764	-	-
Stage 1	458	466	-	284	313	-	-	-	-	-	-	-
Stage 2	280	309	-	439	443	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	53	84	485	53	80	343	917	-	-	757	-	-
Mov Cap-2 Maneuver	53	84	-	53	80	-	-	-	-	-	-	-
Stage 1	420	458	-	258	285	-	-	-	-	-	-	-
Stage 2	230	281	-	370	435	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	129		101		0.7		0.2	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	917	-	-	56	485	77	757	-	-
HCM Lane V/C Ratio	0.082	-	-	1.038	0.127	0.569	0.016	-	-
HCM Control Delay (s)	9.3	-	-	251.4	13.5	101	9.8	-	-
HCM Lane LOS	A	-	-	F	B	F	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	4.8	0.4	2.5	0	-	-

Queuing and Blocking Report

Existing Conditions

A.M. Peak

Intersection: 1: University Dr/Menlo School Driveway & Valparaiso Ave

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	LTR	L	TR
Maximum Queue (ft)	160	337	139	486	172	64	164
Average Queue (ft)	87	137	39	237	89	36	68
95th Queue (ft)	157	260	112	414	153	74	130
Link Distance (ft)		662		1085	1114		778
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	110		80			40	
Storage Blk Time (%)	3	10	0	38		8	19
Queuing Penalty (veh)	14	18	0	17		12	11

Intersection: 2: Valparaiso Ave & Emilie Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	269	33	237
Average Queue (ft)	67	2	107
95th Queue (ft)	185	16	218
Link Distance (ft)	1923	662	1041
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Corinne Ln/Elena Ave & Valparaiso Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	158	57	33	248
Average Queue (ft)	34	6	8	95
95th Queue (ft)	102	32	30	192
Link Distance (ft)	541	1923	447	1216
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report
Existing Conditions

A.M. Peak

Intersection: 4: Alameda De Las Pulgas & Atherton Ave

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	TR	L	TR
Maximum Queue (ft)	85	349	100	90	260	170	655
Average Queue (ft)	39	135	66	18	109	130	361
95th Queue (ft)	69	273	138	62	206	225	706
Link Distance (ft)	1385	1275			700		642
Upstream Blk Time (%)							14
Queuing Penalty (veh)							0
Storage Bay Dist (ft)			50	65		110	
Storage Blk Time (%)		50	4	0	30	0	69
Queuing Penalty (veh)		68	15	0	4	2	119

Intersection: 5: Middlefield Rd & Placitas Ave

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	21	32
Average Queue (ft)	7	2
95th Queue (ft)	21	20
Link Distance (ft)	539	796
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Middlefield Rd & San Benito Ave

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	82	39
Average Queue (ft)	35	2
95th Queue (ft)	64	20
Link Distance (ft)	489	580
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report

Existing Conditions

A.M. Peak

Intersection: 7: Middlefield Rd & Fair Oaks Ln/Palmer Ln

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	L	TR	LTR
Maximum Queue (ft)	96	95	129	87	27	63
Average Queue (ft)	19	50	51	37	1	8
95th Queue (ft)	59	82	100	70	17	35
Link Distance (ft)	396		455		339	257
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		20		75		
Storage Blk Time (%)	13	29		1	0	
Queuing Penalty (veh)	21	8		2	0	

Intersection: 8: Middlefield Rd & Holbrook Ln

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	82	113
Average Queue (ft)	39	12
95th Queue (ft)	71	60
Link Distance (ft)	527	339
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Middlefield Rd & Heritage Ct

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	30	3	35
Average Queue (ft)	4	0	1
95th Queue (ft)	21	3	16
Link Distance (ft)	556	876	231
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report

Existing Conditions

A.M. Peak

Intersection: 10: Middlefield Rd & Watkins Ave

Movement	EB	EB	NB	NB	SB
Directions Served	L	R	L	T	TR
Maximum Queue (ft)	353	80	79	56	89
Average Queue (ft)	135	64	33	3	6
95th Queue (ft)	299	101	66	33	40
Link Distance (ft)	606			512	876
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		20	70		
Storage Blk Time (%)	71	25	1	0	
Queuing Penalty (veh)	78	25	5	0	

Intersection: 11: Middlefield Rd & Lane Pl/James Ave

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	TR	L	TR
Maximum Queue (ft)	35	48	69	9	19	64	19
Average Queue (ft)	5	7	32	0	1	28	1
95th Queue (ft)	24	30	58	5	11	54	13
Link Distance (ft)	558	605			2136		512
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			35	75		75	
Storage Blk Time (%)		4	10		0	0	
Queuing Penalty (veh)		3	1		0	1	

Intersection: 12: Middlefield Rd & Glenwood Ave/Linden Ave

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	111	100	73	70	20	30	39
Average Queue (ft)	42	40	31	27	1	6	3
95th Queue (ft)	87	71	64	57	10	25	20
Link Distance (ft)	675		721		573		2136
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		60		55		80	
Storage Blk Time (%)	5	1		1	0		0
Queuing Penalty (veh)	4	1		5	0		0

Network Summary

Network wide Queuing Penalty: 433

Queuing and Blocking Report
Existing Conditions

School P.M. Peak

Intersection: 1: University Dr/Menlo School Driveway & Valparaiso Ave

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	LTR	L	TR
Maximum Queue (ft)	149	308	126	349	215	64	155
Average Queue (ft)	33	156	33	172	104	35	75
95th Queue (ft)	96	268	93	292	178	72	132
Link Distance (ft)		662		1085	1114		778
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	110		80			40	
Storage Blk Time (%)		15	0	27		6	21
Queuing Penalty (veh)		6	0	11		11	12

Intersection: 2: Valparaiso Ave & Emilie Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	259	17	174
Average Queue (ft)	88	1	75
95th Queue (ft)	202	9	148
Link Distance (ft)	1923	662	1041
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Corinne Ln/Elena Ave & Valparaiso Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	248	31	33	350
Average Queue (ft)	84	3	4	131
95th Queue (ft)	197	19	20	299
Link Distance (ft)	541	1923	447	1216
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report
Existing Conditions

School P.M. Peak

Intersection: 4: Alameda De Las Pulgas & Atherton Ave

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	TR	L	TR
Maximum Queue (ft)	55	1315	100	89	313	84	142
Average Queue (ft)	30	1209	100	11	136	36	73
95th Queue (ft)	52	1570	102	53	267	62	114
Link Distance (ft)	1385	1275			700		642
Upstream Blk Time (%)		80					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)			50	65		110	
Storage Blk Time (%)		7	96		38	0	1
Queuing Penalty (veh)		18	135		4	0	1

Intersection: 5: Middlefield Rd & Placitas Ave

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	28	25
Average Queue (ft)	5	2
95th Queue (ft)	20	18
Link Distance (ft)	539	796
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Middlefield Rd & San Benito Ave

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	45	62
Average Queue (ft)	19	5
95th Queue (ft)	45	32
Link Distance (ft)	489	580
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report

Existing Conditions

School P.M. Peak

Intersection: 7: Middlefield Rd & Fair Oaks Ln/Palmer Ln

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	L	TR	LTR
Maximum Queue (ft)	141	99	50	60	3	82
Average Queue (ft)	41	55	18	29	0	10
95th Queue (ft)	97	93	43	53	2	48
Link Distance (ft)	396		455		339	257
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		20		75		
Storage Blk Time (%)	31	28		0		
Queuing Penalty (veh)	62	18		0		

Intersection: 8: Middlefield Rd & Holbrook Ln

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	46	109
Average Queue (ft)	20	18
95th Queue (ft)	45	69
Link Distance (ft)	527	339
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Middlefield Rd & Heritage Ct

Movement	WB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	4
95th Queue (ft)	21
Link Distance (ft)	556
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Existing Conditions

School P.M. Peak

Intersection: 10: Middlefield Rd & Watkins Ave

Movement	EB	EB	NB	NB	SB
Directions Served	L	R	L	T	TR
Maximum Queue (ft)	464	80	71	85	80
Average Queue (ft)	251	48	32	6	6
95th Queue (ft)	559	106	61	42	39
Link Distance (ft)	606			512	876
Upstream Blk Time (%)	4				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)		20	70		
Storage Blk Time (%)	87	7	0	0	
Queuing Penalty (veh)	38	8	4	0	

Intersection: 11: Middlefield Rd & Lane Pl/James Ave

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	TR	L	TR
Maximum Queue (ft)	30	59	80	27	9	51	14
Average Queue (ft)	4	8	39	1	0	19	1
95th Queue (ft)	22	35	71	12	6	44	12
Link Distance (ft)	558	605			2136		512
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			35	75		75	
Storage Blk Time (%)		6	18			0	0
Queuing Penalty (veh)		5	1			0	0

Intersection: 12: Middlefield Rd & Glenwood Ave/Linden Ave

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	118	81	111	65	32	42	55
Average Queue (ft)	44	30	43	22	1	5	4
95th Queue (ft)	91	63	88	50	14	26	30
Link Distance (ft)	675		721		573		2136
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		60		55		80	
Storage Blk Time (%)	7	0		0	0		0
Queuing Penalty (veh)	3	0		3	0		0

Network Summary

Network wide Queuing Penalty: 343

Queuing and Blocking Report

Existing Conditions

P.M. Peak

Intersection: 1: University Dr/Menlo School Driveway & Valparaiso Ave

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	LTR	L	TR
Maximum Queue (ft)	130	305	133	296	235	63	130
Average Queue (ft)	25	145	35	144	125	30	54
95th Queue (ft)	77	265	90	250	210	66	103
Link Distance (ft)		662		1085	1114		778
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	110		80			40	
Storage Blk Time (%)		14	0	19		4	11
Queuing Penalty (veh)		4	1	11		5	5

Intersection: 2: Valparaiso Ave & Emilie Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	275	51	216
Average Queue (ft)	86	3	79
95th Queue (ft)	205	22	161
Link Distance (ft)	1923	662	1041
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Corinne Ln/Elena Ave & Valparaiso Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	320	54	31	372
Average Queue (ft)	113	6	8	145
95th Queue (ft)	251	29	30	342
Link Distance (ft)	541	1923	682	1216
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report
Existing Conditions

P.M. Peak

Intersection: 4: Alameda De Las Pulgas & Atherton Ave

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	TR	L	TR
Maximum Queue (ft)	54	1318	100	89	292	85	150
Average Queue (ft)	23	1293	100	16	116	35	67
95th Queue (ft)	49	1307	102	62	220	66	114
Link Distance (ft)	1385	1275			700		642
Upstream Blk Time (%)		100					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)			50	65		110	
Storage Blk Time (%)		1	98	0	28	0	1
Queuing Penalty (veh)		7	128	0	4	0	1

Intersection: 5: Middlefield Rd & Placitas Ave

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	27	55
Average Queue (ft)	6	3
95th Queue (ft)	21	23
Link Distance (ft)	539	796
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Middlefield Rd & San Benito Ave

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	56	125
Average Queue (ft)	25	14
95th Queue (ft)	52	64
Link Distance (ft)	489	580
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report
Existing Conditions

P.M. Peak

Intersection: 7: Middlefield Rd & Fair Oaks Ln/Palmer Ln

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	L	TR	LTR
Maximum Queue (ft)	139	97	48	90	44	104
Average Queue (ft)	45	46	17	37	1	13
95th Queue (ft)	105	86	42	71	24	57
Link Distance (ft)	396		455		339	257
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		20		75		
Storage Blk Time (%)	43	16		1	0	
Queuing Penalty (veh)	50	11		5	0	

Intersection: 8: Middlefield Rd & Holbrook Ln

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	46	136
Average Queue (ft)	16	20
95th Queue (ft)	43	78
Link Distance (ft)	527	339
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Middlefield Rd & Heritage Ct

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	32	26
Average Queue (ft)	6	1
95th Queue (ft)	25	13
Link Distance (ft)	556	231
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report

Existing Conditions

P.M. Peak

Intersection: 10: Middlefield Rd & Watkins Ave

Movement	EB	EB	NB	NB	SB
Directions Served	L	R	L	T	TR
Maximum Queue (ft)	195	80	84	81	49
Average Queue (ft)	69	40	38	4	4
95th Queue (ft)	173	84	71	38	27
Link Distance (ft)	606			512	876
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		20	70		
Storage Blk Time (%)	56	10	1	0	
Queuing Penalty (veh)	28	7	11	0	

Intersection: 11: Middlefield Rd & Lane Pl/James Ave

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	TR	L	TR
Maximum Queue (ft)	33	48	70	21	6	46	23
Average Queue (ft)	5	16	31	1	0	18	1
95th Queue (ft)	25	43	59	10	5	42	16
Link Distance (ft)	558	605			2136		512
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			35	75		75	
Storage Blk Time (%)		11	13			0	0
Queuing Penalty (veh)		6	2			0	0

Intersection: 12: Middlefield Rd & Glenwood Ave/Linden Ave

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	78	57	67	48	51	36	55
Average Queue (ft)	34	28	24	19	3	7	4
95th Queue (ft)	66	52	56	43	23	28	27
Link Distance (ft)	675		721		573		2136
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		60		55		80	
Storage Blk Time (%)	2	0		0	0		0
Queuing Penalty (veh)	1	0		1	0		0

Network Summary

Network wide Queuing Penalty: 289

Alameda de las Pulgas Corridor Traffic Study

Draft Report



Prepared for:
The Town of Atherton

Prepared by:
Advanced Mobility Group

January 25, 2019

THIS PAGE LEFT INTENTIONALLY BLANK

CONTENTS

1.0	INTRODUCTION AND EXECUTIVE SUMMARY.....	1
2.0	STUDY APPROACH	4
2.1	DATA COLLECTION AND FIELD OBSERVATIONS	7
2.2	COLLISION ANALYSIS	7
2.3	SIGNAL WARRANT	7
2.4	PROTECTED LEFT-TURN PHASE WARRANT	8
2.5	CORRIDOR OPERATING ANALYSIS.....	9
2.5.1	Intersection Level of Service (LOS)	9
2.5.2	Significance Criteria	9
2.6	INTERSECTION CONTROL EVALUATION (ICE) ANALYSIS	9
3.0	COLLISION ANALYSIS.....	10
4.0	SIGNAL WARRANT ANALYSIS.....	11
5.0	LEFT-TURN SIGNAL WARRANT ANALYSIS	17
6.0	CORRIDOR OPERATION ANALYSIS	18
6.1	FIELD OBSERVATIONS.....	18
6.1.1	Peak hour congestion at ADLP / Atherton Avenue Intersection	18
6.1.2	Peak hour congestion at ADLP / Hull Avenue Intersection.....	19
6.1.3	Peak hour congestion at ADLP / Woodside Avenue Intersection	19
6.2	INTERSECTION LEVEL OF SERVICE (LOS)	21
7.0	INTERSECTION CONTROL EVALUATION (ICE) ANALYSIS	22
7.1	ADLP AND WOODSIDE ROAD	22
7.2	ADLP AND HULL AVENUE	22
7.3	ADLP AND STOCKBRIDGE AVENUE.....	22
7.4	ADLP AND ATHERTON AVENUE	23
7.5	ADLP AND WALSH ROAD/LAS LOMITAS SCHOOL DRIVEWAY	24
7.6	ADLP AND CAMINO AL LAGO	24
7.7	ADLP AND VALPRAISO AVENUE.....	26
7.8	GENERAL RECOMMENDATIONS.....	27
8.0	CONCLUSION.....	28

LIST OF TABLES

Table 1: Collision Rates	10
Table 2: Protected Left-Turn Warrant Analysis.....	17
Table 3: Intersection Level of Service – Existing Conditions.....	21
Table 4: Intersection Level of Service – Intersection of ADLP and Stockbridge Avenue ..	23
Table 5: Intersection Level of Service – Intersection of ADLP and Atherton Avenue	23
Table 6: Intersection Level of Service – Intersection of ADLP and Camino Al Lago.....	24
Table 7: Intersection Level of Service – Intersection of ADLP and Valparaiso Avenue	26

LIST OF FIGURES

Figure 1: Site Vicinity and Study Intersections.....	5
Figure 2: Existing Traffic Control, Lane Geometry and Turning Movement Volumes.....	6
Figure 3: Collision Diagram – Intersection ADLP and Stockbridge Avenue	12
Figure 4: Collision Diagram – Intersection ADLP and Atherton Avenue	13
Figure 5.a: Collision Diagram – Intersection ADLP and Walsh Road	14
Figure 5.b: Collision Diagram – Intersection ADLP and Las Lomas School Driveway.....	15
Figure 6: Collision Diagram – Intersection ADLP and Camino Al Lago	16
Figure 7: Proposed Traffic-Related Changes for Las Lomas Elementary School Development.....	25

LIST OF APPENDICES

APPENDIX A	TRAFFIC VOLUME COUNTS.....	A.1
APPENDIX B	SIGNAL WARRANT ANALYSIS	B.2
APPENDIX C	INTERSECTION LOS ANALYSIS: EXISTING LOS CALCULATION SHEETS	C.3
APPENDIX D	INTERSECTION LOS ANALYSIS: ALTERNATIVE 1 – SIGNAL/PROTECTED LEFT-TURN LANE LOS CALCULATION SHEETS	D.4
APPENDIX E	INTERSECTION LOS ANALYSIS: ALTERNATIVE 2 - ROUNDABOUT LOS CALCULATION SHEETS	E.5
APPENDIX F	INTERSECTION LOS ANALYSIS: ALTERNATIVE 3 – ALL-WAY STOP CONTROL LOS CALCULATION SHEETS.....	F.6

1.0 INTRODUCTION AND EXECUTIVE SUMMARY

INTRODUCTION

The Town of Atherton has concerns regarding traffic flow and operations along the entire length of the Alameda de las Pulgas (ADLP) corridor through the Town from Stockbridge Avenue to Camino Al Lago. The previous traffic study for a school along the corridor – Las Lomitas Elementary School identified some potential improvements along the corridor, including installation of a traffic signal / roundabout at the intersection of ADLP and Atherton Avenue and a signal at the intersection of Walsh Road/school driveway.¹ However, according to the encroachment permit application that was submitted on June 11, 2018, the school is no longer proposing to re-align the existing ADLP driveway to form a four-way intersection with Walsh Road for a new signal anymore as assumed in the previous school study.²

The purpose of this corridor traffic study is to investigate other potential improvements along the corridor that would improve the traffic flow³ and enhance safety along the corridor.

SUMMARY

Alameda de las Pulgas is a minor arterial which spans the length of the Town limits, from Stockbridge Avenue to Camino al Lago. ADLP is a regional roadway, spanning from San Carlos Avenue in San Carlos to the north, to Santa Cruz Avenue in Menlo Park to the south. Within the Town limits, ADLP is one lane in each direction, with left turn pockets at key intersections. Class II bike lanes are present along the length of the roadway within the Town limits. Based on the Assessor's Map for the County of San Mateo, the typical right of way available for the roadway is approximately 60 feet with a curb to curb width of approximately 42-44 feet. The posted speed limit is 30 miles per hour.

There are no signals along ADLP within the Town limits under the jurisdiction of the Town of Atherton. There are three signals studied as part of this corridor traffic study, located in the jurisdictional authority of other agencies (Caltrans and County). All three signalized study intersections do not have any reported collisions within the most recent five years. One unsignalized study intersection has a higher collision rate than the statewide average rate. The majority of the collisions are correctable by installing an all-way stop control, a roundabout, or a signal.

¹ Las Lomitas Elementary School Traffic Analysis, Parisi Transportation Consulting, April 10, 2017

² Las Lomitas Elementary School Traffic Analysis, Parisi Transportation Consulting, April 10, 2017

³ A concurrent study "Local Traffic Flow / Long Range Planning Solutions" found that the pass through traffic accounts for 60% to 89% of traffic along the corridor.

All the study intersections currently operate at acceptable LOS D or better except for the Intersection of ADLP and Stockbridge Avenue and the intersection of ADLP and Atherton Avenue, which operate at LOS E & F, respectively.

The intersections of ADLP / Stockbridge Avenue, ADLP / Atherton Avenue, and ADLP / Camino Al Lago meet signal warrants.

For the intersection of ADLP / Valparaiso Avenue, the southbound Left-turn movement meets the warrant for a protected left-turn signal during both a.m. and p.m. peak hours. Note, this intersection is outside the jurisdictional authority of the Town.

Through Intersection Control Evaluation (ICE) process, an improvement list has been developed along the corridor that would achieve the maximum benefit for the corridor.

- Intersection of ADLP and Woodside Road – It is recommended to update signal timing and provide traffic signal coordination between Woodside Road and Hull Avenue. This would potentially minimize the northbound traffic queues from spilling over into the intersection of ADLP and Hull Avenue. It is noted that this intersection is outside the jurisdictional authority of the Town.
- Intersection of ADLP and Hull Avenue – It is recommended to provide traffic signal coordination between Woodside Road and Hull Avenue, and it is recommended to reconstruct all the corner ramps to meet current ADA standards. Traffic signal coordination between the intersections of ADLP/Woodside and ADLP/Hull would potentially reduce the traffic backup in the northbound direction. It is noted that this intersection is outside the jurisdictional authority of the Town.
- Intersection of ADLP and Stockbridge Avenue –Installing a roundabout or a traffic signal is expected to reduce traffic delay at the intersection. However, due to restricted right of way, it is recommended to install a traffic signal.
- Intersection of ADLP and Atherton Avenue – Installing a roundabout or a traffic signal at this intersection is expected to improve traffic operations and intersection LOS from existing conditions. However, due to restricted right of way and the need for property acquisition to install a roundabout, installing a signal is more feasible.
- Intersection of ADLP and Walsh Road / Las Lomitas School Driveway – No changes from what are proposed by the Las Lomitas Elementary School.
- Intersection of ADLP and Camino Al Lago – It is recommended to install a traffic signal at this intersection and remove the existing mid-block crosswalk and signal on ADLP approximately 150 feet south of this intersection; and, it is recommended to redesign the intersection to shorten the crossing distance for all approaches. The jurisdiction of the intersection is shared with the County of San Mateo and therefore would require their approval to signalize the intersection.

- Intersection of ADLP and Valparaiso Avenue – It is recommended to install protected left-turn phases for the ADLP approaches at this intersection. It is noted that this intersection is outside the jurisdictional authority of the Town.

In addition, the following general improvements on the corridor are recommended. The Town may need to work with its partners, including Caltrans, the County, or SamTrans, to accomplish some of these improvements, due to jurisdictional authority.

- Review bicycle timing and pedestrian change interval timing per the 2014 edition of the CAMUTCD at intersections;
- Review the red and yellow clearance intervals using guidance provided in the 2014 edition of the CAMUTCD and NCHRP Report 81;
- Provide green color surface treatment in bike lanes where potential bike/vehicle conflicts could occur;
- Move bus stops from near-side to far-side (e.g. northbound at Hull Avenue);
- Replace 8-inch signal head with 12-inch head;

2.0 STUDY APPROACH

The Intersection Control Evaluation (ICE) Process, adopted by Caltrans in August of 2013, is a process of developing intersection control alternatives in order to find the most cost-effective improvement over the life cycle of the project.⁴ In this study, AMG deployed the ICE Process to establish an improvement list for installation of a signal, all-way-stop-control, roundabout, and protected left turn phasing along the corridor that would achieve the maximum benefit for the corridor. The Town is conducting a separate Town wide Local Traffic Flow/Long Range Planning Study, which also identifies certain improvements along the ADLP corridor. The findings from the two studies would be consolidated to determine the overall solutions for the study intersections.

This study includes major intersections along the ADLP corridor through the Town as listed below. The type of intersection control and jurisdictional authority are indicated for each.

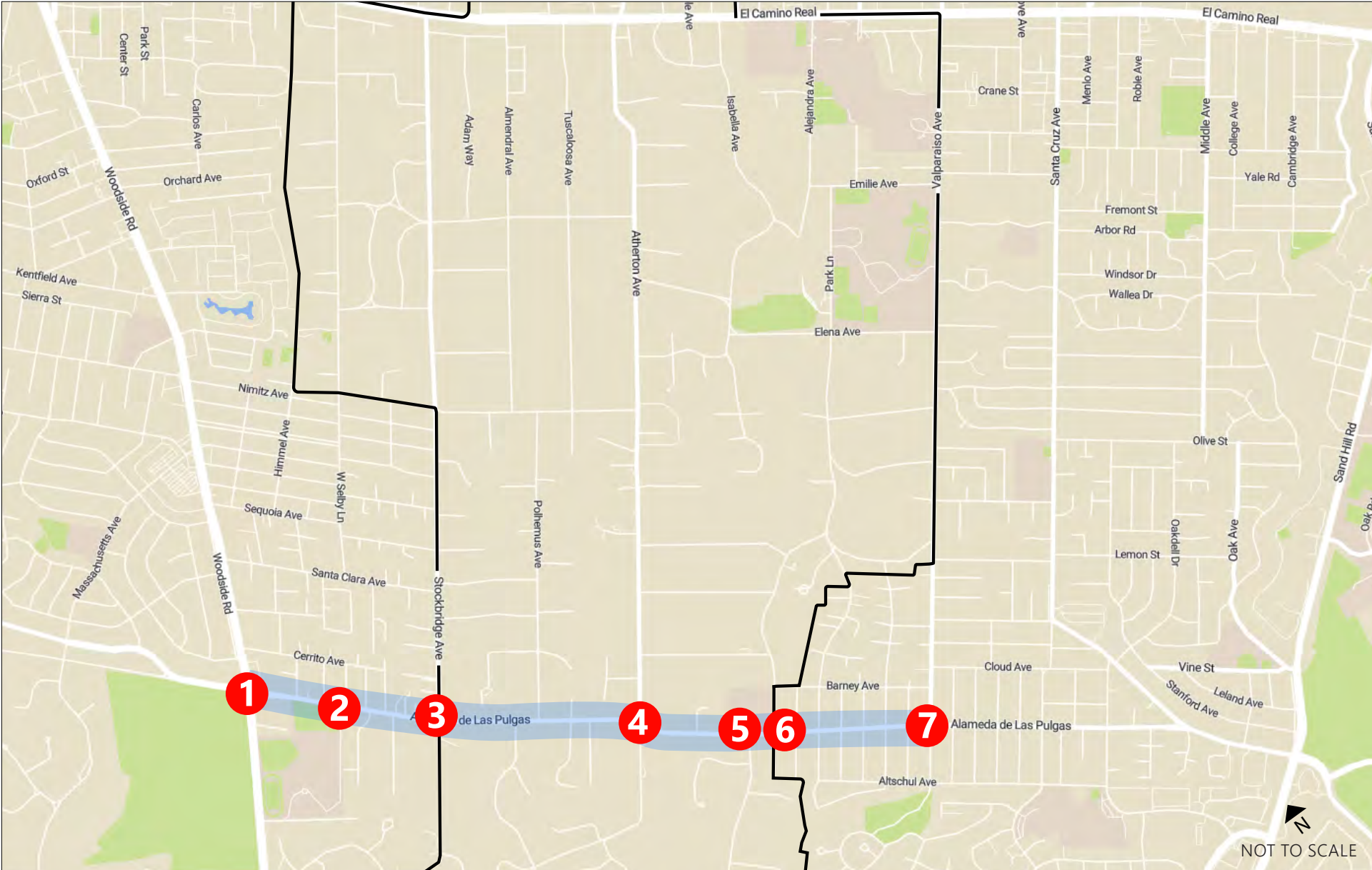
1. ADLP / Woodside Road (Signalized) - Caltrans
2. ADLP / Hull Avenue (Signalized) - County
3. ADLP / Stockbridge Avenue (Two-Way Stop Control) - Town
4. ADLP / Atherton Avenue (All-Way Stop Control) - Town
5. ADLP / Walsh Road (One-Way Stop Control) - Town
6. ADLP / Camino Al Lago (Two-Way Stop Control) – Town/County (shared)
7. ADLP / Valparaiso Avenue (Signalized) - County

The study intersections and vicinity map are shown in **Figure 1**.

This study evaluated the safety status, operation conditions and accommodation of other alternatives for the study intersections.

⁴ Intersection Control Evaluation, Caltrans, August 23, 2013, <http://dot.ca.gov/trafficops/ice.html>, access April, 3, 2018.

FIGURE 1
Site Vicinity and Study Intersections

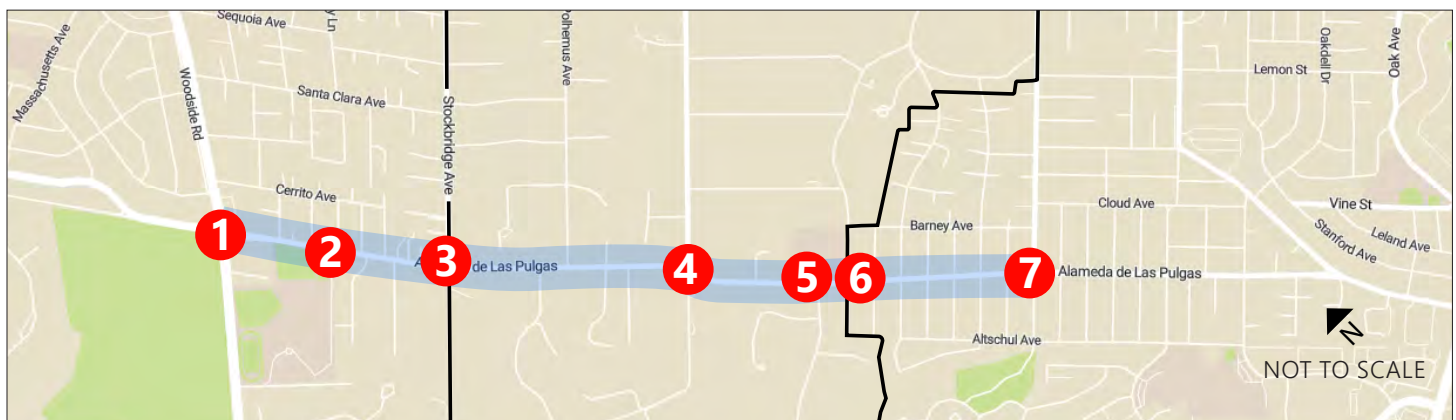
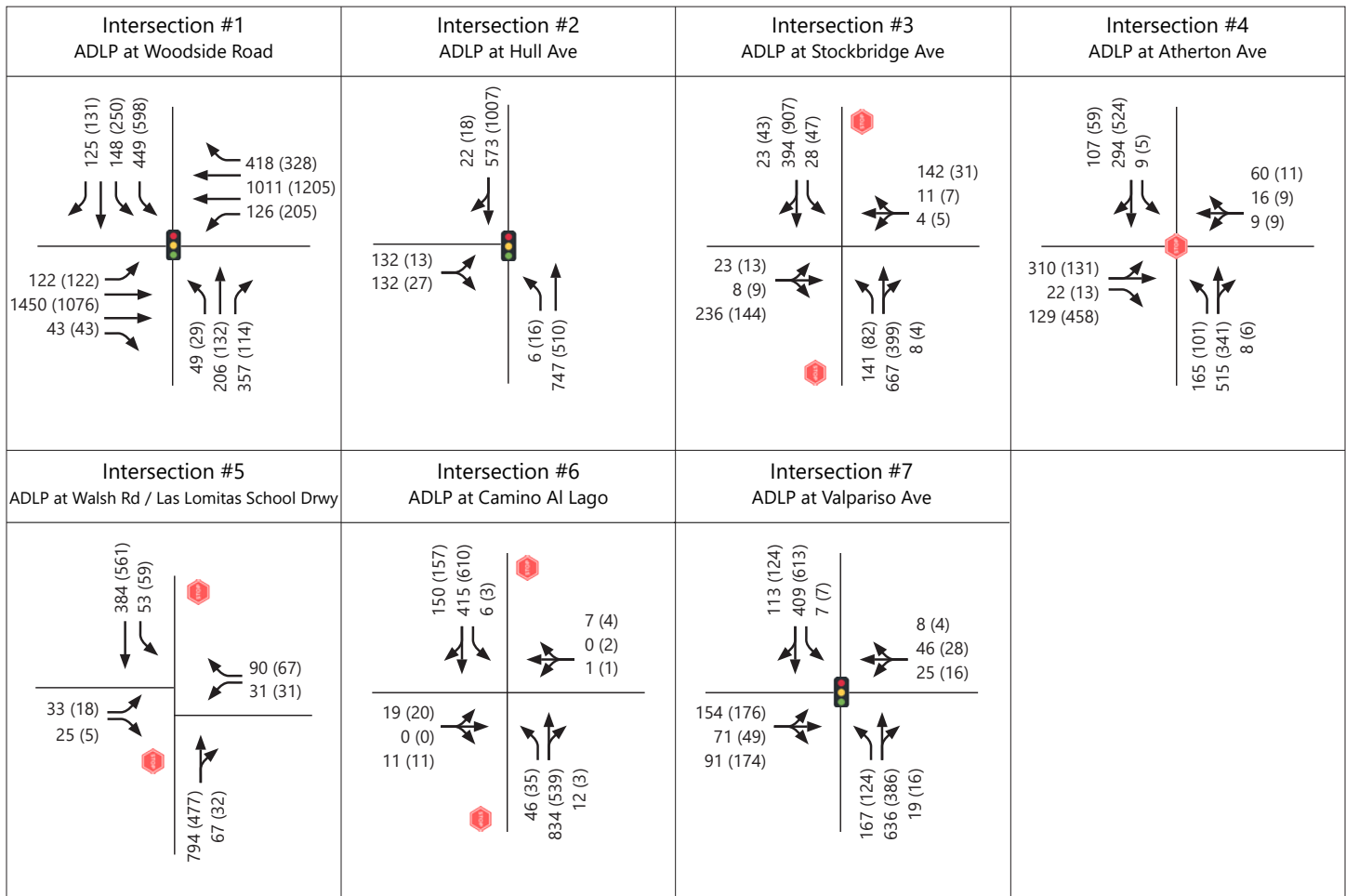


LEGEND

-  Study Intersection
-  Study Area
-  Town Boundary



FIGURE 2
Existing Traffic Control, Lane Geometry and Turning
Movement Volumes



STUDY INTERSECTIONS

1. ADLP / Woodside Road
2. ADLP / Hull Avenue
3. ADLP / Stockbridge Avenue
4. ADLP / Atherton Avenue
5. ADLP / Walsh Road / Las Lomitas School
6. 6. ADLP / Camino Al Lago (Two-Way Stop Control)
7. 7. ADLP / Valpraiso Avenue (Signalized)

LEGEND

- Study Intersection
- Signal Control
- Stop Control
- xx (xx) AM (PM) Peak Hour Turning Movement Volumes
- Town Boundary

2.1 DATA COLLECTION AND FIELD OBSERVATIONS

The intersection turning movement counts were collected at each study intersection during the morning (7:00 a.m. – 9:00 a.m.) and afternoon (4:00 p.m. – 6:00 p.m.) peak periods on Thursday, April 26, 2018.

In addition, 24-hour tube classification counts were collected at each approach of the following intersections on Thursday, April 26, 2018:

- ADLP / Stockbridge Avenue (Two-Way Stop Control)
- ADLP / Camino Al Lago (Two-Way Stop Control)

The detailed counts are included in Appendix A. **Figure 2** illustrates the intersection traffic control, lane geometry and turning movement volumes.

Also, field observations of the corridor were conducted on Friday, May 18, 2018.

2.2 COLLISION ANALYSIS

Five-year (2013 – 2017) collision history data at each study intersection was collected from the Statewide Integrated Traffic Records System (SWITRS) database. The intersection collision rates at each intersection were calculated for all collisions, and fatal plus injury collisions based on the methodology suggested by FHWA.⁵ These rates were then compared with the statewide collision rates.⁶

In addition, a collision diagram was prepared for each unsignalized study intersection. Based on the diagram, the primary collision factors and the primary collision types for each intersection were determined. AMG also identified the collisions that could be corrected by installation of a signal/roundabout/all-way stop control, which was used for the warrant analysis.

2.3 SIGNAL WARRANT

For the existing un-signalized study intersections that was not included in the previous study,⁷ this study conducted signal warrant analysis based on the guidelines included in the California Manual on Uniform Traffic Control Devices (CAMUTCD).⁸ Since signal warrant analysis was conducted for ADLP intersections at Atherton Avenue and Walsh Road in the previous study for the Las Lomitas Elementary School,⁹ in this analysis, the signal warrant analysis was only conducted for the following two existing unsignalized study intersections:

- ADLP / Stockbridge Avenue (Two-Way Stop Control)

⁵ Roadway Safety Information Analysis: A Manual for Local and Rural Road User, https://safety.fhwa.dot.gov/local_rural/training/fhwasaxx1210/s3.cfm, accessed April 3, 2018.

⁶ 2014 Collision Data on California State Highway (road miles, travel, collision, collision rates), Caltrans and FHWA, March 6, 2017.

⁷ Las Lomitas Elementary School Traffic Analysis, Parisi Transportation Consulting, April 10, 2017

⁸ California Manual on Uniform Traffic Control Devices, 2014 Edition, Revision 3, March 9, 2018

⁹ Las Lomitas Elementary School Traffic Analysis, Parisi Transportation Consulting, April 10, 2017

- ADLP / Camino Al Lago (Two-Way Stop Control)

Per CAMUTCD, the investigation of the need for a traffic control signal shall include an analysis of factors related to the existing operation and safety at the study location and the potential to improve these conditions, and the applicable factors contained in the following traffic signal warrants:

Warrant 1, Eight-Hour Vehicular Volumes
Warrant 2, Four-Hour Vehicular Volumes
Warrant 3, Peak Hour
Warrant 4, Pedestrian Volumes
Warrant 5, School Crossing
Warrant 6, Coordinated Signal System
Warrant 7, Crash Experience
Warrant 8, roadway Network
Warrant 9, Intersection near a Grade Crossing

2.4 PROTECTED LEFT-TURN PHASE WARRANT

For all the existing signalized intersections that do not have the protected left-turn phase along ADLP and the existing un-signalized intersections that meets at least one signal warrant, a protected left-turn phase warrant analysis was conducted in this study based on the guidelines included in the CAMUTCD.¹⁰ Per CAMUTCD, protected left-turn phases should be considered when one or more of the following conditions exist:

1. Collisions – Five or more left turn collisions for a particular left turn movement during a recent 12-month period.
2. Delay – Left-turn delay of one or more vehicles, which were waiting at the beginning of the green interval and are still remaining in the left turn lane after at least 80% of the total number of cycles for one hour.
3. Volume – At new intersections where only estimated volumes are available, the following criteria may be used. For pre-time signal or a background-cycle-controlled actuated signal, a left turn volume of more than two vehicles per approach per cycle for a peak hour, or for a traffic-actuated signal, 50 or more left turning vehicles per hour in one direction with the product of the turning and conflicting through traffic during the peak hour of 100,000 or more.
4. Miscellaneous. Other factors that might be considered include but are not limited to: impaired sight distance due to horizontal or vertical curvature, or where there are a large percentage of buses and trucks.

The preliminary study intersections for protected left-turn phase analysis are listed below:

- ADLP / Hull Avenue (Signalized) - County

¹⁰ California Manual on Uniform Traffic Control Devices, 2014 Edition, Revision 3, March 9, 2018

- ADLP / Stockbridge Avenue (Two-Way Stop Control) – Only if the signal warrant is met - Town
- ADLP / Atherton Avenue (All-Way Stop Control) - Town
- ADLP / Walsh Road (One-Way Stop Control) - Town
- ADLP / Camino Al Lago (Two-Way Stop Control) – Only if the signal warrant is met – Town/County (shared)
- ADLP / Valparaiso Avenue (Signalized) - County

2.5 CORRIDOR OPERATING ANALYSIS

2.5.1 Intersection Level of Service (LOS)

The LOS analysis based on the 2000 HCM methodology was conducted for each study intersection using Synchro software.

2.5.2 Significance Criteria

The Town of Atherton's General Plan does not present a delay or Level of Service threshold for intersection operations. However, LOS E is generally considered the threshold of capacity for roadway facilities.

2.6 INTERSECTION CONTROL EVALUATION (ICE) ANALYSIS

For the unsignalized study intersections that meet the signal warrant, AMG conducted operational analysis for the conditions with a signal, an all-way stop control and a roundabout to compare traffic operations with the existing conditions.

For the unsignalized intersections that do not meet the signal warrant, AMG conducted operational analysis for the conditions with an all-way stop control and a roundabout to compare traffic operations with the existing conditions.

For the intersections that meet the left turn phasing warrant, AMG conducted operational analyses for the conditions with a protected left turn phase to compare traffic operations with the existing conditions.

3.0 COLLISION ANALYSIS

Five-year (2013 – 2017) collision history data at each study intersection was collected from the Statewide Integrated Traffic Records System (SWITRS) database. The intersection collision rates were calculated for each study intersection and compared with the statewide collision rates,¹¹ as shown in **Table 1**.

Table 1: Collision Rates

ID	Intersection Name	Traffic Control	Total			Injury + Fatal				
			#	Collision Rate (per million entering vehicles)	Statewide Avg Rate (per million entering vehicles)	Injury #	Fatal #	Injury + Fatal #	Collision Rate (per million entering vehicles)	Statewide Avg Rate (per million entering vehicles)
1	ADLP / Woodside Road	Signalized	0	0.00	0.27	0	0	0	0.00	0.114
2	ADLP / Hull Avenue	Signalized	0	0.00	0.27	0	0	0	0.00	0.114
3	ADLP / Stockbridge Avenue	TWSC	4	0.13	0.15	2	0	2	0.06	0.064
4	ADLP / Atherton Avenue	AWSC	9	0.30	0.21	2	0	2	0.07	0.076
5.a	ADLP / Walsh Road	OWSC	3	0.12	0.15	1	0	1	0.04	0.064
5.b	ADLP / Las Lomitas School Driveway	OWSC	1	0.04	0.15	0	0	0	0.00	0.064
6	ADLP / Camino Al Lago	TWSC	2	0.08	0.15	1	0	1	0.04	0.064
7	ADLP / Valparaiso Avenue	Signalized	0	0.00	0.27	0	0	0	0.00	0.114

Notes:

OWSC = One-Way Stop Control; TWSC = Two-Way Stop Control; AWSC = All-Way Stop Control

Bold indicates collision rates higher than the statewide average.

Source: AMG, 2018

As shown, one unsignalized study intersection has a higher collision rate than the statewide average rate. **Figures 3 to 6** illustrate the collision diagrams as well as type of collision and primary collision factor for study intersections 3 to 6, respectively.

As shown, for the intersections at Stockbridge Avenue and Walsh Road/Las Lomitas School Driveway, which are currently one-way or two-way stop-controlled, the primary collision type was broadside and the main cause was automobile right of way. This is a type of collision that could be corrected by installing an all-way stop control, a roundabout or a signal. For the Camino Al Lago intersection, which is also two-way-stop-controlled, there were two collision types within the most recent five years, including the types that are correctable by installing an all-way stop control or a signal/roundabout (e.g., collisions caused by unsafe speed or improper turning). In addition, for the intersection at Atherton Avenue, which is an all-way-stop-controlled intersection, the reasons for collisions were unsafe speed, improper turning and automobile right of way, which can be correctable with a roundabout or signal.

¹¹ 2014 Collision Data on California State Highway (road miles, travel, collision, collision rates), Caltrans and FHWA, March 6, 2017.

4.0 SIGNAL WARRANT ANALYSIS

Since signal warrant analysis has been conducted for ADLP intersections at Atherton Avenue and Walsh Road in the previous study for the Las Lomas Elementary School,¹² in this analysis, the signal warrant analysis was only conducted for the following two existing unsignalized study intersections:

- ADLP / Stockbridge Avenue (Two-Way Stop Control)
- ADLP / Camino Al Lago (Two-Way Stop Control)

The detailed warrant analyses are included in Appendix B. As shown in the Appendix B, the intersection of ADLP / Stockbridge Avenue met the 8-hour volume signal warrant, the 4-hour volume signal warrant, and the peak hour signal warrant during both a.m. and p.m. peak hours.

The intersection of ADLP / Camino Al Lago does not meet the 8-hour volume signal warrant, 4-hour volume signal warrant, or the peak hour signal warrant during either a.m. or p.m. peak hour. However, there is an existing signal for mid-block crossing approximately 150 feet south of Camino Al Lago; therefore, it is assumed the pedestrian warrant is met in this area.

Based on the previous study for the Las Lomas Elementary School, the intersection of ADLP / Atherton Avenue met the signal warrants. Therefore, for our analysis, it is assumed that a signal could be installed at the ADLP / Stockbridge Avenue intersection, ADLP / Atherton Avenue, and the ADLP / Camino Al Lago intersection.

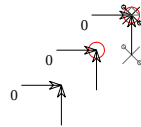
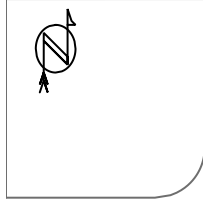
¹² Las Lomas Elementary School Traffic Analysis, Parisi Transportation Consulting, April 10, 2017

Figure 3

03.00 ADLP & Stockbridge Ave
1/1/2013 - 12/31/2017

Distance less than 300

4 Crashes



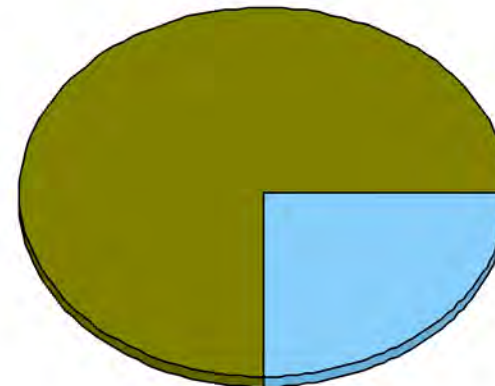
PCF Category

4 Automobile Right Of Way



Type of Collision

0 Collision Type
0 Head-On
0 Sideswipe
0 Rear End
3 Broadside
0 Hit Object
0 Overturned
0 Vehicle/Pedestrian
1 Other
0 Other_Or_Null



(0) crashes could not be placed in this schematic

← Straight
← Stopped
← Unknown
↔ Backing
↔ Overtaking
↔ Sideswipe

▮ Parked
↪ Erratic
↪ Out of control
↪ Right turn
↪ Left turn
↪ U-turn

✕ Pedestrian
✕ Bicycle
○ Injury
● Fatality
⚡ Nighttime
⚡ DUI

Fixed objects:

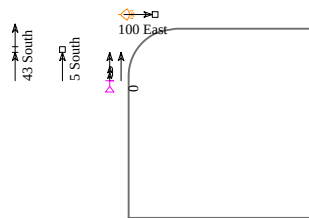
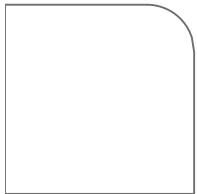
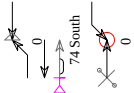
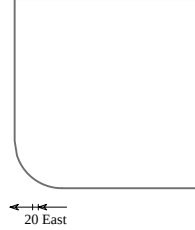
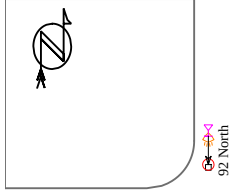
□ General
□ Signal
□ Tree
□ Pole
□ Curb
□ Animal
◁ 3rd vehicle
✱ Extra data

Figure 4

04.00 ADLP & Atherton Ave
1/1/2013 - 12/31/2017

9 Crashes

Distance less than 300



(0) crashes could not be placed in this schematic

- ← Straight
- ← Stopped
- ← Unknown
- ← Backing
- ← Overtaking
- ← Sideswipe

- ▭ Parked
- ⚡ Erratic
- ⚡ Out of control
- ↘ Right turn
- ↙ Left turn
- ↻ U-turn

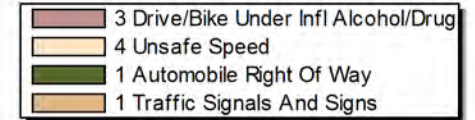
- ⊗ Pedestrian
- ⊗ Bicycle
- Injury
- Fatality
- 🕒 Nighttime
- 🚔 DUI

Fixed objects:

- General
- ▣ Signal
- ▣ Tree
- ▣ Pole
- ▣ Curb
- ⊗ Animal
- 🚗 3rd vehicle
- ✳ Extra data

Pd* Programming, Inc. 11/28/2018

PCF Category



Type of Collision

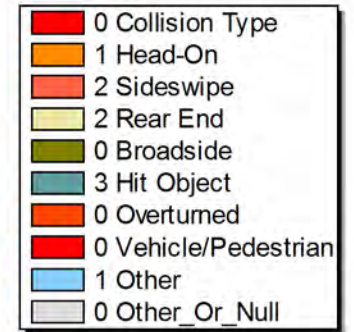
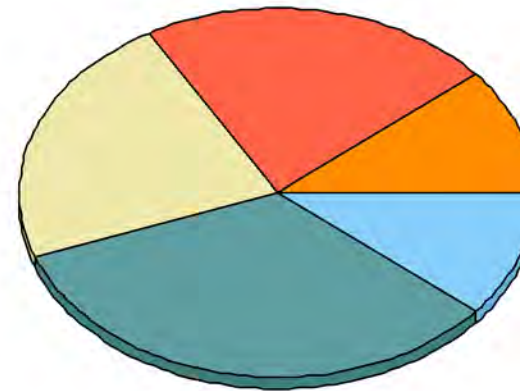
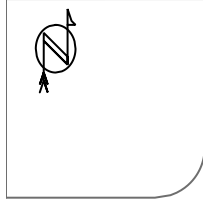


Figure 5.a

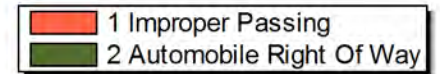
05.a ADLP & Walsh Rd
1/1/2013 - 12/31/2017

3 Crashes

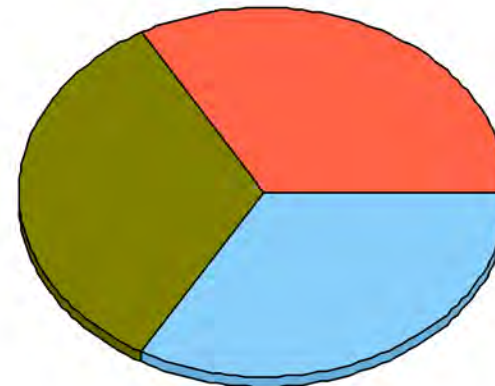
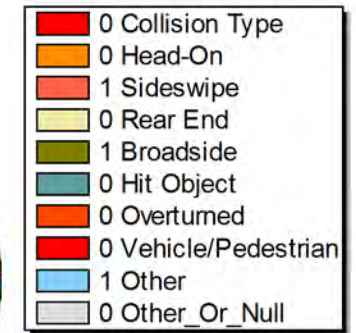
Clear



PCF Category



Type of Collision



(0) crashes could not be placed in this schematic

- ← Straight
- ← Stopped
- ← Unknown
- ↔ Backing
- ↔ Overtaking
- ↔ Sideswipe

- ▭ Parked
- ↗ Erratic
- ↗ Out of control
- ↘ Right turn
- ↘ Left turn
- ↘ U-turn

- ✕ Pedestrian
- ✕ Bicycle
- Injury
- Fatality
- ⚡ Nighttime
- ⚡ DUI

Fixed objects:

- General
- ▣ Signal
- ▣ Tree
- ▣ Pole
- ▣ Curb
- ▣ Animal
- ◁ 3rd vehicle
- * Extra data

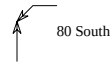
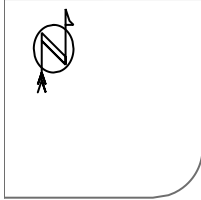
Figure 5.b

05.b ADLP & Las Lomitas School Drvwy

1/1/2013 - 12/31/2017

1 Crashes

Clear



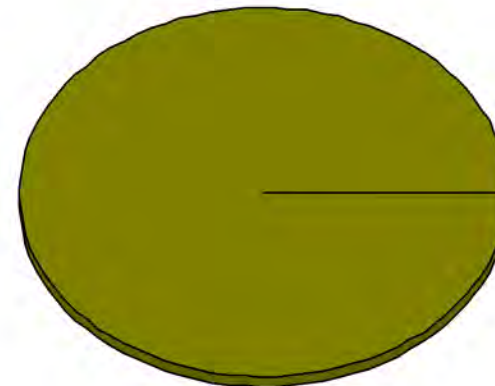
PCF Category

1 Automobile Right Of Way



Type of Collision

0 Collision Type
 0 Head-On
 0 Sideswipe
 0 Rear End
 1 Broadside
 0 Hit Object
 0 Overturned
 0 Vehicle/Pedestrian
 0 Other
 0 Other_Or_Null



(0) crashes could not be placed in this schematic

← Straight
 ← Stopped
 ← Unknown
 ↔ Backing
 ↔ Overtaking
 ↔ Sideswipe

▮ Parked
 ~ Erratic
 ~ Out of control
 ↘ Right turn
 ↙ Left turn
 ↻ U-turn

× Pedestrian
 × Bicycle
 ○ Injury
 ● Fatality
 ☀ Nighttime
 ♀ DUI

Fixed objects:

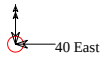
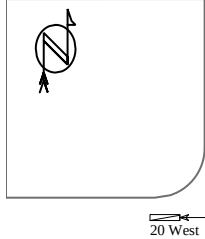
□ General
 □ Signal
 □ Tree
 □ Pole
 □ Curb
 □ Animal
 ◁ 3rd vehicle
 * Extra data

Figure 6

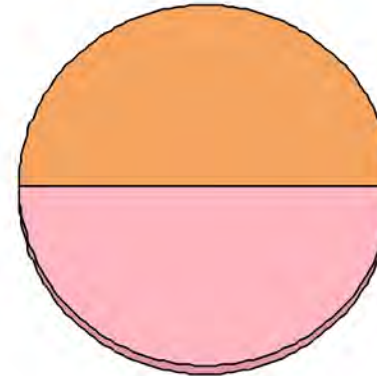
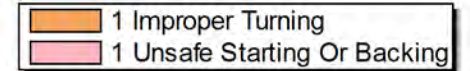
06.00 ADLP & Camino Al Lago
1/1/2013 - 12/31/2017

2 Crashes

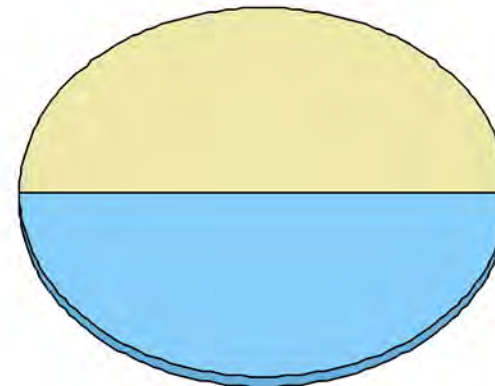
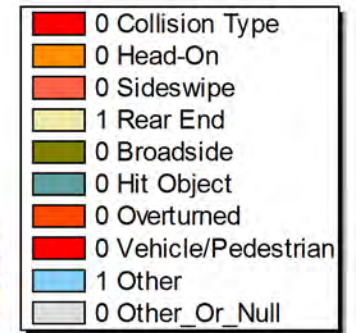
Clear



PCF Category



Type of Collision



- ← Straight
- ← Stopped
- ← Unknown
- ↔ Backing
- ↔ Overtaking
- ↔ Sideswipe

- ▭ Parked
- ↪ Erratic
- ↪ Out of control
- ↪ Right turn
- ↪ Left turn
- ↪ U-turn

- ✕ Pedestrian
- ✕ Bicycle
- Injury
- Fatality
- ⚡ Nighttime
- ⚡ DUI

Fixed objects:

- General
- ▣ Signal
- ▣ Tree
- ▣ Pole
- ▣ Curb
- ⌘ Animal
- ◁ 3rd vehicle
- * Extra data

(0) crashes could not be placed in this schematic

5.0 LEFT-TURN SIGNAL WARRANT ANALYSIS

Since Las Lomas Elementary School decided not to create a new four-leg intersection at Walsh Road, the left-turn signal warrant analysis was conducted for the following intersections:

- ADLP / Hull Avenue (Signalized) - County
- ADLP / Stockbridge Avenue (Two-Way Stop Control) - Town
- ADLP / Atherton Avenue (All-Way Stop Control) - Town
- ADLP / Camino Al Lago (Two-Way Stop Control) – Town/County (shared)
- ADLP / Valparaiso Avenue (Signalized) - County

Table 2: Protected Left-Turn Warrant Analysis

ID	Int Name	Traffic Control	AM Peak Hour						PM Peak Hour					
			WBLT	WBLT x EBT	Met or Not	EBLT	EBLT x WBT	Met or Not	WBLT	WBLT x EBT	Met or Not	EBLT	EBLT x WBT	Met or Not
2	Hull Ave / ADLP	Signal (Free)	-	-	-	6	3,438	N	-	-	-	16	16,112	N
3	Stockbridge Ave / ADLP	TWSC	28	18,676	N	141	55,554	N	47	18,753	N	82	74,374	N
4	Atherton Ave / ADLP	AWSC	9	4,635	N	165	48,510	N	5	1,705	N	101	52,924	N
6	Camino Al Lago / ADLP	TWSC	6	5,004	N	46	19,090	N	3	1,617	N	35	21,350	N
7	Valparaiso Ave / ADLP *	Signal (Actd-Coord)	7		N	167		Y	7		N	124		Y

Note: *Cycle Length = 90 seconds and the left-turn volume threshold = $3600/90 \times 2 = 80/\text{hour}$

Source: AMG, 2018

As shown, only for the intersection of ADLP / Valparaiso Avenue, the southbound Left-turn movement meets the warrant for a protected left-turn signal during both a.m. and p.m. peak hours. Therefore, in the following analysis, it is assumed that protected left-turn phases could be installed at the ADLP / Valparaiso Avenue intersection.

6.0 CORRIDOR OPERATION ANALYSIS

This section summarizes the current operation conditions along the study corridor during the morning and afternoon commute peak hours.

6.1 FIELD OBSERVATIONS

Field observations of the corridor were conducted on Friday, May 18, 2018. During the field observations, excessive queuing and other issues were observed at the following three intersections:

- ADLP / Atherton Avenue - Town
- ADLP / Hull Avenue - County
- ADLP / Woodside Avenue - Caltrans

6.1.1 Peak hour congestion at ADLP / Atherton Avenue Intersection



The intersection of ADLP / Atherton Avenue had excessive queuing and delay during the peak periods. As shown in the photos, the congestion occurs on the westbound and northbound approaches at the intersection during the p.m. peak periods. The directions are reversed during the a.m. peak periods.

In addition to congestion, the westbound right turn lane and the stop control on the lane results in drivers' confusion. During the field visit, AMG staff observed a few near miss collisions at the intersection.

The Las Lomas Elementary school traffic study concludes that a traffic signal or roundabout is justified at this intersection. However, there are multiple overhead wires that would limit the placements of the traffic signal poles at this intersection. Existing right-of-way is insufficient to accommodate a roundabout and property acquisition will be required for construction, in addition to relocation of utilities near the intersection.

6.1.2 Peak hour congestion at ADLP / Hull Avenue Intersection

During the field review, queuing and congestion was observed at the intersection of ADLP / Hull Avenue during the p.m. peak period.

Tweaking the signal timing could potentially improve the overall performance at the intersection. In addition, to the signal timing modifications, the crosswalk ramps at the intersection are not ADA compliant.



6.1.3 Peak hour congestion at ADLP / Woodside Avenue Intersection

The intersection of ADLP / Woodside Avenue is located in close proximity to the Hull Avenue intersection. The northbound queues from the intersection of ADLP / Woodside Avenue was observed to spill over into and beyond the intersection of Hull Avenue. Closely spaced intersections with traffic spillovers should typically be avoided. If it cannot be avoided, efforts should be made to minimize spillover between the

intersections, which can be achieved through improved signal timing and coordination between the intersections.

During the field visit, it was also observed that the corridor is extensively used by bicyclists. However, the minimum green time as observed in the field seems shorter than as required to meet the bicycle requirements.



6.2 INTERSECTION LEVEL OF SERVICE (LOS)

Table 3 shows the intersection level of service under Existing Conditions. The detailed calculation sheets from Synchro software are included in Appendix C. As shown, all the study intersections currently operate at acceptable LOS D or better except for the following two intersections:

- Intersection of ADLP and Stockbridge Avenue – LOS E during both a.m. and p.m. peak hours
- Intersection of ADLP and Atherton Avenue – LOS F during both a.m. and p.m. peak hours

Table 3 also shows whether the unsignalized study intersections meet signal warrant or not, as a summary for the analysis results in Section 4. In addition, as a summary for the analysis results in Section 5, **Table 3** shows whether a protected left-turn phase is warranted for the southbound and northbound left-turns along ADLP at the existing signalized study intersections or study intersections that meet the signal warrant, if no protected left-turn phase exists.

Table 3: Intersection Level of Service – Existing Conditions

ID	Int Name	Traffic Control	AM Peak Hour				PM Peak Hour			
			Delay (sec/veh)	LOS	Signal Warrant?	Protected LT Warrant?	Delay (sec/veh)	LOS	Signal Warrant ?	Protected LT Warrant?
1	ADLP / Woodside Road	Signal	46.5	D	-	-	46.5	D	-	-
2	ADLP / Hull Avenue	Signal (Free)	11.8	B	-	N	3.7	A	-	N
3	ADLP / Stockbridge Avenue	TWSC	49.3	E	Y	N **	37.9	E	Y	N **
4	ADLP / Atherton Avenue	AWSC	87.2	F	Y	N **	91.9	F	Y	N **
5*	ADLP / Walsh Road	OWSC	17.8	C	-	-	13.5	B	-	-
	ADLP / Las Lomas School Driveway	OWSC	14.0	B	-	-	14.1	B	-	-
6	ADLP / Camino Al Lago	TWSC	18.0	C	Y	N **	16.7	C	Y	N **
7	ADLP / Valparaiso Avenue	Signal (Actd-Coord)	18.2	B	-	EBL	23.8	C	-	EBL

Notes:

OWSC = One-Way Stop Control; TWSC = Two-Way Stop Control; AWSC = All-Way Stop Control
Bold indicates unacceptable level of service.

*Per Las Lomas School, the existing Las Lomas School Driveway will not be realigned with Walsh Road to form a new four-way intersection for a new signal.

** Assuming the traffic-actuated signal is installed.

Source: AMG, 2018

7.0 INTERSECTION CONTROL EVALUATION (ICE) ANALYSIS

In this study, AMG deployed the ICE Process to establish an improvement list for installation of a signal, all-way-stop-control, roundabout, and protected left turn phasing along the corridor that would achieve the maximum benefit for the corridor. The detailed ICE analysis for each study intersection is described below. The detailed LOS calculation sheets are included in Appendices D through F for installing a signal control/protected left-turn phases, a roundabout and an all-way stop control, respectively.

7.1 ADLP AND WOODSIDE ROAD

The intersection of ADLP and Woodside Road is currently a signalized intersection, under Caltrans' jurisdiction. There are currently protected left-turn phases for the ADLP approaches. As shown in **Table 3**, the intersection currently operates at an acceptable LOS D during both a.m. and p.m. peak hours. However, as described in Section 6, the northbound queues were observed to spill over into and beyond the intersection of Hull Avenue.

AMG recommends updating signal timing and providing traffic signal coordination between Woodside Road and Hull Avenue.

7.2 ADLP AND HULL AVENUE

The intersection of ADLP and Hull Avenue is currently a signalized intersection within the Town limit. It does not include protected left-turn phases for the ADLP approaches. However, as shown in **Table 3**, it does not meet the warrant to install protected left-turn phases for ADLP approaches. The intersection currently operates at acceptable LOS B and LOS A during the a.m. and p.m. peak hour, respectively.

AMG recommends providing traffic signal coordination between Woodside Road and Hull Avenue. In addition, it is recommended to reconstruct all the corner ramps at this intersection to meet current ADA standards.

7.3 ADLP AND STOCKBRIDGE AVENUE

The intersection of ADLP and Stockbridge Avenue is currently two-way stop controlled on the Stockbridge Avenue approaches. As shown in **Table 3**, it meets the signal warrant. However, assuming a traffic-actuated signal installed at this intersection, it does not meet the warrant for the protected-LT phases on the ADLP approaches. Therefore, traffic operation conditions with a signal control, a roundabout, and an all-way stop control were analyzed and compared at this intersection.

Table 4 summarizes the intersection level of service with different traffic control. As shown, the intersection would operate at LOS A during both a.m. and p.m. peak hours with a signal, compared with LOS B/D with a roundabout and unacceptable LOS F/F with an all-way stop control and unacceptable LOS E/E with the existing two-way stop control. In addition, considering the limited right-of-way for installing a roundabout at this intersection, **AMG recommends installing a traffic signal at this intersection.**

Table 4: Intersection Level of Service – Intersection of ADLP and Stockbridge Avenue

Traffic Control	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
TWSC (Existing)	49.3	E	37.9	E
Alt 1 – Signal	9.8	A	9.6	A
Alt 2 – Roundabout	12.8	B	31.6	D
Alt 3 - AWSC	144.1	F	186.0	F

Notes:

TWSC = Two-Way Stop Control; AWSC = All-Way Stop Control

Bold indicates unacceptable level of service.

Source: AMG, 2018

7.4 ADLP AND ATHERTON AVENUE

The intersection of ADLP and Atherton Avenue is currently all-way stop controlled. As shown in **Table 3**, it operates at LOS F during both a.m. and p.m. peak hours. The intersection meets the signal warrant. However, assuming a traffic-actuated signal installed at this intersection, it does not meet the warrant for the protected-LT phases on the ADLP approaches. As part of this study, traffic operating conditions with a signal control and a roundabout were analyzed and compared at this intersection.

Table 5: Intersection Level of Service – Intersection of ADLP and Atherton Avenue

Traffic Control	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
AWSC (Existing)	87.2	F	91.9	F
Alt 1 – Signal	17.6	B	16.8	B
Alt 2 – Roundabout	12.3	B	7.1	A

Notes:

AWSC = All-Way Stop Control

Bold indicates unacceptable level of service.

Source: AMG, 2018

Table 5 summarizes the intersection level of service with different traffic control. As shown, the intersection would operate at LOS B during both a.m. and p.m. peak hours with a signal, compared with unacceptable LOS F/F with the existing all-way stop control.

With a roundabout, the intersection would operate at LOS B/A with minor improvements in the average vehicle delay from the conditions with a signal. In addition, a roundabout or a signal could reduce overall crashes at intersections where stop signs were previously used for traffic control. Considering the high historical collision rate at this intersection, as shown in **Table 1**, and the limited right-of-way for installing a roundabout at this intersection, **AMG recommends installing a traffic signal at this intersection.**

7.5 ADLP AND WALSH ROAD/LAS LOMITAS SCHOOL DRIVEWAY

Both the intersection of ADLP and Walsh Road and the intersection of ADLP and Las Lomas School Driveway are currently one-way stop-controlled intersections, which are approximately 80 feet apart. Due to the proposed new Las Lomas school development, the existing driveway on ADLP is supposed to have some changes. However, as shown in **Figure 7**, according to the encroachment permit application that was submitted on June 11, 2018, the school is no longer proposing to re-align the existing ADLP driveway to form a four-way intersection with Walsh Road as assumed in the school study¹³. Instead, the school proposes to keep the existing school driveway on ADLP. In addition, an existing driveway to the north of Walsh Road is proposed to be a right-turn-out only driveway for the school use.

Since the encroachment permit application was based on safety analysis conducted by the Town, **AMG is not recommending any changes in this area from what are proposed by the school.**

7.6 ADLP AND CAMINO AL LAGO

The intersection of ADLP and Camino Al Lago is currently two-way stop controlled on the Camino Al Lago approaches. As described in Section 4, this intersection does not meet any of the 8-hour volume signal warrant, 4-hour volume signal warrant, or the peak hour signal warrant during either a.m. or p.m. peak hour. However, there is an existing signal for mid-block crossing approximately 150 feet south of Camino Al Lago, it is assumed the pedestrian warrant is met in this area. Therefore, traffic operation conditions with a signal control, a roundabout, and an all-way stop control were analyzed and compared at this intersection.

Table 6: Intersection Level of Service – Intersection of ADLP and Camino Al Lago

Traffic Control	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
TWSC (Existing)	18.0	C	16.7	C
Alt 1 – Signal	3.5	A	3.6	A
Alt 2 – Roundabout	16.3	C	13.7	B
Alt 3 - AWSC	95.3	F	66.4	F

Notes:

TWSC = Two-Way Stop Control; AWSC = All-Way Stop Control

Bold indicates unacceptable level of service.

Source: AMG, 2018

¹³ Las Lomas Elementary School Traffic Analysis, Parisi Transportation Consulting, April 10, 2017

FIGURE 7
Traffic-Related Changes for Las Lomitas Elementary School Development

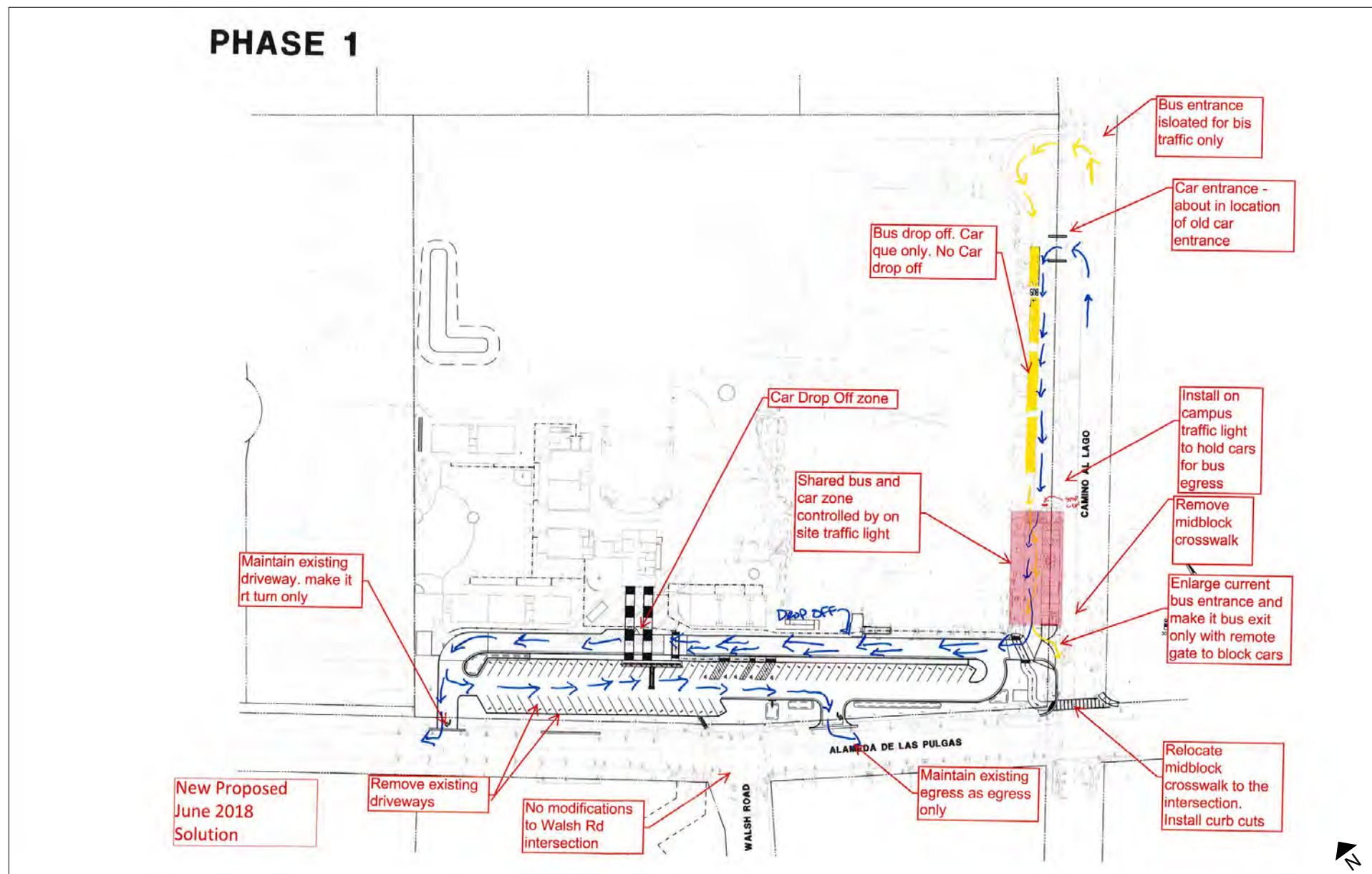


Table 6 summarizes the intersection level of service with different traffic control. As shown, the intersection would operate at LOS A during both a.m. and p.m. peak hours with a signal, compared with LOS C/B with a roundabout, unacceptable LOS F/F with an all-way stop control, and LOS C/C with the existing two-way stop control. Considering the proximity to the school and high pedestrian crossing volumes during the school peak periods, **AMG recommends installing a traffic signal at this intersection and removal of the existing mid-block crosswalk and signal on ADLP approximately 150 feet south of this intersection.**

In addition, as shown in **Figure 7**, the existing mid-block crosswalk on Camino Al Lago is proposed to be moved to the intersection, **it is recommended to redesign the intersection to shorten the crossing distance for all approaches.**

7.7 ADLP AND VALPRAISO AVENUE

The intersection of ADLP and Valparaiso Avenue is currently a signalized intersection outside of Atherton town limit. As shown in **Table 3**, this intersection meets the warrant to install a protected left-turn phase for the southbound approach on ADLP. Therefore, traffic operation conditions with and without protected left-turn phases for the southbound/northbound approaches were analyzed and compared at this intersection.

Table 7: Intersection Level of Service – Intersection of ADLP and Valparaiso Avenue

Traffic Control	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Signal No Protected LTs (Existing)	18.2	B	23.8	C
Alt 1 – Signal with Protected LTs	28.7	C	40.7	D

Source: AMG, 2018

Table 7 summarizes the intersection level of service with different traffic control. As shown, the intersection would operate at LOS C/D during a.m. and p.m. peak hour, respectively with protected southbound/northbound left-turn phases, compared with LOS B/C without protected phases.

Even though the LOS would get worse with protected left-turn phases, the traffic conditions meet acceptable level of services with or without protected left-turn phases. Considering that the protected left-turn phases would improve the safety for the left-turn traffic, **AMG recommends installing protected left-turn phases for the ADLP approaches at this intersection.**

7.8 GENERAL RECOMMENDATIONS

In addition to the recommendations made for each study intersection as described above, AMG recommends the following overall improvements on the corridor. The Town may need to work with its partners, including Caltrans, the County, or SamTrans, to accomplish some of these improvements, due to jurisdictional authority.

- Review bicycle timing and pedestrian change interval timing per the 2014 edition of the CAMUTCD at intersections;
- Review the red and yellow clearance intervals using guidance provided in the 2014 edition of the CAMUTCD and NCHRP Report 81;
- Provide green color surface treatment in bike lanes where potential bike/vehicle conflicts could occur;
- Move bus stops from near-side to far-side (e.g. northbound at Hull Avenue);
- Replace 8-inch signal head with 12-inch head;



8.0 CONCLUSION

Based on the results of the analysis, the following is a summary of our findings:

- All three signalized study intersections do not have any reported accidents within the most recent five years. One unsignalized study intersection has higher collision rates than the statewide average rates. The majority of the collisions are correctable by installing an all-way stop control, a roundabout, or a signal.
- The intersections of ADLP / Stockbridge Avenue, ADLP / Atherton Avenue, and ADLP / Camino Al Lago meet signal warrants.
- For the intersection of ADLP / Valparaiso Avenue, the southbound Left-turn movement meets the warrant for a protected left-turn signal during both a.m. and p.m. peak hours.
- All the study intersections currently operate at an acceptable LOS D or better except for the intersection of ADLP and Stockbridge and the intersection of ADLP and Atherton Avenue.
- Through Intersection Control Evaluation (ICE) process, an improvement list has been established along the corridor that would achieve the maximum benefit for the corridor.
 - o Intersection of ADLP and Woodside Road – It is recommended to update signal timing and provide traffic signal coordination between Woodside Road and Hull Avenue to reduce the northbound traffic backup.
 - o Intersection of ADLP and Hull Avenue – It is recommended to provide traffic signal coordination between Woodside Road and Hull Avenue, and it is recommended to reconstruct all the curb ramps to meet current ADA standards. Traffic signal coordination is expected to reduce the northbound traffic backup.
 - o Intersection of ADLP and Stockbridge Avenue – It is recommended to install a traffic signal to improve traffic operations and LOS at the intersection.
 - o Intersection of ADLP and Atherton Avenue – Installing a roundabout or a traffic signal at this intersection is expected to improve traffic operations and intersection LOS from existing conditions. However, due to restricted right of way and the need for property acquisition to install a roundabout, installing a signal is more feasible.
 - o Intersection of ADLP and Walsh Road / Las Lomitas School Driveway – No changes from what are proposed by the Las Lomitas Elementary School.

- o Intersection of ADLP and Camino Al Lago – It is recommended to install a traffic signal at this intersection and remove the existing mid-block crosswalk and signal on ADLP approximately 150 feet south of this intersection; and, it is recommended to redesign the intersection to shorten the crossing distance for all approaches. The jurisdiction of the intersection is shared with the County of San Mateo and therefore would require their approval to signalize the intersection.
 - o Intersection of ADLP and Valparaiso Avenue – It is recommended to install protected left-turn phases for the ADLP approaches at this intersection. It is noted that this intersection is outside the jurisdictional authority of the Town.
- In addition, the following general improvements on the corridor are recommended. The Town may need to work with its partners, including Caltrans, the County, or SamTrans, to accomplish some of these improvements, due to jurisdictional authority:
 - o Review bicycle timing and pedestrian change interval timing per the 2014 edition of the CAMUTCD at intersections;
 - o Review the red and yellow clearance intervals using guidance provided in the 2014 edition of the CAMUTCD and NCHRP Report 81;
 - o Provide green color surface treatment in bike lanes where potential bike/vehicle conflicts could occur;
 - o Move bus stops from near-side to far-side (e.g. northbound at Hull Avenue);
 - o Replace 8-inch signal head with 12-inch head;

Appendix A Traffic Volume Counts

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 18-08148-001

Date : 04/26/2018

Unshifted Count = All Vehicles & Uturns

	Woodside Rd Southbound					Alameda de las Pulgas Westbound					Woodside Rd Northbound					Alameda de las Pulgas Eastbound					Total	Uturns Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	33	293	3	0	329	52	4	17	0	73	12	155	73	0	240	6	32	12	0	50	692	0
7:15	48	352	5	3	408	74	12	10	0	96	12	191	107	0	310	2	49	25	0	76	890	3
7:30	21	386	8	5	420	105	33	24	0	162	23	239	118	1	381	8	41	99	0	148	1111	6
7:45	33	401	13	1	448	97	49	38	0	184	35	256	76	0	367	17	65	95	0	177	1176	1
Total	135	1432	29	9	1605	328	98	89	0	515	82	841	374	1	1298	33	187	231	0	451	3869	10
8:00	22	342	11	0	375	160	35	30	0	225	39	281	120	3	443	13	42	73	0	128	1171	3
8:15	40	321	11	0	372	87	31	33	0	151	24	235	104	1	364	11	58	90	0	159	1046	1
8:30	35	326	7	2	370	83	20	31	0	134	17	274	106	0	397	7	67	64	0	138	1039	2
8:45	32	323	6	2	363	66	28	33	0	127	22	266	118	0	406	16	64	62	0	142	1038	2
Total	129	1312	35	4	1480	396	114	127	0	637	102	1056	448	4	1610	47	231	289	0	567	4294	8
16:00	32	231	11	2	276	159	61	42	0	262	46	305	67	0	418	11	34	24	0	69	1025	2
16:15	27	262	10	6	305	165	51	34	0	250	24	299	57	0	380	11	41	19	0	71	1006	6
16:30	21	285	5	1	312	154	61	42	0	257	33	345	81	1	460	9	27	31	0	67	1096	2
16:45	34	266	4	1	305	190	58	35	0	283	40	256	72	1	369	15	35	21	0	71	1028	2
Total	114	1044	30	10	1198	668	231	153	0	1052	143	1205	277	2	1627	46	137	95	0	278	4155	12
17:00	24	286	8	4	322	137	60	36	0	233	47	347	63	0	457	6	22	28	0	56	1068	4
17:15	18	251	8	3	280	164	59	27	0	250	48	298	80	0	426	8	41	22	0	71	1027	3
17:30	29	258	10	5	302	163	73	27	0	263	43	290	87	2	422	9	30	29	0	68	1055	7
17:45	37	281	17	2	337	134	58	41	0	233	55	270	98	10	433	6	39	35	0	80	1083	12
Total	108	1076	43	14	1241	598	250	131	0	979	193	1205	328	12	1738	29	132	114	0	275	4233	26
Grand Total	486	4864	137	37	5524	1990	693	500	0	3183	520	4307	1427	19	6273	155	687	729	0	1571	16551	56
Apprch %	8.8%	88.1%	2.5%	0.7%		62.5%	21.8%	15.7%	0.0%		8.3%	68.7%	22.7%	0.3%		9.9%	43.7%	46.4%	0.0%			
Total %	2.9%	29.4%	0.8%	0.2%	33.4%	12.0%	4.2%	3.0%	0.0%	19.2%	3.1%	26.0%	8.6%	0.1%	37.9%	0.9%	4.2%	4.4%	0.0%	9.5%	100.0%	

AM PEAK HOUR	Woodside Rd Southbound					Alameda de las Pulgas Westbound					Woodside Rd Northbound					Alameda de las Pulgas Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	21	386	8	5	420	105	33	24	0	162	23	239	118	1	381	8	41	99	0	148	1111
7:45	33	401	13	1	448	97	49	38	0	184	35	256	76	0	367	17	65	95	0	177	1176
8:00	22	342	11	0	375	160	35	30	0	225	39	281	120	3	443	13	42	73	0	128	1171
8:15	40	321	11	0	372	87	31	33	0	151	24	235	104	1	364	11	58	90	0	159	1046
Total Volume	116	1450	43	6	1615	449	148	125	0	722	121	1011	418	5	1555	49	206	357	0	612	4504
% App Total	7.2%	89.8%	2.7%	0.4%		62.2%	20.5%	17.3%	0.0%		7.8%	65.0%	26.9%	0.3%		8.0%	33.7%	58.3%	0.0%		
PHF	.725	.904	.827	.300	.901	.702	.755	.822	.000	.802	.776	.899	.871	.417	.878	.721	.792	.902	.000	.864	.957

PM PEAK HOUR	Woodside Rd Southbound					Alameda de las Pulgas Westbound					Woodside Rd Northbound					Alameda de las Pulgas Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	24	286	8	4	322	137	60	36	0	233	47	347	63	0	457	6	22	28	0	56	1068
17:15	18	251	8	3	280	164	59	27	0	250	48	298	80	0	426	8	41	22	0	71	1027
17:30	29	258	10	5	302	163	73	27	0	263	43	290	87	2	422	9	30	29	0	68	1055
17:45	37	281	17	2	337	134	58	41	0	233	55	270	98	10	433	6	39	35	0	80	1083
Total Volume	108	1076	43	14	1241	598	250	131	0	979	193	1205	328	12	1738	29	132	114	0	275	4233
% App Total	8.7%	86.7%	3.5%	1.1%		61.1%	25.5%	13.4%	0.0%		11.1%	69.3%	18.9%	0.7%		10.5%	48.0%	41.5%	0.0%		
PHF	.730	.941	.632	.700	.921	.912	.856	.799	.000	.931	.877	.868	.837	.300	.951	.806	.805	.814	.000	.859	.977

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 18-08148-001

Date : 04/26/2018

Bank 1 Count = Bikes & Peds

	Woodside Rd Southbound					Alameda de las Pulgas Westbound					Woodside Rd Northbound					Alameda de las Pulgas Eastbound					Total	Peds Total
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		
7:00	0	0	2	0	2	0	2	0	0	2	0	0	0	0	0	0	5	2	0	7	11	0
7:15	0	0	0	15	0	0	1	0	0	1	1	0	0	1	1	0	4	0	0	4	6	16
7:30	0	0	0	6	0	1	4	0	0	5	0	0	1	0	1	0	3	0	0	3	9	6
7:45	0	0	1	18	1	0	3	0	3	3	0	1	0	7	1	0	8	0	3	8	13	31
Total	0	0	3	39	3	1	10	0	3	11	1	1	1	8	3	0	20	2	3	22	39	53
8:00	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	8	0
8:15	0	0	0	5	0	0	2	0	1	2	0	0	1	0	1	0	9	0	0	9	12	6
8:30	1	0	2	4	3	0	4	0	0	4	0	0	2	0	2	0	7	0	4	7	16	8
8:45	0	0	2	13	2	0	3	0	0	3	1	1	2	0	4	0	8	0	1	8	17	14
Total	1	0	4	22	5	0	12	0	1	12	1	1	5	0	7	0	29	0	5	29	53	28
16:00	0	0	0	2	0	0	4	0	0	4	4	0	0	0	4	0	0	0	2	0	8	4
16:15	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3	0
16:30	0	0	0	2	0	0	2	0	0	2	2	0	0	0	2	0	1	1	1	2	6	3
16:45	0	0	0	1	0	0	4	0	1	4	0	1	0	0	1	0	3	1	1	4	9	3
Total	0	0	1	5	1	0	10	0	1	10	6	1	0	0	7	0	6	2	4	8	26	10
17:00	0	0	0	1	0	0	4	0	1	4	1	0	0	1	1	0	1	1	0	2	7	3
17:15	0	0	1	0	1	0	3	2	0	5	0	0	0	0	0	0	0	0	0	0	6	0
17:30	0	0	1	1	1	0	4	0	0	4	0	0	1	0	1	0	5	0	0	5	11	1
17:45	0	0	0	2	0	2	11	1	0	14	0	0	0	0	0	0	1	0	0	1	15	2
Total	0	0	2	4	2	2	22	3	1	27	1	0	1	1	2	0	7	1	0	8	39	6
Grand Total	1	0	10	70	11	3	54	3	6	60	9	3	7	9	19	0	62	5	12	67	157	97
Apprch %	9.1%	0.0%	90.9%			5.0%	90.0%	5.0%			47.4%	15.8%	36.8%			0.0%	92.5%	7.5%				
Total %	0.6%	0.0%	6.4%		7.0%	1.9%	34.4%	1.9%		38.2%	5.7%	1.9%	4.5%		12.1%	0.0%	39.5%	3.2%		42.7%	100.0%	

AM PEAK HOUR	Woodside Rd Southbound					Alameda de las Pulgas Westbound					Woodside Rd Northbound					Alameda de las Pulgas Eastbound					Total
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	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	0	0	0	6	0	1	4	0	0	5	0	0	1	0	1	0	3	0	0	3	9
7:45	0	0	1	18	1	0	3	0	3	3	0	1	0	7	1	0	8	0	3	8	13
8:00	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	8
8:15	0	0	0	5	0	0	2	0	1	2	0	0	1	0	1	0	9	0	0	9	12
Total Volume	0	0	1	29	1	1	12	0	4	13	0	1	2	7	3	0	25	0	3	25	42
% App Total	0.0%	0.0%	100.0%			7.7%	92.3%	0.0%			0.0%	33.3%	66.7%			0.0%	100.0%	0.0%			
PHF	.000	.000	.250		.250	.250	.750	.000		.650	.000	.250	.500		.750	.000	.694	.000		.694	.808

PM PEAK HOUR	Woodside Rd Southbound					Alameda de las Pulgas Westbound					Woodside Rd Northbound					Alameda de las Pulgas Eastbound					Total
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	
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	0	0	0	1	0	0	4	0	1	4	1	0	0	1	1	0	1	1	0	2	7
17:15	0	0	1	0	1	0	3	2	0	5	0	0	0	0	0	0	0	0	0	0	6
17:30	0	0	1	1	1	0	4	0	0	4	0	0	1	0	1	0	5	0	0	5	11
17:45	0	0	0	2	0	2	11	1	0	14	0	0	0	0	0	0	1	0	0	1	15
Total Volume	0	0	2	4	2	2	22	3	1	27	1	0	1	1	2	0	7	1	0	8	39
% App Total	0.0%	0.0%	100.0%			7.4%	81.5%	11.1%			50.0%	0.0%	50.0%			0.0%	87.5%	12.5%			
PHF	.000	.000	.500		.500	.250	.500	.375		.482	.250	.000	.250		.500	.000	.350	.250		.400	.650

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 18-08148-002

Date : 04/26/2018

Unshifted Count = All Vehicles & Uturns

	Hull Ave Southbound					Alameda de las Pulgas Westbound					Hull Ave Northbound					Alameda de las Pulgas Eastbound					Total	Uturns Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	5	0	12	0	17	0	71	0	0	71	0	0	0	0	0	1	136	0	0	137	225	0
7:15	11	0	24	0	35	0	79	2	0	81	0	0	0	0	0	1	190	0	0	191	307	0
7:30	36	0	36	0	72	0	113	2	0	115	0	0	0	0	0	1	179	0	0	180	367	0
7:45	59	0	52	0	111	0	150	13	0	163	0	0	0	0	0	1	172	0	0	173	447	0
Total	111	0	124	0	235	0	413	17	0	430	0	0	0	0	0	4	677	0	0	681	1346	0
8:00	24	0	30	0	54	0	177	3	1	181	0	0	0	0	0	3	185	0	0	188	423	1
8:15	13	0	14	0	27	0	133	4	0	137	0	0	0	0	0	1	211	0	0	212	376	0
8:30	7	0	14	0	21	0	126	3	0	129	0	0	0	0	0	4	199	0	0	203	353	0
8:45	10	0	20	0	30	0	111	4	0	115	0	0	0	0	0	3	204	0	0	207	352	0
Total	54	0	78	0	132	0	547	14	1	562	0	0	0	0	0	11	799	0	0	810	1504	1
16:00	2	0	8	0	10	0	241	3	0	244	0	0	0	0	0	5	129	0	0	134	388	0
16:15	3	0	6	0	9	0	252	4	0	256	0	0	0	0	0	1	121	0	0	122	387	0
16:30	3	0	6	0	9	0	259	5	0	264	0	0	0	0	0	7	124	0	0	131	404	0
16:45	5	0	7	0	12	0	255	6	0	261	0	0	0	0	0	3	136	0	0	139	412	0
Total	13	0	27	0	40	0	1007	18	0	1025	0	0	0	0	0	16	510	0	0	526	1591	0
17:00	2	0	8	0	10	0	243	5	0	248	0	0	0	0	0	4	102	0	0	106	364	0
17:15	4	0	7	0	11	0	250	3	0	253	0	0	0	0	0	5	136	0	0	141	405	0
17:30	1	0	10	0	11	0	224	4	0	228	0	0	0	0	0	2	153	0	0	155	394	0
17:45	3	0	7	0	10	0	239	6	0	245	0	0	0	0	0	7	160	0	0	167	422	0
Total	10	0	32	0	42	0	956	18	0	974	0	0	0	0	0	18	551	0	0	569	1585	0
Grand Total	188	0	261	0	449	0	2923	67	1	2991	0	0	0	0	0	49	2537	0	0	2586	6026	1
Apprch %	41.9%	0.0%	58.1%	0.0%		0.0%	97.7%	2.2%	0.0%		0.0%	0.0%	0.0%	0.0%		1.9%	98.1%	0.0%	0.0%			
Total %	3.1%	0.0%	4.3%	0.0%	7.5%	0.0%	48.5%	1.1%	0.0%	49.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	42.1%	0.0%	0.0%	42.9%	100.0%	

AM PEAK HOUR	Hull Ave Southbound					Alameda de las Pulgas Westbound					Hull Ave Northbound					Alameda de las Pulgas Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	36	0	36	0	72	0	113	2	0	115	0	0	0	0	0	1	179	0	0	180	367
7:45	59	0	52	0	111	0	150	13	0	163	0	0	0	0	0	1	172	0	0	173	447
8:00	24	0	30	0	54	0	177	3	1	181	0	0	0	0	0	3	185	0	0	188	423
8:15	13	0	14	0	27	0	133	4	0	137	0	0	0	0	0	1	211	0	0	212	376
Total Volume	132	0	132	0	264	0	573	22	1	596	0	0	0	0	0	6	747	0	0	753	1613
% App Total	50.0%	0.0%	50.0%	0.0%		0.0%	96.1%	3.7%	0.2%		0.0%	0.0%	0.0%	0.0%		0.8%	99.2%	0.0%	0.0%		
PHF	.559	.000	.635	.000	.595	.000	.809	.423	.250	.823	.000	.000	.000	.000	.000	.500	.885	.000	.000	.888	.902

PM PEAK HOUR	Hull Ave Southbound					Alameda de las Pulgas Westbound					Hull Ave Northbound					Alameda de las Pulgas Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	2	0	8	0	10	0	241	3	0	244	0	0	0	0	0	5	129	0	0	134	388
16:15	3	0	6	0	9	0	252	4	0	256	0	0	0	0	0	1	121	0	0	122	387
16:30	3	0	6	0	9	0	259	5	0	264	0	0	0	0	0	7	124	0	0	131	404
16:45	5	0	7	0	12	0	255	6	0	261	0	0	0	0	0	3	136	0	0	139	412
Total Volume	13	0	27	0	40	0	1007	18	0	1025	0	0	0	0	0	16	510	0	0	526	1591
% App Total	32.5%	0.0%	67.5%	0.0%		0.0%	98.2%	1.8%	0.0%		0.0%	0.0%	0.0%	0.0%		3.0%	97.0%	0.0%	0.0%		
PHF	.650	.000	.844	.000	.833	.000	.972	.750	.000	.971	.000	.000	.000	.000	.000	.571	.938	.000	.000	.946	.965

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 18-08148-002

Date : 04/26/2018

Bank 1 Count = Bikes & Peds

	Hull Ave Southbound					Alameda de las Pulgas Westbound					Hull Ave Northbound					Alameda de las Pulgas Eastbound					Total	Peds Total
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		
7:00	0	0	0	1	0	0	1	1	1	2	0	0	0	0	0	0	5	0	0	5	7	2
7:15	1	0	1	0	2	0	2	0	15	2	0	0	0	0	0	0	4	0	2	4	8	17
7:30	0	0	3	3	3	0	2	1	28	3	0	0	0	0	0	0	4	0	8	4	10	39
7:45	0	0	11	0	11	0	0	0	63	0	0	0	0	0	0	0	7	0	18	7	18	81
Total	1	0	15	4	16	0	5	2	107	7	0	0	0	0	0	0	20	0	28	20	43	139
8:00	0	0	1	3	1	0	2	0	21	2	0	0	0	0	0	0	9	0	4	9	12	28
8:15	0	0	1	0	1	0	0	0	11	0	0	0	0	0	0	1	7	0	1	8	9	12
8:30	1	0	1	0	2	0	2	0	7	2	0	0	0	0	0	1	10	0	0	11	15	7
8:45	0	0	0	5	0	0	1	0	29	1	0	0	0	0	0	0	6	0	3	6	7	37
Total	1	0	3	8	4	0	5	0	68	5	0	0	0	0	0	2	32	0	8	34	43	84
16:00	0	0	0	0	0	0	1	0	7	1	0	0	0	0	0	0	0	0	0	0	1	7
16:15	0	0	0	0	0	0	2	1	8	3	0	0	0	0	0	0	0	0	0	0	3	8
16:30	0	0	0	0	0	0	2	0	4	2	0	0	0	0	0	0	1	0	0	1	3	4
16:45	0	0	0	0	0	0	4	0	2	4	0	0	0	0	0	2	2	0	13	4	8	15
Total	0	0	0	0	0	0	9	1	21	10	0	0	0	0	0	2	3	0	13	5	15	34
17:00	0	0	2	10	2	0	7	0	12	7	0	0	0	0	0	0	1	0	4	1	10	26
17:15	1	0	0	0	1	0	4	1	6	5	0	0	0	0	0	0	0	0	2	0	6	8
17:30	0	0	0	0	0	0	6	0	10	6	0	0	0	0	0	1	6	0	0	7	13	10
17:45	0	0	1	1	1	0	11	0	11	11	0	0	0	0	0	3	1	0	2	4	16	14
Total	1	0	3	11	4	0	28	1	39	29	0	0	0	0	0	4	8	0	8	12	45	58
Grand Total	3	0	21	23	24	0	47	4	235	51	0	0	0	0	0	8	63	0	57	71	146	315
Apprch %	12.5%	0.0%	87.5%			0.0%	92.2%	7.8%			0.0%	0.0%	0.0%			11.3%	88.7%	0.0%				
Total %	2.1%	0.0%	14.4%		16.4%	0.0%	32.2%	2.7%		34.9%	0.0%	0.0%	0.0%		0.0%	5.5%	43.2%	0.0%		48.6%	100.0%	

AM PEAK HOUR	Hull Ave Southbound					Alameda de las Pulgas Westbound					Hull Ave Northbound					Alameda de las Pulgas Eastbound					Total
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	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	0	0	3	3	3	0	2	1	28	3	0	0	0	0	0	0	4	0	8	4	10
7:45	0	0	11	0	11	0	0	0	63	0	0	0	0	0	0	0	7	0	18	7	18
8:00	0	0	1	3	1	0	2	0	21	2	0	0	0	0	0	0	9	0	4	9	12
8:15	0	0	1	0	1	0	0	0	11	0	0	0	0	0	0	1	7	0	1	8	9
Total Volume	0	0	16	6	16	0	4	1	123	5	0	0	0	0	0	1	27	0	31	28	49
% App Total	0.0%	0.0%	100.0%			0.0%	80.0%	20.0%			0.0%	0.0%	0.0%			3.6%	96.4%	0.0%			
PHF	.000	.000	.364		.364	.000	.500	.250		.417	.000	.000	.000		.000	.250	.750	.000		.778	.681

PM PEAK HOUR	Hull Ave Southbound					Alameda de las Pulgas Westbound					Hull Ave Northbound					Alameda de las Pulgas Eastbound					Total
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	
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	0	0	0	0	0	0	1	0	7	1	0	0	0	0	0	0	0	0	0	0	1
16:15	0	0	0	0	0	0	2	1	8	3	0	0	0	0	0	0	0	0	0	0	3
16:30	0	0	0	0	0	0	2	0	4	2	0	0	0	0	0	0	1	0	0	1	3
16:45	0	0	0	0	0	0	4	0	2	4	0	0	0	0	0	2	2	0	13	4	8
Total Volume	0	0	0	0	0	0	9	1	21	10	0	0	0	0	0	2	3	0	13	5	15
% App Total	0.0%	0.0%	0.0%			0.0%	90.0%	10.0%			0.0%	0.0%	0.0%			40.0%	60.0%	0.0%			
PHF	.000	.000	.000		.000	.000	.563	.250		.625	.000	.000	.000		.000	.250	.375	.000		.313	.469

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 18-08148-003

Date : 04/26/2018

Unshifted Count = All Vehicles & Uturns

	Stockbridge Ave Southbound					Alameda de las Pulgas Westbound					Stockbridge Ave Northbound					Alameda de las Pulgas Eastbound					Total	Uturns Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	7	4	16	0	27	2	54	2	0	58	2	2	4	0	8	14	121	3	0	138	231	0
7:15	4	1	29	0	34	2	58	2	0	62	0	2	21	0	23	9	191	2	0	202	321	0
7:30	7	3	51	0	61	1	80	4	0	85	2	2	56	0	60	22	182	3	0	207	413	0
7:45	7	2	87	0	96	10	122	2	0	134	0	5	36	0	41	37	162	2	0	201	472	0
Total	25	10	183	0	218	15	314	10	0	339	4	11	117	0	132	82	656	10	0	748	1437	0
8:00	4	2	57	0	63	12	104	4	0	120	0	0	32	0	32	48	151	1	0	200	415	0
8:15	5	1	41	0	47	5	88	13	0	106	2	4	18	0	24	34	172	2	0	208	385	0
8:30	5	2	26	0	33	2	91	7	0	100	2	0	12	0	14	26	170	1	0	197	344	0
8:45	7	1	30	0	38	3	87	9	0	99	1	3	12	0	16	47	154	1	0	202	355	0
Total	21	6	154	0	181	22	370	33	0	425	5	7	74	0	86	155	647	5	0	807	1499	0
16:00	5	1	24	0	30	3	227	7	0	237	2	0	10	0	12	20	102	1	0	123	402	0
16:15	3	2	29	0	34	6	217	10	0	233	3	0	3	0	6	17	95	2	0	114	387	0
16:30	4	1	38	0	43	12	234	11	0	257	4	3	6	0	13	19	98	0	0	117	430	0
16:45	6	1	45	0	52	14	221	13	0	248	1	1	8	0	10	19	113	1	0	133	443	0
Total	18	5	136	0	159	35	899	41	0	975	10	4	27	0	41	75	408	4	0	487	1662	0
17:00	1	2	26	0	29	10	229	11	0	250	0	1	8	0	9	21	78	1	0	100	388	0
17:15	2	5	35	0	42	11	223	8	0	242	0	2	9	0	11	23	110	2	0	135	430	0
17:30	5	2	31	0	38	14	200	10	0	224	1	2	7	0	10	21	114	2	0	137	409	0
17:45	3	2	29	0	34	11	186	16	0	213	1	0	8	0	9	23	131	2	0	156	412	0
Total	11	11	121	0	143	46	838	45	0	929	2	5	32	0	39	88	433	7	0	528	1639	0
Grand Total	75	32	594	0	701	118	2421	129	0	2668	21	27	250	0	298	400	2144	26	0	2570	6237	0
Apprch %	10.7%	4.6%	84.7%	0.0%		4.4%	90.7%	4.8%	0.0%		7.0%	9.1%	83.9%	0.0%		15.6%	83.4%	1.0%	0.0%			
Total %	1.2%	0.5%	9.5%	0.0%	11.2%	1.9%	38.8%	2.1%	0.0%	42.8%	0.3%	0.4%	4.0%	0.0%	4.8%	6.4%	34.4%	0.4%	0.0%	41.2%	100.0%	

AM PEAK HOUR	Stockbridge Ave Southbound					Alameda de las Pulgas Westbound					Stockbridge Ave Northbound					Alameda de las Pulgas Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	7	3	51	0	61	1	80	4	0	85	2	2	56	0	60	22	182	3	0	207	413
7:45	7	2	87	0	96	10	122	2	0	134	0	5	36	0	41	37	162	2	0	201	472
8:00	4	2	57	0	63	12	104	4	0	120	0	0	32	0	32	48	151	1	0	200	415
8:15	5	1	41	0	47	5	88	13	0	106	2	4	18	0	24	34	172	2	0	208	385
Total Volume	23	8	236	0	267	28	394	23	0	445	4	11	142	0	157	141	667	8	0	816	1685
% App Total	8.6%	3.0%	88.4%	0.0%		6.3%	88.5%	5.2%	0.0%		2.5%	7.0%	90.4%	0.0%		17.3%	81.7%	1.0%	0.0%		
PHF	.821	.667	.678	.000	.695	.583	.807	.442	.000	.830	.500	.550	.634	.000	.654	.734	.916	.667	.000	.981	.892

PM PEAK HOUR	Stockbridge Ave Southbound					Alameda de las Pulgas Westbound					Stockbridge Ave Northbound					Alameda de las Pulgas Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	4	1	38	0	43	12	234	11	0	257	4	3	6	0	13	19	98	0	0	117	430
16:45	6	1	45	0	52	14	221	13	0	248	1	1	8	0	10	19	113	1	0	133	443
17:00	1	2	26	0	29	10	229	11	0	250	0	1	8	0	9	21	78	1	0	100	388
17:15	2	5	35	0	42	11	223	8	0	242	0	2	9	0	11	23	110	2	0	135	430
Total Volume	13	9	144	0	166	47	907	43	0	997	5	7	31	0	43	82	399	4	0	485	1691
% App Total	7.8%	5.4%	86.7%	0.0%		4.7%	91.0%	4.3%	0.0%		11.6%	16.3%	72.1%	0.0%		16.9%	82.3%	0.8%	0.0%		
PHF	.542	.450	.800	.000	.798	.839	.969	.827	.000	.970	.313	.583	.861	.000	.827	.891	.883	.500	.000	.898	.954

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 18-08148-003

Date : 04/26/2018

Bank 1 Count = Bikes & Peds

	Stockbridge Ave Southbound					Alameda de las Pulgas Westbound					Stockbridge Ave Northbound					Alameda de las Pulgas Eastbound					Total	Peds Total
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		
7:00	0	0	0	1	0	0	1	0	0	1	1	0	0	0	1	0	5	0	0	5	7	1
7:15	1	0	2	0	3	0	2	0	0	2	0	0	0	0	0	0	8	0	0	8	13	0
7:30	1	0	0	0	1	0	5	1	0	6	0	0	0	0	0	0	4	0	0	4	11	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	9	0
Total	2	0	2	1	4	0	8	1	0	9	1	0	0	0	1	0	26	0	0	26	40	1
8:00	0	0	0	0	0	1	1	0	0	2	0	0	0	2	0	0	5	0	0	5	7	2
8:15	1	0	0	0	1	0	0	0	0	0	0	1	0	2	1	0	10	0	0	10	12	2
8:30	1	0	0	1	1	0	2	3	0	5	0	0	0	0	0	0	12	0	0	12	18	1
8:45	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	7	0	2	7	10	2
Total	2	0	0	1	2	1	6	3	0	10	0	1	0	4	1	0	34	0	2	34	47	7
16:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	0
16:15	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	2	0	1	2	6	1
16:30	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3	0
16:45	0	0	0	9	0	0	6	0	0	6	0	0	1	0	1	0	2	0	2	2	9	11
Total	0	0	0	9	0	0	12	1	0	13	0	0	1	0	1	0	6	0	3	6	20	12
17:00	0	0	0	2	0	0	8	1	2	9	0	0	0	0	0	0	1	0	0	1	10	4
17:15	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	4	0
17:30	0	0	1	0	1	1	4	0	0	5	0	0	0	0	0	1	3	0	0	4	10	0
17:45	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	3	0	0	3	17	0
Total	1	0	1	2	2	1	28	1	2	30	0	0	0	0	0	1	8	0	0	9	41	4
Grand Total	5	0	3	13	8	2	54	6	2	62	1	1	1	4	3	1	74	0	5	75	148	24
Apprch %	62.5%	0.0%	37.5%			3.2%	87.1%	9.7%			33.3%	33.3%	33.3%			1.3%	98.7%	0.0%				
Total %	3.4%	0.0%	2.0%		5.4%	1.4%	36.5%	4.1%		41.9%	0.7%	0.7%	0.7%		2.0%	0.7%	50.0%	0.0%		50.7%	100.0%	

AM PEAK HOUR	Stockbridge Ave Southbound					Alameda de las Pulgas Westbound					Stockbridge Ave Northbound					Alameda de las Pulgas Eastbound					Total
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	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	1	0	0	0	1	0	5	1	0	6	0	0	0	0	0	0	4	0	0	4	11
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	9
8:00	0	0	0	0	0	1	1	0	0	2	0	0	0	2	0	0	5	0	0	5	7
8:15	1	0	0	0	1	0	0	0	0	0	0	1	0	2	1	0	10	0	0	10	12
Total Volume	2	0	0	0	2	1	6	1	0	8	0	1	0	4	1	0	28	0	0	28	39
% App Total	100.0%	0.0%	0.0%			12.5%	75.0%	12.5%			0.0%	100.0%	0.0%			0.0%	100.0%	0.0%			
PHF	.500	.000	.000		.500	.250	.300	.250		.333	.000	.250	.000		.250	.000	.700	.000		.700	.813

PM PEAK HOUR	Stockbridge Ave Southbound					Alameda de las Pulgas Westbound					Stockbridge Ave Northbound					Alameda de las Pulgas Eastbound					Total
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	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
16:45	0	0	0	9	0	0	6	0	0	6	0	0	1	0	1	0	2	0	2	2	9
17:00	0	0	0	2	0	0	8	1	2	9	0	0	0	0	0	0	1	0	0	1	10
17:15	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	4
Total Volume	1	0	0	11	1	0	18	1	2	19	0	0	1	0	1	0	5	0	2	5	26
% App Total	100.0%	0.0%	0.0%			0.0%	94.7%	5.3%			0.0%	0.0%	100.0%			0.0%	100.0%	0.0%			
PHF	.250	.000	.000		.250	.000	.563	.250		.528	.000	.000	.250		.250	.000	.625	.000		.625	.650

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 18-08148-004

Date : 04/26/2018

Unshifted Count = All Vehicles & Uturns

	Atherton Ave Southbound					Alameda de las Pulgas Westbound					Atherton Ave Northbound					Alameda de las Pulgas Eastbound					Total	Uturns Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	26	1	10	0	37	1	39	17	0	57	1	1	0	0	2	28	92	0	0	120	216	0
7:15	49	3	11	0	63	0	49	18	0	67	2	3	5	0	10	67	133	2	0	202	342	0
7:30	66	7	28	0	101	2	58	16	0	76	2	4	5	0	11	79	126	4	0	209	397	0
7:45	80	6	49	0	135	2	72	29	0	103	3	3	18	0	24	19	135	2	0	156	418	0
Total	221	17	98	0	336	5	218	80	0	303	8	11	28	0	47	193	486	8	0	687	1373	0
8:00	78	6	33	0	117	2	87	35	0	124	0	6	31	0	37	28	130	0	0	158	436	0
8:15	86	3	19	0	108	3	77	27	0	107	4	3	6	0	13	39	124	2	0	165	393	0
8:30	67	9	19	0	95	1	74	35	0	110	3	2	5	0	10	33	130	2	0	165	380	0
8:45	59	6	20	0	85	5	77	32	0	114	3	0	5	0	8	36	134	2	0	172	379	0
Total	290	24	91	0	405	11	315	129	0	455	10	11	47	0	68	136	518	6	0	660	1588	0
16:00	21	5	82	0	108	1	126	23	0	150	8	10	4	0	22	24	106	1	0	131	411	0
16:15	30	8	89	0	127	1	130	17	0	148	1	6	0	0	7	24	76	2	0	102	384	0
16:30	37	3	111	0	151	2	135	15	0	152	5	5	3	0	13	17	87	1	0	105	421	0
16:45	33	3	114	0	150	1	132	14	0	147	1	2	3	0	6	29	93	0	0	122	425	0
Total	121	19	396	0	536	5	523	69	0	597	15	23	10	0	48	94	362	4	0	460	1641	0
17:00	31	4	116	0	151	0	134	13	0	147	1	1	3	0	5	25	66	1	0	92	395	0
17:15	30	3	117	0	150	2	123	17	0	142	2	1	2	0	5	30	95	4	0	129	426	0
17:30	24	4	90	0	118	0	121	24	0	145	1	1	0	0	2	25	85	0	0	110	375	0
17:45	30	0	73	0	103	3	143	13	0	159	0	1	1	0	2	29	114	4	0	147	411	0
Total	115	11	396	0	522	5	521	67	0	593	4	4	6	0	14	109	360	9	0	478	1607	0
Grand Total	747	71	981	0	1799	26	1577	345	0	1948	37	49	91	0	177	532	1726	27	0	2285	6209	0
Apprch %	41.5%	3.9%	54.5%	0.0%		1.3%	81.0%	17.7%	0.0%		20.9%	27.7%	51.4%	0.0%		23.3%	75.5%	1.2%	0.0%			
Total %	12.0%	1.1%	15.8%	0.0%	29.0%	0.4%	25.4%	5.6%	0.0%	31.4%	0.6%	0.8%	1.5%	0.0%	2.9%	8.6%	27.8%	0.4%	0.0%	36.8%	100.0%	

AM PEAK HOUR	Atherton Ave Southbound					Alameda de las Pulgas Westbound					Atherton Ave Northbound					Alameda de las Pulgas Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	66	7	28	0	101	2	58	16	0	76	2	4	5	0	11	79	126	4	0	209	397
7:45	80	6	49	0	135	2	72	29	0	103	3	3	18	0	24	19	135	2	0	156	418
8:00	78	6	33	0	117	2	87	35	0	124	0	6	31	0	37	28	130	0	0	158	436
8:15	86	3	19	0	108	3	77	27	0	107	4	3	6	0	13	39	124	2	0	165	393
Total Volume	310	22	129	0	461	9	294	107	0	410	9	16	60	0	85	165	515	8	0	688	1644
% App Total	67.2%	4.8%	28.0%	0.0%		2.2%	71.7%	26.1%	0.0%		10.6%	18.8%	70.6%	0.0%		24.0%	74.9%	1.2%	0.0%		
PHF	.901	.786	.658	.000	.854	.750	.845	.764	.000	.827	.563	.667	.484	.000	.574	.522	.954	.500	.000	.823	.943

PM PEAK HOUR	Atherton Ave Southbound					Alameda de las Pulgas Westbound					Atherton Ave Northbound					Alameda de las Pulgas Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	37	3	111	0	151	2	135	15	0	152	5	5	3	0	13	17	87	1	0	105	421
16:45	33	3	114	0	150	1	132	14	0	147	1	2	3	0	6	29	93	0	0	122	425
17:00	31	4	116	0	151	0	134	13	0	147	1	1	3	0	5	25	66	1	0	92	395
17:15	30	3	117	0	150	2	123	17	0	142	2	1	2	0	5	30	95	4	0	129	426
Total Volume	131	13	458	0	602	5	524	59	0	588	9	9	11	0	29	101	341	6	0	448	1667
% App Total	21.8%	2.2%	76.1%	0.0%		0.9%	89.1%	10.0%	0.0%		31.0%	31.0%	37.9%	0.0%		22.5%	76.1%	1.3%	0.0%		
PHF	.885	.813	.979	.000	.997	.625	.970	.868	.000	.967	.450	.450	.917	.000	.558	.842	.897	.375	.000	.868	.978

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 18-08148-004

Date : 04/26/2018

Bank 1 Count = Bikes & Peds

	Atherton Ave Southbound					Alameda de las Pulgas Westbound					Atherton Ave Northbound					Alameda de las Pulgas Eastbound					Total	Peds Total
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		
7:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	5	0
7:15	0	0	0	1	0	0	2	0	0	2	0	0	0	1	0	0	8	0	1	8	10	3
7:30	1	0	1	1	2	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	14	1
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	7	0	0	7	7	1
Total	1	0	1	2	2	0	8	0	0	8	0	0	0	2	0	0	26	0	1	26	36	5
8:00	1	0	0	0	1	0	1	0	0	1	0	0	0	1	0	0	5	0	0	5	7	1
8:15	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	9	0	0	10	11	1
8:30	0	0	1	0	1	0	4	0	0	4	0	0	0	1	0	0	14	0	0	14	19	1
8:45	0	0	1	1	1	0	3	0	0	3	0	0	0	2	0	0	9	0	0	9	13	3
Total	2	0	2	1	4	0	8	0	0	8	0	0	0	5	0	1	37	0	0	38	50	6
16:00	1	0	0	0	1	0	2	1	0	3	0	0	0	0	0	0	1	0	0	1	5	0
16:15	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0
16:30	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6	0
16:45	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	3	0	0	3	8	0
Total	1	0	0	0	1	0	11	2	0	13	0	0	0	0	0	0	7	0	0	7	21	0
17:00	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	9	0
17:15	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6	0
17:30	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	1	2	0	0	3	14	0
17:45	0	0	3	0	3	0	9	1	0	10	0	0	0	0	0	0	1	0	0	1	14	0
Total	0	0	3	0	3	0	32	1	0	33	0	0	0	0	0	1	6	0	0	7	43	0
Grand Total	4	0	6	3	10	0	59	3	0	62	0	0	0	7	0	2	76	0	1	78	150	11
Apprch %	40.0%	0.0%	60.0%			0.0%	95.2%	4.8%			0.0%	0.0%	0.0%			2.6%	97.4%	0.0%				
Total %	2.7%	0.0%	4.0%		6.7%	0.0%	39.3%	2.0%		41.3%	0.0%	0.0%	0.0%		0.0%	1.3%	50.7%	0.0%		52.0%	100.0%	

AM PEAK HOUR	Atherton Ave Southbound					Alameda de las Pulgas Westbound					Atherton Ave Northbound					Alameda de las Pulgas Eastbound					Total
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	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	1	0	1	1	2	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	14
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	7	0	0	7	7
8:00	1	0	0	0	1	0	1	0	0	1	0	0	0	1	0	0	5	0	0	5	7
8:15	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	9	0	0	10	11
Total Volume	3	0	1	1	4	0	6	0	0	6	0	0	0	3	0	1	28	0	0	29	39
% App Total	75.0%	0.0%	25.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			3.4%	96.6%	0.0%			
PHF	.750	.000	.250		.500	.000	.300	.000		.300	.000	.000	.000		.000	.250	.778	.000		.725	.696

PM PEAK HOUR	Atherton Ave Southbound					Alameda de las Pulgas Westbound					Atherton Ave Northbound					Alameda de las Pulgas Eastbound					Total
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	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
16:45	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	3	0	0	3	8
17:00	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	9
17:15	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
Total Volume	0	0	0	0	0	0	19	1	0	20	0	0	0	0	0	0	9	0	0	9	29
% App Total	0.0%	0.0%	0.0%			0.0%	95.0%	5.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			
PHF	.000	.000	.000		.000	.000	.528	.250		.556	.000	.000	.000		.000	.000	.750	.000		.750	.806

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 18-08148-005

Date : 04/26/2018

Unshifted Count = All Vehicles & Uturns

START TIME	Walsh Rd/Las Lomitas School Dwy Southbound					Alameda de las Pulgas Westbound					Walsh Rd/Las Lomitas School Dwy Northbound					Alameda de las Pulgas Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	0	0	0	0	0	9	56	0	0	65	5	0	0	0	5	0	108	8	0	116	186	0
7:15	0	0	1	0	1	18	56	0	0	74	10	0	10	0	20	0	166	15	0	181	276	0
7:30	0	0	2	0	2	18	68	0	0	86	7	0	21	0	28	0	185	16	0	201	317	0
7:45	2	0	3	0	5	17	96	0	0	113	9	0	18	0	27	0	215	16	0	231	376	0
Total	2	0	6	0	8	62	276	0	0	338	31	0	49	0	80	0	674	55	0	729	1155	0
8:00	1	0	4	0	5	16	99	0	0	115	7	0	20	0	27	0	212	19	0	231	378	0
8:15	14	0	10	0	24	10	97	0	0	107	8	0	26	0	34	0	184	17	0	201	366	0
8:30	16	0	8	0	24	10	92	0	0	102	7	0	26	0	33	0	183	15	0	198	357	0
8:45	18	2	14	0	34	12	88	0	0	100	10	0	13	0	23	0	187	15	0	202	359	0
Total	49	2	36	0	87	48	376	0	0	424	32	0	85	0	117	0	766	66	0	832	1460	0
16:00	2	0	0	0	2	13	143	0	0	156	9	0	15	0	24	0	129	11	0	140	322	0
16:15	3	0	1	0	4	15	138	0	0	153	11	0	20	0	31	0	100	5	0	105	293	0
16:30	8	0	1	0	9	20	141	1	0	162	10	0	24	0	34	0	128	7	0	135	340	0
16:45	5	0	3	0	8	11	139	0	0	150	1	0	8	0	9	0	120	9	0	129	296	0
Total	18	0	5	0	23	59	561	1	0	621	31	0	67	0	98	0	477	32	0	509	1251	0
17:00	4	0	1	0	5	13	137	1	1	152	11	0	35	0	46	0	95	5	0	100	303	1
17:15	1	0	1	0	2	13	136	0	0	149	6	0	18	0	24	0	126	2	0	128	303	0
17:30	8	0	1	0	9	16	125	0	0	141	5	0	10	0	15	0	93	11	0	104	269	0
17:45	3	0	1	0	4	13	135	0	0	148	8	0	7	0	15	0	146	4	0	150	317	0
Total	16	0	4	0	20	55	533	1	1	590	30	0	70	0	100	0	460	22	0	482	1192	1
Grand Total	85	2	51	0	138	224	1746	2	1	1973	124	0	271	0	395	0	2377	175	0	2552	5058	1
Apprch %	61.6%	1.4%	37.0%	0.0%		11.4%	88.5%	0.1%	0.1%		31.4%	0.0%	68.6%	0.0%		0.0%	93.1%	6.9%	0.0%			
Total %	1.7%	0.0%	1.0%	0.0%	2.7%	4.4%	34.5%	0.0%	0.0%	39.0%	2.5%	0.0%	5.4%	0.0%	7.8%	0.0%	47.0%	3.5%	0.0%	50.5%	100.0%	

AM PEAK HOUR	Walsh Rd/Las Lomitas School Dwy Southbound					Alameda de las Pulgas Westbound					Walsh Rd/Las Lomitas School Dwy Northbound					Alameda de las Pulgas Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	2	0	3	0	5	17	96	0	0	113	9	0	18	0	27	0	215	16	0	231	376
8:00	1	0	4	0	5	16	99	0	0	115	7	0	20	0	27	0	212	19	0	231	378
8:15	14	0	10	0	24	10	97	0	0	107	8	0	26	0	34	0	184	17	0	201	366
8:30	16	0	8	0	24	10	92	0	0	102	7	0	26	0	33	0	183	15	0	198	357
Total Volume	33	0	25	0	58	53	384	0	0	437	31	0	90	0	121	0	794	67	0	861	1477
% App Total	56.9%	0.0%	43.1%	0.0%		12.1%	87.9%	0.0%	0.0%		25.6%	0.0%	74.4%	0.0%		0.0%	92.2%	7.8%	0.0%		
PHF	.516	.000	.625	.000	.604	.779	.970	.000	.000	.950	.861	.000	.865	.000	.890	.000	.923	.882	.000	.932	.977

PM PEAK HOUR	Walsh Rd/Las Lomitas School Dwy Southbound					Alameda de las Pulgas Westbound					Walsh Rd/Las Lomitas School Dwy Northbound					Alameda de las Pulgas Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	2	0	0	0	2	13	143	0	0	156	9	0	15	0	24	0	129	11	0	140	322
16:15	3	0	1	0	4	15	138	0	0	153	11	0	20	0	31	0	100	5	0	105	293
16:30	8	0	1	0	9	20	141	1	0	162	10	0	24	0	34	0	128	7	0	135	340
16:45	5	0	3	0	8	11	139	0	0	150	1	0	8	0	9	0	120	9	0	129	296
Total Volume	18	0	5	0	23	59	561	1	0	621	31	0	67	0	98	0	477	32	0	509	1251
% App Total	78.3%	0.0%	21.7%	0.0%		9.5%	90.3%	0.2%	0.0%		31.6%	0.0%	68.4%	0.0%		0.0%	93.7%	6.3%	0.0%		
PHF	.563	.000	.417	.000	.639	.738	.981	.250	.000	.958	.705	.000	.698	.000	.721	.000	.924	.727	.000	.909	.920

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 18-08148-005

Date : 04/26/2018

Bank 1 Count = Bikes & Peds

	Walsh Rd/Las Lomitas School Dwy Southbound					Alameda de las Pulgas Westbound					Walsh Rd/Las Lomitas School Dwy Northbound					Alameda de las Pulgas Eastbound					Total	Peds Total
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		
7:00	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	5	0	0	5	7	0
7:15	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	0	8	0	0	8	11	0
7:30	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	0	6	0	0	6	12	0
7:45	0	0	0	0	0	1	1	0	0	2	0	0	1	1	1	0	8	0	0	8	11	1
Total	0	0	0	0	0	2	8	0	0	10	1	0	3	1	4	0	27	0	0	27	41	1
8:00	0	0	0	0	0	0	3	0	0	3	0	0	0	1	0	0	6	0	0	6	9	1
8:15	0	0	0	0	0	1	2	0	0	3	0	0	1	1	1	0	7	0	0	7	11	1
8:30	0	0	0	0	0	0	3	0	0	3	0	0	0	1	0	0	10	0	0	10	13	1
8:45	0	0	0	0	0	0	3	0	0	3	0	0	1	1	1	0	9	0	0	9	13	1
Total	0	0	0	0	0	1	11	0	0	12	0	0	2	4	2	0	32	0	0	32	46	4
16:00	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4	0
16:15	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	4	0
16:30	0	0	0	0	0	1	3	0	0	4	0	0	1	0	1	0	3	0	0	3	8	0
16:45	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7	0
Total	0	0	0	0	0	3	12	0	0	15	0	0	1	0	1	0	7	0	0	7	23	0
17:00	0	0	0	0	0	0	9	1	0	10	0	0	0	0	0	0	0	0	0	0	10	0
17:15	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6	0
17:30	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	0	2	0	2	13	0
17:45	0	0	1	0	1	0	9	0	0	9	0	0	1	0	1	0	3	0	0	3	14	0
Total	0	0	1	0	1	0	32	1	0	33	0	0	1	0	1	0	6	2	0	8	43	0
Grand Total	0	0	1	0	1	6	63	1	0	70	1	0	7	5	8	0	72	2	0	74	153	5
Apprch %	0.0%	0.0%	100.0%			8.6%	90.0%	1.4%			12.5%	0.0%	87.5%			0.0%	97.3%	2.7%				
Total %	0.0%	0.0%	0.7%		0.7%	3.9%	41.2%	0.7%		45.8%	0.7%	0.0%	4.6%		5.2%	0.0%	47.1%	1.3%		48.4%	100.0%	

AM PEAK HOUR	Walsh Rd/Las Lomitas School Dwy Southbound					Alameda de las Pulgas Westbound					Walsh Rd/Las Lomitas School Dwy Northbound					Alameda de las Pulgas Eastbound					Total
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	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	0	0	0	0	0	1	1	0	0	2	0	0	1	1	1	0	8	0	0	8	11
8:00	0	0	0	0	0	0	3	0	0	3	0	0	0	1	0	0	6	0	0	6	9
8:15	0	0	0	0	0	1	2	0	0	3	0	0	1	1	1	0	7	0	0	7	11
8:30	0	0	0	0	0	0	3	0	0	3	0	0	0	1	0	0	10	0	0	10	13
Total Volume	0	0	0	0	0	2	9	0	0	11	0	0	2	4	2	0	31	0	0	31	44
% App Total	0.0%	0.0%	0.0%			18.2%	81.8%	0.0%			0.0%	0.0%	100.0%			0.0%	100.0%	0.0%			
PHF	.000	.000	.000		.000	.500	.750	.000		.917	.000	.000	.500		.500	.000	.775	.000		.775	.846

PM PEAK HOUR	Walsh Rd/Las Lomitas School Dwy Southbound					Alameda de las Pulgas Westbound					Walsh Rd/Las Lomitas School Dwy Northbound					Alameda de las Pulgas Eastbound					Total
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	
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
16:15	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	4
16:30	0	0	0	0	0	1	3	0	0	4	0	0	1	0	1	0	3	0	0	3	8
16:45	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
Total Volume	0	0	0	0	0	3	12	0	0	15	0	0	1	0	1	0	7	0	0	7	23
% App Total	0.0%	0.0%	0.0%			20.0%	80.0%	0.0%			0.0%	0.0%	100.0%			0.0%	100.0%	0.0%			
PHF	.000	.000	.000		.000	.375	.750	.000		.938	.000	.000	.250		.250	.000	.583	.000		.583	.719

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 18-08148-006

Date : 04/26/2018

Unshifted Count = All Vehicles & Uturns

	Camino Al Lago Southbound					Alameda de las Pulgas Westbound					Camino Al Lago Northbound					Alameda de las Pulgas Eastbound					Total	Uturns Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	1	0	0	0	1	0	66	3	0	69	0	0	0	0	0	4	104	0	0	108	178	0
7:15	0	0	0	0	0	1	73	7	0	81	1	0	1	0	2	6	171	1	0	178	261	0
7:30	6	0	4	0	10	0	81	3	0	84	1	0	0	0	1	11	193	0	0	204	299	0
7:45	4	0	7	0	11	2	106	15	0	123	1	0	4	0	5	6	229	0	0	235	374	0
Total	11	0	11	0	22	3	326	28	0	357	3	0	5	0	8	27	697	1	0	725	1112	0
8:00	6	0	5	0	11	2	121	22	0	145	0	0	1	0	1	6	221	0	0	227	384	0
8:15	4	0	3	0	7	2	98	22	0	122	1	0	1	0	2	15	204	4	0	223	354	0
8:30	4	0	2	0	6	2	97	38	0	137	0	0	1	0	1	11	209	4	0	224	368	0
8:45	5	0	1	0	6	0	99	68	0	167	0	0	4	0	4	14	200	4	0	218	395	0
Total	19	0	11	0	30	6	415	150	0	571	1	0	7	0	8	46	834	12	0	892	1501	0
16:00	7	0	2	0	9	0	153	22	0	175	0	0	1	0	1	4	143	1	0	148	333	0
16:15	2	0	3	0	5	1	152	31	0	184	0	0	1	0	1	9	114	0	0	123	313	0
16:30	5	0	2	0	7	1	160	37	0	198	1	0	1	0	2	13	149	0	0	162	369	0
16:45	11	0	3	0	14	0	145	28	0	173	0	0	0	0	0	4	131	1	0	136	323	0
Total	25	0	10	0	35	2	610	118	0	730	1	0	3	0	4	30	537	2	0	569	1338	0
17:00	0	0	2	0	2	1	161	44	0	206	0	0	2	0	2	11	122	1	0	134	344	0
17:15	4	0	4	0	8	1	144	48	0	193	0	2	1	0	3	7	137	1	0	145	349	0
17:30	3	0	4	0	7	3	134	13	0	150	0	1	1	0	2	7	106	0	0	113	272	0
17:45	2	1	4	0	7	2	144	20	0	166	0	0	1	0	1	4	149	0	0	153	327	0
Total	9	1	14	0	24	7	583	125	0	715	0	3	5	0	8	29	514	2	0	545	1292	0
Grand Total	64	1	46	0	111	18	1934	421	0	2373	5	3	20	0	28	132	2582	17	0	2731	5243	0
Apprch %	57.7%	0.9%	41.4%	0.0%		0.8%	81.5%	17.7%	0.0%		17.9%	10.7%	71.4%	0.0%		4.8%	94.5%	0.6%	0.0%			
Total %	1.2%	0.0%	0.9%	0.0%	2.1%	0.3%	36.9%	8.0%	0.0%	45.3%	0.1%	0.1%	0.4%	0.0%	0.5%	2.5%	49.2%	0.3%	0.0%	52.1%	100.0%	

AM PEAK HOUR	Camino Al Lago Southbound					Alameda de las Pulgas Westbound					Camino Al Lago Northbound					Alameda de las Pulgas Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
8:00	6	0	5	0	11	2	121	22	0	145	0	0	1	0	1	6	221	0	0	227	384
8:15	4	0	3	0	7	2	98	22	0	122	1	0	1	0	2	15	204	4	0	223	354
8:30	4	0	2	0	6	2	97	38	0	137	0	0	1	0	1	11	209	4	0	224	368
8:45	5	0	1	0	6	0	99	68	0	167	0	0	4	0	4	14	200	4	0	218	395
Total Volume	19	0	11	0	30	6	415	150	0	571	1	0	7	0	8	46	834	12	0	892	1501
% App Total	63.3%	0.0%	36.7%	0.0%		1.1%	72.7%	26.3%	0.0%		12.5%	0.0%	87.5%	0.0%		5.2%	93.5%	1.3%	0.0%		
PHF	.792	.000	.550	.000	.682	.750	.857	.551	.000	.855	.250	.000	.438	.000	.500	.767	.943	.750	.000	.982	.950

PM PEAK HOUR	Camino Al Lago Southbound					Alameda de las Pulgas Westbound					Camino Al Lago Northbound					Alameda de las Pulgas Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	5	0	2	0	7	1	160	37	0	198	1	0	1	0	2	13	149	0	0	162	369
16:45	11	0	3	0	14	0	145	28	0	173	0	0	0	0	0	4	131	1	0	136	323
17:00	0	0	2	0	2	1	161	44	0	206	0	0	2	0	2	11	122	1	0	134	344
17:15	4	0	4	0	8	1	144	48	0	193	0	2	1	0	3	7	137	1	0	145	349
Total Volume	20	0	11	0	31	3	610	157	0	770	1	2	4	0	7	35	539	3	0	577	1385
% App Total	64.5%	0.0%	35.5%	0.0%		0.4%	79.2%	20.4%	0.0%		14.3%	28.6%	57.1%	0.0%		6.1%	93.4%	0.5%	0.0%		
PHF	.455	.000	.688	.000	.554	.750	.947	.818	.000	.934	.250	.250	.500	.000	.583	.673	.904	.750	.000	.890	.938

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 18-08148-006

Date : 04/26/2018

Bank 1 Count = Bikes & Peds

	Camino Al Lago Southbound					Alameda de las Pulgas Westbound					Camino Al Lago Northbound					Alameda de las Pulgas Eastbound					Total	Peds Total
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		
7:00	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	7	0	0	7	8	1
7:15	1	0	0	1	1	0	1	0	0	1	0	0	0	0	0	0	8	0	0	8	10	1
7:30	0	0	1	1	1	0	5	0	2	5	0	0	0	0	0	0	6	0	0	6	12	3
7:45	0	0	0	0	0	0	2	0	0	2	0	0	0	1	0	2	7	0	0	9	11	1
Total	1	0	1	2	2	0	9	0	2	9	0	0	0	2	0	2	28	0	0	30	41	6
8:00	0	0	0	1	0	1	1	0	2	2	0	0	0	3	0	0	8	0	0	8	10	6
8:15	1	0	0	1	1	0	1	0	2	1	0	0	0	2	0	0	13	0	0	13	15	5
8:30	0	0	0	0	0	0	3	0	0	3	0	0	0	2	0	1	11	0	0	12	15	2
8:45	0	0	0	2	0	0	3	1	2	4	0	0	0	3	0	0	7	0	3	7	11	10
Total	1	0	0	4	1	1	8	1	6	10	0	0	0	10	0	1	39	0	3	40	51	23
16:00	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5	0
16:15	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4	0
16:30	0	0	0	0	0	0	4	0	0	4	0	0	0	1	0	0	4	0	0	4	8	1
16:45	0	0	2	0	2	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	7	0
Total	0	0	3	0	3	0	12	0	0	12	0	0	0	1	0	0	9	0	0	9	24	1
17:00	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	0	0	0	0	10	0
17:15	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	1	3	6	1
17:30	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	2	0	0	2	13	0
17:45	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	4	0	0	4	13	0
Total	0	0	0	0	0	0	33	0	0	33	0	0	0	0	0	0	9	0	1	9	42	1
Grand Total	2	0	4	6	6	1	62	1	8	64	0	0	0	13	0	3	85	0	4	88	158	31
Apprch %	33.3%	0.0%	66.7%			1.6%	96.9%	1.6%			0.0%	0.0%	0.0%			3.4%	96.6%	0.0%				
Total %	1.3%	0.0%	2.5%		3.8%	0.6%	39.2%	0.6%		40.5%	0.0%	0.0%	0.0%		0.0%	1.9%	53.8%	0.0%		55.7%	100.0%	

AM PEAK HOUR	Camino Al Lago Southbound					Alameda de las Pulgas Westbound					Camino Al Lago Northbound					Alameda de las Pulgas Eastbound					Total
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	
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
8:00	0	0	0	1	0	1	1	0	2	2	0	0	0	3	0	0	8	0	0	8	10
8:15	1	0	0	1	1	0	1	0	2	1	0	0	0	2	0	0	13	0	0	13	15
8:30	0	0	0	0	0	0	3	0	0	3	0	0	0	2	0	1	11	0	0	12	15
8:45	0	0	0	2	0	0	3	1	2	4	0	0	0	3	0	0	7	0	3	7	11
Total Volume	1	0	0	4	1	1	8	1	6	10	0	0	0	10	0	1	39	0	3	40	51
% App Total	100.0%	0.0%	0.0%			10.0%	80.0%	10.0%			0.0%	0.0%	0.0%			2.5%	97.5%	0.0%			
PHF	.250	.000	.000		.250	.250	.667	.250		.625	.000	.000	.000		.000	.250	.750	.000		.769	.850

PM PEAK HOUR	Camino Al Lago Southbound					Alameda de las Pulgas Westbound					Camino Al Lago Northbound					Alameda de las Pulgas Eastbound					Total
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	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	0	4	0	0	4	0	0	0	1	0	0	4	0	0	4	8
16:45	0	0	2	0	2	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	7
17:00	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	0	0	0	0	10
17:15	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	1	3	6
Total Volume	0	0	2	0	2	0	19	0	0	19	0	0	0	1	0	0	10	0	1	10	31
% App Total	0.0%	0.0%	100.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			
PHF	.000	.000	.250		.250	.000	.475	.000		.475	.000	.000	.000		.000	.000	.625	.000		.625	.775

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 18-08148-007

Date : 04/26/2018

Unshifted Count = All Vehicles & Uturns

	Valparaiso Ave Southbound					Alameda de las Pulgas Westbound					Valparaiso Ave Northbound					Alameda de las Pulgas Eastbound					Total	Uturns Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	12	6	9	0	27	0	58	21	0	79	0	3	0	0	3	16	85	4	0	105	214	0
7:15	23	8	14	0	45	1	61	29	0	91	1	8	1	0	10	40	129	1	0	170	316	0
7:30	30	5	21	0	56	0	70	41	0	111	4	15	2	0	21	48	124	2	0	174	362	0
7:45	46	22	21	0	89	1	88	32	0	121	6	12	3	0	21	47	161	5	0	213	444	0
Total	111	41	65	0	217	2	277	123	0	402	11	38	6	0	55	151	499	12	0	662	1336	0
8:00	35	27	22	0	84	2	125	33	0	160	7	20	1	0	28	52	153	3	0	208	480	0
8:15	48	18	23	0	89	2	96	26	0	124	6	8	1	0	15	40	143	9	0	192	420	0
8:30	25	4	25	0	54	2	100	22	0	124	6	6	3	0	15	28	179	2	0	209	402	0
8:45	21	5	29	0	55	2	124	32	0	158	13	5	1	0	19	39	163	4	0	206	438	0
Total	129	54	99	0	282	8	445	113	0	566	32	39	6	0	77	159	638	18	0	815	1740	0
16:00	52	14	43	0	109	0	136	30	0	166	4	7	2	0	13	28	112	3	0	143	431	0
16:15	43	7	46	0	96	1	152	26	0	179	4	4	2	0	10	22	79	8	0	109	394	0
16:30	49	15	54	0	118	1	147	34	0	182	4	11	0	0	15	31	112	4	0	147	462	0
16:45	40	12	30	0	82	3	155	27	0	185	4	5	0	0	9	31	91	5	0	127	403	0
Total	184	48	173	0	405	5	590	117	0	712	16	27	4	0	47	112	394	20	0	526	1690	0
17:00	43	10	46	0	99	0	154	36	0	190	5	8	1	0	14	28	96	4	0	128	431	0
17:15	44	12	44	0	100	3	157	27	0	187	3	4	3	0	10	34	87	3	0	124	421	0
17:30	29	12	50	0	91	4	115	29	0	148	6	6	2	0	14	28	71	7	0	106	359	0
17:45	38	10	38	0	86	2	140	31	0	173	2	3	1	0	6	33	110	8	0	151	416	0
Total	154	44	178	0	376	9	566	123	0	698	16	21	7	0	44	123	364	22	0	509	1627	0
Grand Total	578	187	515	0	1280	24	1878	476	0	2378	75	125	23	0	223	545	1895	72	0	2512	6393	0
Apprch %	45.2%	14.6%	40.2%	0.0%		1.0%	79.0%	20.0%	0.0%		33.6%	56.1%	10.3%	0.0%		21.7%	75.4%	2.9%	0.0%			
Total %	9.0%	2.9%	8.1%	0.0%	20.0%	0.4%	29.4%	7.4%	0.0%	37.2%	1.2%	2.0%	0.4%	0.0%	3.5%	8.5%	29.6%	1.1%	0.0%	39.3%	100.0%	

AM PEAK HOUR	Valparaiso Ave Southbound					Alameda de las Pulgas Westbound					Valparaiso Ave Northbound					Alameda de las Pulgas Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	46	22	21	0	89	1	88	32	0	121	6	12	3	0	21	47	161	5	0	213	444
8:00	35	27	22	0	84	2	125	33	0	160	7	20	1	0	28	52	153	3	0	208	480
8:15	48	18	23	0	89	2	96	26	0	124	6	8	1	0	15	40	143	9	0	192	420
8:30	25	4	25	0	54	2	100	22	0	124	6	6	3	0	15	28	179	2	0	209	402
Total Volume	154	71	91	0	316	7	409	113	0	529	25	46	8	0	79	167	636	19	0	822	1746
% App Total	48.7%	22.5%	28.8%	0.0%		1.3%	77.3%	21.4%	0.0%		31.6%	58.2%	10.1%	0.0%		20.3%	77.4%	2.3%	0.0%		
PHF	.802	.657	.910	.000	.888	.875	.818	.856	.000	.827	.893	.575	.667	.000	.705	.803	.888	.528	.000	.965	.909

PM PEAK HOUR	Valparaiso Ave Southbound					Alameda de las Pulgas Westbound					Valparaiso Ave Northbound					Alameda de las Pulgas Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	49	15	54	0	118	1	147	34	0	182	4	11	0	0	15	31	112	4	0	147	462
16:45	40	12	30	0	82	3	155	27	0	185	4	5	0	0	9	31	91	5	0	127	403
17:00	43	10	46	0	99	0	154	36	0	190	5	8	1	0	14	28	96	4	0	128	431
17:15	44	12	44	0	100	3	157	27	0	187	3	4	3	0	10	34	87	3	0	124	421
Total Volume	176	49	174	0	399	7	613	124	0	744	16	28	4	0	48	124	386	16	0	526	1717
% App Total	44.1%	12.3%	43.6%	0.0%		0.9%	82.4%	16.7%	0.0%		33.3%	58.3%	8.3%	0.0%		23.6%	73.4%	3.0%	0.0%		
PHF	.898	.817	.806	.000	.845	.583	.976	.861	.000	.979	.800	.636	.333	.000	.800	.912	.862	.800	.000	.895	.929

ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 18-08148-007

Date : 04/26/2018

Bank 1 Count = Bikes & Peds

	Valparaiso Ave Southbound					Alameda de las Pulgas Westbound					Valparaiso Ave Northbound					Alameda de las Pulgas Eastbound					Total	Peds Total
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		
7:00	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	2	0	4	3	4	5
7:15	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	2	8	0	1	10	11	2
7:30	0	0	0	2	0	1	2	0	1	3	0	0	0	1	0	1	4	0	1	5	8	5
7:45	0	0	3	0	3	0	0	0	3	0	0	0	0	0	0	2	3	0	0	5	8	3
Total	0	0	3	3	3	1	4	0	4	5	0	0	0	2	0	6	17	0	6	23	31	15
8:00	1	0	1	0	2	0	0	0	0	0	0	0	0	3	0	2	4	0	0	6	8	3
8:15	0	0	0	0	0	0	1	1	2	2	0	0	0	0	0	2	13	0	0	15	17	2
8:30	0	1	0	1	1	0	3	0	0	3	0	0	0	1	0	0	10	1	1	11	15	3
8:45	1	0	1	2	2	0	2	0	0	2	0	0	0	0	0	2	8	0	0	10	14	2
Total	2	1	2	3	5	0	6	1	2	7	0	0	0	4	0	6	35	1	1	42	54	10
16:00	0	0	1	0	1	0	2	0	1	2	0	0	0	4	0	0	2	0	0	2	5	5
16:15	0	0	1	0	1	0	2	0	2	2	0	0	0	4	0	0	0	0	0	0	3	6
16:30	1	1	2	0	4	0	3	1	1	4	1	0	0	0	1	1	2	0	1	3	12	2
16:45	0	1	1	0	2	0	0	0	0	0	0	0	0	1	0	1	2	0	1	3	5	2
Total	1	2	5	0	8	0	7	1	4	8	1	0	0	9	1	2	6	0	2	8	25	15
17:00	2	0	0	0	2	0	10	0	1	10	0	1	0	0	1	0	0	0	1	0	13	2
17:15	0	0	0	0	0	0	6	0	1	6	0	0	0	0	0	0	2	0	0	2	8	1
17:30	1	0	1	3	2	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	12	3
17:45	1	1	0	0	2	0	9	0	1	9	0	0	0	0	0	0	4	0	2	4	15	3
Total	4	1	1	3	6	0	32	0	3	32	0	1	0	0	1	0	9	0	3	9	48	9
Grand Total	7	4	11	9	22	1	49	2	13	52	1	1	0	15	2	14	67	1	12	82	158	49
Apprch %	31.8%	18.2%	50.0%			1.9%	94.2%	3.8%			50.0%	50.0%	0.0%			17.1%	81.7%	1.2%				
Total %	4.4%	2.5%	7.0%		13.9%	0.6%	31.0%	1.3%		32.9%	0.6%	0.6%	0.0%		1.3%	8.9%	42.4%	0.6%		51.9%	100.0%	

AM PEAK HOUR	Valparaiso Ave Southbound					Alameda de las Pulgas Westbound					Valparaiso Ave Northbound					Alameda de las Pulgas Eastbound					Total
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	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	0	0	3	0	3	0	0	0	3	0	0	0	0	0	0	2	3	0	0	5	8
8:00	1	0	1	0	2	0	0	0	0	0	0	0	0	3	0	2	4	0	0	6	8
8:15	0	0	0	0	0	0	1	1	2	2	0	0	0	0	0	2	13	0	0	15	17
8:30	0	1	0	1	1	0	3	0	0	3	0	0	0	1	0	0	10	1	1	11	15
Total Volume	1	1	4	1	6	0	4	1	5	5	0	0	0	4	0	6	30	1	1	37	48
% App Total	16.7%	16.7%	66.7%			0.0%	80.0%	20.0%			0.0%	0.0%	0.0%			16.2%	81.1%	2.7%			
PHF	.250	.250	.333		.500	.000	.333	.250		.417	.000	.000	.000		.000	.750	.577	.250		.617	.706

PM PEAK HOUR	Valparaiso Ave Southbound					Alameda de las Pulgas Westbound					Valparaiso Ave Northbound					Alameda de las Pulgas Eastbound					Total
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	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	1	1	2	0	4	0	3	1	1	4	1	0	0	0	1	1	2	0	1	3	12
16:45	0	1	1	0	2	0	0	0	0	0	0	0	0	1	0	1	2	0	1	3	5
17:00	2	0	0	0	2	0	10	0	1	10	0	1	0	0	1	0	0	0	1	0	13
17:15	0	0	0	0	0	0	6	0	1	6	0	0	0	0	0	0	2	0	0	2	8
Total Volume	3	2	3	0	8	0	19	1	3	20	1	1	0	1	2	2	6	0	3	8	38
% App Total	37.5%	25.0%	37.5%			0.0%	95.0%	5.0%			50.0%	50.0%	0.0%			25.0%	75.0%	0.0%			
PHF	.375	.500	.375		.500	.000	.475	.250		.500	.250	.250	.000		.500	.500	.750	.000		.667	.731

AM Peak Hour	07:45	07:45	PM Peak Hour	16:30	16:30
AM Pk Volume	459	459	PM Pk Volume	1012	1012
Pk Hr Factor	0.863	0.863	Pk Hr Factor	0.973	0.973
7 - 9 Volume	766	0	4 - 6 Volume	1920	0
7 - 9 Peak Hour	07:45	07:45	4 - 6 Peak Hour	16:30	16:30
7 - 9 Pk Volume	459	459	4 - 6 Pk Volume	1012	0
Pk Hr Factor	0.863	0.863	Pk Hr Factor	0.973	0.973

VOLUME

Alameda de las Pulgas & Camino Al Lago

Day: Thursday
Date: 4/26/2018

City: Atherton
Project #: CA18_8149_002

DAILY TOTALS					NB	SB						EB	WB						Total
					0	8,243						0	0						8,243
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							
00:00	0	4	0	0	4		12:00	0	117	0	0	117							
00:15	0	6	0	0	6		12:15	0	119	0	0	119							
00:30	0	2	0	0	2		12:30	0	126	0	0	126							
00:45	0	1	13	0	1	13	12:45	0	136	498	0	136	498						
01:00	0	3	0	0	3		13:00	0	117	0	0	117							
01:15	0	5	0	0	5		13:15	0	105	0	0	105							
01:30	0	4	0	0	4		13:30	0	129	0	0	129							
01:45	0	4	16	0	4	16	13:45	0	127	478	0	127	478						
02:00	0	3	0	0	3		14:00	0	145	0	0	145							
02:15	0	1	0	0	1		14:15	0	144	0	0	144							
02:30	0	2	0	0	2		14:30	0	159	0	0	159							
02:45	0	1	7	0	1	7	14:45	0	148	596	0	148	596						
03:00	0	0	0	0			15:00	0	162	0	0	162							
03:15	0	3	0	0	3		15:15	0	139	0	0	139							
03:30	0	2	0	0	2		15:30	0	166	0	0	166							
03:45	0	0	5	0		5	15:45	0	145	612	0	145	612						
04:00	0	1	0	0	1		16:00	0	142	0	0	142							
04:15	0	4	0	0	4		16:15	0	120	0	0	120							
04:30	0	7	0	0	7		16:30	0	157	0	0	157							
04:45	0	7	19	0	7	19	16:45	0	132	551	0	132	551						
05:00	0	11	0	0	11		17:00	0	133	0	0	133							
05:15	0	23	0	0	23		17:15	0	145	0	0	145							
05:30	0	23	0	0	23		17:30	0	111	0	0	111							
05:45	0	33	90	0	33	90	17:45	0	149	538	0	149	538						
06:00	0	22	0	0	22		18:00	0	125	0	0	125							
06:15	0	47	0	0	47		18:15	0	102	0	0	102							
06:30	0	68	0	0	68		18:30	0	102	0	0	102							
06:45	0	82	219	0	82	219	18:45	0	115	444	0	115	444						
07:00	0	108	0	0	108		19:00	0	106	0	0	106							
07:15	0	177	0	0	177		19:15	0	82	0	0	82							
07:30	0	206	0	0	206		19:30	0	75	0	0	75							
07:45	0	239	730	0	239	730	19:45	0	72	335	0	72	335						
08:00	0	226	0	0	226		20:00	0	75	0	0	75							
08:15	0	223	0	0	223		20:15	0	44	0	0	44							
08:30	0	221	0	0	221		20:30	0	50	0	0	50							
08:45	0	227	897	0	227	897	20:45	0	41	210	0	41	210						
09:00	0	221	0	0	221		21:00	0	36	0	0	36							
09:15	0	183	0	0	183		21:15	0	26	0	0	26							
09:30	0	157	0	0	157		21:30	0	45	0	0	45							
09:45	0	150	711	0	150	711	21:45	0	13	120	0	13	120						
10:00	0	131	0	0	131		22:00	0	27	0	0	27							
10:15	0	136	0	0	136		22:15	0	15	0	0	15							
10:30	0	115	0	0	115		22:30	0	16	0	0	16							
10:45	0	119	501	0	119	501	22:45	0	19	77	0	19	77						
11:00	0	119	0	0	119		23:00	0	18	0	0	18							
11:15	0	121	0	0	121		23:15	0	11	0	0	11							
11:30	0	139	0	0	139		23:30	0	8	0	0	8							
11:45	0	148	527	0	148	527	23:45	0	12	49	0	12	49						
TOTALS	3735				3735		TOTALS	4508				4508							
SPLIT %	100.0%				45.3%		SPLIT %	100.0%				54.7%							

DAILY TOTALS				NB	SB	EB				WB	Total			
				0	8,243					0				
												8,243		
AM Peak Hour		07:45		07:45		PM Peak Hour		14:45		14:45				
AM Pk Volume		909		909		PM Pk Volume		615		615				
Pk Hr Factor		0.951		0.951		Pk Hr Factor		0.926		0.926				
7 - 9 Volume	0	1627	0	0	1627	4 - 6 Volume	0	1089	0	0	1089			
7 - 9 Peak Hour	07:45		07:45		07:45	4 - 6 Peak Hour	16:30		16:30		16:30			
7 - 9 Pk Volume	0	909	0	0	909	4 - 6 Pk Volume	0	567	0	0	567			
Pk Hr Factor	0.000	0.951	0.000	0.000	0.951	Pk Hr Factor	0.000	0.903	0.000	0.000	0.903			

VOLUME

Alameda de las Pulgas & Camino Al Lago

Day: Thursday
Date: 4/26/2018City: Atherton
Project #: CA18_8149_003

DAILY TOTALS					NB	SB	EB					WB	Total				
					8,107	0	103					360	8,570				
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL						
00:00	8	0	0	0	8	12:00	130	0	3	6	139						
00:15	7	0	0	0	7	12:15	112	0	2	5	119						
00:30	0	0	0	0	0	12:30	127	0	1	5	133						
00:45	1	16	0	0	1	12:45	100	469	0	1	7	8	24	109	500		
01:00	1	0	0	0	1	13:00	116	0	3	6	125						
01:15	5	0	0	1	6	13:15	115	0	1	5	121						
01:30	2	0	0	0	2	13:30	144	0	1	3	148						
01:45	1	9	0	0	0	1	13:45	158	533	0	1	6	8	22	167	561	
02:00	1	0	0	0	1	14:00	122	0	2	20	144						
02:15	1	0	0	0	1	14:15	127	0	4	3	134						
02:30	2	0	0	0	2	14:30	127	0	0	10	137						
02:45	3	7	0	0	3	14:45	153	529	0	2	8	7	40	162	577		
03:00	1	0	0	0	1	15:00	197	0	5	2	204						
03:15	0	0	0	1	1	15:15	195	0	1	11	207						
03:30	1	0	0	0	1	15:30	182	0	0	12	194						
03:45	1	3	0	0	0	1	15:45	166	740	0	3	9	3	28	172	777	
04:00	1	0	0	0	1	16:00	180	0	1	8	189						
04:15	2	0	0	0	2	16:15	194	0	1	6	201						
04:30	2	0	0	0	2	16:30	215	0	2	9	226						
04:45	8	13	0	1	1	1	16:45	177	766	0	0	4	9	32	186	802	
05:00	8	0	0	1	9	17:00	236	0	1	2	239						
05:15	11	0	0	0	11	17:15	216	0	1	6	223						
05:30	10	0	0	2	12	17:30	152	0	2	7	161						
05:45	16	45	0	0	1	4	17:45	174	778	0	1	5	7	22	182	805	
06:00	16	0	1	0	17	18:00	196	0	0	10	206						
06:15	26	0	0	0	26	18:15	191	0	2	3	196						
06:30	24	0	2	2	28	18:30	190	0	0	2	192						
06:45	48	114	0	0	3	2	4	18:45	169	746	0	3	5	3	18	175	769
07:00	68	0	0	1	69	19:00	130	0	0	4	134						
07:15	83	0	2	0	85	19:15	123	0	1	4	128						
07:30	91	0	1	8	100	19:30	97	0	1	3	101						
07:45	123	365	0	4	7	12	21	19:45	81	431	0	1	3	16	27	98	461
08:00	146	0	1	9	156	20:00	83	0	2	9	94						
08:15	124	0	1	7	132	20:15	89	0	1	6	96						
08:30	137	0	1	5	143	20:30	65	0	0	2	67						
08:45	175	582	0	2	5	5	26	20:45	69	306	0	4	7	1	18	74	331
09:00	119	0	1	13	133	21:00	61	0	2	1	64						
09:15	85	0	2	7	94	21:15	67	0	1	1	69						
09:30	84	0	2	8	94	21:30	57	0	1	0	58						
09:45	115	403	0	1	6	2	30	21:45	39	224	0	1	5	0	2	40	231
10:00	112	0	3	8	123	22:00	62	0	1	1	64						
10:15	102	0	3	5	110	22:15	32	0	0	1	33						
10:30	118	0	2	4	124	22:30	10	0	0	0	10						
10:45	107	439	0	2	10	4	21	22:45	24	128	0	0	1	0	2	24	131
11:00	95	0	3	3	101	23:00	16	0	0	0	16						
11:15	103	0	4	3	110	23:15	12	0	0	0	12						
11:30	111	0	1	8	120	23:30	17	0	0	1	18						
11:45	97	406	0	3	11	1	15	23:45	10	55	0	0	0	1	10	56	
TOTALS	2402		43		124		TOTALS	5705		60		236		6001			
SPLIT %	93.5%		1.7%		4.8%		SPLIT %	95.1%		1.0%		3.9%		70.0%			

DAILY TOTALS					NB	SB						EB	WB	Total	
					8,107	0						103	360	8,570	
AM Peak Hour	08:00		10:30	07:30	08:00		PM Peak Hour	16:30		14:15	13:45	16:30			
AM Pk Volume	582		11	36	613		PM Pk Volume	844		11	41	874			
Pk Hr Factor	0.831		0.688	0.750	0.842		Pk Hr Factor	0.894		0.550	0.513	0.914			
7 - 9 Volume	947	0	12	47	1006		4 - 6 Volume	1544	0	9	54	1607			
7 - 9 Peak Hour	08:00		07:15	07:30	08:00		4 - 6 Peak Hour	16:30		17:00	16:00	16:30			
7 - 9 Pk Volume	582	0	8	36	613		4 - 6 Pk Volume	844	0	5	32	874			
Pk Hr Factor	0.831	0.000	0.500	0.750	0.842		Pk Hr Factor	0.894	0.000	0.625	0.889	0.914			

VOLUME

Alameda de las Pulgas & Stockbridge Ave

Day: Thursday
Date: 4/26/2018City: Atherton
Project #: CA18_8149_004

DAILY TOTALS					NB	SB						EB	WB						Total
					0	8,011						652	1,593						10,256
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							
00:00	0	7	0	0	7		12:00	0	105	6	19	130							
00:15	0	5	0	1	6		12:15	0	112	7	20	139							
00:30	0	1	0	1	2		12:30	0	118	11	17	146							
00:45	0	0	13	1	1	2	12:45	0	121	456	10	34	26	82	157	572			
01:00	0	4	0	1	5		13:00	0	108	14	23	145							
01:15	0	4	0	0	4		13:15	0	125	9	21	155							
01:30	0	3	0	0	3		13:30	0	131	5	25	161							
01:45	0	4	15	0	4	1	13:45	0	103	467	6	34	19	88	128	589			
02:00	0	2	0	0	2		14:00	0	118	7	35	160							
02:15	0	2	0	0	2		14:15	0	143	5	25	173							
02:30	0	2	0	0	2		14:30	0	148	15	17	180							
02:45	0	0	6	0	0	6	14:45	0	143	552	10	37	37	114	190	703			
03:00	0	1	0	0	1		15:00	0	106	10	34	150							
03:15	0	4	0	0	4		15:15	0	171	32	30	233							
03:30	0	0	0	1	1		15:30	0	118	18	30	166							
03:45	0	1	6	0	1	7	15:45	0	147	542	22	82	37	131	206	755			
04:00	0	0	0	2	2		16:00	0	122	11	30	163							
04:15	0	4	1	0	5		16:15	0	111	6	32	149							
04:30	0	4	0	1	5		16:30	0	118	10	38	166							
04:45	0	7	15	0	1	2	16:45	0	136	487	9	36	50	150	195	673			
05:00	0	7	0	0	7		17:00	0	103	9	25	137							
05:15	0	22	0	2	24		17:15	0	135	11	39	185							
05:30	0	17	2	3	22		17:30	0	142	11	34	187							
05:45	0	31	77	0	2	2	17:45	0	154	534	7	38	30	128	191	700			
06:00	0	23	0	5	28		18:00	0	137	7	27	171							
06:15	0	45	1	10	56		18:15	0	115	10	14	139							
06:30	0	83	2	9	94		18:30	0	98	4	22	124							
06:45	0	107	258	4	7	19	18:45	0	117	467	10	31	15	78	142	576			
07:00	0	138	6	27	171		19:00	0	101	3	14	118							
07:15	0	203	26	36	265		19:15	0	88	7	13	108							
07:30	0	213	49	58	320		19:30	0	84	4	14	102							
07:45	0	206	760	38	119	70	19:45	0	73	346	3	17	13	54	89	417			
08:00	0	206	33	56	295		20:00	0	54	5	8	67							
08:15	0	221	25	44	290		20:15	0	41	2	9	52							
08:30	0	203	13	34	250		20:30	0	52	1	8	61							
08:45	0	208	838	17	88	35	20:45	0	63	210	1	9	5	30	69	249			
09:00	0	208	10	23	241		21:00	0	51	2	6	59							
09:15	0	170	16	31	217		21:15	0	38	2	12	52							
09:30	0	156	8	25	189		21:30	0	45	0	6	51							
09:45	0	179	713	6	40	20	21:45	0	24	158	1	5	2	26	27	189			
10:00	0	125	5	23	153		22:00	0	28	0	6	34							
10:15	0	112	3	21	136		22:15	0	20	1	4	25							
10:30	0	112	7	16	135		22:30	0	29	1	2	32							
10:45	0	99	448	11	26	25	22:45	0	21	98	1	3	2	14	24	115			
11:00	0	121	9	17	147		23:00	0	18	2	1	21							
11:15	0	97	7	25	129		23:15	0	10	0	4	14							
11:30	0	136	10	23	169		23:30	0	8	0	1	9							
11:45	0	143	497	13	39	22	23:45	0	12	48	1	3	2	8	15	59			
TOTALS	3646		323		690		TOTALS	4365		329		903		5597					
SPLIT %	78.3%		6.9%		14.8%		SPLIT %	78.0%		5.9%		16.1%		54.6%					

DAILY TOTALS					NB	SB						EB	WB						Total
					0	8,011						652	1,593						10,256
AM Peak Hour	07:30		07:15		07:30		PM Peak Hour	14:30		15:15		16:30		15:15					
AM Pk Volume	846		146		228		PM Pk Volume	568		83		152		768					
Pk Hr Factor	0.957		0.745		0.814		Pk Hr Factor	0.830		0.648		0.760		0.824					
7 - 9 Volume	0	1598	207	360	2165		4 - 6 Volume	0	1021	74	278	1373							
7 - 9 Peak Hour	07:30		07:15		07:30		4 - 6 Peak Hour	17:00		16:45		16:30		16:45					
7 - 9 Pk Volume	0	846	146	228	1219		4 - 6 Pk Volume	0	534	40	152	704							
Pk Hr Factor	0.000	0.957	0.745	0.814	0.952		Pk Hr Factor	0.000	0.867	0.909	0.760	0.903							

Appendix B Signal Warrant Analysis

Signal Warrant Analysis

Existing Conditions

DIST _____ San Mateo _____ CALC JL _____ DATE 7/23/2018
 CO _____ RTE _____ KPM _____ CHK _____ DATE _____

Major St: Alameda de las Pulgas
 Minor St: Stockbridge Avenue

Critical Approach Speed 30 mph
 Critical Approach Speed 25 mph

Critical speed of major street traffic > 64 km/h (40 mph).....

In built up area of isolated community of < 10,000 population

☐ or ☐ } RURAL (R)
☒ } URBAN (U)

WARRANT I - Eight Hour Vehicular Volume

SATISFIED ☒ YES ☐ NO

Condition A - Minimum Vehicle Volume

100% SATISFIED ☐ YES ☒ NO

80 % SATISFIED ☐ YES ☒ NO

		MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				80 % SATISFIED ☐ YES ☒ NO								
		U	R	U	R	4:00 PM	5:00 PM	3:00 PM	6:00 PM	8:00 AM	2:00 pm	7:00 AM	9:00 AM	Hour
APPROACH	LANES	I		2 or More										
Both Approaches		500	350	600	420	1472	1469	1368	1315	1264	1127	1100	1096	
Major Street		(400)	(280)	(480)	(336)	(1178)	(1175)	(1094)	(1052)	(1011)	(902)	(880)	(877)	
Highest Approaches		150	105	200	140	150	128	131	78	169	114	191	99	
Minor Street		(120)	(84)	(160)	(112)	(120)	(102)	(105)	(62)	(135)	(91)	(153)	(79)	

Condition B - Interruption of Continuous Traffic

100% SATISFIED ☒ YES ☐ NO

80 % SATISFIED ☒ YES ☐ NO

		MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				80 % SATISFIED								☒ YES	☐ NO	
		U	R	U	R	4:00 PM	5:00 PM	3:00 PM	6:00 PM	8:00 AM	2:00 PM	7:00 AM	9:00 AM			
APPROACH	LANES	I		2 or More										Hour		
Both Approaches		750	525	900	630	1472	1469	1368	1315	1264	1127	1100	1096			
Major Street		(600)	(420)	(720)	(504)	(1178)	(1175)	(1094)	(1052)	(1011)	(902)	(880)	(877)			
Highest Approaches		75	53	100	70	150	128	131	78	169	114	191	99			
Minor Street		(60)	(42)	(80)	(56)	(120)	(102)	(105)	(62)	(135)	(91)	(153)	(79)			

Combination of Conditions A & B

SATISFIED ☐ YES ☒ NO

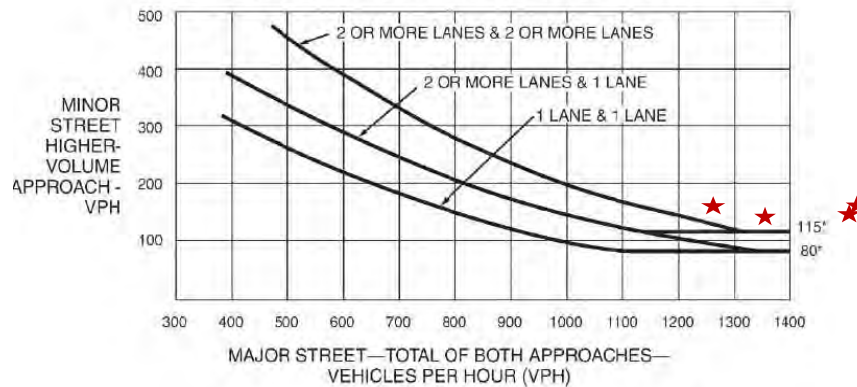
REQUIREMENT	WARRANT	FULFILLED
TWO WARRANTS SATISFIED 80%	1. MINIMUM VEHICULAR VOLUME	Yes ☐ No ☒
	2. INTERRUPTION OF CONTINUOUS TRAFFIC	

WARRANT 2 - Four Hour Vehicular Volume**SATISFIED**☒ **YES** ☐ **NO**

Record hourly vehicular volumes for four hours

APPROACH LANES	One	2 or More	4:00 PM	5:00 PM	3:00 PM	8:00 AM	Hour
Both Approaches - Major Street	X		1472	1469	1368	1264	
Highest Approaches - Minor Street	X		150	128	131	169	

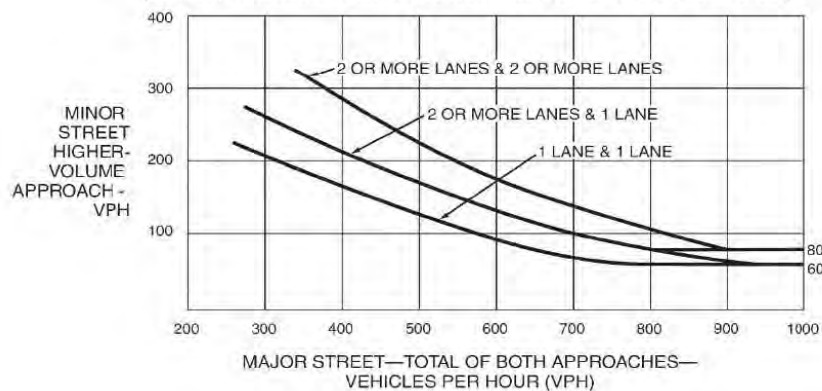
*All plotted points fall above the curves in MUTCD Figure 4C-1 or 4C-2.

☒ **Yes** ☐ **No****Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume**

*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

WARRANT 3 - Peak Hours**PART A or PART B SATISFIED**

AM Peak Hour

PM Peak Hour

☒ YES ☐ NO☒ YES ☐ NO**PART A****SATISFIED**☒ YES ☐ NO☐ YES ☒ NO

(All parts, 1, 2 and 3 below must be satisfied)

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach; AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND
3. The total entering volume services during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.

☒ Yes ☐ No ☐ Yes ☒ No☒ Yes ☐ No ☒ Yes ☐ No☒ Yes ☐ No ☒ Yes ☐ No**PART B****SATISFIED**☒ YES ☐ NO☒ YES ☐ NO

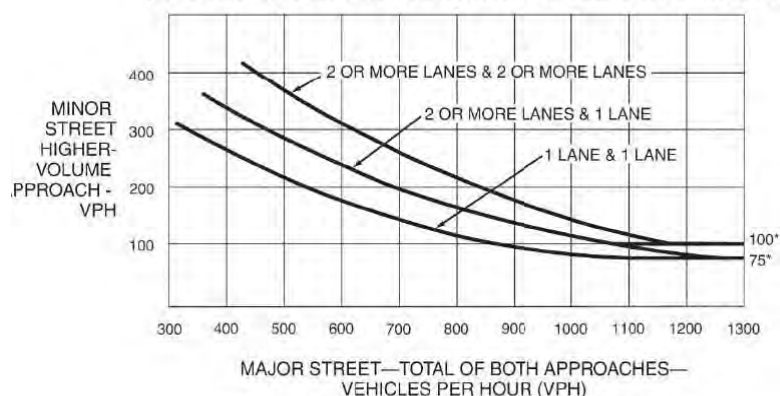
APPROACH LANES	One	2 or More	7:30 AM	4:30 PM	Hour
Both Approaches - Major Street	X		1262	1482	
Highest Approaches - Minor Street	X		267	166	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume vehicle minor street approach (one direction only) for one hour (any consecutive 15 minute fall above the applicable curves in MUTCD Figure 4C-3 or 4C-4.

Figure 4C-3. Warrant 3, Peak Hour

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Signal Warrant Analysis

Existing Conditions

DIST _____ San Mateo _____ CALC JL _____ DATE 7/23/2018
 CO _____ RTE _____ KPM _____ CHK _____ DATE _____

Major St: Alameda de las Pulgas Critical Approach Speed 30 mph
 Minor St: Camino Al Lago Critical Approach Speed 25 mph

Critical speed of major street traffic > 64 km/h (40 mph).....

In built up area of isolated community of < 10,000 population

☐ or ☐ RURAL (R)
☒ URBAN (U)

WARRANT I - Eight Hour Vehicular Volume

SATISFIED ☐ YES ☒ NO

Condition A - Minimum Vehicle Volume

100% SATISFIED ☐ YES ☒ NO

80 % SATISFIED ☐ YES ☒ NO

		MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				80 % SATISFIED								☐ YES	☒ NO	
APPROACH	LANES	U	R	U	R	8:00 A/M	3:00 P/M	4:00 P/M	5:00 P/M	6:00 P/M	2:00 P/M	9:00 A/M	7:00 A/M	Hour		
		I		2 or More												
Both Approaches		500	350	600	420	1479	1352	1317	1316	1190	1125	1114	1095			
Major Street		(400)	(280)	(480)	(336)	(1183)	(1082)	(1054)	(1053)	(952)	(900)	(891)	(876)			
Highest Approaches		150	105	200	140	26	28	32	22	18	40	30	21			
Minor Street		(120)	(84)	(160)	(112)	(21)	(22)	(26)	(18)	(14)	(32)	(24)	(17)			

Condition B - Interruption of Continuous Traffic

100% SATISFIED ☐ YES ☒ NO

80 % SATISFIED ☐ YES ☒ NO

		MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				80 % SATISFIED ☐ YES ☒ NO								
APPROACH	LANES	U	R	U	R	8:00 AM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	2:00 PM	9:00 AM	7:00 AM	Hour
		I		2 or More										
Both Approaches		750	525	900	630	1479	1352	1317	1316	1190	1125	1114	1095	
Major Street		(600)	(420)	(720)	(504)	(1183)	(1082)	(1054)	(1053)	(952)	(900)	(891)	(876)	
Highest Approaches		75	53	100	70	26	28	32	22	18	40	30	21	
Minor Street		(60)	(42)	(80)	(56)	(21)	(22)	(26)	(18)	(14)	(32)	(24)	(17)	

Combination of Conditions A & B

SATISFIED ☐ YES ☒ NO

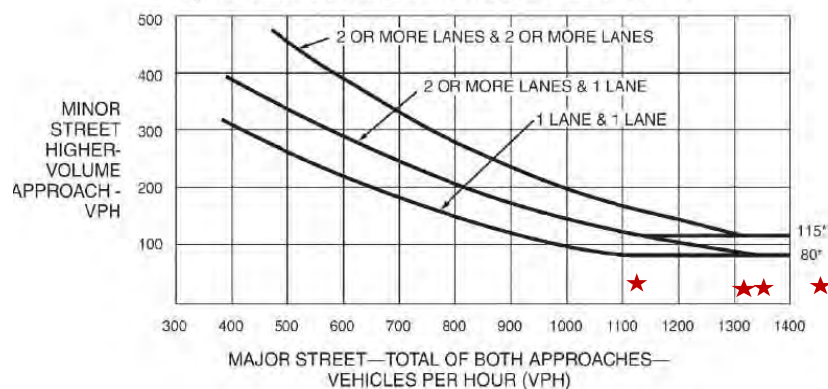
REQUIREMENT	WARRANT	FULFILLED
TWO WARRANTS SATISFIED 80%	1. MINIMUM VEHICULAR VOLUME	Yes ☐ No ☒
	2. INTERRUPTION OF CONTINUOUS TRAFFIC	

WARRANT 2 - Four Hour Vehicular Volume**SATISFIED**☐ YES ☒ NO

Record hourly vehicular volumes for four hours

APPROACH LANES	One	2 or More	2:00 PM	4:00 PM	3:00 PM	8:00 AM	Hour
Both Approaches - Major Street	X		1125	1317	1352	1479	
Highest Approaches - Minor Street	X		40	32	28	26	

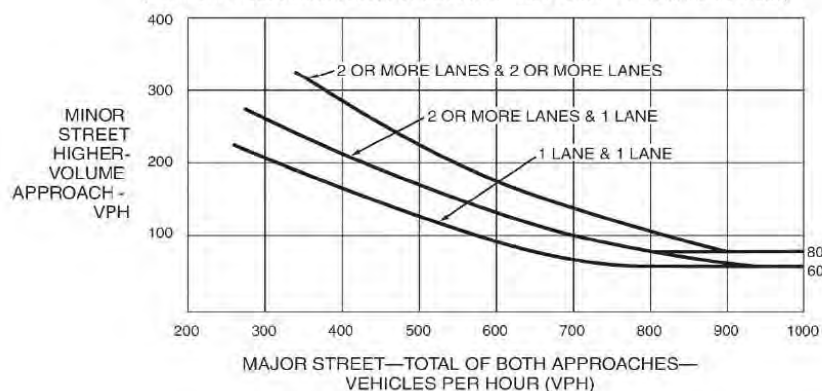
*All plotted points fall above the curves in MUTCD Figure 4C-1 or 4C-2.

☐ Yes ☒ No**Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume**

*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

WARRANT 3 - Peak Hours**PART A or PART B SATISFIED**

AM Peak Hour

PM Peak Hour

☐ YES ☒

NO

☐ YES ☒ NO**PART A****SATISFIED**☐ YES ☒

NO

☐ YES ☒ NO

(All parts, 1, 2 and 3 below must be satisfied)

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach; AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND
3. The total entering volume services during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.

☐ Yes☒

No

☐ Yes☒ No☐ Yes☒

No

☐ Yes☒ No☒ Yes☐

No

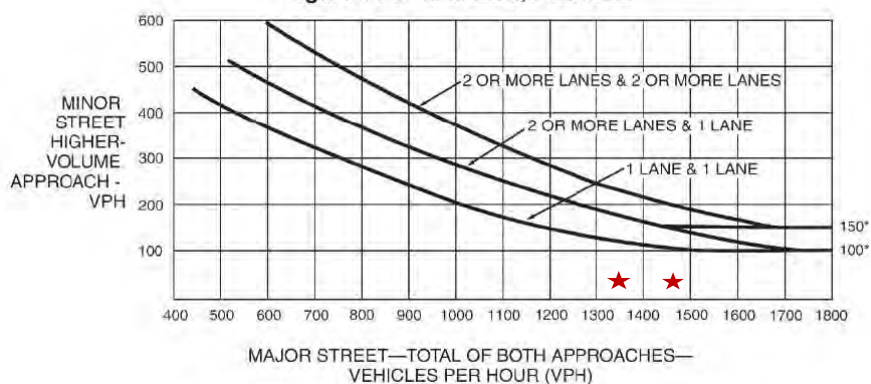
☒ Yes☐ No**PART B****SATISFIED**☐ YES ☒

NO

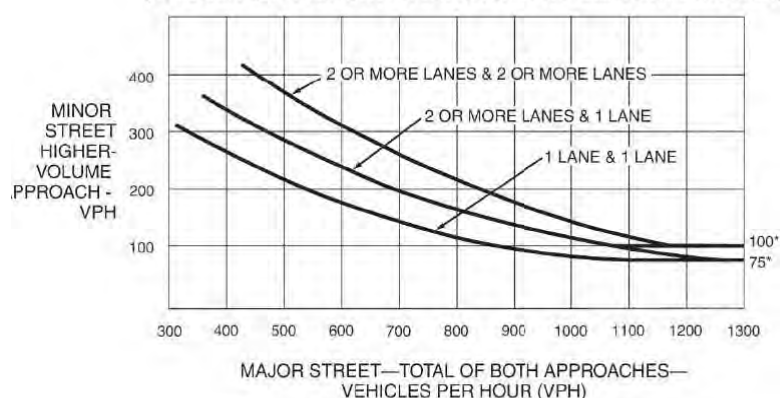
☐ YES ☒ NO

APPROACH LANES	One	2 or More	8:00 AM	4:30 PM	Hour
Both Approaches - Major Street	X		1463	1347	
Highest Approaches - Minor Street	X		30	31	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume vehicle minor street approach (one direction only) for one hour (any consecutive 15 minute fall above the applicable curves in MUTCD Figure 4C-3 or 4C-4.

Figure 4C-3. Warrant 3, Peak Hour

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



Appendix C Intersection LOS Analysis: Existing LOS Calculation Sheets

Alameda de las Pulgas Corridor Study
1: Alameda de las Pulgas/ADLP & Woodside Rd

Existing AM Peak Hour
10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	126	1011	418	122	1450	43	449	148	125	49	206	357
Future Volume (vph)	126	1011	418	122	1450	43	449	148	125	49	206	357
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.0		3.0	4.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.93	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.96		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3353		1770	3521		3433	1863	1478	1770	1863	1493
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3353		1770	3521		3433	1863	1478	1770	1863	1493
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	131	1053	435	127	1510	45	468	154	130	51	215	372
RTOR Reduction (vph)	0	31	0	0	2	0	0	0	97	0	0	208
Lane Group Flow (vph)	131	1457	0	127	1553	0	468	154	33	51	215	164
Confl. Peds. (#/hr)	3		4	4		3	7		29	29		7
Confl. Bikes (#/hr)			1						12			25
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			4
Actuated Green, G (s)	13.8	59.6		13.3	59.1		20.1	31.3	31.3	7.8	19.0	19.0
Effective Green, g (s)	13.8	59.6		13.3	59.1		20.1	31.3	31.3	7.8	19.0	19.0
Actuated g/C Ratio	0.11	0.48		0.11	0.47		0.16	0.25	0.25	0.06	0.15	0.15
Clearance Time (s)	3.0	4.0		3.0	4.0		3.0	3.0	3.0	3.0	3.0	3.0
Vehicle Extension (s)	2.0	4.0		2.0	4.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	195	1598		188	1664		552	466	370	110	283	226
v/s Ratio Prot	c0.07	0.43		0.07	c0.44		c0.14	0.08		0.03	c0.12	
v/s Ratio Perm									0.02			0.11
v/c Ratio	0.67	0.91		0.68	0.93		0.85	0.33	0.09	0.46	0.76	0.73
Uniform Delay, d1	53.4	30.3		53.8	31.1		51.0	38.3	35.9	56.6	50.8	50.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.0	9.4		7.3	11.1		11.1	0.2	0.0	1.1	9.9	9.4
Delay (s)	60.4	39.7		61.1	42.2		62.1	38.4	35.9	57.7	60.8	60.0
Level of Service	E	D		E	D		E	D	D	E	E	E
Approach Delay (s)		41.4			43.6			52.7			60.1	
Approach LOS		D			D			D			E	
Intersection Summary												
HCM 2000 Control Delay			46.5			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.86									
Actuated Cycle Length (s)			125.0			Sum of lost time (s)			13.0			
Intersection Capacity Utilization			88.5%			ICU Level of Service			E			
Analysis Period (min)			15									

c Critical Lane Group

Alameda de las Pulgas Corridor Study
2: Alameda de las Pulgas & Hull Ave

Existing AM Peak Hour
10/12/2018

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	132	132	573	22	6	747
Future Volume (vph)	132	132	573	22	6	747
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2		4.5	4.5	4.5	4.5
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.97		1.00	0.98	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.93		1.00	0.85	1.00	1.00
Flt Protected	0.98		1.00	1.00	0.95	1.00
Satd. Flow (prot)	1638		1863	1548	1763	1863
Flt Permitted	0.98		1.00	1.00	0.33	1.00
Satd. Flow (perm)	1638		1863	1548	617	1863
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	147	147	637	24	7	830
RTOR Reduction (vph)	46	0	0	5	0	0
Lane Group Flow (vph)	248	0	637	19	7	830
Confl. Peds. (#/hr)	123	31			6	
Confl. Bikes (#/hr)				4		
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	4		2			2
Permitted Phases				2	2	
Actuated Green, G (s)	16.1		42.5	42.5	42.5	42.5
Effective Green, g (s)	16.1		42.5	42.5	42.5	42.5
Actuated g/C Ratio	0.24		0.63	0.63	0.63	0.63
Clearance Time (s)	4.2		4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0		3.5	3.5	3.5	3.5
Lane Grp Cap (vph)	391		1176	977	389	1176
v/s Ratio Prot	c0.15		0.34			c0.45
v/s Ratio Perm				0.01	0.01	
v/c Ratio	0.63		0.54	0.02	0.02	0.71
Uniform Delay, d1	23.0		6.9	4.6	4.6	8.2
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	3.3		0.6	0.0	0.0	2.0
Delay (s)	26.3		7.5	4.6	4.6	10.3
Level of Service	C		A	A	A	B
Approach Delay (s)	26.3		7.4			10.2
Approach LOS	C		A			B
Intersection Summary						
HCM 2000 Control Delay			11.8		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.69			
Actuated Cycle Length (s)			67.3		Sum of lost time (s)	8.7
Intersection Capacity Utilization			64.4%		ICU Level of Service	C
Analysis Period (min)			15			

c Critical Lane Group

Alameda de las Pulgas Corridor Study
3: Alameda de las Pulgas & Stockbridge Ave

Existing AM Peak Hour
10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	11	142	23	8	236	28	394	23	141	667	8
Future Volume (Veh/h)	4	11	142	23	8	236	28	394	23	141	667	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	4	12	160	26	9	265	31	443	26	158	749	9
Pedestrians		4										
Lane Width (ft)		12.0										
Walking Speed (ft/s)		3.5										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage veh)											2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1848	1604	758	1749	1596	456	762			469		
vC1, stage 1 conf vol	1074	1074		518	518							
vC2, stage 2 conf vol	774	531		1231	1078							
vCu, unblocked vol	1848	1604	758	1749	1596	456	762			469		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	94	61	65	96	56	96			86		
cM capacity (veh/h)	48	215	406	74	206	604	847			1093		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	176	300	31	469	158	758						
Volume Left	4	26	31	0	158	0						
Volume Right	160	265	0	26	0	9						
cSH	330	360	847	1700	1093	1700						
Volume to Capacity	0.53	0.83	0.04	0.28	0.14	0.45						
Queue Length 95th (ft)	74	188	3	0	13	0						
Control Delay (s)	27.7	49.3	9.4	0.0	8.9	0.0						
Lane LOS	D	E	A		A							
Approach Delay (s)	27.7	49.3	0.6		1.5							
Approach LOS	D	E										
Intersection Summary												
Average Delay			11.3									
Intersection Capacity Utilization			76.7%	ICU Level of Service						D		
Analysis Period (min)			15									

Alameda de las Pulgas Corridor Study
4: Alameda de las Pulgas & Atherton Ave

Existing AM Peak Hour
10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	9	16	60	310	22	129	9	294	107	165	515	8
Future Volume (vph)	9	16	60	310	22	129	9	294	107	165	515	8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	10	17	64	330	23	137	10	313	114	176	548	9
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	91	490	10	427	176	557						
Volume Left (vph)	10	330	10	0	176	0						
Volume Right (vph)	64	137	0	114	0	9						
Hadj (s)	-0.37	0.00	0.53	-0.15	0.53	0.02						
Departure Headway (s)	8.9	7.4	8.7	8.0	8.7	8.2						
Degree Utilization, x	0.23	1.01	0.02	0.95	0.43	1.27						
Capacity (veh/h)	392	485	410	446	420	449						
Control Delay (s)	14.5	69.3	10.7	57.7	16.9	161.1						
Approach Delay (s)	14.5	69.3	56.7		126.5							
Approach LOS	B	F	F		F							
Intersection Summary												
Delay			87.2									
Level of Service			F									
Intersection Capacity Utilization			74.0%	ICU Level of Service				D				
Analysis Period (min)			15									

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	31	90	53	409	794	67
Future Volume (Veh/h)	31	90	53	409	794	67
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	32	92	54	417	810	68
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)		1				
Median type				TWLT	None	
Median storage veh				2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1373	848	882			
vC1, stage 1 conf vol	848					
vC2, stage 2 conf vol	525					
vCu, unblocked vol	1373	848	882			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	74	93			
cM capacity (veh/h)	353	360	764			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	124	54	417	878		
Volume Left	32	54	0	0		
Volume Right	92	0	0	68		
cSH	485	764	1700	1700		
Volume to Capacity	0.26	0.07	0.25	0.52		
Queue Length 95th (ft)	25	6	0	0		
Control Delay (s)	17.8	10.1	0.0	0.0		
Lane LOS	C	B				
Approach Delay (s)	17.8	1.2		0.0		
Approach LOS	C					
Intersection Summary						
Average Delay		1.9				
Intersection Capacity Utilization		58.1%		ICU Level of Service		B
Analysis Period (min)		15				

Alameda de las Pulgas Corridor Study
6: Alameda de las Pulgas & Camino Al Lago

Existing AM Peak Hour
10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	7	19	0	11	6	415	150	46	834	12
Future Volume (Veh/h)	1	0	7	19	0	11	6	415	150	46	834	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1	0	7	20	0	12	6	437	158	48	878	13
Pedestrians		10			4			6			3	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		1			0			1			0	
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage veh											2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1454	1602	900	1519	1529	523	901			599		
vC1, stage 1 conf vol	990	990		532	532							
vC2, stage 2 conf vol	464	611		987	997							
vCu, unblocked vol	1454	1602	900	1519	1529	523	901			599		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	98	92	100	98	99			95		
cM capacity (veh/h)	252	259	332	244	267	550	747			974		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	8	32	6	595	48	891						
Volume Left	1	20	6	0	48	0						
Volume Right	7	12	0	158	0	13						
cSH	319	309	747	1700	974	1700						
Volume to Capacity	0.03	0.10	0.01	0.35	0.05	0.52						
Queue Length 95th (ft)	2	9	1	0	4	0						
Control Delay (s)	16.6	18.0	9.9	0.0	8.9	0.0						
Lane LOS	C	C	A		A							
Approach Delay (s)	16.6	18.0	0.1		0.5							
Approach LOS	C	C										
Intersection Summary												
Average Delay			0.8									
Intersection Capacity Utilization			58.1%	ICU Level of Service					B			
Analysis Period (min)			15									

Alameda de las Pulgas Corridor Study
7: ADLP/Alameda de las Pulgas & Valparaiso Ave

Existing AM Peak Hour
10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	46	8	154	71	91	7	409	113	167	636	19
Future Volume (vph)	25	46	8	154	71	91	7	409	113	167	636	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6		4.6	4.6		4.6	4.6	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			0.99		1.00	0.99		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.96		1.00	0.97		1.00	1.00	
Flt Protected		0.98			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1803			1729		1766	1793		1768	1852	
Flt Permitted		0.86			0.82		0.26	1.00		0.35	1.00	
Satd. Flow (perm)		1568			1451		484	1793		660	1852	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	27	51	9	169	78	100	8	449	124	184	699	21
RTOR Reduction (vph)	0	5	0	0	19	0	0	9	0	0	1	0
Lane Group Flow (vph)	0	82	0	0	328	0	8	564	0	184	719	0
Confl. Peds. (#/hr)	1		5	5		1	4		1	1		4
Confl. Bikes (#/hr)						1			4			30
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			6			2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)		25.5			25.5		55.3	55.3		55.3	55.3	
Effective Green, g (s)		25.5			25.5		55.3	55.3		55.3	55.3	
Actuated g/C Ratio		0.28			0.28		0.61	0.61		0.61	0.61	
Clearance Time (s)		4.6			4.6		4.6	4.6		4.6	4.6	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		444			411		297	1101		405	1137	
v/s Ratio Prot								0.31			c0.39	
v/s Ratio Perm		0.05			c0.23		0.02			0.28		
v/c Ratio		0.18			0.80		0.03	0.51		0.45	0.63	
Uniform Delay, d1		24.4			29.9		6.8	9.8		9.3	10.9	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2			10.4		0.2	1.7		3.6	2.7	
Delay (s)		24.6			40.3		7.0	11.5		12.9	13.6	
Level of Service		C			D		A	B		B	B	
Approach Delay (s)		24.6			40.3			11.4			13.5	
Approach LOS		C			D			B			B	
Intersection Summary												
HCM 2000 Control Delay			18.2			HCM 2000 Level of Service			B			
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			90.0			Sum of lost time (s)			9.2			
Intersection Capacity Utilization			76.5%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

Alameda de las Pulgas Corridor Study
8: Alameda de las Pulgas & Las Lomitas School Dwy

Existing AM Peak Hour
10/12/2018

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	33	25	437	0	0	884
Future Volume (Veh/h)	33	25	437	0	0	884
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	34	26	446	0	0	902
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLT		TWLT	
Median storage veh			2		2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1348	446			446	
vC1, stage 1 conf vol	446					
vC2, stage 2 conf vol	902					
vCu, unblocked vol	1348	446			446	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	96			100	
cM capacity (veh/h)	356	612			1114	
Direction, Lane #	WB 1	WB 2	NB 1	SB 1		
Volume Total	34	26	446	902		
Volume Left	34	0	0	0		
Volume Right	0	26	0	0		
cSH	356	612	1700	1700		
Volume to Capacity	0.10	0.04	0.26	0.53		
Queue Length 95th (ft)	8	3	0	0		
Control Delay (s)	16.2	11.1	0.0	0.0		
Lane LOS	C	B				
Approach Delay (s)	14.0		0.0	0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization			56.5%	ICU Level of Service		B
Analysis Period (min)			15			

Alameda de las Pulgas Corridor Study
1: Alameda de las Pulgas/ADLP & Woodside Rd

Existing PM Peak Hour
10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	205	1205	328	122	1076	43	598	250	131	29	132	114
Future Volume (vph)	205	1205	328	122	1076	43	598	250	131	29	132	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.0		3.0	4.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.96	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3409		1770	3519		3433	1863	1525	1770	1863	1539
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3409		1770	3519		3433	1863	1525	1770	1863	1539
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	209	1230	335	124	1098	44	610	255	134	30	135	116
RTOR Reduction (vph)	0	17	0	0	2	0	0	0	98	0	0	104
Lane Group Flow (vph)	209	1548	0	124	1140	0	610	255	36	30	135	12
Confl. Peds. (#/hr)			1	1			1		4	4		1
Confl. Bikes (#/hr)									22			7
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			4
Actuated Green, G (s)	16.9	67.2		13.5	63.8		26.9	35.8	35.8	5.5	14.4	14.4
Effective Green, g (s)	16.9	67.2		13.5	63.8		26.9	35.8	35.8	5.5	14.4	14.4
Actuated g/C Ratio	0.13	0.50		0.10	0.47		0.20	0.27	0.27	0.04	0.11	0.11
Clearance Time (s)	3.0	4.0		3.0	4.0		3.0	3.0	3.0	3.0	3.0	3.0
Vehicle Extension (s)	2.0	4.0		2.0	4.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	221	1696		177	1663		684	494	404	72	198	164
v/s Ratio Prot	c0.12	c0.45		0.07	0.32		c0.18	0.14		0.02	c0.07	
v/s Ratio Perm									0.02			0.01
v/c Ratio	0.95	0.91		0.70	0.69		0.89	0.52	0.09	0.42	0.68	0.08
Uniform Delay, d1	58.6	31.2		58.8	27.8		52.6	42.2	37.3	63.2	58.1	54.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	44.7	9.0		9.8	2.3		13.6	0.4	0.0	1.4	7.5	0.1
Delay (s)	103.3	40.3		68.6	30.1		66.2	42.6	37.4	64.6	65.6	54.4
Level of Service	F	D		E	C		E	D	D	E	E	D
Approach Delay (s)		47.7			33.9			56.3			60.8	
Approach LOS		D			C			E			E	
Intersection Summary												
HCM 2000 Control Delay			46.5			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			135.0			Sum of lost time (s)			13.0			
Intersection Capacity Utilization			90.6%			ICU Level of Service			E			
Analysis Period (min)			15									

c Critical Lane Group

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	13	27	1007	18	16	510
Future Volume (vph)	13	27	1007	18	16	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2		4.5	4.5	4.5	4.5
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.97		1.00	0.98	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.91		1.00	0.85	1.00	1.00
Flt Protected	0.98		1.00	1.00	0.95	1.00
Satd. Flow (prot)	1616		1863	1545	1770	1863
Flt Permitted	0.98		1.00	1.00	0.23	1.00
Satd. Flow (perm)	1616		1863	1545	433	1863
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	13	28	1038	19	16	526
RTOR Reduction (vph)	27	0	0	1	0	0
Lane Group Flow (vph)	14	0	1038	18	16	526
Confl. Peds. (#/hr)	21	13				
Confl. Bikes (#/hr)				9		
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	4		2			2
Permitted Phases				2	2	
Actuated Green, G (s)	4.1		64.9	64.9	64.9	64.9
Effective Green, g (s)	4.1		64.9	64.9	64.9	64.9
Actuated g/C Ratio	0.05		0.84	0.84	0.84	0.84
Clearance Time (s)	4.2		4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0		3.5	3.5	3.5	3.5
Lane Grp Cap (vph)	85		1556	1290	361	1556
v/s Ratio Prot	c0.01		c0.56			0.28
v/s Ratio Perm				0.01	0.04	
v/c Ratio	0.17		0.67	0.01	0.04	0.34
Uniform Delay, d1	35.2		2.4	1.1	1.1	1.5
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0		1.1	0.0	0.1	0.2
Delay (s)	36.1		3.5	1.1	1.2	1.6
Level of Service	D		A	A	A	A
Approach Delay (s)	36.1		3.5			1.6
Approach LOS	D		A			A
Intersection Summary						
HCM 2000 Control Delay			3.7		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.64			
Actuated Cycle Length (s)			77.7		Sum of lost time (s)	8.7
Intersection Capacity Utilization			68.9%		ICU Level of Service	C
Analysis Period (min)			15			

c Critical Lane Group

Alameda de las Pulgas Corridor Study
3: Alameda de las Pulgas & Stockbridge Ave

Existing PM Peak Hour
10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	7	31	13	9	144	47	907	43	82	399	4
Future Volume (Veh/h)	5	7	31	13	9	144	47	907	43	82	399	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	7	33	14	9	152	49	955	45	86	420	4
Pedestrians					11			2			2	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					3.5			3.5			3.5	
Percent Blockage					1			0			0	
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage (veh)											2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1806	1703	424	1717	1682	990	424			1011		
vC1, stage 1 conf vol	594	594		1086	1086							
vC2, stage 2 conf vol	1212	1109		630	596							
vCu, unblocked vol	1806	1703	424	1717	1682	990	424			1011		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	80	96	95	93	96	49	96			87		
cM capacity (veh/h)	25	173	629	200	230	295	1135			678		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	45	175	49	1000	86	424						
Volume Left	5	14	49	0	86	0						
Volume Right	33	152	0	45	0	4						
cSH	153	280	1135	1700	678	1700						
Volume to Capacity	0.29	0.62	0.04	0.59	0.13	0.25						
Queue Length 95th (ft)	29	96	3	0	11	0						
Control Delay (s)	37.9	37.0	8.3	0.0	11.1	0.0						
Lane LOS	E	E	A		B							
Approach Delay (s)	37.9	37.0	0.4		1.9							
Approach LOS	E	E										
Intersection Summary												
Average Delay			5.4									
Intersection Capacity Utilization			77.4%	ICU Level of Service					D			
Analysis Period (min)			15									

Alameda de las Pulgas Corridor Study
4: Alameda de las Pulgas & Atherton Ave

Existing PM Peak Hour
10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	9	9	11	131	13	458	5	524	59	101	341	6
Future Volume (vph)	9	9	11	131	13	458	5	524	59	101	341	6
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	9	9	11	134	13	467	5	535	60	103	348	6
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	29	614	5	595	103	354						
Volume Left (vph)	9	134	5	0	103	0						
Volume Right (vph)	11	467	0	60	0	6						
Hadj (s)	-0.13	-0.38	0.53	-0.04	0.53	0.02						
Departure Headway (s)	8.8	6.5	8.0	7.5	8.2	7.7						
Degree Utilization, x	0.07	1.10	0.01	1.23	0.24	0.76						
Capacity (veh/h)	388	551	441	489	431	458						
Control Delay (s)	12.5	94.2	9.9	144.6	12.6	30.2						
Approach Delay (s)	12.5	94.2	143.5		26.2							
Approach LOS	B	F	F		D							
Intersection Summary												
Delay			91.9									
Level of Service			F									
Intersection Capacity Utilization			89.6%		ICU Level of Service				E			
Analysis Period (min)			15									

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	31	67	59	566	477	32
Future Volume (Veh/h)	31	67	59	566	477	32
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	34	73	64	615	518	35
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		1				
Median type				TWLT	None	
Median storage veh				2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1278	536	553			
vC1, stage 1 conf vol	536					
vC2, stage 2 conf vol	743					
vCu, unblocked vol	1278	536	553			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	87	94			
cM capacity (veh/h)	377	545	1017			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	107	64	615	553		
Volume Left	34	64	0	0		
Volume Right	73	0	0	35		
cSH	799	1017	1700	1700		
Volume to Capacity	0.13	0.06	0.36	0.33		
Queue Length 95th (ft)	12	5	0	0		
Control Delay (s)	13.5	8.8	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	13.5	0.8		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			43.7%	ICU Level of Service		A
Analysis Period (min)			15			

Alameda de las Pulgas Corridor Study
6: Alameda de las Pulgas & Camino Al Lago

Existing PM Peak Hour
10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	2	4	20	0	11	3	610	157	35	539	3
Future Volume (Veh/h)	1	2	4	20	0	11	3	610	157	35	539	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	1	2	4	21	0	12	3	649	167	37	573	3
Pedestrians		1									1	
Lane Width (ft)		12.0									12.0	
Walking Speed (ft/s)		3.5									3.5	
Percent Blockage		0									0	
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage veh)											2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1318	1472	576	1390	1390	734	577			816		
vC1, stage 1 conf vol	650	650		738	738							
vC2, stage 2 conf vol	668	822		652	651							
vCu, unblocked vol	1318	1472	576	1390	1390	734	577			816		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	99	93	100	97	100			95		
cM capacity (veh/h)	311	291	517	309	325	420	996			812		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	7	33	3	816	37	576						
Volume Left	1	21	3	0	37	0						
Volume Right	4	12	0	167	0	3						
cSH	392	342	996	1700	812	1700						
Volume to Capacity	0.02	0.10	0.00	0.48	0.05	0.34						
Queue Length 95th (ft)	1	8	0	0	4	0						
Control Delay (s)	14.3	16.7	8.6	0.0	9.6	0.0						
Lane LOS	B	C	A		A							
Approach Delay (s)	14.3	16.7	0.0		0.6							
Approach LOS	B	C										
Intersection Summary												
Average Delay			0.7									
Intersection Capacity Utilization			54.4%	ICU Level of Service					A			
Analysis Period (min)			15									

Alameda de las Pulgas Corridor Study
7: ADLP/Alameda de las Pulgas & Valparaiso Ave

Existing PM Peak Hour
10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	28	4	176	49	174	7	613	124	124	386	16
Future Volume (vph)	16	28	4	176	49	174	7	613	124	124	386	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6		4.6	4.6		4.6	4.6	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			0.99		1.00	0.99		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.94		1.00	0.97		1.00	0.99	
Flt Protected		0.98			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1808			1691		1768	1806		1770	1850	
Flt Permitted		0.87			0.83		0.44	1.00		0.19	1.00	
Satd. Flow (perm)		1592			1441		817	1806		352	1850	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	17	30	4	189	53	187	8	659	133	133	415	17
RTOR Reduction (vph)	0	3	0	0	33	0	0	7	0	0	1	0
Lane Group Flow (vph)	0	48	0	0	396	0	8	785	0	133	431	0
Confl. Peds. (#/hr)	3		3	3		3	1					1
Confl. Bikes (#/hr)			1			2			19			6
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			6			2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)		28.7			28.7		52.1	52.1		52.1	52.1	
Effective Green, g (s)		28.7			28.7		52.1	52.1		52.1	52.1	
Actuated g/C Ratio		0.32			0.32		0.58	0.58		0.58	0.58	
Clearance Time (s)		4.6			4.6		4.6	4.6		4.6	4.6	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		507			459		472	1045		203	1070	
v/s Ratio Prot								c0.43			0.23	
v/s Ratio Perm		0.03			c0.27		0.01			0.38		
v/c Ratio		0.10			0.86		0.02	0.75		0.66	0.40	
Uniform Delay, d1		21.5			28.8		8.1	14.1		12.9	10.4	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			15.3		0.1	5.0		15.3	1.1	
Delay (s)		21.6			44.0		8.1	19.1		28.2	11.5	
Level of Service		C			D		A	B		C	B	
Approach Delay (s)		21.6			44.0			19.0			15.5	
Approach LOS		C			D			B			B	
Intersection Summary												
HCM 2000 Control Delay		23.8										
HCM 2000 Volume to Capacity ratio		0.79										
Actuated Cycle Length (s)		90.0										
Intersection Capacity Utilization		87.9%										
Analysis Period (min)		15										
c Critical Lane Group												

Alameda de las Pulgas Corridor Study
8: Alameda de las Pulgas & Las Lomitas School Dwy

Existing PM Peak Hour
10/12/2018

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	18	5	620	0	0	544
Future Volume (Veh/h)	18	5	620	0	0	544
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	20	5	674	0	0	591
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLT			TWLT
Median storage veh			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1265	674			674	
vC1, stage 1 conf vol	674					
vC2, stage 2 conf vol	591					
vCu, unblocked vol	1265	674			674	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	99			100	
cM capacity (veh/h)	404	455			917	
Direction, Lane #	WB 1	WB 2	NB 1	SB 1		
Volume Total	20	5	674	591		
Volume Left	20	0	0	0		
Volume Right	0	5	0	0		
cSH	404	455	1700	1700		
Volume to Capacity	0.05	0.01	0.40	0.35		
Queue Length 95th (ft)	4	1	0	0		
Control Delay (s)	14.4	13.0	0.0	0.0		
Lane LOS	B	B				
Approach Delay (s)	14.1		0.0	0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			42.6%	ICU Level of Service	A	
Analysis Period (min)			15			

Appendix D Intersection LOS Analysis: Alternative 1 – Signal/Protected Left-Turn Lane LOS Calculation Sheets

Alameda de las Pulgas Corridor Study
3: Alameda de las Pulgas & Stockbridge Ave

Alt 1 Signal - AM Peak Hour

10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	11	142	23	8	236	28	394	23	141	667	8
Future Volume (vph)	4	11	142	23	8	236	28	394	23	141	667	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6		4.7	4.7		5.1	5.1	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		0.98			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.88			0.88		1.00	0.99		1.00	1.00	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1600			1634		1767	1845		1770	1858	
Flt Permitted		0.99			0.96		0.23	1.00		0.45	1.00	
Satd. Flow (perm)		1589			1572		432	1845		841	1858	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	4	12	160	26	9	265	31	443	26	158	749	9
RTOR Reduction (vph)	0	124	0	0	205	0	0	4	0	0	1	0
Lane Group Flow (vph)	0	52	0	0	95	0	31	465	0	158	757	0
Confl. Peds. (#/hr)							4					4
Confl. Bikes (#/hr)			1						6			28
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		
Actuated Green, G (s)		9.6			9.6		23.2	23.2		22.8	22.8	
Effective Green, g (s)		9.6			9.6		23.2	23.2		22.8	22.8	
Actuated g/C Ratio		0.23			0.23		0.55	0.55		0.54	0.54	
Clearance Time (s)		4.6			4.6		4.7	4.7		5.1	5.1	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		362			358		238	1016		455	1006	
v/s Ratio Prot								0.25			c0.41	
v/s Ratio Perm		0.03			c0.06		0.07			0.19		
v/c Ratio		0.14			0.27		0.13	0.46		0.35	0.75	
Uniform Delay, d1		13.0			13.4		4.6	5.7		5.4	7.5	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2			0.4		0.2	0.3		0.5	3.2	
Delay (s)		13.2			13.8		4.8	6.0		5.9	10.7	
Level of Service		B			B		A	A		A	B	
Approach Delay (s)		13.2			13.8			5.9			9.9	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			9.8			HCM 2000 Level of Service				A		
HCM 2000 Volume to Capacity ratio			0.61									
Actuated Cycle Length (s)			42.1			Sum of lost time (s)				9.7		
Intersection Capacity Utilization			82.0%			ICU Level of Service				E		
Analysis Period (min)			15									

c Critical Lane Group

Alameda de las Pulgas Corridor Study
4: Alameda de las Pulgas & Atherton Ave

Alt 1 Signal - AM Peak Hour

10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	16	60	310	22	129	9	294	107	165	515	8
Future Volume (vph)	9	16	60	310	22	129	9	294	107	165	515	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6		4.7	4.7		4.7	4.7	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.91			0.96		1.00	0.96		1.00	1.00	
Flt Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1677			1734		1767	1775		1768	1857	
Flt Permitted		0.95			0.74		0.24	1.00		0.38	1.00	
Satd. Flow (perm)		1596			1331		452	1775		715	1857	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	10	17	64	330	23	137	10	313	114	176	548	9
RTOR Reduction (vph)	0	37	0	0	24	0	0	22	0	0	1	0
Lane Group Flow (vph)	0	54	0	0	466	0	10	405	0	176	556	0
Confl. Peds. (#/hr)							3		1	1		3
Confl. Bikes (#/hr)									6			28
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		
Actuated Green, G (s)		22.0			22.0		20.0	20.0		20.0	20.0	
Effective Green, g (s)		22.0			22.0		20.0	20.0		20.0	20.0	
Actuated g/C Ratio		0.43			0.43		0.39	0.39		0.39	0.39	
Clearance Time (s)		4.6			4.6		4.7	4.7		4.7	4.7	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		684			570		176	692		278	723	
v/s Ratio Prot								0.23			c0.30	
v/s Ratio Perm		0.03			c0.35		0.02			0.25		
v/c Ratio		0.08			0.82		0.06	0.59		0.63	0.77	
Uniform Delay, d1		8.7			12.9		9.8	12.4		12.7	13.6	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			8.9		0.1	1.3		4.7	4.9	
Delay (s)		8.7			21.8		9.9	13.6		17.3	18.6	
Level of Service		A			C		A	B		B	B	
Approach Delay (s)		8.7			21.8			13.6			18.3	
Approach LOS		A			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			17.6			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.79									
Actuated Cycle Length (s)			51.3			Sum of lost time (s)				9.3		
Intersection Capacity Utilization			78.8%			ICU Level of Service				D		
Analysis Period (min)			15									

c Critical Lane Group

Alameda de las Pulgas Corridor Study
6: Alameda de las Pulgas & Camino Al Lago

Alt 1 Signal - AM Peak Hour

10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	7	19	0	11	6	415	150	46	834	12
Future Volume (vph)	1	0	7	19	0	11	6	415	150	46	834	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6		4.7	4.7		4.7	4.7	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		0.98			0.99		1.00	0.99		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.88			0.95		1.00	0.96		1.00	1.00	
Flt Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1592			1691		1763	1774		1765	1857	
Flt Permitted		0.95			1.00		0.27	1.00		0.43	1.00	
Satd. Flow (perm)		1522			1744		510	1774		794	1857	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1	0	7	20	0	12	6	437	158	48	878	13
RTOR Reduction (vph)	0	8	0	0	28	0	0	11	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	4	0	6	584	0	48	891	0
Confl. Peds. (#/hr)	3		6	6		3	10		4	4		10
Confl. Bikes (#/hr)									8			39
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		
Actuated Green, G (s)		2.4			2.4		38.2	38.2		38.2	38.2	
Effective Green, g (s)		2.4			2.4		38.2	38.2		38.2	38.2	
Actuated g/C Ratio		0.05			0.05		0.77	0.77		0.77	0.77	
Clearance Time (s)		4.6			4.6		4.7	4.7		4.7	4.7	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		73			83		390	1358		607	1421	
v/s Ratio Prot								0.33			c0.48	
v/s Ratio Perm		0.00			c0.00		0.01			0.06		
v/c Ratio		0.01			0.05		0.02	0.43		0.08	0.63	
Uniform Delay, d1		22.6			22.7		1.4	2.0		1.5	2.6	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.0			0.3		0.0	0.2		0.1	0.9	
Delay (s)		22.6			22.9		1.4	2.3		1.5	3.5	
Level of Service		C			C		A	A		A	A	
Approach Delay (s)		22.6			22.9			2.3			3.4	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM 2000 Control Delay		3.5			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.59										
Actuated Cycle Length (s)		49.9			Sum of lost time (s)			9.3				
Intersection Capacity Utilization		60.7%			ICU Level of Service			B				
Analysis Period (min)		15										

c Critical Lane Group

Alameda de las Pulgas Corridor Study
7: ADLP/Alameda de las Pulgas & Valparaiso Ave

Alt 1 Signal - AM Peak Hour

10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	46	8	154	71	91	7	409	113	167	636	19
Future Volume (vph)	25	46	8	154	71	91	7	409	113	167	636	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6		4.0	4.6		4.0	4.6	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			0.99		1.00	0.99		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.96		1.00	0.97		1.00	1.00	
Flt Protected		0.98			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1803			1729		1770	1792		1770	1852	
Flt Permitted		0.85			0.82		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1556			1451		1770	1792		1770	1852	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	27	51	9	169	78	100	8	449	124	184	699	21
RTOR Reduction (vph)	0	5	0	0	17	0	0	10	0	0	1	0
Lane Group Flow (vph)	0	82	0	0	330	0	8	563	0	184	719	0
Confl. Peds. (#/hr)	1		5	5		1	4		1	1		4
Confl. Bikes (#/hr)						1			4			30
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4			4								
Actuated Green, G (s)		23.8			23.8		1.0	40.6		12.4	52.0	
Effective Green, g (s)		23.8			23.8		1.0	40.6		12.4	52.0	
Actuated g/C Ratio		0.26			0.26		0.01	0.45		0.14	0.58	
Clearance Time (s)		4.6			4.6		4.0	4.6		4.0	4.6	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		411			383		19	808		243	1070	
v/s Ratio Prot							0.00	0.31		c0.10	c0.39	
v/s Ratio Perm		0.05			c0.23							
v/c Ratio		0.20			0.86		0.42	0.70		0.76	0.67	
Uniform Delay, d1		25.7			31.5		44.2	19.8		37.4	13.1	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2			17.7		14.4	4.9		12.6	3.4	
Delay (s)		25.9			49.2		58.6	24.7		50.0	16.5	
Level of Service		C			D		E	C		D	B	
Approach Delay (s)		25.9			49.2			25.2			23.3	
Approach LOS		C			D			C			C	
Intersection Summary												
HCM 2000 Control Delay		28.7			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.77										
Actuated Cycle Length (s)		90.0			Sum of lost time (s)			13.2				
Intersection Capacity Utilization		74.3%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

Alameda de las Pulgas Corridor Study
3: Alameda de las Pulgas & Stockbridge Ave

Alt 1 Signal PM Peak Hour

10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	7	31	13	9	144	47	907	43	82	399	4
Future Volume (vph)	5	7	31	13	9	144	47	907	43	82	399	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6		4.7	4.7		5.1	5.1	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		0.98			0.98		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.90			0.88		1.00	0.99		1.00	1.00	
Flt Protected		0.99			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1640			1604		1770	1846		1770	1860	
Flt Permitted		0.97			0.97		0.51	1.00		0.16	1.00	
Satd. Flow (perm)		1601			1567		942	1846		298	1860	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	7	33	14	9	152	49	955	45	86	420	4
RTOR Reduction (vph)	0	28	0	0	114	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	17	0	0	61	0	49	998	0	86	424	0
Confl. Peds. (#/hr)	2		2	2		2			11	11		
Confl. Bikes (#/hr)									18			5
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		
Actuated Green, G (s)		9.1			9.1		39.4	39.4		39.0	39.0	
Effective Green, g (s)		9.1			9.1		39.4	39.4		39.0	39.0	
Actuated g/C Ratio		0.16			0.16		0.68	0.68		0.67	0.67	
Clearance Time (s)		4.6			4.6		4.7	4.7		5.1	5.1	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		252			246		642	1258		201	1255	
v/s Ratio Prot								c0.54			0.23	
v/s Ratio Perm		0.01			c0.04		0.05			0.29		
v/c Ratio		0.07			0.25		0.08	0.79		0.43	0.34	
Uniform Delay, d1		20.7			21.4		3.1	6.4		4.3	4.0	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			0.5		0.1	3.5		1.5	0.2	
Delay (s)		20.9			21.9		3.1	9.9		5.8	4.1	
Level of Service		C			C		A	A		A	A	
Approach Delay (s)		20.9			21.9			9.6			4.4	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.6			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.70										
Actuated Cycle Length (s)		57.8			Sum of lost time (s)			9.7				
Intersection Capacity Utilization		81.6%			ICU Level of Service			D				
Analysis Period (min)		15										

c Critical Lane Group

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	9	11	131	13	458	5	524	59	101	341	6
Future Volume (vph)	9	9	11	131	13	458	5	524	59	101	341	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6		4.7	4.7		4.7	4.7	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.95			0.90		1.00	0.98		1.00	1.00	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1740			1653		1770	1828		1770	1857	
Flt Permitted		0.86			0.92		0.48	1.00		0.23	1.00	
Satd. Flow (perm)		1513			1538		903	1828		437	1857	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	9	9	11	134	13	467	5	535	60	103	348	6
RTOR Reduction (vph)	0	7	0	0	128	0	0	7	0	0	1	0
Lane Group Flow (vph)	0	22	0	0	486	0	5	588	0	103	353	0
Confl. Bikes (#/hr)									19			9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		
Actuated Green, G (s)		19.8			19.8		20.7	20.7		20.7	20.7	
Effective Green, g (s)		19.8			19.8		20.7	20.7		20.7	20.7	
Actuated g/C Ratio		0.40			0.40		0.42	0.42		0.42	0.42	
Clearance Time (s)		4.6			4.6		4.7	4.7		4.7	4.7	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		601			611		375	759		181	771	
v/s Ratio Prot								c0.32				0.19
v/s Ratio Perm		0.01			c0.32		0.01			0.24		
v/c Ratio		0.04			0.79		0.01	0.77		0.57	0.46	
Uniform Delay, d1		9.2			13.2		8.5	12.5		11.1	10.5	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.0			7.1		0.0	5.0		4.1	0.4	
Delay (s)		9.2			20.3		8.6	17.5		15.2	10.9	
Level of Service		A			C		A	B		B	B	
Approach Delay (s)		9.2			20.3			17.4			11.9	
Approach LOS		A			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			16.8			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			49.8			Sum of lost time (s)			9.3			
Intersection Capacity Utilization			92.3%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

Alameda de las Pulgas Corridor Study
6: Alameda de las Pulgas & Camino Al Lago

Alt 1 Signal PM Peak Hour

10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	2	4	20	0	11	3	610	157	35	539	3
Future Volume (vph)	1	2	4	20	0	11	3	610	157	35	539	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6		4.7	4.7		4.7	4.7	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			0.99		1.00	0.99		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.92			0.95		1.00	0.97		1.00	1.00	
Flt Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1707			1703		1768	1795		1770	1861	
Flt Permitted		0.94			1.00		0.44	1.00		0.30	1.00	
Satd. Flow (perm)		1620			1758		812	1795		565	1861	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	1	2	4	21	0	12	3	649	167	37	573	3
RTOR Reduction (vph)	0	4	0	0	29	0	0	8	0	0	0	0
Lane Group Flow (vph)	0	3	0	0	4	0	3	808	0	37	576	0
Confl. Peds. (#/hr)	1					1	1					1
Confl. Bikes (#/hr)									19			10
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		
Actuated Green, G (s)		2.5			2.5		33.2	33.2		33.2	33.2	
Effective Green, g (s)		2.5			2.5		33.2	33.2		33.2	33.2	
Actuated g/C Ratio		0.06			0.06		0.74	0.74		0.74	0.74	
Clearance Time (s)		4.6			4.6		4.7	4.7		4.7	4.7	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		90			97		599	1324		416	1373	
v/s Ratio Prot								c0.45				0.31
v/s Ratio Perm		0.00			c0.00		0.00			0.07		
v/c Ratio		0.04			0.04		0.01	0.61		0.09	0.42	
Uniform Delay, d1		20.1			20.1		1.6	2.8		1.7	2.2	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2			0.2		0.0	0.8		0.1	0.2	
Delay (s)		20.3			20.3		1.6	3.6		1.7	2.4	
Level of Service		C			C		A	A		A	A	
Approach Delay (s)		20.3			20.3			3.6			2.4	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM 2000 Control Delay		3.6			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.57										
Actuated Cycle Length (s)		45.0			Sum of lost time (s)			9.3				
Intersection Capacity Utilization		56.4%			ICU Level of Service			B				
Analysis Period (min)		15										

c Critical Lane Group

Alameda de las Pulgas Corridor Study
7: ADLP/Alameda de las Pulgas & Valparaiso Ave

Alt 1 Signal PM Peak Hour

10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	28	4	176	49	174	7	613	124	124	386	16
Future Volume (vph)	16	28	4	176	49	174	7	613	124	124	386	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6		4.0	4.6		4.0	4.6	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			0.99		1.00	0.99		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.94		1.00	0.97		1.00	0.99	
Flt Protected		0.98			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1808			1690		1770	1805		1770	1850	
Flt Permitted		0.86			0.83		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1574			1441		1770	1805		1770	1850	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	17	30	4	189	53	187	8	659	133	133	415	17
RTOR Reduction (vph)	0	3	0	0	31	0	0	8	0	0	1	0
Lane Group Flow (vph)	0	48	0	0	398	0	8	784	0	133	431	0
Confl. Peds. (#/hr)	3		3	3		3	1					1
Confl. Bikes (#/hr)			1			2			19			6
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4			4								
Actuated Green, G (s)		26.0			26.0		1.0	43.4		7.4	49.8	
Effective Green, g (s)		26.0			26.0		1.0	43.4		7.4	49.8	
Actuated g/C Ratio		0.29			0.29		0.01	0.48		0.08	0.55	
Clearance Time (s)		4.6			4.6		4.0	4.6		4.0	4.6	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		454			416		19	870		145	1023	
v/s Ratio Prot							0.00	c0.43		c0.08	0.23	
v/s Ratio Perm		0.03			c0.28							
v/c Ratio		0.11			0.96		0.42	0.90		0.92	0.42	
Uniform Delay, d1		23.5			31.4		44.2	21.3		41.0	11.7	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			32.7		14.4	14.2		50.2	1.3	
Delay (s)		23.6			64.1		58.6	35.6		91.2	13.0	
Level of Service		C			E		E	D		F	B	
Approach Delay (s)		23.6			64.1			35.8			31.4	
Approach LOS		C			E			D			C	
Intersection Summary												
HCM 2000 Control Delay			40.7			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.92									
Actuated Cycle Length (s)			90.0			Sum of lost time (s)			13.2			
Intersection Capacity Utilization			87.4%			ICU Level of Service			E			
Analysis Period (min)			15									

c Critical Lane Group

Appendix E Intersection LOS Analysis: Alternative 2 - Roundabout LOS Calculation Sheets

Intersection						
Intersection Delay, s/veh	12.8					
Intersection LOS	B					
Approach	EB	WB	NB	SB		
Entry Lanes	1	1	2	2		
Conflicting Circle Lanes	1	1	1	1		
Adj Approach Flow, veh/h	176	300	500	916		
Demand Flow Rate, veh/h	179	306	511	934		
Vehicles Circulating, veh/h	952	488	177	68		
Vehicles Exiting, veh/h	50	200	954	726		
Follow-Up Headway, s	3.186	3.186	3.186	3.186		
Ped Vol Crossing Leg, #/h	4	0	0	0		
Ped Cap Adj	1.000	1.000	1.000	1.000		
Approach Delay, s/veh	16.2	11.6	9.9	14.1		
Approach LOS	C	B	A	B		
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	L	TR	L	TR
Assumed Moves	LTR	LTR	L	TR	L	TR
RT Channelized						
Lane Util	1.000	1.000	0.063	0.937	0.172	0.828
Critical Headway, s	5.193	5.193	5.193	5.193	5.193	5.193
Entry Flow, veh/h	179	306	32	479	161	773
Cap Entry Lane, veh/h	436	694	947	947	1056	1056
Entry HV Adj Factor	0.982	0.980	0.969	0.979	0.981	0.981
Flow Entry, veh/h	176	300	31	469	158	758
Cap Entry, veh/h	428	680	917	927	1036	1035
V/C Ratio	0.410	0.441	0.034	0.506	0.153	0.732
Control Delay, s/veh	16.2	11.6	4.2	10.3	4.9	16.0
LOS	C	B	A	B	A	C
95th %tile Queue, veh	2	2	0	3	1	7

Intersection							
Intersection Delay, s/veh	12.3						
Intersection LOS	B						
Approach	EB	WB	NB		SB		
Entry Lanes	1	1	2		2		
Conflicting Circle Lanes	1	1	1		1		
Adj Approach Flow, veh/h	91	490	437		733		
Demand Flow Rate, veh/h	92	500	445		748		
Vehicles Circulating, veh/h	1076	339	207		370		
Vehicles Exiting, veh/h	42	313	961		329		
Follow-Up Headway, s	3.186	3.186	3.186		3.186		
Ped Vol Crossing Leg, #/h	3	1	0		0		
Ped Cap Adj	1.000	1.000	1.000		1.000		
Approach Delay, s/veh	13.6	7.5	9.8		16.8		
Approach LOS	B	A	A		C		
Lane	Left	Left	Bypass	Left	Right	Left	Right
Designated Moves	LTR	LT	R	L	TR	L	TR
Assumed Moves	LTR	LT	R	L	TR	L	TR
RT Channelized	Free						
Lane Util	1.000	1.000		0.022	0.978	0.241	0.759
Critical Headway, s	5.193	5.193		5.193	5.193	5.193	5.193
Entry Flow, veh/h	92	360	140	10	435	180	568
Cap Entry Lane, veh/h	385	805	1938	919	919	780	780
Entry HV Adj Factor	0.986	0.979	0.980	1.000	0.981	0.978	0.981
Flow Entry, veh/h	91	353	137	10	427	176	557
Cap Entry, veh/h	380	788	1900	919	901	763	765
V/C Ratio	0.239	0.447	0.072	0.011	0.474	0.231	0.728
Control Delay, s/veh	13.6	10.4	0.0	4.0	9.9	7.3	19.8
LOS	B	B	A	A	A	A	C
95th %tile Queue, veh	1	2	0	0	3	1	6

Intersection						
Intersection Delay, s/veh	16.3					
Intersection LOS	C					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	1	1	1		1	
Adj Approach Flow, veh/h	8	32	601		939	
Demand Flow Rate, veh/h	8	32	613		958	
Vehicles Circulating, veh/h	965	453	50		26	
Vehicles Exiting, veh/h	19	210	923		459	
Follow-Up Headway, s	3.186	3.186	3.186		3.186	
Ped Vol Crossing Leg, #/h	10	4	6		3	
Ped Cap Adj	1.000	0.999	0.993		0.997	
Approach Delay, s/veh	8.6	5.5	10.6		20.3	
Approach LOS	A	A	B		C	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	L	TR	L	TR
Assumed Moves	LTR	LTR	L	TR	L	TR
RT Channelized						
Lane Util	1.000	1.000	0.010	0.990	0.051	0.949
Critical Headway, s	5.193	5.193	5.193	5.193	5.193	5.193
Entry Flow, veh/h	8	32	6	607	49	909
Cap Entry Lane, veh/h	430	718	1075	1075	1101	1101
Entry HV Adj Factor	1.000	1.000	1.000	0.981	0.980	0.981
Flow Entry, veh/h	8	32	6	595	48	891
Cap Entry, veh/h	430	718	1068	1047	1075	1076
V/C Ratio	0.019	0.045	0.006	0.568	0.045	0.828
Control Delay, s/veh	8.6	5.5	3.4	10.7	3.7	21.2
LOS	A	A	A	B	A	C
95th %tile Queue, veh	0	0	0	4	0	10

Intersection						
Intersection Delay, s/veh	31.6					
Intersection LOS	D					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	1	1	1		1	
Adj Approach Flow, veh/h	45	175	1049		510	
Demand Flow Rate, veh/h	46	178	1070		520	
Vehicles Circulating, veh/h	530	1029	100		73	
Vehicles Exiting, veh/h	63	141	476		1134	
Follow-Up Headway, s	3.186	3.186	3.186		3.186	
Ped Vol Crossing Leg, #/h	0	11	2		2	
Ped Cap Adj	1.000	1.000	0.998		0.998	
Approach Delay, s/veh	6.3	18.2	46.7		7.4	
Approach LOS	A	C	E		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	L	TR	L	TR
Assumed Moves	LTR	LTR	L	TR	L	TR
RT Channelized						
Lane Util	1.000	1.000	0.047	0.953	0.169	0.831
Critical Headway, s	5.193	5.193	5.193	5.193	5.193	5.193
Entry Flow, veh/h	46	178	50	1020	88	432
Cap Entry Lane, veh/h	665	404	1022	1022	1050	1050
Entry HV Adj Factor	0.975	0.982	0.980	0.980	0.977	0.981
Flow Entry, veh/h	45	175	49	1000	86	424
Cap Entry, veh/h	649	397	1000	1000	1024	1028
V/C Ratio	0.069	0.441	0.049	1.000	0.084	0.412
Control Delay, s/veh	6.3	18.2	4.0	48.8	4.3	8.0
LOS	A	C	A	E	A	A
95th %tile Queue, veh	0	2	0	19	0	2

Intersection							
Intersection Delay, s/veh	7.1						
Intersection LOS	A						
Approach	EB	WB	NB		SB		
Entry Lanes	1	1	2		2		
Conflicting Circle Lanes	1	1	1		1		
Adj Approach Flow, veh/h	29	614	600		457		
Demand Flow Rate, veh/h	29	626	612		466		
Vehicles Circulating, veh/h	597	560	123		155		
Vehicles Exiting, veh/h	24	175	503		555		
Follow-Up Headway, s	3.186	3.186	3.186		3.186		
Ped Vol Crossing Leg, #/h	0	0	0		0		
Ped Cap Adj	1.000	1.000	1.000		1.000		
Approach Delay, s/veh	6.3	2.1	12.2		7.2		
Approach LOS	A	A	B		A		
Lane	Left	Left	Bypass	Left	Right	Left	Right
Designated Moves	LTR	LT	R	L	TR	L	TR
Assumed Moves	LTR	LT	R	L	TR	L	TR
RT Channelized	Free						
Lane Util	1.000	1.000		0.008	0.992	0.225	0.775
Critical Headway, s	5.193	5.193		5.193	5.193	5.193	5.193
Entry Flow, veh/h	29	150	476	5	607	105	361
Cap Entry Lane, veh/h	622	645	1938	999	999	968	968
Entry HV Adj Factor	0.994	0.978	0.980	1.000	0.981	0.981	0.981
Flow Entry, veh/h	29	147	467	5	595	103	354
Cap Entry, veh/h	618	631	1900	999	980	949	949
V/C Ratio	0.047	0.232	0.246	0.005	0.608	0.109	0.373
Control Delay, s/veh	6.3	8.6	0.0	3.6	12.2	4.8	7.9
LOS	A	A	A	A	B	A	A
95th %tile Queue, veh	0	1	1	0	4	0	2

Intersection						
Intersection Delay, s/veh	13.7					
Intersection LOS	B					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	1	1	1		1	
Adj Approach Flow, veh/h	7	33	819		613	
Demand Flow Rate, veh/h	7	33	835		625	
Vehicles Circulating, veh/h	643	666	41		24	
Vehicles Exiting, veh/h	6	210	609		675	
Follow-Up Headway, s	3.186	3.186	3.186		3.186	
Ped Vol Crossing Leg, #/h	1	0	0		1	
Ped Cap Adj	1.000	1.000	1.000		0.999	
Approach Delay, s/veh	6.2	6.9	17.3		9.4	
Approach LOS	A	A	C		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	L	TR	L	TR
Assumed Moves	LTR	LTR	L	TR	L	TR
RT Channelized						
Lane Util	1.000	1.000	0.004	0.996	0.061	0.939
Critical Headway, s	5.193	5.193	5.193	5.193	5.193	5.193
Entry Flow, veh/h	7	33	3	832	38	587
Cap Entry Lane, veh/h	594	581	1085	1085	1103	1103
Entry HV Adj Factor	0.994	1.000	1.000	0.981	0.974	0.980
Flow Entry, veh/h	7	33	3	816	37	576
Cap Entry, veh/h	591	581	1085	1064	1073	1080
V/C Ratio	0.012	0.057	0.003	0.767	0.034	0.533
Control Delay, s/veh	6.2	6.9	3.3	17.4	3.6	9.7
LOS	A	A	A	C	A	A
95th %tile Queue, veh	0	0	0	8	0	3

Appendix F Intersection LOS Analysis: Alternative 3 – All-Way Stop Control LOS Calculation Sheets

Alameda de las Pulgas Corridor Study
3: Alameda de las Pulgas & Stockbridge Ave

Alt 3 AWSC - AM Peak Hour
10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	4	11	142	23	8	236	28	394	23	141	667	8
Future Volume (vph)	4	11	142	23	8	236	28	394	23	141	667	8
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	4	12	160	26	9	265	31	443	26	158	749	9
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	176	300	31	469	158	758						
Volume Left (vph)	4	26	31	0	158	0						
Volume Right (vph)	160	265	0	26	0	9						
Hadj (s)	-0.51	-0.48	0.53	0.00	0.53	0.03						
Departure Headway (s)	7.9	7.4	8.2	7.6	8.2	7.7						
Degree Utilization, x	0.39	0.62	0.07	0.99	0.36	1.61						
Capacity (veh/h)	422	471	434	469	440	474						
Control Delay (s)	15.9	21.5	10.6	65.9	14.5	303.2						
Approach Delay (s)	15.9	21.5	62.4		253.4							
Approach LOS	C	C	F		F							
Intersection Summary												
Delay			144.1									
Level of Service			F									
Intersection Capacity Utilization			76.7%		ICU Level of Service					D		
Analysis Period (min)			15									

																		
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
Lane Configurations																		
Sign Control		Stop			Stop			Stop			Stop							
Traffic Volume (vph)	1	0	7	19	0	11	6	415	150	46	834	12						
Future Volume (vph)	1	0	7	19	0	11	6	415	150	46	834	12						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95						
Hourly flow rate (vph)	1	0	7	20	0	12	6	437	158	48	878	13						
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2												
Volume Total (vph)	8	32	6	595	48	891												
Volume Left (vph)	1	20	6	0	48	0												
Volume Right (vph)	7	12	0	158	0	13												
Hadj (s)	-0.47	-0.07	0.53	-0.15	0.53	0.02												
Departure Headway (s)	6.4	6.7	5.8	5.1	5.6	5.1												
Degree Utilization, x	0.01	0.06	0.01	0.84	0.08	1.27												
Capacity (veh/h)	532	517	612	699	621	711												
Control Delay (s)	9.5	10.1	7.6	27.7	7.9	149.6												
Approach Delay (s)	9.5	10.1	27.5		142.4													
Approach LOS	A	B	D		F													
Intersection Summary																		
Delay			95.3															
Level of Service			F															
Intersection Capacity Utilization			58.1%	ICU Level of Service					B									
Analysis Period (min)			15															

Alameda de las Pulgas Corridor Study
3: Alameda de las Pulgas & Stockbridge Ave

Alt 3 AWSC - PM Peak Hour
10/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	5	7	31	13	9	144	47	907	43	82	399	4
Future Volume (vph)	5	7	31	13	9	144	47	907	43	82	399	4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	7	33	14	9	152	49	955	45	86	420	4
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	45	175	49	1000	86	424						
Volume Left (vph)	5	14	49	0	86	0						
Volume Right (vph)	33	152	0	45	0	4						
Hadj (s)	-0.38	-0.47	0.53	0.00	0.53	0.03						
Departure Headway (s)	6.9	6.3	6.5	6.0	6.6	6.1						
Degree Utilization, x	0.09	0.31	0.09	1.66	0.16	0.72						
Capacity (veh/h)	469	535	538	609	534	577						
Control Delay (s)	10.6	12.1	8.9	317.8	9.6	21.8						
Approach Delay (s)	10.6	12.1	303.4		19.8							
Approach LOS	B	B	F		C							
Intersection Summary												
Delay			186.0									
Level of Service			F									
Intersection Capacity Utilization			77.4%		ICU Level of Service					D		
Analysis Period (min)			15									

																		
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
Lane Configurations																		
Sign Control		Stop			Stop			Stop			Stop							
Traffic Volume (vph)	1	2	4	20	0	11	3	610	157	35	539	3						
Future Volume (vph)	1	2	4	20	0	11	3	610	157	35	539	3						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94						
Hourly flow rate (vph)	1	2	4	21	0	12	3	649	167	37	573	3						
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2												
Volume Total (vph)	7	33	3	816	37	576												
Volume Left (vph)	1	21	3	0	37	0												
Volume Right (vph)	4	12	0	167	0	3												
Hadj (s)	-0.28	-0.06	0.53	-0.11	0.53	0.03												
Departure Headway (s)	6.6	6.7	5.7	5.0	5.7	5.2												
Degree Utilization, x	0.01	0.06	0.00	1.14	0.06	0.83												
Capacity (veh/h)	516	516	611	717	622	685												
Control Delay (s)	9.7	10.1	7.5	99.8	7.8	27.1												
Approach Delay (s)	9.7	10.1	99.5		26.0													
Approach LOS	A	B	F		D													
Intersection Summary																		
Delay			66.4															
Level of Service			F															
Intersection Capacity Utilization			54.4%	ICU Level of Service	A													
Analysis Period (min)			15															



VISION THAT MOVES YOUR COMMUNITY

July 10, 2019

Marty Hanneman, P.E.
Project Manager
Town of Atherton
91 Ashfield Road
Atherton, CA 94027
Email: mhanneman@ci.atherton.ca.us

Subject: **Scope of Work and Level of Effort for additional Council Meeting for Local Traffic Flow Long Range Planning Solution Study in the Town of Atherton.**

Dear Mr. Hanneman:

TJKM Transportation Consultants is pleased to submit our Scope of Work and Level of Effort for preparing and attending the Council Meeting on July 17th, 2017 for the Town of Atherton Local Traffic Flow/Long Range Planning Solutions Study.

BUDGET

TJKM proposes to complete the task for the above for a not to exceed amount of \$3,500. Summary of our proposed budget is below.

Table 1: Project Budget

<i>Task</i>	<i>Approximate Total Cost</i>
Attending and Preparing for Council Meeting (1 meeting)	\$ 3,500

If you have any questions regarding our scope of work and level of effort, please feel free to contact me at 926.264.5023 or rjariwala@tjkm.com.

Yours truly,

Ruta Jariwala, P.E., T.E.
Principal